

Years of Radio Leadership

Serving Since 1924

Our Plus

SERVICE

is **DEPENDABLE**

1939

Fall
Winter

**FREE
PARKING**

WALTER ASHE RADIO CO.

Chestnut 7934 Central 4039
1100 Pine St. St. Louis, Mo.

Amateur Parts • Service Parts
School Laboratory Apparatus
Commercial Transmitter Equipment
Public Address Fixed • Mobile
Experimenters and Set Builders Parts
Diathermy Parts and Tubes



WALTER ASHE RADIO CO.

ELEVENTH AND PINE STREETS

ST. LOUIS, MISSOURI

1924 — 1939 SERVICE

ALL PRICES F.O.B. ST. LOUIS, MO.

STANDARD MANUFACTURER GUARANTEES APPLY TO ALL ITEMS IN THIS CATALOG. WHERE QUESTION OF GUARANTEE IS INVOLVED, FINAL DECISION RESTS WITH MANUFACTURER OF ITEM.

SUBSTITUTIONS MADE SUBJECT TO YOUR APPROVAL.

ALL PRICES IN THIS CATALOG ARE NET PRICES.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Delivery Service..

TWO DELIVERIES A DAY IN ST. LOUIS, ONE A DAY TO ST. LOUIS COUNTY, EAST ST. LOUIS AND THE TRI-CITIES. FREE DELIVERY ON ORDERS OF \$3.00 OR MORE, \$.10 CHARGE ON ORDERS OF LESS THAN \$3.00 AND OVER \$1.01, \$.15 CHARGE ON ORDERS OF LESS THAN \$1.00

FREE PARKING

FREE PARKING AT ALL TIMES FOR CUSTOMERS IN PARKING LOT NEXT TO STORE OR IN LOADING ZONE ON CORNER OF 11TH. AND PINE. THESE SERVICES ARE FOR YOUR CONVENIENCE, PLEASE USE THEM.

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

RCA Radiotron

RADIO TUBES

STANDARD GLASS TYPES

TYPE	LIST	UNDER 25 NET	OVER 25 NET	TYPE	LIST	UNDER 25 NET	OVER 25 NET	TYPE	LIST	UNDER 25 NET	OVER 25 NET
01A	\$1.80	\$.43	\$1.40	10	\$2.75	\$1.49	\$1.38	47	\$1.50	\$.81	\$.75
1A4	1.75	.95	.88	12A7	2.25	1.22	1.13	48	4.00	2.16	2.00
1A6	1.75	.95	.88	12Z3	1.50	.81	.75	49	1.25	.68	.63
1B4	2.25	1.22	1.13	15	2.25	1.22	1.13	50	2.50	1.35	1.25
1B5	1.25	.68	.63	19	1.50	.81	.75	53	2.00	1.08	1.00
1C6	1.75	.95	.88	20	2.25	1.22	1.13	55	1.50	.81	.75
1F4	1.50	.81	.75	22	2.00	1.08	1.00	56	.80	.43	.40
1F6	2.25	1.22	1.13	24A	1.25	.68	.63	57	1.25	.68	.63
1V	1.25	.68	.63	25Z5	1.25	.68	.63	58	1.25	.68	.63
2A3	2.50	1.35	1.25	26	.80	.43	.40	59	2.00	1.08	1.00
2A5	1.25	.68	.63	27	.80	.43	.40	71A	1.00	.54	.50
2A6	1.25	.68	.63	30	1.00	.54	.50	75	1.25	.68	.63
2A7	1.50	.81	.75	31	1.00	.54	.50	76	.80	.43	.40
2B7	1.75	.95	.88	32	1.75	.95	.88	77	1.50	.81	.75
5Z3	1.25	.68	.63	33	1.50	.81	.75	78	1.25	.68	.63
6A4	1.50	.81	.75	34	1.75	.95	.88	79	1.50	.81	.75
6A6	1.75	.95	.88	35	1.25	.68	.63	80	.80	.43	.40
6A7	1.50	.81	.75	36	1.25	.68	.63	81	2.25	1.22	1.13
6B7	1.50	.81	.75	37	1.00	.54	.50	82	1.50	.81	.75
6C6	1.25	.68	.63	38	1.25	.68	.63	83	1.75	.95	.88
6D6	1.25	.68	.63	39	1.25	.68	.63	83V	2.25	1.22	1.13
6E5	1.50	.81	.75	41	1.25	.68	.63	84	1.75	.95	.88
6F7	2.00	1.08	1.00	42	1.25	.68	.63	85	1.25	.68	.63
6G5	1.50	.81	.75	43	1.50	.81	.75	89	1.50	.81	.75
6N5	1.75	.95	.88	45	1.00	.54	.50	99	1.50	.81	.75
6U5	1.50	.81	.75	46	1.50	.81	.75	112A	1.00	.54	.50

G SERIES TYPES

TYPE	LIST	UNDER 25 NET	OVER 25 NET	TYPE	LIST	UNDER 25 NET	OVER 25 NET	TYPE	LIST	UNDER 25 NET	OVER 25 NET
1C7G	\$2.25	\$1.22	\$1.13	6AC5G	\$1.25	\$.68	\$.63	6L7G	\$1.75	\$.95	\$.88
1D5G	2.25	1.22	1.13	6B8G	1.75	.95	.88	6N7G	1.75	.95	.88
1D7G	1.75	.95	.88	6C5G	1.25	.68	.63	6Q7G	1.50	.81	.75
1E5G	2.25	1.22	1.13	6C8G	1.50	.81	.75	6R7G	1.50	.81	.75
1E7G	2.75	1.49	1.38	6D8G	2.25	1.22	1.13	6S7G	2.25	1.22	1.13
1F5G	2.25	1.22	1.13	6F5G	1.25	.68	.63	6T7G	2.25	1.22	1.13
1F7GV	2.25	1.22	1.13	6F6G	1.50	.81	.75	6U7G	1.50	.81	.75
1G5G	2.00	1.08	1.00	6F8G	1.50	.81	.75	6V6G	1.75	.95	.88
1H4G	1.00	.54	.50	6G6G	2.25	1.22	1.13	6X5G	1.75	.95	.88
1H6G	1.75	.95	.88	6H6G	1.25	.68	.63	6Y6G	2.25	1.22	1.13
1J6G	1.50	.81	.75	6J5G	1.50	.81	.75	6Z7G	1.75	.95	.88
5U4G	1.50	.81	.75	6J7G	1.50	.81	.75	6ZY5G	1.50	.81	.75
5V4G	2.50	1.35	1.25	6K5G	1.50	.81	.75	25A6G	1.50	.81	.75
5X4G	1.50	.81	.75	6K6G	1.50	.81	.75	25A7G	2.25	1.22	1.13
5Y3G	1.00	.54	.50	6K7G	1.50	.81	.75	25B6G	1.75	.95	.88
5Y4G	1.00	.54	.50	6L5G	2.25	1.22	1.13	25L6G	2.25	1.22	1.13
6A8G	1.50	.81	.75	6L6G	2.50	1.35	1.25	25Z6G	1.50	.81	.75

ALL-METAL TYPES

TYPE	LIST	UNDER 25 NET	OVER 25 NET	TYPE	LIST	UNDER 25 NET	OVER 25 NET	TYPE	LIST	UNDER 25 NET	OVER 25 NET
5T4	\$2.50	\$1.35	\$1.25	5H6	\$1.25	\$.68	\$.63	6Q7	\$1.75	\$.95	\$.88
5W4	1.00	.54	.50	6J5	1.50	.81	.75	6R7	1.50	.81	.75
5Z4	2.00	1.08	1.00	6J7	1.50	.81	.75	6S7	2.25	1.22	1.13
6A8	1.50	.81	.75	6K7	1.50	.81	.75	6V6	1.75	.95	.88
6B8	1.75	.95	.88	6K8	1.75	.95	.88	6X5	1.50	.81	.75
6C5	1.25	.68	.63	6L6	2.25	1.22	1.13	25A6	1.50	.81	.75
6F5	1.25	.68	.63	6L7	1.75	.95	.88	25L6	2.25	1.22	1.13
6F6	1.50	.81	.75	6N7	1.75	.95	.88	25Z6	1.50	.81	.75

IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



TYPE	NET	TYPE	NET	TYPE	NET	TYPE	NET
0Z4	\$.81	6C7	\$1.08	6B6	\$.81	6Y5	\$1.08
0Z4G	.81	6D7	1.08	6J8G	1.22	6Z5	1.08
2E5	.81	6E6	1.08	6N6G	1.22	12A5	1.22
52	1.08	6E7	1.08	6N6MG	1.35	182B	1.08
1J5G	1.22	6A3	1.08	6P7	1.22	183	1.08
5W4G	.54	6A5G	1.08	6T5	.81	485	1.08
5Z4MG	1.08	6B4G	1.08	6V7G	.81	950	1.22
6AB5	.95	6B5	1.22	6W5G	.81	951/1B4	1.22

• PILOT LIGHTS •

NO.	VOLTAGE	FIG.	BASE	NET EACH	NET PER BOX OF 10
40	6-8	1	SCREW	\$.06	\$.54
40-A	6-8	5	BAY.	.08	.72
41	2.5	1	SCREW	.06	.54
42	3.2	1	SCREW	.08	.72
50	6-8	2	SCREW	.07	.60
51	6-8	4	BAY.	.05	.45
55	6-8	3	BAY.	.05	.45

MIDGET BASE
ROUND BULB
110 VOLT PI-
LOT LAMP,
2 C.P.
NET \$.50



Fig. 1



Fig. 2



Fig. 3

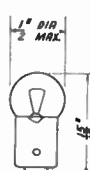


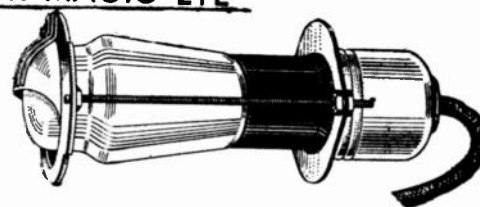
Fig. 4



Fig. 5

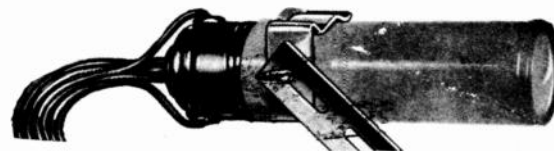
AMPHENOL SOCKET ASSEMBLY FOR MAGIC EYE

NOW YOU CAN PUT A "MAGIC EYE" ON ANY SET THAT HAS A.V.C. USES 2E5, 6E5 OR 6G5 TUBE, NET EACH LESS TUBE \$.75



FOR 913 CATHODE RAY TUBE

CONSTRUCT YOUR OWN CATHODE RAY OSCILLOGRAPH AND USE THIS WIRED PLUG AND BRACKET ASSEMBLY WHICH CAN BE MOUNTED ON BASE OR BRACKET. NET EACH LESS TUBE, \$.60



TUBE MANUALS

R.C.A. RECEIVING TUBE MANUAL	NET EACH	\$.25
R.C.A. TRANSMITTING TUBE MANUAL	" "	.25
EVEREADY RAYTHEON RECEIVING TUBE MANUAL	" "	.25
EVEREADY RAYTHEON TRANSMITTING TUBE MANUAL	" "	.50

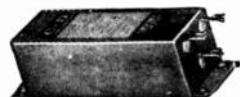
IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

CORNELL - DUBILIER



TYPE "EH" PEAK 525. WORK 450 V.D.C.

NO.	MFD.	NET
EH9400	4	\$.45
EH9800	8	.57
EH9160	16	.87
EH9404SL	4-4	.72
EH9408SL	4-8	.81
EH9808SL	8-8	.90

"SL" SEPARATE LEADS



TYPE "EB" PEAK 525. WORK 450 V.D.C.

EB9080	8	.63
EB9160	16	.93
EB4400	4-4	.81
EB4800	4-8	.87
EB8800	8-8	.96

SEPARATE LEADS ON ALL.

EP9080 SAME AS EB9080 BUT WITH PROD INSTEAD OF LEADS.

EP9080	8	.63
--------	---	-----



SMALL IN SIZE, NO LARGER THAN A METAL TUBE. EASY TO INSTALL.

TYPE "KR" PEAK 300. WORK 250 V.D.C.

NO.	MFD.	NET
KR204	4	\$.45
KR208	8	.57
KR216	16	.81
KR288	8-8	.87

TYPE "KR" PEAK 525. WORK 450 V.D.C.

KR504	4	.51
KR508	8	.63
KR512	12	.84
KR516	16	.93
KR548	4-8	.87
KR588	8-8	.96
KR5816	8-16	1.35
KR5838	8-8-8	1.33



DWARF MIDGET DRY ELECTROLYTICS

TYPE "JR" PEAK 250. WORK 200 V.D.C.

NO.	MFD.	NET
JR204	4	\$.39
JR208	8	.48
JR210	10	.54
JR212	12	.57
JR216	16	.63
JR244	4-4	.54
JR288	8-8	.75
JR2816	8-16	.87
JR2888	8-8-8	1.14

TYPE "JR" PEAK 525. WORK 450 V.D.C.

JR502	2	.39
JR504	4	.45
JR508	8	.57
JR512	12	.78
JR516	16	.87
JR544	4-4	.72
JR588	8-8	.90
JR5816	8-16	1.14
JR5888	8-8-8	1.32

ALL "JR" UNITS HAVE SEPARATE LEADS



TYPE "EDJ" PEAK 75. WORK 50 V.D.C.

NO.	MFD.	NET
EDJ3050	5	\$.30
EDJ3100	10	.39
EDJ3250	25	.48
EDJ3500	50	.72
EDJ31000	100	1.17

TYPE "EDJ" PEAK 35. WORK 25 V.D.C.

EDJ2100	10	.30
EDJ2200	20	.36
EDJ2250	25	.39
EDJ2500	50	.57
EDJ2055	5-5	.45
EDJ2101	10-10	.45

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

CORNELL - DUBILIER

THE NEW SENSATIONALLY TINY C-D "BEAVER" ELECTROLYTICS



TYPE BR

CAT. NO.	VOLTAGE	CAPACITY	NET
BR 445	450 v	4 mfd.	.33
BR 845	"	8 "	.36
BR 425	250 v	4 mfd.	.27
BR 825	"	8 "	.30
BR 1225	"	12 "	.39
BR 1625	"	16 "	.45
BR 2025	"	20 "	.48
BR 4025	"	40 "	.57
BR 415	150 v	4 mfd.	.24
BR 815	"	8 "	.27
BR 1215	"	12 "	.30
BR 1615	"	16 "	.33
BR 2015	"	20 "	.36
BR 4015	"	40 "	.39
BR 102	25 v	10 mfd.	.24
BR 252	"	25 "	.30



TYPE "EA" PEAK 525. WORK 450 V.D.C.

NO.	MFD.	NET
EA5150	5-15	1.38
EA8800	8-8	1.08
EA8880	8-8-8	1.62
EA9918	9-9-18	2.25
EA9911	9-9-18-18	3.15

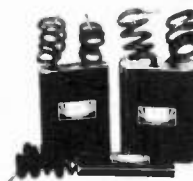


METAL CAN UNITS

TYPE "DA" WORKING VOLTAGE 400 D.C.

NO.	MFD.	NET
DA4011	.1	\$.30
DA4025	.25	.36
DA4050	.5	.45
DA4100	1.0	.60
DA4200	2.0	.93

TYPE RM UNCASED BYPASS AND FILTER CONDENSERS



TYPES RM

Carefully made and sealed to protect the winding against moisture and mechanical injury, these units are used to repair condenser blocks, in circuits where there are high voltage surges, in places where space is limited and in general everywhere a dependable paper condenser can be used to advantage.

TYPE "RM" WORKING VOLTAGE 400 D.C.

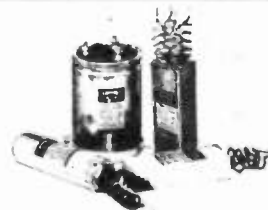
NO.	MFD.	NET
RM4050	.5	\$.30
RM4100	1.0	.45
RM4200	2.0	.69
RM4400	4.0	1.20

TYPE "RM" WORKING VOLTAGE 600 D.C.

RM6100	1.0	.54
RM6200	2.0	.81
RM6400	4.0	1.62

TYPE "RM" WORKING VOLTAGE 1000 D.C.

RM10100	1.0	.90
RM10200	2.0	1.50



TYPES PE

PAPER REPLACEMENTS FOR ELECTROLYTICS

TYPE "PECH" CARDBOARD 450 D.C. WORK.

NO.	MFD.	NET
PECH4004	4	\$.54
PECH4008	8	.69
PECH4808	8-8	1.14

TYPE "PECH" CARDBOARD 600 D.C. WORK.

PECH6004	4	.72
PECH6008	8	.96
PECH6808	8-8	1.59

TYPE "PEB" METAL CAN 600 D.C. WORK.

PEB6004	4	.81
PEB6008	8	1.05
PEB6808	8-8	1.68

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

CORNELL - DUBILIER



THESE UNITS ARE VERY WELL MADE AND CAN BE RELIED UPON TO GIVE MAXIMUM SERVICE IN RADIO SERVICE AND ALLIED LINES.

WORK. VOLT. 400 V.D.C. - TEST 800 DC.

TYPE	CAP.	NET EACH	NET EACH LOTS 10-25	NET EACH 25-OVER
DT-4S1	.01	\$.09	\$.08	\$.07
4S2	.02	.09	.08	.07
4S3	.03	.09	.08	.07
4S5	.05	.09	.08	.07
4P1	.1	.12	.10	.08
4P25	.25	.15	.13	.11
4P5	.5	.21	.17	.15
4W1	1.0	.30	.25	.22

WORK. VOLT. 600 V.D.C. - TEST 1200 DC.

TYPE	CAP.	NET EACH	NET EACH LOTS 10-25	NET EACH 25-OVER
DT-6S1	.01	\$.09	\$.08	\$.07
6S2	.02	.09	.08	.07
6S3	.03	.12	.10	.08
6S5	.05	.12	.10	.08
6P1	.1	.15	.13	.11
6P25	.25	.21	.17	.15
6P5	.5	.30	.25	.22

MOULDED MICA CONDENSERS

CAPACITY	NET
.00301	\$.12
.000025	.12
.00004	.09
.00005	.09
.0001	.09
.00015	.09
.0002	.09
.00025	.12
.0004	.12
.0005	.12
.001	.15
.002	.18
.003	.24
.004	.27
.005	.30
.006	.36
.01	.45



TYPE IC



TYPE FC



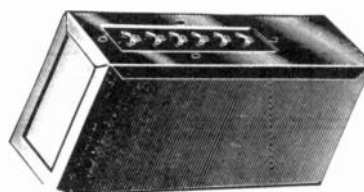
Type DT

AUTOMOBILE RADIO CONDENSERS

NO.	MFD.	NET
IC2P5B GEN.	.5	\$.30
FC2P5A FORD	.5	.30
ICH2W1A GEN.	1.0	.42
HC870E AMMETER	.5	.27

OIL VIBRATOR CONDENSERS

NO.	VOLTS	MFD.	NET
DT16S1	1600	.01	\$.21
DT16S2	1600	.02	.21
DT16P1	1600	.1	.36



"MAJESTIC" EXACT DUPLICATE FILTER CONDENSER BLOCKS BY FREED MFG. CO.

MODEL	TYPE	NET
70-70B-71-72-7P6 5 TAPS	5525	2.16
70-70B-71-72-7BP6	5527	2.16
90-91-92-100-101-9P6	5529	2.16
180-181-8P3-8P6	5530	3.42
90B-100B-102-103-93	5531	2.58

NEON TATTELITE TESTER

"It tells the Tale"



NET EACH, \$.60

IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY 7

1100 Pine Street

St. Louis, Missouri

SPRAGUE CONDENSERS

THE WORLD'S FINEST CONDENSERS...
by the WORLD'S LARGEST QUALITY CONDENSER MANUFACTURER

DRY ELECTROLYTICS

Types DC and SR Cardboard Units

Just the thing for Public Address and Power Amplifiers where the utmost reliability, quietness and ability to stand high surges are required. Also unexcelled for those exacting service jobs where you simply can't afford to have a failure. Extremely low power factor—low leakage—high voltage—no need to check surges.



Continuous Working Voltage 475-V Maximum Surge Voltage 600-V

TYPE	MFD.	NET
DC-2	2	\$.57
DC-4	4	.69
DC-6	6	.78
DC-8	8	.81
DC-44	4-4	1.03
DC-88	8-8	1.32

Type WC - "500" Wet Electrolytics

Perhaps not everyone realizes that Sprague has perfected more Wet Electrolytic developments, has pioneered and patented more features than any other manufacturer, BUT every serviceman and amateur who has used them, plainly recognizes Sprague superiority in EVERY electrical and mechanical characteristic. Self-healing—long life—can withstand high peak voltages.



D.C. Peak Voltage—500 Volts

TYPE	MFD.	NET
WC-4	4	\$.48
WC-6	6	.51
WC-8	8	.57
WC-10	10	.63
WC-12	12	.69
WC-16	16	.81



Type AC—Aluminum Can Sin. Unit

Continuous Working Voltage 475 Volts
Maximum Surge Voltage 600 Volts

TYPE	MFD.	NET
AC-2	2	\$.66
AC-4	4	.75
AC-6	6	.87
AC-8	8	.90
CL-88	8-8	1.44



A NEW DEVELOPMENT! SPRAGUE PIONEERS IN REGULATOR CONDENSERS. FOR THE PROPER OPERATION OF FILTER CIRCUITS, THE CORRECT VOLTAGE AND CAPACITY IN WET ELECTROLYTICS MUST BE STRICTLY ADHERED TO.

TYPE	MFD.	VOLTAGE	NET
3016	16	300	\$.63
3030	30	300	.69
3040	40	300	.75
3530	30	350	.72



Type AC—Aluminum Can Mlt. Units

Continuous Working Voltage 475 Volts
Maximum Surge Voltage 600 Volts

TYPE	MFD.	NET
SA-88	8-8	\$.1.44
AC-515	5-15	2.01
AC-888	8-8-8	2.40

SHORT WAVE, HIGH FREQUENCY CONDENSERS

Oil Impregnated



A substitute for mica condensers. Sturdy, Self-supporting. Unusually small. Metal-cased. Non-inductive. Low-power factor. Impregnated with special oil. Guaranteed.

TYPE	MFD.	VOLTS	NET
SW-22	.002	1500	\$.27
SW-25	.005	1500	.27
SW-11	.01	1500	.42
SW-12	.02	1500	.45
SW-15	.05	1000	.48
SW-1	.1	1000	.54

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

SPRAGUE CONDENSERS

THE WORLD'S FINEST CONDENSERS . . .
by the WORLD'S LARGEST QUALITY CONDENSER MANUFACTURER

Famous TC Tubulars At New Reduced Prices

"NOT A FAILURE
IN A MILLION!"

Probably the most famous, the most popular and the most reliable condensers ever presented to the radio profession. Impregnated—fully moisture-proof—double secured pagtail leads that won't pull out.



Test Volt.—1200 Volts Work. Volt.—600 Volts

TYPE	MFD.	NET
TC-31	.0001	\$.09
TC-325	.00025	.09
TC-34	.0004	.09
TC-35	.0005	.09
TC-21	.001	.09
TC-22	.002	.09
TC-23	.003	.09
TC-24	.004	.09
TC-25	.005	.09
TC-26	.006	.09
TC-11	.01	.09
TC-12	.02	.09
TC-13	.03	.12
TC-14	.04	.12
TC-15	.05	.12
TC-16	.06	.15
TC-1	.1	.15
TC-2	.25	.21
TC-5	.5	.30
TC-10	1.0	.48

METAL-CASED BY-PASS



Enclosed in a drawn metal case, they have the added individual feature of the special Sprague waxing process which proofs them against heat and moisture.

Test Volt. 1200 Work. Volt. 400 Peak Volt. 600

TYPE	MFD.	NET
BP-1	.1	\$.30
BP-25	.25	.36
BP-50	.5	.45
BP-10	1.0	.60
BP-21	.1-.1	.39
BP-225	.25-.25	.48
BP-250	.5-.5	.60
BP-31	.1-.1-.1	.51

SPRAGUE ATOMS



ACTUAL SIZE of 8 mfd. ATOM . . . Other capacities in proportionately small sizes.

Unconditionally Guaranteed

Extremely Low Leakage — High Surge Voltage—Exceptionally Good Shelf Life

TYPE	MFD.	VOLTAGE	NET
UT-4	4	450	\$.33
UT-8	8	450	.36
UT-12	12	450	.45
UT-16	16	450	.54
UT-20	20	450	.60

DUALS

TA-100	10-10	50	.39
TA-212	12-12	200	.57
TA-816	8-16	200	.57
UT-88	8-8	450	.60
TA-216	16-16	200	.63

NEW . . .

SPRAGUE PLUG-IN RADIO NOISE FILTERS



"Just Plug
'em in!"

To meet the steadily growing demand for a really reliable plug-in type radio noise filter, Sprague has introduced a new unit having a number of important features. Tests have proved it to be unusually effective in reducing radio interference caused by electric razors, heating pads, hair dryers, and practically all fractional horsepower electrical motor or vibration devices commonly used in homes or business houses.

Made in convenient round size, 2" long by 1-7/16" diameter, the new Sprague filter can be plugged into any socket conveniently—even in double wall receptacles where the larger size of old style square or oblong filters sometimes interfered with use of the second socket. Male prongs of a new and longer type assure excellent contact at all times. The female socket is also devised for sturdy contact that will not wear loose.

The filter is designed, either for installation directly at the power line outlet of the radio receiver so that no interference will enter the line cord and be radiated to the set or antenna system; or at the power outlet to which the noise-making electrical appliance is to be attached.

NET \$.60

IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

Centralab

CENTRALAB STANDARD RADIOHM WITHOUT TAP LESS SWITCH..... .60 WITH SWITCH..... .90

Catalog Number		Usual Circuit Location	Resistance	
Without Switch	With Switch		Ohms	Curve
72-118	62-118	Voltage Divider	500	1
72-107	62-107	Voltage Divider	1000	1
72-101	62-101	Voltage Divider	2000	1
72-108	62-108	Voltage Divider	3000	1
72-109	62-109	Voltage Divider	4000	1
72-110	62-110	Voltage Divider	5000	1
70-204	52-204	Antenna Shunt	5000	6
72-139	62-139	Voltage Divider	7500	1
72-114	62-114	Antenna, C-bias	10000	1
72-113	62-113	Antenna, C-bias of One Tube	10000	3
70-205	52-205	Antenna, C-bias of Two Tubes	10000	4
72-100	62-100	Antenna Shunt	10000	6
72-115	62-115	Antenna, C-bias	15000	3
79-006	99-006	Antenna, C-bias	15000	4
72-119	62-119	Antenna, C-bias	20000	3
72-111	62-111	Voltage Divider	25000	1
70-206	52-206	C-bias	25000	4
72-102	62-102	Antenna Shunt	25000	3
72-103	62-103	Voltage Divider	50000	1
72-117	62-117	Tone Control	50000	6
72-123	62-123	Tone Control	75000	6
70-202	52-202	C-bias	75000	4
72-104	62-104	Voltage Divider	100000	1
72-122	62-122	Audio Grid or Tone	100000	6
72-136	62-136	Audio Grid or Tone	150000	6
72-120	62-120	Audio Grid or Tone	200000	1
72-131	62-131	C-bias	250000	4
72-121	62-121	Audio Grid or Tone	250000	6
72-105	62-105	Audio Grid or Tone	500000	6
72-106	62-106	Voltage Divider	500000	1
70-203	52-203	Series in R. F. Plate	500000	4
72-140	62-140	Audio Grid or Tone	750000	6
72-116	62-116	Audio Grid or Tone	1 Meg.	6
72-137	62-137	Audio Grid or Tone	2 Megs.	6
72-132	62-132	Audio Grid or Tone	3 Megs.	6

TAPPED STANDARD RADIOHM LESS SWITCH..... .90 WITH SWITCH..... 1.20

72-138	62-138	Tapped Audio Grid	250000	10
72-134	62-134	Tapped Audio Grid	500000	10
72-135	62-135	Tapped Audio Grid	1 Meg.	10
72-142	62-142	Tapped Audio Grid	2 Megs.	10

CENTRALAB MIDGET RADIOHM WITHOUT TAP LESS SWITCH..... .60 WITH SWITCH..... .90

Catalog Number		Usual Circuit Location	Resistance	
Without Switch	With Switch		Ohms	Curve
NF-106	PF-106	Voltage Divider	5000	1
NF-107	PF-107	Antenna, C-bias	10000	1
NF-100	PF-100	Antenna, C-bias of One Tube	10000	3
NF-108	PF-108	Antenna, C-bias of Two Tubes	10000	4
N-109	P-109	Antenna Shunt	10000	6
NF-110	PF-110	Antenna, C-bias of One Tube	15000	3
NF-111	PF-111	Antenna, C-bias of Two Tubes	15000	4
NF-112	PF-112	Antenna, C-bias	20000	3
NF-113	PF-113	Voltage Divider	25000	1
NF-101	PF-101	Antenna, C-bias	25000	3
N-114	P-114	Voltage Divider	50000	1
N-115	P-115	Tone Control	50000	6
N-116	P-116	Voltage Divider	100000	1
N-117	P-117	Audio Grid or Tone	100000	6
N-102	P-102	Audio Grid or Tone	250000	6
N-118	P-118	Voltage Divider	500000	1
N-103	P-103	Audio Grid or Tone	500000	6
N-104	P-104	Audio Grid or Tone	1 Meg.	6

TAPPED MIDGET RADIOHM LESS SWITCH..... .90 WITH SWITCH..... 1.20

NT-119	PT-119	Tapped Audio Grid	250000	10
NT-120	PT-120	Tapped Audio Grid	500000	10
NT-121	PT-121	Tapped Audio Grid	1 Meg.	10
NT-122	PT-122	Tapped Audio Grid	2 Megs.	10

UNIVERSAL AUTO REPLACEMENT* LESS SWITCH..... .90 WITH SWITCH..... 1.20

NA-123	RA-123	Tapped Audio Grid	250000	10
NA-105	PA-105	Tapped Audio Grid	500000	10
NA-124	PA-124	Tapped Audio Grid	1 Meg.	10
NA-125	PA-125	Tapped Audio Grid	2 Megs.	10

*Because plain Auto Type Midgets have slip clutch construction, switches cannot be attached. Order plain or switch type as required.

ATTACHABLE SWITCH COVERS

FOR STANDARD AND WIRE WOUND RADIOHMS

Cat. No.	Circuit	Price
K-10	Single Pole Single Throw	.30
K-11	Single Pole Double Throw	
K-12	Double Pole Single Throw	.36
K-13	Four Point	
K-16	Single Pole Double Throw (Operates at clockwise position)	
K-17	Single Pole Single Throw (with Dummy Lug)	

FOR MIDGET RADIOHMS

Cat. No.	Circuit	Price
K-155	Single Pole Single Throw	.30
K-156	Single Pole Double Throw	
K-157	Double Pole Single Throw	.36
K-158	Four Point	
K-159	Single Pole Single Throw (With Dummy Lug)	

CENTRALAB WIRE WOUND RADIOHM

Furnished Less Switch Only Price, All Types .60

Cat. No.	Usual Circuit Location	Resistance Ohms	Cat. No.	Usual Circuit Location	Resistance Ohms
V-100	Filament Rheostat	2	V-121	Misc. Rheostat	100
V-102	Filament Rheostat	4	V-123	Misc. Rheostat	200
V-104	Filament Rheostat	6	V-125	Misc. Rheostat	300
V-106	Filament Rheostat	8	V-126	Misc. Rheostat	400
V-108	Filament Rheostat	10	V-127	Misc. Rheostat	500
V-109	Filament Rheostat	15	V-128	"C" Bias	750
V-110	Filament Rheostat	20	VF-129	"C" Bias	1000
V-111	Filament Rheostat	25	VF-131	"C" Bias	2000
V-112	Filament Rheostat	30	VF-133	"C" Bias	3000
V-114	Hum Control	40	VF-134	"C" Bias	4000
V-116	Hum Control	50	VF-135	"C" Bias	5000
V-117	Hum Control	60	VF-136	Ant.—"C" Bias	7500
V-118	Hum Control	75	VF-137	Ant.—"C" Bias	10000

CENTRALAB PHONOHM

Cat. No.	Type	Resis. Ohms	Price
MP-149	Potentiometer	5M	.90
MP-150	Potentiometer	10M	
MP-151	Potentiometer	100M	1.20
ML-152	"L" Pad	5M	
ML-153	"L" Pad	10M	
ML-154	"L" Pad	100M	

TWIN REPLACEMENT RADIOHMS

Cat. No.	Resistance		Price
	Front Base	Back Base	
74-601	10,000	25,000	1.50
74-602	10,000	50,000	
4010805	100,000	100,000	
4010807	250,000	250,000	
4010804	500,000	500,000	

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

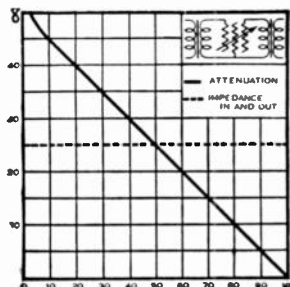
St. Louis, Missouri

Centralab

SOUND PROJECTION CONTROLS FOR EVERY APPLICATION

● CENTRALAB SERIES II

Controls are the finest for input circuits in broadcast stations, public address systems, and recording apparatus of new or old design. Will prove faultless in the most critical service.



The curve chart shows the change in impedance and attenuation plotted against clockwise rotation for a "T" pad attenuator. The impedance characteristic (dotted line) is substantially the same at any setting. The attenuation curve (solid line) varies from infinity at zero rotation to zero Db. at full rotation. No insertion loss.

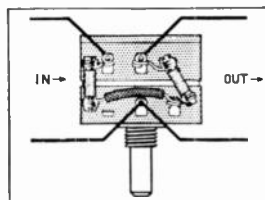
Electrostatic and electromagnetic shielding provided by a black finished steel case. Bakelite screw type terminal strip on back of case. All resistance elements insulated from shaft and bushing. Single hole mounting. Mounting bushing $\frac{3}{4}$ " long with 2 locknuts and lockwashers. Case diameter $2\frac{3}{4}$ ". Depth back of panel "T" Pad — $2\frac{3}{8}$ "; Gain Control — $1\frac{3}{8}$ ". Maximum load dissipation 1 watt.

For detailed information, write for technical booklet.

	Line Impedance	Resistance	Resistance Each Side of Center	Part Number	Price
"T" Pad Attenuator	500 Ohms 200 Ohms 50 Ohms	Constant Impedance to Both Input and Output		7-010-852 7-010-851 7-010-850	7.50
"T" Pad Fader	500 Ohms 200 Ohms 50 Ohms	Two Constant Impedance Legs on Both Sides		7-210-852 7-210-851 7-210-850	11.25
"L" Pad Attenuator	500 Ohms 200 Ohms 50 Ohms	Constant Impedance to One Side Only		4-010-852 4-010-851 4-010-850	3.75
Gain Control	Attenuation 50 Decibels for Each Control	250MOhms 500MOhms 1 Megohm	----- ----- -----	1-010-852 1-010-851 1-010-850	3.00
Straight Fader	For Crystal or High Impedance Pickups		500,000 100,000 50,000	1-210-852 1-210-851 1-210-850	3.75

● ECONOMY P/A CONTROLS

These controls are intermediate to the Series II line and the older Series I types. As their name implies, they are economy controls, designed primarily for inexpensive sound equipment, where original cost is a limiting factor. They are designed for all types of fading and mixing systems.



power rating for all units 1 watt.

Sketch illustrates connections to "Delta T" Pad. Resistance listed for these units is line impedance.

Catalog No.	Description	Resistance Ohms	Price Each
M-140	Gain Control	250M	1.05
M-141	Gain Control	500M	
M-142	Gain Control	1 Meg.	
M-143	Gain Control	2 Meg.	1.20
MT-144	Straight Fader	500M	
MT-145	Straight Fader	1 Meg.	2.10
MX-146	"Delta-T" Pad	50	
MX-147	"Delta-T" Pad	200	
MX-148	"Delta-T" Pad	500	

● CENTRALAB SERIES I

Constant impedance attenuators that are wire wound in the 10 watt or 50 watt "L" Pads, wire for the series and carbon for the shunt resistors in the 1 watt "T" Pad and C.I. Faders, also 4 watt "L" Pads. All carbon resistance in the 1 watt "L" Pad. Bakelite housing $3\frac{1}{2}$ " x $1\frac{3}{4}$ " deep single or 3 hole mounting for 10 watt "L" Pad, 1 watt "T" Pad, and C.I. Fader. 4 watt "L" Pad bakelite housing $2\frac{1}{4}$ " x $\frac{7}{8}$ " deep. All furnished with insulating washers for bushings. One watt "L" Pad mounted in bakelite case $1\frac{3}{8}$ " x $1\frac{1}{16}$ " deep. Priced without knob or dial.

Impedance Matching Resistance	1 Watt "T" Pad	4 Watt "L" Pad	10 Watt "L" Pad	50 Watt "L" Pad	1 Watt "T" Pad	1 Watt C.I. Fader
	1.802	4.043	0.043	0.044	2.04	4.80
10,000 Ohms	74-544	96-003				
5,000 "	74-543	96-002				
1,500 "						
500 "		96-007	94-005		93-008	83-006
200 "		96-006	94-004		93-001	83-002
100 "			94-003		93-002	83-003
50 "		96-005	94-002	47-209	93-004	83-004
15 "		96-001	94-001	47-208	93-005	83-005
8 "			94-007	47-900	93-006	



SERIES II



SERIES II



25 Watt Rheostat



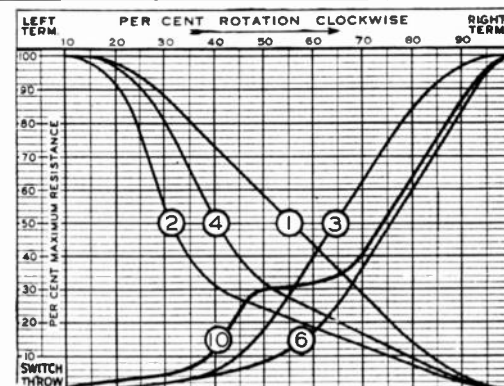
50 Watt Rheostat

● CENTRALAB POWER RHEOSTATS

Ideal for many commercial applications, such as small motor speed controls, charging rate adjusters, or soldering iron temperature regulators. Give maximum dissipation for size because of complete air circulation. All metal frame and core, insulated with treated asbestos. Practically indestructible. Made in three sizes, all two inches in diameter. Bushing $\frac{3}{8}$ " x $\frac{1}{2}$ " long. Shaft $\frac{1}{4}$ " x $\frac{1}{2}$ " long. Depth behind panel — 25 watt, $\frac{3}{4}$ "; 50 watt, $1\frac{1}{4}$ "; 75 watt, $1\frac{3}{4}$ ".

All sizes furnished with bakelite knob and panel insulating washers.

	Part No.	Resistance, Ohms	Price
25 Watt	48-002	2	1.20
	48-006	6	
	48-010	10	
	48-015	15	
	48-026	25	
	48-042	40	
	48-050	50	
	48-100	100	
	48-150	150	
	48-200	200	
	48-250	250	
	48-300	300	
50 Watt	48-400	400	1.50
	48-500	500	
	48-810	1000	
	48-815	1500	
	48-850	5000	
	48-025	25	
	48-060	60	
	48-151	150	
	48-201	200	
	48-501	500	
75 Watt	48-811	1000	1.80
	48-835	2500	
	48-851	5000	
	47-277	50	
	47-278	150	
	47-280	300	
	47-281	500	
		1000	



IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

Centralab Fixed Resistors

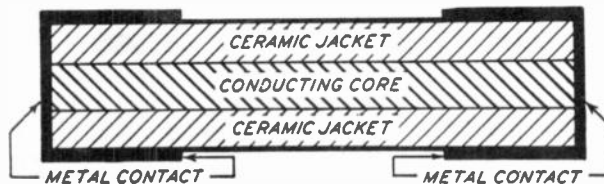


TYPE 514
RATING 1 WATT

SIZES AVAILABLE

100	20000
200	25000
300	30000
400	50000
500	75000
750	100000
1000	150000
1500	200000
2000	250000
2500	300000
3000	500000
5000	750000
7500	1 MEG.
10000	2 MEG.
15000	3 MEG.

NET
EACH
\$.10
LOTS
OF 12
OR OVER
NET
EACH
\$.08



THIS magnified cross section illustrates important and exclusive features of Centralab resistor design. These are:

1. Center core of resistance material is surrounded by a dense shock-proof ceramic providing strength and protection against humidity.
2. Core and jacket are fired together at 2500 degrees F. into a single solid unit, hard and durable as stone.
3. Pure copper covers the resistor ends for wire lead contact. Contact to the resistance material is at the extreme ends only, providing uniform resistance and load distribution over ENTIRE length. End contacts do not short circuit part of resistance as in other types.
4. Because resistance is small in diameter and uniformly distributed for entire length, Centralab's specific resistance per unit length is low. The result is low noise level and constant value over a wide range of frequency and voltage.

ALL RESISTORS HAVE
FLEXIBLE WIRE LEADS
1 1/8" LONG AND ARE
RMA COLOR CODED.

Motor Radio Spark Noise Suppressors

SUPPRESSOR design is simple enough when only radio is considered, but to design one that will permanently maintain full motor efficiency along with good radio reception is a difficult problem.

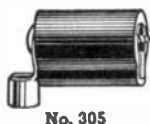
Every motor ignition spark is followed by a train of radio frequency waves. Resistances of proper value located at the plugs and the common distributor cable damp these waves so they do not radiate.

The effectiveness of any suppressor is determined by its R.F.—not its D.C. resistance, as ordinarily measured. In some designs the R.F. resistance measures as little as 25 per cent of the D.C. resistance. Naturally then, a high value must be used to obtain

adequate noise suppression. That is when motor difficulties develop.

Motor ignition systems are carefully balanced up 10,000 volt surges of considerable current. The spark itself is a direct current surge. A suppressor of too high D.C. resistance may diminish the spark and cause hard starting, poor gas mileage and sluggish performance.

Centralab Suppressors insure top efficiency for both the radio and the motor. They are designed with long resistors and minimum capacity. They have the best possible ratio of R.F. to D.C. resistance. A resistance of only 10,000 ohms gives adequate noise suppression, and this low D.C. resistance insures full motor efficiency. Mechanically they are very strong, and will withstand high voltage, heat, vibration, and all kinds of weather.



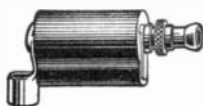
No. 305



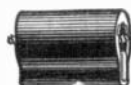
No. 327



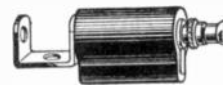
No. 329



No. 304



No. 338



No. 307

Net
Each
18



SPECIAL DISTRIBUTOR SUPPRESSOR FOR ALL FORD 8 NET \$.18

LOT NEXT TO STORE OR LOADING ZONE



"Brown Devil" Vitreous Enameled Resistors

STOCK VALUES			10 Watt Size		
Ohms	Max. Cur. Milli-amps.	Max. Volts Across Unit	Ohms	Max. Cur. Milli-amps.	Max. Volts Across Unit
1	3,150	3	1,250	89	111
2	2,230	4.4	1,500	79	119
3	1,825	5.4	1,750	74	130
4	1,580	6.3	2,000	69	138
5	1,415	7	2,250	64	144
7.5	1,155	8.6	2,500	61	154
10	1,000	10	3,000	56	169
12	910	11	3,500	51	179
15	815	12	4,000	47	190
20	707	14	4,500	44	197
25	630	15	5,000	40	200
30	575	17	6,000	36	219
35	535	18	7,000	33	230
40	500	20	7,500	32	245
50	447	22	8,000	31	248
75	365	27	8,500	30	245
100	315	31	10,000	24	245
125	283	35	11,000	22	242
150	258	38	12,000	20	245
200	223	44	12,500	20	250
225	217	47	13,500	19	256
250	200	50	14,300	18	258
300	182	54	15,000	18	274
350	169	59	16,000	17	272
400	158	63	17,500	17	298
450	149	67	18,000	16	288
500	141	70	20,000	15	316
600	129	77	22,500	15	338
700	119	83	25,000	14	354
750	115	86	*30,000	8	240
800	111	88	*35,000	7	245
900	105	94	*40,000	7	280
1,000	100	100	*45,000	6	270
1,100	95	104	*50,000	6	300
1,200	91	109			

NET .24

10 Watt and 20 Watt Sizes



Brown Devil resistors are wire wound, vitreous enamel covered units of the finest construction. Their small size makes them particularly adaptable as replacement units in radio receivers, where a resistor of high quality is desired. A vitreous coating is the best known conductor of heat that is at the same time an insulator of electricity. A vitrified covering offers better protection against moisture and acid fumes than any other known material. The hard surface of the vitreous enamel gives the wire complete protection against mechanical injury.

* Low Temperature Enamel Resistors

Because of their high resistance, these units marked with an asterisk will seldom be called upon to dissipate much wattage. Therefore, in order to keep the price down they have been coated with a low temperature enamel. Vitreous enameled high-resistance units may be secured upon order at higher prices, if desired.

DIMENSIONS
10 WATT UNITS
1 3/4" X 3/8"

All units have 1 1/2 inch
tinned wire leads

DIMENSIONS
20 WATT UNITS
2" X 1/2"

All units have 1 1/2 inch
tinned wire leads.

STOCK VALUES			20 Watt Size		
Ohms	Max. Cur. Milli-amps.	Max. Volts Across Unit	Ohms	Max. Cur. Milli-amps.	Max. Volts Across Unit
5	2,000	10	1,500	115	173
10	1,415	14	1,750	107	187
25	895	22	1,850	104	192
50	633	31	2,000	100	200
75	517	38	2,250	94	212
100	448	44	2,400	91	219
150	365	54	2,500	89	223
200	316	63	2,750	85	234
250	283	70	3,000	81	245
300	258	77	3,500	75	264
350	239	83	4,000	70	283
400	223	89	4,500	66	300
500	200	100	5,000	63	316
650	175	114	6,000	57	346
700	169	118	7,000	53	374
750	163	122	7,500	51	387
800	158	126	8,000	50	400
850	153	130	10,000	43	436
1,000	141	141	12,500	39	488
1,200	129	155	15,000	33	495
1,250	126	158			

NET .39

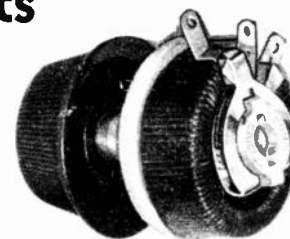
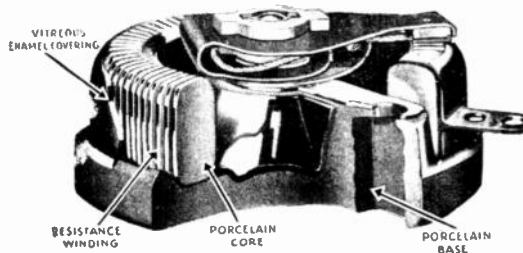
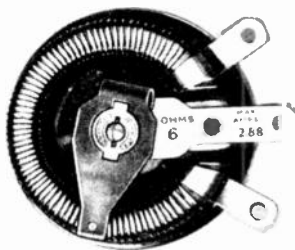
20,000	25	500	40,000	13	520
25,000	22	550	45,000	12	540
30,000	19	570	50,000	11	550
35,000	15	525			

NET .45

*55,000	8.5	470	*80,000	7.0	565
*60,000	8.0	490	*85,000	6.5	583
*65,000	7.5	509	*90,000	6.5	600
*70,000	7.5	528	*95,000	6.5	615
*75,000	7.0	547	*100,000	6	633

NET .60

Vitreous Enameled Rheostats



MODEL "H"—25 Watt RHEOSTATS

Stock Number	Total Ohms Resistance	Max. Current Milli-amps.	Approx. No. Steps	NET
0140	1	5,000	27	2.70
0141	2	3,450	24	"
0142	3	2,880	52	2.40
0143	6	2,040	50	"
0144	8	1,770	50	"
0145	10	1,580	48	"
0146	15	1,290	81	"
0147	25	1,000	86	"
0148	35	845	102	"
0149	50	709	109	"
0150	75	575	126	"
0151	100	500	123	"

MODEL "J"—50 Watt RHEOSTATS

Stock Number	Total Ohms Resistance	Max. Current Milli-amps.	Approx. No. Steps	NET
0308	0.5	10,000	20	3.00
0309	1	7,070	37	"
0310	2	5,000	38	"
0311	4	3,500	40	2.70
0312	6	2,880	73	"
0313	8	2,500	73	"
0314	12	2,040	82	"
0315	16	1,760	86	"
0316	22	1,500	95	"
0317	35	1,190	119	"
0318	50	1,000	143	"
0319	80	790	137	"
0320	125	630	176	"

Stock Number	Total Ohms Resistance	Max. Current Milli-amps.	Approx. No. Steps	NET
0321	150	575	153	2.70
0322	225	470	205	"
0323	300	405	202	"
0324	500	315	261	"
0325	800	250	355	2.85
0326	1,000	220	333	"
0327	1,600	176	406	"
0328	2,500	140	545	"
0329	3,500	119	610	3.00
0330	5,000	100	666	"
0331	8,000	79	750	"
0332	10,000	70	820	"

VITREOUS ENAMELED RHEOSTATS ARE ALSO AVAILABLE IN 75, 100, 150, 225, 300, 500 AND 1000 WATT SIZES. ASK FOR FREE COMPLETE OHMITE CATALOG.

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

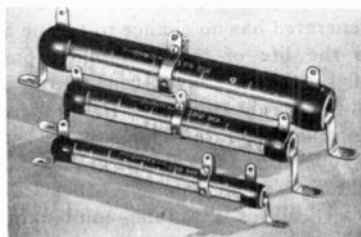
St. Louis, Missouri



"Dividohm" Vitreous Enameled Adjustable Resistors

Dividohm resistors have many different uses. In radio service work they make ideal replacement voltage dividers; because the adjustable lugs make contact on the winding only at one point, several lugs may be used without shorting out much resistance. In experimental work Dividohms are used for adjusting circuits and for obtaining odd resistance values. In electrical production they are used on applications where it is desired to make adjustments at the factory or where varying line voltages must be considered. Mounting brackets are furnished with all units. One Screw Driver Type adjustable lug is supplied with each resistor.

10-25-50-75-100-160 and 200 Watt Ratings
With Patented percentage-of-resistance scale.
Patent No. 1,942,496



Ohmite Dividohm vitreous enameled, adjustable resistors are the finest units of this type obtainable anywhere. The resistance wire is wound over a porcelain core which forms a solid surface against which the contact button may press. Vitreous enamel covers about four-fifths of the surface and protects the unit. A narrow strip along one side of the unit is left bare to make contact with the "ball point" on the adjustable lug; even though the upper surface of the wire is bared along this strip, there is sufficient enamel under and between the turns to keep the wire from shifting. A patented percentage-of-resistance scale makes it easy to adjust the lugs.

SIZE 2" x 1 1/4"				SIZE 4" x 1 1/4"				SIZE 6" x 1 1/4"				SIZE 6 1/2" x 7/8"				SIZE 8 1/2" x 1 1/4"			
Rating—25 Watts in Open Air Furnished with Brackets. Mounting Centers 2 3/4".				Rating—50 Watts in Open Air Furnished with Brackets. Mounting Centers 4 3/4".				Rating—75 Watts in Open Air Furnished with Brackets. Mounting Centers 6 3/4".				Rating—100 Watts in Open Air Furnished with Brackets. Mounting Centers 7 3/4".				Rating—160 Watts in Open Air Furnished with Brackets. Mounting Centers 9 3/4". *			
Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET	Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET	Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET	Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET	Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET
0360	1	5,000	.51	0560	5	3,160	.81	0769	5	3,870	1.05	0956	5	4,470	1.20	1156	5	5,660	1.50
0360B	2	3,540	"	0561	10	2,240	"	0770	10	2,730	"	0957	10	3,160	"	1157	10	4,000	"
0361	3	2,890	"	0562	25	1,420	"	0771	15	2,230	"	0958	25	2,000	"	1158	25	2,530	"
0362	5	2,240	"	0563	50	1,000	"	0772	25	1,730	"	0959	50	1,414	"	1159	50	1,788	"
0362B	7.5	1,890	"	0564	75	815	"	0773	50	1,220	"	0960	100	1,000	"	1160	100	1,266	"
0363	10	1,580	"	0565	100	707	"	0774	100	865	"	0960B	250	630	"	1160B	250	800	"
0364	15	1,290	"	0566	150	577	"	0774B	200	612	"	0961	500	447	"	1161	500	566	"
0364B	20	1,140	"	0567	200	500	"	0775	250	545	"	0962	1,000	316	"	1162	1,000	400	"
0365	25	1,000	"	0568	250	447	"	0775B	300	500	"	0962B	1,500	257	"	1162B	1,500	335	"
0366	50	707	"	0568B	300	408	"	0775C	400	424	"	0963	2,500	200	"	1163	2,500	253	"
0367	75	577	"	0568C	400	354	"	0776	500	387	"	0964	5,000	141	"	1164	5,000	179	"
0368	100	500	"	0569	500	316	"	0777	750	316	"	0965	10,000	100	1.35	1165	10,000	126	"
0369	150	410	"	0570	750	258	"	0777B	800	308	"	0966	15,000	81	"	1166	15,000	103	1.71
0370	200	354	"	0571	800	250	"	0778	1,000	274	"	0967	20,000	70	"	1167	20,000	89	"
0371	250	316	"	0572	1,000	224	"	0778B	1,250	245	"	0968	25,000	56	"	1168	25,000	80	"
0371B	300	289	"	0572B	1,250	200	"	0779	1,500	223	"	0969	30,000	51	1.50	1169	30,000	73	"
0371C	400	250	"	0573	1,500	183	"	0780	2,000	193	"	0970	40,000	38	"	1170	40,000	55	"
0372	500	224	"	0574	2,000	158	"	0780B	2,250	182	"	0971	50,000	28	"	1171	50,000	43	"
0373	750	182	"	0574B	2,250	148	"	0781	2,500	173	"	0972	75,000	16	1.65	1172	75,000	27	1.25
0374	800	177	"	0575	2,500	142	"	0781B	3,000	158	"	0973	100,000	14	"	1173	100,000	18	"
0375	1,000	158	"	0576	3,000	129	"	0782	3,500	146	"	SIZE 10 1/2" x 1 1/4" Rating—200 Watts in Open Air Furn. with brkts. Mounting Ctrs. 11 3/4"				ADJUSTABLE LUGS			
0375B	1,250	141	"	0576B	3,500	120	"	0782B	4,000	137	"								
0376	1,500	129	"	0577	4,000	112	"	0782C	4,500	129	"	Stock No. Ohms Resist- ance Max. Current in Mils. NET				Diameter of Resistor Stock No. NET			
0377	2,000	112	"	0577B	4,500	105	"	0783	5,000	122	"								
0377B	2,250	105	"	0578	5,000	100	"	0783B	6,000	112	1.20	1356	5	6,310	1.20		3/8"	1058	.06
0378	2,500	100	"	0578B	6,000	91	"	0783C	7,000	103	"	1357	10	4,470	"		1 1/16"	0358	.09
0379	3,000	91	"	0578C	7,000	84	90	0783D	7,200	102	"	1358	25	2,830	"		3/8"	1958	.09
0380	3,500	84	"	0578D	7,200	83	"	0784	7,500	100	"	1359	50	2,000	"		1 1/4"	2158	"
0381	4,000	79	"	0579	7,500	81	"	0784B	8,000	98	"	1360	100	1,414	"		3/8"	1958	.09
0381B	4,500	74	"	0580	8,000	79	"	0784C	9,000	92	"	1360B	250	890	"				
0382	5,000	70	"	0580B	9,000	74	"	0785	10,000	86	"	1361	500	632	"				
0383	6,000	64	57	0581	10,000	70	"	0785B	12,000	79	"	1362	1,000	447	"				
0383B	7,000	60	"	0582	12,000	64	"	0786	15,000	70	"	1362B	1,500	363	"				
0383C	7,200	59	"	0583	15,000	57	"	0787	20,000	61	"	1363	2,500	283	"				
0384	7,500	57	"	0584	20,000	48	"	0788	25,000	52	"	1364	5,000	200	"				
0384B	8,000	56	"	0585	25,000	43	"	0789	30,000	47	1.35	1365	10,000	141	"				
0384C	9,000	53	"	0586	30,000	41	1.02	0790	35,000	38	"	1366	15,000	115	2.10				
0385	10,000	50	"	0587	40,000	35	"	0791	40,000	33	"	1367	20,000	100	"				
0386	12,000	44	"	0588	50,000	25	"	0792	45,000	28	"	1368	25,000	89	"				
0387	15,000	34	"	0589	60,000	20	1.20	0793	50,000	25	"	1369	30,000	81	"				
0388	20,000	26	.66	0590	80,000	15	"	0794	60,000	19	1.50	1370	40,000	63	"				
0389	25,000	23	"	0591	100,000	12	"	0795	80,000	17	"	1371	50,000	49	"				
* NOTE.. 160 WATT SIZE NOT STOCKED								0796	100,000	13	"	1372	75,000	30	"				
								0797	100,000	13	"	1373	100,000	20	"				

Size 1 1/4" x 3/8". Rating—10 Watts in Open Air. Furnished with Mounting Brackets. Mounting Centers 2 1/4"

Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET	Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET	Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET	Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET	Stock No.	Ohms Resist- ance	Max. Current in Mils.	NET
1001	1	3,150	.36	1009	25	630	.36	1017	350	169	.36	1025	1,500	79	.36	1033	5,000	40	.36
1002	2	2,230	"	1010	50	447	"	1018	400	158	"	1026	2,000	69	"	1034	6,000	36	"
1003	3	1,825	"	1011	75	365	"	1019	500	141	"	1027	2,250	64	"	1035	7,000	33	"
1004	5	1,415	"	1012	100	315	"	1020	600	129	"	1028	2,500	61	"	1036	7,500	32	"
1005	7.5	1,155	"	1013	150	258	"	1021	750	115	"	1029	3,000	56	"	1037	8,000	31	"
1006	10	1,000	"	1014	200	223	"	1022	800	111	"	1030	3,500	51	"	1038	8,500	30	"
1007	15	815	"	1015	250	200	"	1023	1,000	100	"	1031	4,000	47	"	1039	9,000	26	"
1008	20	707	"	1016	300	182	"	1024	1,250	89	"	1032	4,500	44	"	1040	10,000	24	"

LOT NEXT TO STORE OR LOADING ZONE

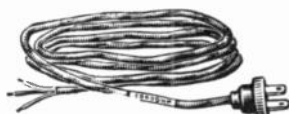
WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri



"Cordohm" Line Cord Resistor For A.C.-D.C. Radio Sets



The Cordohm Line Cord Resistor is designed to replace the internal voltage dropping resistors in the older A.C.-D.C. radio sets. It is essentially a line cord into

which has been incorporated a third element, the voltage dropping resistor, which reduces the line voltage to that needed for the tube filaments. When the voltage dropping resistor is built into the set, the heat generated has no chance to escape and affects the life of the component parts, particularly the electrolytic condensers. The Cordohm entirely eliminates the heat from the set and therefore insures more satisfactory operation. Cordohms are available in eight resistance values, which cover practically all of the tube combinations used in the universal sets.

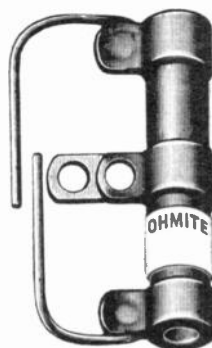
STOCK VALUES

Stock No.	Total Voltage Drop in Filaments	Resistance of CORDOHM
C-350	12.0 to 17.0	350 ohms
C-330	18.0 to 24.0	330 ohms
C-290	25.0 to 31.5	290 ohms
C-250	32.0 to 44.5	250 ohms
C-220	45.0 to 52.0	220 ohms
C-180	53.0 to 61.0	180 ohms
C-160	62.0 to 68.9	160 ohms
C-135	69.0 to 75.2	135 ohms

NET ANY SIZE \$.45

Filament Dropping Resistors

The problem of operating the newer types of radio transmitter tubes without sacrificing useful and costly equipment already in use can now be easily accomplished through the use of Ohmite Filament Dropping Resistors. These resistors are used to operate 5 volt and 6.3 volt tubes from a 7.5 volt source of filament or heater supply. Select the correct resistor for your application from the table below. For more complete details write for Bulletin 107.



Center-Tapped Resistors

Wirewatt and Brown Devil center-tapped resistors are specially recommended for use across radio transmitter tube filaments to provide an electrical center for the grid and plate returns. They should be connected as close as possible to the tube socket. The table shown below shows the resistance values of both Wirewatt and Brown Devil center-tapped resistors which are kept in stock. It also shows the maximum tube filament or heater voltage with which any center-tapped resistor of any particular value should be used. Select the correct center-tapped resistor for your application from the table below. Center tap accurate to $\pm 1\%$. For more complete details write for Bulletin 107.

FILAMENT DROPPING RESISTORS

For operating 6.3 volt and 5 volt transmitting tubes from a 7.5 volt supply

Tube Type Numbers		Filament or Heater		Ohms	Resistor			NET
		Volts	Amps.		Size	Max. Amps.	Max. Volts	
5Z3	83	5	3	0.4	10 Watt Brown Devil	5	2.0	.24
50-T	5Z3 83 Two	5	6	0.4	20 Watt Brown Devil	7	2.8	.39
357	5Z4 80 Two	5	4	0.6	20 Watt Brown Devil	5.75	3.4	''
5Z3	83	5	3	0.8	20 Watt Brown Devil	5	4.0	''
5Z4	80	5	2	1.25	10 Watt Brown Devil	2.82	3.53	.24
80Z		6.3	.95	1.25	10 Watt Brown Devil	2.82	3.53	''
6L6		6.3	.90	1.33	10 Watt Brown Devil	2.74	3.65	''
6A6		6.3	.80	1.50	10 Watt Brown Devil	2.58	3.87	''
79	6E6	6.3	.60	2.0	10 Watt Brown Devil	2.23	4.4	''
6C6	76	6.3	.30	4.0	10 Watt Brown Devil	1.58	6.3	''

WIREWATT 1 Watt Center-Tapped Resistors

Ohms Resistance	For Heater or Filament Voltage Up To	Maximum Volts	NET
10	2.5	3.15	.21
15	2.5	3.85	''
*20	2.5	4.4	''
25	2.5	5.0	''
30	2.5	5.3	''
40	2.5	6.3	''
*50	5.0	7.0	''
75	5.0	8.5	''
*100	6.3	10.0	''
200	6.3	14.0	''

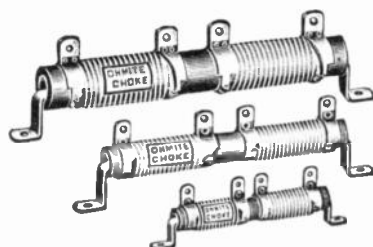
BROWN DEVIL 10 Watt Center-Tapped Resistors

Ohms Resistance	For Heater or Filament Voltage Up To	Maximum Volts	NET
10	6.3	10.0	.30
15	6.3	12.5	''
*20	7.5	14.0	''
25	7.5	15.5	''
30	7.5	17.2	''
40	10.0	20.0	''
*50	10.0	22.3	''
75	10.0	27.3	''
*100	12.0	31.5	''
200	12.0	44.5	''

* Shows most popular sizes.



Power Line Chokes



No. Stock	Total Micro-Henries	Current Rating (D. C.)	Total D.C. Resistance Ohms	Length (overall)	Tube Diameter	NET
Z-20	13.5	5 Amperes	0.15	4"	1 1/8"	.90
Z-21	14	10 Amperes	0.07	6 1/2"	3/4"	1.50
Z-22	16.5	20 Amperes	0.045	8 1/2"	1 1/8"	2.16

These power line chokes, when used as a filter, in connection with two grounding condensers of 0.1 microfarad capacity each, serve two definite purposes. They prevent high frequency currents from going out over the power line from such sources as radio transmitters, therapeutic machines, etc., to disturb nearby radio receiving sets. And they can be used on radio receiving sets to prevent high frequency interference from coming into such sets over power lines and house lines. The small Z-20 choke is especially designed for this latter purpose. For therapeutic or other machines which draw more current than 20 amperes special chokes can be made up to specifications. The special purpose of these power line chokes is for the prevention of interference from high frequency currents. They are not recommended for use in suppressing currents of audio frequency.

IT'S EASY TO PARK AT WALTER ASHE . . .



RESISTORS

TYPE BT RESISTOR

FULLY INSULATED — ELEMENT ENTIRELY SEALED



TYPE BT-1/2
1/2 WATT

10¢

NET EACH

TYPE BT-1
1 WATT

12¢

NET EACH

Actual size illustrations
Leads are 1 1/2" long

STOCK RESISTANCE SIZES

50 OHMS
100
150
200
250
300
350
400
450
500
600
750
800
1000
1250
1500

2000 OHMS
2250
2500
3000
3500
4000
5000
6000
7000
7500
8000
9000
10000
11000
12000
12500

15000 OHMS
17500
20000
22500
25000
30000
35000
40000
50000
60000
65000
70000
75000
100000
125000
150000

200000 OHMS
250000
300000
400000
500000
600000
750000
1 MEGOHM
1 1/2
2
3
4
5
6
7
10
20

IRC 2 WATT

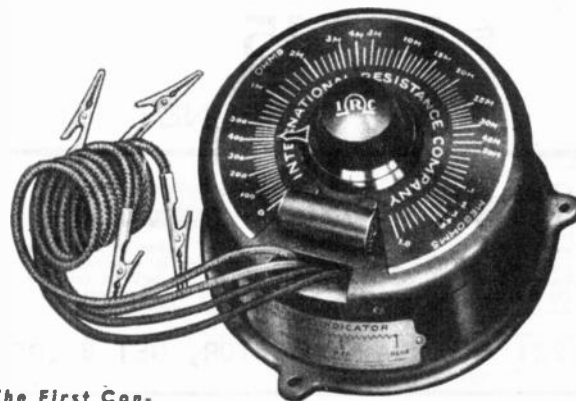
Metallized



2 Watt Type BT-2

SUPPLIED IN ALL RANGES FROM
100 OHMS TO 5 MEGHOMS

NET EACH  \$.18



The First Con-
tinuously Vari-
able Resistance
Analyzer With a
Range From 0 to
1.0 Megohm

Resistance Analyzer **Net Price \$4.95**
(including 3 fuses and 16-page instruction booklet.)

Fuse Protected

WALTER ASHE RADIO COMPANY

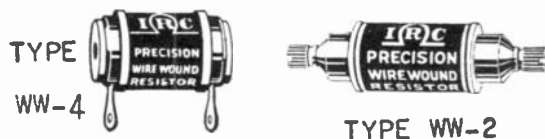
1100 Pine Street St. Louis, Missouri

IRC PRECISION

WIRE WOUND RESISTORS

Designed for Use in Radio and Electrical Equipment That Aims at Perfection

Designed to meet the most exacting demands for accuracy and durability. Especially adapted for use as meter multipliers, and shunts in increasing the range of single range volt-meters and milliameters, and for other equipment such as faders, gain control pads, etc. Normal tolerance is 1%. Closer tolerances may be obtained at slightly higher prices



1/4 -inch Standard Duty

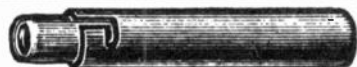


\$ **17¹⁵** NET

Quick Antenna Connector

This is the latest type of connecting terminal. It can be connected or disconnected in a jiffy. Ideal for use with all makes of automobile radio sets where a quick and easy connection is required. This Connector is made of two pieces and has a turn lock on the side. On the inside of this connection there are two fibre bushings with a strong spring for contact. Made of brass and cadmium plated.

#221 ANTENNA CONNECTOR, NET \$.05



Fuse Connector

This is the latest type of fuse housing that is principally used on the automobile radio sets. It works on the same principle as the above described connector, only it is so much longer and larger. The inside of this connector has a sleeve for taking the standard type of fuse. Ideal quick changing fuse holder. Made of brass and cadmium plated, with two bushings and springs for contact purposes.

#222 FUSE CONNECTOR, NET \$.08

TYPE WW-4

NET PRICE

.1-.5-1-10-25-50-100-200	
250-300-500 OHMS	\$.51
1000-1500-2000 OHMS	.54
2500 OHMS	.54
4000-5000-7500-10,000	.60
12,500-15,000	.66
20,000-22,500-25,000	
30,000-40,000-50,000	.81
60,000-75,000	.96
.1 MEG	1.11
.125 MEG	1.26
.15-.175-.2 MEG	1.41
.225-.25 MEG	1.56
.3 MEG	1.71
.4 MEG	1.80
.5 MEG	2.04

TYPE WW-2

.6 MEG	2.55
.75 MEG	2.70
.9 MEG	2.85
1. MEG	3.15
1.5 MEG	4.50
2. MEG	6.00
2.5 MEG	7.50



DYNATROL

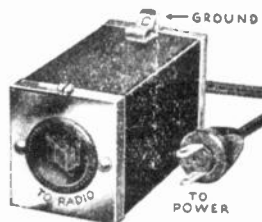
Line Noise Filter and Noiseless Aerial

Highly recommended for Short Wave and All Wave to eliminate the extreme noise level so prevailing on the short wave channels. A most efficient filter of line noises — cuts out all noises caused by elevators, electric refrigerators, electric lighting systems. Provides good clear radio reception from any radio. In itself the Dynatrol is a practical indoor aerial—and as an adjunct to an outdoor antenna it greatly increases power and selectivity.



NET EACH 90¢

MILLER NO. 7818 LINE FILTER



Miller Line Filter #7818

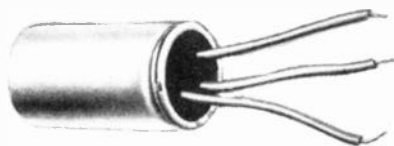
NET \$2⁴⁰

When used in the supply cord of the radio receiver it will prevent unwanted signal pickup and direct line noise pickup from the house wiring system.

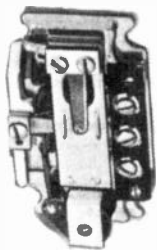
IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri



Vibrators

TYPE	NET		TYPE	NET
201	\$3.90		273* REQUIRES ADAPTER	3.57
202	3.90		275	3.57
203	3.90		273C	3.30
204	3.90		273D	3.30
205	3.90		275XS	4.50
206	3.90		277S	3.57
210	4.50		281	2.97
211	4.50		285	2.97
212	4.50		285XS	4.20
213	4.50		286S	3.30
214	4.50		287M	3.30
219	4.50		289Y	2.97
236	4.50		292	2.07
237	4.50		294	1.77
220B	2.70		294C	1.77
221	2.37		294SW	1.77
222	3.30		296	1.77
223	3.57		297	2.37
224	4.20		302S	3.90
225	3.57		303S	3.90
226	3.57		312T	3.90
230	4.50		311S	4.50
231	4.35		312T	3.90
234	4.35		500P	1.77
235	3.57		501P	1.77
245	2.97		503	2.97
245A	2.97		504	2.97
245C	2.97		505P	1.77
246	2.97		506P	2.37
247	2.97		514	2.97
248	2.97		715	2.97
249	2.97		722A	2.97
250	2.97		728A	2.97
253	2.37		P285Y	2.97
253T	2.37		W245	2.97
253Y	2.37		W245A	2.97
270B	3.57		W285	2.97
271HD	3.57		W246	2.97
271	3.57		*CUP ADAPTOR	.30

WHEN YOU BUY A MALLORY VIBRATOR YOU ARE ASSURED OF THE FOLLOWING BENEFITS, LOWEST COST PER HOUR OF ACTUAL USE, TROUBLE FREE, LONG LIFE, POSITIVE STARTING. EASY INSTALLATION AND FREEDOM FROM BROKEN LEADS AND REEDS.

ASK FOR YOUR FREE COPY OF THE MALLORY EXACT REPLACEMENT VIBRATOR GUIDE SHOWING ALL MODELS OF AUTO RECEIVERS.

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

AMPHENOL



PC3F CHASSIS CONNECTOR

With knurled ring, lock washer and hex locking nut. Requires $\frac{1}{16}$ " chassis hole.

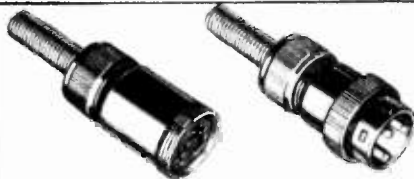
Cat. No. PC3F—3 contact female—	NET \$.30
Cat. No. PC4M—4 prong male—	.33
Cat. No. PC4F—4 contact female—	.33



SP-PC3F SPECIAL CHASSIS TYPE

Similar to PC3F except contacts are shielded. Provided with two hex. lock nuts and shake-proof washer. Will fit up to a $\frac{3}{8}$ -inch thick panel. These are generally used in connection with the cable type M.C. series for the connecting end.

Cat. No. SP-PC3F—3 contact, female—	NET \$.60
Cat. No. SP-PC4F—4 contact, female—	.66
Cat. No. SP-MC3M—3 prong, male—	.60
Cat. No. SP-MC4M—4 prong, male—	.66



MC3F CABLE TYPE

Cat. No. MC3F—3 contact, female—	\$.60
Cat. No. MC4F—4 contact, female—	.66
Cat. No. MC3M—3 prong, male—	.60
Cat. No. MC4M—4 prong, male—	.66
Cat. No. MC4MS—with 4 contact female element to fit PC4M.	\$.66



SC3F STAND TYPE, FEMALE

Often used with MC3M connector for microphone stand work, $\frac{3}{8}$ -27 female thread to fit most stands.

Cat. No. SC3F—3 contact—	NET \$.60
Cat. No. SC4F—4 contact—	\$1.10 .66



MC1F MICROPHONE CONNECTOR

For Single Conductor

A new Amphenol Hi-Speed Cable Coupling Unit specially adapted for single cable or similar connections. A completely shielded indestructible contact which cannot be accidentally pulled apart. Designed to permit instant connection or dis-connection of cables. Diagram shows method of soldering shield to clamp and soldering wire to eyelet. The side set screw depresses into the soldered shield deeply, firmly gripping the cable to relieve soldered contact of strain. The coupling ring locks the contact securely against vibration. Finished in polished chrome. Accommodates cables up to $\frac{5}{16}$ inch in diameter. The coupling ring thread is $\frac{3}{8}$ -27. The thread and nut on the PC1M which can be screwed into a microphone body is $\frac{3}{8}$ -24.

Available in three types:

Cat. No. MC1F—Female	NET \$.30
Cat. No. MC1M—Male	.24
Cat. No. PC1M—Chassis	.18



SCQ3 SIDE CABLE OUTLET

This AMPHENOL Side Cable Outlet is designed to be placed between a microphone and microphone stand having $\frac{3}{8}$ "-27 threads. Its purpose is to provide an outlet for the microphone cable where it is not desired to run it through the stand tubing. The opening is well rounded and sufficiently large to prevent the cable from twisting when installing the outlet. An unusually efficient cable grip to relieve contacts of strain is provided by the sliding wedge driven by a screw, so that even the strongest pull cannot move the cable. Heavy brass, finished in polished chrome.

Cat. No. SCQ3—Side Cable Outlet—	NET \$.45
----------------------------------	------------



CCC3 CAP AND CHAIN

Protects against dirt and tampering. For use on plugs, chassis, or wall outlet.

Cat. No. CCC1—Fits MC and PC Single Conductor Connectors— $\frac{3}{8}$ -27 thread—	NET \$.30
Cat. No. CCC3—Fits MC and PC Connectors— $\frac{3}{8}$ -27 thread—	.30
Cat. No. CCC8—Fits Octal Connectors—1.380-20 thread—	.30



PM4 CABLE CONNECTORS, MALE

Same construction as the Female PF series but uses regular Chassis Type AMPHENOL Plug.

PM4 — 4 prong	NET \$.15
PM5 — 5 prong	.15
PM6 — 6 prong	.15
PM7 — 7 prong small	.15
PM8 — 8 prong octal	.17
PM9 — 9 prong octal	.17
PM11—11 prong octal	.18



PF4 CABLE CONNECTORS, FEMALE

Made of our regular AMPHENOL sockets, snugly covered by a steel cap that fits tightly but may be pried with an ordinary screw driver. Cover is $\frac{1}{16}$ " in height, black japanned. A rubber grommet protects the cable from rubbing. Metal cover shields connections and provides an unbreakable cable terminal. Small and sturdy.

PF4—4 prong	NET \$.15
PF5—5 prong	.15
PF6—6 prong	.15
PF7—7 prong small	.15
PF8—8 prong octal	.17
PF9—9 prong octal	.17



RPH RUBBER PLUG HANDLE

Fits snugly over all PF and PM style connector plug caps. For easy removal of plugs in recessed or hard-to-get-at positions. Made of tough, flexible rubber. Has an inner molded ring which snaps into the groove of the cable connector cap. Will not come off accidentally.

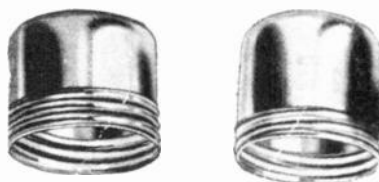
Cat. No. RPH—Rubber plug handle—	NET \$.09
----------------------------------	------------

IT'S EASY TO PARK AT WALTER ASHE . . .



08F CABLE TYPE, FEMALE
Carries Coupling Threads **NET**

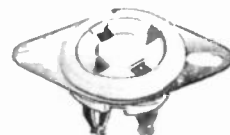
Cat. No. 04F—4 contact RMA type—	\$.75
Cat. No. 05F—5 contact RMA type—	..
Cat. No. 06F—6 contact RMA type—	..
Cat. No. 08F—8 contact Octal type—	..
Cat. No. 012F—12 contact Octal type—	1.20



C-CAB CONNECTOR COVERS

A threaded steel shell, consisting of a male and female section. These shielding shells can be slipped over our regular Cable Connectors to lock the two sections together. Eliminates embarrassing pull-aparts. By using soft rubber washers these shells can be made moisture proof for outside installations.

Cat. No. C-CAB—Shells Only—
NET PER PAIR \$3.15



RSS4 STEATITE SOCKET

This AMPHENOL STEATITE SOCKET is superior to other sockets because of its exceptionally high electrical resistivity and extremely low moisture absorption. Breakage is practically eliminated because the metal adapter plate takes the full strain of riveting or mounting. The steel plate can be screwed or riveted to the panel, or can be mounted above the panel, or directly into the chassis. Contacts made of brass alloy, silver-plated for better conductivity. For above or below chassis mounting specify ACS shell. AMPHENOL Glazed Steatite Socket: Diameter 1 1/4 inch, thickness 3/8 inch, mounted in a Cadmium plated steel adapter plate with slotted holes for 1/2 to 2 inch mounting centers. (Individually boxed.)

NET

Cat. No. RSS4 —4 contact	\$.24
Cat. No. RSS5 —5 contact	..
Cat. No. RSS6 —6 contact	..
Cat. No. RSS7S—7 contact small	..
Cat. No. RSS7L—7 contact large	.30
Cat. No. RSS8 —8 contact octal	.24



08M CABLE TYPE, MALE
Carries Coupling Ring **NET**

Cat. No. 04M—4 prong RMA type—	\$.75
Cat. No. 05M—5 prong RMA type—	..
Cat. No. 06M—6 prong RMA type—	..
Cat. No. 08M—8 prong Octal type—	..
Cat. No. 012M—12 contact Octal type—	1.20



C-CMA (CHASSIS TYPE)

Same design as the cover listed above, except the male threaded portion fits under the flange of an AMPHENOL Socket, which holds it to the chassis. Screwing both parts together, the Cable Connector which it encloses is shielded and held in place to prevent accidental removal.

Cat. No. C-CMA—Shells Only—
NET PER PAIR \$3.15



RS6 REPLACEMENT SOCKET

A socket for the service man, amateur and experimenter. Same as our regular type S, listed opposite, but comes set in a cadmium plated steel adapter plate that fits any rivet hole spacing from 1 1/2 to 2 inches. The adapter plate may be removed and the socket becomes type "S" unit. Rubber washers, or grommets, under the adapter plate will generally remove tube microphonics caused by mechanical or audio vibration.

NET

Cat. No. RS4 —4 contact	\$.07
Cat. No. RS5 —5 contact	..
Cat. No. RS6 —6 contact	..
Cat. No. RS7S—7 contact small	..
Cat. No. RS7L—7 contact large	.09
Cat. No. RS7C—7 contact comb.	..
Cat. No. RS8 —8 contact octal	.11
Cat. No. RS9 —9 contact octal	..



P08F CHASSIS TYPE, FEMALE **NET**

Keyed chassis hole required 1 1/4" dia.

Cat. No. P04F—4 contact RMA type—	\$.75
Cat. No. P05F—5 contact RMA type—	..
Cat. No. P06F—6 contact RMA type—	..
Cat. No. P08F—8 contact Octal type—	..
Cat. No. P012F—12 prong Octal type—	1.20



CC4 CABLE CLAMP

Used with PF and PM series of connectors. Just remove the rubber grommet, slip this grip into place and tighten the screws against the cable. Positive and dependable. Punched from steel cadmium plated. Fits any size cable up to 1/2".

Cat. No. CC4— **NET \$3.06**



RCP5 REPLACEMENT PLUG

Same mounting as our Replacement socket, using the chassis type plug **NET**

Cat. No. RCP4 — 4 prong	\$.07
Cat. No. RCP5 — 5 prong	..
Cat. No. RCP6 — 6 "prong"	..
Cat. No. RCP7 — 7 prong	..
Cat. No. RCP8 — 8 prong octal	.09
Cat. No. RCP9 — 9 prong octal	.11
Cat. No. RCP11—11 prong octal	.15

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

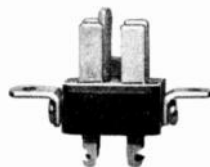
HOWARD B. JONES PLUGS AND SOCKETS



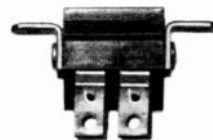
P-4-CCT



S-4-CCT



P-4-AB 1/16"



S-4-AB



P-303-FHT



S-302-FHT



P-302-AB



S-303-AB

HEAVY DUTY

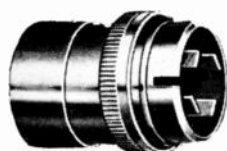
TYPE	NET	TYPE	NET	TYPE	NET	TYPE	NET
P-2-CCT	\$.37	S-2-CCT	\$.37	P-2-AB-1/16	\$.27	S-2-AB	\$.30
P-4-CCT	.45	S-4-CCT	.51	P-4-AB-1/16	.31	S-4-AB	.36
P-6-CCT	.54	S-6-CCT	.60	P-6-AB-1/16	.36	S-6-AB	.42
P-8-CCT	.63	S-8-CCT	.72	P-8-AB-1/16	.39	S-8-AB	.48
P-10-CCT	.72	S-10-CCT	.81	P-10-AB-1/16	.43	S-10-AB	.54
P-12-CCT	.78	S-12-CCT	.91	P-12-AB-1/16	.48	S-12-AB	.60

NEW JONES "300" SERIES MIDGETS

THE NEW "300" SERIES OF JONES PLUGS AND SOCKETS IS ESPECIALLY DESIGNED FOR THE BUILDER, EXPERIMENTER, PUBLIC ADDRESS MAN OR ANYONE WHO WANTS A HIGH GRADE PLUG OR SOCKET AT A VERY REASONABLE PRICE. ALL TYPES ARE POLARIZED, AND CANNOT BE INTERCHANGED BY MISTAKE. MOULDED BAKELITE INSULATION. FORMED METAL CAPS WITH FIBRE LINING INSULATION. FINISH ON CAPS, BLACK CRACKLE.

TYPE	NET	TYPE	NET	TYPE	NET	TYPE	NET
P-302-FHT	\$.12	S-302-FHT	\$.13	P-302-AB	\$.09	S-302-AB	\$.09
P-303-FHT	.13	S-303-FHT	.14	P-303-AB	.10	S-303-AB	.11
P-304-FHT	.15	S-304-FHT	.16	P-304-AB	.12	S-304-AB	.13
P-306-FHT	.18	S-306-FHT	.21	P-306-AB	.15	S-306-AB	.17
P-308-FHT	.21	S-308-FHT	.24	P-308-AB	.18	S-308-AB	.20
P-310-FHT	.26	S-310-FHT	.30	P-310-AB	.21	S-310-AB	.24
P-312-FHT	.29	S-312-FHT	.33	P-312-AB	.24	S-312-AB	.28

NUMERAL IN CODE INDICATES NUMBER OF CONTACTS PER UNIT.



92-4M



92-4C



87-A



92-4F

NEW HEAVY DUTY POWER PLUGS..STURDY..COMPACT..DEPENDABLE

A tough, very compact, metal clad connector specially designed for heavy duty portable installations. Rated at 15 Amps. 250 Volts. The insulation is Amphenol molded bakelite. Contacts are of the flat blade type, ample for heavy current carrying, and wires can be either soldered or held with binding screws. Contacts are numbered on both sides to identify circuits. The drawn brass shell is sufficiently rugged to withstand hard abuse. Coupling ring supplied on the male connector's screws over the threads of the female connector so that accidental disconnections are eliminated. Metal shells are provided with polarizing key to prevent incorrect insertion. An inconspicuous gasket cap encloses the cable clamp, which prevents twisting or pulling of the cable in such a way as to place a strain on the contacts. A rubber gasket inside of this gasket cap seals same against entrance of water or foreign matter. The male or female bakelite elements are interchangeable in the metal shells. The entire assembly can be mounted in the wall plate shown, or in conduit boxes.

Cat. No. 92-4M—Male Connector NET \$ 1.80
 Cat. No. 92-4F—Female Connector " " " "
 Cat. No. 92-4C—Chassis Type Connector, will accommodate either male or female elements, and fits into a 1-1/4" hole. It is supplied with washers and hex nut, and can be fitted to panels from 1/16" to 1/2" thick. NET \$ 1.80
 Cat. No. 84-92C—Wall Plate, made from .040" brass in polished chrome finish and struck-up beveled edge. Has hole punched to fit No. 92-4C Chassis Type Connector. NET \$.60
 Cat. No. 87-A—Connector Chain and Cap. This screws on to chassis type connector No. 92-4C so that when used as a wall outlet, live connections are completely covered. The cap is held with a bead chain, usually fastened to the mounting screw on the wall plate. NET \$.30

Each Connector packed separately with complete instructions.

IT'S EASY TO PARK AT WALTER ASHE...

1100 Pine Street

St. Louis, Missouri

MALLORY
YAXLEY

Phone Plugs • Microphone Plugs • Extension Jacks



DESCRIPTION	NO.	NET
TWO-WAY PHONE PLUG (BAKELITE SHELL)	75	\$.30
TWO-WAY PHONE PLUG (SHIELDED NICKEL SHELL)	75A	1.35
THREE-WAY MICROPHONE PLUG (BAKELITE SHELL)	76	.60
THREE-WAY MICROPHONE PLUG (SHIELDED NICKEL SHELL)	76A	1.50
TWO-WAY EXTENSION JACK (FIBRE SHELL)	100	.45
TWO-WAY EXTENSION JACK (SHIELDED NICKEL SHELL)	100A	1.50
THREE-WAY EXTENSION JACK (FIBRE SHELL)	101	.90
THREE-WAY EXTENSION JACK (SHIELDED NICKEL SHELL)	101A	1.65


#100-A
#101-A

#75-A
#76-A

#75
#76

#100
#101


#310 PILOT LIGHT BRACKET
AND SOCKET. COLORS, RED
GREEN AND AMBER.
NET, LESS BULB \$.18



#330 HOOD TYPE PILOT LIGHT
BRACKET AND SOCKET.
NET EACH LESS BULB \$.30

Moulded Twin Tip Jacks



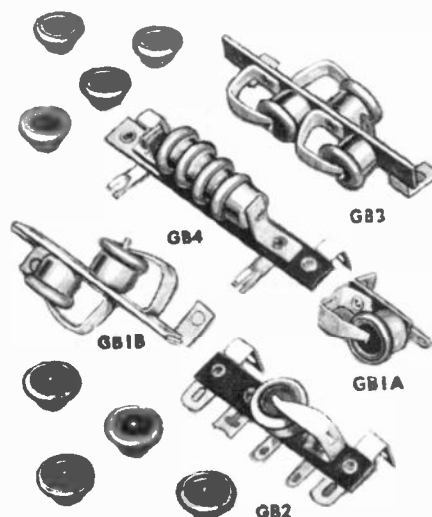
No. 432



No. 401

MOUNTING HOLES 7/8" CENTERS.
#401 IS A TWIN TIP JACK, AND
#432 IS A TWIN TIP JACK WHICH
CLOSES CIRCUIT AUTOMATICALLY
WHEN TIPS ARE REMOVED.
NET, EITHER TYPE \$.18

Grid Bias Cell Cell Holders



BIAS CELLS ARE NOW AVAILABLE IN
TWO TYPES, THE ORIGINAL 1 VOLT
CELL AND THE NEW 1 1/2 CELL. NEW
TYPE MAY BE DISTINGUISHED BY THE
CONCAVE DEPRESSIONS IN THE SHELL
AND ELECTRODE.
EITHER TYPE NET \$.18

GB1A HOLDER	NET	.06
GB2	"	.09
GB1B	"	.12
GB3	"	.15
GB4	"	.21

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

INSULATED PHONE TIP JACKS

BIRNBACH



CONSTRUCTED WITH A HEAVY PHOSPHOR BRONZE CONTACT. MOUNTS IN 3/8" HOLE. AVAILABLE IN EITHER RED, BLACK, YELLOW OR GREEN.

NO. 407.....NET EA. \$.06

INSULATED BANANA JACKS

BIRNBACH



FITS ANY TYPE OF BANANA PLUG. FINE CONSTRUCTION GIVES GOOD CONTACT AND LONG LIFE. AVAILABLE IN EITHER RED, BLACK GREEN OR YELLOW.

NO. 406.....NET EA. \$.06

PHONE TIP JACKS

BIRNBACH



SOLID BRASS NICKLE PLATED. EXCELLENT SPRING CONTACT FOR NOISE FREE CONNECTIONS MOUNTS IN 3/8" HOLE.

NO. 26.....NET EA. \$.04

Insulated Giant Jack

BIRNBACH



HEAVY DUTY INSULATED PLUG. BAKELITE SHELL IS 9/16" O.D. FLUSH PANEL MOUNTING. MOUNTS IN 3/8" HOLE. MADE FOR DIATHERMY OR ANY WORK WHERE HEAVY CURRENT PASSES. AVAILABLE IN EITHER RED OR BLACK.

NO. 393.....NET \$.24

Insulated Giant Plug

BIRNBACH



THIS PLUG IS A MATE TO THE NO. 393 JACK. INSULATED HANDLE IS 3/4" BY 1-7/8" LONG. OVERALL LENGTH IS 3". AVAILABLE IN RED OR BLACK

NO. 392.....NET EA. \$.3

BANANA TEST PRODS

AMERICAN RADIO HDW.



BANANA TEST PROD IDEAL FOR MAKING UP JUMPER CONNECTIONS, SMALL TEST PRODS ETC. HANDLE IS 1-1/2" LONG EITHER RED OR BLACK

NO. 151 5" HANDLE NET.. \$.24
NO. 134 3" " " .18
NO. 135 1-1/2" " " .15

INSULATED SOLDERLESS PHONE TIP

BIRNBACH



HEAVY BRASS TIP AND SHOULDER WITH INSULATED SLEEVE ESPECIALLY MADE FOR TEST PROD ENDS. AVAILABLE IN RED, BLACK, GREEN OR YELLOW

NO. 409.....NET EA. \$.07

PHONE TIP PLUG

BIRNBACH



SAME DESCRIPTION AS THE NO. 409 EXCEPT THERE IS NO ADDITIONAL METAL SHOULDER ON TIP AVAILABLE IN RED, GREEN, BLACK, YELLOW.

NO. 415.....NET EA. \$.07

INSULATED BANANA PLUG

BIRNBACH



SPECIAL REINFORCED SPRING CONTACT PLUG NO SOLDER TYPE. 1" LONG INSULATING SLEEVE. DESIGNED FOR THE NO. 406 JACK. AVAILABLE IN YELLOW, RED, BLACK OR GREEN.

NO. 404.....NET EA. \$.09

SR. SOLDERLESS PHONE TIP

BIRNBACH



SENIOR SOLDERLESS PHONE TIP WITH SHANK. WILL FIT THE NO. 407 JACK.

NO. 24.....NET EA. \$.04

JR. SOLDERLESS PHONE TIP

BIRNBACH



JUNIOR SOLDERLESS PHONE TIP JACK. SAME DESCRIPTION AS THE NO. 24 BUT HAS NO EXTRA TIP SHANK.

NO. 23.....NET EA. \$.03

PHONE TIPS STANDARD

BIRNBACH



HEAVY SOLDER TYPE PHONE TIP. BRASS NICKLE PLATED FITS THE NO. 407 JACK

NO. 402.....NET EA. \$.01

SMALL ALLIGATOR TESTING CLIPS

BIRNBACH



NICKLE PLATED STEEL. IDEAL FOR ALL TYPES OF WORK WHERE A SMALL AND NARROW CLIP IS REQUIRED.

NO. 31.....NET EA. \$.04

SOLDERLESS TEST PRODS



The prod tips unscrew from the Ameroid handles. A knurled collar is provided on tip for securing wire without soldering. Wires easily and quickly attached by this method. Tip is sufficiently sharp to pierce thru corrosion and insulation. The insulated Ameroid handles will withstand any voltage commonly met with in radio service and public address work.

AVAILABLE IN EITHER RED OR BLACK HANDLES

NO. 145 HANDLE 5-1/2" LONG.....NET EA. \$.15

NO. 149 HANDLE 7" LONG..... .18

PHONE NEEDLE PROD HANDLES

These Prod Handles are constructed so that a standard phonograph needle fits into the chuck. A soldered connection can be made to the tip by merely unscrewing it from the Ameroid handle. The needle point makes positive connection when forced thru heavy insulation or corrosion.

AVAILABLE IN EITHER RED OR BLACK HANDLES

NO. 153 HANDLE 4-1/2" LONG.....NET EA. \$.15

NO. 155 HANDLE 5-1/2" LONG..... .18

INSULATED ALLIGATOR CLIPS

AMERICAN RADIO HDW.



THIS CLIP EMBODIES THE SAME FEATURES AS THE NO. 31 PLUS A 1" INSULATING SHANK. AVAILABLE IN EITHER RED OR BLACK

NO. 129.....NET EA. \$.09

STANDARD TEST LEADS

A sr. solderless phone tip is fitted to a red and black insulated handle 4" long. This permits replacement of wire when broken. The wire is secured by tightening the knurled nut. Available with either phone tips or spade lugs. Length overall 50"

No. NET
422—Solderless Phone Tip Prods and Phone Tips \$.36
423—Solderless Phone Tip Prods and Spade Lug .36



NEEDLEPOINT TEST LEADS

These test leads have a 4" insulated handle in black and red. A phonograph needle point chuck is fitted to the handle. Needles can be replaced when broken simply by loosening the knurled collar. Available with either phone tips or spade lugs. Length overall 50"

No. NET
420—Needlepoint Prods and Phone Tips \$.36
421—Needlepoint Prods and Spade Lugs .36



IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

Approved PRECISION

MALLORY
YAXLEY

RADIO

PRODUCTS

Midget Replacement Controls

Now your problem of how to make a wide range of volume control replacements quickly and economically is definitely solved.

Through the development of the new Mallory-Yaxley Midget Volume Controls (Types UM and TM) and the introduction of the new Mallory-Yaxley Plug-In Shaft (Type SS), Mallory-Yaxley offers a great advance in volume control servicing.

Mallory-Yaxley Midget Volume Controls have flexibility—adaptability—universality—and attachable switches where necessary. But—overhauling all these advantages is the Mallory-Yaxley Plug-In Shaft!

A single set of Mallory-Yaxley Plug-In Shafts multiplies the usefulness of any one of these controls by 17—or more.

For example—10 new Mallory-Yaxley Midget Controls plus 17 shafts give you the service-

ing equality of 170 ordinary Exact Replacement Controls with fixed shafts. Now—let's go a step further! Multiply seventeen or more exact replacement possibilities by the fifty-six known basic type controls. To cover such a service range with fixed shafts (so-called "specialties") would mean you would need one each of 952 individual controls. Mallory-Yaxley Midget Volume Controls with Plug-In Shafts provide the same service stock with only 56 controls and 17 Plug-In Shafts.

The line of MR Midget Controls will be found satisfactory for many applications where special shafts and couplings are unnecessary.

For complete details are your distributor or the Mallory-Yaxley Radio Service Encyclopedia, 2nd Edition, for correct replacement control recommendations by make of set and model number of over 17,000 receivers.

Midget Tapped Controls, Type TM

Complete with selection of SS Shaft desired. In placing order, be sure to specify the Mallory-Yaxley SS Type Plug-In Shaft desired. For example "UM122 with SS4."

Res. Value	Tap at	Tapover	Catalog Number	NET
250M	50M	5	TM219*	.75 .90
250M	50M	5	TM220	
250M	125M	5	TM221	
250M	125M	5	TM222*	.75 .90
250M	75M	5	TM225	
500M	5M	6	TM226	
500M	125M	5	TM229*	.75 .90
500M	125M	5	TM230	
500M	250M	5	TM231	
1 Meg.	250M	5	TM232*	.75 .90
1 Meg.	200M	5	TM240	
1 Meg.	200M	5	TM241*	
1 Meg.	450M	5	TM242*	.75 .90
2 Meg.	500M	5	TM243	
2 Meg.	5M	6	TM245	
2 Meg.	25M	5	TM246	.75 .90
2 Meg.	50M	5	TM247	
2 Meg.	200M	5	TM248	
2 Meg.	500M	5	TM249	.75 .90
2 Meg.	1 Meg.	5	TM251	
2 Meg.	1 Meg.	5	TM252*	
2 Meg.	1.5 Meg.	Spec.	TM253	.75 .90
3 Meg.	1 Meg.	1	TM257	

Special Midget Dual Controls with Fixed Concentric Shaft and Switch

Res. Value	Res. Value	Tap at	Catalog Number	NET
2 Meg.	2 Meg.		SMD350	1.80
2 Meg.	1 Meg.	Front 500M	SMD501	
250M	1 Meg.	Rear 250M	SMD502	

*Clutch type controls—no provision for attachable switch. †Right hand switch action.

Midget Attachable Switches

Where necessary, UM, TM and MR controls are designed with switch contact and cam to accommodate attachable switches. A complete line of exclusive Mallory-Yaxley Midget Control Switches are available in the following types and circuits:

Cat. No.	Circuit Arrangement	NET
M-26	Single-Pole, Single-Throw	.30
M-27	Double-Pole, Single-Throw	.36
M-28	Single-Pole, Double-Throw	.36
M-23	Three-Pole, Single-Throw, Shorting	.11
M-21	Four-Pole, Single-Throw, Shorting	.11

Catalog Number	NET
Attachable Volume Control Switches:	
Single-Pole—Single-Throw	.30
Double-Pole—Single-Throw	.36
Single-Pole—Double-Throw	.36
Three-Pole—Single-Throw, Shorting	.11
Four-Pole—Single-Throw, Shorting	.11

Standard Universal Single Controls

Ohms Resistance	Type	General Use	Type Element	Catalog Number	NET
2	IV	Filament	W W	U	.60
6	IV	Filament	W W	R	
10	IV	Filament	W W	S	
20	IV	Filament	W W	T	.60
30	IV	Filament	W W	I	
60	IV	Filament	W W	V	
100	IV	Mike	W W	A	.60
200	IV	Mike	W W	B	
100	IV	Mike	W W	C	
500	IV	Ant. Shunt	W W	D	.60
500	IV	Ant. Shunt	W W	E	
500	IV	Ant. Shunt	W W	F	
1M	IV	Voltage Divider (Bias)	W W	G	.60
1M	IV	Ant. or Pri. Shunt	W W	H	
1M	IV	Ant. or Pri. Shunt	W W	I	
2M	IV	Voltage Divider (Bias)	W W	J	.60
2M	IV	Ant. or Pri. Shunt	W W	K	
2M	IV	Ant. or Pri. Shunt	W W	L	
5M	IV	Voltage Divider	W W	M	.60
5M	IV	Ant. or Pri. Shunt	W W	N	
5M	IV	Ant. or Pri. Shunt	W W	O	
10M	IV	Voltage Divider	W W	P	.60
10M	IV	Ant. or Pri. Shunt	W W	Q	
10M	IV	Ant. or Pri. Shunt	W W	R	
10M	IV	Voltage Divider (Bias, Screen)	Carbon	S	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	T	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	U	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	V	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	W	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	X	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	Y	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	Z	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AA	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AB	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AC	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AD	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AE	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AF	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AG	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AH	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AI	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AJ	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AK	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AL	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AM	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AN	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AO	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AP	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AQ	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AR	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AS	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AT	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AU	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AV	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AW	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AX	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AY	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	AZ	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BA	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BB	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BC	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BD	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BE	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BF	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BG	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BH	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BI	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BJ	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BK	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BL	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BM	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BN	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BO	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BP	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BQ	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BR	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BS	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BT	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BU	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BV	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BW	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BY	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	BZ	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CA	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CB	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CC	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CD	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CE	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CF	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CG	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CH	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CI	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CJ	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CK	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CL	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CM	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CN	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CO	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CP	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CQ	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CR	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CS	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CT	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CU	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CV	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CW	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CX	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CY	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	CZ	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DA	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DB	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DC	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DD	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DE	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DF	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DG	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DH	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DI	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DJ	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DK	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DL	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DM	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DN	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DO	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DP	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DQ	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DR	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DS	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DT	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DU	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DV	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DW	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DX	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DY	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	DZ	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EA	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EB	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EC	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	ED	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EE	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EF	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EG	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EH	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EI	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EJ	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EK	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EL	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EM	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EN	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EO	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EP	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EQ	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	ER	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	ES	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	ET	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EU	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EV	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EW	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EX	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EY	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	EZ	.60
10M	IV	Ant. Shunt or Ant. Bias	Carbon	FA	
10M	IV	Ant. Shunt or Ant. Bias	Carbon	FB	

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

BURGESS BATTERIES

TYPE NO.	VOLTAGE	WEIGHT	STANDARD PACKAGE	LIST EACH	NET EACH	NET EACH CASE LOT
----------	---------	--------	------------------	-----------	----------	-------------------

"A" BATTERIES

NO. 1	1 $\frac{1}{2}$	2 OZ.	12	\$.10	\$.07	\$.06 $\frac{1}{2}$
NO. 2	1 $\frac{1}{2}$	3 $\frac{1}{2}$ "	50	.10	.07	.06 $\frac{1}{2}$
4FH	1 $\frac{1}{2}$	1-6 OZ.	20	.38	.29	.26
4FA	1 $\frac{1}{2}$	1-6 "	20	.45	.33	.30

"B" BATTERIES

4156	22 $\frac{1}{2}$	1 LB.	4	.75	.56	.51
5156	22 $\frac{1}{2}$	1-9 OZ.	4	.90	.67	.61
5308	45	3 $\frac{1}{2}$ LB.	5	1.50	1.14	1.04
2308	45	7 $\frac{1}{2}$ "	6	1.85	1.39	1.26
Z3ONX	45	1 $\frac{1}{2}$ "	6	2.20	1.50	1.35
X30FL	45	13 OZ.	6	2.60	1.75	1.57
10308	45 H.D.	11 $\frac{1}{2}$ LB.	6	2.55	1.90	1.73
21308	45 H.D.	13 "	6	3.20	2.22	2.09

"C" BATTERIES

2370	4 $\frac{1}{2}$	1 LB.	10	.40	.30	.27
5360	4 $\frac{1}{2}$	5 OZ.	4	.40	.31	.28
5540	7 $\frac{1}{2}$	9 OZ.	4	.65	.48	.44
A8BP	9	SPECIAL R.C.A. AMPLIFIER			.69	

ALL BATTERIES GUARANTEED FRESH STOCK. ONLY UNIFORMLY HIGH CAPACITY CELLS USED IN ALL BURGESS BATTERIES. LONG LIFE, QUIET OPERATION. ANY BURGESS BATTERY NOT LISTED CAN BE ORDERED AND QUICKLY DELIVERED.



4FH
4FA



2370
5540



4156



X30FL



5360



2308
10308
21308



5308



NO. 1
NO. 2



5156



Z3ONX

IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY

25

1100 Pine Street

St. Louis, Missouri

DIAL DRIVE RUBBERS

FOR ALL SETS INCLUDING RCA
ATWATER KENT, STEWART WAR-
NER. NET EACH \$.05

RUBBER MOUNTING FEET

WILL TAKE EITHER MACHINE OR
WOOD SCREW, NET EACH \$.02

BLACK RUBBER GROMMETS



SIZE	HOLE	EACH	NET
1/8	INCH	\$.01	10 to 100
3/16	"	.01	10 to 100
1/4	"	.01	10 to 100
3/8	"	.01	10 to 100
7/16	"	.01	10 to 100



EBY INSULATED BINDING POSTS
FITTED WITH 6/32 HARDWARE
YOUR COST EA. \$.09



ALL METAL BINDING POSTS
YOUR COST EA. \$.06



GLOVE-TITE TUBE SHIELDS

SUPPLIED COMPLETE WITH
CLAMP RING AND MOUNTING
BASE CONNECTOR.

FOR TUBES SIMILAR TO 24A, 58'S
OR 56'S AND 27'S.

YOUR COST ALL SIZES \$.10

For 55, 57, 58 Tubes
Improved Non-Rattle
Type

Available in either
aluminum or radio
metal material. Ventil-
ated shell has three
formed ribs which press
against side of tube to
hold it rigidly—damp-
ens vibration and micro-
phonic disturbances.
Three sizes mounting
centers for all popular
socket dimensions. Cap
height 1 1/4". Shell Di-
ameter 1 1/4". Overall
height assembled 4 1/2".



Aluminum Straight Side Shields

Constructed of finest
aluminum and will fit all
standard screen grid tubes
of the '24 variety. Also
ideal for shielding of
home made beat note os-
cillator coils with control
coming through top. Di-
ameter 2 1/4". Height 4 1/2".
Has 3/8" hole in top for
grid cap or control shaft.

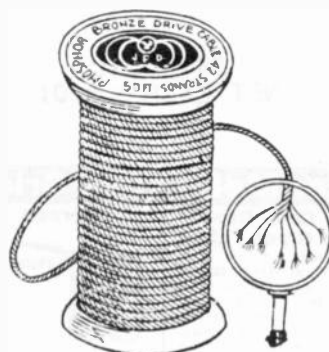
Has slotted base, fitting
mounting centers of all
standard wafer type
sockets.



NET EA. \$.15

Dial Cable

PHOSPHOR BRONZE AND LINEN DIAL CABLE



42 STRAND PHOSPHOR BRONZE CABLE. SAME
AS USED ON 95% OF ALL SETS. EASY TO
SOLDER, VERY STRONG AND FLEXIBLE.

NET PER FOOT, ONE TO 10 FT. \$.05
10 TO 25 FEET, PER FT. .04
50 FOOT ROLL NET, 1.35

#3 BLACK LINEN DIAL CORD, SAME AS USED
ON SILVER MARSHALL, PHILCO, BRUNSWICK
AND OTHERS.

NET PER FOOT, \$.05

#4 BLACK LINEN DIAL CORD, SAME AS USED
ON R.C.A., SONORA AND OTHERS. SAME TYPE
AS #3 BUT SMALLER IN SIZE.

NET PER FOOT, \$.05

EXTRA HEAVY DIAL CORD SAME AS USED ON
KOLSTER, GREBE AND OTHERS WHERE STRONG
CABLE IS REQUIRED.

NET PER FOOT, \$.05

PHOSPHOR BRONZE DIAL BELTING SAME AS
USED IN ATWATER KENT, COLONIAL AND
MANY OTHERS. 3/16 WIDE X .005 THICK.

NET PER FOOT, \$.05



EXACT DUPLICATE DIAL CABLES MADE UP

	NET	\$
MAJESTIC 70 SERIES,		.15
KOLSTER K-20, K-45,	"	.24
KOLSTER 43, 44,	"	.30
KOLSTER 6J, 6K,	"	.24

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

Fahnestock Spring



#41 CLIP
NET EACH \$.01

Glass or Metal Tube Grid Caps

Combination Grid Caps, Tests Metal or Glass Tubes



Insulated. Small end for the New Metal tubes, large end for the old type glass tubes. Both have brass cadmium plated metal grid cap on inside. Complete with 12" lead with phone tip.

EACH 12c

Insulated Grid Caps

For standard and 866 Type Tubes. for standard tubes with 12" plain wire lead.

EACH 7c



for 866 Type tubes, 12" wire lead with solderless phone tip and insulated handle.

EACH 18c

Metal Tube Grid Caps



Constructed so the prongs fit over cap of metal tube with a positive contact. Bead edge side wiping contact keeps tube cap clean and results in perfect contact. Cadmium plated.

Each 1c

Screen Grid Caps



Tinned spring caps for making connection to the control grid terminal of screen grid tubes. Makes a sure wiping contact.

Price Each.... 1c

Easy Soldering Grid Cap

Made of brass; Cadmium plated. Fits tubes. Wires easily inserted as recommended for the screen-grid tubes.



YOUR COST... 1c

MIDGET FUSE CLIPS



These fuse clips are brass nickel plated and are made to take the standard radio type fuse. They are ideal for radio and automobile. The size is 1/4" wide, 3/8" high, takes a 1/4" fuse.

NET EACH, \$.01

SPAGHETTI FLEXIBLE VARNISHED TUBING



An insulated covering for bus bar wire as protection against contact with other wires. Flexible and guaranteed not to crack. Furnished in 30" lengths for No. 10 to No. 18 wires,

FURNISHED IN RED, GREEN, YELLOW AND BLACK.

PER 30" LENGTH NET \$.09

LARGE SPECIAL VARNISHED TUBING
1/4" DIAMETER RED AND BLACK
PER 30" LENGTH .21

"PANTHER" HIGH QUALITY FRICTION TAPE.

3/4 INCH WIDE, 1/2 LB.

NET PER ROLL, \$.20



FUSES

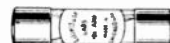
"INSTRUMENT LITTELFUSES"

ESPECIALLY DESIGNED FOR PROTECTION OF DELICATE EQUIPMENT SUCH AS GALVANOMETERS, MILLIAMMETERS, RADIO CIRCUITS ETC.

AMPERE RATING

NET

1/200	\$.18
1/100	.12
1/32	.12
1/16	.12
1/8	.09
1/4	.09
3/8	.09
1/2	.09
3/4	.09
1.0	.06
2.0	.06



INSTRUMENT LITTELFUSE
Showing "Locked" Cap Assembly



RADIO RECEIVER FUSES

3 AG 250 VOLT

AMPERES NET EACH NET BOX OF 5

1	\$.05	\$.21
2	.05	.21
3	.05	.21
5	.03	.15
10	.02	.10
15	.02	.10
20	.02	.10
25	.03	.15
30	.03	.15

SINGLE AND DOUBLE FUSE MOUNTINGS



These Fuse Holders are made so that they will fit standard types of fuses on radios and automobiles. A lug is mounted under each fuse clip for soldering connection. Center hole of mountings are tapped for 8-32 screw. Available in the single and double type. Made of Ameroid material for insulating purposes.

#103 SINGLE TYPE
#127 DOUBLE TYPE

NET \$.09
" .15

"LITTELFUSE" MOUNTINGS



#1010



#1062

#1010 SINGLE MOUNTING, NET \$.09

#1062 FUSIBLE BIND. POST, .45

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

OFFSET SOCKET WRENCHES



Net 18¢

- No. 106—7" Long 3/16" Offset 3/16" Hexagon Nuts
- No. 107—7" Long 1/4" Offset 1/4" Hexagon Nuts
- No. 108—7" Long 5/16" Offset 5/16" Hexagon Nuts
- No. 109—7" Long 3/8" Offset 3/8" Hexagon Nuts
- No. 110—7" Long 7/16" Offset 7/16" Hexagon Nuts
- No. 111—7" Long 1/2" Offset 1/2" Hexagon Nuts

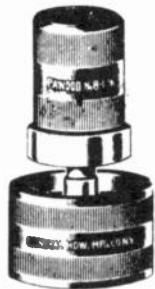
SPIN TYPE SOCKET WRENCHES



6" Net 15¢

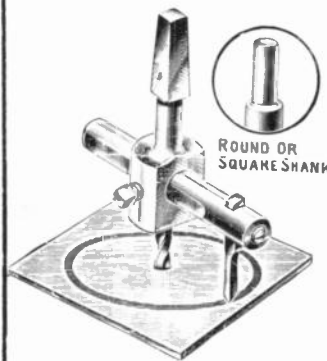
- No. 48—6" Long 3/16" Size Spin Type for 3/16" Hexagon Nut.
- No. 50—6" Long 1/4" Size Spin Type for 1/4" Hexagon Nut
- No. 51—6" Long 5/16" Size Spin Type for 5/16" Hexagon Nut
- No. 46—6" Long 11/32" Size Spin Type for 11/32" Hexagon Nut.
- No. 52—6" Long 3/8" Size Spin Type for 3/8" Hexagon Nut
- No. 53—6" Long 7/16" Size Spin Type for 7/16" Hexagon Nut
- No. 49—6" Long 1/2" Size Spin Type for 1/2" Hexagon Nut

PAWOOD SHEET METAL PUNCHES



FOR SOCKET AND
CONDENSER HOLES

3/4"	NET	\$	1.85
7/8			1.85
1 3/16			1.99
1 1/4			1.99
1 3/8			1.99



JUMBO No. 5
HEAVY DUTY
PAWOOD CIRCLE CUTTER

YOUR COST \$ 1.85

EXTRA CUTTERS .24

Cuts holes easily and quickly from 1 inch to 5 1/2 inches diameter in Steel and other metals, Bakelite, Hard Rubber, Fibre, Hard Wood, Veneers, Plywoods, Etc.

KRAEUTER PLIERS

ELECTRICIANS' SIDE CUTTING PLIERS

Modified electricians' pliers with accurately fitted lap joint and hardened cutters.



NO.	LENGTH	NET
1381	7"	\$1.00

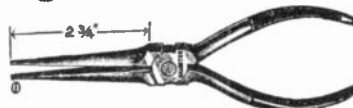
Diagonal Cutting Pliers



A sturdy diagonal plier for close cutting. Forged from finest special steel.

NO.	LENGTH	NET
6014-1/2	4 1/2"	\$1.13
6015	5"	1.20
6015-1/2	5 1/2"	1.31
6016	6"	1.39

Long Reach Flat Nose Pliers



Long, flat nose nicely tapered and beveled. Adaptable to all the uses a flat nose plier is put to, with the added advantage of an extremely long nose.

NO.	LENGTH	NET
7817	7"	\$1.24

Thin Nose Combination Pliers



A long, thin nose and tapered jaws combination pliers with milled teeth and wire cutter.

NO.	LENGTH	NET
2003	5"	\$.56
2003-6	6"	.64

Needle Nose Side Cutting Pliers



Slender nose; side cutting. A universal fine point tool.

NO.	LENGTH	NET
6616	6"	\$1.15

SCREW DRIVERS



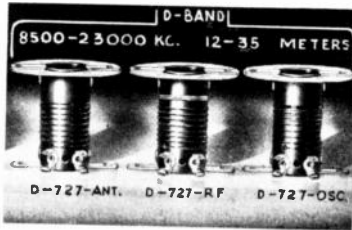
MIDGET TYPE WITH WELL INSULATED HANDLE AND CLIP. BLADE IS 2-1/4" LONG. MADE FOR RADIO KNOBS ETC.
NET PRICE.....\$.10

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

ALL WAVE COILS



Cat. No.	Purpose	List
Band X		
X-727-A	Antenna Coil.....	
X-727-RF	RF Coil.....	\$.75
X-727-C	Oscillator Coil, 465 KC I.F.	
X-727-M	Oscillator Coil, 132 KC I.F.	
Band A		
A-727-A	Antenna Coil.....	
A-727-RF	RF Coil.....	\$.60
A-727-C	Oscillator Coil, 465 KC I.F.	
Band B		
B-727-A	Antenna Coil.....	
B-727-RF	RF Coil.....	\$.60
B-727-C	Oscillator Coil, 465 KC I.F.	
Band C		
C-727-A	Antenna Coil.....	
C-727-RF	RF Coil.....	\$.60
C-727-C	Oscillator Coil, 465 KC I.F.	
Band D		
D-727-A	Antenna Coil.....	
D-727-RF	RF Coil.....	\$.60
D-727-C	Oscillator Coil, 465 KC I.F.	
Band E		
E-727-A	Antenna Coil.....	
E-727-RF	RF Coil.....	\$.60
E-727-C	Oscillator Coil, 465 KC I.F.	
Band S		
S-727-A	Antenna Coil.....	
S-727-RF	RF Coil.....	\$.60
S-727-C	Oscillator Coil, 465 KC I.F.	
Coil Shields and Switch		
L-727 2 1/8" Dia. x 4" Long		\$.24
Coil Shield		
S-727 2 1/8" Dia. x 2 1/2" Long		.15
Coil Shield		
No. 605 6 Pole, 5 Position Band		1.44
Switch		
No. 806 8 Pole, 6 Position Band		2.12
Switch		



No. 5480 Duo-Lateral Oscillator Coils

For use unshielded with .000365 mfd. variable condenser to cover the band from 540 to 1600 KC. Available for the following intermediate frequencies:

No. 5480-K for 175 KC	Requires .001 mfd. Series Pad.	\$.36
No. 5480-H for 262 1/2 KC	Requires .0006 mfd. Series Pad	.36
No. 5480-C for 465 KC.	Requires .0004 mfd. Series Pad	.36

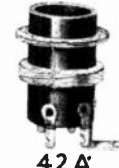
MILLER

SPECIAL MIDGET REPLACEMENT COILS FOR AC-DC AND ALL MIDGET RADIOS WHERE SPACE IS AT A PREMIUM.



20-A
Midget Type Solenoid Coils On Cardboard Forms

No. 20-A Antenna Coil	\$.21
No. 20-RF RF Coil	.21



42-A
High-Gain Midget Coils

The coils are for use with the standard .000365 mfd. variable condenser to cover the band from 540 to 1600 KC.

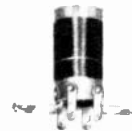
No. 42-A Antenna Coil	\$.42
No. 42-RF RF Coil	.42



OSCILLATOR COILS



277



477

Solenoid Oscillator Coils

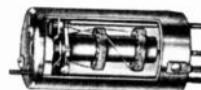
277 Series	
No. 277-K for 175 KC	\$.45
Requires .001 mfd. Series Pad.	
No. 277-C for 465 KC	\$.45
Requires .0004 mfd. Series Pad.	



274

Solenoid Oscillator Coils (Cathode Coupled Type)

274 Series	
No. 274-K for 175 KC	\$.51
Requires .001 mfd. Series Pad.	
No. 274-C for 465 KC	\$.51
Requires .0004 mfd. Series Pad.	
274 Type Coil with Shield 1 7/8" x 3"	



No. "CF" Crystal Filter Transformers — These transformers are sold in pairs for use in crystal filter circuits of amateur and commercial receivers. They replace the regular input transformer and are of the low impedance link coupled type.

NO. 412 PER PAIR NET \$2.40

RADIO FREQUENCY COILS



242-A



242-RF

No. 242-A, No. 242-RF Litz Bank-Wound Coils

For the designer or custom set builder who desires to employ the finest coils available, the bank-wound series coils are admirably suited

Supplied with shields 1 7/8" x 3". For use with a .000365 mfd. variable condenser to cover the band from 540 to 1600 KC.

No. 242-A Antenna Coil	\$.54
No. 242-BP Band-Pass Coil	.45
No. 242-RF RF Coil	.54
No. 277 Oscillator Coil (Available for all frequencies)	.45



No. 5480 ABP



No. 5480 RF



No. 5480 A

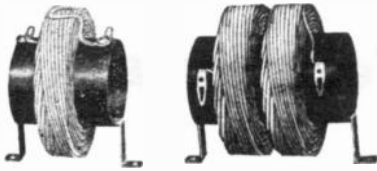
Duo-Lateral Wound Coils

No. 5480-A	Antenna Coil	\$.42
No. 5480-ABP	Ant.-Band-Pass Coil	.60
No. 5480-RF	RF Coil	.48

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri



Line Filter Chokes

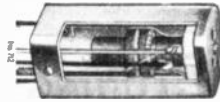
Single Duo-Lateral Wound Line Filter Chokes

		NET
No. 7825	Max. Current 2 Amps.	\$.60
No. 7826	Max. Current 5 Amps.	1.50
No. 7827	Max. Current 10 Amps.	1.95
No. 7828	Max. Current 20 Amps.	2.40
No. 7829	Max. Current 30 Amps.	3.00

Double Duo-Lateral Wound Line Filter Chokes

No. D7825	Max. Current 5 Amps.	2.25
No. D7827	Max. Current 10 Amps.	3.00
No. D7828	Max. Current 20 Amps.	3.60
No. D7829	Max. Current 30 Amps.	4.50

MILLER



NOISE SILENCER TRANSFORMERS

The MILLER No. 712 Series I. F. Transformers are of the tight-coupled single-tuned type with a center tapped secondary and their use is necessary for proper operation of the Noise Silencer described by James Lamb in "QST." These transformers are assembled in our standard 512 type shields $1\frac{1}{2}$ " sq. x $3\frac{1}{2}$ " long. When ordering please specify desired intermediate frequency.

Type No.	Description	NET
712	Noise Silencer Transformer...	\$.90



No. 812

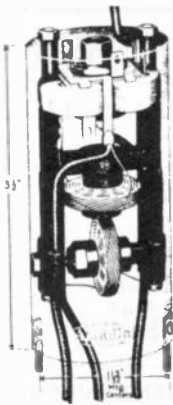
WAVE TRAPS

812-X-1	- 425 to 525 KC	NET
812-X-2	- 225 to 375 KC	
812-X-3	- 150 to 225 KC	
812-BC-1	- 1200 to 1600 KC Standard	
812-BC-2	- 800 to 1200 KC Broadcast	
812-BC-3	- 500 to 800 KC Band	
812-A	- 160 Meter Amateur Band...	\$.90
812-B	- 80 Meter Amateur Band...	
812-C	- 40 Meter Amateur Band...	
812-D	- 20 Meter Amateur Band...	
812-E	- 10 Meter Amateur Band...	

Aladdin Radio Industries, Inc. Polyiron



Type A, I.f. Transformers



The type A Polyiron core Aladdin transformers are inductively coupled litz-wound coils in a special frame. A lateral adjustment is provided for the lower coil to secure the exact degree of coupling desired. This is adjusted and sealed at the factory after adjustment on the oscillograph.

The type A-100 and A-100c coils have been frequently specified in receiver designs by Frank C. Jones, of "Radio" magazine's editorial staff, and are described in the annual "Radio" Handbook for amateurs.

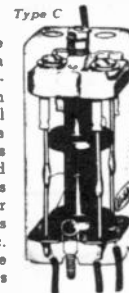
High Fidelity I.f. Band-Expansion

The purpose of band-expansion is to admit a wide range of audio frequency on a high fidelity modulated carrier wave. Publicity by leading radio broadcasters is developing a market for high-fidelity radio receivers. Custom set builders and servicemen can incorporate the high-fidelity feature in existing radio set designs.

The Aladdin Polyiron band-expansion I.f. transformer, type H-103, is a 465 Kc. litz-wound, double mica condenser trimmed unit in an aluminum shield, 4" high by 2" square. It is provided with a special tapped winding, closely coupling the secondary to the primary for use in band-expansion circuits.

Type	Frequency Range, kc.	Between	Use	NET
H102	440-480	6A7-6D6	Converter	\$2.40
H103	440-480	6A7-6D6	Converter	2.70
H200	440-480	6D6-75	Diode	2.10

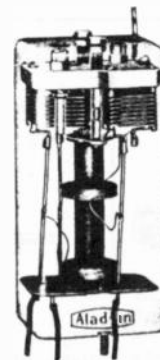
Small litz-wound Polyiron core inductively coupled coils used in the type C transformers are especially designed for use with metal tube circuits. Their small size, only $2\frac{1}{4}$ " by $1\frac{1}{4}$ " square, in a copper shield, make type C coils particularly suitable for auto and portable receivers. Their gain is better than leading types of air core coils, while the selectivity is distinctly superior. At 465 Kc. between 6A8 and 6K7 tubes, the band width is 84 Kc. at 100 times input voltage!



Specifications and List Prices
In copper shields $2\frac{1}{4}$ " high, $1\frac{1}{4}$ " square

Type	Frequency	Gain	Use	Between Tubes	NET
C-101M	456-465	52	1st stage	6A8-6K7	2.70
C-200M	456-465	58 1/2	2nd stage	6K7-6H6	3.70
C-350	456-465	Beat freq. oscillator		6C8	4.80

Type G, I.f. Transformers

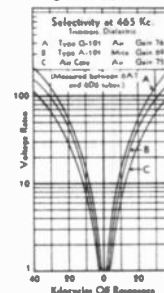


An advanced design especially intended for precision custom-built amateur and commercial high frequency communication receivers. Type G transformers are inductively coupled air-trimmed, litz wire coils on a Polyiron core and are mounted in an aluminum rectangular shield.

The purpose of this design is to provide the utmost stability of frequency calibration in communication type receivers. Normal temperature changes or variations in humidity have a negligible effect upon air dielectric trimming condensers.

The advantage of Polyiron in reducing the number of turns required for the coils and, consequently, the resistance of the coils, results in a sharper resonant curve having a higher gain than air core coils of the same physical dimensions.

The increased efficiency of the air trimmers over mica trimmers is further evident in the adjacent curves.



Type	Frequency Range, kc.	Between	Use	NET
G175	170-180	6A7-6D6	Converter	
G175	170-180	6D6-6D6	Interstage	
G275	170-180	6D6-75	Diode	
G101	456-465	6A7-6D6	Converter	\$3.30
G101M	456-465	6A8-6K7	Converter	
G101A	456-465	6D6-6D6	Interstage	
G101A	456-465	6K7-6K7	Interstage	
G201	456-465	6D6-75	Diode	
G201M	456-465	6K7-6H6	Diode	2.70
G208	456-465	6K7-6H6	Shencer Diode	3.70
G101C	456-465	-XTAL	XTAL Inp.	
G1601	1550-1650	6L7-6K7	Converter	
G1600	1550-1650	6K7-6K7	Interstage	
G1604	1550-1650	6K7-6H6	Diode	4.80
G1605	1550-1650		Silencer	

LOT NEXT TO STORE OR LOADING ZONE

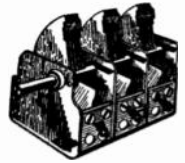
WALTER ASHE RADIO COMPANY

1100 Pine Street  St. Louis, Missouri

Condensers — Insulated Test Tools



PRECISION TUNING CONDENSERS



SINGLE GANG CONDENSERS	TWO GANG CONDENSERS	THREE GANG CONDENSERS
NO. 541 100 MMF. \$.81		
NO. 533 140 MMF. .81	NO. 533 140 MMF. \$ 1.35	NO. 532 140 MMF. \$ 2.04
NO. 542 350 MMF. .90	NO. 534 350 MMF. 1.41	NO. 531 350 MMF. 2.10

THREE GANG CONDENSERS FOR SUPERS

NO. 535 ONE SECTION FOR TUNING 175 K.C. OTHER TWO SECTIONS 350 MMF. EA.	\$ 2.10
NO. 539 ONE SECTION FOR TUNING 465 K.C. OTHER TWO SECTIONS 350 MMF. EA.	2.10

FOUR GANG CONDENSERS FOR SUPERS

NO. 858 ONE SECTION FOR TUNING 175 K.C. OTHER THREE SECTIONS 350 MMF. EA.	\$ 3.00
NO. 857 ONE SECTION FOR TUNING 465 K.C. OTHER THREE SECTIONS 350 MMF. EA.	3.00

NEUTRALIZING AND ALIGNMENT TOOLS

BUD NEUTRALIZING WRENCH



A NEW IDEA in a Neutralizing Tool. The entire length of the inside of tube is broached. If the end breaks all that is necessary for the serviceman to do is saw off the end and he has a new tool. Made in two lengths.

No. 254—5½" long

No. 255—8" long

NO. 254 \$.15
NO. 255 .18

NO-METAL NEUTRALIZING TOOL



No. 235

7 inches long. No metal ends. Made of special bone fibre beveled at both ends. Will stand a fair amount of strain. Can also be inserted into No. 254 Neutralizing Wrench where it is necessary to neutralize by turning both screw and nut at the same time.

NET \$.21

BUD BALANCING TOOL AND ATTACHMENT



No. 281

NO. 281 \$.24



No. 119M
No. 119-M

Majestic Attachment for Bud 4-in-1 Tool \$.12



No. 119C
No. 119-C

Crosley Attachment for Bud 4-in-1 Tool \$.15

ICA ALIGNMENT WRENCH

For RCA, PHILCO, etc.

Particularly adaptable for neutralizing and adjusting the Air Trimmers of All Models 1936-37-38 RCA Victor and Philco sets. Used on all makes Air Trimmer. Made of ⅜" Fenoline Rod—8½" long—one end has hollow shaft hexagon wrench—other end has an especially shaped hook.



NO. 1008

NET \$.75



No. 286

Bud Neutralizing and Compensating Screw Driver. With Bakelite Knob

\$.27



No. 285

Bud Neutralizing Wrench and Screw Driver

\$.27



No. 118

Bud 4-in-1 Neutralizing and Alignment Tool

\$.39



No. 287

Bud Neutralizing and Compensating Screw Driver

\$.21

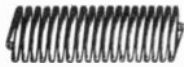
IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY

31

1100 Pine Street

St. Louis, Missouri



Copper
Tubing

SOFT DRAWN

1/8" OD.	PER FOOT	\$.05
3/16	"	.06
1/4	"	.07
5/16	"	.08



SOLID TINNED BUS BAR IN 30" LENGTHS.

NO. 10	PER LENGTH	\$.025
NO. 12	"	.025
NO. 14	"	.025

NICKLE PLATED BRASS MACHINE SCREWS AND NUTS

SIZE 6/32 NET SIZE 8/32

1/4"	3 FOR \$.01	1/4"
3/8"	"	3/8"
1/2"	"	1/2"
3/4"	2 FOR .01	3/4"
1"	"	1"

6/32 AND 8/32 NUTS 3 FOR .01

Bakelite
Tubing

Genuine Hi-Frequency natural color Bakelite with wall. Smooth Finish.



SIZE	PER INCH
1/2" TO 1 1/2"	\$.04
1 1/2 TO 2 1/4	.05
2 TO 2 1/4	.07
2 1/4 TO 2 3/4	.08
3 TO 3 1/4	.09
3 1/2 TO 3 3/4	.10

BAKELITE ROD

1/4" DIAMETER PER FOOT \$.36

ICA "INSULOID" RODS

FLEXIBLE
DURABLE



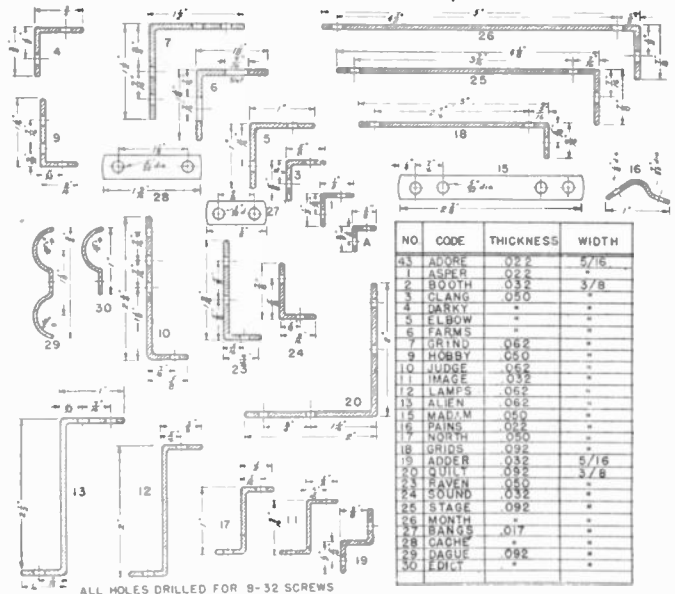
SOLID 1/4" ROUND POLISHED RODS
10" LENGTHS ONLY NET \$.15

FIBRE INSULATING WASHERS



FOR JACKS EA. \$.01
FOR BINDING POSTS .01

ANGLES AND BRACKETS BRASS NICKEL PLATED



NO.	CODE	THICKNESS	WIDTH
1	ADORE	.022	5/16
2	BOOTH	.022	3/8
3	CLANG	.050	"
4	DARKY	"	"
5	ELBOW	"	"
6	FARMS	"	"
7	GRIND	.062	"
8	HOBBY	.050	"
9	JUDGE	.052	"
10	IMAGE	.052	"
11	LAMPS	.052	"
12	ALIEN	.062	"
13	MADY	.050	"
14	PAINTS	.052	"
15	NORTH	.050	"
16	GRIDS	.032	"
17	ADDS	.032	5/16
18	QUILT	.052	3/8
19	RAVEN	.040	"
20	SOUND	.032	"
21	STAGE	.092	"
22	MONTH	"	"
23	BANGS	.017	"
24	CACHE	.032	"
25	DAGUE	.092	"
26	EDICT	"	"

ALL HOLES DRILLED FOR 8-32 SCREWS

NO.	NET EA.	NO.	NET EA.
1	\$.01	16	\$.02
2	.01	17	.03
3	.02	18	.05
4	.02	19	.02
5	.03	20	.05
6	.03	23	.02
7	.03	24	.02
9	.03	25	.07
10	.03	26	.08
11	.02	27	.02
12	.03	28	.02
15	.03	29	.03
		30	.03

ICA INSULEX R. F. CHOKES



NO.	2.5 MH.	NET \$
1777	2.5	.21
1776	3.5	.21
1775	5.5	.24
1774	10	.27
1772	30	.33
1773	60	.39
1771	80	.45

ICA SHIELDED INSULEX R.F. CHOKES



NO.	2.5 MH.	NET \$
275	2.5	.30
274	3.5	.30
276	5.5	.33
273	10	.36
271	30	.42
272	60	.48
270	80	.51

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

BAKELITE TERMINAL STRIPS AND TERMINALS



NO. 1259

**** PLAIN ****

NO.		TERMINAL	NET PRICE
1371	-	1	.05
1372	-	2	.06
1373	-	3	.09
1374	-	4	.12
1375	-	5	.15
1376	-	6	.18
1377	-	7	.21
1378	-	8	.24
1379	-	9	.27
1380	-	10	.30

**** MARKED ****

NO.		TERM.		
1260	-	2	A-G	.06
1261	-	2	OUTPUT	.06
1262	-	2	INPUT	.06
1263	-	3	1-2-3	.12
1264	-	4	1-2-3-4	.15
1265	-	5	1-2-3-4-5	.18
1266	-	6	1-2-3-4-5-6	.21

NO. 1259 TERMINAL LUG NET \$.02

BRASS TUBULAR SPACERS FOR GENERAL USE



NO.	BRASS	SIZE	NET
NO. 70	"	1/4"	.02
NO. 71	"	3/8"	.02
NO. 72	"	1/2"	.02
NO. 73	"	3/4"	.03

ABOVE SPACERS ARE FOR 6/32 SCREWS

NO. A1 STEEL 3/4" TWO FOR \$.05
 ABOVE SPACER FOR SCREWS UP TO 8/32

BUD CRYSTAL-LAC

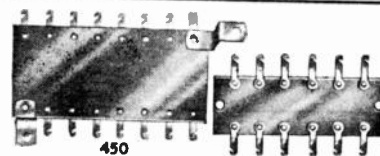


This is a real air drying lacquer which is applied with a soft brush and puts a beautiful black crystalline finish on any metal part, such as panels, chassis, etc. Absolutely no baking necessary.



Tie Points

NO.		PT.	
1510	-	1	.01
1520	-	2	.02
1530	-	3	.03
1540	-	4	.04
1550	-	5	.05



Bakelite Terminal Plates

No. 420—Has six terminal lugs on each side for 1/2 watt resistors, spaced 1/8" apart. Made of 1/8" bakelite 1" x 3".

No. 430—Has four terminal lugs on each side for 1 watt resistors and midget condensers, spaced 1/8" apart. Made of 1/8" bakelite 2" x 2 1/2".

No. 440—Has fourteen terminal lugs on each side for 1/2 watt resistors, spaced 1/8" apart. Made of 1/8" bakelite 1" x 5 3/4".

No. 450—Has seven terminal lugs on each side for 1 watt resistors and midget condensers, spaced 1/8" apart. Supplied with "Z" brackets for 3/4" stand-off from chassis. Made of 1/8" bakelite 1 3/4" x 3 3/4".

NO.	NET EA.
420	\$.12
430	.15
440	.21
450	.18

BRASS COUPLINGS, EXTENSIONS



NO. 250

.09



NO. 50-50

.09



NO. 25-75

.04

NO. 75-50 (1/4-3/8")	\$.09
NO. 375 (3/8")	.09

NO.	SIZE	NET
592	2 OZ.	\$.24
533	1/4 PT.	.42
534	1/2 PT.	.75
535	1 PT.	1.35

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

WIRE

SHIELDED CABLES



FLEXIBLE TINNED COPPER CONDUCTORS WITH GOOD GRADE OF RUBBER INSULATION. EACH CONDUCTOR BRAIDED WITH MOISTURE PROOFED COLOR CODED COTTON COVER. CLOSELY WOVEN TINNED COPPER SHIELD OVERALL.

CONDUCTORS	GAUGE	NET PER FT.
2	#18	\$.04
3	#18	.05
4	#18	.06
5	#18	.07
6	#18	.08



SHIELDED LEAD-IN AND GROUND WIRE

EASY TO STRIP #16 SHIELDED RUBBER COVERED LEAD-IN WIRE. ALWAYS FRESH STOCK ON HAND.

NET PER FOOT,	-----	\$.02
NET PER 100 FT.	-----	1.80
NET PER 250 FT. ROLL	-----	3.60

SMALL SIZE SHIELDED WIRE

SIMILAR TO ABOVE WIRE BUT SMALLER IN SIZE (#18). FOR GRID LEADS, CHASSIS WIRING ETC.

NET PER FOOT, \$.02

VARNISHED CAMBRIC RAYON BRAID

#20 TINNED CONDUCTOR, TWO WRAPS VARNISHED CAMBRIC TAPE. NOT AFFECTED BY OIL OR MODERATE HEAT. SMALL AND PLIABLE.

NET PER FOOT, \$.01

AC-DC ANTENNA WIRE
STRANDED, VERY FLEXIBLE



100 FT. ROLLS

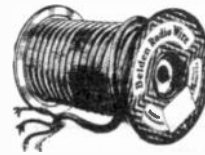
YOUR COST \$.60



AUTO RADIO SHIELDED LEAD-IN

EXTREMELY LOW CAPACITY CABLE FOR MINIMUM LOSS OF SIGNAL STRENGTH. HAS #18 STRANDED WIRE ENCASED IN JUTE FILLER AND SHIELD OVERALL. TWO SIZES.

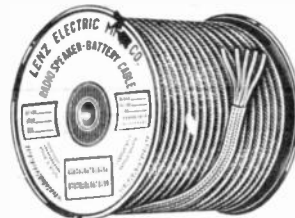
1/4" O.D.	NET PER FT.	\$.04
1/2" O.D.	" " "	.10



BATTERY OR SPEAKER EXTENSION CABLE

THIS CABLE CONSISTS OF 4, 5, OR 7 WIRES AND EACH TYPE HAS 2 HEAVY CONDUCTORS FOR FILAMENT OR SPEAKER FIELD. ALL WIRES COLOR CODED WITH DURABLE COTTON BRAID OVERALL.

NO.	COND.	NET PER FOOT	NET PER 100 FT.
8444	4	\$.05	\$3.00
8445	5	.06	3.65
8447	7	.07	5.86



RUBBER JACKETED DYNAMIC SPEAKER EXTENSION CABLE

Heavy Tough Rubber Jacket Applied Overall—
Suitable for Portable Public Address Systems
(Not Shielded)

WHEN IN NEED OF SPEAKER EXTENSION CABLE FOR OUTSIDE USE, MAY WE SUGGEST THIS #1700A CABLE. CONSISTS OF 2 #16 AND 2 #20 CONDUCTORS. HEAVY RUBBER COVERING OVERALL FOR WEATHERPROOF SERVICE.

NET PER FOOT	\$.06
" " 100' ROLL	5.40
" " 500' "	26.96

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

WIRE**TINNED COPPER SHIELDING****Belden**

FOR USE IN SHIELDING AUTOMOTIVE WIRES IN MAKING AUTO RADIO INSTALLATIONS.

NO.	I.D.	NET PER FT.	NET 50 FT.
8660	13/64	\$.03	\$.86
8661	3/8	.04	1.43
8662	25/32	.10	3.72

**#16 SHIELDED PRIMARY WIRE**

FOR PRIMARY SHIELDING OR LOW LOSS LEADS. RUBBER, GLAZED COTTON BRAID LACQUERED WITH TINNED COPPER SHIELD OVERALL. FORMERLY KNOWN AS "AIRMAN"
NET PER FOOT, \$.04

#10 PRIMARY LACQUERED WIRE

HEAVY DUTY, HIGH CARRYING CAPACITY CABLE CAN BE USED FOR FILAMENTS, AUTO WIRING, HAM POWER SUPPLIES, ETC.

NET PER FOOT, \$.04

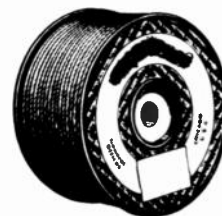
50 FOOT ROLLS SOLID TINNED WIRE

SIZE	NET
16	\$.25
14	.25
12	.40
10	.70

**STRANDED ENAMELED ANTENNA WIRE**

100 FOOT ROLL, 7X22 NET \$.49

75 FOOT ROLL PLAIN COPPER .20

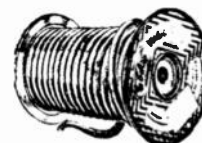
RUBBER COVERED WIRE**RUBBER COVERED LEAD-IN WIRE**

500' SPOOL BELDEN #8200, NET \$1.72

1000' SPOOL LIVE COVER #20 3.30

SMALL SPOOLS RUBBER COVERED WIRE

FOR USE IN WIRING POWER SUPPLIES, AERIAL LEAD-IN, GROUND WIRE, ETC.



TYPE	SIZE	LENGTH	NET
1094	18	50	\$.30
1095	18	100	.57
1097	16	50	.39
1098	16	100	.75

KINKLESS FLEXIBLE TEST LEAD WIRE

THIS IS GENUINE EXTRA FLEXIBLE TEST PROD CABLE WITH HEAVY RUBBER COVER. TWO COLORS, RED AND BLACK, WILL NOT BREAK UNDER STRAIN OR TWISTING.

NET PER FOOT, - - - - - \$.02

WE ALSO CARRY IN STOCK A CLOTH COVERED TINSEL TEST PROD WIRE AS USED IN "SUPREME" INSTRUMENTS AND OTHERS.

COLOR, BROWN - - NET PER FOOT \$.02

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

WIRE

MICROPHONE CABLES



RUBBER MICROPHONE CABLE UNSHIELDED

HIGH GRADE CABLE TO BE USED WHERE IT IS UNNECESSARY TO HAVE YOUR CABLE SHIELDED.

NET PER FOOT, - - - - - \$.05
NET PER 100 FEET, - - - - - 3.84



CRYSTAL MICROPHONE CABLE

MADE ESPECIALLY FOR CRYSTAL MIKES. WEATHERPROOF, FLEXIBLE, WILL NOT BREAK UNDER HEAVY STRAIN.

NET PER FOOT, - - - - - \$.05
NET PER 100 FEET, - - - - - 3.95



RUBBER SHIELDED MICROPHONE CABLE

THE RUBBER COVERED SHIELDED MICROPHONE CABLE LISTED BELOW IS MADE UP OF FLEXIBLE CONDUCTORS WHICH ARE COLOR CODED AND HAVE A TOUGH COATING OF RUBBER OVERALL. THEY ARE WEATHERPROOF AND WILL STAND HARD AND ROUGH USAGE.

2 WIRE SHIELDED

NET PER FOOT, - - - - - \$.05
NET PER 100 FEET, - - - - - 3.58

3 WIRE SHIELDED

NET PER FOOT, - - - - - \$.05
NET PER 100 FEET, - - - - - 3.93



#14

LACQUERED PRIMARY WIRE

FOR AUTOMOTIVE AND HAM USES. RUBBER INSULATED AND COVERED WITH AN OIL AND WATERPROOF LACQUERED COTTON BRAID.

NET PER FOOT, - - - - - \$.02

LAMP CORD



"ZIP" CORD WILL TAKE CARE OF ALL YOUR USES FOR A LAMP CORD THAT IS EASY STRIPPING AND EASY TO USE ALL AROUND. SIMPLY SEPARATE CONDUCTORS AT ENDS AND PULL ON EACH WIRE AND "ZIP" THERE YOU ARE WITH THE RIGHT AMOUNT OF CORD TO WORK WITH.

"ZIP" CORD NET PER FOOT \$.01 1/2
" " " " 250 FT. 2.75



STANDARD TWISTED BLACK LAMP CORD FOR PRIMARY WIRING, APPLIANCES, ETC.

NET PER FOOT - - - - - \$.02
NET PER 250 FT. ROLL - - - - - 3.50

TRANSMISSION LINE



THIS TRANSMISSION CABLE IS SAME AS USED ON R.C.A. ANTENNAS AND SIMILAR JOBS. WEATHER PROOF.

NET PER FOOT, - - - - - \$.02
NET PER 100 FT. - - - - - 1.80



UNSHIELDED HIGH TENSION CABLE

"ALPHA" UNSHIELDED HIGH TENSION CABLE IS THE SAME AS USED ON AUTO SPARK PLUG WIRES AND DISTRIBUTOR. EXCELLENT FOR WIRING HIGH VOLTAGE POWER SUPPLIES AND R.F. CIRCUITS.

NET PER FOOT \$.04
NET PER 100 FEET 3.30

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

WIRE**WAXED HOOK-UP WIRE**

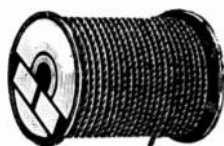
THIS HOOK-UP WIRE IS COVERED WITH NON FRAYING MOISTURE PROOFED INSULATION. COMES IN SIZES OF #18 SOLID AND #20 STRANDED. ALL PUSH BACK.

#18 SOLID TINNED COPPER WIRE, 25 FOOT ROLL. COLORS RED, BLACK, AND GREEN.

NET PER ROLL, - - - - - \$.21

#20 STRANDED TINNED COPPER WIRE, 25 FOOT ROLLS, COLORS RED, BLACK, GREEN.

NET PER ROLL, - - - - - \$.21



100 FOOT ROLLS #18 SOLID TINNED COPPER HOOK-UP WIRE ON SPOOL. RED BLACK OR GREEN, NET \$.66

100 FOOT ROLLS #20 STRANDED TINNED COPPER HOOK-UP WIRE ON SPOOLS. RED BLACK OR GREEN, NET \$.66

100 FOOT ROLLS #18 STRANDED TINNED COPPER HOOKUP WIRE ON SPOOLS. RED OR GREEN, NET PER SPOOL \$.72

**HEAVY STRANDED FILAMENT WIRE**

MADE ESPECIALLY FOR WIRING FILAMENTS THAT HAVE A HEAVY DRAIN. STRANDED WIRE COVERED WITH CHAMBRIC COVERING WITH MOISTURE-PROOF COVER OVERALL. EQUAL TO #10.

NET PER FOOT, - - - - - \$.02

Magnet Wire

SIZE	FEET PER ROLL		
	D.C.C.	P.E.	D.S.C.
#10		15	
12		20	
14	27	35	15
16	45	45	25
18	58	75	31
20	75	115	38
22	100	150	50
24	130	245	75
26	155	325	95
28	175	535	120
30	210	700	150
32	240	900	165
34	260	1200	175
36	275	1700	190
38	130	2300	155
ANY SIZE NET PER SPOOL, - \$.25			

**ANALYZER CABLE**

WHEN MAKING UP A NEW ANALYZER YOU MUST HAVE A CABLE THAT IS PLIABLE, AND CAN STAND THE GAFF OF TURNING TWISTING AND STRAIN. CONTAINS 9 COLOR CODED WIRES.

NET PER FOOT, - - - - - \$.09

**HEAVY DUTY RUBBER COVERED WIRE**

#12 STRANDED HEAVY DUTY RUBBER COVERED HOOKUP WIRE. CONSISTS OF 41 STRANDS OF #28 B&S GAUGE. WILL CARRY 20 AMPERES. 13/64 RUBBER WALL. COLORS BLACK OR RED.

NET PER 25 FOOT ROLL, - - - - - \$.57

TRIPLE PROTECTED HOOKUP WIRE

PROTECTED AGAINST OIL, MOISTURE AND HEAT. STRANDED TINNED COPPER CONDUCTOR. LIVE RUBBER WALL WITH LACQUERED COTTON FINISH.

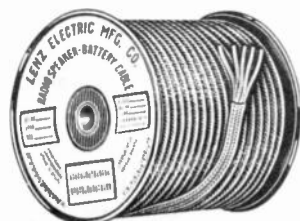
NET PER 25 FOOT ROLL, - - - - - \$.27

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

COIN MACHINE OPERATORS SUPPLIES



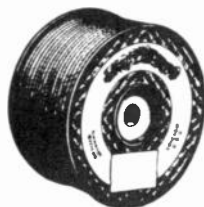
RUBBER JACKETED DYNAMIC SPEAKER EXTENSION CABLE

(Not Shielded)

Heavy Tough Rubber Jacket Applied Overall—
Suitable for Portable Public Address Systems

#1700A IS A 4 WIRE CABLE FOR EXTENSION SPEAKERS. CONSISTS OF 2 #16 AND 2 #20.

NET PER FOOT	\$.06
" " 100' ROLL	5.40
" " 500' "	26.96



250 FT. ROLL RIFLEX PARALLEL LAMP CORD. CAN BE USED FOR SPEAKER EXTENSION OR REGULAR A.C. CONNECTIONS. FRESH RUBBER COVERING.

NET PER 250 FOOT ROLL NET 2.75

COTTON OVERALL SPEAKER CABLE

SPEAKER EXTENSION CABLE BEST SUITED FOR INDOOR WORK WHERE OUTSIDE COVERING NEED BE WEATHERPROOF.

COND.	NET PER FT.	NET PER 100
4	\$.05	\$3.00
5	.06	3.65
7	.07	5.86

Upco Replacement Pickup Head

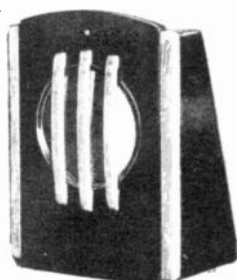
USED IN PLACE OF OLD PICKUP WHICH HAS WORN OUT. GOOD TONE



NET \$4.20

EXTENSION SPEAKERS

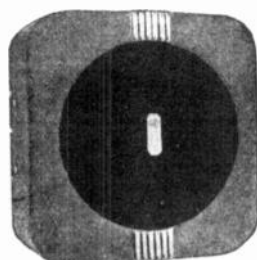
THIS HANDSOME CABINET CONTAINS A JENSEN 8" P.M. SPEAKER FOR USE WITH ANY ELECTRIC PHONOGRAPH OR USE WHEREVER AN EXTRA SPEAKER IS NEEDED. EXCELLENT TONE. CAN BE HAD WITH OR WITHOUT VOLUME CONTROL.



NET, LESS VOL. CONT.	11.10
NET, WITH " "	11.85
CABINET ONLY, NET	6.00

WRIGHT - De COSTER

SUEDE WALL CABINET

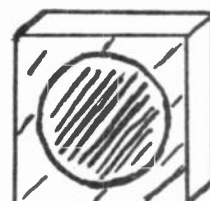


CABINET ONLY

W-8 FOR 8" SPEAKER	NET \$2.25
W-10 " 10 "	2.85

SPEAKERS

N8LN 8"	3.39
N10LN 10	4.20

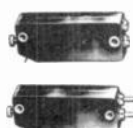


BLACK CRYSTALLINE CABINET

SIZE 13 X 13 X 6 FOR 12" SPEAKER WHEN USED FOR EXTENSION SPEAKER.

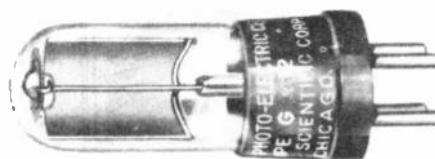
NET EACH \$3.00

Crystal Pickup Replacement Cartridges



TWO TYPES, SOLDER LUG, OR PIN TYPE, WILL REPLACE ANY CRYSTAL CARTRIDGE. NET EITHER TYPE, \$3.00

PHOTO-ELECTRIC CELLS



Lumotron Type G-12

USED IN "EXHIBIT ELECTRIC EYE" AND OTHER SIMILAR MACHINES.

NET EACH ----- \$4.00

LOT NEXT TO STORE OR LOADING ZONE

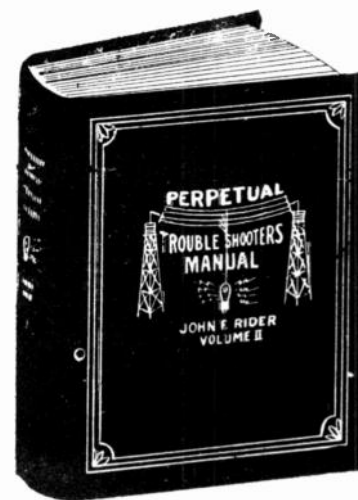
WALTER ASHE RADIO COMPANY

1100 Pine Street  St. Louis, Missouri

Perpetual Trouble Shooter's Manual

"RIDERS" PERPETUAL TROUBLE SHOOTERS MANUALS

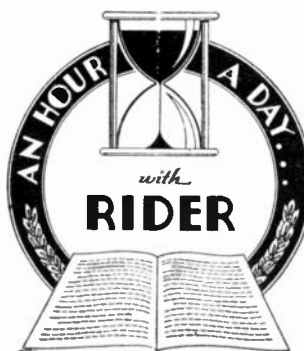
NO. 1	1000 PAGES	1919-1931	NET \$7.50
NO. 2	800 "	1931-1932	" 7.50
NO. 3	1070 "	1932-1933	" 7.50
NO. 4	1060 "	1933-1934	" 7.50
NO. 5	1200 "	1934-1935	" 7.50
NO. 6	1240 "	1935-1936	" 7.50
NO. 7	1600 "	1936-1937	" 10.00
NO. 8	1600 "	1937-1938	" 10.00
NO. 9	1600 "	1938-1939	" 10.00



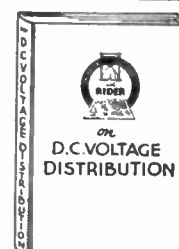
Book No. 1



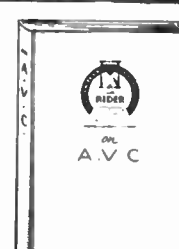
Book No. 2



EACH BOOK
60¢
NET



Book No. 3



Book No. 4

AN HOUR A DAY WITH RIDER
ON
ALTERNATING CURRENTS
IN
RADIO RECEIVERS

AN HOUR A DAY WITH RIDER
ON
D.C. VOLTAGE DISTRIBUTION

AN HOUR A DAY WITH RIDER
ON
RESONANCE
AND
ALIGNMENT

AN HOUR A DAY WITH RIDER
ON
AUTOMATIC VOLUME CONTROL

ALIGNING PHILCO
RECEIVERS

SERVICING
SUPERHETERODYNES

AUTOMATIC
FREQUENCY CONTROL

SERVICING RECEIVERS BY MEANS
OF RESISTANCE MEASUREMENT



ALL THE INFORMATION YOU NEED FOR ALIGNING OVER 8 MILLION PHILCO RECEIVERS. I.F. PEAKS, ADJUSTMENT FREQUENCIES, TRIMMER AND PADDER LOCATIONS ETC.

NEW AND UP TO DATE INFORMATION ON ALL SUPERHETERODYNES, SERVICING DETAILS, THEORY ETC.

AUTOMATIC FREQUENCY CIRCUITS EXPLAINED FROM THE SIMPLEST TYPE TO THE MOST COMPLICATED. COMPLETE COPE ON D.C. VOLTAGES, PHASE RELATIONS ETC.

TAKE THE GUESSWORK OUT OF SERVICING BY USING AN OHMMETER IN TROUBLE SHOOTING. HOW TO MAKE AND CORRECTLY INTERPRET POINT TO POINT RESISTANCE MEASUREMENTS. SIMPLIFIES SERVICING.

ANY BOOK LISTED ABOVE NET \$1.00

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

TECHNICAL BOOKS



Modern Radio Servicing

Second Revised and Greatly Enlarged Edition of Radio Servicing Course.—By Alfred A. Ghrardi.

Positively the greatest text ever published on art of radio servicing. 1,300 pages contain hundreds of practical facts on most up-to-date methods radio servicing—construction and operation all kinds of newer type radio test equipment; servicing all forms receivers; special servicing problems; tested advertising and merchandising tips to help you make more money, etc. Written clear, simple; 706 diagrams, charts, photos, etc.

\$4.00

Special! Just Out Radio Field Service Data and Answer Book

2ND REVISED AND ENLARGED EDITION
Supplement to MODERN RADIO SERVICING by A. A. Ghrardi.

A 400-page time-saving data book to take with you on all service jobs. Contains case histories of over 1,000 models of receivers, Intermediate Peak Frequencies of over 4,000 Receivers, including latest 1937 models, Auto-Radio Installation and servicing reference data, and over 25 other data charts and tables. An invaluable companion book to Modern Radio Servicing at left.

\$2.50

YOUR COST **\$4.00** YOUR COST **\$2.50**

SPECIAL OFFER Modern Radio Servicing in combination with Radio Field Service Data Supplement (above) **\$6.00**

***** PLEASE NOTE *****

IF YOU DO NOT FIND THE MAGAZINE OR BOOK YOU ARE LOOKING FOR LISTED ON THESE PAGES PLEASE ADVISE US AND WE WILL GLADLY ORDER SAME FOR YOU.



"Practical Radio Communication"

By Nilson & Hornung—754 Pages
Size, 6x9". 435 Illustrations. Flexible Binding.

Contains all information needed to pass all classes radio operator license examination. Balanced treatment of radio principles and practice. Fully discusses receiving-transmitting equipment, operation, etc. Introduces all new developments in ultra short, short wave, and all wave radio.

Your Cost **\$5.00**



Radio Physics Course

Second Revised Edition—By Alfred A. Ghrardi. Most popular fundamental text on radio principles in existence. Used by students in radio schools, and by service men who wish to enlarge their knowledge of electrical and radio fundamentals. Covers whole field of radio, including basic electrical theory up to latest applications. Clear, concise, complete, up-to-date. Written in language easy to understand. The one radio book that explains everything. Nearly 1,000 pages, more than 500 diagrams and illustrations.

\$4.00

"Radio Operating Questions-Answers"

By Nilson & Hornung
427 Pages.
Size 5½x8".
106 Illustrations.

Gives 600 questions typical of all classes of radio operator examinations with correct answers. Those anticipating taking examinations for licenses will find this the finest book obtainable.

Your Cost **\$2.50**

"Radio Engineering Handbook"

By Keith Henney
550 Pages.
Size, 4½x7".
Illustrated.
Flexible Binding.



Thorough, professional, and authoritative handbook covering all fields and aspects of Radio Engineering. Provides technical data not to be found in any other publication. Answers every problem in design, operation and performance. A complete volume, equally valuable for study or reference.

YOUR COST **\$5.00**

Prepare Yourself for the Coming Change

The Cathode Ray Tube at Work

By John F. Rider

New era in servicing radio receivers, public address systems, transmitters, etc., is on way. It will require knowledge of the use of the Cathode-Ray Tube. This book gives full consideration to theory underlying functioning of Cathode-Ray Tube and circuits that accompany it. Second half of volume devoted to specific and practical applications of commercial oscilloscopes to servicing and adjustment problems with due consideration of Cathode-Ray Tube's value in design operation. Book is result of actual experimental work. 320 pages.



NET
\$2.50

"PRINCIPLES OF RADIO ENGINEERING"
BY R.S. GLASGOW, M.S.
CONTAINS ALL THE LATEST FORMULAS BOTH PRACTICAL AND TECHNICAL.
PLENTY OF DIAGRAMS. 520 PAGES

YOUR COST **\$ 4.00**

"MALLORY YAXLEY ENCYCLOPEDIA" NO.2
PRACTICAL CIRCUITS AND DIAGRAMS ON SERVICE INSTRUMENTS, VIBRATORS, ALLWAVE RADIOS AND MANY OTHER ITEMS COMPLETE WITH MALLORY CATALOG
215 PAGES

YOUR COST **\$ 1.80**

PHOTOCELLS AND THEIR APPLICATION
BY

ZWORYKIN AND WILSON
348 PAGES OF MODERN DATA AND CIRCUITS ON PHOTOCELLS, SENSITIVE RELAYS ETC.

YOUR COST **\$ 3.00**



"Radio Receiving and Television Tubes"

By Moyer & Wostrel
325 Pages.
Size 5½x8".
Illustrated.

Fully covers essential principles underlying operation of all types of vacuum tubes. Non-technical discussion introduces each subject in clear, easy to understand style. TELEVISION TUBES as used in present startling experiments discussed at great length. An interesting and practical book for study or reference.

YOUR COST **\$4.00**

"Practical Radio"

INCLUDING TELEVISION
By Moyer and Wostrel
410 Pages.
Size 6x9".
Illustrated.



Practical manual on radio fundamentals. Complete discussion of radio apparatus including data on Television, photo electric cells, etc.

YOUR COST **\$2.50**

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

"Q-S-T"

Amateur's Official Magazine for Twenty Years
Every lively amateur buys "QST," recognized leader of amateur developments and activities. Issued monthly; each issue a record of amateur progress. Full information on receiver and transmitter construction. Activities of ARRL.

YOUR COST **25c**
Per Copy ...



Radio Amateur Call Book Magazine



A complete, accurate, up-to-the-minute list of amateur station call letters, licenses and station locations. Issued quarterly.

YOUR COST **\$1.25**

Radio News



One of the oldest monthly Radio magazines. For amateur, experimenter, and serviceman.
YOUR COST **25c**
Per Copy

Short-Wave Craft A Monthly Devoted to the Amateur and Short-Wave Listener

Actual construction information on receivers and transmitters. Written in a clear, non-technical style that anybody understands.
YOUR COST **25c**
Per Copy

ARRL Amateur World Map

Contains all information useful to the radio amateur—official list of countries, all known prefixes shown in large red lettering, all known radio districts, official time at every point including correct Greenwich time, complete index, great circle direction indications, and great circle distances within 2% accuracy. On heavy map paper, in six colors.
YOUR COST **\$1.25**

QST Binders

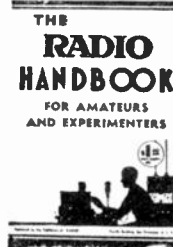
Yearly binders for 12 issues of QST. Copies easily inserted and removed. Heavy board attractively covered.
YOUR COST **\$1.50**

"Radio"



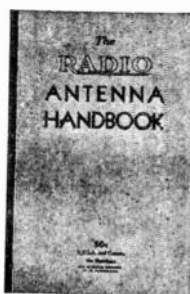
A monthly devoted to the construction of amateur radio receivers and transmitters. Ten issues a year—no Aug. or Sept.
YOUR COST **30c**

"Radio" Handbook



Begins at the beginning and takes you right up to today's advanced practices. How to build any amateur receiver or transmitter. Metal tube data. 300 pages.
YOUR COST **\$1.50**

"Radio" Antenna Handbook



80 pages on antennas and nothing else! Tells you in simple, easy-to-understand language how to get that last ounce of performance from your antenna. 80 pages profusely illustrated. Detailed tables make calculations unnecessary.
YOUR COST **.75**

LIGHTNING CALCULATORS



AMERICAN RADIO RELAY LEAGUE

Type A, \$1.00 Type B, \$1.00

For problems involving frequency, inductance and capacity, in design of radio frequency circuits. Direct reading answers for size of coils and condensers for any range between 400 kc. and 150 mc.

Gives direct reading answers to calculations involving current, resistance, voltage and power with scale for resistance of copper wire and scale for calculating decibel gain or loss.

Type C, \$.50 Type D, \$.50

More information on electrical conductors than you could find in a book full of tables.

Gives decibel gain or loss when input and output voltages, currents or power are known.

Type E, \$.50 Type F, \$.50

Direct reading total resistance of resistors connected in parallel, and total capacity of condensers connected in series.

Permits measurement of resistance, from 1 ohm to 1 megohm by use of a voltmeter. Makes an ohm-meter of your voltmeter.

NEW "RADIO" PUBLICATIONS

ULTRA HIGH FREQUENCY HANDBOOK. DEALS EXCLUSIVELY WITH H.F. CIRCUITS. INCLUDES MANY DIAGRAMS AND PHOTOS.
YOUR COST..... **\$.50**

NOISE REDUCTION HANDBOOK. THE ONLY COMPLETE BOOK ON THE PROCESS OF NOISE ELIMINATION AND REDUCTION. DOZENS OF CIRCUITS, SKETCHES
YOUR COST..... **\$.35**

TELEPHONY HANDBOOK. PUBLISHED FOR THE AMATEUR TELEPHONE OPERATOR. FULL OF FIRST CLASS INFORMATION.
YOUR COST..... **\$.75**

The Radio Amateur's Handbook



The greatest value in amateur radio today. Contains all latest information on high frequency receivers and transmitters.
YOUR COST **\$1.00**

License Manual



A thorough study of amateur license questions; questions and answers for Class "A", "B" and "C" Exams.
YOUR COST **25c**

Message Blanks Pads of 100



NET PRICE
E.A. **\$.25**

Hints and Kinks



Money-Saving Ideas in transmitter and receiver construction. Findings of 189 experimenters.
YOUR COST **50c**

How to Become A Radio Amateur



Tells the whole story, simplifies matters.
YOUR COST **25c**
Each

Official ARRL Log Book



YOUR COST Ea. **35c**
Three **\$1.00**
For

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

Antenna Accessories

SADDLE GROUND CLAMPS

The No. 625 Saddle Ground Clamp has a hard pointed screw which digs through all rust and makes a positive contact. Fits a 3/8" to 2" pipe and up to 5" with the No. 626.

No. 625—Heavy Saddle Gnd Clamp 50 \$.10
Std. List Pkg. Price each

YOUR COST \$.06



NO. 615 GROUND CLAMP



For use in grounding a radio set or other apparatus and attaches easily to a water or radiator pipe. The cone pointed screw cuts through and makes a positive contact. Cadmium finish prevents rusting.

YOUR COST.... \$.05

NO. 600 COPPER STRAP CLAMP



Will take 3/8" to 1/2" pipe. Made of copper with Birnbach clip riveted and soldered to strap. Complete with nut and bolt; NET \$.04

Spring Aerial Adjuster

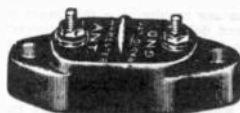


Keep antennas straight, tight. Valuable to short-wave antennas, particularly doublet system. Rust-Proof. Two hooks interlock in a heavy tension spring. Porcelain eyes at ends.

YOUR COST 30c

NO. 650 LIGHTNING ARRESTER

Made of a brown glazed porcelain body with nickel-plated hardware. Suitable for outdoor or indoor use. Complete with mounting screws and instructions; NET \$.15



DOUBLET LIGHTNING ARRESTER

This Arrester is of the air gap type which is the accepted means of protecting doublet antennas from lightning. Installation instructions are printed on the box.

YOUR COST \$.21



Stick Tape Aerial

For Interior and Auto Use.



Sticks on any surface. Metallic alloy of great capacity adhesive rubber coating on back. Clip terminal. Easily installed. 40 feet to the roll.

YOUR COST \$.36

PORCELAIN INSULATOR



Length 3 3/4 in.
Hole 5/16 in.
Diameter 1 1/2 in.

NET \$.05

WEATHERPROOF LEAD-IN STRIPS



These Lead-in Strips are covered with a heavy black cotton braid, weatherproofed, with numerous coats of duco lacquer giving it a very bright and durable surface. Birnbach Clips are riveted and soldered at both ends.

YOUR COST \$.05

NO. 2611 DOUBLET LEAD-IN STRIP



SUITABLE FOR ANY TYPE OF DOUBLET OR TRANSPOSED LEAD IN.

YOUR COST \$.10

AIRPLANE INSULATOR



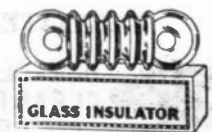
This Airplane Insulator is useful where heavy compression loads are applied on an insulator. It is ideal for use on all mobile antenna installations, particularly on aeroplanes, as it is shaped for the least air resistance. It is 1 1/2" long with white glaze overall.

YOUR COST \$.04

GLASS INSULATORS

ALL PURPOSE CLEAR GLASS STRAIN AND ANTENNA INSULATOR

YOUR COST \$.05



BIRNBACH SCREW EYES



HEAVY PORCELAIN EYE.

3"..... \$.04
7"..... \$.05

BUD ANTENNA ELIMINATOR AND SELECTOR



No. 100

1. Gives any electric set more selectivity.
2. Requires only two minutes to install.
3. No lightning arrester required, thereby eliminating the fire and lightning hazards.
4. Eliminates need of a new aerial every year for best reception. The BUD ANTENNA ELIMINATOR and SELECTOR will last a lifetime.

YOUR COST \$.90

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri



RADIO KNOBS

WILL FIT 1/4" SHAFT



A



B



F



G



H



I



J



K



M



O



P



Q



S



T



W

ICA BAKELITE BAR KNOBS

SOLID RED



New type modernistic pointer knobs with set screw mounting. Pointer is filled in white

No. 1127—Size 1 1/4" Red. NET \$.09

No. 1128—Size 2 1/4" Red. .11

BAKELITE WAFER SOCKETS

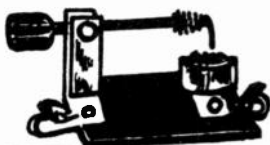


DURABLE WITH SELF-CLEANING PINCH TYPE CONTACTS



NO. 14	4 PRONG	\$.05
NO. 15	5 PRONG	.05
NO. 16	6 PRONG	.05
NO. 17	7 PRONG (SMALL)	.05
NO. 77	7 PRONG (LARGE)	.05
NO. 80	8 PRONG (FOR METAL TUBES)	.05

SHURE SPOT FIXED CRYSTAL DETECTOR



IDEAL FOR THE EXPERIMENTER, SET BUILDER.
COMPLETE WITH CRYSTAL
NET.....\$.25

HOT SPOT CRYSTAL DETECTOR



FOR HIGH FIDELITY TUNERS
AND REGULAR DETECTOR SETS.
NET.....\$.60



"1000 POINT" MOUNTED CRYSTAL
NET.....\$.10

IT'S EASY TO PARK AT WALTER ASHE . . .

Cat. No.	Type	SIZE Dia.	Height	Color	List Price	Your Cost
579	A	1 1/4"	3/8"	Black	\$.15	\$.09
581	A	2 1/4"	3/8"	Black	.18	.108
575	B	1 1/4"	3/8"	Black	.12	.072
577	B	2 1/4"	3/8"	Black	.15	.09
480	F*	1 1/4"	3/8"	Black	.35	.21
183	G	1"	3/8"	Walnut	.12	.072
180	H	3/4"	3/8"	Walnut	.10	.06
177	I	1 1/4"	3/8"	Walnut	.10	.06
192	J	1 1/4"	3/8"	Walnut	.12	.072
141	K(W)	1 1/4"	3/8"	Brown	.25	.15
1014	M	1"	3/8"	Walnut	.10	.06
750	O	3/8"	3/8"	Black	.10	.06
744	P	3/4"	3/8"	Walnut	.12	.072
745	P	3/4"	3/8"	Black	.12	.072
749	Q	3/8"	3/8"	Black	.12	.072
752	Q	3/8"	3/8"	Walnut	.12	.072
143	S	1 1/4"	3/8"	Walnut	.10	.06
732	T(P)	3/8"	3/8"	Black	.12	.072
1122	W	3/8"	3/8"	Walnut	.12	.072

NOTE: * Have brass bushing inserts.
(W) Pressed Wood Knob. Matches knobs on RCA, GE, Westinghouse.
(P) With Pointer.



MOULDED SOCKETS

For use in vacuum tube aging racks, life test racks, tube testing apparatus, experimental set-ups, servicing equipment and other such applications where sockets are subjected to exceptionally severe service; such as frequent insertions and withdrawals of tubes or connecting plugs. Both the No. 8 and the No. 12 types are made with the Eby recess ring, moulded through contact holes. This feature results in a minimum of effort and delay in finding the correct position of prongs and holes. Furnished only in Black Bakelite finish.



No. 12 Moulded Socket

The Type 12 Socket

The Eby "Universal" with the entire shell and base moulded in one piece. The arrangement of the contact spring terminals is such that it can be mounted on metal or insulating panels, with terminals projecting above the panel for experimental or above-board wiring, or projecting below the subpanel for subpanel wiring. The socket can be mounted on subpanels with the base above the subpanel or

with simply the top projecting through a large hole in the subpanel. Contact designations are moulded on the top and bottom of the base, close to the terminals.

Cat. No.	No. of Prongs	List Price	Net Price
Type 12—1 1/4" Mtg. Contours			
12A	4	\$0.30	\$0.18
12B	5	.30	.18
12C	6	.40	.24
12BC	Combination 5 and 6 prong	.40	.24
12DO	7 .855" dia. layout	.40	.24
12DNO	Combination large and small 7 prong	.40	.24
12E	8	.45	.27



PANEL TYPE BULLS EYE 110 V.

BULLS EYE IS 1" DIA.
IN RED, GREEN OR WHITE
NET.....\$.60

BULBS, 110V.....20

1100 Pine Street

St. Louis, Missouri

Switches

Plugs

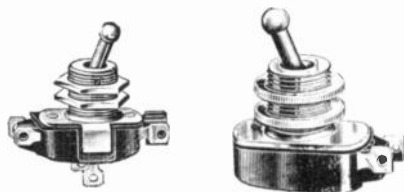
Jacks

Toggle Switches



H.&H. TOGGLE SWITCHES

TYPE	SHANK	NET
S.P.S.T.	7/16	\$.24
S.P.D.T.	"	.33
D.P.S.T.	"	.45
D.P.D.T.	"	.51



CARLING TOGGLE SWITCHES

TYPE	SHANK	NET
S.P.S.T.	1/2	.20
S.P.S.T.	7/8	.22
S.P.D.T.	1/2	.25
D.P.S.T.	1/2	.30
D.P.D.T.	1/2	.50

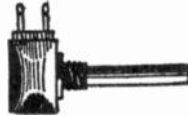
Power Switch



THIS D.P.S.T. POWER SWITCH IS DESIGNED TO BREAK BOTH SIDES OF A LINE. WILL CARRY 12 AMPS. 125 V. - 6 AMP. 250 V.-BY PARALLELING THE CONTACTS AND USING ONE LEG OF LINE CURRENT CARRYING CAPACITY IS DOUBLE OF THAT SHOWN ABOVE. MADE BY EPO

#1259 TOGGLE, NET .69

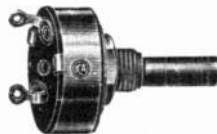
Rotary Switches



H. & H. ROTARY SWITCHES

TYPE	SHAFT	NET
DPST	2"	\$.75
DPDT	2"	.90

ROUND ROTARY SWITCHES



TYPE	SHAFT	NET
#397	2"	\$.30
#398	2"	.33

KNIFE SWITCHES



BAKELITE BASE

NO.	TYPE	NET
1216	SPST	.33
1217	SPDT	.39
1218	DPST	.45
1219	DPDT	.51
1220	3PDT	.78
1221	4PST	.90
1222	4PDT	.96
1363	5PST	1.32
1364	5PDT	1.35

PORCELAIN BASE

6100	SPST	.15
6102	SPDT	.15
6103	DPST	.27
6104	DPST	.33
6105	3PDT	.60

Carbon Granules

No. 410
Carefully selected and highly polished. Acid treated to remove all trace of ash. Will stand 20% more current without burning. Highly sensitive. Vial contains enough carbon to repack four two button microphones.



NET PER VIAL \$.45

Microphone Spring



NET EACH \$.03

BUD

SHIELDED PHONE PLUG FOR CRYSTAL MIKES



No. 282—Same Construction as No. 230—Duplex Phone Plug, but has a metal handle instead of bakelite for shielding \$.30
No. 284—3 Way Microphone Plug with metal handle, construction same as No. 1057 \$.66

SHIELDED PORTABLE MICROPHONE JACK



Jack is constructed same as above, but housed in a nickel plated brass jacket and thoroughly insulated.

No. 283—3 Way Microphone Jack Price \$.66
No. 279—2 Way Microphone Jack Price \$.54



IMP SHORT JACKS

Heavy bakelite-insulators eliminate leakage. Sleeve terminal marked "+" (positive). Mount in 3/8" hole on panels up to 1/4". Fit Carter or any standard plug.

No. 1—(Open Circuit, Output Type).

NET EACH \$.15

No. 2-A—Same as No. 1 except single closed circuit type.

NET EACH \$.18

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

ANTENNAS by RCA

395 ANTENNA SYSTEM



No. 395

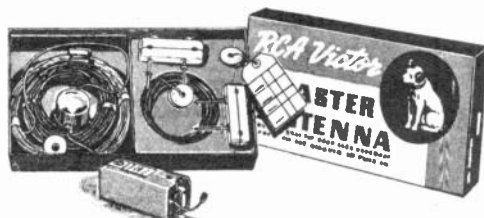
This genuine RCA antenna, gives highly efficient performance and is priced at a figure everyone can afford to pay. It is a scientifically designed system, operates perfectly with receivers on all types and manufacture and is unusually easy to install. Requires only two supports, 40 feet apart. All parts, including antenna wires, strain insulators, junction box, etc., are assembled and soldered. Cash in on this low-priced antenna. Recommend it to your customers who need a quality antenna at a popular price.

CONTENTS OF KIT

2 Antenna Wire Coils—Each 20 feet long	2 Coupling Unit Links	NET
2 Strain Insulators	2 Nail-On Knob Insulators	
1 Transmission Line—60 feet	1 Ground Clamp	\$2.37
1 Junction Box	1 Instruction Sheet	Stock No. 395
1 Receiver Coupling Unit		

Stock No. 12855, Set Coupling Unit for 395 and RK-40 Antennas NET \$.45

RCA VICTOR MASTER ANTENNA



No. 9845

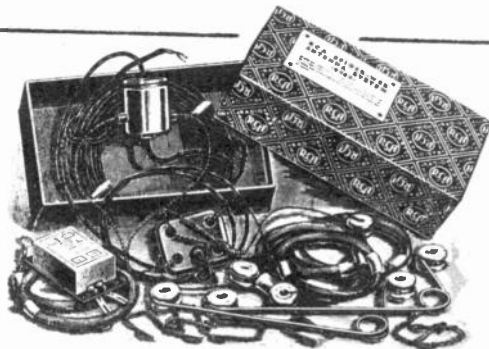
The RCA Victor Master Antenna is the latest development in antenna design by the world's most famous antenna engineers. It embodies the result of a great amount of development work to give every broadcast receiver owner the ultimate in noise-free radio reception. It not only offers the usual quality of noise reducing, but it includes a new balancing circuit by means of which any local noise, such as vacuum cleaners, etc., can be greatly minimized.

This antenna assembly consists of a balanced doublet with a counterpoise parallel to the transmission line. The length of counterpoise is adjustable, the exact dimensions being dependent on the transmission line run.

The frequency range covered is from 540 to 23,000 kcs. including all standard broadcast and foreign short-wave bands.

Stock No. 9845 Complete with Receiver Coupling Transformer NET \$4.17

SPIDER-WEB ANTENNA



No. 9685

A Transoceanic Communications type antenna for the home. The RCA Spider-Web Antenna System gives excellent signal pickup over the frequency range from 140 to 23,000 kc. By adding the stock No. 9689 High Frequency Kit, the range is increased to 70,000 k.c. with full noise reduction. Complete factory assembling and soldering of all parts makes installation rapid and easy. Proper design requires only a span of 38 feet and a vertical clearance of 12 feet.

This antenna consists of a series of doublet antennas and an improved transmission line which gives the utmost in noise reduction of the signal pickup over an extremely wide range. It is RCA's finest antenna, especially recommended for amateur and short-wave reception.

NET \$5.37

Stock No. 9685

Stock No. 9689, High Frequency Kit (Increases range to 70,000 k.c.) NET \$.90

IMPROVED MAGIC WAVE ANTENNA

A new highly efficient noise reducing antenna for every type of radio installation.

Here's an antenna that literally has "everything" a radio user requires. Noise reduction over all bands, flexibility in installation and high signal pickup. In no other RCA antenna can you obtain all of the following features:

- Noise reduction of both standard and foreign broadcasting bands (530 to 23,000 k.c.)
- Built-in lightning arrester in antenna coupling unit.
- Operates up to 16 outlets from 1 antenna with additional coupling and distribution transformers (only slight reduction in signal strength.)
- Easily installed. Completely assembled and soldered.
- Antenna may be from 20 to 120 feet long.
- Transmission line may be any length up to 500 feet.
- 30-foot length of pipe may be used for vertical antenna with underground transmission line.
- Uses magnetite core transformers.
- Can easily be attached to existing antennas.

NET \$3.57

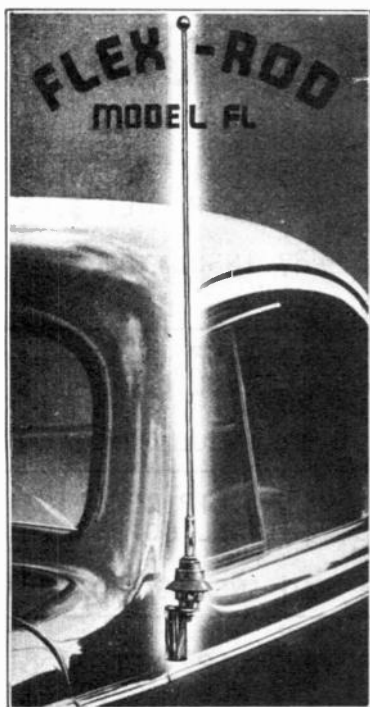
Stock No. 9812

(Includes complete assembly for single outlet installation)



9812

IT'S EASY TO PARK AT WALTER ASHE . . .



Model F. L. THE FLEX-ROD

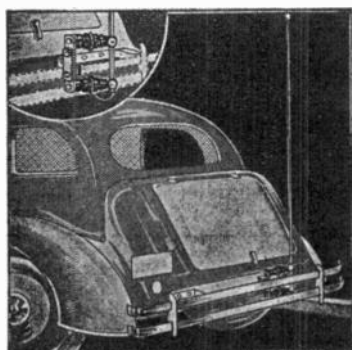
THE ORIGINAL HINGE TYPE ANTENNA, FITS ANY CAR. NO DRILLING OR CUTTING OF CAR. ONE PIECE SOLID CHROME PLATED SPRING STEEL. COMPLETE WITH FULL LENGTH SHIELDED LEAD. NET EACH - - - \$1.65



"CHALLENGER" MODEL C. O.

DOOR HINGE TYPE SIMILAR TO MODEL "FL". TWO PIECE TELESCOPIC EXTENDS TO 44". NO DRILLING OR CUTTING OF CAR. COMPLETE WITH LEAD. NET EACH - - - \$1.17

Antennas

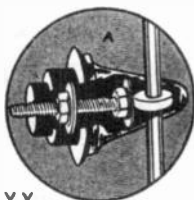


Model B. F. "THE FISH POLE"

EASILY INSTALLED ON BUMPER BRACKET. NO DRILLING. TELESCOPIC THREE SECTION EXTENDS TO 8 FEET. FLEXIBLE AND WILL NOT BREAK.

NET EACH - - - \$1.80

SIDE COWL



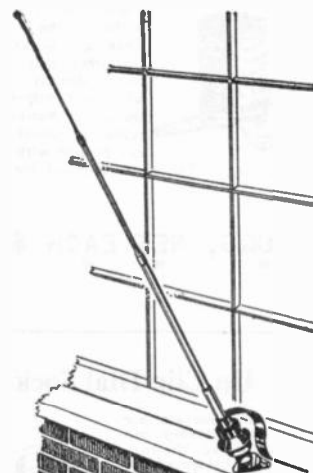
MODEL 5XX



MOLDED BAKELITE BRACKET

MOUNTS TO SIDE OF COWL WITH TWO INSULATORS. THREE PIECE TELESCOPIC EXTENDS TO 62". SHIELDED LEAD INCLUDED. NET EACH - - - \$1.77

WARD WINDEX

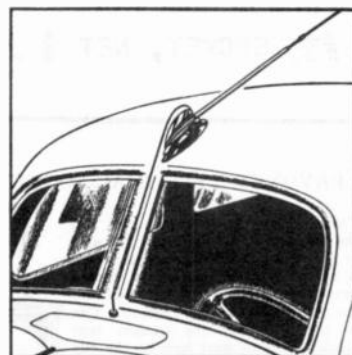


MODEL WI

THREE SECTION TELESCOPIC TO 8 FEET. ATTACHES TO WINDOW SILL WITH HEAVY INSULATORS. SCREWS FURNISHED. CADMIUM FINISH. ASSEMBLED READY TO INSTALL. NET EACH - - - \$1.47

TOP AERIAL

The "STATESMAN"



Model ST

SINGLE BAR TOP TYPE. TOP BAR EXTENDS FROM 19½ TO 32". SHIELDED LEAD CABLE INCLUDED.

NET EACH \$2.37

LOT NEXT TO STORE OR LOADING ZONE

PILOT LITE SOCKETS

PLAIN DIAL SOCKETS

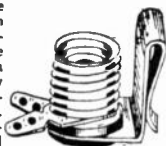


These Dial Sockets are without the bracket. They are so assembled that they may be soldered directly to the wires and suspended in the air or mounted into rubber grommets. They can be had with 2 or 3 terminal lugs. The center terminal lug on the 3 type insulated.

2 LUGS, NET EACH \$.04
3 " " " " .04

Up Clip Dial Sockets

These dial sockets are made so that they can be clipped over the condenser or bridge of the chassis. They have a standard type of screw shell to take all standard types of bulbs. The height of the bracket is 5/8". This dial socket is equipped with two lugs, the overall dimension is 3/4" high.



#34 SOCKET, NET \$.05

Down Clip Dial Sockets

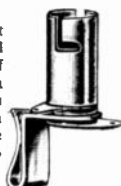
These dial sockets are made so that they can be clipped over the condenser or bridge of the chassis. They have a standard type of screw shell to take all standard types of bulbs. This socket has the bracket mounted down so that the clip may be fastened on up or down. The height of the shell and washers is 1/2", the height of the bracket is 5/8".



#35 SOCKET, NET \$.05

BAYONET TYPE DIAL SOCKETS

These sockets are so constructed that the Bayonet type bulb can be used in the socket. The Socket part itself is eyeleted to the bracket so that a contact wire may be soldered thru the center of the dial socket. Can be had in either the straight type bracket with an oval hole or the clip type bracket.



#1538 STRAIGHT BRACKET
#1540, UP-CLIP BRACKET

NET EACH, \$.05

Mueller UNIVERSAL Clips

MUELLER ALLIGATOR CLIP With or Without Rubber Insulator



No. 85 Clip — No. 87 Insulator

No. 85—A very small clip with slender, elongated jaws for getting into tight places in radio or electrical test work. Teeth really mesh. Screw and barrel connection.

#85 CLIP NET \$.05

#87 INSULATOR .04



No. 45 Pee-Wee 5 Ampere

No. 45 Pee-Wee. A very small test clip for radio, ignition, meter and similar work. 1 1/2" long. Jaw Spread 1/2". Steel, Cadmium plated.

#45 CLIP NET .04

#45C ALL COPPER .06

#47 INSULATOR .07



No. 48-B 10 Ampere

No. 48-B. A small test and battery clip for radio use and general testing purposes. 2" long. Jaw spread 9/16". Steel, Cadmium plated.

#48B CLIP NET .04

#48C ALL COPPER .08

#49 INSULATOR .08



No. 27 10 Ampere

No. 27. A high grade test clip with meshing teeth on three sides of jaws. For laboratory and shop test work. 2 1/4" long. Jaw spread 9/16". Steel, Cadmium plated.

#27 CLIP NET .08

#27C ALL COPPER .14

#29 INSULATOR .10



No. 24-A 25 Ampere

No. 24-A. A medium sized battery clip. Stands erect on battery post. Lead coated, copper shunt protects spring. 2 1/2" long. Jaw spread 1". Steel, Lead plated.

#24A CLIP NET .07

#26 INSULATOR .15



No. 21-A 50 Ampere

No. 21-A. A large heavy duty battery charging clip. Lead coated copper shunt protects spring. 4" long. Jaw spread 1 1/4". Steel, Lead plated.

#21A CLIP NET .12

#23 INSULATOR .26

No. 88 Wee-Pee-Wee Clip with No. 93 Rubber Insulator



VERY SMALL CLIP. JAW SPREAD 1/4". LENGTH IS 1 3/4". PHOSPHOR BRONZE.
88 CLIP.....NET \$.05
93 INSULATOR......03

MUELLER SNAPPER For Radio Work



A new kind of insulated, elongated test clip for getting into inaccessible places. Spring jaws on far end operated by push of thumb on near end.

A test clip, prod and retriever all in one.

TWO COLORS

RED AND BLACK,

NET EACH ---- \$.39

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri



CAPACITOR-ANALYZER and RESISTANCE-BRIDGE

MEASURES CAPACITY, RANGE .00001 TO 70.0 MFD.
MEASURES POWER FACTOR, MEASURES RESISTANCE
RANGE 50 TO 2 MEG. MEASURES INSULATION RES-
ISTANCE. DETECTS DEFECTIVE CONDENSERS. CAN BE
USED AS CONTINUITY METER. VISUAL BRIDGE BAL-
ANCE. USES 6E5 AND 1V TUBES.



QUICK AS A WINK!

DEALERS NET PRICE

LESS TUBES \$19.20



CARRON CONE CEMENT

FOR REPAIRING SPEAKER
CONES. KIT CONSISTS OF
CEMENT, THINNER AND A
BRUSH. 2 OZ SIZE \$.40

ONE PINT CEMENT \$.90



SPEAKER CENTERING SHIMS

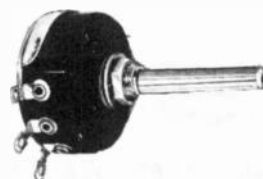
FOR ALINGING VOICE COILS
IN ANY TYPE SPEAKER.
COMES IN FOUR GUAGES IN
FOUR DIFFERENT COLORS.
COMPLETE WITH CASE \$.40

CLAROSTAT AUTOMATIC LINE VOLTAGE REGULATORS

TYPE	WATTS	NET	SET	TYPE	NET
"0"	50-60	\$.60		MAJESTIC	
"A"	60-100	.60		70-71-7P6	1516 1.05
"B"	100-150	.60		7BP6	1508 1.05
"C"	150-200	.60		180-181-8P6	1012 1.05
				90-91-92-100	1210 1.05
GREBE HS-5	0600	1.05		STEWART WARNER	
" M-3-4-HS12	0500	1.05		900	5001 1.05
" HS-6	0500	1.05		950	5002 1.05
" M-1-2 HS-8	0608	1.05		R-100	5003 1.05

"CLAROSTAT" WIRE WOUND VOLUME CONTROLS

TYPE	RESISTANCE	NET
W-8	1000	\$.60
W-11	2000	.60
W-19	5000	.60
W-27	10000	.60
W-32	15000	.60
W-40	25000	.78
W-44	50000	.84



INSULATED STAPLES

BOX OF 50,

NET PER BOX \$.10



H&H 110 VOLT PLUGS
AND FLUSH RECEPTACLES
MIDGET, COMPLETE \$.66
STANDARD COMPLETE .66

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street  St. Louis, Missouri

Soldering Accessories

"JACKSON STANDARD" SOLDERING IRONS



THE "JACKSON" STANDARD SOLDERING IRONS HAVE PROVED THEMSELVES TO BE DEPENDABLE AND STURDY. A GOOD IRON AT A FAIR PRICE. 90 DAY GUARANTEE.

TYPE NO.	WATTAGE	WEIGHT	NET
121	50	8 OZ.	\$.83
141	75	12 OZ.	1.65
142	100	16 OZ.	2.10
144	150	20 OZ.	3.30
143	200	24 OZ.	4.50



No. 230

For AC or DC Current

6 ft. Heater Cord with Rubber Cap.

Removable Copper Tip.

SOLDERING PENCIL

For Soldering, Branding, Engraving, Etching or Burning.



SOLDERING IRON STAND
NET EACH .18

NET \$.75

"Kester" Quality Solder

ROSIN CORE

1/4 LB. TIN NET \$.17

1 " ROLL " .56

5 " " " 2.60

ACID CORE

1/4 LB. TIN NET \$.17

1 " ROLL " .56

5 " " " 2.60



"AMERICAN BEAUTY" IRON TIPS

100 WATT #3138 NET \$.50

45 " S-76 " .45



* ALL PRICES NET PER 100

* #1 .19	* #5 .19
* #2 .19	* #8 .50
* #3 .01 EA.	* #10 .70

SPADE BOLTS NET EACH .01

KESTER SOLDERING PASTE

NET PER CAN \$.12

IT'S EASY TO PARK AT WALTER ASHE . . .

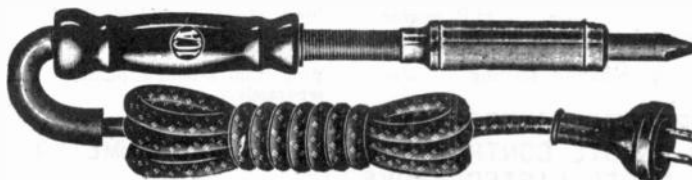
Electric Soldering Irons "American Beauty"



IF YOU WANT AN ELECTRIC SOLDERING IRON TO LAST A LIFETIME, GET ONE OF THESE "AMERICAN BEAUTY" IRONS. KNOWN THE WORLD OVER FOR THEIR DEPENDABILITY AND SATISFACTORY SERVICE. COMPLETE WITH TWIST-PROOF CORD AND STAND. REMOVABLE TIP. LIBERAL GUARANTEE.

TYPE	WATTAGE	WEIGHT	NET
3138	100	16 oz.	\$ 5.40

I.C.A. SOLDERING IRONS



60 WATT SERVICEMAN'S IRON

Here is an iron suitable for all general solder work for the Serviceman, Experimenter and for home use

No. 1960-A. NET \$2.25

85 WATT GENERAL PURPOSE IRON

For the radio set manufacturer, electrical work, service shop and other industries where a good sturdy iron is required.

No. 1962-A. NET \$2.70

115 WATT HEAVY DUTY IRON

Especially designed for refrigerator work, heavy duty amplifier soldering, transmitters and auto repair work. Equipped with a 7/16" diameter heavy duty tip.

No. 1961-A. NET \$3.30

ICA REPLACEMENT TIPS FOR ICA SOLDERING IRONS

Available In All Sizes

For replacement in ICA Soldering Irons. Can also be used in American Beauty and irons of similar construction.

FOR 60 WATT IRONS

No. 1970 NET \$.27

FOR 85 WATT IRONS

No. 1972 NET \$.33

FOR 115 WATT IRONS

No. 1971 NET \$.42

ICA REPLACEMENT ELEMENTS FOR ICA SOLDERING IRONS

Due to the construction of the ICA Soldering Irons, the burnt out elements can easily be removed and replaced by anyone. Diagram and instructions supplied with each element.



TYPE IRON	NO.	NET
60 WATT	1985	\$1.05
85 "	1986	1.20
115 "	1987	1.35

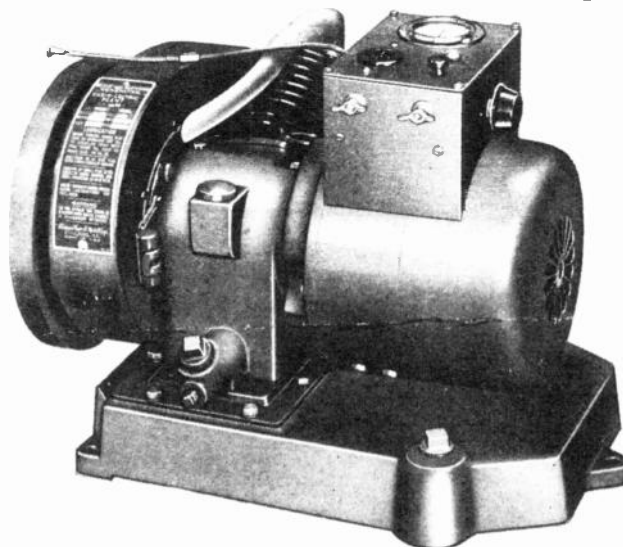
LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY
 1100 Pine Street St. Louis, Missouri

The NEW Blue Diamond AC-DC GAS-ELECTRIC PLANT

Pioneer

300 WATTS A.C.
 OR
 200 WATTS D.C.
 (from same plant)
 —
 6, 12, or 32 Volts D.C.
 —
 4 POLE Generator



NO FLICKER
 —
 1800 R.P.M.
 —
 DEPENDABLE
 —
 COMPACT-STURDY

FEATURES

CAPACITY — 300 watts, 110 volts A.C. 60 cycles, without a flicker, and from the same plant 200 watts, 6 volts D.C.; 250 watts, 12 volts D.C., or 325 watts, 32 volts D.C.
GENERATOR — 4 pole — direct connected on to crankshaft of engine (No Coupling) — steel shell — all parts easily accessible by merely removing end cover.
ENGINE — 4 cycle, single cylinder, air-cooled, $\frac{1}{8}$ H.P. engine with mechanical governor to maintain constant speed of 1800 R.P.M. — cast iron fuel tank base — ignition shielding.
STARTING — All Models — push-button starting — also auxiliary rope-pull starter

FILTER — If the plant is used to operate a radio, the filter is recommended.

FUEL CONSUMPTION — Operates 12 to 16 hours on one gallon of gasoline — Base tank one gallon capacity.

COMPACT DESIGN — Overall dimensions, 19 $\frac{1}{2}$ " long, 14" high, 14" wide, making the Blue Diamond the ideal plant where space is valuable.

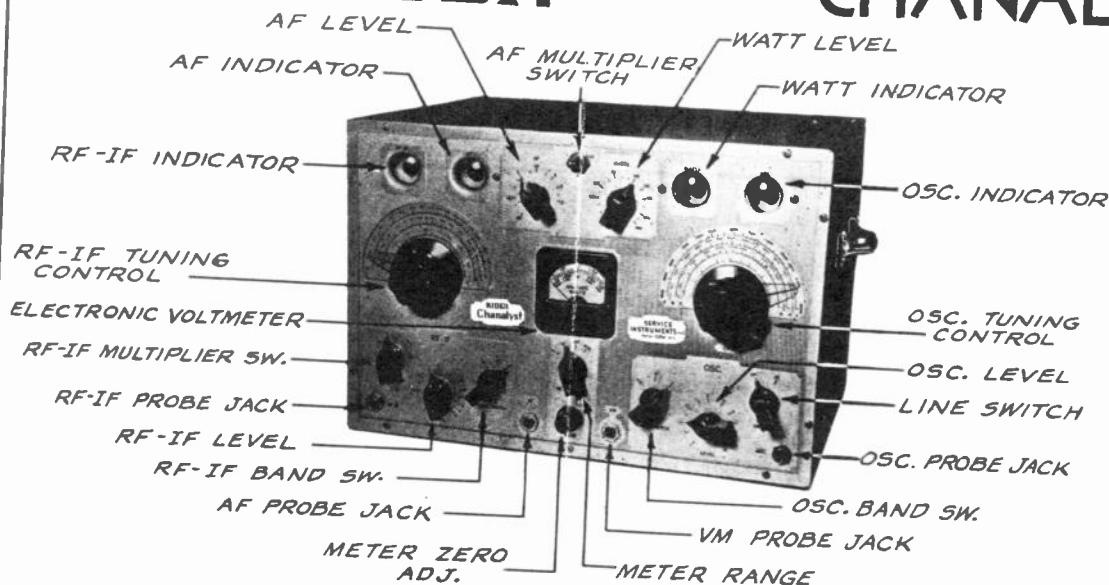
REMOTE CONTROL TYPE — Push-button starting and stopping from a remote point — built into the plant, not furnished separately.

MODEL "BD6" LESS REMOTE CONTROL AND METERS,
 MODEL "BDR6" WITH REMOTE CONTROL, VOLTMETER AND AMMETER,
 FILTER FOR EITHER MODEL LISTED ABOVE,

NET \$59.97
 " 78.72
 " 4.50

RIDER

CHANALYST



THE NEW MODERN
 WAY TO SERVICE
 RECEIVERS. NEW
 FAST METHODS
 EMPLOYED REDUCE
 TIME TO ONE
 HALF. ASK FOR
 COMPLETE CIRCULAR ON THE
 NEW "CHANALYST"

Chanalyst Model A

\$107.50 net

IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY

51

1100 Pine Street

St. Louis, Missouri



VOCAGRAPH SOUND SYSTEMS

12-Watt Amplifier and Portable Systems

MODEL 30-12C, twelve-watt amplifier provides high gain for use with crystal, velocity, or dynamic microphones. Output impedances are 4 and 8 ohms for use with P. M. speakers.

Gain 120 db, using one 6F5G input, a 6N7G driver, and push-pull 42 tubes in output. Type 80 rectifier. Twelve-watt rating at 8% harmonic distortion. Eighteen-watt peak power. Frequency response flat within 2 db from 50 to 10,000 cycles.

Has microphone-phono input fader and full range tone control with built-in power switch.

MODEL 30-12C less tubes and shield..... \$17.70
price, shield for above amplifier..... 2.10
Set of tubes for the above amplifier..... 3.29

MODEL 30-12PX fully portable, single speaker system, as listed above, complete. price \$47.40

20-Watt Amplifier and System

Model 30-20C, twenty-watt amplifier offers three channel input (two high gain and one phono-radio input) together with high power, distortion-free output at extremely low cost. Peak output, twenty-five watts. Output impedances of 2, 4, 8, 166, 250, and 500 ohms are available with a selector switch.

Input is provided for velocity, dynamic, or crystal microphones, any two of which may be separately controlled. Full range tone control affords complete high or low range compensation.

Gain is 130 db, using two 6F5G input stages, a 6F8G electronic mixer, a 6N7G phase inverter driver, and push-pull beam-power 6V6G output, with Type 83 rectifier. Extreme frequency fidelity is accomplished through the use of resistance coupling right to the amplifier output. A heavy duty output transformer accomplishes excellent efficiency of energy transfer, without frequency discrimination. Output is down only 2 db at 40 cycles, and less than 1 db from 60 to 10,000 cycles.

Separate power switch and jeweled pilot light enhance the value of this remarkable amplifier.

MODEL 30-20C less tubes and shield..... \$26.10
Shield for above amplifier, price..... 2.10
Set of tubes, price..... 5.63

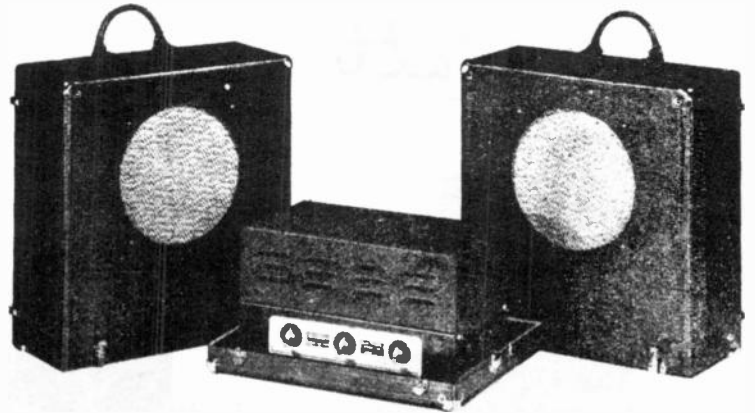
20-Watt Fully Portable System (MODEL 30-20PX)

The above described amplifier is housed in a compact dual speaker carrying case (Type PC-2) and equipped with all accessories needed to provide the most versatile operation, as illustrated to the left. The following is a list of standard equipment; however, optional items such as dynamic or velocity microphone or floor stand are available:

Model 30-20C Amplifier
Turret Type Shield
Set of tubes
Type X-1 Crystal Microphone with 25-ft. Cable
Type FT-1 Table Stand
Two Type CM-10 P.M. Dynamic Speakers
Two 35' Speaker Cables
Type PC-2 Dual Speaker Carrying Case

Where other accessory equipment is desired, add price of desired units and subtract price of undesired items. See accessory pages for description and prices of optional units.

MODEL 30-20PX fully portable dual speaker system, complete as listed above, price..... \$70.80



30-Watt Amplifier and System

Featuring—The COLORGRAPH Dual Tone Compensator

Input is provided for velocity, dynamic, and crystal microphones, any two of which may be separately controlled or blended with the phono-radio input. Output impedances of 2, 4, 8, 166, 250, and 500 ohms are available at three output sockets by means of an impedance selector switch.

Gain is 135 db using two 6F5G high gain input stages, two 6C8G electronic mixer—tone compensator parallel stages, one 6N7G driver, two 6L6G push-pull output, and an 83 rectifier. Extremes of compensation are plus and minus 14 db at 100 cycles and 5000 cycles. Peak power output, forty watts.

Four controls for attenuation, mixing, and tone are provided. Separate power switch and pilot light are located on the front panel.

MODEL 30-A30C less tubes and shield..... \$38.90
Shield for above amplifier, price..... 2.10
Set of tubes for above amplifier, price..... 7.29

30-Watt Fully Portable System—Dual Speakers (MODEL 30-30PX)

The above amplifier housed in the Type PC-3 three-piece carrying case, as illustrated to the right. Equipped with all accessories including the Type FD-1 demountable floor stand packed in the carrying case. Complete equipment includes (for optional equipment, see listing of standard accessories):

Model 30-A30C COLORGRAPH Amplifier
Turret type shield
Set of tubes
Type X-1 Crystal Microphone and 25 ft. Cable
Type FD-1 Demountable Floor Stand
Two Type CM-12 P.M. Dynamic Speakers
Two 50 ft. Speaker Cables
Type PC-3 Three-Piece Carrying Case

MODEL 30-30PX fully portable, complete. price..... \$99.00

● An outstanding microphone development for all around use—P. A. systems, amateurs, schools, colleges, stage and drama, orchestra pick-up and all other uses where finest sound reproduction is desired. Combines striking beauty with real broadcast construction and new superlative performance. So small and compact it cannot hide the face of the artist or announcer. High fidelity tone reproduction. Close and distant pickup. Suitable for voice and music.

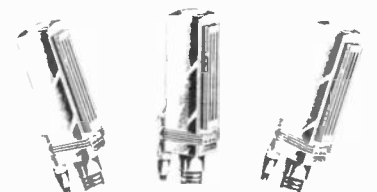
Frequency range, 40 to 10,000 CPS. Output level, —66 db. Furnished in all standard output impedances listed below.

REGULAR EQUIPMENT: New exclusive design Push-Click built-in "On-and-Off" switch, never before included as standard equipment on any stock microphone. Mounting thread 1/8-inch-27. Removable bayonet locking plug and 25 feet low-capacity rubber covered cable for greater convenience in carrying and setting up microphone. Adapter loop for overhead suspension. Flexible friction type sectional mount with 1/8-inch-27 adapter thread—another new and exclusive UNIVERSAL feature—of great value in all stage uses for tilting microphone to desired angle when used on conventional floor stand or desk mount. No screws, clamps or locks to adjust. Tilt it where you want it—"It stays put!" Microphone size: 1 1/4 inches square x 4 1/2 inches high. Weight, 16 ozs. Packed (carton), 3 pounds.

UNIVERSAL

"5MM" SERIES:

NEW MODERN
STREAMLINER



MODEL 5MM-H—High impedance (direct to grid). Code: "MIHY."
MODEL 5MM-P—To match 500 ohm line. Code: "MIME."
MODEL 5MM-L—To match 200 ohm line. Code: "MILO."

NET \$14.70

LOT NEXT TO STORE OR LOADING ZONE

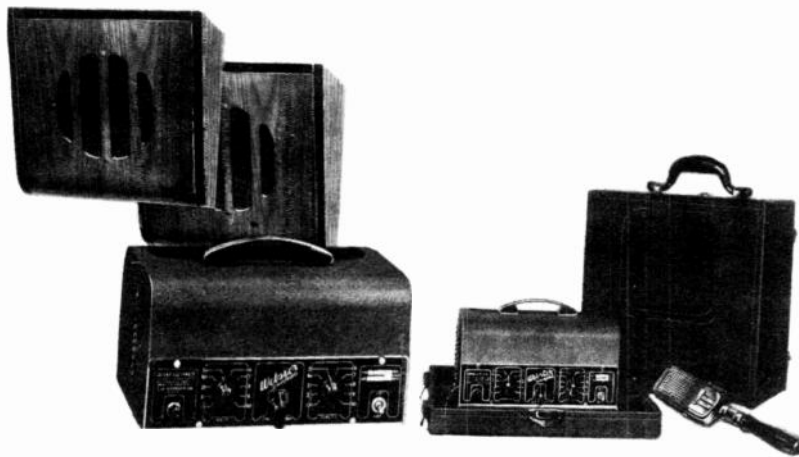
WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

8 Watt

14 Watt



SPECIFICATIONS

AMPLIFIER: Four stage—5 tubes—8 Watts output.
 Tubes required (5).....1-6J7, 1-6N7, 1-6CS, 1-6L6, 1-5V4
 Microphone Gain.....115 DB
 Phonograph Gain.....78 DB
 Microphone Input Impedance.....2 Megohms
 Phonograph Input Impedance.....20000 Ohms
 Current Consumption.....74 Watts
 115 V. 50-60 Cycles.
 Frequency Characteristic...plus or minus 2 DB, 60 to 10000 cycles
 Output Impedance.....3, 6, 250 and 500 Ohms
 Controls: One microphone, one phonograph, tone control, pilot light, and master AC switch and fuse.
 Model 508 is equipped with a 6 ft. approved cord and plug.
 All transformers varnish impregnated.
 Finish, neutral gray.
 Dimensions.....6"x6"x10 1/2" Weight.....12 lbs.

SPEAKER: The permanent magnet speakers are of the type 3808 and are 8" in diameter, and have a total flux density of 44000 lines per speaker. Cone structure is particularly designed for sound reinforcing systems.

MICROPHONE: The Model 1240A Veletron microphone used in these systems is of the residual potential type and requires no operating potential and they can be used on long cable lengths—up to 1000 feet being practical. Microphone is twist type and is equipped with a 25 foot RCS cord and plug.

BAFFLES OR PORTABLE CASE: The two Model 2906 baffles are of the wall mounting type with inclined front, are substantially constructed and are reinforced walnut veneer. The baffle includes mounting hardware.

LISTING

MODEL FV508—Complete Fixed System as described, including Model 508 amplifier, Model 1240A microphone, with 25' of cable and plug; Model 1122 floor stand, two model 3808 permanent magnet speakers mounted in 2906 baffles

Price.....\$107.50
 Shipping Weight 40 lbs.....Code SCION

MODEL PV508—Complete Portable System as described, including Model 508 amplifier, Model 1240A microphone with 25' of cable and plug and handle, Model 3808 permanent magnet speaker with 25' of cable and plug, and portable carrying case.

Price.....\$85.00
 Shipping Weight 40 lbs.....Code SEALD

AMPLIFIER MODEL 508 for 115 Volt 50/60 cycle operation.
 Price.....\$38.50
 Shipping Weight 14 lbs.....Code ALLOT

ALL LISTINGS LESS TUBES

COMPLETE KIT OF MATCHED TUBES

Price.....\$9.55
 Shipping Weight 1 lb.....Code SOIRE

SPECIFICATIONS

AMPLIFIER Underwriters' Laboratories Approved. Four Stages. 14 watts output at 6.5% distortion.

Tubes required.....2-6J7, 2-6N7, 2-6V6, 1-5V4
 Microphone input gain.....123 d.b.
 Input impedance.....20,000 ohms and 2 megohms
 Phonograph input gain.....79 d.b.
 Input impedance.....20,000 ohms and 1/2 megohm
 Current consumption.....87 watts
 Circuit, beam type output tubes with multi-stage 8 d.b. degeneration.

Frequency characteristics, plus or minus 3/4 d.b., 40 to 10,000 cycles.

Inherent noise level.....30 d.b. below zero level
 Output impedance.....3, 6, 250, 500 ohms through polarized receptacles.

Controls: Two independent input volume controls for microphone or phonograph, tone control, master power switch and pilot light.

Amplifier provided with replaceable fuse.

Finish: Neutral gray, baked Japan, with attractive control panel.

Amplifier equipped with 6 foot approved rubber covered power cable and non-breakable plug.

Dimensions.....7 x 7 x 12 1/2"

Weight.....18 lbs.

All transformers, chokes, etc., are varnish impregnated.

SPEAKERS The 10" permanent magnet speakers have a power handling capacity of 12 watts each and a total magnetic flux of 40,000 lines. The cone is made of tough, long fibrous material, moisture proofed. Voice coil impedance is 6 ohms.

LISTING

PORTABLE SYSTEM Model PV-714, for 115 v. 60 cycle operation, complete as described, less tubes.

Price.....\$125.00
 Shipping Weight 44 lbs.....Code, PARSI

FIXED SYSTEM Model FV-714, for 115 v. 60 cycle operation, as described, less carrying case and speaker cables, but with Floor Stand.

Price.....\$112.50
 Shipping Weight 40 lbs.....Code, PAYEE

AMPLIFIER only, Model 714, less tubes.

Price.....\$54.00
 Shipping Weight 18 lbs.....Code, ADAGE

KIT OF MATCHED TUBES

Price.....\$13.05
 Code.....STONE

Webster-Chicago

Manufactured under license arrangements with Electrical Research Products, Inc., subsidiary of Western Electric Co. Inc. and American Telephone and Telegraph Co.

SOUND EQUIPMENT

DEALERS AND SERVICEMEN THESE PRICES ARE LIST. ASK FOR YOUR REGULAR DISCOUNT

IT'S EASY TO PARK AT WALTER ASHE...

25 Watt PUBLIC ADDRESS Systems

• UNDERWRITERS' LABORATORIES APPROVAL

• PORTABLE AND PERMANENT SYSTEMS

• MULTI-STAGE INVERSE FEED-BACK CIRCUIT

• DUAL ELECTRONIC MIXER

• IMPROVED MICROPHONE AND SPEAKER PERFORMANCE

• TAPPED OUTPUT TRANSFORMER

• LOW PHASE SHIFT



APPLICATION: These 25-watt systems find wide application in providing realistic microphone or record reproduction for gatherings as large as 4,000 people. Ideal for auditoriums, schools, churches, etc.

EQUIPMENT: The Model PR-25 and PD-25 are complete portable public address units. Models FR-25 and FD-25 are for permanent installation. Tremendous strides have been made in the design of the Model 2L-25 amplifier used in these systems. WEBSTER-CHICAGO has engineered a multi-stage inverse feed-back circuit resulting in a greatly reduced noise level. Reductions in frequency, amplitude, and phase distortion have vastly increased the useful applications of these 25-watt systems.

Two types of microphones are offered. The Model 1242 velocity type is recommended in enclosures where acoustic feed-back is liable to become troublesome. Model 1244 dynamic type is recommended for outdoor installation and wherever wide-area pick-up is essential. The high fidelity reproduction of these systems is rounded out with the use of two scientifically designed 12" permanent magnet speakers.

SPECIFICATIONS

AMPLIFIER: Underwriters' Laboratory Approved. Four stage—25 Watts Output. Multi stage 8 d.b. degeneration.

Tubes required (7) 2-6J7, 2-6N7, 2-6L6, 1-5V4G
Microphone Gain 135.2 d.b.
Microphone Input Impedance 20,000 ohms and 2 megohms
Phonograph Input Gain 81 d.b.
Phonograph Input Impedance 20,000 ohms and 1/2 megohm
Current Consumption 125 watts @ 120 v.—50-60 cycles
Frequency Characteristic, plus or minus 1 1/2 d.b. 50 to 10,000 cycles.

Output Impedance 3, 6, 250, 500 ohms through polarized receptacles.

Controls: Two independent input volume controls for microphone or phonograph, tone control, master power switch and long life pilot light.

Amplifier provided with replaceable fuse.

Finish: Neutral gray, baked Japan, with attractive control panel. Amplifier equipped with 6 foot approved rubber covered power cable and non-breakable plug.

Dimensions 9" x 9" x 14 3/4" Weight 28 lbs.
All transformers, chokes, etc., are varnish impregnated.

SPEAKERS: Two 12" Permanent Magnet Type with a power handling capacity of 18 watts each, and a total flux of 65,000 lines per speaker. The cone structure and magnetic circuit have been designed for public address applications to overcome the shortcomings of ordinary commercially available speakers. Voice coil impedance — 6 ohms. In the portable system each speaker is equipped with a 35' rubber covered cable and polarized plug.

MICROPHONE: The Microphones offered with these systems are of the high impedance type, and of such sensitivity that when used with this amplifier, assure pick-up over a wide area. Their response characteristics adapt them to high quality voice and musical reproduction. Microphones are complete with 25 feet of shielded rubber covered cable and polarized plugs. They are mounted on a three section full length demountable chrome-plated floor stand.

CARRYING CASES: Models PR-25 and PD-25 pack in two portable carrying cases. The speakers are mounted in two bias-cut acoustic vented cases, which clip together in one unit for portability. The amplifier, speaker cables, microphone stand and microphone pack into the amplifier case. Black embossed leatherette finish. Metal bound corners.

LISTING

MODEL PR-25—Complete Portable System as described with Model 1242 Velocity Microphone for 120 Volt 50-60 Cycle operation.

Price \$211.25
Shipping Weight 91 lbs. Code PLAZA

MODEL PD 25—Complete Portable System as described with Model 1244 Dynamic Microphone for 120 Volt 50-60 Cycle operation.

Price \$210.25
Shipping Weight 91 lbs. Code PLATY

MODEL FR-25—Complete Permanent System as described with Model 1242 Velocity Microphone, less carrying cases and Speaker Cables for 120 Volt 50-60 Cycle operation.

Price \$168.50
Shipping Weight 65 lbs. Code PLIER

MODEL FD-25—Complete Permanent System as described with Model 1244 Dynamic Microphone, less carrying cases and Speaker Cables for 120 Volt 50-60 Cycle operation.

Price \$167.50
Shipping Weight 65 lbs. Code PLUMY

AMPLIFIER MODEL 2L25 only for 120 Volt 50-60 Cycles.

Price \$75.00
Shipping Weight 35 lbs. Code ALATE

ALL LISTINGS LESS TUBES

COMPLETE KIT OF MATCHED TUBES.

Price \$14.50
Shipping Weight 3 lbs. Code STEEP

Webster-Chicago

Manufactured under license arrangements with Electrical Research Products, Inc. subsidiary of Western Electric Co. Inc. and American Telephone and Telegraph Co.

SOUND EQUIPMENT

DEALERS AND SERVICEMEN THESE PRICES ARE LIST. ASK FOR YOUR REGULAR DISCOUNT

LOT NEXT TO STORE OR LOADING ZONE

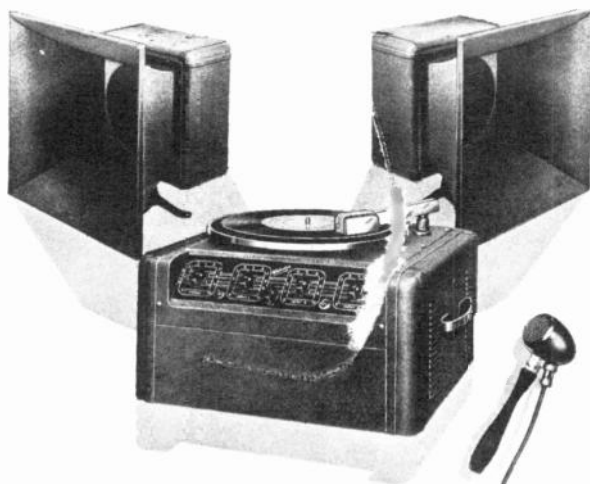
WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

Mobile SOUND Equipment

30 Watt



AMPLIFIER SPECIFICATIONS

Tubes required: 9, 2-6J7, 3-6N7, 2-6L6, 2-0Z4
 Microphone gain: 126 DB and 76 DB
 Microphone input impedance: 2 megohms and 20,000 ohms
 Phonograph and auxiliary gain: 76 DB
 Auxiliary gain input impedance: 20,000 ohms
 Circuit: Multi-stage feed back
 Frequency characteristics: plus or minus 2 DB, 50-10,000 cycles
 Inherent noise level: 60 DB below rated output
 Current consumption for AC line: 150 watts
 Current consumption for DC line: 120 watts
 Dimensions: 16" x 16" x 9"
 Controls: 4, 2 high gain microphone, 1 phono and one auxiliary input

M-928 SYSTEM complete as described, less baffles.

Price\$245.50
 Shipping weight 80 lbs.Code MEZZO

M-928-A SYSTEM complete as above, with two No. 2618 Flare baffles.

Price\$285.50
 Shipping weight 125 lbs.Code MINOR

ALL LISTINGS LESS TUBES.

COMPLETE KIT OF MATCHED TUBESPrice \$16.65
 Shipping weight 3 lbs.Code SCROL

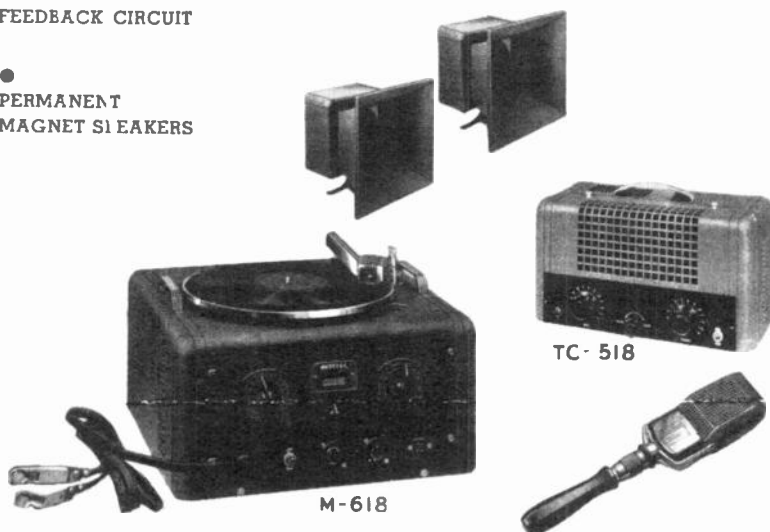
18 Watt

• 6 VOLT OR POWER
 LINE OPERATION

• MULTI-STAGE
 FEEDBACK CIRCUIT

• PERMANENT
 MAGNET SPEAKERS

• ECONOMICAL
 POWER
 REQUIREMENTS



AMPLIFIER SPECIFICATIONS

Four stage, 6 tubes, 18 Watts output.
 Distortion, less than 3% at rated output.
 Multi-stage degeneration phase inversion type.
 Tubes required: (6) 1-6J7, 2-6N7, 2-6L6, 1-6WSG.
 Microphone gain: 123 DB
 Phonograph gain: 73 DB
 Current consumption DC: 16 A.
 Phono motor current consumption: 3 A.
 Power consumption AC: 120 W.
 Controls: 1 microphone volume control,
 1 phono volume control,
 1 tone control.
 Master power switch.
 D. C. standby switch.

Finish, Webster neutral gray.

Size M-618 amplifier and turntable assembly only: 14 3/4 x 16 x 10

Size TC-618 amplifier only: 7 3/4 x 16 x 8

Two cables are furnished with this equipment, one for A. C. and one for battery operation.

LISTING

SYSTEM M-618—Includes amplifier cabinet as described with turntable and pickup, 2 Model 3812 speakers, 15' cables and plugs, 1 Model 1240H microphone with 25' of cable and plug. Complete less tubes.
 Price\$149.50
 Shipping weight 85 lbs.Code MASSE

SYSTEM TC-618—Includes amplifier less turntable and pickup, 1 No. 3812 speaker with 15' of cable and plug, 1 No. 1240H microphone with 25' of cable and plug.
 Price\$105.25
 Shipping weight 45 lbs.Code TAPER

MODEL 2618 Flares, complete with mounting bracket for 12" speakers.
 Price\$20.00
 Shipping weight 25 lbs.Code SELAH

COMPLETE KIT OF MATCHED TUBES.

Price\$11.50
 Shipping weight 2 lbs.Code TECTO

Webster-Chicago

Manufactured under license arrangements
 with Electrical Research Products, Inc.,
 subsidiary of Western Electric Co. Inc. and
 American Telephone and Telegraph Co.

SOUND EQUIPMENT

DEALERS AND SERVICEMEN THESE PRICES ARE LIST. ASK FOR YOUR REGULAR DISCOUNT

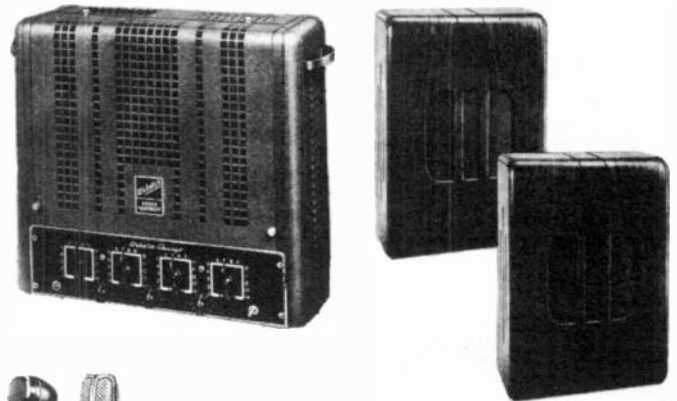
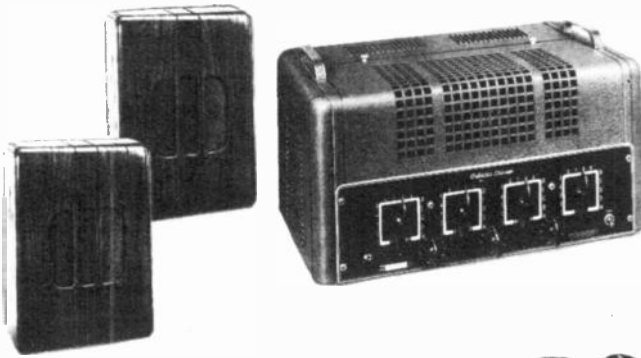
IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

35 Watt

60 Watt



SPECIFICATIONS

SPEAKERS: Two Model 3813 speakers having a total flux density of 90,000 lines per speaker, and an equalized characteristic power handling capacity of 18 watts per speaker. The speakers are mounted in two Type 2824 baffles complete with mounting hardware.

MICROPHONES: The two types of microphones offered as optional equipment with this system have characteristics that adapt them to a variety of operating conditions. For indoor work, the Model 1242 velocity microphone is recommended because of its highly directional characteristics. For out-of-door work, the Model 1244 dynamic type is recommended because of its freedom from wind and atmospheric effects. These microphones are equipped with a 25' RCS cord and plug.

MICROPHONE STANDS: The microphone is mounted on Model 1122 full length, chrome plated, cushion mounted floor stand, adjustable from 45" to 60".

AMPLIFIER SPECIFICATIONS: 5-stage, 12-tube, 35-watt output. Tubes required (12): 3-6J7, 3-6N7, 2-6L6, 2-6L7, 1-6C8, 1-5V4
Microphone gain 130 DB
Microphone input impedance 2 Megohms
Phonograph gain 80 DB
Phonograph input impedance 500,000 and 20,000 Ohms

CONTROLS: 3 high gain microphone controls, 1 low gain phonograph control, high and low end equalizer controls, volume expander control, on and off switch, impedance matching switch and long life pilot lamp.
Output impedance: 3, 6, 250, and 500 Ohms
Power Consumption 175 Watts

LISTING

MODEL FR-35: Includes Model 4L35 amplifier, remote control with 25' of flexible cable, 1242 velocity microphone with 25' of shielded rubber covered cable and plug, one No. 1122 microphone stand, 2 Model 3813 speakers, 2 Model 2824 wall baffles.

Price \$243.50
Shipping Weight 130 lbs. Code PERCH

MODEL FD-35: Includes Model 4L35 amplifier, remote control with 25' of flexible cable, 1244 dynamic microphone with 25' of shielded rubber covered cable and plug, one No. 1122 microphone stand, 2 Model 3813 speakers, 2 Model 2824 wall baffles.

Price \$241.50
Shipping Weight 130 lbs. Code PREEN

AMPLIFIER MODEL 4L35 with remote control and 25' of flexible cable for 120 volt, 50-60 cycle operation.

Price \$112.50
Shipping Weight 65 lbs. Code ARENA

ALL LISTINGS LESS TUBES

COMPLETE KIT OF MATCHED TUBES

Price \$22.75
Shipping Weight 4 lbs. Code TALPA



● HIGH SPEED
EXPANDER

● MULTI-STAGE
DEGENERATION

● 4 INPUT MIXING
CIRCUITS

● DUAL TONE
COMPENSATION

● REMOTE CONTROL

● VARIABLE OUTPUT
CONNECTIONS

AMPLIFIER SPECIFICATIONS: 5 stage, 14 tube, 60 watt output. Tubes required, 2-6N7, 3-6J7, 2-6L7, 1-6C8G, 1-6E6G, 2-6L6, 3-5V4G.

Microphone gain 132 DB
Phonograph gain 90 DB
Microphone input impedance 2 megohms and 20,000 ohms
Phonograph input impedance 500,000 and 20,000 ohms
Power required 250 watts

Controls: 4 input controls for use with four microphones or three microphones and one phonograph. Volume expansion control, high and low end compensation controls, on and off switch, impedance matching switch and long life pilot lamp.

Remote master control.

Output impedance 3, 6, 250 and 500 ohms, by means of a switch in the rear of the amplifier.

MODEL 4L60 AMPLIFIER is equipped with a five foot approved cord and plug and is fused.

SPEAKERS: Two Model 3813 speakers having a total flux density of 90,000 lines per speaker, and an equalized characteristic of a power handling capacity of 18 watts per speaker. The speakers are mounted in two Type 2824 baffles complete with mounting hardware.

MICROPHONES: The two types of microphones offered as optional equipment with this system have characteristics that adapt them to a variety of operating conditions. For indoor work, the Model 1242 velocity microphone is recommended because of its highly directional characteristics. For out-of-door work, the Model 1244 dynamic type is

recommended because of its freedom from wind and atmospheric effects. These microphones are equipped with a 25' RCS cord and plug.

MICROPHONE STANDS: The microphone is mounted on Model 1122 full length, chrome plated, cushion mounted floor stand, adjustable from 45" to 60".

LISTING

MODEL FR60 includes 4L60 amplifier for 120v, 50-60 cycle operation, 1242 velocity microphone with 25' of shielded rubber covered cable, one 1122 microphone stand, two Model 3813 speakers and two 2824 wall baffles,—remote control and 25' of cable with plug.

Price \$286.00
Shipping weight 170 lbs. Code PUFFY

MODEL FD60 same as above but with model 1244 dynamic microphone.

Price \$284.00
Shipping weight 170 lbs. Code PULPY

AMPLIFIER MODEL 4L60 only, for 120 volt, 50-60 cycle operation.

Price \$155.00
Shipping weight 65 lbs. Code QUADS

COMPLETE KIT OF MATCHED TUBES

Price \$27.80
Shipping weight 4 lbs. Code STOUT

Webster-Chicago

Manufactured under license arrangements with Electrical Research Products, Inc., subsidiary of Western Electric Co. Inc. and American Telephone and Telegraph Co.

SOUND EQUIPMENT

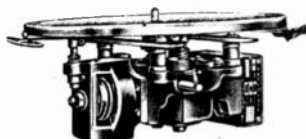
DEALERS AND SERVICEMEN THESE PRICES ARE LIST. ASK FOR YOUR REGULAR DISCOUNT

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

LOW PRICED TURNTABLE EQUIPMENT



GREEN FLYER 2-Speed, Governor Controlled Phono Motor

General Industries Model D. Heavy duty motor, dual speed for 33 1/3 and 78 RPM records. Lever shift from one speed to other. Induction type motor—silent operation, no radio interference. Centrifugal type governor with wide range to adjust speed to varying voltages. All gears completely enclosed, running in oil. Silent spiral-cut gears made from laminated bakelite. Long over-size bearings. Absolute uniformity of speed under severe variance of voltage and record drag. Will not overheat in closed cases and cabinets. 10-inch turn table. Equipped with stop switch. Escutcheon plate, pointers in statuary bronze finish. Overall size 8 1/4" x 5 1/4", requiring cut out 8 1/4" x 5 1/4", suspends 3/4" below baseboard; mounting bracket centers 8 1/4" x 6 1/4". For 105-120 volts, 60 cycle.

AS ILLUSTRATED

MODEL "D"
NET \$ 10.20

MODEL "V" 78 RPM
MOTOR WITH 12"
TURNTABLE AND FIXED
GOVERNING METHOD.

MODEL "V"
NET \$ 6.75

AUTOMATIC RECORD CHANGER MODEL "L" WITH VOLUME CONTROL

FURNISHED WITH
EITHER MAGNETIC OR
CRYSTAL PICKUP.
NET PRICE \$ 32.40

PLUS 5% EXCISE TAX

Plays seven 12" or eight 10" Records automatically . . . Any Record may be repeated . . . Records may be rejected . . . Repeats last record . . . Simple change for playing manually . . . Simple change for 10" or 12" Records . . . All steel Construction . . . Finish—Statuary Bronze.

Webster-Chicago



PORTABLE PHONOGRAPHS

Webster-Chicago Portable Phonographs have been designed to permit the use of transcribed reproduction in connection with public address equipment.

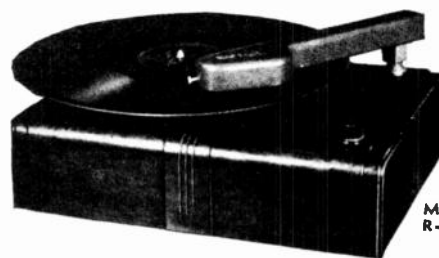
This equipment is available in portable form for ready transportation and a record compartment to facilitate the handling of records.

The motor is a constant speed type with 10" turntable and the pick-up is of the magnetic type with tangential arm for proper tracking. Case size is 8" x 14" x 14". Finish: black walrus grain.

MODEL 1254-A Complete as described with power cord and 6' shielded cable.
Price \$35.00

ABOVE PRICE IS LIST
SERVICEMEN ASK FOR YOUR REGULAR DISCOUNT

RCA Victor



Model
R-938

By means of the new Victrola Push-button Switch and the simple "plug-in" connection, this RCA Victrola Attachment can be connected to an RCA Victor Radio and so provide you at the "Push of a Button" with the world's finest recorded music. Modern Victor Records, recorded under the brilliant new "Higher Fidelity" process, bring you practically everything in music—the music you want—when you want it.

NET PRICE \$ 10.46

EMCO RECORD PLAYERS



COMPACT
CRYSTAL PICKUP
GREEN FLYER
MOTOR
SELF CONTAINED
BEAUTIFUL DESIGN
VOLUME CONTROL

PORTABLE RECORD PLAYER

Extremely compact, highly efficient record player. Complete with green flyer phono motor. Plays 78 R.P.M. records. Equipped with magnetic or new streamline crystal pickup. Heavy plywood case covered with handsome leatherette. Special needle cup supplied with special spring cover to prevent needles from spilling. A.C. switch and volume control conveniently mounted on motor board. A record album is built into cover with reservation for 15 records. This unit will play 10 and 12 inch records. Operates on 110 volt A.C. current.

NET PRICE

Model No. 301—Magnetic Pickup— \$ 19.95

Model No. 302—Crystal Pickup— 19.95

THE NO. 301 OR 302 CAN BE SUPPLIED IN
FINISHED CABINET STYLE AT THE SAME PRICE.

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

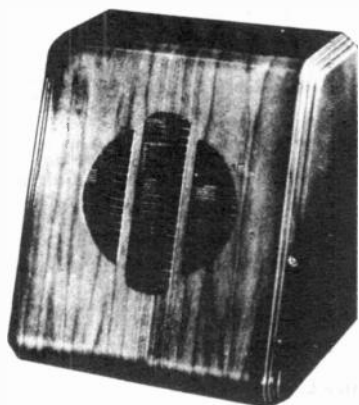
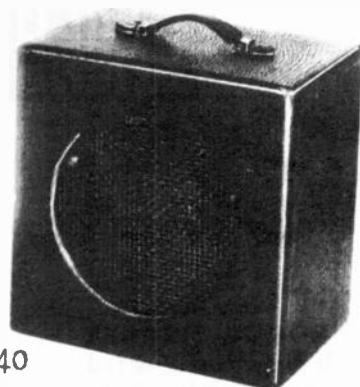
EMCO

BAFFLES TRUMPETS

Single Speaker Carrying Case

A portable speaker case that will accommodate up to 12 in. speakers. Has detachable back with drilled holes to allow for cone pressure. Supplied with metal screen to prevent damage to speaker. Made of extra heavy plywood covered with handsome and serviceable black leatherette. Size 15" high, 15" wide, 10" deep.

Model No. 203—NET PRICE \$ 5.40



STANDARD WALL MOUNTING SPEAKER CABINET FOR ALL GENERAL INDOOR WORK

A fine economical baffle constructed similar to the above will accommodate 10 and 12 inch speakers. Beautifully finished, heavily constructed and reinforced throughout. Has sufficient baffle area to give exceptionally fine frequency response. Cleverly designed grille adds to the beauty of this baffle. The trapezoidal cut of this baffle lends to giving the proper directional effect.

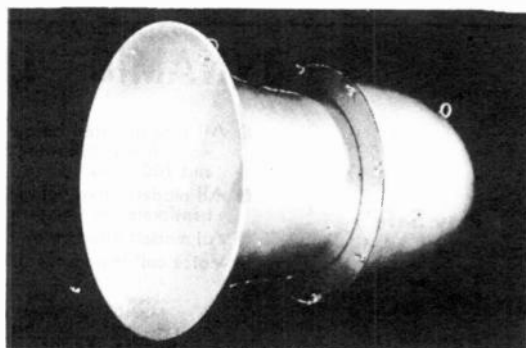
MODEL No. 502—NET PRICE \$ 4.20

PARABOLIC DEFLECTOR BAFFLE

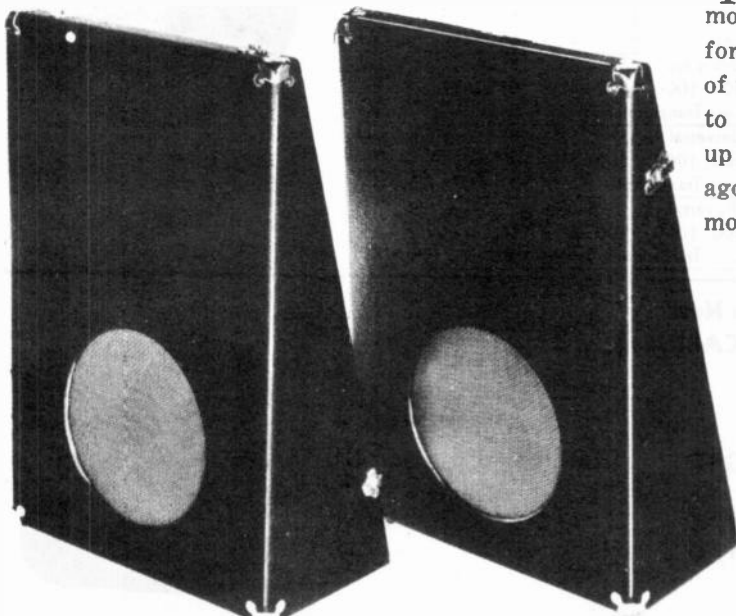
The most widely used deflector baffle in the sound field. 100% weather-proof. EMCO baffles are spun of EXTRA HEAVY GAUGE ALUMINUM. Weatherproof back is made of heavy gauge STEEL to prevent dents and breaks from handling, completely equipped with suspension loops and all necessary hardware, will accommodate 11 and 12 inch speakers. Overall length 20 inches, bell diameter 17 inches. Finished in a beautiful weather resisting battleship gray. Baffles also available for 10 inch speakers, characteristics same as above, physical size slightly smaller.

12" BAFFLE—MODEL No. 401—NET PRICE \$ 5.70

10" BAFFLE—MODEL No. 402—



STANDARD DUAL SPEAKER CASE

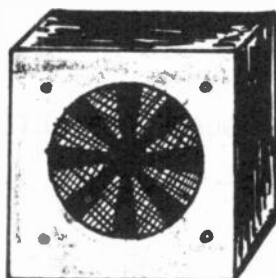


TWO speakers can easily be mounted in this dual case ready for immediate operation. Each side of this case is designed, when open, to stand by itself. Accommodates up to 12 inch speakers with a diagonal slope permitting sufficient mounting area for the speakers.

Size: 25" x 17" x 10".

Model No. 202

NET \$ 7.65



METAL SPEAKER
CASE

13 x 13 x 6"

BLACK CRACKLE
FINISH
METAL GRILL

NET \$ 3.00

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

WRIGHT-DeCOSTER THE BRONZE LINE

NOKOIL

Every Model
NOKOIL SPEAKER
is Fully Rust-Proofed
and Dust-Proofed



- Universal Transformer (except 5" model N5LU, see note)
- $\frac{3}{4}$ " diameter voice coil (Type L)
- Voice coil impedance 5.3 ohms at 400 cycles
- Fully dust proofed — fully rust proofed

New Model Number	Old Model Number	Size Ins.	Transformer	Depth Ins.	Cone Bracket Outside Dia.	Ship. Wgt. Each Lbs.
N5LU	NST700	5	See Note	2 $\frac{1}{2}$	5	2
N5LL	NST700A	5	500, 1000, 1500	2 $\frac{1}{2}$	5	2
N5LN	NST700LT	5	Less Output Trnsf.	2 $\frac{1}{2}$	5	1 $\frac{1}{2}$
N6LU	NST800	6	Universal	2 $\frac{13}{16}$	6 $\frac{1}{2}$	2 $\frac{1}{2}$
N6LL	NST800A	6	500, 1000, 1500	2 $\frac{13}{16}$	6 $\frac{1}{2}$	2 $\frac{1}{2}$
N6LN	NST800LT	6	Less Output Trnsf.	2 $\frac{13}{16}$	6 $\frac{1}{2}$	2 $\frac{1}{2}$
N8LU	NST900	8	Universal	3 $\frac{1}{4}$	8 $\frac{1}{2}$	3
N8LL	NST900A	8	500, 1000, 1500	3 $\frac{1}{4}$	8 $\frac{1}{2}$	3
N8LN	NST900LT	8	Less Output Trnsf.	3 $\frac{1}{4}$	8 $\frac{1}{2}$	2 $\frac{1}{2}$
N10LU	NST1000	10	Universal	5 $\frac{19}{32}$	10 $\frac{3}{16}$	4 $\frac{1}{2}$
N10LL	NST1000A	10	500, 1000, 1500	5 $\frac{19}{32}$	10 $\frac{3}{16}$	4 $\frac{1}{2}$
N10LN	NST1000LT	10	Less Output Trnsf.	5 $\frac{19}{32}$	10 $\frac{3}{16}$	3 $\frac{3}{4}$
N12LU	NST1200	12	Universal	6 $\frac{3}{4}$	12 $\frac{3}{16}$	5 $\frac{3}{4}$
N12LL	NST1200A	12	500, 1000, 1500	6 $\frac{3}{4}$	12 $\frac{3}{16}$	5 $\frac{3}{4}$
N12LN	NST1200LT	12	Less Output Trnsf.	6 $\frac{3}{4}$	12 $\frac{3}{16}$	5 $\frac{1}{2}$

The $\frac{3}{4}$ " size voice coil is designated in the model number by the letter L.

NOTE: Transformer Model N5LU furnished standard with 4000 and 7000 ohm input transformer.

3 $\frac{1}{2}$ WATT RADIO MODELS

Lifetime
MAGNET

NOKOIL MODELS
Are Completely Shielded
Having Transformer
and Magnets
Shielded in a Heavy Brass
Housing
With No
Exposed Connections

DYNAMIC UNIVERSAL SERIES

Play Safe
Guarantee Satisfaction
Use Only
WRIGHT-DeCOSTER
Speakers

WRIGHT-DeCOSTER
Reproducers Prove
Superior Wherever the
Finest Performance is
the Determining Factor

- All models listed below (except model E5MU, see note) have universal field coils which furnish following field: 2500, 2200, 1800, 1800 tapped at 300, 1500, 1000, and 700 ohms.
- All models listed below (except model E5MU, see note) furnished with universal transformers or line matching transformers.
- All models listed below (except model E5MU) have 1" diameter voice coils (Type K)
- Voice coil impedance 5.3 ohms at 400 cycles

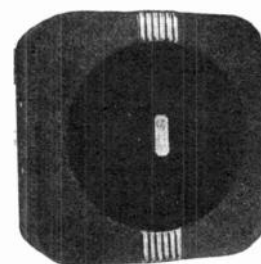
New Model Number	Old Model Number	Size Ins.	Transformer	Depth Ins.	Cone Bracket Outside Dia.	Ship. Wgt. Each Lbs.
E5MU	E500	5	See Note	2 $\frac{1}{2}$	5	1 $\frac{1}{2}$
E5ML	E500A	5	500, 1000, 1500	2 $\frac{1}{2}$	5	1 $\frac{1}{2}$
E5MN	E500LT	5	Less Transformer	2 $\frac{1}{2}$	5	1 $\frac{1}{4}$
E6KU	E700	6	Universal	4 $\frac{15}{32}$	6 $\frac{3}{8}$	5 $\frac{3}{8}$
E6KL	E700A	6	500, 1000, 1500	4 $\frac{15}{32}$	6 $\frac{3}{8}$	5 $\frac{1}{8}$
E6KN	E700LT	6	Less Transformer	4 $\frac{15}{32}$	6 $\frac{3}{8}$	4 $\frac{3}{4}$
E8KU	E800	8	Universal	4 $\frac{7}{8}$	8 $\frac{3}{8}$	5 $\frac{3}{8}$
E8KL	E800A	8	500, 1000, 1500	4 $\frac{7}{8}$	8 $\frac{3}{8}$	5 $\frac{3}{8}$
E8KN	E800LT	8	Less Transformer	4 $\frac{7}{8}$	8 $\frac{3}{8}$	5
E10KU	E1100	10	Universal	5 $\frac{19}{32}$	10 $\frac{3}{16}$	6 $\frac{3}{8}$
E10KL	E1100A	10	500, 1000, 1500	5 $\frac{19}{32}$	10 $\frac{3}{16}$	6 $\frac{3}{8}$
E10KN	E1100LT	10	Less Transformer	5 $\frac{19}{32}$	10 $\frac{3}{16}$	5 $\frac{3}{4}$
E12KU	E1200	12	Universal	6 $\frac{11}{16}$	12 $\frac{3}{16}$	7 $\frac{3}{8}$
E12KL	E1200A	12	500, 1000, 1500	6 $\frac{11}{16}$	12 $\frac{3}{16}$	7 $\frac{3}{8}$
E12KN	E1200LT	12	Less Transformer	6 $\frac{11}{16}$	12 $\frac{3}{16}$	7



The New SUEDE CABINETS

SUEDE CABINETS

MODEL	MOUNTING	WIDTH	HEIGHT	DEPTH	NET
W-8	WALL	9	9 $\frac{1}{4}$	4 $\frac{1}{8}$	\$2.25
W-10	WALL	11 $\frac{1}{8}$	11 $\frac{1}{8}$	5	2.85



IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

Jensen

PM

SPEAKERS

(PERMANENT MAGNET)
SPEAKERS



"C" TYPE SPEAKERS ARE GENERAL USE AND REPLACEMENT MODEL. LESS TRANSF.

TYPE	MODEL NO.	SIZE	VOICE COIL	NET
PM-5-E	ST-327	5"	3- Ω	\$2.55
PM-6-CS	ST-456	6	6	4.80
PM-8-CS	ST-462	8	6	5.10
PM-10-CS	ST-467	10	6	6.30
PM-12-C	ST-250	12	6	7.95

MODEL "B" SPEAKERS HAVE SLIGHTLY LARGER MAGNET AND CARRYING CAPACITY THAN "C" TYPE. AVAILABLE IN STANDARD OR HIGH FIDELITY.*

PM-12-B	ST-254	STD. FID. 12	8- Ω	15.00
	ST-282	HI. FID.		

MODEL "A" SPEAKERS ARE THE TOPS IN PERFORMANCE FOR BUILDERS, PUBLIC ADDRESS, STUDIO USE ETC. HEAVY MAGNET, $1\frac{1}{2}$ " VOICE COIL. CAN BE HAD IN EITHER STANDARD OR HIGH FIDELITY.*

A-12-PM	ST-257	STD. FID. 12	8- Ω	20.85
	ST-260	HI. FID.		

THE MODELS LISTED BELOW ARE THE SAME AS MODELS PM-12-B AND A-12-PM IN ALL RESPECTS EXCEPT CONE SIZE WHICH IS 15".

PM-15-B	ST-304	STD. FID. 15	8- Ω	18.00
"	ST-302	HI. FID. "	8	18.00
A-15-PM	ST-300	STD. FID. 15		24.75
"	ST-298	HI. FID. "		24.75

*HIGH FIDELITY FREQUENCY CUTOFF IS APPROXIMATELY 7500 CYCLES, STANDARD FREQUENCY FIDELITY APPROXIMATELY 4500 CYCLES.

LISTED BELOW ARE THE NEW JENSEN SERIES "S" SPEAKERS WHICH WERE RECENTLY ENGINEERED AND INTRODUCED TO THE LOWER PRICE FIELD. HERE IS THE ANSWER TO THE CALL FOR AN EFFICIENT LOW PRICED PERMANENT MAGNET SPEAKER.

TYPE	MODEL NO.	SIZE	VOICE COIL	NET
PM5-FS	ST-443	5"	4- Ω	\$1.62
PM6-ES	ST-445	6	4	1.98
PM8-DS	ST-461	8	3	2.79

TRANSFORMERS FOR "S" SERIES SPEAKERS ARE ADJUSTABLE TO THE FOLLOWING IMPEDANCES, 2000, 4500, 7000 AND 10000 OHMS. NO CENTER TAP.

ZPI020	FOR PM5-FS AND PM6-ES	.51
ZX1010	FOR PM8-DS	.90

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

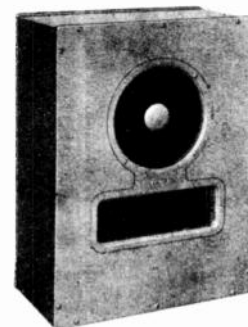
St. Louis, Missouri



PERI-DYNAMIC REPRODUCERS . . .

MODEL KM with Bass Reflex for MUSIC

Model KM Reproducers incorporating Jensen 8, 10, 12, 15 or 18" Speakers and Jensen Auditorium Speakers consist of specially designed Jensen Speakers contained in rigidly built, specially designed enclosures incorporating both *Peri-dynamic* and *Bass Reflex* principles. Thus, in KM Models extra octaves of low frequency performance are made available to an extent not possible even with an infinite baffle. Middle and high frequency response is improved and the speaker becomes a complete reproducer designed and built by Jensen. The use of haphazardly designed and built baffles is entirely eliminated at an extremely moderate cost and maximum performance ability is assured. Model KM Reproducers are recommended for every known application of the loudspeaker where the requirement is for general high quality performance—with emphasis on the quality and extent of low frequency response.



Model KM-12
For 12" Speaker

Of no less importance to the trade than the remarkable performance ability of these new reproducers is the fact that enclosures are shipped knocked down in a compact, convenient package or kit. This practice reduces prime cost

and shipping expense, simplifies handling and storage and otherwise contributes to the ideal of offering the highest possible quality of loudspeaker performance at a minimum cost. The enclosure is shipped in one package; the speaker in another. Complete instructions are in the package; all necessary assembly screws and hardware are included and only a screw driver and a few minutes of time are required to complete the reproducer.



To insure maximum performance advantage from Jensen *Peri-dynamic* and *Bass Reflex* principles, the loudspeaker design must be accurately matched to the enclosure with which it is associated; therefore, the purchase and use of the complete reproducer is always preferred. However, the performance of any speaker will be improved by use in one of these enclosures and in response to insistent demand the enclosures are now offered for sale separately. In the case of the BR-14 Enclosure for Auditorium speakers particular attention was paid to designing the enclosure to match with the characteristics of Auditorium speakers already in use. Therefore, the use of Model BR-14 in connection with Auditorium speakers in the field is recommended without any reservation.

MODEL	STOCK NO.	WITH SPEAKER	NET LESS TRANS.
KM-8	ST-503	PM8DS 8"	\$12.39
KM-8	ST-502	PM8CS 8"	14.70
KM-10	ST-505	PM10CS 10"	18.18
KM-12	ST-379	PM12C 12"	22.26
KM-12	ST-380	PM12B 12"	28.71
KM-12	ST-381	A12PM 12"	34.56
KM-15	ST-384	PM15B 15"	33.96
KM-15	ST-385	A15PM 15"	40.71

MODEL "BR" (ENCLOSURES ONLY)

MODEL	FOR SPEAKER	NET
BR-8	8"	\$ 9.60
BR-10	10"	11.88
BR-12	12"	13.71
BR-14	AUDITORIUM	17.91
BR-15	15"	15.96
BR-18	18"	21.00

MODEL 3000 PERI-DYNAMIC



FOR USE ANYWHERE AN EXTENSION OR EXTRA SPEAKER IS REQUIRED. HOMES, INSTITUTIONS, RADIO OR PHONOGRAPHS. HEAVILY BUILT OF HARDWOOD PANELS FINISHED IN BLACK EBONY AND WALNUT. COMPLETE WITH 8" PERMANENT MAGNET JENSEN HIGH EFFICIENCY SPEAKER.

CABINET ONLY NET \$6.00

COMPLETE WITH SPEAKER, LESS VOLUME CONTROL AND OUTPUT TRANSFORMER, NET \$11.10
VOLUME CONTROL ONLY, NET .75

ADJUSTABLE TRANSFORMERS

MODEL "X" TRANSFORMERS FOR MATCHING 4500, 7000, 10000 AND 14000 OHMS. CENTERTAPPED.

MODEL "Y" TRANSFORMERS FOR MATCHING 500, 1000, 1500 AND 2000 OHMS.

TYPE	FOR SPEAKER	NET
ZX1010	PM6E-PM8D	\$.90
ZX1004	PM6CS-8CS-10CS-12C	1.35
ZY2001	PM6CS-8CS-10CS-12C	1.35
ZY2003	PM12B-A12PM	1.65
Z1520	500 TO 6 OHMS	.75

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

HEADPHONES



Brush Crystal Headphones

SUPER SENSITIVE—HIGH FIDELITY RESPONSE

Frequency response from 60 to 10,000 cycles, brings a new meaning to headphone reception. Requires only a fraction of the power necessary to operate electric-magnetic phones. High impedance and great sensitivity enable them to be used from any normal source, regardless of impedance. As in all Crystal Reproducers the motors will not carry the D. C. plate voltage but must be fed by a blocking condenser with the plate current carried by a choke or resistor. This resistance is not at all critical—from 10,000 to 100,000 ohms. Light in weight; only 6 ounces for the complete assembly, hand and 5 foot cord.

YOUR COST \$ 5.40

Acme Lightweight Phones

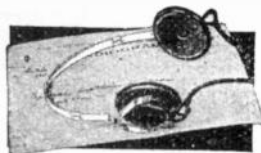
An exceptionally efficient headphone at low cost. The new lightweight type, entire headset weighing five ounces. Scientifically designed for superior performance, faithful reproduction and long life. 2000 ohms. **ACME LIGHT WEIGHT PHONES—**



YOUR COST \$ 1.35

No. 106—Special Trimm Featherweight Phones

24000 Ohms Impedance. 36% Cobalt Steel Magnet. The one phone built specifically FOR THE HAM. Precision built. Possesses the rare combination of ultra sensitivity, sturdy construction and light weight. **There is NO FINER PHONE FOR THE AMATEUR.**



No. 106—SPECIAL TRIMM FEATHERWEIGHT

YOUR COST \$ 6.00

BRUSH SINGLE CRYSTAL HEADPHONE

SAME SPECIFICATIONS AS ABOVE BUT WITH ONE EARPHONE. COMPLETE WITH HEADBAND NET.....\$ 3.00



CANNONBALL FEATHERWEIGHT

RESISTANCE 2000 OHMS
ALUMINUM CASE

YOUR COST \$1.25



BRANDES SUPERIOR HEADPHONES

ONE OF THE FIRST ON THE MARKET. EXCEEDINGLY DURABLE AND MADE TO TAKE ABUSE. RESISTANCE 2000 OHMS ALUMINUM SHELL

YOUR COST \$ 1.80



HEADPHONE CORDS

MADE OF HIGH GRADE MATERIAL FREE OF NOISE AND WILL LAST INDEFINATELY. SUPPLIED IN EITHER SPADE, LOOP OR TIP ENDS.

SINGLE CORDS .22
DOUBLE CORDS .30



MAGNETIC SPEAKERS

FOR REPLACEMENT WORK ETC.

3" STANDARDNET \$.98

5" " .98



UTAH PERMANENT MAGNET SPEAKER

3" PERMANENT MAGNET DYNAMIC SPEAKER. FINE TONE AND LONG LIFE. MODEL 3P NET \$1.80

DYNAMIC SPEAKERS

REPLACEMENT TYPE DYNAMIC SPEAKERS FOR AUTO RADIOS AND STANDARD HOUSEHOLD SETS. SUITABLE FOR AMATEURS, EXPERIMENTERS, TWO WAY INTER-COMMUNICATION SYSTEMS AND FIXED OR PORTABLE P.A. SYSTEMS

FURNISHED WITH EITHER 6 VOLT FIELD OR STANDARD 2500 OHM FIELD

TYPE NO.	OVERALL DIAMETER	YOUR COST	
		WITH TRANSFORMER	LESS TRANSFORMER
DC-5	5"	\$ 1.55	\$ 1.30
DC-6	6"	1.75	1.35



LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

HOW TO PUT NEW PEP IN YOUR EQUIPMENT with the Turner Torpedo Crystal at AMAZING LOW COST

Fast production methods make this startling low price possible. Guaranteed to outperform many \$22.50 mikes. Smooth response on both high and low frequencies. The Torpedo makes your voice "sound like you." Because it is streamlined and free from peaks, you can operate it close to the loud speakers without feedback trouble. Operation is semi-directional. No input transformer or polarizing voltage needed. Works with any amplifier designed for crystal or other high impedance mike. Range 50-7000 cycles. Level -60dB.

Crystal suspended in soft gaskets to eliminate noise due to handling. Finished in chrome — aircraft aluminum and black. An expensive looking microphone at low cost. Guaranteed for a year. Free wiring diagram packed with each Torpedo.



Model 55 Torpedo
With side open
Coupler and 8
foot cable. Free
any stand

NET PRICE
\$ 8.97

TURNER CRYSTAL MICROPHONES

NEW TURNER 30-30 CRYSTAL

GIVES YOU STREAMLINE DESIGN . . .
BROADCAST QUALITY . . . LOW PRICE

Connector permits cable to be removed or changed easily — eliminates bunglesome splices. High output 52 DB. Response range 30-8,000 cycles. Semi-directional. No peaks to cause feedback. Crystal cushioned to prevent breakage and noise. Will not blast. Not affected by wind on outdoor setups. Fits all standard mike stands. Eight foot cable and connector included. Finished in rich ebony and flashing chrome.



Model 30-30
NET PRICE
\$ 13.50

New Low Cost T-9 GIVES YOU SMOOTH RESPONSE WITH HIGH OUTPUT LEVEL



Model T-911

The crystal interior is suspended in shock absorbing material — preventing crystal breakage and noise due to handling.

Semi-directional — no peaks to cause feedback. Range 50 to 6000 cycles. Level — 52 DB. One hundred feet of cable may be used if well shielded.

Finished in ebony and chrome. Fits either 3/8-27 or 1/4 stand threads. Use the T-9 anywhere faithful reproduction is necessary, with stand as shown.

NET PRICE
\$ 11.70

SHURE

CRYSTAL MICROPHONES

SHURE "ULTRA" Wide-Range Crystal Microphones

The Highest Performance
Available Today in
General-Purpose Microphones

By whatever standards you judge them — fidelity of reproduction, beauty of design, dependability, cost — you will find SHURE ULTRA will give you the most. Try them! Compare them with any other microphone regardless of price! You'll see why they have a long impressive record as standard equipment with leading amplifier manufacturers — why they are the popular choice here and abroad, in more than 50 countries in all climates throughout the world.

Note these outstanding features: "Ultra" Wide-Range reproduction from 30 to 10,000 cycles. ★ Dual-drive High Capacity Gratiot Horns Crystal. ★ Complete Barometric Leak Impervious. ★ Internal Screen-Protected Cartridge. ★ Crystal Triple Mounting-Sealed by special Shure process. ★ High Output Level 50 db below 1 volt per bar. ★ Acoustically correct 1/2 inch high-efficiency cylindrical diaphragm. ★ Rich new Satin-Chrome finish overall.



700D



701D



702D

NEW "SUPER LEVEL" 70H CRYSTAL MICROPHONE

The new "Super Level" model climaxes the long record of outstanding performance of the Shure 70H — the first crystal microphone generally adopted by leading sound equipment manufacturers. Retaining the high-quality wide range response and other features which made this microphone so popular, the "Super Level" 70H now provides the highest output level ever available in a crystal microphone. Rated at 46 db below 1 volt per bar (55 db below 1 volt for 10 bar signal), the new 70H requires less amplifier gain — provides a useful margin of extra sensitivity when needed. Crystal is genuine Gratiot Horns triple mounting sealed. Sturdy cast case, Satin Chrome finish, with new built-in cable receptacle. Locking plug, attached to 7 ft shielded cable. Model 70H, "Super Level" Crystal Microphone. Code Rupeg.

\$13.50

Model 70H-25 FT. Same, with 25 ft cable Code Rupeg.

14.58



Every Shure Microphone has this New Built-in CABLE CONNECTOR at no extra cost!

Gives added convenience and flexibility to microphone installations. Each microphone is equipped with a 3-conductor shielded receptacle. Polarized plug with locking ring assembled and wired to the cable furnished with the microphone. Prongs recessed for protection. Permits easy cable attachment or replacement — simplifies mounting on stand.



Model 3B TWO-BUTTON CARBON

Full size two-button microphone with quality performance for amateur transmitters, intercommunication systems and Public Address installations where dependability and low cost are the important requirements. Rugged cast frame and built-in protective grille. Has the Shure "Quick-way" Hooka. New Satin-Chrome finish overall. Special design permits use as a single-button microphone. Frame diameter 2". Thickness 1 1/2". Net weight 1/2 lb. Shpg. wt. 1/2 lb.

Model 3B. Code Ruelt.

NET \$3.30

Model 5B TWO-BUTTON CARBON

A high-quality, full size two-button microphone. Regular full size precision adjustable bottom and special diaphragm insure exceptional quality of reproduction. Ideal for low-cost sound systems. Rugged construction throughout. Attractive modern design, with new rich Satin-Chrome finish. Screen-protected diaphragm. Well-known Shure "Quick-way" Hooka for convenient spring compression. Diameter overall 3 1/2". Thickness 1 1/2". Net weight 1 lb. Shpg. wt. 1 1/2 lb.

Model 5B. Code Ruelt.

NET \$6.00

"BULLET" DYNAMIC MICROPHONES



"BULLET" MODEL MK-20:

A new dynamic microphone housed in a beautiful "microscope finish" black metal case of the famous "Bullet" shape. Full range frequency response, sensitivity, -55 db, available in low impedance, approximately 200 ohms, or high impedance, approximately 50,000 ohms. Weight, 2 lbs., 3" overall length, 2" in diameter. Bushing 3/8-27. Supplied with cable connector.

MANUFACTURED BY
TRANSDUCER CORP.

MODEL MK-20
NET \$ 11.70

ASTATIC MICROPHONES

Model T-3

Designed With Unique Swivel Mount, Concealed Wires and Tilting Head for Directional or Non-Directional Pickup



directional, as desired. No unsightly cable connection protrudes from the microphone body to mar its beauty. All necessary wires are concealed and protected against breakage in the exclusively designed swivel mounting and neck. Output level -52 db. Response 30 to 10,000 cycles. Model T-3 comes equipped with interchangeable plug and socket connector, spring cable protector and 8 ft. single rubber covered cable. Unless otherwise ordered, all T-3 Microphones come in standard polished chromium finish.

MODEL T-3 NET PRICE \$ 15.00

Model D-104



Like other Astatic Microphones, Model D-104 is fitted with a three-prong interchangeable plug and socket connector to facilitate the quick removal or interchange of microphone heads. Attractive polished chrome finish. Furnished complete with 8 foot single wire, shielded rubber covered cable and spring cable protector. Full year guarantee.

Frequency response of Model D-104 is 30 to 7500 cycles. Output level -48 db. with rising characteristics above 500 cycles to stress important intelligible speech frequencies. Shock-proof internal mounting eliminates any need for external spring suspension of the microphone housing or flexible coupling to the stand.

MODEL D-104
NET PRICE \$ 13.50

IT'S EASY TO PARK AT WALTER ASHE . . .

STANDS SHURE



Desk and Banquet Stands

These highly attractive modernistic stands harmonize in design and finish with the latest microphones. Equipped with **Shure Friction-Lock** for easy, positive height adjustment. New Iridescent Gray finish with Satin-Chrome concentric circles on base. Base diameter, 6".

Model 832D, Desk Stand. Height adjustable from 7 to 11 in. Shpg. wt., 3 1/4 lbs. Code: **Basem**. **NET \$ 3.90**
List Price.....

Model 842D, Banquet Stand. Height adjustable from 15 to 22 in. Shpg. wt., 4 lbs. Code: **Basem**. **NET \$ 4.50**
List Price.....

Desk Stands

Model 831B, Desk Stand. Small, attractive, non-adjustable desk stand. Proper height for operating table. New Iridescent Gray finish. Cord entrance in base. Base diameter 4 1/4", height 6 1/4". 5/8"-27 thread. Shpg. wt., 1 1/4 lbs. Code: **Basem**. **NET \$ 1.80**
List Price.....

Model 838C, Desk Stand. For Carbon Microphones. Complete with 5" ring. Small. Attractive. Iridescent Gray base, satin-chrome ring. Cord entrance in base. Complete with 8 rustproof springs. Base diameter 4 1/4". Height overall 7". Shpg. wt., 1 1/4 lbs. Code: **Basem**. **NET \$ 2.10**
List Price.....

Rings and Springs

Model 838C, Standard Ring. A sturdy, full-size 6" ring for carbon microphones. Attractive bevel-edge design. "Quick-way" hooks for quick mounting. Satin-Chrome finish. Complete with 8 rustproof springs. Shpg. wt., 1 lb. Code: **Ruhet**. **NET \$ 1.50**
List Price.....

Model 810B, Ring. A light 5" ring for small carbon microphones. Satin-Chrome finish. Shpg. wt., 3/4 lb. Complete with 8 rustproof springs. Code: **Basem**. **NET \$ 1.35**
List Price.....



SS1A-SS1B

MICROPHONES SHURE

Model SS1A, Floor Stand. Large round base (diameter 10 1/4", weight 10 lbs.). Modern step design with fluted rim. Beautiful Tarnish plastic ornamental collar at base. Effective height adjustment, 44 5/8 to 70 1/4 in. Total net weight, 12 3/4 lbs. Shpg. wt., 13 1/4 lbs. Iridescent Gray finish. Code: **Basem**. **NET \$ 7.50**
List Price.....

Model SS1B, Same but Satin-Chrome finish. Code: **Basem**. **NET \$ 7.50**
List Price.....

BUD STUDIO FLOOR STANDS



These floor stands are ideal for use in broadcast studios, sound recording studios and any other place where a floor type microphone stand is required. Heavy three leg base has 17" spread. Finished in lustrous black crackle enamel. Base is equipped with rubber feet to absorb shock and vibration. Stems are heavy gauge brass tubing, chromium plated. Chuck lock permits easy adjustment of movable stem or holds same securely in any position. Stems are insulated against metal to metal rattle, or dropping.

**NO. 586--TWO TELESCOPE SECTIONS
ADJUSTABLE FROM 35" TO 66"
WEIGHT 9 1/2 LBS. NET PRICE \$6.90**

Bud Desk Stands



A modernistic desk stand beautifully finished in black crackle. Octagon shaped ring is 3 3/8 inches in diameter. Overall height 9 inches. Complete with springs.

Cat. No.	List Price	Your Cost
817	\$2.25	\$1.35

EMCO



**STANDARD
BANQUET STAND**
No. 8T 918

A quality stand economically priced. Has weighted base finished in beautiful black crackle. Tubing heavily chrome plated. Base diameter 6 in., height 9 in., has 3/4 x 27 thread for crystal or velocity mike. Net weight 2 1/2 lbs.

No. 918--NET \$ 1.05



**STANDARD ADJUSTABLE
BANQUET STAND**
No. 8T 938

A low priced stand with quality features. Has 6 in diameter base finished in beautiful black crackle. Tubing heavily chrome plated. Has automatic friction clutch lock for adjusting height. Opens from 9 to 14 in. Furnished with 3/4 x 27 thread for crystal or velocity mike. Net weight 3 lbs.

No. 938--NET \$ 1.65

NEW "ACH"



SAME AS "MDH" BUT FOR STAND SWITCH AND CABLE CONCTR.

ACH-- HIGH IMPD. NET \$15.00
ACL-- 200 OHMS 15.00



Contak Mike With Foot-Operated Volume Control No String Changes Necessary

Can be Attached to Most Radio Sets
Give natural reinforcement without peaks or string instruments such as Guitars, Violins, or as Vibration analyzer. Easily attached without tools--no drilling. Will operate with either low or high-gain amplifiers. Frequency response 40 to 2000 cps. Output, -40 db. 15' of cable. Shpg. Wt. 2 lbs.
Model KTH (Hi-imp.) **NET \$13.20**
Model KTL (200 ohms) **NET \$18.00**
With foot-operated volume control

NEW KONTAK MIKE

SKH HIGH IMPD.
SKL 200 OHMS. NET \$7.20
SAME AS KTH BUT RESPONSE IS A LITTLE LOWER.
FOOT PEDAL NET \$4.80



NEW! Amperite "Hand-1-Mike"

A real Amperite Velocity with many uses. Can be used as hand, desk, or stand microphone. The 1/4"-27" thread on bottom permits use on standard floor stand. Excellent for close talking. Frequency range 60 to 7500 cps. Output, -60 db. equal to large type. Size of head, 1 1/2" x 1 1/2" x 2 1/2". 12' of cable.
HDM (Hi-imp.) **NET \$13.20**
HDL (200 ohms) **NET \$1.80**
Desk Stand for Models HDH, HDL.



A Very Popular, Very Excellent Velocity

Answering the demand for a high-quality velocity microphone at a competitive price, Amperite presents the 1938 model RAM-KAL. Truly outstanding in performance, this Velocity is excellent for both speech and music. Eliminates feedback. Has a frequency range of 60 to 7500 cps. Output, -60 db. Unaffected by temperature, pressure, or humidity. Unusually rugged. Tensile shielded, and fitted with heavy shock absorber and swivel bracket. Shipping weight 3 lbs.
Model RAM (Hi-imp.) with 12' of cable **NET \$13.20**
Model RAL (200 ohms) with 12' of cable

Input Transformer (Cable Type) LGP

Enables the use of low impedance microphones and cable lengths up to 2000 ft. with amplifiers having high impedance input. Hum trouble entirely eliminated. Can be used with 25, 50, or 200 ohm microphones. Output connects directly to high imp. input of amplifier. Standard grade recommended for research laboratory grade for movie. Shipping weight 3 lbs.
Model LGP (Standard) 60-2000 cps. **NET \$3.00**
LGP (Lab.) 40-14,000 cps. **NET \$6.00**

THE AMPERITE VELOCITY

Distinguished in Design and Quality

now offers a new exclusive feature in
THE ACOUSTIC COMPENSATOR

Models RBHn-RBm

Considered the finest types of microphone available for P. A. work, these models are excellent for close talking and distant pickup, speech, music, or wherever else a high-quality microphone is required. Frequency range 40 to 11,000 cps. Output, -60 db. Excellent also for studio or recording. Complete with switch, cable connector and 25' of cable.

Model RBHn (High impedance) **NET \$25.20**
Model RBm (200 ohms)

Models RBHn-RBm

For unusual feedback conditions such as footlight installations. The 200 ohm model is especially recommended for such installations. Output is 3 db. lower than models RBHn-RBm. Frequency range 40 to 11,000 cps. Complete with switch, cable connector and 25' of cable.

Model RBHn (High impedance) **NET \$25.20**
Model RBm (200 ohms)

*ACOUSTIC COMPENSATOR MODELS

The Acoustic Compensator permits the increase of the high frequencies by the mere flip of the finger. Positive construction. As shown in diagram, simply push the knob up to increase high frequencies, or down to increase lows. Makes microphone adjustable for close talking or distant pickup.

Models RBHn-RBm, with acoustic compensator. Frequency range 40 to 11,000 cps. Output, -65 db. Complete with switch, cable connector and 25' of cable. **NET \$25.20**

AMPERITE MICROPHONES ARE TRIPLE SHIELDED against all RF or magnetic fields, entirely eliminating hum pickup. They are acoustically designed to eliminate any possibility of cavity resonance.

AMPERITE ANNOUNCES A NEW MODEL MICROPHONE MODEL RSH-K

THIS MIKE HAS THE SAME FEATURES AS THE RBHn MECHANICALLY. THE ONLY EXCEPTION IS THAT THE RSH-K HAS A LOWER FREQUENCY RESPONSE BUT IS SUITABLE FOR VOICE AND WILL DO A GOOD JOB OF RECORDING MUSIC.

Model RSH-K EITHER HIGH OR LOW IMPD. **NET \$19.20**

AMPERITE PRODUCTS SUPPLIED IN EITHER CHROME OR GUNMETAL, NO EXTRA COST

AMPERITE

AMPERITE MICROPHONE STANDS

Scientifically designed.

Amperite stands feature:

- 1--Positive, non-sliding clutch. Will never wear out, never require adjustment. Will not "creep."
- 2--Safety cord, which stretches, preventing accidental mishaps.

The microphone can be rotated without loosening clutch. The action up and down is smooth, pneumatic-like.



TYPE FS-8M

BASE WEIGHT
8 POUNDS

BASE SPREAD
11 INCHES

HEIGHT RANGE
37" TO 55"

THREAD
5/8" - 27"

FINISH
CHROME

NET PRICE
\$ 8.40

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

ASTATIC

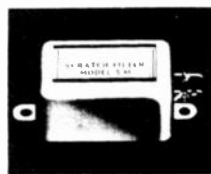
STREAMLINED "MODEL O-7" CRYSTAL PICKUP



CHARACTERISTICS of Model O-7 Pickup

- 1. AXIAL CUSHIONING.** Axial Cushioning has been accomplished by the use of a special damping material which prevents motor noise and speaker-pickup feedback.
- 2. REDUCED TRACKING ERROR.** (Offset Head) Tracking error on 12" record is reduced to a minimum.
- 3. EXTENDED FREQUENCY RESPONSE.** The high frequency response is extended, and the low frequency response is full and smooth.
- 4. MODERN STREAMLINE DESIGN.**
- 5. LIGHTLY DAMPENED STYLUS.**
- 6. FREE STYLUS MOVEMENT.**
- 7. LONGER RECORD WEAR.**
- 8. EASIER NEEDLE LOADING.** Merely follow groove lines on bottom of cartridge and the needle is easily guided into the needle holder.
- 9. NEEDLE PRESSURE.** Needle pressure reduced to the practical minimum of 2½ oz.
- 10. LOW PRICE.**
- 11. HIGH QUALITY.**
- 12. REQUIRES SHORT MOUNTING SPACE.** The pickup arm is 7½" between centers, and only 9" over all. Plays records up to 12".
- 13. FINISH.** Telephone black with polished trimming.

NET PRICE \$ 3.00



SCRATCH FILTER MODEL 5-M

Astatic Model 5-M Scratch Filter compensates to grow in favor. Thoroughly tested and tuned to resonate at the point of greatest scratch intensity, this filter clarifies tone quality to a remarkable degree.

NET PRICE \$.90

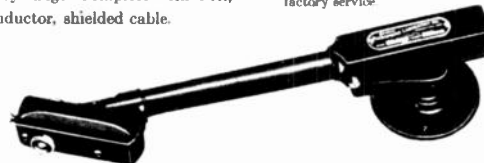
TRU-TAN

CRYSTAL PICKUP MODEL B-10

Exceptional fidelity of record reproduction is assured with Astatic Tru-Tan Model B-10 Crystal Pickup. This efficiency is due to the many improved features it incorporates. Offset Head design reduces tracking error to 1.50° on a 12" record and lessens record wear. Parallel foiled bender crystal element in bakelite housing is moisture sealed. Ball bearing swivel base. Free stylus movement. Rotating head to facilitate needle loading. Individual arm rest. Free from mechanical resonance throughout audio frequency range. Complete with 4-ft., rubber covered, single conductor, shielded cable.

Assures True Tone Reproduction

Here is a pickup, moderate in price, that incorporates practically all the advanced improvements to be found in more expensive models. Standard for recordings up to 12". Model B-10 is sturdily constructed, 12 inches in length, weighs two pounds, and will give long and highly satisfactory service.



NET PRICE

\$ 10.50

Handy Astatic reversible action of Offset Head allows it to be turned around so that needle can be dropped in from above.

Model B-10 Pickup is supplied in attractive standard telephone black finish with polished chrome trimming. Special finishes may be had as required.



PIEZO-ASTATIC CRYSTAL PICK-UP

No floor set-up model. Complete with a diamond crystal element housed in a substantial arm which has steel plate mounted on double ball bearing swivel base. A brilliance of reproduction not provided by other pick-ups. Shaper base response. Has a substantially flat curve over entire scale with as pronounced peaks. Arm counter-balanced, only 1½ oz. pressure, resulting in long record life. Very high impedance—no 000 ohms. Black wrinkle finish.

ASTATIC CRYSTAL PICKUPS

TYPE S-8 FOR 10" AND 12" RECORDS
OVERALL LENGTH IS 12"
NET PRICE.....\$ 6.00

TYPE S-12 FOR 16" RECORDS
OVERALL LENGTH IS 15"
NET PRICE.....\$ 7.50

Model 94A "ECONOMY" Crystal Pickup

A small, compact crystal pickup that mounts in minimum space. Especially recommended for compact record players and for mechanizing obsolete phonographs and combinations. Plays 10" and 12" records. Has Shure "Needle-Tilt" Balanced Tracking. Triple moisture sealed crystal humphrey crystal. Full range frequency response. Excellent reproduction of modern recordings. Output, 2½ volts. Needle pressure, only 2½ ounces. Plating, rubber cushioned pivot-bearing assembly, design for single hole motor/cord mounting. Sturdy cant arm with attractive, modern speed lines. Smooth wood tone brown finish. Length 7½" long. Ship. wt. 1¼ lb.

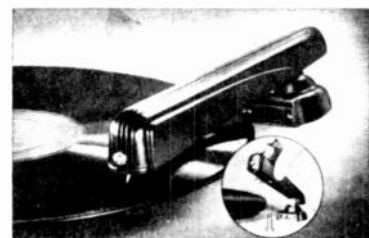
Model 94A, Crystal Pickup. Complete with 20' shielded cord, arm rest and motor/cord drilling template. Code Ruaser. NET \$ 3.90



ZEPHYR *Balanced-Tracking* CRYSTAL RECORD REPRODUCER

An improved pickup with advanced features that give music lovers the type of reproduction they like. Plays 10" and 12" records. Does full justice to the complete range of modern high-quality recorded music. New full bass response combined with full-range high-frequency reproduction gives pleasing life-like quality, free from distortion and objectionable surface noise. Response easily modified to suit individual preferences by slight modification of input circuit. Records last longer too, due to Shure "Needle-Tilt" Balanced-Tracking that keeps the needle true to the groove, lightweight needle pressure of only 2½ ounces, and very low needle-point impedance. The tone arm is elastically-isolated from the base with a new "full-floating" mounting that reduces mechanical feedback and eliminates motor vibration pickup.

SHURE CRYSTAL PICKUPS



The new ZEPHYR embodies the best design principles that have been developed for crystal devices—many of them exclusive. The crystal is a genuine Crystalline humphrey unit, triple moisture sealed by special process. The factors of mechanical damage and wear, ability to tolerate in unusually severe service conditions, have been practically eliminated by well engineered, held-in-place design features. Output voltage, approximately 2½ volts in the smallest mechanical detail, has not been overlooked in ZEPHYR design. Low friction bearings of special material, hardened pivot points, and scientific ball-bearing non-resonant arm, are examples of the high order of mechanical design built into this product. Overall dimensions: 11 1/2" long, 2 3/16" high 1/8" wide. Playing radius, 8.5" Ship. wt. 1¼ lb.

Model 99C, Shure ZEPHYR Crystal Record Reproducer. Black Bakelite Model. Complete with 3½ ft. shielded cord, arm rest, mounting screws and motor/cord drilling template. Code Ruaser.

NET PRICE.....\$ 6.00

PHONOGRAPH PICKUP

LIST PRICE
\$6.00



WEBSTER-CHICAGO MODEL 5000 Phonograph Pickups are of the magnetic type streamlined with an offset head to assure perfect tracking. The magnetic structure utilizes newly developed alloys for improved efficiency. This type of pickup is practically independent of temperature or climatic effects. The swivel is of a design that eliminates chattering but provides free lateral motion for the pickup arm on the record and is of the single hole mounting type. Each pickup is equipped with a shielded cable 18" long and a rest is also included.

Output 14 volts
Impedance 5000 ohms
Record Pressure 3 oz
Length of tone arm 9¼ in.

Crystal Pickup Replacement Cartridges

FOR REPLACEMENT WORK IN ANY
STANDARD PICKUP.



"X" TYPE WITH PIN CONNECTORS
FOR TRUTAN NET.....\$ 3.00



STANDARD TYPE FOR UNIVERSAL
REPLACEMENT WORK, WITH LUGS.
NET.....\$ 3.00

IT'S EASY TO PARK AT WALTER ASHE...

Weston Radio Instruments

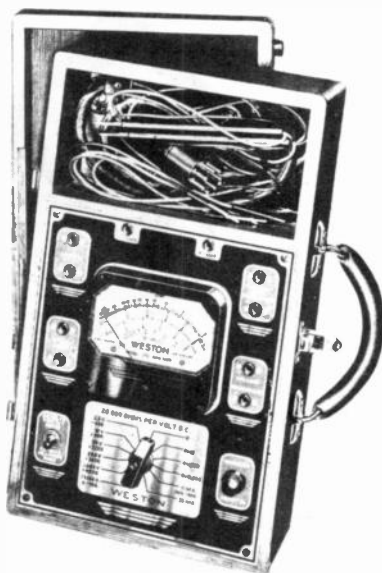


Portable—Type 1

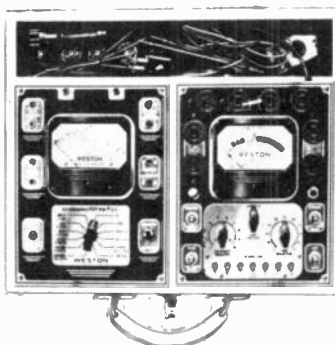
Type 1 Model 773 is contained in a portable carrying case of finest construction. Light in weight—generous compartment for tubes or tools ideal for checking and selling tubes on the job. Complete rapid reference chart in cover. All features... total emission... individual electrode test... neon short check... cathode leakage... noise test... line voltage control... load tests. Visit your jobber, investigate... then compare. Size 15 1/2" x 8 3/4" x 5 3/4". Net weight 10 lbs. List Price \$71.73

In Combination Case \$77.50
Dealer Net \$53.81

\$6.00 DOWN, \$5.26 PER MONTH FOR 10 MONTHS.



\$6.00 DOWN, \$5.07 PER MONTH FOR 10 MONTHS.



MODEL 775 SERVISSET

Servicemen who prefer to give accurate prices on the job before hauling receivers back to the shop will find the Model 775 ideal for this purpose. Two service units—a Model 772 Analyzer and a Model 773 Tubechecker—are mounted in a combination carrying case with a spacious compartment for socket selector units or tools. This complete unit is illustrated on the front page. Servicemen who have already purchased either of the instruments and wish to complete the combination can do so by ordering the remaining unit in the combination carrying case. See these individual instruments at your jobber's and remember the additional utility and convenience they offer in the combination carrying case. Size 5 1/4" x 14 1/4" x 17 1/4". Net weight 17 lbs.

List Price \$139.00

Dealer Net \$104.25
(Less Socket Selectors)

\$10.43 DOWN, \$8.60 PER MONTH FOR 12 MONTHS.

MODEL 772 TYPE 2
SUPER-SENSITIVE ANALYZER

New Features—Improved Accuracy

The most complete super-sensitive analyzer on the market today. Services commercial radio receivers, transmitters, television receivers, P. A. systems, vacuum tube and cathode ray equipment, sensitive telephone and telegraph relay circuits. Measurements of a-c and d-c volts, d-c current, ohms and decibels over broad ranges fulfill every analyzer requirement for diversified modern servicing. Presents the opportunity of expanding radio activities to include the profitable industrial and household appliance fields.

Has 20,000 ohm per volt sensitivity on five d-c voltage ranges. Equipped with a 4 1/4", 50 microampere instrument having a full size movement. A-c readings on single-arc scale. Overall accuracy on a-c ranges is within 3% on normal frequencies due to improved rectifier circuit. Practically no frequency error from 50 to 7,000 cycles—.5% error for each additional 1,000 cycles. Temperature error is guaranteed to be within 2% from 40° F. to 110° F.

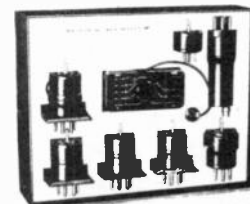
Diode currents in AVC circuits and AFC currents are quickly and accurately measured. Five db ranges provide power level measurements from -14 to +54 decibels. Model 772 Type 2 is ideal for condenser leakage tests—maximum voltage on any range being 15 volts. Equipped with pin jacks for mounting Model 666 Socket Selector unit. Black panel trimmed in red and chromium. Size 15 1/4" x 5 1/2" x 8 1/2". Net weight 8 1/2 lbs.

RANGES

Volts A.C. & D.C.	Current D.C. only	Decibels	Ohms
2.5	.1 Ma.	-14 to +2	0-3,000
10	1 Ma.	-2 to +14	0-30,000
50	10 Ma.	+12 to +28	0-3 Meg.
250	50 Ma.	+26 to +42	0-30 Meg.
1,000	250 Ma.	+38 to +54	
	1 Amp.		
	10 Amp.		

List Price \$69.50

Dealer Net \$52.13
(Less Socket Selectors)



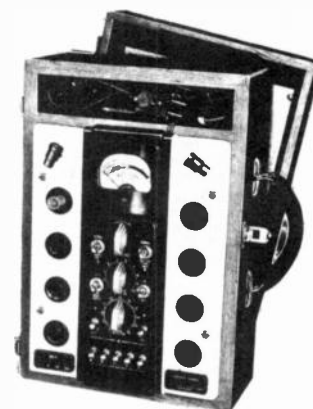
MODEL 666 TYPE 1-B SOCKET SELECTOR

Model 666 Type 1-B, used in conjunction with any analyzer, provides the well-known patented Weston Method of Selective Analysis. It mounts on the Model 772 by means of two pins and can be used to modernize old type testers. Recognized as the most efficient and effective method of breaking into a receiver circuit for current measurements. Exceptionally useful when servicing automobile radios or any type set where working space is limited.

Model 666 consists of a tester plug with a 4 ft. cable wired to a tube socket in the selector block. The location of the tube elements are indicated by white tracer lines to pin jacks on either end of block; jacks also being provided for cap and ground lead connections. With the tester plug inserted in the set and the tube in the selector socket, tube circuit conditions (voltage, current, resistance) can be checked by plugging in jumper cables from the jacks on the selector block to the analyzer jacks. All present type tubes can be accommodated by the selector block. Different colored adapters are supplied for each type tube base. Complete with 2 pairs of jumper leads.

Model 666, Type 1-B Socket Selector List Price \$21.10

Dealer Net \$15.83



MODEL 771 CHECKMASTER

Equally serviceable in the shop or field, the Model 771 Checkmaster combines the best features of a modern tubechecker with many analyzer characteristics. It is completely self-contained... checks tubes... measures circuit voltages... and makes resistance analyses.

Model 771 is ideal for a quick check-up in the home. Servicemen who want to give an accurate price "on the job" find it invaluable. Provides neon short check while tubes are hot... makes individual emission tests on tube elements... line voltage reads directly on meter, etc. Voltage ranges: 10-100-1000 volts d-c. Resistance ranges: 0-20,000; 0-200,000; 0-2,000,000 ohms... center scale readings: 290-2900-29,000 ohms. Attractively finished in black, cream and red. Size 14 1/2" x 9 1/2" x 6". Net weight 12 lbs.

List Price \$73.50

Dealer Net \$55.13

\$6.00 DOWN, \$5.40 PER MONTH FOR 10 MONTHS.

LOT NEXT TO STORE OR LOADING ZONE

RADIO



TESTERS

VOLT-OHM-MILLIAMMETERS



Model 1200-E Unit

25,000 OHMS PER VOLT D. C. measurements and resistance readings to 40 megohms with this new super sensitive Volt-Ohm-Milliammeter. Instrument reads D. C.: 10-50-250-500-1000 volts at 25,000 ohms per volt; 0-50 microamperes; 1-10-50-250 milliamperes; low ohms, backup circuit, $\frac{1}{2}$ to 500; high, 4 and 40 megohms; A. C. 10-50-250-500-1000 volts.

Model 1200-E has two instruments, A. C. and D. C., in tilting type twin case. Switch contact error less than $\frac{1}{2}\%$ on milliamperes. No error on voltages. Ohms scale markings in straight lines. Resistance measurements have individual zero adjustments. Selector switch for all readings. Contains $22\frac{1}{2}$ and $1\frac{1}{2}$ volt batteries.

Model 1200-E Unit.
Code—TWARB. *10.
List .. \$46.75. Net .. \$31.17

MODEL 1200-A

Same as 1200-E but reads as follows: D. C. 10-50-250-500-1000 volts at 2000 ohms per volt; 1-10-50-250 M. A. low ohms, backup circuit, $\frac{1}{2}$ to 500; 1500 ohms, $1\frac{1}{2}$ and 3 megohms. A. C. 10-50-250-500-1000 volts.

1200-A Unit. Code—TRITE. *10.
List .. \$35.75. Net .. \$23.83

MODEL 1200-B

Same as 1200-A but with D. C. movement and copper oxide rectifier for A. C. readings 2-10-50-250-500-1000 volts at 1000 ohms per volt.

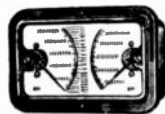
1200-B Unit. Code—TRRRF. *10.
List .. \$44.00. Net .. \$29.33

MODEL 1200-C

Model 1200-C, same as 1200-A but with 5000 ohms per volt D. C. suitable for AVC checking; 250 microamperes, and $\frac{1}{2}$ megohms scales.

1200-C Unit. Code—TRFFA. *10.
List .. \$40.25. Net .. \$26.83

1200-A KIT



No. 120 Twin Instrument

ENABLES engineer to build his own Volt-Ohm-Milliammeter. Has No. 120 Triplett Twin instrument. Scale readings same as Model 1200-A. Also included in the kit are mounted resistors and shunts; Selector Switch; .5 MFD Condenser for output measurements; Rheostat Assembly; Complete set of diagrams and instructions; Hook-up wire; Hardware; Marked panel plate; Test leads.

Model 1200-A Kit—Complete.
Code—TRIPS.
List .. \$27.50. Net .. \$18.33

No. 120 Twin Instrument only (for above kit.)
List .. \$15.50. Net .. \$10.33

TUBE TESTER



Model 1212 Unit

CHECKS all receiving tubes, plus ballast types, quickly and conclusively. Separate plate tests on diodes and rectifiers. The neon shorts test shows the slightest inter-element shorts and leakages. Has every essential for approved emission tests of all tubes. Results show directly on the three-color GOOD-BAD scale of the three-inch precision instrument. Unique shadow type A. C. meter for line volts adjustment. Testing procedure is simple and the results are conclusive. A. C. operated (60 cycles-110 volts). Up-to-date tube charts are provided regularly to all registered owners as new tubes appear.

1212 Unit. Code—TALAB. *12.
List .. \$38.00. Net .. \$22.00

VACUUM TUBE VOLTMETER



Model 1250 Unit

WITH its accuracy independent of changing tube values, Model 1250 is the first self-calibrating Vacuum Tube Voltmeter. In this instrument tube characteristics are stabilized with the circuit, irrespective of what tube emission values may be. Replacing a tube does not alter accuracy. Model 1250 measures low A. C. and D. C. voltages without current drain. Has two separate D. C. movements in a tilting type case. One indicates when tube characteristics are stabilized with the circuit. The other is a three-range voltmeter with approximately linear scales reading in peak A. C. and D. C. volts. Ranges are 2.5, 10 and 50 volts. All accessories included.

1250 Unit. Code—TRPPD. *13.
List .. \$55.00. Net .. \$36.67

MODEL 1251

Same as the above, but with ranges of 3-15-75-300 volts.
Code—THEKA.

List .. \$71.50. Net .. \$47.67

MASTER UNIT CASES

FREE POINT TESTER



Model 1220-A Unit

FOR servicing sets using metal, glass-metal or glass tubes. Has five sockets—with standard RMA markings. Panel also includes eight automatic switch type and ten single action jacks. Makes all series and parallel meter connections through the set sockets to all parts of the circuit. Automatic in operation. Used in conjunction with any Triplett Volt-Ohm-Milliammeter. Extra connections may be added, when necessary, at a very slight cost.

1220-A Unit. Code—TRICH. *8.
List .. \$16.50. Net .. \$11.00

CONDENSER TESTER



Model 1241 Unit

NEW and improved Condenser Tester. Complete tests for all condensers from .0001 to 30 microfarads. Quickly and accurately checks for shorts or opens, leakages, breakdown and capacity. Breakdown tests for electrolytic and paper condensers at rated working voltages. Defects are indicated on direct reading meter with five scales. Capacity is read directly in microfarads.

D. C. voltage for paper condenser breakdown up to 1,000 volts in five steps. For electrolytics, breakdown voltage to 675 in nine steps. Scales read: A—.0001 to .01; B—.01 to .2; C—.2 to 2; D—.2 to 30. Colored GOOD-BAD scale for electrolytics. Line voltage regulator for capacity tests.

Model 1241 Unit. Code—TRTYT. *10.
List .. \$41.25. Net .. \$27.50

1201 Case only, for single Master Unit. Code—TRENT. *5.
List Price \$6.00. Net Price \$4.00

1202 Case only, for two Master Units. Code—TREEN. *8.
List Price .. \$7.00. Net Price .. \$4.67

1203 Case only, for three Master Units. Code—TREAD. *11.
List Price .. \$8.00. Net Price .. \$5.33

1204 Case only, for Master Test Set. Code—TRAWL. *13.
List Price .. \$9.00. Net Price .. \$6.00

SIGNAL GENERATORS



Model 1231 Unit

MODEL 1231 All-Wave Direct Reading D. C. Signal Generator now has built-in trimmer calibrated coils for accuracy of 1% on broadcast, intermediate and short wave bands. Six bands cover 120-30,000 Kc.—all fundamentals. Fully stabilized. Extra-long 12" vernier type direct reading scale. Improved band selector switch. 400 cycle audio signal available. Includes batteries and two type '30 tubes.

1231 Unit. Code—TRUTH. *13.
List .. \$38.50. Net .. \$25.67
1232 Unit. (Same as 1231, but for 110 volts—60 cycle A. C. operation.) Code—TULSA. *16.
List .. \$41.25. Net .. \$27.50

MODEL 1230

Model 1230 Unit is an All-Wave Signal Generator supplying a continuously variable signal. Frequencies controlled on six fixed positions, from 100-18,000 Kc. Batteries, tubes and six individually calibrated graphs supplied.

1230 Unit. Code—TRIBE. *14.
List .. \$25.25. Net .. \$16.83

MODULATION MONITOR



Model 1295 Unit

ACTUAL modulation percentage of radio transmitters is shown on the direct reading dial of Model 1295. Eliminates the uncertainty of depending on the ear, variation of antenna ammeter or the loop and light in determining carrier shift and percentage of modulation. Scale indicates modulation from 40 to 120 per cent. All readings are in peaks. Visual information provided on a second dial for carrier reference level for the modulation test and also to check carrier shift during modulation. Tilting twin instrument.

1295 Unit. Code—TRKKY. *11.
List .. \$37.25. Net .. \$24.83

IT'S EASY TO PARK AT WALTER ASHE...

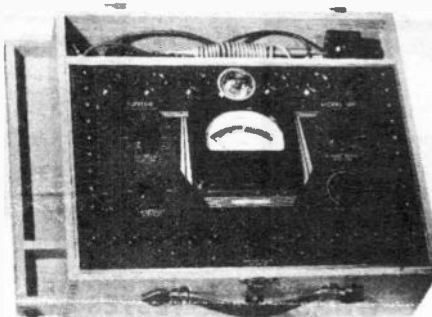
SUPREME Testing EQUIPMENT

MODEL 502 TUBE TESTER

When we say that the Supreme Model 502 is the answer to a serviceman's dream come true, we mean just that. Here is an instrument which is not only a complete tube tester, but a set tester as well! The basic tube testing circuit is the same as the Model 501. This means that the Model 502 uses the new SUPREME Electro-conductance tube test for all quality tests of separate diode and rectifier plates as well as individual tube sectional and complete tube element quality tests. It also means that the Model 502 includes inter-element leakage checks between any two elements, an open element test in each tube element and a short test between any two tube elements. The Model 502 also uses the obsolescence proof "Floating Filament" Selector and associated circuit.

Besides all this, the Model 502 offers 19 additional ranges and functions including four A. C. voltage ranges of 0/7/140/350/1400 volts, measuring as low as 0.2 volts; four D. C. voltage ranges of 0/7/140/350/1400 volts, measuring as low as 0.2 volts; three ohmmeter ranges of 0/200/2,000/20,000 ohms, measuring as low as 0.1 ohms with 3.5 ohms at center scale; two megohm ranges of 0/2 meg/20 meg., all with self-contained power supplies; an Electrostatic capacitor leakage test on a neon bulb; and an Electrolytic Filter capacitor leakage test directly on a "Good-Bad" English Reading meter scale.

Just imagine this superb instrument housed in a Golden Oak carrying case and mounted on an Antique Bronze panel. Remember, the complete instrument weighs only 16 pounds and measures overall but $10\frac{1}{2}" \times 14\frac{1}{2}" \times 5"$. Comes complete with instructions and tube list. For 100 to 133 volts, 60 cycle unless otherwise ordered at slight additional cost.



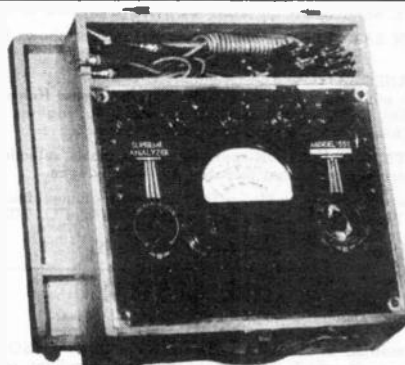
Dealer's Net Cash
Wholesale Price **\$49.95**
SIC Easy Payment Price — \$5.50 Cash
and 10 monthly payments of **\$4.95**
Code — TUMUL

MODEL 551 ANALYZER

Cut the time necessary to find radio troubles — use the new Model 551 Analyzer which incorporates Supreme's exclusive "Free Reference Point System of Analysis". By this method, all resistance, voltage and current measurements may be taken between any two tube elements or between any tube element and ground or chassis without the necessity of turning over the receiver. Why "Get out and get under" a radio chassis? If you desire, you can still use the Model 551 as a multimeter, for you have all the point-to-point functions and ranges of the Model 541 Set Tester — 20 in all — including 0.2 to 1400 A. C. volts in four ranges; 0.2 to 1400 D. C. volts in four ranges; 0.2 to 140 D. C. mls in three ranges; 0.2 to 1400 A. C. volts in four output ranges (without the necessity for an external series capacitor); and 0.1 ohm to 20 megohms in five ranges (all self-contained)!

This combination of ranges and functions, together with SUPREME'S "Free Reference Point" System allows you to literally spread out the radio receiver's circuit on the analyzer panel, eliminating costly delays in physically breaking each individual circuit for current measurements, or fishing around underneath the chassis for point-to-point test.

The Model 551 comes completely equipped with accessories and operating data. It is mounted on a rich Antique Bronze panel and housed in a Golden Oak carrying case. For 110 to 125 volt—60 cycle supply unless otherwise ordered at slight additional cost.



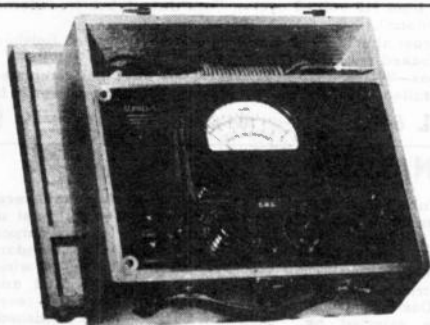
Dealer's Net Cash
Wholesale Price **\$38.95**
SIC Easy Payment Price — \$4.25
Cash and 10 monthly payments of . . . **\$3.86**
Code — ANAL

SUPREME MODEL 541 SET TESTER

Here is the sweetest and fastest little multimeter ever offered the serviceman at any price. The complete instrument measures only $7\frac{1}{4}" \times 10\frac{1}{4}" \times 4\frac{1}{4}"$ and actually weighs only 9 pounds. The Model 541 is so engineered as to provide fast, accurate results because its 20 ranges and functions are at your finger tips on a single selector switch.

Four D. C. voltage ranges are provided, 0/7/140/350/1400 volts with 0.2 volts as a first indication; four A. C. voltage ranges of 0/7/140/350/1400 volts measuring as low as 0.2 volts; three D. C. mil ranges of 0/7/35/140 mls with 0.2 mls as first marking; 4 output ranges of 0/7/140/350/1400 A. C. volts requiring no external capacitor; 3 ohmmeter ranges of 0/200/2,000/20,000 ohms with 0.1 ohm as first indication and 3.5 ohms center scale reading; and 2 megohm ranges of 0/2/20 mega with internal power supply. Never before has so much instrument been offered for so little money!

The Model 541, mounted on Antique Bronze panel and in Golden Oak carrying case, comes complete with instructions and accessories and is available for 110 to 125 volt—60 cycle use unless specially ordered at slight additional cost.



Dealer's Net Cash
Wholesale Price **\$26.95**
SIC Easy Payment Price — \$4.00 Cash
and 7 monthly payments of **\$3.67**
Code — SETES

ANY OF THE ABOVE MODELS MAY BE HAD WITH 25,000 OHMS PER VOLT
SUPER-SENSITIVE METER FOR \$5.00 ADDITIONAL.

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

RADIO TEST

JACKSON

INSTRUMENTS

Automatic Range Selection



CONDENSER TESTER

MODEL 650

AUTOMATIC PUSH BUTTON CONTROLLED—Amazing in speed and simplicity of use. Capacity readings almost instantaneous! Leakage test by just pressing a button.

MEASURES ALL VALUES direct reading in Microfarads, from .00001 mfd up to 100 mfd.

MEASURES POWER FACTOR on direct reading dial. Power Factor range calibrated from 0 to 60%.

COMPLETE SELECTION OF TEST VOLTAGE. 20 volts to 500 volts.

ELECTRON RAY TUBE indicates exact balance or shows if leakage is present.

INSTANTANEOUS LEAKAGE INDICATION—counting of flashes eliminated. No other guess-work with this modern tester. Has special built-in amplifier stage which actually responds to slightest leakage, if present. Thus all leakage defects may be located.

PUSH BUTTON SELECTION—ranges and leakage selection on 5 key bank. Pressing any button releases all other ranges.

Case dimensions— $8\frac{1}{2}$ " x $8\frac{1}{2}$ " x $5\frac{1}{4}$ ". Unit welded steel finished in grey morocco. Weight 9 lbs. Supplied complete WITH ALL TUBES.

MODEL 650 NET CASH PRICE **\$29.95**

TUBE TESTER

MODEL 633

The test method is a new advancement in the JACKSON DYNAMIC OUTPUT circuit which has established an excellent reputation for accuracy.

The control arrangement is greatly simplified—only three controls to set per chart, then depress test button. Simplified chart fitted into metal lid of tester.

FEATURES—Full range line voltage control—Neon Shorts Test circuit—Tests all Ballast Tubes—3-inch Square Type Meter—Tests Multi-section Tubes Correctly—Tests OZ4 Gas Rectifier. Also many other features of "built-in" quality and performance which have made JACKSON testers famous for accuracy and reliability.

Case is welded steel $8\frac{1}{2}$ " x $8\frac{1}{2}$ " x $4\frac{1}{2}$ ", finished in grey morocco. The tester is compact, light in weight and easily portable. Has snap on metal cover which protects meter and controls.

MODEL 633 NET CASH PRICE **\$24.95**

MODEL 642 UNIVERSAL MULTIMETER 20,000 OHMS PER VOLT

AUTOMATIC RANGE SELECTION—PUSH BUTTON CONTROLLED.

TWENTY-ONE RANGES—SEVEN FUNCTIONS AC/DC volts—ohms—decibels—milliamperes—microamperes and amperes. Has special built-in shunt and 10 ampere range.

METER RANGES—

A.C. Volts: 0-10/100/250/500/1000

D.C. Volts: 0-10/100/250/500/1000

Decibels: Minus 10 to plus 14/10 to 34/30 to 54

D.C. M.A.: 0-10/100/250

Microamps: 0-100

Amperes: 0-10

Ohms: 0-3000/300,000/30,000,000

The new 6-inch Full Vision JACKSON Meter has extra large, easy to read scale. Meter is six inches over flanges.

Construction is of the finest in materials and workmanship. Case is welded steel finished in grey morocco. Fitted with removable snap-on steel cover. Protects meter and controls.

Case dimensions: $8\frac{1}{2}$ " x $8\frac{1}{2}$ " x $4\frac{1}{2}$ ". Weight 6 lbs. Complete with self-contained battery. Furnished with test leads.

MODEL 642 NET CASH PRICE **\$39.95**

MODEL 640 TEST OSCILLATOR

A complete "standard type" oscillator for all general purpose work. Has full range direct reading dial from 100 KC up to 30 Megacycles. No skips or harmonics calibrated. All ranges are fundamental frequencies. PUSH BUTTON selection of all ranges makes speedy and accurate operation possible.

TWO CIRCUIT ATTENUATOR provides variable ratio and also vernier control.

HAS POWERFUL SIGNAL output which may be used either as pure R.F. or Modulated R.F. Carrier is modulated at approximately 30%. The A.F. voltage is available for external use.

ACCURACY GUARANTEED to $\frac{1}{2}$ of 1% on all ranges.

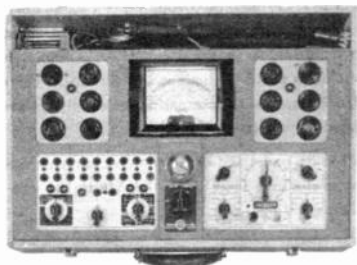
Operates from 110 volt 60 cycles. Uses three tubes (rectifier, oscillator and modulator).

Panel is cast aluminum and case is unit-welded steel, finished in grey morocco baked enamel.

Dimensions— $8\frac{1}{2}$ " x $8\frac{1}{2}$ " x 6". Wt. 9 lbs. Supplied complete with all tubes installed. Shielded cable for connection to receiver is furnished.

MODEL 640 NET CASH PRICE **\$29.95**

MODEL 680 DYNAMIC ANALYZER



Complete Dynamic Output Tube Tester and Set Analyzer Combined! Has all tube testing features as described for Model 633. Ballast tube test—Dual Neon Sensitivity—Illuminated Meter—etc.

Has meter ranges for Microfarads, A.C. and D.C. volts, D.C. M.A., Decibels, Ohms and Megohms. All ranges selected by means of a special 18 position switch.

METER RANGES—

A.C. Volts: 0-15/150/1500

D.C. Volts: 0-7½/75/150/300/750/1500

D.C. Milliamperes: 7½/75/150

Ohms: 0-100/100,000/1 meg./10 meg.

Mids.: .001 to .15/.01 to 1.5/1 to 15

Decibels: minus 10 db to plus 18 db

CIRCUIT ANALYSIS—In addition to point to point tests, the Model 680 may be used for

socket analysis of any radio receiver. The instrument has a complete set of sockets and "cut-in" jacks for this purpose. These jacks are numbered to standard R.M.A. tube base pins. A standard 8-wire analysis cable, plug and associated adapters is used to connect to the radio receiver. This plug and adapter set is furnished with the instrument.

CONSTRUCTION—Main panel is one piece cast aluminum 19 inches long, 10½ inches wide (standard relay rack size), finished in grey morocco. Control panels are etched metal having a white background. Case is genuine oak $19\frac{3}{4}$ " x $13\frac{1}{4}$ " x 6".

NET CASH PRICE **\$69.50**

IT'S EASY TO PARK AT WALTER ASHE . . .

RADIO TEST

JACKSON

INSTRUMENTS

DYNAMIC OUTPUT TUBE TESTERS



IN THE SHOP or OUT ON THE JOB, here's the ideal tester for modern servicing. Combines 17 ranges and 10 functions including

- 1—Dynamic Output Tube Tester—accurate, thorough
- 2—Ballast tube tester—finds shorts or burn-outs
- 3—High sensitivity neon continuity tester
- 4—Condenser test for finding shorted or leaky condensers
- 5—Multi-range A.C. Voltmeter 0-15/150/1500
- 6—Multi-range D.C. Voltmeter 0-7½/75/150/300/750/1500 (1000 ohms per volt)
- 7—Decibel Meter—Range from minus 10 db to plus 18 db
- 8—Multi-range D.C. Milliammeter 0-7½/75/150 MA
- 9—Special "Meter Reverse" Low-range Ohmmeter—reads as low as 1/10 of one ohm
- 10—Triple range Ohmmeter 0-100,000/0-1 meg./0-10 meg.

FINEST CONSTRUCTION FEATURES—Cast aluminum main panel, deep etched metal escutcheon plates, sealed unit construction, full sized 2-watt neon indicator, finest silver contact switches, sturdy oak carrying case.

DIMENSIONS—14¼" x 13¾" x 6" overall. Weight 13 lbs.

ACCESSORIES—Furnished complete with self-contained batteries (for ohmmeter), and test prods.

Model 635 NET CASH PRICE **\$49.50**

MODEL 630—Same as model 635, but does not have complete Universal Meter ranges. Identical in every other respect. Model 630 is provided with two special ohmmeter ranges giving full coverage of measurement from ½ OHM to TEN MEGOHMS. No batteries required.

Model 630 NET CASH PRICE **\$39.50**

JACKSON "SERVICE LAB" ASSEMBLIES



MODEL 701 "VISULINE" SERVICE LAB. A complete cathode ray alignment laboratory. Contains two perfectly matched instruments for use in all receiver alignment problems. Full size 3-inch cathode ray oscillograph with all built-in features. Also the new Jackson Model 420 Universal Oscillator. Complete with full instructions and accessories.

#701 NET CASH PRICE **\$139.50**

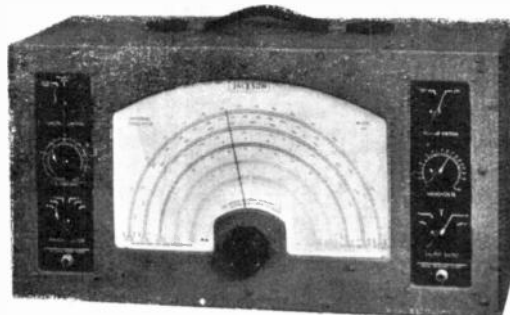
Start today to equip your shop with modern Jackson instruments. Service Lab units are priced as low as \$44.50. Additional instruments may be added at any later time.

Each Service Lab is complete as shown, including relay rack completely assembled and wired with master A.C. Line Switch and convenience outlets. Finished in attractive grey morocco and equipped with chrome trim strips. Also included is the Jackson Service Lab Lamp which provides front panel illumination for the equipment. There are no extras to buy.

Many Other "Service Lab" Combinations Available.--Ask for Full Details.

UNIVERSAL OSCILLATOR

MODEL 420



FULL RANGE—100 K.C. to 30 M.C.

ALL DIRECT READING—no charts of any kind

VARIABLE PER CENT OF MODULATION—calibrated from 0 to 100%

FREE FROM SPURIOUS HARMONICS—on amplitude modulated bands
MAY BE EXTERNALLY MODULATED—with phono pickup, etc.

ELECTRONIC FREQUENCY MODULATION—no moving parts of any kind.

VARIABLE BAND WIDTH Frequency Modulation 0-40 K.C.
POWERFUL SIGNAL OUTPUT—all air tuned circuits

The most complete signal generator available at any price. Consists of two oscillators built into one simplified instrument.

1—Complete "Standard Type" of Oscillator. This feature permits the use of the oscillator for all general purpose work. Eliminates the guess work and errors formerly created by spurious signals set up by beat frequency operation.

2—Complete "Frequency Modulated" Oscillator—Pure electronic frequency sweep provides the familiar "double image" method of alignment. Absolutely no moving parts of any kind. Perfectly balanced and easy to use.

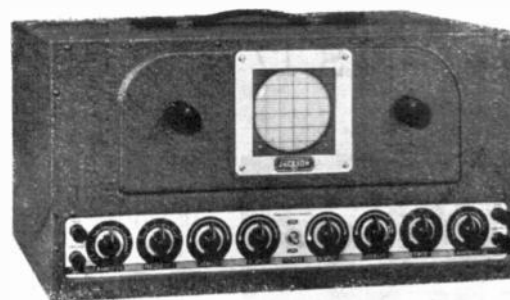
DIMENSIONS—17" x 8¾" x 8". Weight 20 lbs.

ACCESSORIES—Complete with all tubes and cable for connection to receiver. Also with connection cable for oscillograph.

MODEL 420 NET CASH PRICE **\$59.50**

3" OSCILLOGRAPH

MODEL 523



- Vertical Amplifier and Horizontal Amplifier
- Calibrated Linear Timing Circuit
- Frequency Control and Vernier
- Automatic "Lock-in" Control
- Spot and Focus Controls on Main Panel
- Calibrated Screen

The 3-inch size oscillograph screen permits easy examination of patterns which might be difficult to observe on smaller sizes. The Jackson oscillograph incorporates every valuable feature necessary for visual voltage and current examination. It is easy to operate and is designed to secure stability. Note the simplified control arrangement.

POWER SUPPLY & TUBES—Operates from 110-volt, 50-60 cycle power supply. The Model 523 is supplied complete with 3-inch Cathode Ray Tube, two type 57, one type 885 and two type 80.

DIMENSIONS—17" x 8¾" x 12¾" overall. Weight 30 lbs.

MODEL 523 NET CASH PRICE **\$59.50**

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

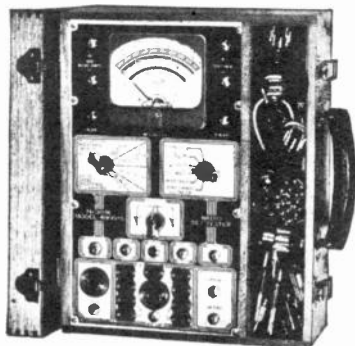
1100 Pine Street St. Louis, Missouri

HICKOK

MODEL 4800-S AND 4900-S ZERO CURRENT VOLTMETER TESTERS

INFINITE OHMS PER VOLT

Note These Exclusive Features:



Size: 4800S 10" x 12 3/4" x 5".
Walnut Finished Hardwood Case.
Shipping weight 14 lbs.



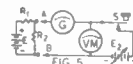
Size: 12" wide, 9" high, 5 1/4" deep.
Shipping weight 16 lbs.

A. ZERO CURRENT VOLTMETER:

1. Infinite ohms per volt on the following ranges 0 10 50 250 volts D.C. No current drain on circuit under test
2. AVC, AFC and other high resistance circuit voltages accurately measured without disturbing the operating of the set.
3. Special leads supplied for connection to the grid cap of an RF or IF tube to measure bias voltages directly.
4. Above measurements are only possible with an instrument having infinite ohms per volt.
5. Fundamental circuit illustrated Fig. 5. Infinite resistance obtained by use of variable voltage from tester balanced against voltage of circuit under test. This voltage is then read on the regular D.C. volts scales. Balance and voltage indicated on one meter
6. Balancing voltage E_2 obtained from self contained power supply
7. Hickok Zero Current Principle permits use of meter movement far more rugged than those used in conventional high resistance voltmeters

B. IMPROVED METER DESIGN:

1. Large open face scale, can be read from wide angle and considerable distance.
2. Extra long scale — 3 3/4" in four colors
3. Large rugged movement. Very high torque weight ratio gives lively pointer action.
4. Pointer formed from heavy gauge, hard aluminum to withstand high overloads.
5. Hickok exclusive design gives higher accuracy at all points on the scale.
6. Large, forged magnet with accurately machined pole pieces. Punched laminated magnets are not used in Hickok meters.
7. Movements carefully aged to insure permanently correct calibration.
8. All meters used in Hickok testers are Hickok built in accordance with the best grade instrument manufacturing practice. Highest standard meters for over thirty years.



C. WIDE COVERAGE SET ANALYZER SECTION:

1. Simplification of range selection by rotary switches
2. Improved circuit designed to eliminate errors caused by switch contact resistance
3. Rectifier guaranteed one year. Exclusive circuit will withstand more overload than any other type.
4. Overall accuracy all ranges within 1 1/2% (including AC volts ranges) within temperature range 50° to 90° F.
5. D.C. Volt ranges: 0 10/50, 250 at infinite ohms per volt.
0 2.5 10/50/250 500/2500 at 1000 ohms per volt.
6. A.C. Volt ranges: 0 2.5 10/50 250 500 2500, 1000 ohms per volt
7. Ohms ranges: 0 1000/10,000, 100,000/1 megohm 10 megohms. Readable as low as 0.5 ohms. 15 ohms mid-scale, low range.
8. D.C. Microamperes: 0/500. Resistance 500ohms. Can be used with photo-electric cells for measuring relative light intensity.
9. D.C. Milliampers: 0 1 5 50 500
10. Capacity in Microfarads: 0 0.02 0.2 2 20 200 Readable as low as .0001 mfd
11. Electrolytic condenser leakage. Method of checking all types of condensers complete and accurate. no "Good-Bad" scales or other inferior methods used
12. Output Ranges: 0 2.5 10 50 250 500 2500 Volts
13. Decibels, Impedance, inductance and A.C. Ripple (Hum) measurements

D. SPECIAL EXTERNAL SHUNTS AVAILABLE:

1. All 4800-S and 4900-S analyzers calibrated in MILLIVOLTS so external shunts can be used.
2. Specially designed double range shunt, range: 0, > 50 Amperes. (250 M.V.) Net Price \$3.60 (List Price \$6.00). Other shunts on special order

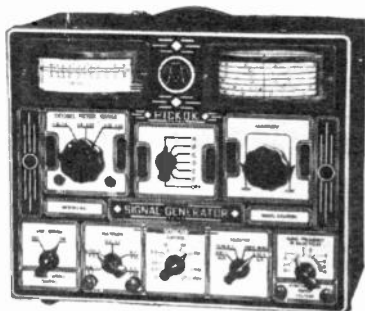
E. BUILT-IN MULTI SELECTOR UNIT: — MODEL 4800-S ONLY:

1. Cables and accessories for all tubes.
2. New improved long life jacks for series or parallel connections
3. Connections made to any or all tube elements give quick and convenient method for complete socket analysis without disturbing any of the connections in the set under test.

DEALERS NET PRICE, MODEL 4800-S WITH MULTI-SELECTOR, 110 Volts, 50 or 60 Cycles
(specify frequency) \$59.70

DEALERS NET PRICE, MODEL 4900-S WITHOUT MULTI-SELECTOR, 110 Volts, 50 or 60 Cycles,
(Specify Frequency) \$49.20

MODELS 17 & 18 UNIVERSAL SIGNAL GENERATORS



MODEL 18

FREQUENCY MODULATED R.F. OUTPUT.
AMPLITUDE MODULATED R.F. OUTPUT.
UNMODULATED R.F. OUTPUT.
100 TO 10,000 CYCLE VARIABLE AUD-
IO FREQUENCY OUTPUT.
400 CYCLE FIXED AUDIO OUTPUT.
SELF CONTAINED POWER LEVEL METER
ON MODEL 18 ONLY.
6 R.F. RANGES, 100 TO 250 KC.,
250 TO 650 KC., 650 TO 1600 KC.,
1.6 TO 4.0 MC., 4.0 TO 10.0.,
10.0 TO 30.0 MC. 100" OF SCALE.



MODEL 17

Dealers Net Model 18 with Power Level Meter \$54.00
LIST PRICE \$90.00

Dealers Net Model 17 without Power Level Meter \$45.00
LIST PRICE \$75.00

ANY HICKOK INSTRUMENT NOT LISTED MAY BE HAD ON ORDER

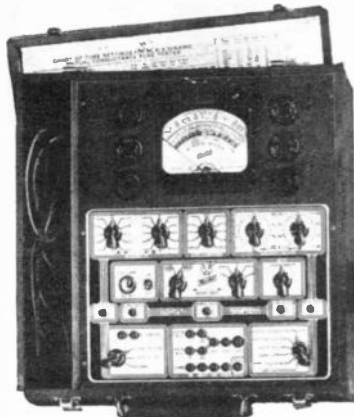
IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

HICKOK

MODEL 51-X DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER



INDICATING IN MICROMHOS. ALSO GOOD, REPLACE, DOUBTFUL.

WITH

VOLTS, OHMS, MILLIAMPERES, CAPACITY, CONDENSER LEAKAGE, OUTPUT,
INDUCTANCE AND DECIBEL READINGS.

MADE IN PORTABLE TYPE, AS ILLUSTRATED.

Greatest value ever offered in an all purpose tester. It will make all measurements required
in portable radio service. Furnished with test leads.

Size, 51X: 14" x 13 1/4" x 6" deep. Sloping panel. Hardwood case, beautiful rubbed walnut finish.
Shipping weight 23 1/2 lbs. Meter scale length 3 3/4", unusually long.

EXCLUSIVE FEATURES: SET TEST SECTION 1. A.C.-D.C. Volts: 0-20, 200, 500, 1000 in five over-lapping ranges. Same uniform scale for A.C. and D.C. 2. D.C. Milli-
amperes: 0-20-200 direct. 3. Ohms: 1 to 25 megohms in 3 over-lapping ranges. NO BATTERIES USED. 4. Capacity: .0001 to 24 mfd. Checks leakage in electrolytic con-
densers with Polarizing Voltage Applied. 5. A.C. Voltmeter used to read OUTPUT. 6. A.C. Voltmeter accurate on AUDIO FREQUENCIES. 7. Instructions supplied for
reading DECIBELS. 8. Checks Inductance of coils with or without D.C. COMPONENT OF CURRENT. 9. Overall accuracy well within 2%. 10. No copper oxide rec-
tifiers. Insures permanency of calibration. Electronic rectifiers used.

DEALER'S NET PRICE COMPLETE 59.40

LIST PRICE \$99.00
(220 volts, or 25 cycle types—\$3.00 net extra)

MODEL T53P DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER

Reading In Micromhos

WITH NEW TRANSLUCENT MULTICOLOR ILLUMINATED METER DIAL

Panel construction and method of operation identical with portable type. See next page.

Both types equipped with etched, removable operating panel.

Simple, easy to understand and operate. . . . One setting to make.

Ninety-four unused switch positions for future tubes. Only fifty used. All positions wired.

TECHNICAL DESCRIPTION OF T53C AND T53P TUBE TESTERS:

Rectified current is used to energize both plate and grid. Superimposed on the rectified voltage in the grid circuit
is an alternating signal voltage.

The large square meter responds only to the change in plate current caused by the signal on the grid. The meter is
not affected by the steady value of plate current, except in diodes and rectifiers in which plate current is indicated.

The T 53 type testers are truly Dynamic Mutual Conductance Testers. In twin and multi-element types, the components
are tested separately, determining the dynamic mutual conductance of each component. In twin grid tubes each
grid is energized separately, determining the relative function of each. Diode plates are tested separately.

NEW ROLL TYPE CHART—EASY TO USE AND REPLACE

DEALER'S NET PRICE, MODEL T53P \$49.80

LIST PRICE \$83.00



NEW SIGNAL GENERATOR WITH OUTPUT CALIBRATED IN MICROVOLTS

*Built in Calibrated Output and Power Level Meter Give More Measurements
than Any other Signal Generator!*

• SENSITIVITY, MEASURED MICROVOLTS INPUT, WATTS OUTPUT

• GAIN PER STAGE

• SELECTIVITY

All standardized by self-con-
tained vacuum tube voltmeter

Calibrated Output Ranges:

R.F.—1/2 microvolt to 100,000

on all ranges.

A.F.—0 to 1.0 volt.

• DECIBELS

TRIPLE RANGES:

— 10 to + 6

+ 6 to + 22

+ 22 to + 38 db

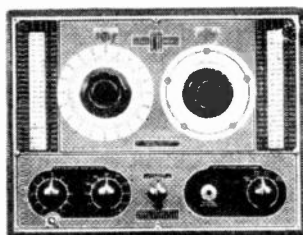
• 100 INCHES OF DIRECT READING FREQUENCY SCALES. ACCURACY BETTER THAN 1%.

Radio Frequency Ranges Calibrated Directly 85 KC to 28 Megacycles

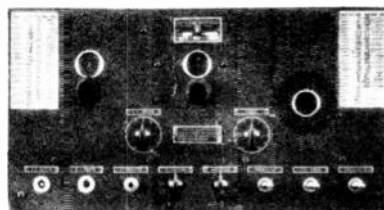
DEALER'S NET PRICE, MODEL PSG-15 \$75.00



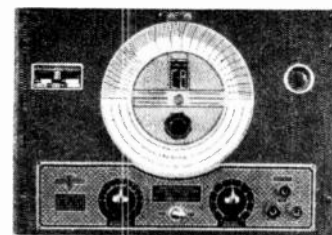
LOT NEXT TO STORE OR LOADING ZONE

CLOUGH-BRENGLE

Signal Generator Model OCX rivals costliest instruments. Hand drawn curves accurate to $\frac{1}{2}\%$, with 92 most popular frequencies calibrated on panel. Strays cut amazingly low. \$34.50



Signal Generator Model OMA, with Frequency Modulator, holds over-all accuracy of $\frac{1}{2}\%$ in all temperatures and climes. More than 1500 in world-wide use. Exclusive inductor sweep gives single and double trace. Virtually flat output, 100 kc.-30 mc., 5 bands. \$64.50



Audio Oscillator Model 79-C, accurate to 2% from 0-15,000 c. p. s., and with output of 120 mw. across choice of either 500-ohm or 5000-ohm impedance, provides superior check of all audio and speaker troubles. Low thermal coefficient, with high frequency stability. \$59.50

ANY CLOUGH BRENGLE INSTRUMENT NOT LISTED MAY BE HAD ON ORDER.

DU MONT

SPECIFICATIONS

TYPE 164 OSCILLOGRAPH



AMPLIFIED SWEEP

The amplified sweep consists of an 885 gaseous discharge tube used as a saw tooth wave generator so biased that it uses only the linear position of the condenser charging curve. The small signal thus obtained is amplified to a usable amplitude by means of a 6C6 tube.

CONTROLS

All controls are on the front panel including horizontal and vertical positioning controls. The horizontal and vertical amplifiers, the rough and fine frequency and the positive synchronizing controls have red plascon knobs to distinguish the knobs frequently adjusted from those which are more permanently set.

AMPLIFIERS

The unit contains separately controlled horizontal and vertical amplifiers. Flat from 30-30,000 cycles per second. The horizontal amplifier provides a gain of 40 and the vertical amplifier a gain of 70 between 15 and 30,000 cycles per second.

DIRECT CONNECTION TO DEFLECTION PLATES

Provision for applying signals direct to the deflection plates is made at the rear of the unit.

TYPE 168 OSCILLOGRAPH

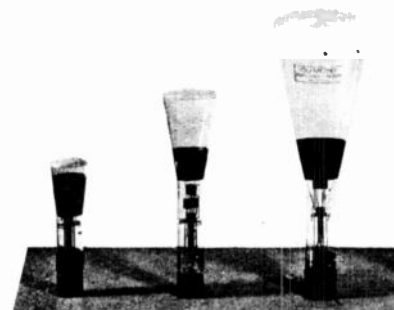


DUMONT #164	3"	CATHODE RAY OSCILLOGRAPH COMPLETE WITH TUBES	NET \$54.50
DUMONT 168	5"	" " " " " " " "	116.50
DUMONT 169	9"	" " " " " " " "	750.00

DU MONT CATHODE RAY TUBES

CATHODE RAY TUBES

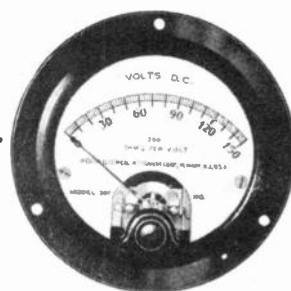
RCA 913	1 INCH	NET \$4.00
" 906	3 "	" 13.50
DUMONT	2 "	" 7.50
"	3 "	" 15.00
"	5 "	" 35.00



IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY 73

1100 Pine Street  St. Louis, Missouri



ILLUSTRATIONS SHOWN HERE ARE MODELS 301 D.C. INSTRUMENTS AND MODEL 476 A.C. INSTRUMENTS. ANY METER MAY BE HAD IN THE CONVENTIONAL ROUND BAKELITE CASE OR THE NEW RECTANGULAR CASE. MOVEMENTS ARE INTERCHANGEABLE.

D-C MILLIAMMETERS

RANGE	MODEL	NET	RANGE	MODEL	NET
0-1	301	\$7.50	0-100	301	\$ 6.75
0-1.5	"	7.50	0-150	"	6.75
0-5	"	7.50	0-200	"	6.75
0-10	"	6.75	0-250	"	6.75
0-15	"	6.75	0-300	"	6.75
0-25	"	6.75	0-500	"	6.75
0-50	"	6.75	0-750	"	6.75
0-75	"	6.75	0-1000	"	6.75

A-C VOLTMETERS

RANGE	MODEL	NET	RANGE	MODEL	NET
0-3	476	\$6.75	0-50	476	6.75
0-10	"	6.75	0-130	"	7.88
0-15	"	6.75	0-150	"	8.44

"PRECISION" SERIES 830

D.C. Volt-Ohm-Milliammeter



The "Precision" series 830 multi-range meter can truly be called a "HANDITESTER". Though small in size, it incorporates eleven adequate ranges for measuring volts, ohms, and current. The radio technician will find this instrument an invaluable service. And . . . though the price is inconceivably low, the well known "Precision" standard of accuracy and high grade materials are incorporated. It includes a rotary selective system, wire wound shunts of 1% accuracy, metallized matched multipliers of 1% accuracy and a large 3 inch modern D'Arsonval type meter of 2% accuracy.

SPECIFICATIONS

Five D.C. voltage ranges at 1000 ohms per volt:
0-10; 0-100; 0-250; 0-500; 0-1000 volts.

Four D.C. current ranges:
0-1; 0-10; 0-100; 0-250MA.

Two resistance ranges:
Low ohms (shunt method) 1/2 to 500 ohms.
High ohms 0-300,000 ohms.

Ohmmeter ranges are powered by self contained supply.

OTHER FEATURES:

Large 3" square meter, D'Arsonval movement 2% accuracy; adjust ohms compensator; attractive metal etched panel; walnut finished wood case with carrying strap self contained battery included; compact size 7 x 4 1/2 x 2 1/2.

Price \$10.95 Net



Type 842L.

FIVE AC VOLTAGE RANGES at 1000 ohms per volt:
0-10; 0-50; 0-250; 0-1000; 0-2500 volts.

FIVE DC VOLTAGE RANGES at 1000 ohms per volt:
0-10; 0-50; 0-250; 0-1000; 0-2500 volts.

SIX DC CURRENT RANGES:
0-1; 0-10; 0-50; 0-250 MA; 0-1; 0-10 AMPS.

FOUR RESISTANCE RANGES:
0-400 ohms (20 ohms center) SHUNT METHOD.
0-100,000 ohms (800 ohms center).
0-1 Megohm (8000 ohms center).
0-10 Megohms (80,000 ohms center).

FIVE DECIBEL RANGES FROM -10 TO +63DB:
0DB; +14DB; +28DB; +40DB; +48DB.

FIVE OUTPUT RANGES:
0-10; 0-50; 0-250; 0-1000-0-2500 volts.

Price \$21.95 Net.

Less Batteries and Test Leads

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri

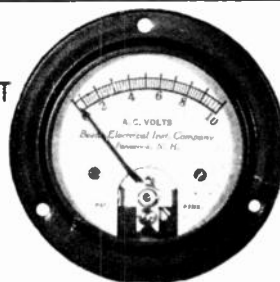
BEEDE METERS ARE STILL OUR BEST SELLER IN THE METER LINE. INEXPENSIVE AS THEY ARE THEY ARE BUILT WITH PRECISION ACCURACY AND THE BEST OF MATERIALS. HERE IS A METER THAT WILL SERVE THE AMATEUR AND SERVICE-MAN FOR A LONG TIME TO COME WITHOUT TROUBLE.

JEWELLED BEARINGS INSURE SMOOTH MOVEMENT OF THE BEEDE METER.

ACCURATE TO WITHIN 2%

D.C. MILLIAMETERS

RANGE	MODEL	YOUR COST
1.0 MA.	701	\$ 3.60
1.5	701	3.60
5.0	701	2.85
10.0	701	2.85
15.0	701	2.85
25.0	701	2.85
50.0	701	2.85
100.0	701	2.85
150.0	701	2.85
200.0	701	2.85
250.0	701	2.85
300.0	701	2.85
500.0	701	2.85



MODELS 701, 717 ARE MOUNTED IN A DURABLE BRASS CASE WITH AN ATTRACTIVE BLACK JAPAN FINISH SIZE OF BOTH MODELS ARE FLANGE DIAMETER 3 1/4" CASE BODY 2 9/16"

D.C. AMMETERS

RANGE	MODEL	YOUR COST
1.0 A	701	\$ 2.85
1.5	701	2.85
2.0	701	2.85
5.0	701	2.85
8.0	701	2.85
10.0	701	2.85
15.0	701	2.85
20.0	701	2.85
25.0	701	2.85

A.C. AMMETERS

RANGE	MODEL	YOUR COST
1.0	717	\$ 2.85
2.0	717	2.85
5.0	717	2.85
10.0	717	2.85
15.0	717	2.85
25.0	717	3.60

A.C. VOLTMETERS

RANGE	MODEL	YOUR COST
3.0	717	\$ 2.85
10.0	717	2.85
15.0	717	2.85
150.0	717	3.45

Readrite Low Priced Panel Instruments

D.C. MILLIAMMETERS

NO.	RANGE	PRICE
305	5MA	\$1.25
311	10	1.20
315	15	.60
325	25	.60
350	50	.60
390	100	.60
391	150	.60
392	200	.60
399	300	.60
394	400	.60
395	20/100	1.20
402	15/100	1.20

D.C. VOLTMETERS

NO.	RANGE	PRICE
603	3V	\$.60
605	5	.60
326	6	.60
335	8	.60
310	10	.60

D.C. AMMETERS

NO.	RANGE	PRICE
336	3A	\$.60
381	5	.60
338	10	.60

A.C. VOLTMETERS

NO.	RANGE	PRICE
314	4V	\$1.65
353	6	1.65
352	10	1.65
351	15	1.65
348-P	150	2.70

TYPE "H" FLANGE



YOUR COST \$.09

ESCUTCHEONS FOR SHADOW AND TUNING METERS
YOUR COST EA. \$.18



RESONANCE TUNING METERS NO. 103
0 TO 3, 5, 7, 10, 15, NET EA. \$.90
SHADOW TUNING METERS NO. 103
0 TO 3, 5, 7, 10, 15 NET EA. \$.90



IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri



AN ULTRA HIGH GRADE OF METER MADE FOR THE AMATEUR AND SERVICEMAN
ALL UNITS ARE CONTAINED IN A DURABLE POLISHED BAKELITE CASE.
ALL TRIPLET INSTRUMENTS ARE WITHIN 2% ACCURATE

TRIPLET D.C. MILLIAMETERS



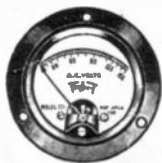
MODEL 421

RANGE	RESISTANCE	MODEL 421	MODEL 321
1.0 MA.	33.00	\$ 6.00	\$ 4.66
1.5	22.00	NONE	4.66
3.0	11.00	NONE	4.66
5.0	06.60	5.00	3.83
10.0	03.10	5.00	3.83
15.0	02.00	5.00	3.83
25.0	01.20	5.00	3.83
50.0	00.60	5.00	3.83
75.0	00.40	5.00	3.83
100.0	00.30	5.00	3.83
200.0	00.15	5.00	3.83
250.0	00.12	5.00	3.83
300.0	00.10	5.00	3.83
500.0	00.06	5.00	3.83
750.0	00.04	5.00	3.83
1000.0	00.03	5.00	3.83



MODEL 321

TRIPLET A.C. VOLTMETERS



MODEL 331
" 341

RANGE VOLTS	RESISTANCE	MODEL 431	MODEL 331
3.0	4.0	NONE	\$ 3.83
10.0	16.0	5.00	3.83
15.0	16.0	5.00	3.83
150.0	110.0	6.00	4.66



MODEL 431
" 441

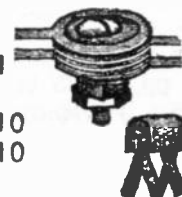
TRIPLET THERMO-COUPLE RADIO FREQUENCY AMMETERS

CONSTRUCTED OF THE FINEST PRECISION PARTS AND ACCURATELY CALIBRATED. THESE UNITS ARE EQUIPPED WITH EXTERNAL THERMO-COUPLES AND WILL WITHSTAND LOADS AS HIGH AS 50% OVER NORMAL RATING.

RANGE AMPS.	RESISTANCE	MODEL 441	MODEL 341
1.0	.35	\$ 7.84	\$ 6.66
2.5	.13	7.84	6.66
5.0	.065	7.84	6.66

C.R.S. METER RECTIFIERS

A FULL WAVE COPPER OXIDE RECTIFIER UNIT FOR CONVERTING ANY 0-1 MILLIAMETER TO A UNIVERSAL AC-DC VOLTMETER, MILLIAMETER.
TYPE M-STANDARD SIZE 15 MA. WITH CALIBRATION CHART YOUR COST \$2.10
TYPE B-MIDGET SIZE FOR MOUNTING ON INSIDE OF METER CASE 2.10



LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street

St. Louis, Missouri



SIMPSON



Simpson instruments are the only instruments in the low priced field offering "soft iron pole pieces" and "full bridge construction". For more than thirty years Mr. Ray R. Simpson has been associated with the instrument industry. His achievements as president of the Jewell Electrical Instrument Company during its long and successful existence have left an indelible record. Now, with many of his former associates in this new organization and with the advantages of new designs and methods, history is in the making. Since the introduction of Simpson instruments an enviable reputation has been established. Wise men say "Nothing takes the place of experience". Simpson instruments reflect that tradition in every respect.

DIRECT CURRENT MILLIAMMETERS.

RANGE	MODELS 125S & 127S.	MODELS 25S & 27S.	MODEL 27S ILLUMINATED
0-1	\$4.33	\$5.17	\$5.67
0-1.5		\$5.17	
0-3		\$5.17	
0-5	\$3.57	\$4.24	
0-10	\$3.57	\$4.24	\$4.74
0-15	\$3.57	\$4.24	
0-25	\$3.57	\$4.24	\$4.74
0-50	\$3.57	\$4.24	\$4.74
0-75	\$3.57	\$4.24	
0-100	\$3.57	\$4.24	\$4.74
0-150	\$3.57	\$4.24	\$4.74
0-200	\$3.57	\$4.24	\$4.74
0-250	\$3.57	\$4.24	\$4.74
0-300	\$3.57	\$4.24	\$4.74
0-500	\$3.57	\$4.24	\$4.74
0-750		\$4.24	\$4.74
0-1000	\$3.57	\$4.24	\$4.74

DIRECT CURRENT VOLTMETERS

RANGE	MODELS 125S & 127S	MODELS 25S & 27S
0-5	\$3.57	\$4.24
0-10	\$3.57	\$4.24
0-15	\$3.57	\$4.24
0-25	\$3.57	\$4.24
0-50	\$3.57	\$4.24
0-150	\$3.57	\$4.24
0-200		\$5.17
0-300	\$5.67	\$6.00
0-500		\$6.66
0-1000		\$10.66
(1000 OHMS PER VOLT)		
0-50		\$6.00
0-100		\$6.50
0-200		\$6.66
0-300		\$7.33
0-500		\$8.17
0-1000		\$11.83

ALTERNATING CURRENT VOLTMETERS.

RANGE	MODELS 155S & 157S.	MODELS 35S & 37S.	MODEL 37S ILLUMINATED
0-3		\$4.24	
0-10	\$3.57	\$4.24	\$4.74
0-15	\$3.57	\$4.24	\$4.74
0-150	\$4.33	\$5.17	\$5.67
0-300	\$5.33	\$6.00	
0-500	\$7.33	\$8.17	
0-1000		\$11.83	

ALTERN. CURRENT AMMETERS.

	MODELS 155S & 157S.	MODELS 35S & 37S
0-1	\$3.57	\$4.24
0-3	\$3.57	\$4.24
0-5	\$3.57	\$4.24
0-10	\$3.57	\$4.24
0-15		\$4.24
0-25		\$5.17
0-50		\$6.66

RADIO FREQUENCY AMMETERS. (INTERNAL THERMO-COUPLE)

RANGE	MODELS 135S & 137S	MODELS 35S & 37S	MODEL 37S ILLUMINATED
0-1	\$6.33	\$7.33	\$7.83
0-1.5	\$6.33	\$7.33	\$7.83
0-2	\$6.33	\$7.33	\$7.83
0-2.5	\$6.33	\$7.33	\$7.83
0-3	\$6.33	\$7.33	\$7.83
0-5	\$6.33	\$7.33	\$7.83

DIRECT CURRENT AMMETERS.

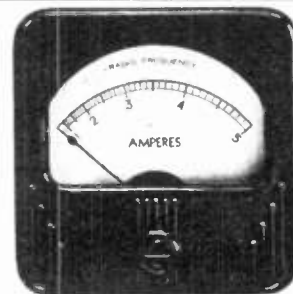
0-1	\$3.57	\$4.24
0-3	\$3.57	\$4.24
0-5	\$3.57	\$4.24
0-10	\$3.57	\$4.24
0-15	\$3.57	\$4.24
0-25	\$3.57	\$4.24
0-50	\$3.57	\$4.24

DIRECT CURRENT MICROAMMETERS

0-100		\$10.00
0-200	\$7.67	\$8.83
0-500	\$5.50	\$6.66

VOLUME LEVEL INDICATOR.

MINUS 10 TO PLUS 6 DB. 500 OHM LINE 6 MW.
ZERO DB. 1.73 VOLTS. MODELS 45S & 47S.
GENERAL PURPOSE TYPE \$13.17
GENERAL PURPOSE TYPE ILLUMINATED \$13.67
HIGH SPEED TYPE \$14.67



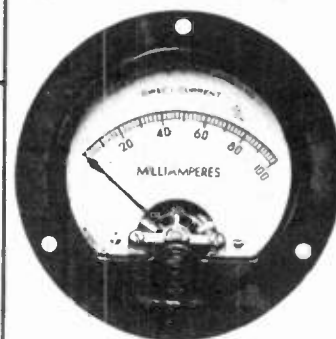
TWO INCH RECTANGULAR

#127S-DIRECT CURRENT.
#137S-RADIO FREQUENCY.
#157S-ALTERN. CURRENT.

THREE INCH RECTANGULAR

#27S-DIRECT CURRENT.
#37S-RADIO FREQUENCY.
#47S-RECTIFIER TYPE.
#57S-ALTERN. CURRENT.

MANY THREE INCH RANGES
AVAILABLE WITH INDIRECT
ILLUMINATION.



TWO INCH ROUND.

#127S-DIRECT CURRENT.
#135S-RADIO FREQUENCY
#155S-ALTERN. CURRENT.
AVAILABLE IN STANDARD
WIDE FLANGE BAKELITE
CASE OR NARROW FLANGE
METAL CASE.

THREE INCH ROUND.

#25S-DIRECT CURRENT.
#35S-RADIO FREQUENCY
#45S-RECTIFIER TYPE.
#55S-ALTERN. CURRENT.

NOTE.

WE ARE ALSO IN POSITION TO FURNISH ADDITIONAL RANGES
IN CASE STYLE LISTED ABOVE, AS WELL AS 3 3/4" ROUND, 4 1/2"
FAN SHAPED AND 4 1/2" RECTANGULAR AND PRECISION PORTABLE
LABORATORY INSTRUMENTS. ASK FOR COMPLETE LISTING.

IT'S EASY TO PARK AT WALTER ASHE . . .

UNITED TRANSFORMER CORP.

Popular Priced TRANSMITTER and AMPLIFIER KITS

This new series of kits represents the acme in kit value. The circuits are efficient, stable and easy to wire. Large etched plates and modern panel layouts lend beauty to the slate gray crinkle finish of the chassis, transformers, and cabinets.



S-15A AUDIO AMPLIFIER

The S-15A audio amplifier is an ideal kit for PA and modulator service. The power output is 15 watts and the gain sufficient for crystal mike service. Dual input — high or low gain, and tone control are incorporated. Tubes required are one 6J7, one 6C5, two 6V6G's and one 83. The kit is supplied completely mounted, ready to wire, including accessories, less dust cover and tubes.

Amateur Net Price \$24.00

Kit as above but with universal modulation transformer in place of voice coil output, use kit No. S-15M.

Amateur Net Price \$24.00

Dust cover for above amplifiers, type S-15D. Amateur Net Price.. \$1.50



S-25A AUDIO AMPLIFIER

The S-25A audio amplifier has been designed for high power PA and medium power modulator work. 25 watt output is provided with gain sufficient for crystal mike. Dual high impedance input — high or low gain, and tone control are provided. Tubes required are one 6J7, one 6C5, two 6L6's and one 83. The kit is supplied completely mounted and ready to wire, including all accessories and dust cover, less tubes.

Amateur Net Price \$30.00

Kit as above but with universal modulation transformer in place of voice coil output, use kit No. S-25M.

Amateur Net Price \$30.00



S-100 AUDIO AMPLIFIER

The S-100 audio amplifier is an ideal low priced high power unit. 100 watt output is provided with gain sufficient for crystal mike. Dual input and tone control is provided and universal modulation output transformer. Tubes required are one 6J7, one 6C5, two 6F6's, four 6L6's and three 83's. The kit is supplied completely mounted, ready to wire, including all accessories, less tubes and dust cover.

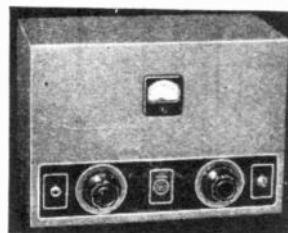
Amateur Net Price \$52.50

Kit as above with PA output transformer for universal voice coil impedance, use kit No. S-100PA.

Amateur Net Price \$55.00

Cabinet for above to match SX-80 and SX-200. No. S-100C.

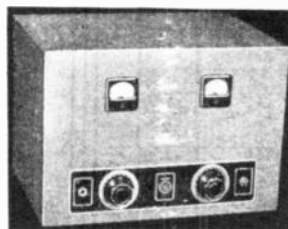
Amateur Net Price \$3.75



SX-25

The UTC SX-25 kit represents unprecendented value in a low power transmitter. It employs a crystal controlled oscillator of high power output and stability and will operate on all bands from 160 to 10 meters. Tubes required are one 6L6G and one 83. The unit is supplied completely mounted with self-contained power supply and antenna tuning condenser, ready to wire, including cabinet and all accessories, less meter, tubes and crystal.

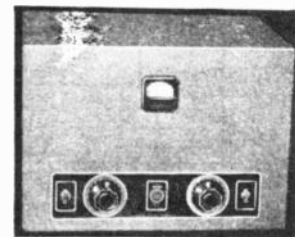
Amateur Net Price \$18.00



SX-80

The UTC SX-80 kit is a complete 80 watt CW unit. Operation on all bands is obtainable with plug-in coils. A rugged power supply is provided. The kit may be used as a complete 80 watt CW unit or as an exciter for a high power final. Tubes required are three 6L6G's and one 83. This unit is supplied completely mounted, ready to wire, including cabinet and accessories, less meters, crystal and tubes.

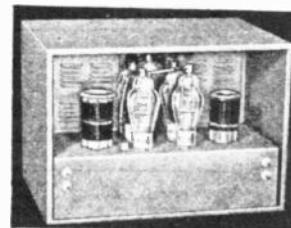
Amateur Net Price \$37.50



SX-200

The UTC SX-200 transmitter kit is used in conjunction with the SX-80 or any similar exciter having a power output of 40 watts or more, to form a complete 300 watt CW transmitter. When supplemented by the S-100 modulator it becomes a 200 watt phone transmitter. It will operate on all frequencies up to 30 megacycles and incorporates a highly efficient power supply. Tubes required are two 866A's and four 809's. This unit is supplied completely mounted, ready to wire, including cabinet and accessories, less meter, crystal and tubes.

Amateur Net Price \$43.50



FOR MORE COMPLETE INFORMATION ON THE ABOVE WRITE OR ASK US FOR UTC BULLETIN NO. S-1CA.

LOT NEXT TO STORE OR LOADING ZONE

UNITED TRANSFORMER CORP.

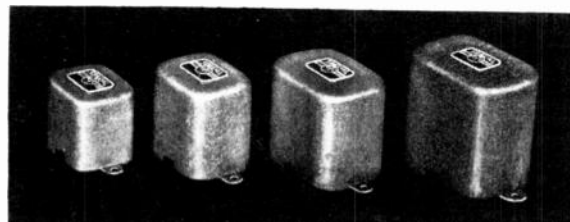
SPECIAL SERIES AUDIO TRANSFORMERS

The Special Series units are unusually attractive in appearance, being finished in a rich commercial type gray crinkle enamel. The small units are housed in drawn cases having smooth modern lines and are poured with humidity proof sealing compound. Terminal lugs are provided on a recessed strip in the bottom of the case, permitting above-chassis or breadboard wiring by bringing leads through the slots provided in the side of the case. The terminals being on the bottom are suitable for standard chassis type wiring.

Large audio and power components are mounted in formed cans with reversible mounting facilities and louvers for good ventilation. Stand off insulators are provided for high voltage terminals.

New core and coil structures combined, with rigid clamping and special impregnation, assure quietness of operation and complete sealing against adverse humidity conditions.

Universal windings have been developed for driver, matching, and output transformers to assure maximum flexibility of application. The modulator output transformers are designed to match any audio tubes, within the power rating of the transformer, to any RF load.



CLASS A INPUT TRANSFORMERS

Type No.	Application	Ratio	Case	Net Price
S-1	1 plate* to 1 grid	3 1/2 : 1	G-2	\$1.35
S-2	1 plate* to 2 grids	2 : 1	G-2	1.50
S-3	1 plate* to 1 or 2 grids compact type	4 : 1 2 : 1	G-1	1.20
S-4	1 plate* to 2 grids wide range response	1 : 1	G-3	2.10
S-5	Single or double button mike or line to 1 grid hum-bucking type	16 : 1	G-2	1.80
S-6	Single or double button mike or line to 1 grid, compact type	16 : 1	G-1	1.20
S-7	Single plate* and carbon mike to one or two grids	3 : 1 16 : 1	G-2	2.10

* Will match tubes like 56, 6C5, 6C6 triode, 77 triode, 37, etc. Can be used with high mu triodes with loss in low frequencies.

UNIVERSAL DRIVER TRANSFORMERS (See Modulator chart for tube types)

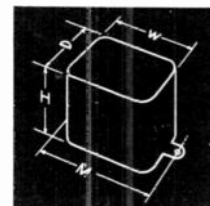
Type No.	Application	Case	Net Price
S-8	Single driver plate to pushpull grids	G-3	\$1.85
S-9	Pushpull driver plates to grids of class B tubes up to 400 watts output.	G-4	2.25
S-10	Pushpull 56, 6C6 triode, 6C5, or similar plates to 45's, 2A3's or 6L6's, self or fixed bias.	G-3	2.10

MATCHING TRANSFORMERS

Type No.	Application	Pri. Ohms	Sec. Ohms	Case	Net Price
S-11	Single 56, 6C6 triode, 6C5 or similar tube to line.	10,000	200/500	G-2	\$1.80
S-12	Line to speaker 15 watts.	500, 2000, 4000	2, 4, 8, 15	G-2	2.10
S-13	Line to speaker 30 watts.	500, 2000, 4000	2, 4, 8, 15	G-4	2.70

CASE SIZES

Type	H	W	D	M
G-1	1 7/8	2	1 3/4	2 3/16
G-2	2 5/16	2 3/8	1 15/16	2 3/8
G-3	2 1/2	2 3/4	2 1/8	3 1/4
G-4	2 15/16	3 1/8	2 5/16	3 5/8



UNIVERSAL OUTPUT TRANSFORMERS TO LINE AND VOICE COIL

Type No.	Tubes and Pri. Ohms	Sec. Ohms	Power	Case	Net Price
S-14	Single tubes: 2500 ohms for 2A3, 6A3, 6A5 G, 6B4 G, 6L6, 6Y6 2SL6 4000 ohms for 2A5, 6F6 triode, 12A5, 25A6, 43, 45, 50, 71A 7000 ohms for 2A5, 6F6, 6K6, 20, 31, 33, 47 10000 ohms for 6G6, 38, 41	2, 8, 15, 500	10 W	G-2	\$1.95
S-15	P.P. tubes: 4000 ohms for 2SL6, 6Y6G 5000 ohms for 2A3, 6A3, 6A5G, 6B4G, 45 10000 ohms for 19, 7J6G, 30, 49, 89, 6Z7G, 6AC5G, 53, 6A6, 6N6, 6N7, 6B5	2, 8, 15, 500	12 W	G-2	2.10
S-16	3000 ohms for 2A3, 6A3, 6A5G, 6B4G, AB 6000-6500 ohms for 2A5-6F6-42 triodes AB, 46, 59, 6L6 10000 ohms for 6B5, 6V6, 2A5-6F6-42 pentodes AB	2, 8, 15, 500	30 W	G-4	2.85
S-17	3300 ohms for 4 6L6's, 4-46's, 3800 ohms for 2 6L6's, AB2 5000 ohms for 1608, 809	2, 8, 15, 500	55 W.	G-5	3.90

UNIVERSAL OUTPUT TRANSFORMERS Any modulator tubes to any RF load. (See chart)

Type No.	Audio Power	Case	Net Price
S-18	12 watts	G-3	\$2.10
S-19	30 watts	G-4	2.85
S-20	55 watts	G-5	3.90
S-21	110 watts	G-7	6.00
S-22	250 watts	G-9	8.40

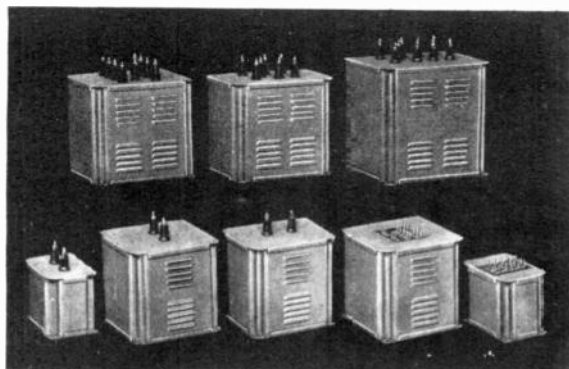
IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

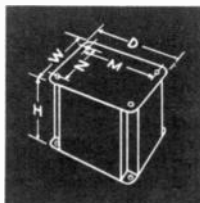
UNITED TRANSFORMER CORP.

SPECIAL SERIES POWER EQUIPMENT



CASE SIZES

Type	H	W	D	M	N
G-5	3 7/8	3 1/8	4 1/8	3 7/8	2 7/16
G-6	4 7/8	3 3/4	5 1/2	4 1 1/16	3 3/32
G-7	5 3/8	4 1/8	5 1/8	4 27/32	3 25/32
G-8	5 3/8	5 1/2	5 1/2	4 25/32	4 3/4
G-9	6 1/8	5 1/8	6 1 1/8	6 3/32	4 19/32
G-10	6 1/8	6 1/8	6 1 1/8	5 15/16	5 1 1/32
G-11	7 1/8	6 1/8	7 3/8	6 2 1/32	5 29/32



FILTER, SWINGING, AND AUDIO CHOKES

Type No.	Service	Inductance	Current	Resistance	Case	Net Price
S-23	Audio	500 Hy.	5 Ma.	6000 ohms	G-2	\$1.35
S-24	P.P. Choke	500 Hy. C.T.	3 Ma.	4000 ohms	G-2	1.50
S-25	Filter	30 Hy.	30 Ma.	900 ohms	G-2	1.20
S-26	Filter	15 Hy.	60 Ma.	230 ohms	G-2	1.20
S-27	Filter	30 Hy.	75 Ma.	350 ohms	G-4	1.65
S-28	Filter	20 Hy.	100 Ma.	350 ohms	G-4	1.65
S-29	Filter	10 Hy.	175 Ma.	95 ohms	G-4	1.65
S-30	Swinging	5/25 Hy.	175 Ma.	95 ohms	G-4	1.65
S-31	Filter	20 Hy.	225 Ma.	120 ohms	G-5	2.10
S-32	Swinging	5/25 Hy.	225 Ma.	120 ohms	G-5	2.10
S-33	Filter	20 Hy.	300 Ma.	90 ohms	G-7	3.00
S-34	Swinging	5/25 Hy.	300 Ma.	90 ohms	G-7	3.00
S-35	Filter	20 Hy.	400 Ma.	85 ohms	G-8	3.90
S-36	Swinging	5/25 Hy.	400 Ma.	85 ohms	G-8	3.90
S-37	Filter	20 Hy.	550 Ma.	60 ohms	G-9	5.40
S-38	Swinging	5/25 Hy.	550 Ma.	60 ohms	G-9	5.40

UNIVERSAL BIAS TRANSFORMERS

Primary 115 V. — 50/60 Cycles
No Filament Windings

Type No.	Application	DC Current	Case	Net Price
S-51	Will supply any bias voltage from 15 to 100 volts DC within approximately 6% of desired value. (See chart.)	200 Ma.	G-5	\$3.00
S-52	Will supply any bias voltage from 75 to 400 volts DC within approximately 6% of desired value. (See chart.)	200 Ma.	G-7	4.20

COMBINED PLATE AND FILAMENT TRANSFORMERS

Primary 115 V. — 50/60 Cycles

Type No.	High Voltage	D.C. Volt's*	Rect'r Fil.	Fil. #1	Fil. #2	C'se	Net Price
S-39	490-400-0-400-490 175 Ma.	400/310	5V.-3A.	2 5V C.T. -6A.	6.3V.C.T. 4 A.	G-6	\$3.30
S-40	525-425-0-425-525 250 Ma.	400/310	5V.-3A.	6.3V.C.T. -3A.	6.3V.C.T. 3 A.	G-7	3.60
S-41	600-0-600 200 Ma.	475	5V.-3A.	7.5V. tapped 6.3V.-3A.	6.3V.C.T. 2 A.	G-7	3.60
S-42	600-525-0-525-600 300 Ma.	480/400	5V.-3A.	7.5V. tapped 6.3V.-3A.	6.3V C.T. 3A.	G-8	5.10
S-43	525-0-525 450 Ma. 40-0-40, 200 Ma.	400	5V.-3A. 5V.-6A.	6 3V.C.T. -2A.	6.3V.C.T. 5 A.	G-9	7.20

* Based on two section filter, choke input.

PLATE TRANSFORMERS

Primary 115 V. — 50/60 Cycles

No.	High Voltage	DC Voltages*	DC Current	Case	Net Price
S-44	575-525-0-525-575	470/430	500 Ma.	G-9	\$5.70
S-45	900-750-0-750-900	750/620	200 Ma	G-8	3.90
S-46	1000-750-0-750-1000	825/600	300 Ma	G-9	5.70
S-47	1500-1250-0-1000-1250-1500	1275/1050/825	300 Ma	G-10	7.20
S-48	1500-1250-0-1000-1250-1500	1300/1075/850	500 Ma.	G-11	11.70
S-49	2100-1800-0-1500-1800-2100	1815/1540/1275	300 Ma	G-11	10.80
S-50	3000-2500-0-2500-3000	2625/2175	300 Ma	G-11	12.90

* Based on two section filter for 200 Ma. and 300 Ma. units, single section filter for 500 Ma. units, both choke input.

Note: Using a bridge rectifier circuit D.C. Voltages shown are doubled but available D.C. current reduced to half. S-49 and S-50 are not suitable for bridge rectifiers.

SINGLE SECONDARY FILAMENT TRANSFORMERS

Primary Tapped 105, 115 Volts — 50/60 Cycles

Type No.	Secondary Volts	Secondary Current	Insulation	Case	Net Price
S-53	2.5 VCT	10 A.	1500 V.	G-3	\$1.35
S-54	5 VCT	4 A.	2500 V.	G-3	1.35
S-55	6.3 VCT	3 A.	1500 V.	G-3	1.35
S-56	7.5 VCT	3 A.	1500 V.	G-3	1.35
S-57	2.5 VCT	10 A.	10,000 V.	G-5	1.80
S-58	2.5 VCT	20 A.	10,000 V.	G-5	2.40
S-59	5 to 5.25 VCT	13 A.	5000 V.	G-5	2.10
S-60	5 to 5.25 VCT	22 A.	10,000 V	G-7	4.50
S-61	7.5 VCT tapped 6.3 VCT	8 A.	3000 V.	G-5	2.10
S-62	10 VCT	10 A.	3000 V.	G-5	2.40
S-63	14 VCT tapped 12 VCT and 11 VCT	10 A	5000 V.	G-7	4.50

MULTIPLE SECONDARY FILAMENT WINDINGS

Primary Tapped 105, 115 Volts — 50/60 Cycles

Type No.	Fil. 1	Fil. 2	Fil. 3	Insulation	Case	Net Price
S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	3000 V.	G-5	\$2.40
S-65	2.5 VCT-5A	5 VCT-4A	6.3 VCT-3A	3000 V.	G-5	2.40
S-66	2.5 VCT-10A	7.5 VCT-6.5A		3000 V.	G-5	2.40
S-67	5 VCT-6A	6.3 VCT-5A		3000 V.	G-5	2.40
S-68	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	3000 V.	G-5	2.70
S-69	6.3 VCT-3A	7.5 VCT-6.5A		3000 V.	G-5	2.70
S-70	6.3 VCT-5A	6.3 VCT-5A		3000 V.	G-5	2.70
S-71	2.5 VCT-6A	2.5 VCT-6A	2.5 VCT-12A	10000 V.	G-7	4.50
S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	5000 V.	G-5	3.00

LOT NEXT TO STORE OR LOADING ZONE

UNITED TRANSFORMER CORP.

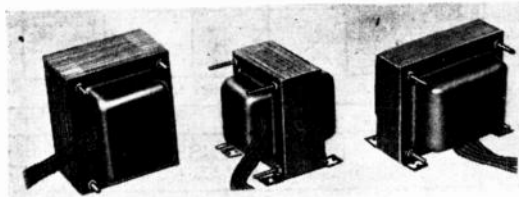
RADIO SET REPLACEMENT TRANSFORMERS

The new UTC replacement type transformers represent the culmination of years of development in this field. All units are vacuum sealed against humidity with special impregnating materials to prevent corrosion and electrolysis. Shells and brackets are finished in attractive high lustre black enamel.

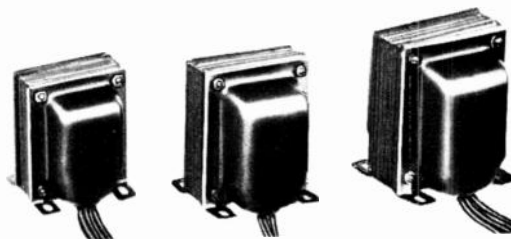
The new UTC shells and universal brackets employed make possible a latitude in mounting dimensions never approached heretofore. Using Varitap coil construction a minimum number of transformers have been developed to cover any requirement in the replacement field.

The chart in the back of this bulletin gives full details as to the application of these transformers to 95% of the radio receivers now in use. This chart is based on the electrical ratings in the Rider Manuals.

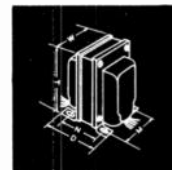
ASK FOR BULLETIN NO. R-20A



Through unique construction the five UTC Varitap Duplicate replacement transformers will service as many types of radio receivers as the 15 or 20 units more customarily employed for such service (see chart in back of bulletin). A new minimum stock for the serviceman is thus made possible. All leads are brought out through one insulated opening in the attractive black enamel shells. The universal feet may be used for upright or horizontal mounting, or eliminated for flush mounting.



UTC vertical power transformers are unusually attractive in appearance, having smooth drawn cases finished in high lustre black enamel. The Varitap coil structure assures flexibility of application and permits the three units described to take the place of 5 to 8 units customarily employed for equivalent service.



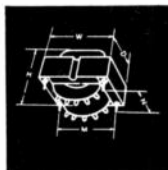
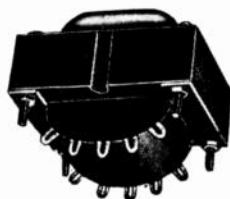
VARITAP DUPLICATE REPLACEMENT POWER TRANSFORMERS

Type No.	High Voltage	Rect. Fil.	Fil. 1	Fil. 2	Dimensions, In.					NET
					W	D	H	M	N	
R-1	325-0-325 40 MA	5V-2A	6.3 VCT-2A or 2.5-VCT-4A		3	2 1/2	2 3/4	2 1/2	2	1.50
R-2	350-0-350 70 MA	5V-3A	6.3 VCT-2.5A or 2.5-VCT-8A		3 3/8	2 7/8	3	2 1/8	2 1/4	1.00
R-3	350-0-350 95 MA	5V-3A	6.3 VCT-4.5A or 2.5-VCT-4.5A	2.5VCT-9A	3 3/8	3 1/8	3 3/8	3 1/8	2 1/2	2.40
R-4	375-0-375 120 MA	5V-4A	6.3 VCT-5A or 2.5-VCT-5A	2.5VCT-15A	4 1/2	3 3/4	3 3/4	3 3/4	3	3.00
R-5	385-0-385 180 MA	5V-4A	6.3 VCT-4A or 2.5-VCT-6A	6.3VCT-5A	4 1/2	3 3/4	4 1/2	3 3/4	3	3.60

VERTICAL SHIELDED POWER TRANSFORMERS FOR RECEIVERS AND AMPLIFIERS

Type No.	High Voltage	Rect. Fil.	Fil. 1	Fil. 2	Dimensions, In.					NET
					W	D	H	M	N	
R-11	350-0-350 75MA	5V 3A	6.3 VCT-3A or 2.5-VCT-3A	2.5VCT-8A	3	3 1/4	3 1/2	2 1/4	2 1/4	2.55
R-12	375-0-375 100MA	5V 3A	6.3VCT-4A or 2.5-VCT-4A	6.3VCT-2A or 2.5VCT-8A	3 1/4	3 3/8	4	2 1/2	2 1/2	3.15
R-13	425-0-425 200MA	5V 3A	6.3 VCT-5A or 2.5-VCT-5A	6.3VCT-3A or 2.5VCT-12A	3 7/8	4 1/2	4 5/8	3	3 3/8	4.50

The UTC flush type transformers are husky units designed for low temperature rise and good regulation. By employing a Varitap universal coil structure, (brought out to sturdy lugs) the five units described take the place of 12 to 15 units normally found in a flush type series. This effects a smaller stock for the serviceman and a greater flexibility in practice.



VARITAP FLUSH TYPE POWER TRANSFORMERS

Type No.	High Voltage	Rect. Fil.	Fil. 1	Fil. 2	Dimensions, In.					NET
					W	D	H	M	N	
R-6	300-0-300 50MA	5V 2A	6.3 VCT-2A or 2.5-VCT-5A		3	2 1/2	3	2 1/2	2	1.50
R-7	350-0-350 75MA	5V 3A	6.3 VCT-3A or 2.5-VCT-3A	2.5VCT-8A	3 3/8	2 7/8	3 1/4	2 1/8	2 1/4	1.95
R-8	375-0-375 100MA	5V 3A	6.3 VCT-4A or 2.5-VCT-4A	2.5VCT-10A	3 3/8	3 1/8	3 3/8	3 1/8	2 1/2	2.55
R-9	400-0-400 125MA	5V 3A	6.3 VCT-4A or 2.5-VCT-4A	6.3VCT-2A or 2.5VCT-10A	4 1/2	3 3/4	4	3 3/4	3	3.30
R-10	425-0-425 200MA	5V-3A	6.3VCT-5A or 2.5-VCT-5A	6.3VCT-3A or 2.5VCT-12A	4 1/2	3 3/4	4 3/4	3 3/4	3	3.90

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

UNITED TRANSFORMER CORP.

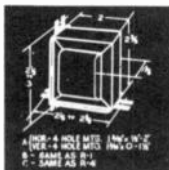


UTC filter chokes are conservatively designed and rated. Standard black enamel mounting channels are employed. Coils are completely sealed against adverse humidity conditions.

FILTER AND AUDIO CHOKES									
Type No.	Inductance	Current	Resistance	Dimensions, In.				NET	
				W	D	H	M		
R-14	12 Hys.	40MA	250 ohms	2 7/8	1 3/8	1 1/2	2 3/8	.54	
R-15	15 Hys.	30MA	450 ohms	2 7/8	1 3/8	1 1/2	2 3/8	.54	
R-16	20 Hys.	30MA	600 ohms	2 7/8	1 3/8	1 1/2	2 3/8	.66	
R-17	25 Hys.	30MA	1000 ohms	3 3/8	1 3/8	2	2 7/8	.72	
R-18	10 Hys.	75MA	250 ohms	3 3/8	1 3/8	2	2 7/8	.72	
R-19	15 Hys.	100MA	450 ohms	3 3/8	1 3/8	2 3/8	3 3/8	1.05	
R-20	8 Hys.	160MA	100 ohms	4 1/8	2	2 3/8	3 3/8	1.20	
R-21	5/25 Hys.	160MA	100 ohms	4 1/8	2	2 3/8	3 3/8	1.20	
R-22	500 Hys.	5MA	6000 ohms	3 3/8	1 3/8	2	2 7/8	1.05	



The Varitap Duplicate audio units represent the acme in replacement transformer development. The units are extremely attractive, the double shells and universal mounting brackets being finished in high lustre black enamel. The figure A units use the new UTC universal bracket. This bracket makes possible four hole horizontal or vertical mounting and two hole, channel type, horizontal or vertical mounting. All mounting positions incorporate long slots for maximum flexibility. The coils of these units, in addition to efficient design and mechanical shielding, are vacuum impregnated and then completely sealed with a special compound to assure complete protection against adverse climatic conditions.



VARITAP DUPLICATE AUDIO TRANSFORMERS AND FILTER CHOKES

(Completely Shielded Units, Universal Mtg.)

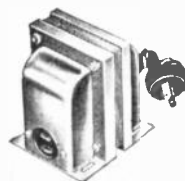
Type No.	Application	Description	Fig.	NET
R-23	1 plate* to 1 grid	3 1/2:1 ratio	A	1.06
R-24	1 plate* to 2 grids	2:1 ratio	A	1.11
R-25	2 plates* to 2 grids	1.5:1 stepup for class A triodes 1.5:1 stepdown for 6L6's, 2A3's, 2A5's, etc.	A	1.20
R-26	Driver, 1 plate to 2 grids	Single 42, 2A5, 6F6, 45, 46 to AB 6L6's, 42's, 2A5's, 6F6's, 46's	A	1.20
R-27	15 watt Universal Output	All tubes up to 15 watts to any voice coil from .1 to 30 ohms	A	1.05
R-28	35 watt Universal Output	All tubes up to 35 watts to any voice coil from .1 to 30 ohms	B	1.50
R-29	Mike to grid	Single or double button mike or line to 1 grid	A	1.11
R-30	Filter choke	13 Hys—250 MA—100 ohms	C	3.00
R-31	Filter choke	10 Hys—80 MA—250 ohms	A	.90
R-32	Filter choke	10 Hys—150 MA—100 ohms	B	1.35

*Will match tubes like 27, 37, 56, 6C6 triode, 6C5. Can be used with high mu triodes with loss in low frequencies.

UTC channel frame audios are excellently designed. In addition to good frequency range, coils are vacuum impregnated and completely sealed against moisture absorption. Standard channels with black enamel finish are employed.

CHANNEL FRAME AUDIO TRANSFORMERS									
Type No.	Application	Description	Dimensions, In.				NET		
			W	D	H	M			
R-33	1 plate* to 1 grid	4:1 ratio	2 7/8	1 3/8	1 1/2	2 3/8	.72		
R-34	1 plate* to 2 grids	2:1 ratio	2 7/8	1 3/8	1 1/2	2 3/8	.75		
R-35	Mike to 1 grid	17:1 ratio	2 7/8	1 3/8	1 1/2	2 3/8	.90		
R-36	Driver	30, 49, etc. to class B 19, 49, 79, 89 grids	2 7/8	1 3/8	1 1/2	2 3/8	.90		
R-37	R.F. Output	Class B 19, 49, 79, 89 plates to 3500 and 5000 ohms	2 7/8	1 3/8	1 1/2	2 3/8	.96		
R-38	10 watt Universal Output	Any tubes up to 10 watts to any voice coil, .1 to 30 ohms	2 1/2	1 3/8	1 3/8	2 1/8	.90		
R-39	10 watt line Matching Transf.	250, 500, 1500 ohms to 2, 8, 15 ohms	2 7/8	1 3/8	1 1/2	2 3/8	.96		
R-40	25 watt line Matching Transf.	250, 500, 1500 ohms to 2, 8, 15 ohms	4 1/8	2 1/4	2 3/8	3 3/8	1.50		

*Will match tubes like 27, 37, 56, 6C6 triodes, 6C5. Can be used with high mu triodes with loss in low frequencies.



STEP DOWN AUTO-TRANSFORMERS

220-240 to 110-120 Volts, 50-60 Cycles

R-41	85 Watt capacity.	NET \$2.70
R-42	125 Watt capacity.	3.00
R-43	175 Watt capacity.	3.60
R-44	250 Watt capacity.	4.20

UTC REPLACEMENT TRANSFORMER MANUAL

BULLETIN #R-20A

ASK OR WRITE US FOR THIS MANUAL. CONTAINS COMPLETE INFORMATION ON THE PROPER REPLACEMENT TRANSFORMERS FOR ALL MAKES OF RADIOS.

LOT NEXT TO STORE OR LOADING ZONE



Most Complete Transformer Line in the World!

LINEAR STANDARD

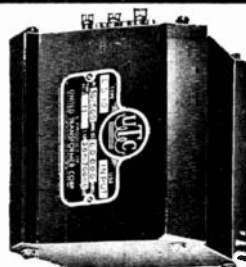
- **High Permeability Cast Shield** maximum shielding from inductive pickup.
- **True Hum Balancing Coil Structure** maximum neutralization of stray fields.
- **Balanced Variable Impedance Line** permits highest fidelity on every tap of a universal unit with no line reflections or transverse coupling.
- **Reversible Mounting** permits above chassis or subchassis wiring.
- **Full Electrostatic Shielding Between Windings** brought out to separate terminal.
- **Multiple Coil, Semi-Toroidal Coil Structure** minimum distributed capacity and leakage reactance.
- **Precision Winding** accuracy of windings 1% perfect balance of inductance and capacity; exact impedance reflection.
- **Hiper-Alloy** a Stable high permeability nickel-iron core material.
- **High Fidelity** UTC Linear Standard transformers are the only audio units with a guaranteed uniform response, from 30 to 20,000 cycles ± 1 db.

LOW IMPEDANCE TO GRID TRANSFORMERS

Type No.	Application	Primary Impedance	Secondary Impedance	Shielding and hum reduction	Case No. List Price	Your Cost
LS-10	Low impedance mike, pick-up, or multiple line to grid	50, 125, 200, 250, 333, 500 ohms	60,000 ohms in two sections	Dual Alloy shield—74DB	LS-1 15.00	\$9.00
LS-10X	As above	As above	50,000 ohms	Quadruple alloy shield—92DB	LS-1 20.00	\$12.00
LS-12	Low impedance mike, pick-up, or multiple line to push pull grids	50, 125, 200, 250, 333, 500 ohms	120,000 ohms overall, in two sections	Dual alloy shield—74DB	LS-1 20.00	\$12.00
LS-12X	As above	As above	80,000 ohms overall, in two sections	Quadruple alloy shield—92DB	LS-1 25.00	\$15.00
LS-14	Low impedance mike, pick-up, or parallel mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms	60,000 ohms in 2 sections	Dual alloy shield—74DB	LS-1 20.00	\$12.00
LS-14X	As above	As above	50,000 ohms	Quadruple alloy shield—92DB	LS-1 25.00	\$15.00
LS-15	Three isolated lines or pads to one or two grids	30, 50, 200, 250 ohms each primary	60,000 ohms overall, in two sections	Dual Alloy shield—74DB	LS-1 28.00	\$12.00
LS-15X	As above	As above	As above	Quadruple alloy shield—92DB	LS-1 25.00	\$15.00
LS-18	High level multiple line to push pull grids	50, 125, 200, 250, 333, 500 ohms	50,000 ohms overall, in two sections	Alloy casting—50DB	LS-2 22.00	\$13.20

PLATE, CRYSTAL, PHOTOCCELL AND BRIDGING TO LINE TRANSFORMERS

Type No.	Application	Primary Impedance	Secondary Impedance	Shielding and hum reduction	Case No. List Price	Your Cost
LS-50	Single plate to multiple line	8,000 to 15,000 ohms	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 35.00	\$9.00
LS-51	Push pull low level plates to multiple line	8,000 to 15,000 ohms each side	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 18.00	\$9.00
LS-37	Crystal microphone or pick-up to multiple line	100,000 ohms	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 15.00	\$9.00
LS-38	Crystal microphone or pick-up to multiple line, with internal equalizer	100,000 ohms	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 20.00	\$12.00
LS-39	Photocell, high mu triode, diode or over-biased detector to multiple line	100,000 ohms	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 15.00	\$9.00
LS-150	Bridging transformer from 50 to 500 ohm line to multiple line	4,000 ohms, bridging	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 15.00	\$9.00
LS-151	Bridging transformer from 50 to 500 ohm line to multiple line	16,000 ohms bridging	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 15.00	\$9.00



OVERALL DIMENSIONS

	L	W	H
LS-1	1-15/16x2-7/16		
LS-2	2-11/16x3-11/16		
LS-3	4-3/16x5-1/32		
LS-4	5-3/4x5-3/4		
LS-5	7-1/4x7-1/4		
Mtg. Dimensions			
LS-1	2-9/16	3-3/16	3-11/16
LS-2	3-1/2	4-3/8	4-5/8
LS-3	5	5-3/4	5-3/16
LS-4	6-7/16	6-7/16	5-3/8
LS-5	8	8	6-1/2

TRANSFORMERS

UTC LINEAR STANDARD Component's represent the closest approach to the ideal transformer from the standpoint of uniform response, low wave form distortion, high efficiency, thorough shielding and dependability.

The multiple tap windings used on input to grid, plate to line, mixing and output audio transformers make possible a wide combination of impedance connections without impairing the audio range or efficiency of each unit.

UTC engineers have spent considerable time studying the many annoying hum pickup difficulties which are prevalent in high gain A.C. operated amplifying equipment. As a result, a special grade of high permeability cast iron has been developed to house all UTC Linear Standard units.

In addition low level input transformers use the new UTC dual and quadruple alloy shields thus making possible a transformer with the lowest hum pickup of any available commercially.

MIXING TRANSFORMERS

Type No.	Application	Primary Impedance	Secondary Impedance	Shielding and hum reduction	Case No. List Price	Your Cost
LS-30	Mixing, low impedance mike, pick-up, or multiple line to multiple line	50, 125, 200, 250, 333, 500 ohms	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 15.00	\$9.00
LS-30X	As above	As above	As above	Quadruple alloy shield—92DB	LS-1 20.00	\$12.00
LS-31	Three isolated lines or pads to multiple line	30, 50, 200, 250 ohms each primary	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 20.00	\$12.00
LS-31X	As above	As above	As above	Quadruple alloy shield—92DB	LS-1 25.00	\$15.00
LS-32	Mixing, low impedance mike, pick-up, or parallel mixer to multiple line	2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms	50, 125, 200, 250, 333, 500 ohms	Dual alloy shield—74DB	LS-1 20.00	\$12.00

INTERSTAGE AUDIO TRANSFORMERS

Type No.	Application	Primary Impedance	Secondary Impedance	Shielding and hum reduction	Case No. List Price	Your Cost
LS-20	Single plate to single grid	8,000 to 15,000 ohms. Also for bridging 50-500 ohm line	60,000 ohms; 2:1 turn ratio	Dual alloy shield—74DB	LS-1 10.00	\$6.00
LS-21	Single plate to push pull grids	8,000 to 15,000 ohms. Also for bridging 50-500 ohm line	135,000 ohms; turn ratio 1.5:1 each side. Primary and secondary each in two sections	Dual alloy shield—74DB	LS-1 13.00	\$7.80
LS-22	Push pull plates to push pull grids	8,000 to 15,000 ohms	135,000 ohms each secondary, turn ratio 1.5:1 each side of center. Primary and secondary each in two sections	Alloy casting—74DB	LS-2 22.00	\$13.20
LS-24	Single plate or multiple line to one or two grids	High impedance primary 8,000 to 15,000 ohms. Low impedance primary 50, 125, 200, 250, 333, 500 ohms	60,000 ohms; 2:1 turn ratio. Secondary impedance 60,000 ohms overall	Dual alloy shield—74DB	LS-1 20.00	\$12.00

OUTPUT TRANSFORMERS TO HIGH IMPEDANCE (RF) LOAD

Type No.	Primary will match the following tubes	Primary Impedance	Secondary Impedance	Case No. List Price	Your Cost
LS-56	Push pull 2A3's, 6A1G's, 300A's, 275A's, 6A3's, +36DB	5,000 ohms plate to plate and 3,000 ohms plate to plate	6000, 5000, 4000, 1800, 1500, 1000, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-2 20.00	\$12.00
LS-845M	845 tubes Class AB +42DB	6,800 ohms plate to plate	5000, 3300, 2500, 2100, 1250, 600	LS-3 50.00	\$30.00
LS-66	Class B 203A, 838, ZB120, 805 +46DB	9,000 ohms plate to plate	5000, 3500, 2500, 2100, 1250, 600	LS-3 70.00	\$42.00
LS-67	Class B 203A, 838, ZB 120, 805 +46DB	9,000 ohms plate to plate	10000, 2500	LS-3 70.00	\$42.00
LS-69	Class B 849, 204A +52DB	10,500 ohms plate to plate	6000, 5000, 4000, 1800, 1500, 1000, 3000	LS-6* 200.00	\$120.00
LS-169	Push pull parallel 849's Class B or six push pull parallel 204A's +55DB	12,500 ohms plate to plate	5000, 4200, 3500, 1500, 1250, 830	LS-7* 400.00	\$240.00

*Special oil filled casting

** note the above items so marked ** are in stock at all times

IT'S EASY TO PARK AT WALTER ASHE . . .

WALTER ASHE RADIO COMPANY 83

1100 Pine Street St. Louis, Missouri



PLATE TRANSFORMERS

Type No.	Primary Voltage 50/60 Cycles	High Voltage	DC Current	List Price	Your Cost
LS-181	100, 110, 120, 220, 230, 240	1500-1250-0-1250-1500	200 MA	43.00	\$27.00
LS-182	100, 110, 120, 220, 230, 240	1500-1250-0-1250-1500	350 MA	60.00	\$36.00
LS-183	100, 110, 120, 220, 230, 240	1750-1500-0-1500-1750	400 MA	75.00	\$45.00
LS-184	100, 110, 120, 220, 230, 240	3500-3000-2500-0-2500-3000-3500	500 MA	110.00	\$66.00
LS-185	100, 110, 120, 220, 230, 240	3500-3000-2500-0-2500-3000-3500	1.2 amp.	250.00	\$150.00

COMBINED PLATE AND FILAMENT TRANSFORMERS

Type No.	Primary Voltage 50/60 cycles	High Voltage	Filament Windings	Case No. List Price	Your Cost
LS-180	110	225-0-225 15 MA	6.3 V.C.T.-2A 15 MA	LS-1 10.00	\$6.00
LS-190	100, 105, 110, 115, 120, 125	350-300-0-300-350 125 MA	5 V.C.T.-3A 2.5 V.C.T.-6A 6.3 V.C.T.-3A	LS-3 18.00	\$10.80
LS-191	100, 105, 110, 115, 120, 125	325-250-0-250-325 35 MA	5 V.C.T.-3A 2.5 V.C.T.-2A 6.3 V.C.T.-2A	LS-2 15.00	\$9.00
LS-70	100, 105, 110, 115, 120, 125	425-375-0-375-425 200 MA	5 V.C.T.-3A 2.5 V.C.T.-3A 2.5 V.C.T.-10A 6.3 V.C.T.-1A 6.3 V.C.T.-3A	LS-4 25.00	\$15.00
LS-72	100, 105, 110, 115, 120, 125	525-450-0-450-525 250 MA 70-0-70 50 MA	5 V.C.T.-3A 2.5 V.C.T.-3A 2.5 V.C.T.-1A 6.3 V.C.T.-1A 6.3 V.C.T.-3A tapped at 5 V.C.T.-6A	LS-4 25.00	\$15.00
LS-73	100, 105, 110, 115, 120, 125	500-400-0-400-500 500 MA 70-0-70 50 MA	5 V.C.T.-6A 2.5 V.C.T.-10A 2.5 V.C.T.-3A 6.3 V.C.T.-4A 6.3 V.C.T.-6A tapped at 5 V.C.T.-6A	LS-5 35.00	\$21.00

OUTPUT TRANSFORMERS TO LINE AND VOICE COIL

Type No.	Primary will match following tubes	Primary Impedance	Secondary Impedance	Case No. List Price	Your Cost
LS-52	Push pull 2A5, 250, 6V6, 42 or 2A3 A prime	8,000 ohms	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-2 20.00	\$12.00
LS-54	Same as above	8,000 ohms	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-2 14.00	\$8.40
LS-55	Push pull 2A3's, 6A5G's, 300A's, 275A's, 6A3's	5,000 ohms plate to plate and 3,000 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-2 20.00	\$12.00
LS-57	Same as above	5,000 ohms plate to plate and 3,000 ohms plate to plate	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-2 14.00	\$8.40
LS-58	Push pull parallel 2A3's, 6A5G's, 300A's, 6A3's	2,500 ohms plate to plate and 1,500 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-4 30.00	\$18.00
LS-61	Push pull 6B5, 6A6, 53, 6F6, 71A, 59, 79, 86, Class B46, 59's	10,000 ohms plate to plate and 6,000 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-2 20.00	\$12.00
LS-63	Same as above	10,000 ohms plate to plate and 6,000 ohms plate to plate	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-2 14.00	\$8.40
LS-64	Push pull 8A5's Class A	18,000 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-4 35.00	\$21.00
LS-2451	Push pull 45's A prime, class B 46's 59's, 48's, 25L6's	6,000 ohms plate to plate and 3,500 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-2 20.00	\$12.00
LS-6L1	Push pull 6L6's self bias, incorporates tertiary winding for stabilized feedback	6,400 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-3 30.00	\$18.00
LS-6L3	Same as above	6,400 ohms plate to plate	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-3 20.00	\$12.00
LS-6L4	Push pull 6L6's fixed bias or push pull parallel 6L6's self bias with tertiary winding for stabilized feedback	3,800 ohms plate to plate and 3,300 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-4 35.00	\$21.00
LS-845	845 tubes class AB	8,800 ohms plate to plate	500, 333, 250, 200, 125, 50, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2	LS-3 50.00	\$30.00

HIGH LEVEL MATCHING TRANSFORMERS

Type No.	Application	Primary Impedance	Secondary	Case No. List Price	Your Cost
LS-33	High level line matching: 15 watts	50, 125, 200, 250, 333, 500 ohms	1.2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125, 200, 250, 333, 500 ohms	LS-2 15.00	\$9.00
LS-34	High level line matching: 30 watts	50, 125, 200, 250, 333, 500 ohms	1.2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125, 200, 250, 333, 500 ohms	LS-3 20.00	\$12.00

DRIVER TRANSFORMERS

Type No.	Application	Primary Impedance	Reflected Secondary	Case No. List Price	Your Cost
LS-5	Driver, multiple line to class B 838's, 805's, ZB-120's, 203A's and similar tubes.	50, 125, 200, 250, 333, 500 ohms	2,000 ohms; 1:2 overall turns ratio	LS-4 30.00	\$18.00
LS-6	Driver, push pull 45's, 59's, 2A3's, 6A3's, etc. to push pull 845 or 211D triodes.	800 to 2,000 ohms	11 primary impedance; 1:3 overall turns ratio	LS-4 22.00	\$13.20
LS-7	Push pull 56, 6C5 or similar plates to A prime 45's, 42's, 6F6's, 2A3's.	9,000 to 15,000 ohms	43 primary impedance; 1:5 overall turns ratio	LS-2 22.00	\$13.20
LS-47X	Driver from push pull 2A3's, 6A5G's, or 300A's to class B 838's, 805's, or ZB120's	800 to 1,000 ohms	1 pri. impedance; turns ratio, Pri. 1/4 Sec. 3:2	LS-2 22.00	\$13.20
LS-48	Driver transformer push pull 845's to 204 or 849 grids in class B	1,000 to 2,000 ohms	938 pri. impedance; turns ratio, Pri. 1/4 Sec. 5:1	LS-2 33.00	\$21.00
LS-49	Push pull parallel 2A3, 6A5G, or 300A tubes to four 838, 203A, 805, or ZB120 tubes	800 to 2,000 ohms	926 pri. impedance; turns ratio, Pri. 1/4 Sec. 6:0.1	LS-2 30.00	\$18.00

FILAMENT TRANSFORMERS

Type No.	Application	Primary Voltage 50/60 Cycles	Secondary Voltage	Insulation	Case No. List Price	Your Cost
LS-80	866A rectifiers	100, 110, 120, 220, 230, 240	2.5 V.C.T.-18A	12,000	LS-3 15.00	\$9.00
LS-82	872 rectifiers	100, 110, 120, 220, 230, 240	5 V.C.T.-20A	12,000	LS-3 20.00	\$12.00
LS-84	203A, 845, etc. HP200, HP300	100, 110, 120, 220, 230, 240	10 V.C.T.-8A	12,000	LS-3 15.00	\$9.00
LS-85	Combined filament transformer for 866 rectifiers and 845 or 203A audio tubes	100, 110, 120, 220, 230, 240	2.5 V.C.T.-10A 10 V.C.T.-8A	10,000	LS-3 25.00	\$15.00
LS-88	6.3 volt tubes	105, 115, 125	6.3 V.C.T.-2A	2,500	LS-1 7.50	\$4.50
LS-87A	7.5 volt tubes	105, 115, 125	7.5 V.C.T.-9A	2,500	LS-3 7.50	\$4.50
LS-118	849, 204A, HP300	100, 110, 120, 220, 230, 240	11 V.C.T.-10A	2,500	LS-3 20.00	\$12.00
LS-120	866 bridge rectifier	100, 110, 120, 220, 230, 240	2.5 V.C.T.-10A 2.5 V.C.T.-5A 2.5 V.C.T.-3A	12,000	LS-3 25.00	\$15.00
LS-121	872 bridge rectifier	100, 110, 120, 220, 230, 240	5 V.C.T.-20A 5 V.C.T.-10A 5 V.C.T.-10A	12,000	LS-4 35.00	\$21.00
LS-83	872A, 575 or 869 rectifiers	100, 110, 120, 220, 230, 240	5 V.C.T.-20A	35,000	Spec. 40.00	\$24.00
LS-89A	Three 869 rectifiers	100, 110, 120, 220, 230, 240	5 V.C.T.-40A	35,000	Spec. 50.00	\$30.00

FILTER, SWINGING, AND AUDIO CHOKES

Type No.	Application	Inductance	DC Current	DC Resistance	Case No. List Price	Your Cost
LS-90	Filter choke, hum bucking tap	Series-30 hy Parallel-12.5 hy	50 MA 100 MA	510 ohms 128 ohms	LS-2 20.00	\$5.10
LS-91	Filter choke, hum bucking tap	Series-14 hy Parallel-3.5 hy	125 MA 250 MA	200 ohms 50 ohms	LS-2 8.50	\$5.10
LS-92	Filter choke, hum bucking tap	Series-16 hy Parallel-4 hy	175 MA 350 MA	96 ohms 24 ohms	LS-3 15.00	\$9.00
LS-93	Filter choke, hum bucking tap	Series-26 hy Parallel-4.25 hy	200 MA 400 MA	112 ohms 28 ohms	LS-4 25.00	\$15.00
LS-96	Filter choke, hum bucking tap	Series-20 hy Parallel-5 hy	500 MA 1 amp	90 ohms 22.5 ohms	LS-3 40.00	\$24.00
LS-94	Parallel feed and filter choke	Series-320 hy Parallel-80 hy	3 MA 6 MA	6400 ohms 1600 ohms	LS-1 10.00	\$6.00
LS-95	Parallel feed and filter choke	Series-720 hy Parallel-180 hy	5 MA 10 MA	3600 ohms 900 ohms	LS-2 20.00	\$12.00
LS-99	Filter choke with hum bucking tap	Series-20 hy Parallel-5 hy	1 amp 2 amp	50 ohms 12.5 ohms	Spec. 60.00	\$36.00
LS-105	Swinging choke	8-40 hy	1 amp	50 ohms	Spec. 60.00	\$36.00
LS-102	Modulation reactor	50 hy	350 MA	250 ohms	LS-3 40.00	\$24.00
LS-103	Modulation reactor	50 hy	500 MA	175 ohms	Spec. 60.00	\$36.00

** note the above items so marked ** are in stock at all times

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

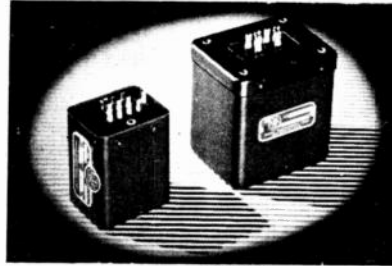
1100 Pine Street St. Louis, Missouri



Most Complete Transformer Line in the World!

HIPERM ALLOY

The UTC Hiperm alloy audio and power transformers are specifically designed for portable and compact service. While light in weight and small in dimensions, neither dependability nor fidelity has been sacrificed. The frequency characteristic of the Hiperm alloy audio units is uniform from 30 to 20,000 cycles. These units are similar in general design and characteristics to the Linear Standard audio units, and



OVERALL DIMENSIONS
H1 Case $1\frac{1}{8} \times 2\frac{3}{8} \times 3$
H2 Case $2\frac{3}{8} \times 3 \times 3\frac{3}{8}$
MOUNTING DIMENSIONS
H1 $1\frac{1}{8}$
H2 $1-11/16 \times 2\frac{3}{8}$

INTERSTAGE AUDIO TRANSFORMERS

Type No.	Application	Primary Impedance	Secondary Impedance	Case No. List Price	Your Cost
HA-105	Single plate to single grid	8,000 to 15,000 ohms	60,000 ohms 2:1 turn ratio	H-1 9.00	\$5.40
HA-106	Single plate to push pull grids	8,000 to 15,000 ohms	135,000 ohms 1.5:1 ratio, each side	H-1 11.00	\$6.60
HA-107	Push pull plates to push pull grids	8,000 to 15,000 ohms	35,000 ohms each secondary 1.5:1 turn ratio overall	H-2 15.00	\$9.00

LOW IMPEDANCE TO GRID AND MIXING TRANSFORMERS

Type No.	Application	Primary Impedance	Secondary Impedance	Case No. List Price	Your Cost
HA-100	Low impedance mike, pickup, or multiple line to grid	50, 125, 200, 250, 333, 500 ohms	60,000 ohms in two sections	H-1 17.50	\$7.50
HA-100X	Same as above but with tri-alloy internal shield to effect very low hum pickup.			H-1 17.50	\$10.50
HA-101	Low impedance mike, pickup, or multiple line to push pull grids	50, 125, 200, 250, 333, 500 ohms	120,000 ohms overall, in two sections	H-1 15.00	\$9.00
HA-101X	Same as above but with tri-alloy internal shield to effect very low hum pickup.			H-1 20.00	\$12.00
HA-103A	Low impedance mike, pickup, or parallel mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms	60,000 ohms in two sections	H-1 15.00	\$9.00
HA-108	Mixing, low impedance mike, pickup, or multiple line	50, 125, 200, 250, 333, 500 ohms	50, 125, 200, 250, 333, 500 ohms	H-1 12.50	\$7.50
HA-108X	Same as above but with tri-alloy internal shield to effect very low hum pickup.			H-1 17.50	\$10.50
HA-130X	Three isolated lines or pads to one or two grids with tri-alloy internal shield	30, 50, 200, 250 ohms each primary	60,000 ohms overall, in two sections	H-1 20.00	\$12.00

ULTRA COMPACT

The UTC Ultra compact audio units represent the acme in small, light-weight units where portability or size is of paramount importance. Through the use of new design methods, high fidelity is obtainable in all individual units, the frequency response being ± 2 DB from 30 to 20,000 cycles on all units. There is no need to resonate one unit in an amplifier to compensate for the droop of another unit.



Type No.	Application	Primary Impedance	Secondary Impedance	List Price	Your Cost
A-10	Low impedance mike, pickup, or multiple line to grid	50, 125, 200, 250, 333, 500 ohms	30,000 ohms	10.00	\$6.00
A-12	Low impedance mike, pickup, or multiple line to push pull grids	50, 125, 2500, 250, 333, 500 ohms	80,000 ohms overall, in two sections	10.00	\$6.00
A-14	Dynamic microphone to one or two grids	30 ohms	30,000 ohms overall, in two sections	9.00	\$5.40
A-16	Single plate to single grid	8,000 to 15,000 ohms	60,000 ohms, 2:1 turn ratio	8.00	\$4.80
A-18	Single plate to two grids	8,000 to 15,000 ohms	80,000 ohms overall, 2.3:1 turn ratio overall	9.00	\$5.40

TRANSFORMERS

incorporate a Hiperm alloy nickel iron core. The outer case is of high conductivity alloy finished in high polish black enamel. Through the use of tapped metallic inserts, these transformers can be mounted with the terminals either up or down, and with no waste space. A hum balanced coil structure is used on all audio units to insure minimum pickup. The electrostatic shields are brought out to separate terminals on the terminal strip.

POWER TRANSFORMERS

Type No.	Primary Voltage 50 60 cycles	High Voltage	Filament Windings	Case No. List Price	Your Cost
HP-122	115	220-0-200 15 MA	6.3 V.C.T.-.5A 6.3 V.C.T.-1.2A	H-2 10.00	\$6.00
HP-123	115	275-0-275 35 MA	6.3 V.C.T.-.5A 6.3 V.C.T.-2A	H-3 15.00	\$9.00

PLATE, CRYSTAL AND PHOTOCELL TO LINE TRANSFORMERS

Type No.	Application	Primary Impedance	Secondary Impedance	Case No. List Price	Your Cost
HA-III	Crystal microphone or pickup, to multiple line	100,000 ohms	50, 125, 200, 250, 333, 500 ohms	H-1 12.50	\$7.50
HA-III-E	Crystal microphone or pickup, to multiple line, with internal equalizer	100,000 ohms	50, 125, 200, 250, 333, 500 ohms	H-1 17.50	\$10.50
HA-II-2	Photocell, high-mu triode, diode or overbiased detector to multiple line	100,000 ohms	50, 125, 200, 250, 333, 500 ohms	H-1 12.50	\$7.50
HA-II-3	Single plate to multiple line	8,000 to 15,000 ohms	50, 125, 200, 250, 333, 500 ohms	H-1 12.50	\$7.50
HA-II-4	Push pull low level plates to multiple line	8,000 to 15,000 ohms	50, 125, 200, 250, 333, 500 ohms	H-1 12.50	\$7.50

FILTER AND AUDIO CHOKES

Type No.	Inductance	DC Current	DC Resistance	Case No. List Price	Your Cost
HC-115	Series-400 hy Parallel-100 hy	2.5 MA 5 MA	7000 ohms 1750 ohms	H-1 8.50	\$5.10
HC-116	Series-600 hy Parallel-150 hy	8 MA 16 MA	4000 ohms 1000 ohms	H-2 15.00	\$9.00
HC-117	60 hy	15 MA	3000 ohms	H-1 8.50	\$5.10
HC-127	60 hy	40 MA	1000 ohms	H-2 15.00	\$9.00

AUDIO UNITS

All units employ true hum balancing coil structure, which combined with a high conductivity outer case, afford a maximum of inductive shieldings.

Ultra compact audio units weigh only $5\frac{1}{2}$ ounces and have overall dimensions of $1\frac{7}{16} \times 1\frac{7}{16} \times 1\frac{15}{16}$ ". Mounting dimensions are $1\frac{1}{8}$ " between centers.

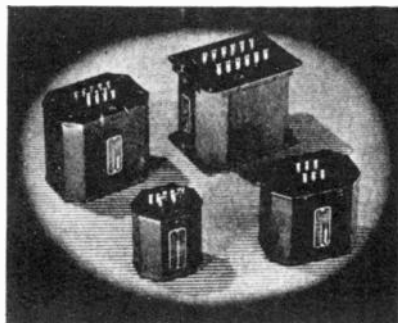
Type No.	Application	Primary Impedance	Secondary Impedance	List Price	Your Cost
A-20	Mixing, low impedance mike, pickup, or multiple line to multiple line	50, 125, 200, 250, 333, 500 ohms	50, 125, 200, 250, 333, 500 ohms	10.00	\$6.00
A-24	Single plate to multiple line	8,000 to 15,000 ohms	50, 125, 200, 250, 333, 500 ohms	10.00	\$6.00
A-26	Push pull low level plates to multiple line	8,000 to 15,000 ohms each side	50, 125, 200, 250, 333, 500 ohms	10.00	\$6.00
A-27	Crystal microphone to multiple line	100,000 ohms	50, 125, 200, 250, 333, 500 ohms	10.00	\$6.00
A-30	Audio choke, 300 henrys @ 2 MA 6000 ohms D.C., 75 henrys @ 4 MA 1500 ohms D.C., inductance with no D.C. 450 henrys			7.00	\$4.20

none of the above items are stocked. obtainable on special order only

IT'S EASY TO PARK AT WALTER ASHE . . .



Most Complete Transformer Line in the World!



MOUNTING DIMENSIONS

(With Flange)	(Without Flange)
PA-1 1-15/16 x 2-7/16	PA-1 1-13/16
PA-2 2-7/16 x 3-7/16	PA-2 1-5/8 x 3-1/16
PA-3 3-1/16 x 4-5/16	PA-3 1-13/16 x 3-7/8

OVERALL DIMENSIONS

	L	W	H
PA-1	2 1/2	3	3
PA-2	3-1/16	4 1/2	4 1/2
PA-3	3 3/4	4 3/4	4 3/4

INPUT TRANSFORMERS CLASS A

PA-131 Transformer from 1 plate to 1 grid. 3:1 ratio. PA-1. List Price \$4.50. **Your Cost** \$2.70
PA-132 From 1 plate to 2 grids. 2:1 ratio each side. Split sec. PA-1. List Price \$5.00. **Your Cost** \$3.00
PA-133 From 2 plates to 2 grids. 1:75 ratio each side. Primary and secondary each in two sections. PA-1. List Price \$6.00. **Your Cost** \$3.60
PA-233 From two 6C6 triode, 6C5, or similar tubes to push pull 45's, 2A3's or 6L6's self or fixed bias. PA-1. List Price \$6.00. **Your Cost** \$3.60
PA-333 This input transformer is designed to operate from 6C5's, or similar driver tubes to two 6L6's fixed bias. PA-1. List Price \$6.00. **Your Cost** \$3.60
PA-433 From 45 or 2A3 plates to two or four fixed bias 6L6 grids. PA-2. List Price \$6.50. **Your Cost** \$3.90
PA-134 500, 200, or 50 ohm line to single grid. PA-1. List Price \$6.50. **Your Cost** \$3.90
PA-135 500, 200, or 50 ohm line to push pull grids. PA-1. List Price \$7.50. **Your Cost** \$4.50
PA-136 Single plate or pickup and carbon mike or low impedance pickup to one or two grids. PA-1. List Price \$7.50. **Your Cost** \$4.50

MIXING, MATCHING TRANSFORMERS

PA-137 Mixing 500, 200, or 50 ohm line to 500, 200 or 50 ohm line. PA-1. List Price \$5.50. **Your Cost** \$3.30
PA-138 Audio line matching. Will handle 20 watts audio power. Input 500 or 200 ohm line. Output 16, 8, 5, 3 and 1.5 ohms. PA-2. List Price \$7.50. **Your Cost** \$4.50
PA-139 Audio line matching. Will handle 30 watts audio power. Input 500 or 200 ohm line. Output 16, 8, 5, 3, 1.5 ohms. PA-3. List Price \$12.50. **Your Cost** \$7.50

REACTORS

PA-40 Filter choke. 12 henrys. Max. D.C. 300 MA. Resistance 110 ohms. PA-2. List Price \$4.50. **Your Cost** \$2.70
PA-41 Class B input filter choke for 46, 53, and 59 tubes. Max. D.C. 200 MA. Resistance 100 ohms. PA-2. List Price \$4.50. **Your Cost** \$2.70

PUBLIC ADDRESS COMPONENTS

The Public Address series of audio, filter and power units described below are designed to satisfy the demand for a popular priced quality line having the many exclusive and Universal features associated with 'UTC' products. All cases are finished in a black eggshell enamel to suit exacting commercial requirements as to appearance. Each transformer may be fastened to chassis or rack panel with lugs either at top or bottom. The housings are physically symmetrical and similar in construction and when grouped in finished equipment present a thoroughly professional appearance. Transformers PA-134, 135 and 136, are now manufactured in the hum-bucking type of construction. In consequence they have an extremely low hum pickup and are excellent for low level work.

PA-43 Filter choke. 15 henrys. Max. D.C. 165 MA. Resistance 375 ohms. PA-2. List Price \$4.50. **Your Cost** \$2.70
PA-44 Filter choke. 30 henrys. Max. D.C. 100 MA. Resistance 375 ohms. PA-2. List Price \$4.00. **Your Cost** \$2.40
PA-45 Parallel feed audio choke. 250 henrys. Max. D.C. 15 MA. Resistance 4500 ohms. PA-1. List Price \$4.50. **Your Cost** \$2.70
PA-48C High inductance filter choke 100 hys. maximum D.C. 50 MA., resistance 2500 ohms. PA-1. List Price \$4.50. **Your Cost** \$2.70
PA-35 Cathode ray transformer for 900 tube. Pri. 115 50/60 cy. Sec. 1000 volts A.C. at 15 MA.; 80 volts A. C. at 20 MA. for sweep circuit. 2 1/2 V.C.T. at 3A. 5V-3A. PA-2. List Price \$8.00. **Your Cost** \$4.80
PA-913 Cathode ray transformer for 913 tube. Pri. 115-50/60 cy. Sec. 950 V.C.T. at 10 MA. 6.3 volts at 1.2 A. 2 1/2 volts at 1.5 A. 5 volts at 3 A. PA-2. List Price \$4.00. **Your Cost** \$2.40
PA-430 Low voltage high current power transformer. Pri. 115 V.-50/60 cy. Secondaries 165-100-0-100-165 at 250 MA. 5 V-3A. 6.3 V.C.T. at 2A. PA-2. List Price \$6.00. **Your Cost** \$3.60

CLASS A OUTPUT TRANSFORMERS

PA-140 From a triode plate like 864, 27, 112A, 35, 30 to 500, 200 or 50 ohms. List Price \$6.50. **Your Cost** \$3.90
PA-141 From push pull triode plates like 864's, 27's, 112A's, 30's to 500, 200 or 50 ohms. List Price \$7.50. **Your Cost** \$4.50

POWER AND FILAMENT TRANSFORMERS

PA-21 Plate transformer for single 45, 47, 59 or class B 79 tubes. Primary 115 V. A.C. 60 cycles. Secondaries: 300-0-300 at 75 MA.; 2 1/2 V.C.T. 3 A., 6.3 V.C.T. 2.5 A., 2 1/2 V.C.T. 6A. PA-3. List Price \$8.00. **Your Cost** \$4.80
PA-22 Plate transformer for push pull 45, 59, 47, 2A3 tubes, or class B 53's. Pri. 115 V. A.C. 60 cycles. Secondaries: 400-0-400 at 125 MA.; 2 1/2 V.C.T. 5 A., 2 1/2 V.C.T. 10 A., 5 V.C.T. 3 A. PA-3. List Price \$10.00. **Your Cost** \$6.00

PA-425 Plate transformer for parallel push pull 45A prime tubes. Pri. 115 V. A.C. 60 cycles. Secondaries 400-0-400 at 200 MA.; 2 1/2 V.C.T. 6A.; 2 1/2 V. C. T. 10A. 5V.C.T. 3A., 6.3 V.C.T. 3A. PA-3. List Price \$12.50. **Your Cost** \$7.50
PA-426 Plate transformer for class B 6A6 and A prime 42 tubes. Pri. 115 V.A.C. 60 cycles. Secondaries 400-0-400 at 125 MA.; 2 1/2 V.C.T. 6 A., 6.3 V.C.T. 4 A. 5 V.C.T. 3 A. PA-3. List Price \$10.00. **Your Cost** \$6.00
PA-428 Power transformer for push pull 6L6 tubes self or fixed bias primary 115 V. A.C., 60 cycles. Secondaries 450-0-450 at 250 MA.; 6.3 V.C.T. 4A, 6.3 V.C.T. 3A also tapped for 2 1/2 V-3A; 2 1/2 V.C.T. 3A; 5 V.C.T. 3A. Taps on high voltage winding for bias supply rectifier. PA-4 List Price \$14.00. **Your Cost** \$8.40
PA-431 Plate and filament supply for 4-6L6's in fixed bias. Pri. 115, 50/60 cy. Secondaries: 500-425-0-425-500 at 500 MA. fixed bias winding for 6L6's, 5V-6A; 5V-3A; 6.3 V.C.T. 5A; 6.3 V.C.T. 3A; PA-5. List Price \$22.50. **Your Cost** \$13.50

CLASS A AND CLASS B OUTPUTS

PA-14 For 4-25L6's in push pull parallel 1000 ohms plate to plate. Secondary 500, 200, 16, 8, 5, 3, 1 1/2 ohms. PA-2. List Price \$7.00. **Your Cost** \$4.20
PA-15 8000 ohms plate to plate for class A, in push pull: 250's, 245's, 43's, single: 211, 843, 842, 205D, 47, to 500, 200, 16, 8, 5, 3, 1.5 ohms. PA-2 case. List Price \$7.00. **Your Cost** \$4.20
PA-16 5000 ohms plate to plate or 3000 ohms plate to plate, for 5000 ohms in push pull: self bias 2A3's, W.E. 275A's; single: 59 triode or 71A; for 3000 ohms in push pull: fixed bias 2A3's, single W.E. 52A, to 500, 200, 16, 8, 5, 3, 1.5 ohms. PA-2 case. List Price \$7.00. **Your Cost** \$4.20
PA-19 10,000 ohms plate to plate or 6000 ohms plate to plate, for 10,000 ohms, class A push pull 59 triodes, 71A's, 6B5's, single 210, 41, 268A, 2A3. Class B push pull 49's, 53's, 79's, 89's; for 6000 ohms, class A push pull 52A's, single 31, 46, 59 pentode. Class B push pull 45's, 59's, to 500, 200, 16, 8, 5, 3, 1.5 ohms. PA-2 case. List Price \$7.00. **Your Cost** \$4.20
PA-710 20,000 ohms plate to plate or 14,000 ohms plate to plate, for 20,000 ohms, push pull 210's; for 14,000 ohms, push pull 47's, 2A5's, 42's used as pentodes, to 500, 200, 16, 8, 5, 3, 1.5 ohms. PA-2 case. List Price \$7.00. **Your Cost** \$4.20
PA-245 6000 ohms plate to plate and 3500 ohms plate to plate, for 6000 ohms, class A prime 45's self bias. Class B 46's and 59's, Class A W.E. 252A's, for 3500 ohms, class A prime 45's fixed bias, to 500, 200, 16, 8, 5, 3, 1.5 ohms. PA-2 case. List Price \$7.00. **Your Cost** \$4.20
PA-445 3000 ohms plate to plate and 1750 ohms plate to plate, for 3000 ohms four 45's in push pull parallel A prime self bias. Four W.E. 252A's in push pull parallel class A. Four 46's or 59's in push pull parallel class B; for 1750 ohms, four 45's in push pull parallel A prime fixed bias, to 500, 200, 16, 8, 5, 3, 1.5 ohms. PA-3 case. List Price \$12.50. **Your Cost** \$7.50
PA-2L6 6600 ohms plate to plate for push pull 6L6's self bias, 35-40 watts output, to 500, 200, 16, 8, 5, 3, 1.5 ohms. PA-3 case. List Price \$10.00. **Your Cost** \$6.00
PA-4L6 3800 and 3300 ohms plate to plate, for 3800 ohms, two 6L6's fixed bias, 60 watts output; for 3300 ohms, four 6L6's self bias, 60-80 watts output, to 500, 200, 16, 8, 5, 3, 1.5 ohms. PA-4 case. List Price \$15.00. **Your Cost** \$9.00
 *These transformers incorporate the new UTC Feedback Winding, which reduces harmonic distortion, increases available power and reduces resistance tremendously. No resistors or condensers are necessary.

all the above items are in stock at all times

LOT NEXT TO STORE OR LOADING ZONE

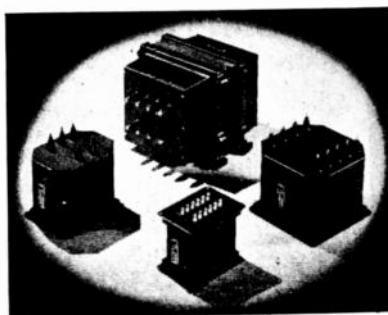


Most Complete Transformer Line in the World!

UTC TRANSMITTING COMPONENTS

The transmitting type of UTC Class B audio filter and power components have been developed for and are now widely used by Commercial Telephone, Telegraph, Communication and Broadcast systems. They are particularly well adapted for use in AMATEUR TRANSMITTER applications.

All audio, filter and power units are fully shielded in symmetrically housed cases and present a thoroughly professional appearance when grouped in finished equipment. PA type cases may be mounted with terminals on top or below the chassis. All units are fully



impregnated and then sealed in their cases with a special heat dissipating compound.

Mounting Dimensions

PA-1	1-15/16x2-7/16
PA-2	2-7/16x3 3/4
PA-3	3-1/16x4-5/16
PA-4	3 3/4x5-7/32
PA-5	4 3/4x6 3/8
PA-6	7x7

Overall Dimensions

	L	W	H
PA-1	2 1/2	3	3
PA-2	3-1/16	4 1/2	3
PA-3	3 3/8	4 3/8	4 1/2
PA-4	6	4 1/2	4 1/2
PA-5	7	5 3/4	5 1/2
PA-6	7 3/4	7 3/4	7 3/4

PLATE TRANSFORMERS

Primary 105, 115, 220, 230 Volts A. C. 50-60 Cycles

PA-110 515 or 625 each side of center at 300 M.A.; 400 V.D.C. or 500 V.D.C. PA-3. List Price \$10.00. **Your Cost**\$6.00
PA-111 750 or 950 each side of center at 350 M.A.; D.C. voltage 600 or 750. PA-4. List Price \$17.00. **Your Cost**\$10.20
PA-112 1250 or 1500 each side of center at 500 M.A.; D.C. voltage 1050 or 1250. PA-6. List Price \$32.00. **Your Cost**\$19.20
PA-113 1750 or 2100 each side of center at 500 M.A.; D.C. voltage 1500 or 1750. PA-6. List Price \$43.50. **Your Cost**\$26.10
PA-114 1750, 2350, 3000 or 3500 each side of center at 500 M.A.; D.C. voltage 1500, 2000, 2500 or 3000, UTS mtg. List Price \$76.00. **Your Cost**\$45.60
PA-154 3500, 4000 each side of center at 500 M.A.; 3050 V.D.C. or 3500 V.D.C. UTS Case. List Price \$100.00. **Your Cost**\$60.00
PA-155 1250 or 1500 each side of center at 750 M.A.; D.C. voltage 1050 or 1250 U.T.S. case. List Price \$50.00. **Your Cost**\$30.00
PA-115 C bias plate transformer for class B 203A's, 830 B's, 800's, or 210's using one or two 82 rectifiers. PA-3, List Price \$10.00. **Your Cost**\$6.00
PA-116 1250 or 1500 each side of center at 300 M.A.; D.C. voltage 1050 or 1250. PA-5. List Price \$23.00. **Your Cost**\$13.80
PA-117 3500 or 3000 each side of center at 1 ampere, 2620 V.D.C. or 3050 V.D.C. U.T.S. case. List Price \$115.00. **Your Cost**\$69.00
PA-118 1750 or 2400 each side of center at 325 M.A.; D.C. voltage 1500 or 2000. PA-6 mtg. List Price \$35.00 **Your Cost** \$21.00
PA-119 1500 or 1750 each side of center at 1 amp. D.C. voltage 1250 or 1500. UTS case, List Price \$76.00. **Your Cost**\$45.60
 Note: Operating the above transformers on 115 volt line the D.C. output voltage can be reduced to half of normal value, for reduced power operation, by switching to the 220 volt tap.

CLASS B INPUT SWINGING CHOKES

PA-101 Swinging action 5 to 25 henrys, current range 15 to 150 M.A., ohmic resistance 115. PA-2 case. List Price \$5.00. **Your Cost**\$3.00
PA-103 Swinging action 5 to 25 henrys, current range 20 to 200 M.A., ohmic resistance 110. PA-3 case. List Price \$8.00. **Your Cost**\$4.80
PA-105 Swinging action 6 to 30 henrys, current range 25 to 250 M.A., ohmic resistance 90. PA-4 case. List Price \$12.00. **Your Cost**\$7.20

PA-109 Swinging action 5 to 25 henrys, current range 75 to 500 M.A., ohmic resistance 60. PA-5 case. List Price \$20.00. **Your Cost**\$12.00
PA-1C Swinging action 5 to 25 henrys, current range 100 to 1000 M.A., ohmic resistance 50. UTS case. List Price \$35.00. **Your Cost**\$21.00

TRAP RESONANT SMOOTHING CHOKES

Smoothing Chokes Have an Off Center Tap for Hum Bucking Arrangements

PA-100 Inductance 8 henrys, D.C. output 150 M.A., ohmic resistance 115. PA-2 case. List Price \$5.00. **Your Cost**\$3.00
PA-102 Inductance 10 henrys, D.C. output 300 M.A., ohmic resistance 110. PA-3 case. List Price \$8.00. **Your Cost**\$4.80
PA-104 Inductance 12 henrys, D.C. output 250 M.A., ohmic resistance 90. PA-4 case. List Price \$12.00. **Your Cost**\$7.20
PA-108 Inductance 17 henrys, D.C. output 500 M.A., ohmic resistance 60. PA-5 case. List Price \$20.00 **Your Cost** \$12.00
PA-1S Inductance 10 henrys, D.C. output 1000 M.A., ohmic resistance 50. UTS case. List Price \$35.00. **Your Cost**\$21.00

FILAMENT TRANSFORMERS

Types PA-34 to PA-127 Tapped at 105-115, 220, 230 Volts A.C., 50-60 Cycles

PA-34 2 1/2 V.C.T. 10 amps. for 2-866's-5000 V. insulation. PA-2. List Price \$7.50. **Your Cost**\$4.50
PA-120 2 1/2 V.C.T. 10 amps. for 2-866's-10,000 V. insulation. PA-3. List price \$9.00 **Your Cost**\$5.40
PA-121 5 V.C.T. 20 amps. for 2-872's-10,000 V. insulation PA-3. List Price \$14.00. **Your Cost**\$8.40
PA-122 7 1/2 V.C.T. at 6.5 amps. for 2-800's. RK-18's, 825's, 210's. 5000 Volt insulation. PA-3. List Price \$11.00. **Your Cost**\$6.60
PA-124 10 V.C.T. 7 amps. for 2-203 A's, 242 A's, 211's, 845's, 852's, 860's, 217 C's. 10,000 V. insulation. PA-3. List Price \$12.00. **Your Cost**\$7.20
PA-126 2-14 V.C.T. 12.5 amp. windings tapped at 11 or 10 volts, 5000 V. insulation for 04 A's, 49's, HF-200's, HF-300's or F100 A's. PA-4. List Price \$20.00. **Your Cost**\$12.00
PA-128 5 V.C.T. 12 amps. for 3-35T's, 2-50T's or 1-150 T. 7000 V. insulation PA-3. List Price \$10.00. **Your Cost**\$6.00
PA-29 Secondaries, 2 1/2 V.C.T. 5 A., 2 1/2 V.C.T. 5 A., 5 V. C. T. 3 A. PA-2. List Price \$6.25 **Your Cost**\$3.75
PA-30 Secondaries, 2 1/2 V.C.T. 5 A., 7 1/2 V.C.T. 2.5 A., 7 1/2 V.C.T. 2.5 A. PA-2. List Price \$6.75. **Your Cost**\$4.05

PA-31 Secondaries, 2 1/2 V.C.T. 5 A., 5 V.C.T. 3 A., 7 1/2 V.C.T. 2 1/2 A. PA-2. List Price \$6.75. **Your Cost**\$4.05
PA-32 Secondaries, 5 V.C.T. 3 A., 5 V.C.T. 3 A., 5 V.C.T. 3 A. PA-2. List Price \$6.75. **Your Cost**\$4.05
PA-33X Secondaries, 5 V.C.T. 3 A., C.T. 2 1/2 A., 6.3 V.C.T. 3 A., 6.3 V.C.T. 3 A. PA-2. List Price \$6.75. **Your Cost** \$4.05
 Note: Types PA-29, 30, 31, 32, 33 are insulated for 2000 volts. Primaries designed only for 115 volts A.C., 50-60 cycles.

VARIPOWER AUTOFORMERS

These units are designed to serve three functions, namely, to effect reduced power for transmitter operation, to take care of line voltage variations from 95 to 130 volts, and to permit minor voltage variation from other transformers. Taps are provided at 55, 75, 95, 100, 105, 110, 115, 120, 125, and 130 volts. Output voltages from 0 to 130 volts in 5V. steps can be obtained.

VA-1 150 watt output rating. List Price \$6.00. **Your Cost**\$3.60
VA-2 250 watt output rating. List Price \$7.50. **Your Cost**\$4.50
VA-3 500 watt output rating. List Price \$10.00. **Your Cost**\$6.00
VA-4 1000 watt output rating. List Price \$15.00. **Your Cost**\$9.00
VA-5 2000 watt output rating. List Price \$20.00. **Your Cost**\$12.00



CHROMSHIELD STEP DOWN TRANSFORMERS

220-240 to 110-120 Volts, 50-60 Cycles

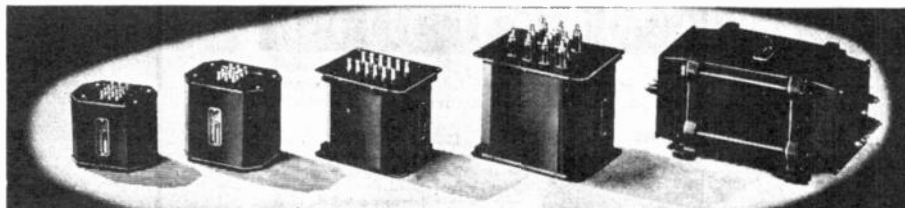
CS-120 85 Watt capacity. List Price \$4.50 **Your Cost**\$2.70
CS-121 125 Watt capacity. List Price \$5.50 **Your Cost**\$3.30
CS-122 175 Watt capacity. List Price \$6.50 **Your Cost**\$3.90
CS-123 250 Watt capacity. List Price \$7.50 **Your Cost**\$4.50

none of the above items stocked. on special order only

IT'S EASY TO PARK AT WALTER ASHE . . .



UTC VARIMATCH TRANSFORMERS



Pri. Ohms P to P	SECONDARY RF LOAD IMPEDANCES AVAILABLE											AUDIO LOAD IMPEDANCE	
2000	1070	1050	2150	3620	3920	4100	8350	6550	7900	8600	11400	300	350
3000	1620	2950	3240	5500	5800	6500	9400	10600	11800	13000	17000	300	520
4000	1380	1850	2160	2850	3450	4300	5500	7300	8650	12500	17400	250	400
5000	1730	2300	2700	3500	4300	5400	7000	9150	10800	15700	21600	300	500
6000	1070	2140	2180	2750	3620	4280	4300	5150	6350	8300	8600	200	370
7000	1250	2400	2500	3200	4280	5900	5050	6000	7300	9700	10000	230	430
8000	1440	2760	2900	3700	4900	6500	5800	6900	8400	10900	12000	270	500
9000	1620	2950	3100	3240	3900	4150	6200	6500	7750	9400	12500	300	550
10000	1800	2300	3500	4300	4600	6100	6900	7100	8600	10500	14000	330	600
12000	2070	2150	2750	4250	4320	6500	7250	8300	8700	12500	17400	370	400
14000	2440	3200	4900	6000	9700							430	
16000	2780	3700	5600	6900	11000							500	
18000	3140	4150	6300	7750	12500							550	

500* 1070 1050 2150 3620 3920 4100 8350 6550 7900 8600 11400

* In some cases it is desired to match an RF load to the 500 Ohm output of a PA amplifier. The terminal arrangement noted will take care of this application.

† These impedances are suitable for PA applications. If a monitor speaker is desired, proper distribution of power is obtained by operating this low impedance into the high impedance primary of the speaker transformer.

Intermediate P.P. primary impedance values available in addition to those shown.

VARIMATCH MODULATION TRANSFORMERS

VM-0 Will handle any power tubes to modulate a 10 to 25-watt Class C stage. PA-1. List Price \$5.00. **Your Cost \$3.00**

VM-1 Will handle any power tubes to modulate a 20 to 70 watt Class C stage. Maximum audio output 30 watts. List Price \$8.00. **Your Cost \$4.80**

VM-2 Will handle any power tubes to modulate a 40 to 130 watt Class C stage. Maximum audio output 60 watts. List Price \$12.50. **Your Cost \$7.50**

VM-3 Will handle any power tubes to modulate a 100 to 250 watt Class C stage. Maximum audio output 125 watts. List Price \$20.00. **Your Cost \$12.00**

VM-4 Will handle any power tubes to modulate a 200 to 600 watt Class C stage. Maximum audio output 300 watts. List Price \$32.50. **Your Cost \$19.50**

VM-5 Will handle any power tubes to modulate a 450 watt to 1 KW plus, Class C. Maximum audio output 600 watts. List Price \$70.00. **Your Cost \$42.00**

The secondaries of all Varimatch transformers are designed to carry the Class C plate current.

VARIMATCH INPUT TRANSFORMERS

PA-50AX Single 53, 56, 6CS, 6C6 triode, 6A6 to Class B 53, 6A6 or 6E6 grids or single 89 to Class B 89 grids. PA-1. List Price \$5.50. **Your Cost \$3.30**

PA-51AX Single 46 or 6L6 to Class B 46 or 59 grids. Single 45, 59, 2A3 or 6L6 to Class B 46 or 59 grids. Single 49 to Class B 49 grids. Single 37, 76, 6C6 or 6C5 triode to Class B 19 or 79 grids. Single 30 to Class B 19 or 79 grids. Single 89 to Class B 19 or 79 grids. Single 2A5, 42, 45 triode plate to A prime 45's, 2A5's or 42's. PA-1. List Price \$5.50. **Your Cost \$3.30**

PA-52AX Push pull, 45, 59, 2A3 or 6L6 plates to 2-46 Class B grids. Push pull 45, 59, 2A3 or 6L6 plates to 4-46 or 59 Class B grids. Push pull 2A3's to 2-841 Class B grids. PA-2. List Price \$6.50. **Your Cost \$3.90**

PA-53AX Push pull 42, 45, 50, 59, 2A3 or 6L6 plates to two 210, 801, RK-18, 35T or 800 Class B grids. Push pull 2A3 plates to two 838, 203A, 50T, 35T, 211A, 242A, 830B, 800, RK-18, 801 or 210 Class B grids. PA-2. List Price \$7.50. **Your Cost \$4.50**

PA-59AX 500, 200 or 50 ohm line to two 805, 838, 203A, 830 B, 800, RK 18, 801 or 210 Class B grids. PA-2. List Price \$7.50. **Your Cost \$4.50**

PA-238AX Push pull parallel 2A3, 45, 50, 59 or 6L6 to four 805, 838, or 203A Class B grids. Push pull parallel 2A3, 45, 50, 59, 6L6 or two 211A, 845 plates to Class B 204A, HF-300 or 849 grids. Push pul parallel 2A3, 45, 50 or two 50T, 211A, 845 plates to Class B 150T or HF-200 Class B grids. PA-3. List Price \$17.50. **Your Cost \$10.50**

PA-512 500, 200 or 50 ohm line to two 150T, HF-300, HF-200, 204A or 849 Class B grids. PA-3. List Price \$20.00. **Your Cost \$12.00**

PA VARIMATCH TRANSFORMERS

PVM-1 For all audio tubes up to 12 watts audio. Output 500, 200, 15, 8, 5, 3, 1½ ohms. Some typical tubes single or push pull: 19, 31, 33, 41, 42, 43, 45, 47, 48, 49, 53, 59, 71A, 79, 89, 2A3, 2A5, 6A6, 6F6, 6V6, 25A6, 25L6. PA-1. List price \$5.00. **Your Cost \$3.00**

PVM-2 For all audio tubes up to 30 watts audio. Output 500, 200, 16, 8, 5, 3 1½ ohms. Some typical tubes for single, push pull, or push pull parallel: 19, 31, 33, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52A, 300A, 53, 59, 71A, 79, 89, 841, 843, 1602, 2A3, 2A5, 6A6, 6F6, 6L6, 6V6, 25A6, 25L6. PA-2. List Price \$8.00. **Your Cost \$4.80**

PVM-3 For all audio tubes up to 60 watts audio. Output 500, 200, 16, 8, 5, 3, 1½ ohms. Some typical tubes in push pull parallel: 42's, 45's, 46's, 50's, 52's, 300A's, 59's, 2A3's, 2A5's, 6F6's. In push pull self or fixed bias: 6L6's, 10's, 807's, 801's. PA-3. List Price \$12.50. **Your Cost \$7.50**

PVM-4 For all audio tubes up to 125 watts audio. Output 500, 200, 16, 8, 5, 3, 1½ ohms.

The Varimatch transformer will not only match PRESENT available modulator tubes, but any tube that may be released at a FUTURE date. All you have to decide is the DC input to your RF stage. Then just pick the VARIMATCH output transformer that will handle the maximum audio power required. These transformers will also match the line impedance output of PA or similar amplifiers direct to the Class C tubes.

THE VARIMATCH TRANSFORMER NEVER BECOMES OBSOLETE

Some typical tubes push pull parallel: 6L6's, 10's, 807's, 801's, push pull 845's, 800's, etc. PA-4. List Price \$20.00.

Your Cost \$12.00

PVM-5 For all audio tubes up to 300 watts audio. Output 500, 200, 16, 8, 5, 3, 1½ ohms. Typical tubes: 211, 242A, 203A, 830B, 852, 838, 4-800's, 4-845's, ZB 120, etc. PA6. List Price \$32.50. **Your Cost \$19.50**

LINE VARIMATCH TRANSFORMERS

The UTC Line Varimatch Units will match any voice coil or group of voice coils to a 500 ohm line. Impedance range is from .2 to 75 ohms in 50 combinations. UTC Line Varimatch Autoformers will match one to ten 500 ohm lines or LVM 500 ohm windings to the 500 ohm output of an audio amplifier.

LVM-1 15 Watt Line Varimatch unit. 500 ohms to a variable voice coil winding .2 to 75 ohms. PA-1 case. List Price \$4.50. **Your Cost \$2.70**

LVM-2 40 Watt Line Varimatch unit. 500 ohms to voice coil winding of .2 to 75 ohms. PA-2 case. List Price \$7.00. **Your Cost \$4.20**

LVM-3 75 Watt Line Varimatch unit. 500 ohms to voice coil winding of .2 to 75 ohms. PA-3 case. List Price \$10.00. **Your Cost \$6.00**

LVM-10 Line Varimatch Autoformer. 500, 250, 167, 125, 100, 83, 71, 62, 50 ohms. 15 Watts. PA-1 case. List Price \$4.50. **Your Cost \$2.70**

LVM-11 Line Varimatch Autoformer. 500, 250, 167, 125, 100, 83, 71, 62, 50 ohms. 30 Watts. PA-2 case. List Price \$7.00. **Your Cost \$4.20**

LVM-12 Line Varimatch Autoformer. 500, 250, 167, 125, 100, 83, 71, 62, 50 ohms. 60 Watts. PA-3 case. List Price \$10.00. **Your Cost \$6.00**

LVM-13 Line Varimatch Autoformer. 500, 250, 167, 125, 100, 83, 71, 62, 50 ohms. 125 Watts. PA-4 case. List Price \$18.00. **Your Cost \$10.80**

LVM-14 Line Varimatch Autoformer. 500, 250, 167, 125, 100, 83, 71, 62, 50 ohms. 300 Watts. PA-5 case. List Price \$25.00. **Your Cost \$15.00**

all the above items are in stock at all times

LOT NEXT TO STORE OR LOADING ZONE

UNITED TRANSFORMER CORP.

New BEAM POWER-COMPRESSOR AMPLIFIER KITS

The new improved UTC P. A. amplifier and modulator kits, incorporate every advanced circuit feature desirable for P. A. and amateur work. They are without doubt the leaders in their field. A stable system of volume limiting (compression) is used on all amplifier kits to maintain a relatively constant output level with sudden increase of input levels.

VOLUME LIMITING

Volume limiting in amplifier equipment is ideal for the home and PA application inasmuch as the equipment can be operated at high levels without any fear of blasting on peaks of power. The actual maximum power output is limited to the capabilities of the amplifier or speaker equipment. An important feature for PA service is the fact that the changes in level encountered when a speaker moves toward the microphone are minimized by the amplifier compression. In modulator work the limiting action minimizes the tendency for over-modulation due to sudden increase of input signals. Simultaneously, the signal level setting can be appreciably higher due to the compressor action with the result that higher percentages of modulation are obtained, and the actual effective power of the transmitter may be increased to the equivalent of a TRANSMITTER OF TWICE THE RATING.



The kits are provided complete with panels, covers, resistors, condensers, sockets, jacks, etc. All components are completely mounted and ready to wire. Complete constructional details and diagrams are furnished.

COMPONENTS

The new UTC P.A. amplifier kits are unusually trim in appearance, employing black-chrome etched panel contrasting with the gray commercial wrinkle finish of the chassis and perforated metal cover. Bottom plates are provided on all units for shielding and to protect wiring.

All kits are furnished with four input jacks providing for dual input (high or low gain) to both channels of the mixer. The mixing system is completely cross-talk proof. The unique UTC VARITONE equalizer is incorporated to equalize high frequencies or low frequencies, as desired. VARIMATCH output transformers are employed in kits for PA, modulator and driver service. The output impedances on PA kits are 500, 200, 15, 8, 5, 3 and 1½ ohms.

TECHNICAL CHARACTERISTICS

PA-1A

Public address amplifier kit, self bias, 30 watts undistorted output, audio and power units on separate chassis for rack or cabinet mounting. Four jack, dual channel, high impedance input, two high gain (120 DB), two low gain (80 DB). VARITONE equalizer and volume limiting (compression) controls. Output impedance for line and voice coil as above. List price \$87.50 Your net cost **\$52.50**

P-1M Modulator amplifier kit, same as above, but for modulation purposes. VARIMATCH modulation output has the following impedances: 200, 405, 1180, 2350, 2400, 3000, 4000, 4670, 4750, 5050, 7000, 9100, 9500. List price \$87.50 Your net cost **\$52.50**

Tubes required for P-1A or P-1M kit: one 6X7, one 6N7, two 6C3, two 6L6, one 81, one 80.

P-2A

Public address amplifier kit, fixed bias, 50 watts undistorted output, audio and power units on separate chassis for rack and cabinet mounting. Four jack, dual channel, high impedance input, two high gain (120 DB), two low gain (80 DB). VARITONE equalizer and compression controls. Has VARIMATCH public address output for line or voice coil, as specified. List price \$97.50 Your net cost **\$58.50**

P-2M Modulator amplifier kit, same as above, but has VARIMATCH modulation output having impedances of 380, 660, 2050, 3740, 4100, 7000, 7500, 8200, 12000, 12600, 15000, 16000, 21500, 29000 on the 3800 ohm plate to plate terminals. Also has 237, 1300, 1750, 2700, 3270, 5200 ohms on the 4000 ohm plate to plate terminals. List price \$97.50 Your net cost **\$58.50**

P-3A

Public address amplifier kit, fixed bias, 100 watts undistorted output. Audio and power units on separate chassis for rack or cabinet mounting. Four jack, dual channel, high impedance input, two high gain (120 DB), two low gain (80 DB). VARITONE equalizer and compression controls. List price \$142.50 Your net cost **\$85.50**

P-3M Same as P-3A, but has VARIMATCH modulation output having impedances of 270, 500, 1440, 2760, 2900, 3700, 4900, 5650, 5800, 6900, 8400, 11000, 12000. List price \$142.50 Your net cost **\$85.50**

Tubes required for P-3A or P-3M kit: two 6X7, one 6N7, two 6C3, two 6L6, one 81, one 80, one 80.

P-4D

10 watt compressor driver amplifier, self bias, 10 watts undistorted output, sufficient to drive any class AB or class B amplifier of 100 watt to 350 watt rating. The ideal driver, incorporating: compression, low reflected drive impedance, multi-channel input, high gain, and VARITONE equalizer. Audio and power units on one chassis for rack or cabinet mounting. Four jack, dual channel, high impedance input, two high gain (117 DB), two low gain (77 DB). VARITONE equalizer and compression controls. VARIMATCH driver transformer incorporated as output unit. List price \$65.00 Your net cost **\$39.00**

P-4A Ideal 10 watt home amplifier. Same as above, but with PA VARIMATCH output transformer to 500, 15, 8, 5, 3, 1½ ohms. List price \$65.00 Your net cost **\$39.00**

P-5A

Public address amplifier kit, self bias, 15 watts undistorted output, audio and power units on one chassis. Four jack, dual channel, high impedance input, two high gain (120 DB), two low gain (80 DB). VARITONE equalizer and compression controls. Output impedance for line and voice coils, as specified. List price \$62.50 Your net cost **\$37.50**

P-5M Modulator amplifier kit, self bias, 15 watts undistorted output, same as P-5A but with VARIMATCH modulation output having impedances of 270, 500, 1440, 2760, 2900, 3700, 4900, 5650, 5800, 6900, 8400, 11000, 12000. List price \$62.50 Your net cost **\$37.50**

Tubes required for P-5A or P-5M kit: one 6X7, one 6N7, one 6C3, two 6L6, one 81, one 80.

P-7A

AC operated pre-amplifier kit designed especially for amateurs and PA service. This pre-amplifier kit is entirely AC operated, with very efficient filtering assuring freedom from hum. It has a gain of 70 DB, and a two channel high impedance, high level mixer with jack input for each channel. Includes attractive perforated metal cover, bottom plate and etched front panel with gain controls, all hardware, sockets, resistor and condenser strip, mounted ready to wire. The output impedances available are 50, 200 and 500 ohms. List price \$30.00 Your net cost **\$18.00**

Tubes required for the P-7A: two—6X7, one 6N7, one 6C3.



The overall dimensions of these units are 7/8" diameter by 1 3/16" height, including lugs. Mounting is effected by two screws, opposite the terminal board side, spaced 13 16".

The frequency response of these units is illustrated in the curves below, uniform response being obtainable from 40 to 15,000 cycles. The useful range of the 0-14 and 0-15 units is 150 to 4,000 cycles. Due to the very small size of the transformers, hum pickup is comparatively low.

The new UTC OUNCER series represents the acme in compact quality transformer practice. These units weigh at approximately one ounce and those which do not carry D.C. have high fidelity characteristics suitable for broadcast and similar applications. The OUNCER transformers are ideal for hearing aid, aircraft, glider, portable, concealed service, and similar applications.

OUNCER HIGH FIDELITY AUDIO UNITS (MAX. LEVEL 0 DB)

Type No.	Application	Prim. Imp.	Sec. Imp.	List Price
0-1	Mix 1:1 up or line 1:1 gain	50 700 500	50 700	\$10.00
0-2	Mix 1:1 up or line 1:1 gain	50 700 500	50 700	10.00
0-3	1:1 gain mix 1:1 gain	50 700 500	50 700	9.00
0-4	Single plate 1:1 gain	50 700 500	50 700	8.00
0-5	Single plate 1:1 gain	50 700 500	50 700	8.00
0-6	Single plate 1:1 gain	50 700 500	50 700	8.00
0-7	Single plate 1:1 gain	50 700 500	50 700	8.00
0-8	Single plate 1:1 gain	50 700 500	50 700	8.00
0-9	Single plate 1:1 gain	50 700 500	50 700	8.00
0-10	Push pull plates 1:1 gain	50 700 500	50 700	8.00
0-11	Cry 1:1 gain or pickup 1:1 gain	50 700 500	50 700	8.00
0-12	Mixing and matching	50 700 500	50 700	8.00
0-13	Reactor 200 Hys. D.C.	50 700 500	50 700	7.00
0-14	50 Hys. 2 MA DC 1:1 gain	50 700 500	50 700	10.00
0-15	10:1 mix or line 1:1 gain	50 700 500	50 700	10.00

40% discount on the "0" series

VARITONE

The UTC Varitone is a circuit which automatically adjusts the frequency response of any audio amplifier or receiver.

Volume variation can be effected for the effects in acoustic conditions or overall audio response. It is also possible to produce new tonal effects from phonograph recordings or radio reception and to bring back notes which would otherwise be lost completely. Thus, the high reproduction obtainable with the Varitone, some bass in gain is effected. If the amplifier or receiver does not have gain to spare, it may be necessary to add an additional stage of audio frequency amplification. The Varitone is made in five types, as follows:

VT-1 This Varitone is incorporated with a universal audio amplifier. The primary is a variable, thus is a variable working in a single or double button action. The secondary is a variable pickup of a line (the other is a variable) designed to work out of the plate of a tube or from a high impedance pickup. The secondary winding is center-tapped and is electrically isolated from working into one or two grids. List Price \$4.00 Your Cost **\$5.10**

VT-2 The VT-2 is a varitone control unit, incorporated with an impedance matching device so that it can be connected directly across a 200 or 500 ohm line or a high impedance pickup or make or in shunt with the plate circuit of any tube in a high impedance pickup. The circuit is not changed in any other way. The VT-2 is sold as an addition to any receiver. The original audio controls are not disturbed. List Price \$6.00 Your Cost **\$3.60**

VT-3 The VT-3 is a complete self-contained unit which does not use external controls. It is designed to be added to any receiver. The VT-3 is sold as an addition to any receiver. The original audio controls are not disturbed. List Price \$5.00 Your Cost **\$3.00**

VT-4 The VT-4 is a complete self-contained unit which does not use external controls. It is designed to be added to any receiver. The VT-4 is sold as an addition to any receiver. The original audio controls are not disturbed. List Price \$5.00 Your Cost **\$3.00**

VT-5 The VT-5 is similar to the VT-4 except that it is designed to work out of high impedance tubes such as 61A, 61B, 61C, 61D, 61E, 61F, 61G, 61H, 61I, 61J, 61K, 61L, 61M, 61N, 61O, 61P, 61Q, 61R, 61S, 61T, 61U, 61V, 61W, 61X, 61Y, 61Z, 61AA, 61AB, 61AC, 61AD, 61AE, 61AF, 61AG, 61AH, 61AI, 61AJ, 61AK, 61AL, 61AM, 61AN, 61AO, 61AP, 61AQ, 61AR, 61AS, 61AT, 61AU, 61AV, 61AW, 61AX, 61AY, 61AZ, 61BA, 61BB, 61BC, 61BD, 61BE, 61BF, 61BG, 61BH, 61BI, 61BJ, 61BK, 61BL, 61BM, 61BN, 61BO, 61BP, 61BQ, 61BR, 61BS, 61BT, 61BU, 61BV, 61BW, 61BX, 61BY, 61BZ, 61CA, 61CB, 61CC, 61CD, 61CE, 61CF, 61CG, 61CH, 61CI, 61CJ, 61CK, 61CL, 61CM, 61CN, 61CO, 61CP, 61CQ, 61CR, 61CS, 61CT, 61CU, 61CV, 61CW, 61CX, 61CY, 61CZ, 61DA, 61DB, 61DC, 61DD, 61DE, 61DF, 61DG, 61DH, 61DI, 61DJ, 61DK, 61DL, 61DM, 61DN, 61DO, 61DP, 61DQ, 61DR, 61DS, 61DT, 61DU, 61DV, 61DW, 61DX, 61DY, 61DZ, 61EA, 61EB, 61EC, 61ED, 61EE, 61EF, 61EG, 61EH, 61EI, 61EJ, 61EK, 61EL, 61EM, 61EN, 61EO, 61EP, 61EQ, 61ER, 61ES, 61ET, 61EU, 61EV, 61EW, 61EX, 61EY, 61EZ, 61FA, 61FB, 61FC, 61FD, 61FE, 61FF, 61FG, 61FH, 61FI, 61FJ, 61FK, 61FL, 61FM, 61FN, 61FO, 61FP, 61FQ, 61FR, 61FS, 61FT, 61FU, 61FV, 61FW, 61FX, 61FY, 61FZ, 61GA, 61GB, 61GC, 61GD, 61GE, 61GF, 61GG, 61GH, 61GI, 61GJ, 61GK, 61GL, 61GM, 61GN, 61GO, 61GP, 61GQ, 61GR, 61GS, 61GT, 61GU, 61GV, 61GW, 61GX, 61GY, 61GZ, 61HA, 61HB, 61HC, 61HD, 61HE, 61HF, 61HG, 61HH, 61HI, 61HJ, 61HK, 61HL, 61HM, 61HN, 61HO, 61HP, 61HQ, 61HR, 61HS, 61HT, 61HU, 61HV, 61HW, 61HX, 61HY, 61HZ, 61IA, 61IB, 61IC, 61ID, 61IE, 61IF, 61IG, 61IH, 61II, 61IJ, 61IK, 61IL, 61IM, 61IN, 61IO, 61IP, 61IQ, 61IR, 61IS, 61IT, 61IU, 61IV, 61IW, 61IX, 61IY, 61IZ, 61JA, 61JB, 61JC, 61JD, 61JE, 61JF, 61JG, 61JH, 61JI, 61JJ, 61JK, 61JL, 61JM, 61JN, 61JO, 61JP, 61JQ, 61JR, 61JS, 61JT, 61JU, 61JV, 61JW, 61JX, 61JY, 61JZ, 61KA, 61KB, 61KC, 61KD, 61KE, 61KF, 61KG, 61KH, 61KI, 61KJ, 61KK, 61KL, 61KM, 61KN, 61KO, 61KP, 61KQ, 61KR, 61KS, 61KT, 61KU, 61KV, 61KW, 61KX, 61KY, 61KZ, 61LA, 61LB, 61LC, 61LD, 61LE, 61LF, 61LG, 61LH, 61LI, 61LJ, 61LK, 61LL, 61LM, 61LN, 61LO, 61LP, 61LQ, 61LR, 61LS, 61LT, 61LU, 61LV, 61LW, 61LX, 61LY, 61LZ, 61MA, 61MB, 61MC, 61MD, 61ME, 61MF, 61MG, 61MH, 61MI, 61MJ, 61MK, 61ML, 61MM, 61MN, 61MO, 61MP, 61MQ, 61MR, 61MS, 61MT, 61MU, 61MV, 61MW, 61MX, 61MY, 61MZ, 61NA, 61NB, 61NC, 61ND, 61NE, 61NF, 61NG, 61NH, 61NI, 61NJ, 61NK, 61NL, 61NM, 61NN, 61NO, 61NP, 61NQ, 61NR, 61NS, 61NT, 61NU, 61NV, 61NW, 61NX, 61NY, 61NZ, 61OA, 61OB, 61OC, 61OD, 61OE, 61OF, 61OG, 61OH, 61OI, 61OJ, 61OK, 61OL, 61OM, 61ON, 61OO, 61OP, 61OQ, 61OR, 61OS, 61OT, 61OU, 61OV, 61OW, 61OX, 61OY, 61OZ, 61PA, 61PB, 61PC, 61PD, 61PE, 61PF, 61PG, 61PH, 61PI, 61PJ, 61PK, 61PL, 61PM, 61PN, 61PO, 61PP, 61PQ, 61PR, 61PS, 61PT, 61PU, 61PV, 61PW, 61PX, 61PY, 61PZ, 61QA, 61QB, 61QC, 61QD, 61QE, 61QF, 61QG, 61QH, 61QI, 61QJ, 61QK, 61QL, 61QM, 61QN, 61QO, 61QP, 61QQ, 61QR, 61QS, 61QT, 61QU, 61QV, 61QW, 61QX, 61QY, 61QZ, 61RA, 61RB, 61RC, 61RD, 61RE, 61RF, 61RG, 61RH, 61RI, 61RJ, 61RK, 61RL, 61RM, 61RN, 61RO, 61RP, 61RQ, 61RR, 61RS, 61RT, 61RU, 61RV, 61RW, 61RX, 61RY, 61RZ, 61SA, 61SB, 61SC, 61SD, 61SE, 61SF, 61SG, 61SH, 61SI, 61SJ, 61SK, 61SL, 61SM, 61SN, 61SO, 61SP, 61SQ, 61SR, 61SS, 61ST, 61SU, 61SV, 61SW, 61SX, 61SY, 61SZ, 61TA, 61TB, 61TC, 61TD, 61TE, 61TF, 61TG, 61TH, 61TI, 61TJ, 61TK, 61TL, 61TM, 61TN, 61TO, 61TP, 61TQ, 61TR, 61TS, 61TT, 61TU, 61TV, 61TW, 61TX, 61TY, 61TZ, 61UA, 61UB, 61UC, 61UD, 61UE, 61UF, 61UG, 61UH, 61UI, 61UJ, 61UK, 61UL, 61UM, 61UN, 61UO, 61UP, 61UQ, 61UR, 61US, 61UT, 61UU, 61UV, 61UW, 61UX, 61UY, 61UZ, 61VA, 61VB, 61VC, 61VD, 61VE, 61VF, 61VG, 61VH, 61VI, 61VJ, 61VK, 61VL, 61VM, 61VN, 61VO, 61VP, 61VQ, 61VR, 61VS, 61VT, 61VU, 61VV, 61VW, 61VX, 61VY, 61VZ, 61WA, 61WB, 61WC, 61WD, 61WE, 61WF, 61WG, 61WH, 61WI, 61WJ, 61WK, 61WL, 61WM, 61WN, 61WO, 61WP, 61WQ, 61WR, 61WS, 61WT, 61WU, 61WV, 61WW, 61WX, 61WY, 61WZ, 61XA, 61XB, 61XC, 61XD, 61XE, 61XF, 61XG, 61XH, 61XI, 61XJ, 61XK, 61XL, 61XM, 61XN, 61XO, 61XP, 61XQ, 61XR, 61XS, 61XT, 61XU, 61XV, 61XW, 61XX, 61XY, 61XZ, 61YA, 61YB, 61YC, 61YD, 61YE, 61YF, 61YG, 61YH, 61YI, 61YJ, 61YK, 61YL, 61YM, 61YN, 61YO, 61YP, 61YQ, 61YR, 61YS, 61YT, 61YU, 61YV, 61YW, 61YX, 61YY, 61YZ, 61ZA, 61ZB, 61ZC, 61ZD, 61ZE, 61ZF, 61ZG, 61ZH, 61ZI, 61ZJ, 61ZK, 61ZL, 61ZM, 61ZN, 61ZO, 61ZP, 61ZQ, 61ZR, 61ZS, 61ZT, 61ZU, 61ZV, 61ZW, 61ZX, 61ZY, 61ZZ.

UTC VARITRAN VOLTAGE CONTROL UNIT

The UTC VARITRAN makes possible continuously variable output voltage, using a sliding control riding over the turns of an auto-transformer. Standard units are designed for 115 volt input, 0-130 volts continuously variable output.

FEATURES

- Smooth control
- High efficiency
- Excellent regulation
- Low cost

APPLICATIONS

- Motor control
- Heat control
- Rectifier control
- Light control
- Line voltage control

Model V-1, 50 Watts 1 amp maximum rating, complete with cord, plug and switch, net **\$10.00**
Model V-2, Same as V-1 but unswivel, with terminal strip for rack or panel mounting, net **\$9.00**
Model V-3, 80 Watts maximum rating 75 amps, unswivel with terminal board and provisions for mounting, net **\$14.00**
Model V-4, 120 Watts 11 amps maximum rating unswivel, net **\$20.00**
Model V-5, 300 Watts maximum rating 17.5 amps, unswivel, net **\$32.00**
 Automatic VARITRANS are available to maintain line voltage constant. Details and prices on request.



IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

SANGAMO MICA CONDENSERS

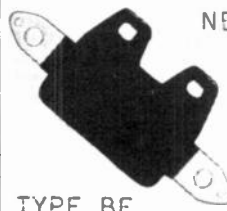
Type A-10 1000 V. DC Test

Capacity, mfd.

00005	\$.24
0001	.24
00015	.24
0002	.24
00025	.24
0005	.24
001	.30
0015	.30
002	.30
003	.36
004	.36
005	.42
006	.51
008	.60
01	.69
012	.72
015	.75



TYPE A



TYPE BE

NEW LOW PRICE 5000 VOLT

.00005	\$.36
.0001	.36
.00025	.42
.0005	.51
.001	.60
.002	.90

TYPE A-25 2500 V. DC Test

Capacity, mfd.

00005	\$.42
0001	.42
00025	.42
0005	.42
001	.54
002	.81

TYPE A-50 5000 V. DC Test

Capacity, mfd.

00005	\$.54
0001	.54
00025	.63
0005	.75
001	.90
002	1.35

WIRELESS



INSTRUMENTS



R-68

R-68 A FINE PRACTICE SET CONSISTING OF A KEY, BUZZER AND CODE CHART MOUNTED ON A WOOD BASE. IDEAL FOR ALL BEGINNERS IN ANY CLASS.

\$2.04



112-K KEY

NO. 112K KEY MOUNTED ON A ATTRACTIVE WOOD BASE \$1.35

NO. R 50 KEY NEWEST TYPE, ALL METAL. BLACK CRACKLE .90



R-48 KEY

R-48 KEY IS THE ORIGINAL OLD TIME TELEGRAPH TYPE THAT HAS BEEN APPROVED FOR USE FOR THOSE WHO HAVE TROUBLE WITH BAD ARM SENDING. ALL BRASS

\$1.68



NO. R-62	HEAVY BRASS. CONTACTS	3/16"	SOLID SILVER	\$2.31
NO. R-63	" " "	1/4"	" "	2.40
NO. R-64	" " "	3/8"	" "	2.55

THE ABOVE MODELS ARE EQUIPPED WITH NAVY KNOBS



NAVY KNOBS \$.15

STANDARD KNOBS .08



R-60

SIGNAL HIGH FREQUENCY BUZZERS

ADJUSTABLE PITCH
RESISTANCE 2 OHMS
YOUR COST \$.84

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



TRANSFORMERS—Power • Vibrator • Chokes THORDARSON

UNIVERSAL DUPLICATE POWER TRANSFORMERS

Easy to mount in any position (adjustable mounting brackets included) — A Type for practically every application — Electrostatic Shields — RMA Color Coded Flexible Leads — Primary 115 Volts 50-60 Cycles

Type No.	NET	Pri. V.A.	Secondary Volts	M.A.	Filament Windings		Mtg. Fig.	Dimensions			Wt. Lbs.
					Rect.	Fil. No. 1		W.	D.	H.	
T-13R01	\$1.50	60	650 Ct.	40	5V-3A	2.5V-4A Ct.	3A	2 1/2	2 3/4	3	3 1/2
T-13R02	1.95	60	700 Ct.	50	5V-3A	2.5V-7.25A Ct.	3A	2 1/2	2 3/4	3	3 1/2
T-13R03	2.10	75	700 Ct.	70	5V-3A	2.5V-9A Ct.	3A	2 3/4	3 1/2	3 3/4	4
T-13R04	2.55	115	700 Ct.	90	5V-3A	2.5V-12.5A Ct.	3A	3 1/4	3 1/2	3 3/4	5 1/2
T-13R05	2.40	110	700 Ct.	70	5V-3A	2.5V-9A Ct.	3A	3 1/4	3 1/2	3 3/4	5 1/2
T-13R06	3.15	130	700 Ct.	120	5V-3A	2.5V-12.5A Ct.	3A	3 3/4	3 3/4	4 1/2	6 1/2
T-13R07	3.30	140	800 Ct.	110	5V-3A	2.5V-15A Ct.	3A	3 3/4	3 3/4	4 1/2	6 3/4
T-13R08	2.70	105	700 Ct.	90	5V-3A	6.3V-3.3A Ct.	3A	3 1/4	3 1/2	3 3/4	5 1/2
T-13R09	3.90	160	750 Ct.	180	5V-3A	6.3V-3.3A Ct.	3A	3 3/4	3 3/4	4 1/2	7 1/2
T-13R00	2.40	70	550 Ct.	70	5V-3A	5V-5A Ct.	3A	2 3/4	3 3/4	3 3/4	4
T-13R11	1.50	60	650 Ct.	40	5V-3A	6.3V-2A Ct.	3A	2 1/2	2 3/4	3	3 1/2
T-13R12	1.95	65	700 Ct.	70	5V-3A	6.3V-2.5A Ct.	3A	2 1/2	3 1/4	3	3 1/2
T-13R13	2.40	90	700 Ct.	90	5V-3A	6.3V-3.5A Ct.	3A	3 1/4	3 3/4	3 3/4	5 1/2
T-13R14	2.55	115	700 Ct.	120	5V-4A	6.3V-4.7A Ct.	3A	3 1/4	3 1/2	3 3/4	5 1/2
T-13R15	3.45	110	750 Ct.	150	5V-4A	6.3V-5A Ct.	3A	3 3/4	3 3/4	4 1/2	6 1/2
T-13R16	3.20	180	800 Ct.	200	5V-4A	6.3V-5.14A Ct.	3A	3 3/4	3 3/4	4 1/2	7 3/4
T-13R17	2.40	85	600 Ct.	60	5V-3A	6.3V-2.5A Ct.	3A	2 3/4	3 3/4	3 3/4	4 1/2
T-13R18	2.85	115	700 Ct.	90	5V-3A	6.3 & 2.5V-3.5A Ct.	3A	3 3/4	3 3/4	4 1/2	5 3/4

FILTER CHOKES

This listing offers a wide choice of mountings, current rating, inductance and prices for receiver, amplifier and transmitter use. All Thordarson chokes are rated in actual inductance as measured under full rated load.

Type No.	NET	Current Rating M.A.	Inductance Henries	D.C. Res. Ohms	Volts Ins.	Mtg. Fig.	Dimensions			Wt. Lbs.
							W.	D.	H.	
T-13C26	.54	40	7	530	1600	3B	1 3/4	1 3/4	1 3/4	1 1/2
T-13C27	.66	40	10	475	1600	3B	2	1 3/4	1 3/4	3/4
T-13C28	.72	65	10	460	1600	3B	2 3/4	1 3/4	2	1
T-43C92	.99	75	10	265	1600	2C	1 1/4	2 1/4	2 1/2	1 1/4
T-47C07	.99	75	12	290	1600	3B	2	2 3/4	2 1/4	1 1/4
T-44C02	.90	80	12	405	1600	3B	1 1/2	2 3/4	2	1 1/4
T-57C51	.90	80	5	138	1600	2B	2	2	2 3/4	1 1/4
T-57C52	1.05	80	5	138	1600	2F	2	2	2 3/4	1 1/4
T-13C29	.96	85	9	250	1600	3B	2 3/4	2	2	1 1/2
T-68C07	1.20	85	15	375	1600	2B	2	2 1/2	3	2
T-16C07	1.35					2F	3 3/4	2 1/2	3	2 1/4
T-14C31	1.50					2A	2 1/2	2 1/2	3	2 1/4
T-57C53	1.20	110	9.5	200	1600	2B	2	2 1/2	3	2 1/4
T-57C54	1.35					2F	2 1/2	2 1/2	3	2 1/4
T-49C91	.90	120	4.2	160	1600	2F	2	2	2 1/2	1 1/4
T-75C49	.90	120	7.2	290	1600	3B	2	2 3/4	2	1 1/2
T-53C19	.90					2B	2	2	2 3/4	1 1/4
T-17C00-B	1.65	150	12	231	1600	2F	2 3/4	3	3 1/2	3 3/4
T-17C00	1.80					2D	3	3 3/4	3 1/2	3 3/4
T-13C30	1.20	150	8	200	1600	2B	2 1/2	2	2 3/4	2 1/4
T-74C29	2.25	150	10	200	2000	2G	3 1/2	3 3/4	4 3/4	5 1/4
T-67C49	1.65	200	5	80	1600	2F	3	2 3/4	3 1/2	3 3/4
T-23C53-A	1.80					2D	3	2 3/4	3 1/2	3 3/4
T-54C50	3.00	250	13	121	1600	3C	3	3 3/4	4 3/4	7 1/4
T-75C51	3.00					2G	3 7/8	3 3/4	5	8

SIX VOLT VIBRATOR TRANSFORMERS

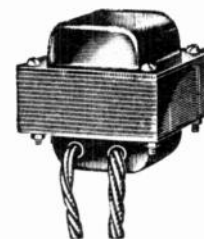
These transformers, while primarily designed for replacements using original mounting brackets, are equipped with mounting feet for use in experimental or original equipment.

Type No.	NET	Secondary		Mtg. Fig.	Dimensions			Wt. Lbs.
		D.C. Volts to Filter	M.A.		W.	D.	H.	
T-14R33	1.65	225	40	3C	2 1/2	2 3/4	3 1/4	2
T-14R34	1.95	250	50	3C	2 1/2	2 1/2	3 1/4	2 1/4
T-14R35	2.25	260	60	3C	2 1/2	2 3/4	3 1/4	2 1/2
T-14R36	2.55	285	75	3C	2 1/2	2 3/4	3 1/4	3
T-14R37	2.85	350	75	3C	2 1/2	3 1/4	3 1/4	3 1/2

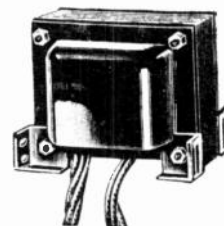
115 V. 50-60 CYCLE OR 6 V. D. C. VIBRATOR TRANSFORMER

T-14R40	3.30	350 Fil.-6.3 Ct.	135 2.25 A	2G	3 3/4	4 1/2	4 3/4	7 3/4
---------	------	---------------------	---------------	----	-------	-------	-------	-------

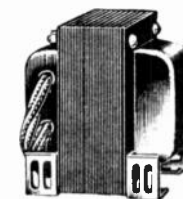
Replacement Transformer Encyclopedia, No. 243, and Supplement, No. 243-S. Free — Complete information regarding correct choke, audio and power transformer replacements. Covers almost 6000 receivers as listed in Rider's Manuals, Volumes I to VIII. Includes data on AC, AC-DC and battery models. This is the only complete listing available and will save valuable time for the serviceman. Ask your distributor for a copy.



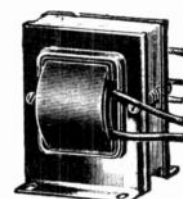
3A



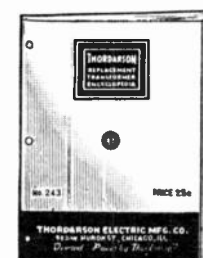
3A



3A



3C



IT'S EASY TO PARK AT WALTER ASHE . . .

THORDARSON TRANSFORMERS — Power • Audio



AMPLIFIER AND GENERAL PURPOSE POWER TRANSFORMERS

For continuous duty in high quality receivers or amplifiers where a specific style of mounting is desired.



Fig. 2G

Type No.	NET	Pri. V.A.	Secondary A.C. Volts	D.C. M.A.	Bias Tap	Rect. Fil.	Fil. No. 1	Fil. No. 2	Fil. No. 3	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-60R49	\$1.35	30	560 Ct.	30		5V-2A	2.5V-3.5A Ct.			2H	3 2 1/2	2 1/2
T-50R02	1.65	40	620 Ct.	40		5V-2A	2.5V-5A Ct.			2H	3 1/2 3 3	3 1/2
T-49R00	1.95	65	700 Ct.	70		5V-2A	2.5V-8.5A Ct.			2H	3 7/8 3 1/2 3 3/8	4 1/2
T-63R62	2.10	65	700 Ct.	70		5V-2A	2.5V-7A Ct.	2.5V-1.5A Ct.		2H	3 7/8 3 1/2 3 3/8	4 1/2
T-50R03	2.25	75	700 Ct.	80		5V-2A	2.5V-12A Ct.			2H	3 7/8 3 1/2 3 3/8	5 1/2
T-63R63	2.40	75	700 Ct.	80		5V-2A	2.5V-9A Ct.	2.5V-3A Ct.		2H	3 7/8 3 1/2 3 3/8	5 1/2
T-70R21	2.10	70	700 Ct.	70		5V-2A	2.5V-4A Ct.	6.3V-3A Ct.		2H	3 7/8 3 1/2 3 3/8	4 1/2
T-70R20	1.65	45	600 Ct.	50		5V-2A	6.3V-2A Ct.			2H	3 3/4 2 7/8 3	3
T-75R47	2.25	75	610 Ct.	125		5V-2A	6.3V-2A Ct.			2H	3 7/8 3 1/2 3 3/8	6
T-70R78	1.95	50	680 Ct.	55		5V-2A	6.3V-1.5A Ct.			2G	3 3/4 3 4 3/8	4
T-70R61	2.40	60	770 Ct.	70		5V-2A	6.3V-2.5A Ct.			2G	3 3/4 3 1/2 4 3/8	4 3/4
T-56R02	2.55	70	700 Ct.	70		5V-2A	2.5V-9A Ct.	2.5V-1.5A Ct.		2G	3 3/4 3 3/4 4 3/8	6
T-56R01*	2.85	60	650 Ct.	70		5V-2A	2.5V-3A Ct.	1.5V-1A 1.5V-4A	5V-5A Ct.	2G	3 3/4 3 3/4 4 3/8	5 3/4
T-56R03	3.30	85	700 Ct.	105		5V-3A	2.5V-3A Ct.	2.5V-1.75A Ct.	1.5V-5A 1.5V-1A	2G	3 3/4 3 3/4 5	7 1/4
T-56R04	3.15	70	700 Ct.	105		5V-3A	2.5V-12A Ct.			2G	3 3/4 3 3/4 5	7 1/2
T-70R62	3.30	100	700 Ct.	145		5V-3A	6.3V-4.5A Ct.			2G	3 3/4 3 7/8 5	8 3/4
T-56R05	3.45	115	700 Ct.	110		5V-3A	2.5V-9A Ct.	2.5V-3A Ct.	2.5V-3A Ct.	2G	3 3/4 3 3/4 5	7 3/4
T-89R91	3.75	110	700 Ct.	150		5V-3A	2.5V-9A Ct.	2.5V-3A Ct.	2.5V-3A Ct.	2G	3 3/4 4 5	8 1/2
T-37R70	4.50	95	700 Ct.	80		5V-2A Ct.	3V-10A Ct.	5V-2.5A Ct.		2G	4 3 1/2 4 3/8	6 3/4
T-92R21	4.50	150	800 Ct.	200		5V-3A	6.3V-5A Ct.			2G	4 1/2 3 3/4 4 7/8	9
T-17R30	4.65	200	740 Ct.	280		5V-3A	6.3V-3.5A Ct.			2G	3 3/4 3 3/4 4 3/8	9 1/2
T-17R31	7.50	300	860 Ct.	325		5V-6A	6.3V-4.25A Ct.			2G	4 3/8 5 1/2 6 1/2	13 1/2
T-74R28	3.90	105	880 Ct.	125	38V	5V-3A 2.5V-3A	6.3V-3.3A Ct.			2G	3 3/4 3 3/4 5	8
T-87R85	4.20	105	660 Ct.	160	77V	5V-3A 5V-2A	6.3V-2A Ct.	2.5V-5A Ct.		2G	3 3/4 3 7/8 5	8 1/2
T-68R26	4.05	160	1100 Ct.	150		5V-3A	7.5V-2.5A Ct.	2.5V-5A Ct.		2G	3 3/4 4 3/8 5	10 1/2
T-69R35	3.75	135	775 Ct.	200		5V-3A	6.3V-3A Ct.			2G	3 3/4 4 3/8 5	9 1/2
T-67R93	4.80	135	700 Ct.	200		5V-3A	2.5V-15A Ct.	5V-2A		2G	3 3/4 4 3/8 5	10
T-75R50	4.50	160	870 Ct.	250	80V	5V-3A 2.5V-3A	6.3V-1.5A Ct.	2.5V-10A Ct.		2G	3 3/4 4 3/8 5	10 3/4
T-83R82	6.00	200	1480 Ct.	140	150V	5V-3A 2.5V-3A	7.5V-2.5A Ct.			2G	3 3/4 4 3/8 5	11 1/2
T-83R85	7.20	290	1480 Ct.	200	150V	5V-3A 2.5V-3A	7.5V-5A Ct.			2G	3 3/4 5 1/2 5	13 1/2
T-89R28	6.60	250	1150 Ct.	275	640 Ct.	5V-3A 5V-2A	6.3V-6A Ct.			2G	3 3/4 5 1/2 5	15

*Primary 110 volts — all others 115 volts.

SPEAKER-FIELD SUPPLY TRANSFORMERS

T-67R97	2.55	55	115 V. D.C.	50 to 250	5V-3A	2G	3 1/4 3 1/4 3 1/4	4 3/4
T-92R53	8.45	120	300 V. D.C.	200	5V-3A	2G	3 1/4 3 1/4 3 1/4	6 1/4

POWER TRANSFORMERS FOR CATHODE RAY TUBES

Specially constructed with large cores for low flux density.

Type No.	NET	Volts D.C.	M.A.	Rect. Fil.	Fil. No. 1	Fil. No. 2	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-92R25-For 913 tube	1.35	500 tap-430	3	6.3V-9A*			2F	2 2 1/2 2 1/2	1 1/2
T-92R33-For 913 tube	2.40	400 **500	15 3	6.3V-9A	6.3V-.6A No. 3(2.5V-1.4A)	6.3V-.6A	2G	3 1/4 4 3/8 3 3/4	2 1/2
T-14R32	3.30	400 **500	15 3	5V-2A 5V-2A Ct.	6.3V-.6A	2.5V-2A No. 3(6.3V-.6A)	2G	2 1/2 3 3/4 3 3/4	4

For Dumont 24-XH; RCA 902, 913; National 2002 Tubes.

**With half wave rectification. *For 1V rectifier and 913 filament.

AUDIO REACTORS

For use in interstage coupling systems where the voltage drop caused by resistor coupling is objectionable, also for isolating plate current from transformer primaries.

Types T-81C15 and T-93C20 are for use in tuned circuits to accentuate a pre-determined band of frequencies, as described in the Thordarson Amplifier Guide, No. 346-B.

Type No.	NET	Application	Type Tubes	Induct. Hen.	At M.A.	Max. M.A.	D.C. Ohms	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-37C36	1.20	Plate Impedance	56-30-76-6C5-55-85, etc.	510	5	10	6470	2F	2 2 2 1/2	1 1/2
T-67C46	1.05							2B	2 2 2 1/2	1 1/4
T-52C98	1.05	Plate Impedance for Detector tubes or grid impedance	24-57-56-76-6C5-6F5-6J7	1080	.5	8	6150	2F	2 1 7/8 2 3/8	1 1/4
T-29C27	.90							2B	2 2 1/2 1 1/2	1
T-68C08	1.20	Plate Impedance or Filter	45-46-10, etc.	22	35	35	405	2F	2 2 2 1/2	1 1/2
T-18C92	1.05							2B	2 2 2 1/2	1 1/2
T-81C15	1.50	Tuned Audio Circuits		.75	.5	100	30	2B	1 3/4 1 3/4 2	3/4
T-93C20	1.80	Tuned Audio Circuits		250	.5	8.0	6400	2B	2 2 2 1/2	1 1/4
T-74C30	.90	Tuned Audio Circuits or Filter		42	15	15	2100	2B	1 1/2 2 3/4 2	1
T-14C70	1.50	Tone Control, Hum Bucking Type		22	0	5	220	3Y	1 1/2 1 1/2 2 1/2	1 1/2



Fig. 2F

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



TRANSFORMERS — Input · Microphone

THORDARSON

PLATE TO GRID INTERSTAGE TRANSFORMERS

Here is a variety of units designed for the same general application but varying in size and style of mounting. Type T-75A74 will couple a super-regenerative detector to an audio stage; any tendency toward outside noise is reduced by the static shield between windings.

Type No.	NET	Application	Ratio	Imped. in ohms		Pri. Mtg. M.A. Fig.	Dimensions			Wt. Lbs.
				Pri.	Sec.		W.	D.	H.	
T-13A34	\$0.81	10,000 ohm plate to grid	3:1	10,000	90,000	8 3B	2	1 5/8	1 5/8	3/4
T-29A99	1.05	10,000 ohm plate to grid	3.26:1	10,000	106,300	8 2B	2	2 3/8	2 1/2	1 1/4
T-86A04	1.05					3B	2 3/8	2	2	1 1/2
T-57A36	1.20					2F	2	2 1/4	2 3/8	1 1/2
T-47A25	1.05		3:1	10,000	90,000	8 2C	2	1 5/8	2 3/8	1
T-57A37	1.50	Similar to above but larger	3:1	10,000	90,000	8 2B	2 1/2	2	3	2
T-57A38	1.65					8 2F	2 1/2	2 1/2	3	2 1/4
T-29A56	1.80					8 2A	2 1/2	2 1/2	3	2 1/4
T-75A74	1.50	10,000 ohm plate to grid Static Shield between primary and secondary.	2:1	10,000	40,000	8 2F	2	2 1/4	2 3/4	1 1/2

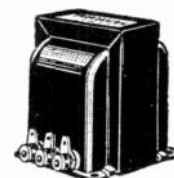


Fig. 2A

PUSH-PULL INPUT TRANSFORMERS

This group serve similar applications, varying in size and frequency response. T-74A31, ordinarily a push-pull input transformer, may also be used as a tapped push-pull grid impedance with ratios of 1 to 1, 1 to 2 or 1 to 4 by connecting the primary and secondary in series, according to instructions furnished.

T-13A35	\$0.95	10,000 ohm plate to P.P. grids	3:1	10,000	90,000	8 3B	1 5/8	2	1 5/8	3/4	
T-33A91	1.20	10,000 ohm plate to P.P. grids	3.26:1	10,000	106,300	8 2B	2	2	2 3/8	1 1/4	
T-86A03	1.20					8 3B	2 3/8	2	2	1 1/2	
T-14A29	1.35					8 2C	2 1/4	1 7/8	2 1/2	1 1/4	
T-57A39	1.35					8 2F	2	2 1/4	2 3/8	1 1/2	
T-57A40	1.65	Similar to above but larger	3:1	10,000	90,000	8 2B	2 1/2	2	3	2	
T-57A41	1.80					8 2F	2 1/2	2 1/2	3	2 1/4	
T-43A04	1.95					8 2A	2 1/2	2 1/2	3	2 1/4	
T-74A31	1.95	10,000 ohm plate to P.P. grids	1:1	10,000	10,000	8 2F	2 1/2	2 1/2	3	2 1/4	
T-57A42	1.95	10,000 ohm plate to P.P. grids	3:1	10,000	90,000	8 2B	2 1/2	2	3	2	
T-57A43	2.10					8 2F	2 1/2	2 1/2	3	2 1/4	
T-71A97	3.00	8,000 ohm plate to P.P. grids	2.7:1	8,000	44,000	40 2D	2 7/8	3	3 1/2	3 1/4	

**Single 6F6 Triodes to P.P. 845 grids.

PUSH-PULL INTERSTAGE TRANSFORMERS

For connecting push-pull plates to push-pull grids, these types offer a choice of size and ratio. Suitable for replacement or amplifier circuits.

T-13A36	\$1.05	P.P. 10,000 ohm plates to P.P. power tube grids	1:1	20,000	20,000	8* 3B	2	2 3/8	1 3/4	1	
T-67A91†	1.80	P.P. 10,000 ohm plates to P.P. or P.P. par. power tube grids	1.5:1	20,000	45,000	10* 2B	2 1/2	2 1/2	3	2	
T-58A70†	1.95					10* 2F	2 1/2	2 1/2	3	2 1/4	
T-75D57	3.00	P.P. 6F6 Triodes to 845's P.P.	2.35:1	16,000	117,000	40* 2D	2 7/8	3	3 1/2	3 3/4	

*Per side. †Split sec.

UNIVERSAL AUDIO REPLACEMENT TRANSFORMERS

To couple single plate to single grid; single plate to push-pull grids; push-pull plates to push-pull grids. Has split secondary.

T-17A02	\$1.35	Universal	3:1	Universal	10	2F	2	2 1/4	2 3/4	1 1/2	
---------	--------	-----------	-----	-----------	----	----	---	-------	-------	-------	--

LOW IMPEDANCE SOURCE (MICROPHONE, LINE, MIXER) TO GRID TRANSFORMERS

A complete line of low level input, microphone, line, and mixer transformers to fit all applications. Special winding methods result in low leakage reactance so essential to good frequency response. Several styles of mountings are offered for the most popular types.

Type No.	NET	Application	Impedance in ohms		Overall Ratio	Mtg. Fig.	Dimensions			Wt. Lbs.
			Pri.	Sec.			W.	D.	H.	
T-65A73	1.65	DB mike to grid	200 Ct.	100,000	1:22.2	2F	2 1/2	2 1/2	3	2
T-68A22	1.50					2B	2 1/2	2	3	2
T-30A20	1.80					2A	2 1/2	2 1/2	3	2
T-58A37	1.35	DB mike to grid	200 Ct.	100,000		2F	2	2 1/4	2 3/4	1 1/2
T-83A78	1.20	Single button mike to grid	100	400,000	1:64	2F	2	1 7/8	2 3/4	1 1/4
T-86A02	1.05					2B	2	1 5/8	2 3/4	1
T-23A57	1.35					2A	2	1 7/8	2 3/4	1 1/4
T-55A16	1.65	Dyn. mike, line or mixer to single or P.P. grids	200/50	100,000 Ct.	1:22.3	2F	2	2 1/4	2 3/4	1 1/2
T-63A72	2.25	1, 2, 3 or 4 circuit mixer to grid	50, 100, 150, 200	100,000	1:22.2	2F	2 1/2	2 1/2	3	2 3/4
T-63A71	2.25	1, 2, 3 or 4 circuit mixer to grid	200, 400, 600, 800	100,000	1:11	2F	2 1/2	2 1/2	3	2 3/4
T-61A94	1.95	Line to single or P.P. Cl. Aggrids	500/125	100,000 Ct.	1:14.1	2F	2 1/2	2 1/2	3	2 1/4
T-62D65	3.60	Line to 845 Class AB grids	500	7,220	1:3.8	2D	3 3/8	3 5/8	4	5
T-93A12	3.60	Line to P.P. Class A 845's, etc.	500	50,000 Ct.	1:9.85	2D	3 3/8	3 5/8	4	4 3/4
T-83D21	2.10	Line to P.P. grids of 6L6's or 50's Class AB	500	5,100	1:3.2	2F	2 1/2	2 1/2	3	2 1/4
				12,500	1:5					
T-67D34	4.50	Line to P.P. Par. 203A, 838, 211 grids, Class B	500	900	1:1.34	2D	3 3/4	3 5/4	4	5

MICROPHONE OR PICK-UP TO LINE OR MIXER TRANSFORMERS

Type No.	NET	Application	Impedance in ohms		Mtg. Fig.	Wt. Lbs.
			Pri.	Sec.		
T-63A73	1.95	DB or dynamic mike to line or mixer	200 Ct.	200/50	2F	2 1/4
T-67A45	2.10				2A	2 1/4
T-70A82	2.10	DB mike to line	200 Ct.	500/125	2F	2 1/4
T-70A83	2.10	Crystal mike to line or mixer	100,000	200/50	2F	2 1/4
T-61A96	2.10	Pick-up or line to line or mixer	500/125	200/50	2F	2 1/4
T-63A74	1.50	Pick-up to line or mixer	5,000/2,000	200/50	2F	1 1/2

TUBE TO LINE OR MIXER TRANSFORMERS (LOW LEVEL)

Type No.	NET	Application	Impedance in ohms		Pri. M.A. Fig.	Wt. Lbs.
			Pri.	Sec.		
T-55A15	\$1.35	Plate to line or mixer	15,000/10,000	200/50	8	2F 1 1/2
T-62A26	1.35	Plate to line or mixer	15,000/10,000	500/125	8	2F 1 1/2
T-72A11	1.50	P.P. plates to line	20,000 Ct.	500/125	8**	2F 1 1/2
T-75A73	1.50	P.P. plates to line or mixer	20,000 Ct.	200/50	8**	2F 1 1/2
T-14A90	1.50	Sgl. or P.P. Plates to line or mixer	20,000 Ct.	500/125	8	2F 1 1/2
T-14A91	1.50	Sgl. or P.P. Plates to line or mixer	20,000 Ct.	200/50	8	2F 1 1/2

**Per Side.

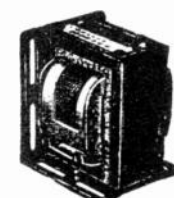


Fig. 2C



Fig. 2D

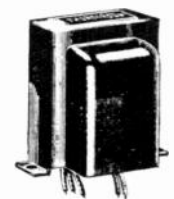


Fig. 2F

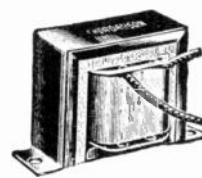


Fig. 3B

IT'S EASY TO PARK AT WALTER ASHE . . .

THORDARSON
OUTPUT TRANSFORMERS


UNIVERSAL OUTPUT TRANSFORMERS

Preferred by many because of their wide plate impedance and voice coil coverage. Proper matching of load impedances to speaker voice coils is accomplished by using taps as specified in the instructions sheet.

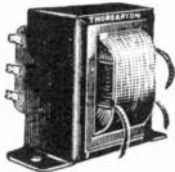


Fig. 2E

Type No.	NET	Tube Type	Class	Ohms Impedance		Pri. M.A. Sec.	Per Side	Max. Watts	Mtg. Fig.	Dimensions			Wt. Lbs.
				Pri.	Sec.					W.	D.	H.	
T-13S38	\$0.90	Univ.	A	4,000 7,000	Adjustable	36	8	3E	2	1 5/8	1 3/8	3 1/2	3 1/2
T-57S01	1.20	Single	A	8,000 10,000	.1 to 29			2E	2	2	2 3/8	1 1/2	1 1/2
T-17S57	1.35	or P-P Tubes	A	14,000 Ct.				2C	2	1 7/8	2 1/2	1 1/2	1 1/2
T-13S42	.90	Universal	A	1,500 2,000	Adjustable	55	10	3E	2	1 5/8	1 3/8	3 1/2	3 1/2
		Single Tube		4,000 5,000	.1 to 29								
				7,000									
T-13S41	1.80	Universal	A	3,000 5,000	Adjustable	60	20	2E	2 1/2	2	3	2 1/4	2 1/4
		P-P Tubes		6,000 7,000	.1 to 29								
				8,000 10,000									
T-61S25	2.10	Univ. Single Tube		2,500 4,000	500	60	10	2E	2 1/2	2	3	2 1/4	2 1/4
				5,000 6,000 7,000									
T-61S26	2.10	Univ. P-P Tubes		8,000 10,000	500	55	10	2E	2 1/2	2	3	2 1/4	2 1/4
				12,000 14,000 Ct.									

UNIVERSAL LINE TO SPEAKER TRANSFORMERS

Type No.	NET	Application	Pri.	Sec.	Max. Watts	Mtg. Fig.	W.	D.	H.	Wt. Lbs.
T-53S81	\$2.40	Line to Voice Coil	500 250	4-8-15	35	2D	2 1/2	3	3 3/4	3 1/2
T-60S48	1.80	Line to Voice Coil	500 1,000	Pri. as 500 ohm-.06 to 8; pri. as par. to 500 ohm line	10	2E	2 1/2	2	3	2
			1,500 2,000	2,500 3,000	1,000 ohm .12 to 16, etc.					
T-14S80	1.20	Line to Voice Coil	500	2-4-6-8	12	2E	2	2	2 3/4	1 1/4
T-76S74	1.80	Line to multiple spkrs. (auto transformer)	500	250 166 125 100/84	30	2E	2 1/2	2	3	2 1/2

OUTPUT TRANSFORMERS TO LINE OR SPEAKER (HIGH LEVEL)

Type No.	NET	Tube Type	Class	Ohms Impedance		Pri. M.A. Sec.	Per Side	Max. Watts	Mtg. Fig.	Dimensions			Wt. Lbs.
				Pri.	Sec.					W.	D.	H.	
T-13S37	\$0.75	1-6F6, 42, 2A5, 47	A	7,000	1-2-4	36	5	3E	1 3/4	1 3/8	1 3/8	3 1/2	3 1/2
T-13S39	.75	1-45, 12A5	A	4,000	1-2-4	36	5	3E	1 3/4	1 3/8	1 3/8	3 1/2	3 1/2
		1-31, 43, 71A											
T-13S43	.81	1-1F4, 1D4, 1F5G	A	16,000	1-2-4	10	5	3E	1 3/4	1 3/8	1 3/8	3 1/2	3 1/2
T-33S99	.90	2-45, 71, 43, 25A6 P-P	A	8,000	6 to 12	36	10	2B	2	2	2 3/8	1 1/4	1 1/4
		1-6N7, 6A6, 53 P-P	B										
T-13S40	1.05	2-6F6, 42 P-P	A	14,000	1-2-4	40	10	3E	2	1 5/8	1 3/8	3 1/2	3 1/2
		2-2A5, 47 P-P	A										
T-81S01	.99	1-19, 1J6G P-P	B	10,000	2-4-8	15	8	2B	1 5/8	1 3/8	2	3 1/2	3 1/2
		2-30, 49 P-P	B										
		2-31 P-P	A										
T-17S10	2.10	1-6L6	A	2,500	2-4-8-500	80	8	2F	2 1/2	2 1/2	3	3 1/2	3 1/2
T-17S11	2.40	2-6V6 P-P	AB1	8 000*	4-8-15-250-500	52	15	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
T-17S12	2.40	2-6L6 P-P	AB1	4,300*	4-8-15-250-500	95	25	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
				(with 300 V. on plate and screen)									
T-17S13	3.90	2-6L6 P-P	AB1	6,600*	4-8-15-250-500	80	34	2G	3 3/4	3 3/4	4 3/8	5 1/4	5 1/4
T-17S14	3.90	2-6L6 P-P	AB2	5,500*	4-8-15-250-500	90	40	2G	3 3/4	3 3/4	4 3/8	5 1/4	5 1/4
T-17S15	4.20	4-6L6 P-P Par.	AB1	3,300*	4-8-15-250-500	155	60	2G	3 3/4	3 3/4	4 3/8	5 1/4	5 1/4
T-68S06	1.50	1-6F6, 42, 2A5	A	7,000	10 or 2,000	36	5	2F	2	1 7/8	2 3/8	1	1
		1-47, 31, 33	A										
T-67S51	2.10	2-6F6, 42, 2A5, 47 P-P	A	14,000	4-8-15-500	40	20	2F	2 1/2	2 1/2	3	2 1/4	2 1/4
		1-79 P-P	B										
T-67S48	2.10	2-45, 71, 43, 25A6 P-P	A	8,000	4-8-15-500	36	25	2F	2 1/2	2 1/2	3	2 1/4	2 1/4
		1-6N7, 6A6, 53 P-P	B										
T-67S60	1.50	1-19, 1J6G P-P	B	10,000	4-8-2000	15	10	2F	2	2 1/8	2 3/8	1 1/2	1 1/2
		2-30, 49 P-P	B										
		2-31 P-P	A										
T-67S52	2.40	2-45, 59 P-P	B	5,800	4-8-15-500	60	30	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
		2-6F6, 42, 2A5 P-P	AB2										
		2-6N7, 6A6, 53 P-P Par.	B										
T-58S72	2.25	2-2A3, 6B4G P-P	AB	3,000	4-8-15-500	60	30	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
		2-48, 25L6 P-P	A										
T-67S54	2.40	2-6L6 P-P	A	5,000	4-8-15-500	60	30	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
		2-2A3, 6B4G, 45 P-P	AB										
		2-19 P-P Par.	B										
T-67S92	2.40	4-2A3, 6B4G, 45 P-P Par.	AB	1,500	4-8-15-500	80	40	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
		4-48, 25L6 P-P Par.	A										
T-65S94	2.40	2-50 P-P	A	8,000	4-8-15-500	55	40	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
		2-6F6, 42, 2A5 P-P	AB2										
		1-79 P-P	B										
T-75S75	2.40	2-6F6, 42 or 2A5	AB2	10,000	4-8-15-500	45	40	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
		1-6N7, 6A6, 53 P-P	B										
		2-6N6G, 6B5, 2B6 P-P	A										
T-84S58	3.60	2-6L6 P-P	AB2	3,800	4-8-15-500	115	60	2G	3 3/4	3 3/4	4 3/8	6	6
T-89S75	2.40	2-6L6 P-P	AB1	6,600	4-8-15-500	80	40	2F	2 1/2	3	3 1/2	3 1/2	3 1/2
T-89S74	2.25	1-6L6	A	4,000	4-8-15-500	70	15	2F	2 1/2	2 1/2	3	2 1/4	2 1/4
T-89S68	3.90	4-6L6 P-P Par.	AB1	3,300	50-125-200 250-333-500	150	75	2G	3 3/4	3 3/4	4 3/8	5 1/4	5 1/4
T-83S84	3.60	2-50 P-P	AB2	5,000	4-8-15-500	80	45	2G	3 3/4	3 1/2	4 3/8	5 1/4	5 1/4
T-83S87	4.80	4-50 P-P Par.	AB2	3,000	4-8-15-500	160	90	2G	3 3/4	3 3/4	5	7 3/4	7 3/4
T-61S67	7.20	2-845 P-P	AB	8,000	500	150	110	2L	4 1/4	4 1/2	6 1/4	12 1/4	12 1/4
T-67S55	7.20	2-800 P-P	B	12,500	500	150	110	2L	4 1/4	4 1/2	6 1/4	12 1/4	12 1/4

*Tertiary winding to provide 10% feed back voltage.



Fig. 2G



3E

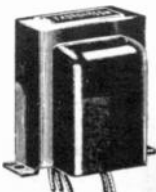


Fig. 2F

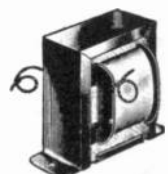


Fig. 2B

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



TRANSFORMERS—Driver • Modulation

THORDARSON

UNIVERSAL DRIVER TRANSFORMERS

Type No.	NET	Max. Pri. W. ts Per Side	M.A. M.A.	Ratio Pri. to 1/2 Sec.	Mtg. Fig.	Wt. Lbs.
T-19D01	\$3.60	15 60	1:1, 1.2:1, 1.4:1, 1.6:1, 1.8:1	4D	4 1/2	
T-19D02	3.60	15 60	2:1, 2.2:1, 2.4:1, 2.6:1, 2.8:1	4D	4 1/2	
T-19D03	3.60	15 60	3:1, 3.2:1, 3.4:1, 3.6:1, 3.8:1	4D	4 1/2	
T-19D04	3.60	15 60	4:1, 4.5:1, 5:1, 5.5:1, 6:1	4D	4 1/2	

UNIVERSAL MODULATION TRANSFORMERS

Tapped coils are provided to give this series a wide range of applications.

Type No.	NET	Cap. Watts	Pri. M.A. Per Side	Sec. M.A. Series	Par.	Mtg. Fig.	Wt. Lbs.
T-19M14	\$4.20	30	75	75	150	2N	4 1/2
T-19M15	6.00	60	125	125	250	2N	6 1/2
T-19M16	9.00	100	175	175	350	2N	12 1/2
T-19M17	14.40	250	225	225	450	2Q	25

DRIVER TRANSFORMERS FOR SPECIFIC APPLICATIONS

The driver transformer is an important link in a Class AB or Class B amplifier system. The flow of current in the power tube grid circuit requires exceedingly good regulation of driver tubes and coupling transformer. Thordarson driver transformers have the correct primary to secondary ratio for the tubes specified, insuring minimum driver distortion on the positive grid peaks.

Type No.	NET	Driver Tubes	Output Tubes	Class	Ratio Pri. to 1/2 Sec.	Pri. M.A.	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-78D46	\$0.90	1-30	1-1J6G, 19	B	2.4:1	7	2B	1 5/8 1 5/8 2	3/4
T-17D01	1.35	1-6F6 Triode 1-42 Triode 1-2A5 Triode	2-6F6, 6L6, etc.	AB	1.7:1 1.5:1 1.3:1	31	3B	2 3/8 2 2 1 1/2	
T-54D63	1.50	1-30 1-49 1-6C5	1-1J6G, 19 2-49 2-6V6	B B AB2	2.4:1	7	2F	2 1 7/8 2 3/8 1 1/2	
T-67D50	1.65	1-89 Triode	1-79	B	2:1	32	2F	2 2 1/4 2 3/4 1 1/2	
T-67D59	1.95	1-89 Triode	2-79	B	3:1	32	2F	2 2 1/2 2 1/2 3 2 1/4	
T-67D47	1.50	1-6N7, 6A6, 53	1-6N7, 6A6, 53	B	5.25:1	10	2F	2 2 1/4 2 3/4 1 1/2	
T-81D52	2.10	1-6C5, 76 1-56	2-6F6 Triode 2-42, 2A5 Triode	AB AB	1.82:1 1.67:1	8	2F	2 1/2 2 1/2 3 2 1/4	
T-84D59*	2.10	2-6C5, 6N7 2-6A6, 53	2-6L6, 6V6 2-6N7, 6A6, 53	AB2 B	5:1	10	2F	2 1/2 2 1/2 3 2 1/4	
T-72D01	2.25	2-6C5, 76, 56	2-45	AB	2.7:1	10	2F	2 1/2 2 1/2 3 2 1/4	
T-74D32	2.10	2-6C5, 76, 56	2-6F6, 42, 2A5 4-2A3, 6B4G	AB2 AB	3:1	10	2F	2 1/2 2 1/2 3 2 1/4	
T-65D78	2.40	1-6F6 Triode 1-42 Triode 1-2A5 Triode	2-6F6 Triode 2-42 Triode 2-2A5 Triode	AB2 AB2 AB2	2:1	40	2F	2 7/8 3 3 1/2 3 3/4	
T-81D42	1.95	1-6F6 Triode 1-42 Triode 1-2A5 Triode	2-6F6 Triode 2-42 or 2-2A5 Pentode	AB2 AB2 AB2	1.7:1 1.5:1 1.3:1	31	2F	2 1/2 2 1/2 3 2 1/4	
T-67D78	1.80	1-46, 59, 6F6, 42, 2A5 Triode	2-46, 59	B	2.2:1	32	2F	2 1/4 2 1/2 3 2 1/4	
T-52D89	2.25	42, 2A5 Triode		B	2.2:1	32	2A	2 1/2 2 1/2 3 2 1/4	
T-66D98	3.15	2-46, 6F6, 42, 45, 59, 2A5 P-P Triodes	4-46 4-59	B B	4:1	32	2R	2 3/4 4 1/8 3 1/8 4 1/4	
T-83D83	2.75	2-45 P-P	2-250	AB2	1.6:1	40	2F	2 1/2 2 1/2 3 2 1/4	
T-51D00 *	2.70	2-6F6, 42, 45, 2A5 P-P	2-210, 801, 35T	B	2:1	40	2A	2 1/4 3 3 1/2 3 1/2	
T-64D22 *	3.00	2-45, 2A3	2-800, 830B, etc.	B	1.55:1	40	2F	2 3/4 3 1/4 4 1/4 4 1/4	
T-80D54 *	3.30	2-6F6 P-P Triodes 2-42 P-P Triodes	2-838 2-830B, 800	B B	4:1	40	2G	3 3/8 3 1/2 4 3/8 5 1/2	
T-83D86	2.25	2-2A3 P-P	4-250	AB2	1.47:1	40	2F	2 1/2 2 1/2 3 3 1/2	
T-61D40 *	3.30	2-2A3 P-P	2-50T, 150T 2-203A, 801	B B	1.67:1	130	2D	3 3/8 3 3/8 4 5	
T-75D10*	3.30	2-2A3 P-P	2-838 2-805, TZ-40	B B	3.2:1	130	2D	3 3/8 3 3/8 4 5	

MODULATION TRANSFORMERS FOR SPECIFIC APPLICATIONS

This series of modulation transformers meets the need for efficient, quiet, long life units at reasonable costs. Engineered and constructed for specific tube types, their efficiency is high and the frequency characteristics are good.

Type No.	NET	Tube Type	Class	Ohms Impedance Pri. Sec.	Max. D.C. Sec. M.A.	Max. Audio Pwr. Watts	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-67M69	\$1.65	1-19	B	10,000 2,700	50	10	2F	2 2 2 3/8 1 1/2	
T-17M59	2.10	1-6A6, 6N7	B	10,000 3,000, 3,750, 4,500	100	10	2F	2 1/4 2 1/2 3 2	
T-64M26	3.60	2-46 or 59-2-250	B-AB	5,800 5,000, 10,000	100	40	2D	3 3/8 3 3/8 4 5	
T-19M21	4.20	2-TZ-20	B	10,000 3,750, 6,600	200-150	75	2D	3 1/2 4 1/4 4 5	
T-19M22	6.00	2-809-2-RK-12	B-B	8,400 5,000, 7,850	200-160	100	2D	4 1/2 4 1/2 6 1/2 13	
T-84M70	6.00	2-6L6 2-35T 4-210	AB B B	3,800 2,500 5,000 7,500	250 200 150	75	2D	4 3/8 5 1/2 6 1/4 14 3/4	
T-14M49	9.90	2-TZ-40	B	6,900 2,850 4,500 6,500	350 300 235	175	2Q	5 3/8 7 3/4 6 1/4 20	
T-67M59	1.80	1-53	B	10,000 3,000	100	20	2F	2 1/2 2 1/2 3 2	
T-72M02	3.60	2-2A3	AB	5,000 3,000, 5,000	125	50	2D	4 1/2 4 3/4 5 5	
T-64M25	4.50	2-TZ-20, 210	B	8,000 5,000, 10,000	200	40	2D	3 3/8 4 1/4 4 3/8 8	
T-70M84	9.00	2-801, TZ-20, 35T	B	10,000 4,500, 6,250, 12,500	200	150	2Q	5 3/8 8 6 1/4 20 3/4	
T-82M08	9.00	2-800-2-809	B-B	6,000 5,000, 20,000	200-100	150	2Q	5 3/8 8 6 1/4 20 1/4	
T-64M24	13.20	2-838, 203B 203Z, 203A, T55	B B	8,000 2,500 10,000	400 300 200	300	2Q	5 8 1/2 7 3/4 30 3/4	
T-75M11	13.20	2-ZB-120-HK-154, 838	B	10,000 2,500, 10,000	400-200	300	2Q	5 7/8 8 1/2 7 3/4 30	
T-82M09	14.40	2-50-T	B	20,000 2,500, 10,000	400-200	300	2Q	5 3/4 9 1/2 7 3/4 29 1/2	
T-82M10	24.00	2-806-2-HK-354E	B	11,000 4,000, 9,000	500-330	650	2Q	7 5/8 7 1/4 9 3/4 45	
T-82M25	24.00	2-805, HD-203A, 822	B	9,000 4,000, 6,000, 8,000	500	650	2Q	8 6 3/4 8 47	

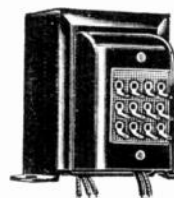


Fig. 4D

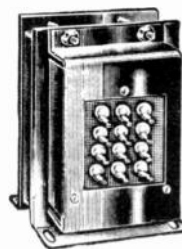


Fig. 2N



Fig. 2T

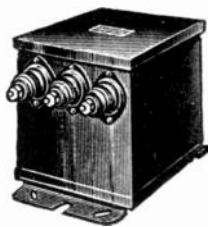


Fig. 2Q

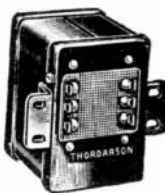


Fig. 2R

IT'S EASY TO PARK AT WALTER ASHE . . .

THORDARSON

PLATE TRANSFORMERS · CHOKES



PLATE SUPPLY TRANSFORMERS (AMATEUR) Primary 115 Volts 50-60 Cycles

These plate transformers are rated in D.C. voltages from a two section filter, including the voltage drop through the rectifier tubes. Designed especially for Amateur Short Wave equipment. Ratings are ample for this type of intermittent service. Electrostatic shield between primary and secondary.

Type No.	NET	Sec. A.C. Load Volts	D.C. Volts	Bias Tap	D.C. M.A.	Mtg. Fig.	Dimensions			Wt. Lbs.
							W.	D.	H.	
T-19P55	\$4.50	660-0-660/550-0-550	500/400	30 V.	250	2G	3 1/2	3 1/2	4 1/2	8
T-19P56	4.80	900-0-900/800-0-800	750/600		225	2G	3 1/2	4	4 7/8	9
T-19P57	6.00	1260-0-1260/550-0-550	1000*/400		125/150	2G	3 1/2	4 1/2	4 7/8	9 1/2
T-19P58	7.80	1200-0-1200/900-0-900	1000*/750		200/150	2G	4 1/2	5 1/2	6 1/2	17
T-19P59	9.60	1560-0-1560/1250-0-1250	1250/1000		300	2K	5 1/2	7	7	26 1/2
T-19P60	11.10	1875-0-1875/1560-0-1560	1500/1250		300	2K	6 3/4	4 1/2	7	29
T-19P61	12.00	2125-0-2125/1875-0-1875	1750/1500		300	2K	6 3/4	4 1/2	7	31
T-19P62	12.90	2500-0-2500/2125-0-2125	2000/1750		300	2K	6 3/4	5	7	34
T-19P63	13.80	1560-0-1560/1265-0-1265	1250/1000		500	2K	6 3/4	5 1/2	7	36
T-19P64	17.70	1875-0-1875/1660-0-1660	1500/1250		500	2K	6 3/4	6	7	42
T-19P65	17.70	3000-0-3000/2420-0-2420	2500/2000		300	2K	6 3/4	6	7	42
T-19P66	22.50	2125-0-2125/1875-0-1875	1750/1500		500	2K	6 3/4	4 1/2	10	50
T-19P67	25.50	2450-0-2450/2125-0-2125	2000/1750		500	2K	6 3/4	4 3/4	10	56
T-19P68	30.00	3000-0-3000/2450-0-2450	2500/2000		500	2K	6 3/4	5 3/4	10	62

*These transformers designed for double rectifiers and will deliver both secondary ratings simultaneously.

PLATE SUPPLY TRANSFORMERS (COMMERCIAL DUTY)

These plate transformers are rated in D.C. voltages from a two section filter, including the voltage drop through the rectifier tubes. Designed for continuous duty at full ratings specified and may be safely exceeded by as much as 20% in amateur or intermittent service.

Type No.	NET	Sec. A.C. Load Volts	D.C. Volts†	D.C. M.A.	Pri. Volts	Pri. V.A.	Mtg. Fig.	Dimensions			Wt. Lbs.
								W.	D.	H.	
T-62P80-	\$4.65	725-0-725	525	150	110	125	2L	4 1/2	4 1/2	6 1/2	11 1/4
T-70P41-	5.40	725-0-725	525	250	110	210	2L	4 1/2	5	6 1/2	15 1/4
T-53P03-	3.30	465-0-465	400	150	115	90	2G	3 3/8	4 1/4	4 3/8	7 1/2
T-84P60	4.65	515-0-515	400‡	250	115	190	2G	3 7/8	4 3/4	5	11 3/4
T-62P57-	5.40	750-0-750	625	200	115	180	3C	4 1/2	3 5/8	6 1/2	12 1/4
T-54P48-	4.05	800-0-800	680	150	115	130	3C	4 1/2	3 1/2	6 1/2	10 3/4
T-71P27-	6.00	800-0-800	600	250	110	240	2L	4 1/2	4 7/8	6 1/2	14 3/4
T-64P12-	9.90	980-0-980	750	350	110	400	2M	6 3/4	6 3/8	8	32 1/2
T-64P11-*	12.60	1600-0-1600/1290-0-1290	1250/1000	280	110	520	2M	6 3/4	7 1/2	8	36 3/4
T-70P33-*	18.00	1620-0-1620/1330-0-1330	1250/1000	500	110	900	2S	6 3/4	6 1/2	11	43
T-54P89-	11.10	1270-0-1270	1000	400	115	600	2M	6 3/4	6 3/8	8	33
T-62P82-	19.20	1335-0-1335	1000	500	110	750	2S	6 3/4	6 1/4	11	42 1/2
T-73P51-*	27.00	2275-0-2275/1950-0-1950	1750/1500	500	110	1300	2S	6 3/4	7 1/2	11	61 1/4
T-62P83-	19.20	2350-0-2350	2000	250	110-220†	740	2S	6 3/4	6 1/2	11	42 1/4
T-62P84-	30.00	2420-0-2420	2000	500	110-220†	1500	2S	6 3/4	8 3/4	11	80 1/4
T-62P85-	36.00	3630-0-3630	3000	380	110-220†	1750	2S	6 3/4	10	11	87

‡Bias tap at 30 volts. *Variation in secondary voltages obtained by changing primary taps. †Primary for 110 or 220 volts, or 220 volt tap may be used on 110 volts to reduce sec. voltage 50%. ‡D. C. volts measured out of filter with choke input. If transformer is used with bridge rectifier (choke input) current should be reduced to 50% of this rating.

FILTER CHOKES

All Thorndarson filter chokes are listed at measured inductance at rated currents. All are adequately insulated for recommended service.

INPUT OR SWINGING CHOKES

Type No.	NET	Cap. Induc-		D.C. Volts	Res. Insu-	Mtg. Fig.	Dimensions			Wt. Lbs.
		M.A. Hen.	Ohms				W.	D.	H.	
T-19C35	\$2.85	200	5-20	130	3000	2D	3 1/2	3 3/4	4 1/2	5
T-19C36	3.90	300	5-20	105	3000	2D	3 3/8	3 3/4	4 3/4	10
T-19C37	5.40	400	5-20	90	4000	2J	4 1/2	5 1/2	6 1/2	18
T-19C38	6.90	500	5-20	75	4000	2J	5 1/2	6	7 1/2	26
T-64C05-	2.55	150	10-30	200	2000	2D	3 1/2	3 3/4	4 3/4	5
T-63C15-	5.10	280	12-38	156	5000	2J	4	4 1/4	6 1/2	11 1/2
T-64C06-	7.20	380	10-19	93	5000	2J	4 3/4	5	6 1/2	18 1/4
T-63C16-	8.40	500	8-17	70	5000	2J	5	5 1/2	6 3/4	22 3/4
T-72C16-	9.60	650	8-22	55	5000	2K	6 3/4	6 3/4	7 3/4	27 3/4

SMOOTHING CHOKES

Type No.	NET	Cap. Induc-		D.C. Volts	Res. Insu-	Mtg. Fig.	Dimensions			Wt. Lbs.
		M.A. Hen.	Ohms				W.	D.	H.	
T-19C42	\$2.85	200	12	130	3000	2D	3 1/2	3 3/4	4 1/2	5
T-19C43	3.90	300	12	105	3000	2D	3 3/8	3 3/4	4 3/4	10
T-19C44	5.40	400	12	90	4000	2J	4 1/2	5 1/2	6 1/2	18
T-19C45	6.90	500	12	75	4000	2J	5 1/2	6	7 1/2	26
T-64C09-	3.30	150	19.7	275	2000	2D	3 3/4	4	4 1/2	7
T-64C08-	6.00	280	23.6	190	5000	2J	4 1/2	4 1/2	6 1/2	14
T-64C07-	9.60	380	20	160	5000	2K	6	6 3/4	7 3/4	25
T-64C10-	10.20	500	16.5	110	5000	2K	6 1/2	6 3/4	7 3/4	27 1/2
T-72C15-	14.40	650	17	70	5000	2K	6 3/4	8 1/2	7 3/4	40 3/4

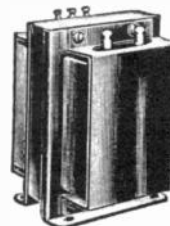


Fig. 2L

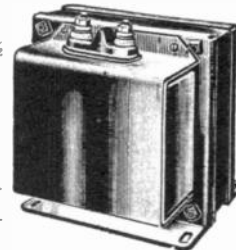


Fig. 2K

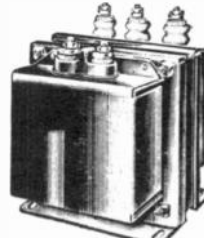


Fig. 2M



Fig. 2S

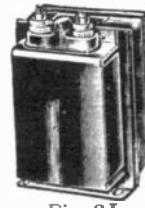


Fig. 2J

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



TRANSFORMERS

FILAMENT • MODULATION • TRANSCIVER •

THORDARSON

FILAMENT TRANSFORMERS

THORDARSON FILAMENT TRANSFORMERS give improved voltage regulation and minimize heat rise. Many types are furnished with primary taps to compensate for low line voltage or voltage drop in filament leads. All units are rated for continuous operation at full load. All primaries 115 volts 50-60 cycles. Those marked with * have primary taps of 105, 110 and 115 volts.

One Secondary

Type No.	NET	Sec. Volts	Sec. Amps.	Volts Insulation	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-50F61	\$0.90	2.5 Ct.	3.5	1600	2	1 1/2 2 3/4 1	
T-54F69	1.05	2.5 Ct.	5.0	1600	2	2 2 2 3/4 1 1/4	
T-19F88	1.05	2.5 Ct.	5.25	2000	3C	2 2 2 3/4 1 1/4	
T-19F89	1.35	2.5 Ct.	10	2000	3C	2 1/2 2 3 2	
T-54F55	1.50	2.5 Ct.	10	1600	2B	3 2 3/4 3 3/4 3	
T-19F90	1.80	2.5 Ct.	10	7500	3C	2 1/2 2 1/2 3 1/2 2 1/4	
T-64F33	2.70	2.5 Ct.	10	7500	2N	3 3/4 3 3/4 4 4 1/2	
T-63F99	1.95	5 Ct.	4	1600	2D	3 2 1/2 3 1/4 2 1/4	
T-19F91	1.35	5.25 Ct.	4	2000	3C	2 1/2 2 3/4 3 1/4 2 1/4	
T-19F92	1.95	5.25 Ct.	13	2000	3C	3 3/4 2 1/2 4 4	
T-74F23	3.00	5.25 Ct.	13	1600	2D	3 1/2 3 3/4 4 4 1/4	
T-74F24	4.20	5.25 Ct.	21	1600	2D	3 7/8 3 7/8 4 5 1/4	
T-19F97	1.20	6.3 Ct.	3	2000	3C	2 2 2 3/4 1 1/2	
T-61F85	1.20	6.3, 5, 2.5	2.5	1600	2E	2 5/8 2 2 1/4 1 1/2	
T-73F60	2.25	6.3 Ct.	5	1600	2D	3 2 7/8 3 3/4 3 1/4	
T-19F98	1.65	6.3 Ct.	6	2000	3C	2 1/2 2 3/4 3 1/4 2 3/4	
T-19F99	2.10	6.3 Ct.	10	2000	3C	3 3/4 2 3/4 4 4	
T-64F13*	1.95	7.5 Ct.	2.5	1600	2D	3 2 1/2 3 3/4 2 1/4	
T-19F93	1.35	7.5 Ct.	4	2000	3C	2 1/2 2 1/4 3 1/4 2 1/4	
T-64F35	2.70	7.5 Ct.	6.5	1600	2D	3 5/8 3 3/4 4 5	
T-19F94	1.80	7.5 Ct.	8	2000	3C	3 2 7/8 3 3/4 4	
T-92F20	2.85	7.5 Ct.	8	1600	2D	3 5/8 3 3/4 4 4 3/4	
T-19F95	1.65	10 Ct.	4	2000	3C	2 5/8 2 3/4 3 1/4 2 3/4	
T-19F96	2.10	10 Ct.	8	2000	3C	3 2 7/8 3 3/4 4	
T-64F14*	2.85	10 Ct.	8	1600	2D	3 5/8 3 3/4 4 5	
T-64F15*	4.50	11 Ct.	10	1600	2D	4 1/4 3 7/8 4 5/8 8	
T-64F19	5.40	11 Ct.	15.5	1600	2L	4 1/2 4 1/2 6 1/4 13	

Two Secondaries

T-64F21	3.30	2.5, 5 Ct.	10, 3	3000	2N	3 3/4 3 3/4 4 4 3/4	
T-75F85	3.30	5, 5 Ct.	3, 3	3000	2D	3 2 7/8 3 3/4 3 1/4	
T-54F66	1.95	7.5, 7.5 Ct.	2.5, 2.5	1600	2E	3 2 3/4 3 3/4 3 1/4	

Three Secondaries

T-79F84	2.85	2.5, 5, 6.3 Ct.	3.5, 3, 3	1600	2G	3 3/4 3 1/4 4 5/8 4 3/4	
T-60F94	3.60	2.5, 2.5, 5 Ct.	3.5, 14, 6	1600	2G	3 1/2 3 3/8 4 5/8 5 1/4	
T-85F14*	10.50	2.5, 2.5, 2.5 Ct.	5, 5, 10	10,000	2Q	7 5/8 5 1/2 5 1/2 17	
T-70F46	4.65	5, 5, 5 Ct.	3, 3, 6	5000	2N	4 3 3/8 4 3 1/2	
T-64F17*	5.40	2.5, 7.5, 7.5 Ct.	4, 4.5, 6.5	1600	2N	4 1/4 3 7/8 4 5/8 8	

Four Secondaries

T-64F16*	6.90	2.5, 7.5 Ct.	5, 1.25	1600	2N	4 1/2 4 1/2 6 1/4 13 1/2	
		10, 10 Ct.	3.25, 6.5				

GRID MODULATION TRANSFORMERS

Type No.	NET	Tube Type	Class	Ohms Pri.	Imp. Sec.	Max. D.C. Sec. M.A.	Max. Au. Pwr. Watts	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-67M73	\$2.10	1-42, 6F6, 46 Triode	A	6,300	5,400	32	10	2D	2 1/2 2 1/2 3	2 1/4
T-67M74	2.70	P.P. 45-2A3	AB	5,000	5,000	60	20	2D	2 7/8 3 3 1/2	3 1/2

PLATE AND SCREEN MODULATION TRANSFORMER

T-79M94-	3.30	42's or 2A5's	AB	8,000	5,000 plate	100	40	2G	3 3/8 3 1/2 4 5/8	5 1/4
		To Plate & Screen of 2-802			800 screen	50				

MODULATION TRANSFORMERS FOR MATCHING LINES TO R. F. LOADS

Primaries of these transformers may be connected directly to the 500 ohm output terminals of any amplifier or receiver. Type T-83M22 is equipped with a tap at 200 ohms for use with "Breting 14" receivers.

Type No.	NET	Pri. Ohms	Secondary Ohms Load	Max. D.C. Sec. M.A.	Max. Pwr. Watts	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-73M52	\$9.60	500	5,000-6,000-7,000-8,000-9,000-10,000	215	80	2Q	5 7/8 8 6 1/4	21
T-83M22	4.80	500-200	5,000-6,000-7,000-8,000-9,000-10,000	150	30	2N	3 7/8 4 1/4 4 5/8	8

TRANSCIVER TRANSFORMERS

Smallest practical size — Light weight — Easy to mount — Efficient

Type No.	NET	Pri. Ohms	Sec. Ohms	Ohms Imped.	Max. D.C. Sec. M.A.	Max. Pwr. Watts	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-72A59	\$0.99	Pl. and S. B. micro. to grid	5,000, 200	100,000	10	5	2B	1 5/8 1 5/8 2	3/4
T-72S58		Pent. Pl. to low or high imp. phones or osc.	10,000	2,000, 50	30	5	2B	1 5/8 1 5/8 2	3/4

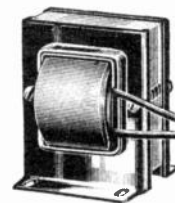


Fig. 3C



Fig. 2G

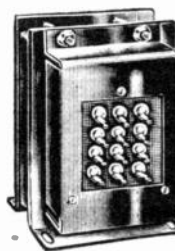


Fig. 2N

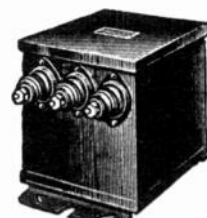


Fig. 2Q

Transmitter Guide — No. 344-C, 9c Fifty-two pages of up-to-the-minute data on transmitter design and operation. Portable units, beginners transmitters, and larger rigs up to 1000 watts are fully described. Circuit diagrams, parts lists, and photographs illustrate each article.

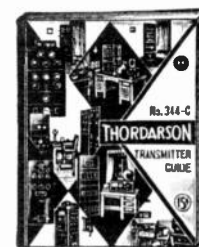


Fig. 2B

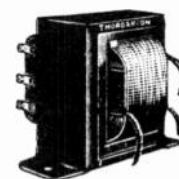


Fig. 2E

IT'S EASY TO PARK AT WALTER ASHE . . .

THORDARSON TRANSFORMERS—"C. H. T." Series



MULTI-MATCH MODULATION TRANSFORMERS

Plug-in-Jack Terminal Board enables quick and accurate matching of tube loads without soldering.



Fig. 3M

Type No.	NET	Cap. Watts	Pri. M.A. Per Side	Sec. M.A. Series	Par.	Mtg. Fig.	Dimensions			Wt. Lbs.
							W.	D.	H.	
T-11M74	\$5.40	40	100	80	160	3G	4	4 1/2	4 3/4	7 3/4
T-11M75	7.50	75	145	145	290	3G	4	4 1/2	4 3/4	9
T-11M76	11.70	125	210	160	320	3G	5 1/2	5 1/2	6	18
T-11M77	18.00	300	250	250	500	3G	6	7 1/2	7 1/2	30
T-11M78	36.00	500	320	320	640	3G	7	8 3/4	7 1/2	51

MULTI-MATCH DRIVER TRANSFORMERS

Plug-in Connectors and recessed sub-base lugs permit single hole sub-panel wiring. See Table in catalog 400.



Fig. 3G

Type No.	NET	Cap. Watts	Pri. M.A. Per Side	Ratio Pri. to 1/2 Sec.	Mtg. Fig.	Dimensions			Wt. Lbs.
						W.	D.	H.	
T-15D76*	\$4.95	15	60	1:1, 1.2:1, 1.4:1, 1.6:1, 1.8:1	3H	4	4 1/2	4 3/4	7 1/2
T-15D77*	4.95	15	60	2:1, 2.2:1, 2.4:1, 2.6:1, 2.8:1	3H	4	4 1/2	4 3/4	6
T-15D78*	4.95	15	60	3:1, 3.2:1, 3.4:1, 3.6:1, 3.8:1	2H	4	4 1/2	4 3/4	6
T-15D79*	4.95	15	60	4:1, 4.5:1, 5:1, 5.5:1, 6:1	3H	4	4 1/2	4 3/4	6
T-15D80†	6.90	30	120	1:1, 1.25:1, 1.5:1, 1.75:1, 2:1	3H	4	4 1/2	4 3/4	8 3/4
T-15D81†	6.90	30	120	2.25:1, 2.5:1, 2.75:1, 3:1, 3.25:1	3H	4	4 1/2	4 3/4	8
T-15D82‡	4.95	15		1:3.15, 1:2.75, 1:2.5, 1:2.25, 1:2, 1:1.75, 1:1.4, 1:1.25, 1:1.85, 1:1.75	3H	4	4 1/2	4 3/4	5 3/4
T-15D83‡	6.90	30		1:3.15, 1:2.75, 1:2.5, 1:2.25, 1:2, 1:1.75, 1:1.4, 1:1.25, 1:1.85, 1:1.75	3H	4	4 1/2	4 3/4	8 1/2
T-15D84§	6.90	30	80	1.5:1, 2:1, 2.5:1, 3:1, 3.5:1	3H	4	4 1/2	4 3/4	8 3/4

*P.P. 45's or 2A3's. †P.P. Par. 2A3's. ‡Primary for 500 ohm line. §P.P. 6L6's with inverse feedback.

DRIVER TRANSFORMERS (For Specific Applications)



Fig. 3H

Type No.	NET	Driver Tubes	Output Tubes	Class	Ratio Pri. to 1/2 Sec.	Pri. M.A.	Mtg. Fig.	Dimensions			Wt. Lbs.
								W.	D.	H.	
T-15D85*	\$4.50	Sgl. 6F6, 42, 2A5 Triode	P.P. 6L6-40W P.P. 6L6-60W	AB2	1.4:1, 1.3:1 1.2:1	40	3M	2 3/4	3	3 1/2	1 3/4
T-15D86*	4.50	P.P. 6F6, 42, 2A5 Triodes	P.P. Par. 6L6 120 W.	AB2	2.6:1	32	3M	2 3/4	3	3 1/2	1 3/4
T-18D19	10.80	P.P. 845	P.P. 849, 204A	B	5:1	100	3Q	5 1/4	5 1/4	7	14 3/4

*With humbucking coil construction.

AUDIO COUPLING TRANSFORMERS

Ultra modern design, balanced windings, hum bucking coil construction and moisture-proof compound-filled cases.

Low Impedance Source to Grid



Fig. 3Q

Type No.	NET	Primary Ohms	Secondary Ohms	Max. D.C. per side (M.A.)	Max. unbal. Level (M.A.)	Max. Sig. (db)	Mtg. Fig.	Dimensions			Wt. Lbs.
								W.	D.	H.	
T-15A66	\$4.35	500, 333, 250, 200, 125, 50	60,000/15,000 Single Grid	100	2.5	+10	3M	2 3/4	3	3 1/2	2 1/4
T-15A67	4.80	500, 333, 250, 200, 125, 50	120,000/30,000 P.P. Grids	100	2.5	+20	3M	2 3/4	3	3 1/2	2 1/4
T-15A68	4.35	60,38,30,22,15,10,5.5,2.5	60,000/15,000 Single Grid	100	2.5	0	3M	2 3/4	3	3 1/2	2 1/4

Low Impedance Source to Line or Mixer

T-15A69	3.75	500, 333, 250, 200, 125, 50	500, 333, 250, 200, 125, 50	100	2.5	+20	3M	2 3/4	3	3 1/2	2
T-15A70	3.75	60,38,30,22,15,10,5.5,2.5	500, 333, 250, 200, 125, 50	100	2.5	+20	3M	2 3/4	3	3 1/2	2

Tube to Line (Low Level)

T-15A71	4.35	20,000/5,000 Single Plate	500, 333, 250, 200, 125, 50	8	8	+15	3M	2 3/4	3	3 1/2	1 3/4
T-15A72	4.35	20,000/5,000 P.P. Plates	500, 333, 250, 200, 125, 50	10	0	+20	3M	2 3/4	3	3 1/2	1 3/4

Interstage Coupling Transformers (Class A)

T-15A73	3.00	10,000/2,500 Single Plate	40,000/10,000 Single Grid	0	0	+15	3M	2 3/4	3	3 1/2	2 1/4
T-15A74	3.45	10,000/2,500 Single Plate	40,000/10,000 P.P. Grids	0	0	+15	3M	2 3/4	3	3 1/2	2 1/4
T-15A75	3.75	20,000/5,000 P.P. Plates	45,000/11,250 P.P. Grids	10	0	+20	3M	2 3/4	3	3 1/2	2 1/4

MULTIPLE-TAP LINE TO GRID TRANSFORMERS

T-15A65	6.30	500, 333, 250, 200, 125, 50	50,000/12,500 P.P. Cl. A845	3K	4	4 1/2	4 3/4	8
T-15D87	6.60	500, 333, 250, 200, 125, 50	7220 P.P. Cl. AB 845	3K	4	4 1/2	4 3/4	8

Fig. 3K

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



TRANSFORMERS — "C. H. T." Series

THORDARSON

MULTI-VOLT PLATE TRANSFORMERS

These units, engineered for continuous operation, provide extreme flexibility, excellent regulation and quiet operation.

Type No.	NET	D.C. Volts	D.C. M.A.	Mtg. Fig.	Dimensions			Wt. Lbs.
					W.	D.	H.	
T-15P11	\$7.50	500/400	200	3K	5 1/4	5 1/2	5 1/4	15 3/4
T-15P12	9.00	650/500	200	3K	5 1/4	5 1/2	6 3/4	19 1/2
T-15P13	12.00	750/600	300	3Q	5 1/4	7 3/4	7 1/4	31 3/4
T-15P14	15.00	1000/750	300	3Q	5 1/4	8 1/4	8 1/4	41
T-15P15	18.00	1250/1000	300	3Q	7	9	8	51 1/4
T-15P16	27.00	1250/1000	500	3P	6 3/4	11 1/4	9	81
T-15P17	19.50	1500/1250	300	3Q	7	9	8	55

Type No.	NET	D.C. Volts	D.C. M.A.	Mtg. Fig.	Dimensions			Wt. Lbs.
					W.	D.	H.	
T-15P18	36.00	1750/1500	500	3P	6 3/4	12 1/2	9	96
T-15P19	30.00	2500/2000	300	3P	6 3/4	11 3/4	9	85
T-15P20	51.00	2500/2000	650	3P	7 1/2	14 3/4	9 3/4	140
T-15P21	48.00	3000/2500	500	3P	7 1/2	13 3/4	9 3/4	129
T-15P22	30.00	1750/1500	300	3P	6 3/4	10 3/4	9	76

MULTI-VOLT FILAMENT TRANSFORMERS

Terminals are brought out to rugged solder lugs on a recessed base. This permits of mounting on chassis with one hole for lead wiring. Side knock-out holes for bread board wiring.

Single Secondary Transformers

Type No.	NET	Primary Volts	Secondary Volts	Amps.	Volts Insulation	Mtg. Fig.	Dimensions			Wt. Lbs.
							W.	D.	H.	
T-11F53	\$3.60	105-115	2.5 Ct.	10	7500	3K	4	4 1/2	4 1/4	5 3/4
T-11F54	7.20	105-115	5 Ct.	20	10,000	3K	5 1/4	5 1/2	6 3/4	16 1/4
T-11F55	6.00	105-115	5.25 Ct.	22	1600	3K	5 1/4	5 1/2	6	14

Tapped Secondary Transformers

T-11F50	4.50	105-115	7.5 tap at 6.3, 5* and 2.5 Ct.	6.5	1600	3K	4	4 1/2	4 3/4	6 1/4
T-11F51	4.80	105-115	10 tap at 7.5 and 6.3 Ct.	8	1600	3K	4	4 1/2	4 7/8	7 3/4
T-11F52	5.40	105-115	11 tap at 10 and 7.5 Ct.	10	1600	3K	5 1/4	5 1/2	6	13 1/2

*Not Center Tapped.

Multiple Secondary Transformers

T-11F56	3.90	105-115	No. 1 = 6.3 Ct., No. 2 = 2.5 Ct. No. 3 = 5 Ct.	3, 3.5 3	1600	3K	4	4 1/2	3 7/8	6
T-11F57	7.50	105-115	No. 1 = 10 Ct., No. 2 = 10 Ct. No. 3 = 6.3 Ct., No. 4 = 5 Ct.	8, 4 3	1600	3K	5 1/8	5 1/2	6 3/4	15
T-11F58	6.60	105-115	No. 1 = 7.5 Ct., No. 2 = 7.5 Ct. No. 3 = 6.3 Ct., No. 4 = 5 Ct.	6.5, 3.25 3	1600	3K	5 1/8	5 1/2	6	13 1/4

MULTI-VOLT POWER TRANSFORMERS

Combination plate and filament transformers for such tubes of medium power as 6L6, 807, T-20, RK-23, RK-39, etc.

Type No.	NET	Secondaries												Mtg. Fig.	Dimensions			Wt. Lbs.
		No. 1		No. 2		No. 3		No. 4		W.	D.	H.						
		Volts Ct.	M.A. (Rect. Fil.)	Volts	Amp.	Volts Ct.	Amp.	Volts Ct.	Amp.									
T-15R00	\$6.30	1000	150	5	3	7.5 tap 6.3	5			3K	5 1/4	5 1/2	6	15				
T-15R01	9.00	1000	400	5	6	6.3	6			3K	5 1/4	6 3/4	6	24 1/2				
T-15R02	7.95	1500	200	2.5	10	7.5 tap 6.3	3			3K	5 1/4	5 1/2	6	17				
T-15R03	8.25	800	200	2.5	4	6.3	3	5	3	3K	5 1/4	5 1/2	6	19				
T-15R04	2.85	510	25			6.3	2.1			3M	2 3/4	3	3 1/2	2 1/4				
T-15R05	6.30	700	135	5	3	6.3	2	6.3	2.25	3K	4	4 1/2	5 1/2	10				
		77 Bias tap		5	2	2.5	or 5											
T-15R06	5.85	725	175	5	3	6.3	2.25			3K	4	4 1/2	5 1/2	10				
T-15R07	6.30	760	280	5	3	6.3	3.5			3K	4	4 1/2	5 1/2	11				
T-15R08	8.25	860	325	5	6	6.3	4.25			3K	5 1/4	5 1/2	5 3/8	15				

MULTI-VOLT BIAS TRANSFORMERS

Rectifier plate and filament terminals on recessed base. Six secondary taps are brought out to plug-in jacks for convenient change of voltage.

Type No.	NET	Pri. Volts	D. C. Volts		M.A.	Filament		Mtg. Fig.	Dimensions			Wt. Lbs.
						Volts	Amps.		W.	D.	H.	
T-15R60	\$5.70	115	150; 135; 120; 110; 100; 90		200	5	3	3N	4	4 1/2	4 1/2	6 3/4
T-15R61	6.30	115	275; 250; 225; 200; 175; 150		200	5	3	3N	4	4 1/2	4 1/2	8 1/2
T-15R62	7.50	115	500; 450; 400; 350; 300; 275		200	5	3	3N	5 1/4	5 1/2	5 1/2	15 1/4

"BUILD-IT-YOURSELF" OSCILLOSCOPE FOUNDATION UNIT

An accurately planned foundation unit with explicit wiring instructions enables the builder to complete a perfectly engineered instrument at reasonable cost. Small overall size makes it ideal for relay rack or serviceman. Magnifying lens gives clear two-inch image.

Type No.	NET	Description	Description		
			W.	D.	H.
T-11K16	\$1.80	Punched chassis, panel, light shield and instructions	10 1/2	6	5 3/8
T-11K17	1.20	Etched panel	10 1/2		5 3/8
T-11K19	1.35	Cover for T-11K16	10 1/2	6 3/4	5 3/8
T-11K20	1.20	2" lens with retainer ring			
T-92R33	2.40	Power transformer (Described below).			
T-74C30	90	Filter choke (see above)			

Circuit diagram, description and parts list given in catalog bulletin SD266

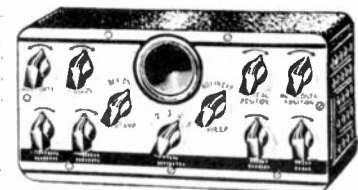


Fig. 3P



Fig. 3Q



Fig. 3K



Fig. 3N

IT'S EASY TO PARK AT WALTER ASHE . . .

THORDARSON

"C. H. T." and TRU-FIDELITY
TRANSFORMERS AND CHOKES



INPUT AND SMOOTHING CHOKES

Companion units to the C. H. T. Multi-Volt Plate Transformers, these chokes are accurately rated and the inductance shown is obtained with full rated D.C. applied. Mtg Fig. 3L.

C. H. T. Input Chokes

Type No.	NET	Ind. Henries	Current M.A.	Volts Ins.	D.C. Res.	Wt. Lbs.
T-15C36	\$4.80	5-25	200-20	4,000	105	10
T-15C37	6.00	5-25	300-30	4,000	78	22
T-15C38	7.20	5-25	400-30	4,000	95	24
T-15C39	11.40	5-25	500-30	10,000	86	38½
T-15C41	13.80	5-25	650-50	10,000	46	51

C. H. T. Smoothing Chokes

Type No.	NET	Ind. Henries	Current M.A.	Volts Ins.	D.C. Res.	Wt. Lbs.
T-15C45	4.80	12	200	4,000	105	10
T-15C46	6.00	12	300	4,000	78	22
T-15C47	7.20	12	400	4,000	95	24
T-15C48	11.40	12	500	10,000	86	38½
T-15C50	13.80	15	650	10,000	46	51
T-15C53*	3.30	12 Par. 50 Series	100	1,600	272	3½
			50	1090		
T-15C54*	3.30	8 Par. 32 Series	150	1,600	184	3½
			75	735		
T-15C55*	4.20	2 Par. 8 Series	500	1,600	32½	7½
			250	130		
T-15C56*	5.40	2 Par. 8 Series	700	1,600	27	9½
			350	107		

*These types have two windings each. The first line of description applies when connected in parallel, the second for series.

MULTIPLE-TAP OUTPUT TRANSFORMERS

Designed especially for amplifiers featured in Thordarson No. 346-C Sound Guide. Exceptional adaptability and frequency response will dictate their use in other quality sound systems. Mtg Fig. 3H.

Type No.	NET	Tube Type	Class	Ohms Pri.	Impedance Sec.	Pri. M.A. per side	Max. Watts	Wt. Lbs.
T-15S90*	\$5.55	2-6V6 P.P. 2-6L6 P.P. 2-2A3 P.P. (self bias)	AB1 AB1 AB	8000 5000 5000	2/3 4 6 8 16/125 250/500	70	15	7½
T-15S91*	6.90	2-6L6 P.P. (300 V. Pl. & Sc.) 2-2A3 P.P. (fixed bias)	AB AB	4300 3000	Same as above	95	25	8
T-15S92*	8.25	2-6L6 P.P. 2-6L6 P.P.	AB1 AB2	6600 5500	Same as above	90	40	14½
T-15S93*	9.00	4-6L6 P.P. Par. 2-6L6 P.P.	AB1 AB2	3800 3300	Same as above	155	60	15½
T-15S94*	10.50	4-6L6 P.P. Par	AB2	1900	500/250, 166 125 100, 84	230	120	19

*Tertiary winding to give a feedback voltage 10% of full primary

MULTIPLE-TAP LINE TO VOICE COIL TRANSFORMERS

Type No.	NET	Line to Voice Coil	Ohms	Dimensions W. D. H.	Wt. Lbs.
T-15S96	6.60	Line to Voice Coil	1000/500	50/24/16/ 8 6/4/3/2	25 8
T-15S97	8.70	Line to Voice Coil	1000/500	50/24/16/ 8/6/4/3/2	60 13½



Fig. 3H



Fig. 3L



Fig. 3T



Fig. 3S

Tru-Fidelity

CRYSTAL MICROPHONE OR PHOTO CELL TO LINE

Type No.	NET	Primary Ohms	Secondary Ohms	Max. D.C. per side (M.A.)	Max. D.C. unbalance (M.A.)	Max. Sig. Level (db)	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-90A06	\$10.80	250,000/62,500	500*/333/250 200*/125/50	0	0	+10	3T	3¼ 2½ 4¼	4¾

PLATE TO LINE (LOW LEVEL)

Type No.	NET	Primary Ohms	Secondary Ohms	Max. D.C. per side (M.A.)	Max. D.C. unbalance (M.A.)	Max. Sig. Level (db)	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-90A02	10.50	20,000/5000 Single Plate	500*/333/250 200*/125/50	8	8	+15	3T	3¼ 2½ 4¼	5
T-90A01	9.90	20,000/5000 Single† or P-P Plates	500*/333/250 200*/125/50	10	0	+20	3T	3¼ 2½ 4¼	4½

†With single tube use parallel feed with resistor or T-90C09.

MIXER

Type No.	NET	Primary Ohms	Secondary Ohms	Max. D.C. per side (M.A.)	Max. D.C. unbalance (M.A.)	Max. Sig. Level (db)	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-90A10	9.60	500*/333/250 200*/125/50	500* 333 250 200*/125/50	100	.5	+10	3T	3¼ 2½ 4¼	4¾

LINE TO GRID

Type No.	NET	Primary Ohms	Secondary Ohms	Max. D.C. per side (M.A.)	Max. D.C. unbalance (M.A.)	Max. Sig. Level (db)	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-90A00	10.20	500*/333/250 200*/125/50	75,000/18,750 Single Grid	100	.5	+10	3T	3¼ 2½ 4¼	4
T-90A11	12.00	500*/333/250 200*/125/50	150,000/37,500 P-P Grids	100	.5	+20	3T	3¼ 2½ 4¼	4

INTERSTAGE

Type No.	NET	Primary Ohms	Secondary Ohms	Max. D.C. per side (M.A.)	Max. D.C. unbalance (M.A.)	Max. Sig. Level (db)	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-90A03	9.00	10,000/2500 Single Plate	Ratio-overall 1 to 2 40,000/10,000 Single Grid	0	0	+15	3T	3¼ 2½ 4¼	4¾
T-90A04	9.00	10,000/2500 Single Plate	Ratio-overall 1 to 2 40,000/10,000 P-P Grids	0	0	+15	3T	3¼ 2½ 4¼	4¾
T-90A05	9.90	20,000/5000 P-P Plates	Ratio-overall 1 to 1½ 45,000/11,250 P-P Grids	10	0	+20	3T	3¼ 2½ 4¼	4¾

OUTPUT

Type No.	NET	Primary Ohms	Secondary Ohms	Max. D.C. per side (M.A.)	Max. D.C. unbalance (M.A.)	Max. Sig. Level (db)	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-90S07	10.80	5000/3000/1250/750 P-P 2A3, etc.	500*/333/250 200*/125/50	60	5	+32	3T	3¼ 2½ 4¼	4¾
T-90S08	10.50	5000/3000/1250/750 P-P 2A3, etc.	15/10/7.5 5/3.75/1.25	60	5	+32	3T	3¼ 2½ 4¼	4¾
T-90S13	12.00	5000/3000/1250/750 P-P 2A3, etc.	500*/333/250 200*/125/50 or 15/10/7.5 5/3.75/1.25	60	5	+34	3S	4 3¼ 4¼	11

LINE TO VOICE COIL

Type No.	NET	Primary Ohms	Secondary Ohms	Max. D.C. per side (M.A.)	Max. D.C. unbalance (M.A.)	Max. Sig. Level (db)	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-90S12	10.80	500*/333/250 200*/125/50	15/10/7.5 5/3.75/1.25	0	0	+32	3T	3¼ 2½ 4¼	4¾

PLATE REACTOR

Type No.	NET	Connection	Henries	M.A.	D.C. Ohms	Mtg. Fig.	Dimensions W. D. H.	Wt. Lbs.
T-90C09	\$7.50	Series Parallel	300 75	8 16	4,000 1,000	3T	3¼ 2½ 4¼	4¾

*Indicates inductive and capacitive balance to center tap for use on balanced transmission lines.

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



AMPLIFIERS AND MISCELLANEOUS TRANSFORMERS

THORDARSON

COMPLETE AMPLIFIERS WIRED OR FOUNDATION UNIT FORM Factory Wired and Tested

These five amplifiers have by their very popularity earned another listing in this catalog. While space limitations prevents full description, your jobber will gladly supply Bulletin SD-269A for complete details.

Type No.	NET Price (less tubes)	Watts Output	Output Tubes
T-11W06-M-	\$35.55	6 watt	Push Pull 6F6
T-11W18-M-	48.54	18 watt	Push Pull 6F6
T-11W30-	55.95	30 watt	P.P. Parallel 2A3
T-10W61-	93.00	60 watt	P.P. Parallel 6L6
T-10W11	96.00	10 watt	Tru-Fidelity 2A3

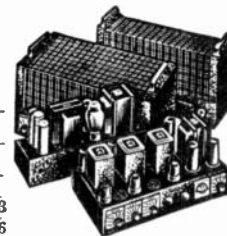


Fig. 10W61

FOUNDATION UNITS AND ACCESSORIES

The above amplifiers are also available in "Build-It-Yourself" Foundation Units. Includes punched chassis with sockets mounted, photos, diagrams, instructions and list of nationally distributed component parts.

Type No.	NET Price	Description
T-10K20	\$3.30	Metal Screen Cover for T-10W60 and T-10W11 (less handles)
T-10K21	2.85	Metal Screen Cover for power supply T-10W60 and T-10W11 (less handles)
T-10K50	1.14	Chromium Plated Handles for T-10K20 and T-10K21
T-75K06-M	2.70	Foundation Unit for T-11W06-M
T-75K18-M	3.60	Foundation Unit for T-11W18-M
T-75K30	4.80	Foundation Unit for T-11W30
T-10K60	7.20	Foundation Unit for T-10W61
T-10K10	6.00	Foundation Unit for T-10W11

*Less covers and handles

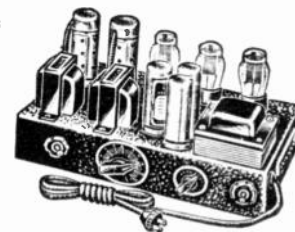


Fig. 11W06

ISOLATION TRANSFORMERS

The fast growing use of electrical therapeutic machines in medicine and surgery, of clippers, hair dryers, permanent wave machines and other electrical equipment in the barber and beauty shop industries has greatly expanded the market for isolation transformers. Their use is also indicated in amateur transmitters for elimination of line noises or to keep RF out of the incoming line. Primary 105-115-125 V. 50-60 cycles; Secondary 115 V. Electrostatic shield between primary and secondary.

Type No.	NET	Capacity V.A.
T-18V00	\$5.40	100
T-18V01	10.50	250
T-18V02	16.50	500

PRIMARY REGULATING AUTO TRANSFORMERS

For increasing or decreasing line voltage. Taps for 60, 80, 90, 100, 110, 120, and 125 volts. 50-60 cycles.

Type No.	NET	Capacity V.A.
T-82V11	\$7.50	500
T-82V12	10.50	1000
T-82V13	13.50	2000

VOLTAGE CHANGER AND BOOSTER AUTO TRANSFORMERS

Input side equipped with cord and plug. Output side has standard receptacles.

Type No.	NET	Primary	Secondary	Rating Watts
T-26V04	\$2.70	220-250 Volts	110-125 Volts	80
T-50V70	3.30	220-250 Volts	110-125 Volts	125
T-40V15	3.90	220-250 Volts	110-125 Volts	175
T-50V11	4.50	220-250 Volts	110-125 Volts	250
T-61V07	3.00	90 or 100 Volts	115 Volts	150

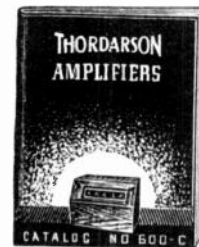
SIGNALING TRANSFORMERS Listed by Underwriters' Laboratories

Type No.	NET	Intermittent Duty Rating	Constant Duty Rating
T-47V01	\$3.60	50 V. A.	35 V. A.
T-47V02	5.85	100 V. A.	85 V. A.
T-47V03	15.00	250 V. A.	190 V. A.
T-47V04	21.00	500 V. A.	475 V. A.



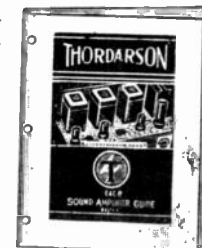
Radio Service Guide — No. 342 C, 9c
A book full of practical, accurate information for the Serviceman. Gives complete schematics, photos and parts lists for building such needed equipment as a 32 volt DC power supply, an improved condenser analyzer and impedance bridge and details on two high fidelity audio amplifiers. Has charts, tables and short-cuts that are needed every day in the year. Written for Servicemen by Servicemen.

Amplifier Catalog — No. 600 C, Free.
Illustrates six models with outputs ranging from 8 to 60 watts. The 15, 25 and 40 watt models are in the new solid walnut cases with illuminated control panels which are recessed and arranged at a convenient operating angle. The catalog contains technical data with regard to each of the models, general information about the line, illustrations and prices of speaker and portable cases, etc. 12 pages.



Complete Transformer Manual — No. 340, 30c — The Thordarson Transformer Manual is a complete book, containing the Radio Servicing Guide, Transmitter Guide, Replacement Encyclopedia, and Sound Amplifier Guide, plus Thordarson catalogs and prices. It is bound in an attractive blue and orange cover with loose-leaf arrangement, giving the user opportunity to keep the Manual up-to-date by adding the latest Thordarson releases.

Sound Amplifier Guide — No. 346, 9c — Here is a book every sound man needs. It has circuit diagrams, details and parts lists for amplifiers ranging up to 100 watts output; also information on speaker placement, microphones, and a useful 'd' table. Circuits are given for pre-amplifier tone compensation, inverse feedback and other late developments. All parts specified are nationally known and available from your distributor.



IT'S EASY TO PARK AT WALTER ASHE . . .

THORDARSON

AMPLIFIERS



Fig. 1

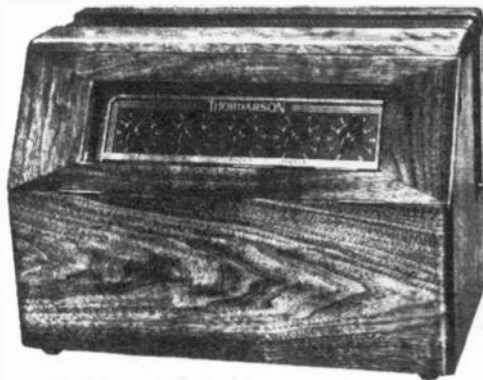


Fig. 2

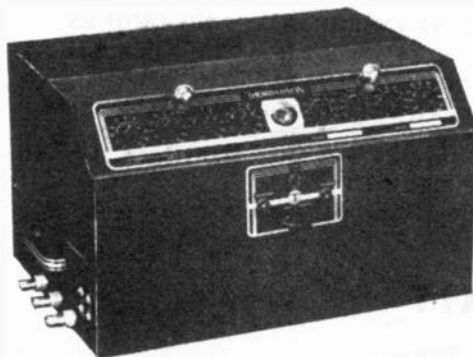


Fig. 3

An 8" electro-dynamic or permanent magnet speaker is required. Hooks and a strap provide for mounting speaker cable and hand microphone. Size: 12" wide, 16" high, 8" deep. Weight: net 7 1/2 pounds; shipping, 13 1/2 pounds.

T-20K27 15-Watt Amplifier Portable Case, \$16.00 List — Space is provided beneath amplifier for microphone and associate cable. Size: 16 1/4" long, 9 1/4" deep, 12 1/4" high. Weight: net 7 1/2 pounds; shipping, 13 1/2 pounds.

T-20K23 Regular Twin Portable Speaker Case (Less Speakers) \$22.50 List — Regular twin speaker portable case for two 12" speakers. (10-watt speakers are recommended.) Finished in shark leatherette to match portable amplifier case. Dimensions (assembled): 16" wide, 20" high, 12" deep. Weight: net 10 pounds, shipping 17 1/2 pounds. (Fig. 4)

T-20K24 Bass Reflex Twin Speaker Portable Case (Less Speakers) \$32.50 List — Bass reflex twin speaker portable case for two 12" electro-dynamic or permanent magnet speakers such as Jensen model C12R type ST358, or PM12C type ST361 or equivalent. The low frequency ports may be used to store speaker cable when assembled. This twin case is recommended for high quality portable equipment. Dimensions (assembled): 18" wide, 22" high, 16" deep. Weight: net 22 1/2 pounds; shipping 30 pounds.

T-20K28 40-Watt Amplifier Portable Case, \$20.00 List — Portable amplifier case for Thordarson 40-watt amplifier finished with durable black shark leatherette. Ample space is provided below amplifier for one or two microphone heads and cable. Dimensions: 20" long, 11" deep, 13 1/4" high. Weight: net 10 pounds; shipping 16 1/2 pounds.

T-20W08 8 Watt Amplifier \$39.50 List

With Selected Tubes — \$45.85 List

Some of the outstanding features of this amplifier are: variable impedance output; field supply independent of filter circuit; individual control of microphone and phono for complete mixing; high gain for high impedance crystal, dynamic, velocity, and new static microphones. Conventional chassis type mounting, black wrinkle finished (Fig. 1) has metal screen cover for permanent installations.

It is large enough for a good percentage of amplifier applications such as: political meetings, store window ballyhoo, cabarets, etc.

Tubes: 1-6J7, 1-6F5, 1-6L6G, 1-5Z3.

T-20W15 15 Watt Amplifier \$79.50 List

With Selected Tubes — \$88.35 List

The circuit is a new Thordarson development featuring a unique mixer circuit and double effective inverse feedback. Microphone and phono controls are entirely independent of one another and mix together without interlocking. No trace of crosstalk prevails. With the special inverse feedback circuit, minimum distortion is maintained not only at one reference frequency but at all audible frequencies. A booster circuit emphasizes the low frequencies below 100 cycles to compensate for the lack of bass in most recordings. The effective tone control removes the needle scratch of noisy records, and corrects for acoustical conditions.

Smallest of the new Thordarson amplifiers in walnut cabinets (Fig. 2), it is ideal for the vocalist or small orchestra.

Tubes: 2-6J7, 1-6C5, 2-6V6G, 1-5Z3.

T-20W25 25 Watt Amplifier \$110.00 List

With Selected Tubes — \$121.85 List

Mounted in beautiful solid walnut cabinet (Fig. 2), the new inverse feedback circuit insures "distortionless" operation at full output, and tube failures are reduced to a minimum because they are operated considerably below the maximum voltage and current ratings.

The recessed, illuminated panel has five controls. Two of the controls are for microphones, one for phonograph, and two tone controls for both bass and treble. The dual microphone input and dual tone control circuit make this 25 watt amplifier a really flexible and dependable unit. The authoritative unit for large dance halls, and auditoriums where naturalness of voice and music is essential.

Tubes: 3-6J7, 1-6C5, 2-6L6G, 1-5Z3.

T-20W40 40 Watt Amplifier \$140.00 List

With Selected Tubes — \$154.05 List

Mounted in solid walnut cabinet (Fig. 2), with such outstanding features as: continuous phono reproduction made possible by the double input circuit with individual volume controls, in addition to two microphone input circuits with separate controls. Two double range tone controls enable the operator to increase or decrease the low frequencies as well as increase or decrease the high frequencies at the same time. Never before has a tone control so flexible been offered in an amplifier of this type. The power output is sufficient for large auditoriums and stadiums, in fact it can handle almost any requirement in this respect. Reproduction at full output is perfectly clear and free from distortion.

Tubes: 2-6J7, 1-6F5, 1-6C5, 1-6F6, 2-6L6G, 2-5Z3.

T-20W60 60 Watt Amplifier \$180.00 List

With Selected Tubes — \$211.85 List

Three high impedance, high gain microphone channels are separately controlled, and may be mixed together and with the high impedance phono channel. When it is desirable to have two phono channels as in installations requiring continuous phono reproduction, one of the microphone channels may be converted to this service at a moment's notice.

Two separate channels (following the input channels) incorporate compressor and expander circuits. These separate circuits make it possible to expand phonograph music while the microphones are in operation with the compressor circuit. The compressor is effective in preventing acoustic feedback and overloading of the amplifier or speakers. An electron ray tube is used for the volume indicator.

The control panel is positioned for maximum convenience and is fully illuminated for easy readability in dark installations. Finished in black wrinkle (Fig. 3) with brushed chrome control panel. Extreme flexibility makes it the choice amplifier for large installations using a large number of loud speakers and microphones.

Tubes: 3-6J7, 1-6F5, 1-6G5, 2-6C5, 2-6H6, 4-6L6G, 2-5Z3, 1-80.

Portable Speaker Cases and Covers

T-20K09 Metal Screen Cover for T-20W08 \$3.25 List — For permanent installations to protect the amplifier against breakage of tubes, etc., 10" long, 6 1/4" high, 6" deep. Net Weight: 1 1/2 pounds.

T-20K26 Amplifier and Speaker Portable Case for T-20W08 \$16.00 List — Fitted with a removable sub-base on which the amplifier is mounted. In operation the amplifier is removed and the case closed to form a speaker compartment and to prevent back radiation of sound, which reduces feedback. The bass reflex principle is maintained by the port located below the speaker opening in the front of case.

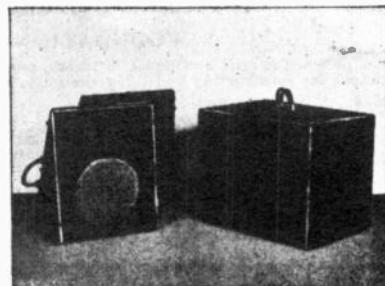


Fig. 4

SOUND DEALERS, SERVICE MEN THESE PRICES ARE LIST. YOUR REGULAR DISCOUNT APPLIES.

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



"MULTI-BAND" TRANSMITTER

THORDARSON

INSTANTANEOUS BAND-SWITCHING FROM FRONT OF PANEL

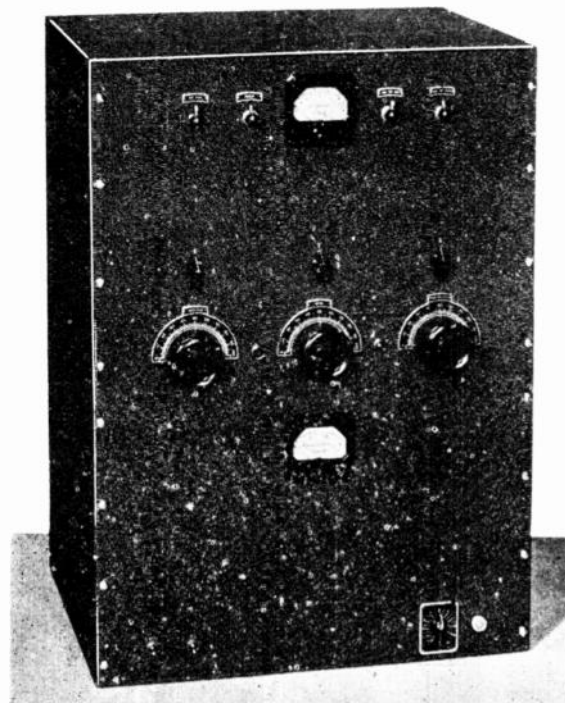
- 3 pre-selected amateur bands.
- 100 watts input on all bands.
- Single meter reads all plate currents as well as grid current of final stage.
- Power supply and R-F section on one chassis.
- Band-Switching feature optional, regular plug-in coils may be used.
- Tube lineup: 6L6G—6L6G—TZ-40.

PHONE OPERATION

- Plate modulation by a separate unit using a pair of 6L6's.

RADIO FREQUENCY UNIT

This unit may be plate modulated for phone operation by the 6L6 modulator shown below, or it may be operated as a complete CW transmitter. The band-switch feature permits almost instantaneous switching over any three pre-determined bands, the desired bands being selected by inserting the proper coils. A single power transformer tapped for two rectifier circuits supplies power to the entire R. F. section. A conventional 6L6-G crystal oscillator is capacity coupled to a 6L6-G buffer-doubler which in turn is also capacity coupled to a Taylor TZ-40, providing ample output on all bands including 10 meters. A meter switching arrangement permits metering of all circuits as well as providing an "off" position for the "tune-up" procedure. Fixed neutralization is provided so that no readjustment is required in changing bands. For CW the cathode circuits of both the oscillator and the buffer-doubler stages are keyed simultaneously. If the band-switch feature is not desired, provision is made for the use of regular plug-in coils.

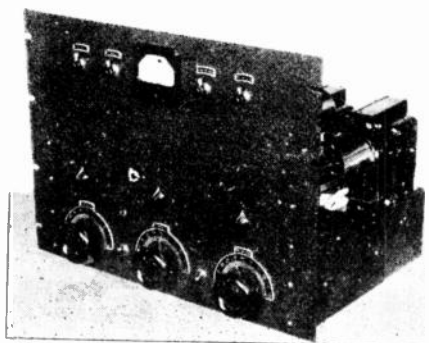


T-17K21 FOUNDATION UNIT **Net Price \$7.20**
Includes, punched chassis and panel, coil brackets, grommets and complete instructions.

KIT OF THORDARSON TRANSFORMERS AND CHOKES
KT-101 **Net Price \$16.95**

KIT OF COMPONENT PARTS
Other than Thordarson parts, foundation unit, tubes, cabinet and crystals. Includes any three sets of coils selected.
PL-100 **Net Price \$65.40**

CABINET
Will house complete transmitter including radio frequency and modulator units as illustrated above.
CAB-102 **Net Price \$10.50**



R. F. Unit

MODULATOR UNIT

Ample power for plate modulation of the R. F. unit is provided by this 6L6 modulator. Fixed bias is accomplished through a separate bias rectifier, and ample driving power is obtained from the single triode connected 6F6. Hum is at an absolute minimum, and transients usually encountered with 6L6's in class AB₂ have been entirely eliminated. This renders speech clear, natural, and free of distortion. For phone operation, the two line switches of the R. F. unit are replaced with jewels and the filaments and the plates of both units are controlled simultaneously by the two switches on the modulator panel. This measure simplifies operation and allows rapid control of the transmitter. Connections between the two chassis are easily made by regular connector strips.

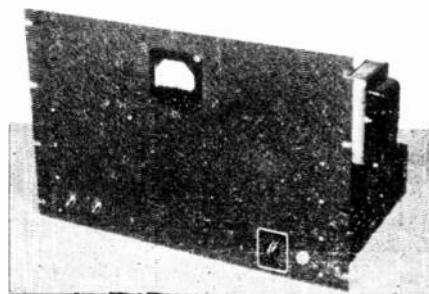
FOUNDATION UNIT

Includes punched chassis and panel, brackets, mounting strips, grommets and complete instructions for constructing and using the modulator unit.
T-17K22 **NET \$5.40**

KIT OF THORDARSON TRANSFORMERS AND CHOKES
KT-201 **NET \$22.80**

KIT OF COMPONENT PARTS
Other than Thordarson transformers, foundation unit and tubes.
PL-200 **NET \$18.60**

Ask for free BULLETIN SD-378A containing full parts list and circuit diagrams.
SEE AMATEUR SPEECH AMPLIFIER ON THE NEXT PAGE



Modulator Unit

COMPLETE INSTRUCTION BOOK
Full details of building data, photos, diagrams and layout.
SD-386 **NET Price 15c**

IT'S EASY TO PARK AT WALTER ASHE . . .

THORDARSON

AMATEUR SPEECH AMPLIFIER



• FLEXIBLE • UNIVERSAL •



Fig. 1
Amplifier Unit

Adaptable For Use with Any Transmitter.

The conservative rating of 15 watts output insures plenty of drive for any tube combination. The extreme flexibility of construction and circuit will meet any operating condition.

Overmodulation Control Circuit. (optional)

Details are given for the addition of a 6L7 overmodulation control circuit in the instruction sheet.

Elimination of R. F. Feedback and Hum.

Careful arrangement of parts and efficient electrical design results in an unusually stable amplifier.

500 Ohm Output or Regular Multi-Match Driver Ratios. (optional)

The circuit makes possible the use of either a 500 ohm output transformer or one of the Thordarson Universal or Multi-Match drivers.

Rack and Panel or Cabinet Construction. (optional)

Many amateurs have their speech equipment on the operating table and run a 500 ohm line to the remotely controlled modulator. Others mount the entire transmitter on one rack and panel. Either choice is possible with the Universal Speech Amplifier. See Fig. 2 and 3.

High Fidelity C. H. T. or Regular Thordarson Transformers. (optional)

The chassis is drilled to accommodate either type transformers and the amateur may thus choose according to his requirements.

ENGINEERED FOR THE AMATEUR

Realizing the need of properly designed speech equipment, Thordarson has engineered this Universal Speech Amplifier, adaptable to any phone transmitter. This unit eliminates the troubles usually encountered by the amateur in the building of dependable speech equipment.

With the present trend toward the use of high mu, low drive class B modulator tubes, the 2A3 output stage provides ample driving power for even the largest class B modulator and insures good condition.

Complete instructions are included with each kit for the assembly and wiring, making it practical and easy for either the beginner or advanced amateur to complete the unit with satisfactory results.

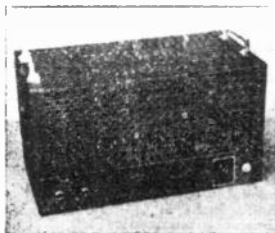


Fig. 2
Table Mounting With Metal
Screen Cover



Fig. 3
Relay Rack Mounting
With Panel

Complete Instruction Book
Full constructional and operating directions, performance data, photos, diagrams and mechanical layout.
SD-387 NET Price 9c

FOUNDATION UNIT

Punched chassis, mounting strips, grommets and complete instructions.

T-17K20 NET \$3.00

KIT OF THORDARSON

TRANSFORMERS AND CHOKES

KT-301-C (CHT types) List Price \$19.80

or

KT-302-R NET \$14.10

regular types for 500 ohm output, 11 driver transformer required — list price \$2.00 additional.

KIT OF COMPONENT PARTS

Other than Thordarson transformers, foundation unit, tubes and covers.

PL-300 NET \$10.35

OPTIONAL EQUIPMENT

Metal Screen Cover.

T-10K20 (fig. 2) . . Net Price \$3.30

Pair Chromium Handles.

T-10K50 (fig. 2) . . Net Price \$1.14

Panel 19" x 10 1/2" (fig 3)

PAN. 303 Net Price \$1.26

Chassis bottom plate with rubber feet.

T-17K23 Net Price \$0.90

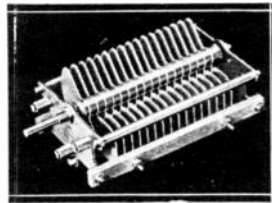
For Complete Parts List and Circuit Diagram Send for Bulletin SD-389

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

"X" TYPE TRANSMITTING



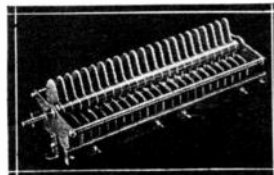
XE-240-KS

plied with mounting feet. Shafts 1/4".

STANDARD FOR YEARS. Heavy aluminum rounded plates; frames and tie rods nickled brass; ball thrust type rotor bearing; phosphor bronze rotor contact; nickled brass bushings; steel shaft supports rotor plates and spacers. General Electric Mycalex insulation. Frame measures 3 3/8" x 4". Sup-

★ "X" TYPE STANDARD SINGLES

Type	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Depth Back Panel	List Price	Dealers Price
XT-220-PS	220	20	21	.070"	4"	\$4.50	\$2.70
XT-440-PS	440	40	43	.070"	5 13/16"	7.70	4.62
XP-90-KS	90	16	11	.084"	2 7/8"	4.60	2.70
XP-165-KS	165	22	19	.084"	4"	6.50	3.90
XP-290-KS	290	35	33	.084"	5 13/16"	9.50	5.70
XP-330-KS	330	37	37	.084"	6 3/8"	10.80	6.48
XE-240-KS	240	30	33	.100"	6 3/8"	10.80	6.48
XG-25-KS	25	8	5	.171"	2 13/16"	3.50	2.10
XG-50-KS	50	15	11	.171"	3 15/16"	6.50	3.90
XG-110-KS	110	26	23	.171"	6 7/16"	9.70	5.82
XG-18-XS	19	8	5	.200"	2 7/8"	6.50	3.30
XC-40-XS	40	15	11	.200"	4"	7.50	4.50
XC-65-XS	65	20	17	.200"	5 13/16"	9.50	5.70
XC-100-XS	100	28	25	.200"	7 7/16"	11.50	6.90

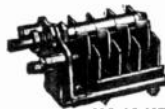


XG-110-KD

★ "X" TYPE STANDARD DUALS

Type	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Depth Back Panel	List Price	Dealers Price
XR-500-PD	500	18	21	.030"	4"	\$6.50	\$3.90
XT-80-PD	80	11	9	.070"	4"	5.50	3.30
XT-210-PD	210	22	21	.070"	5 13/16"	8.70	5.22
XP-90-KD	95	15	11	.084"	4 1/2"	7.50	4.50
XP-165-KD	165	23	19	.084"	6 1/2"	11.00	6.60
XP-325-KD	325	38	37	.084"	11 1/16"	22.00	13.20
XE-240-KD	240	32	33	.100"	11 1/16"	21.00	12.60
XG-50-KD	50	14	11	.171"	6 7/16"	10.70	6.42
XG-110-KD	110	27	23	.171"	11 1/16"	18.00	10.80
XC-40-XD	40	14	11	.200"	7 7/16"	13.00	7.80
XC-75-XD	75	21	19	.200"	11 1/16"	17.00	10.20
KD-160-XD	160	28	27	.125"	11 1/16"	19.00	11.40

H. F. NEUTRALIZING CONDENSERS



NA-16-NS

High frequency neutralizers for low capacity tubes. Mycalex insulation; heavy buffed plates with rounded edges. 180 degree rotation permits calibration and reset.

Type	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Depth Back Panel	List Price	Dealers Price
NA-4-NS	4	2.5	2	adj.	1 3/8"	\$3.60	\$2.16
NA-6-NS	6	4	3	.218"	1 3/16"	3.60	2.16
NA-10-NS	11	6	6	.218"	2 1/8"	4.50	2.70
NA-16-NS	16	7	8	.218"	2 9/16"	5.00	3.00
NA-12-ND*	12	6	7	.218"	5 25/32	15.00	9.00

* Ganged neutralizer with insulated coupling; Information given is per section.

DISC TYPE NEUTRALIZERS



TYPE ADN, capacity range .5-4 mmf.
List Price \$3.00
Dealers Price 1.80
TYPE BDN, for high power.
Capacity 2-12 mmf.
List Price \$5.00
Dealers Price 3.00
Alsmag No. 196 insulation throughout.
Satin finish aluminum—fine screw adjustment, no wobble. Knurled thumb nut for easy locking—nickle silver bearing.

TYPE "J" PLUG-IN FIXED AIR CONDENSERS for boosting a tank circuit designed for 20 and 40 meters to 80 and 160. Just plug-in proper "J" unit into Jack Base and load tank to proper "C", for the lower frequencies.

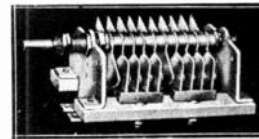


Type	Capacity mmfds.	Air-gap	Length	List Price	Dealers Price
JCO-50-OS	50	.250"	5 3/8"	\$5.50	\$3.30
JCO-25-OS	25	.250"	3 3/4"	4.00	2.40
JD-80-OS	80	.125"	4"	5.50	3.30
JD-50-OS	50	.125"	3 3/16"	4.00	2.40
JD-25-OS	25	.125"	2 1/2"	2.80	1.68
JR-750-OS	750	.030"	4"	8.80	5.28

All "J" types are 2 1/4 inches square.
TYPE JB—Jack Base for "J" fixed units. Alsmag 196—2 3/8" x 2 3/8" x 1/4". Complete with mtg. posts, screws and nuts.
List Price \$1.00 Dealers' Price \$0.60

ULTRA HIGH FREQUENCY DUALS

FOR 5 AND 10 METER TRANSMITTERS AND DIATHERMY MACHINES



NP-35-ND

Widely used for ultra H. F. power oscillators and amplifiers; 5 and 2 1/2 meter radio transmitters, and 6 meter diathermy sets. No closed metallic loops—lowest losses. Insulation Isolantite.

Type	Per Section	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Insulation	Depth Back Panel	List Price	Dealers Price
NP-35-ND	35	5	9	.084"	Isolantite	4 1/8"	\$6.00	\$3.60	
NP-35-DD	Same as above except unbuffed							5.35	3.21

CARDWELL FLEXIBLE COUPLING



TYPE A—Fits all 1/4" shafts. Has isolantite insulation with new type nickel plated phosphor bronze springs and reversed brass hubs. Minimum space required. Maximum flexibility with no back lash. A real improvement over existing types. Overall diameter 1 1/4". Overall width outside hub-to-hub 3/8". Packed in standard cartons of one dozen. List Price \$6.00 each
Dealers' Price \$3.95 each

TYPE C 15,000 V. Peak Flashover



A heavy duty unit for high power variable air condensers or other rotary R.F. units. Insulation—No. 196 Alsmag disc 2 1/4" diameter, 1/4" thick. Maximum overall diameter, 2 3/4"; special steel cup set screws, heavy N.P. brass hubs, permanently staked into thick nickle plated phosphor bronze springs. Removable bushings to fit 1/4" shafts. Hubs fit 3/8" shafts with bushings removed. List Price \$2.80
Dealers' Price \$1.68

Type B is the same as type A except that the hubs are reversed to give maximum flashover. Price same as "A".
TYPE "D"—Like "E" except hubs turned in. Price same as Type "C".
TYPE "E"—Like Type "C" except smaller. 1 1/2" diam. disc. List \$1.50
Dealers' Price .90
TYPE "ENF"—Lo-Flex rigid insulated coupling, 1/4" shafts only—10,000 V., 1 1/2" iso. disc. List \$1.00
Dealers' Price .60

CERAMIC SPACERS FOR 3/8" CO-AXIAL LINES*

Alsmag 196 beads for 3/8" O.D. x .035" Ga. soft copper tubing.
Beads are .295" O.D. with hole for No. 12 B.S. conductor. Package of 250 beads (enough for 50 ft. of line)
* List, per pkg. \$2.30
Dealers' Price 1.38

~~ ALL ITEMS SO MARKED (*)

ARE NOT STOCKED BUT CAN

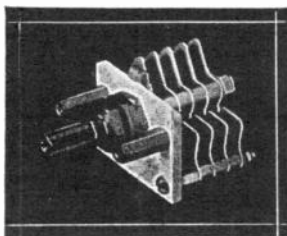
BE HAD ON SPECIAL ORDER.

~~ THIS APPLIES TO THE TWO CARDWELL PAGES ONLY..

IT'S EASY TO PARK AT WALTER ASHE...

CARDWELL Quality

"TRIM-AIR" MIDGET CONDENSERS



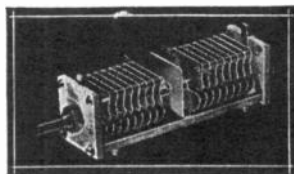
ZT-15-AS

Complete line of single units with New Dual Trim-Air series to match. Universally used for high frequency portable equipment, exciter units and low power transmitters. Detachable shafts on singles leaves screw driver slot and lock provides permanent adjustment for fixed tune. Singles require 1 5/16" x 1 13/32" panel mount space and duals 1 45/64" x 1 13/32" condenser open. All Duals double bearing, shaft extended at rear for coupling and have removable intersection shield except "ganged neutralizer" types. All Trim-Airs have Isolantite insulation, 1/4" nickel plated brass shaft; aluminum plates. All Trim-Air Accessories fit both single and dual units.

★ SINGLE "TRIM-AIRS"

Type	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Depth Back Panel	List Price	Dealers Price
* ZU-75-AS	75	2.7	15	.020"	1 5/16"	\$1.70	\$1.02
* ZU-100AS	100	3	19	.020"	1 7/16"	1.75	1.05
* ZU-140-AS*	140	5	27	.020"	1 7/8"	3.15	1.80
* ZR-10-AS	10	1.2	3	.030"	15/16"	1.25	.75
* ZR-15-AS	15	1.5	5	.030"	15/16"	1.25	.75
* ZR-25-AS	25	2	7	.030"	1"	1.40	.84
* ZR-35-AS	35	2.5	11	.030"	1 5/16"	1.50	.90
* ZR-50-AS	50	2.8	13	.030"	1 5/16"	1.60	.96
* ZV-5-TS†	5	1.8	3	.061"	15/16"	1.25	.75
* ZT-15-AS	15	3	9	.070"	1 7/16"	1.55	.93
* ZT-30-AS	30	4	17	.070"	2 1/8"	1.85	1.11
* ZS-4-SS	4	1.5	5	.140"	1 5/16"	1.85	1.11

* Double bearing; two end plates.
† Supplied with 2 segment stator for 5 meter circuits. Extra plate also supplied; easily installed; makes it 3 plates as listed.



ET-30-AD

★ DUAL "TRIM-AIRS"

Type	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Depth Back Panel	List Price	Dealers Price
* EU-75-AD	75	2.7	15	.020"	3 5/8"	\$3.30	\$1.98
* EU-100-AD	100	3	19	.020"	3 5/8"	3.40	2.04
* EU-140-AD	140	5	27	.020"	4 9/32"	6.00	3.60
* ER-10-AD	10	1.2	3	.030"	2 25/32"	2.60	1.56
* ER-15-AD	15	1.5	5	.030"	2 25/32"	2.60	1.56
* ER-25-AD	25	2	7	.030"	2 25/32"	2.70	1.62
* ER-35-AD	35	2.5	11	.030"	3 5/8"	2.90	1.74
* ER-50-AD	50	2.8	13	.030"	3 5/8"	3.10	1.86
* ET-15-AD	15	3	9	.070"	3 5/8"	3.00	1.80
* ET-30-AD	30	4	17	.070"	5 3/32"	3.60	2.16
* ET-30-ADI	With insulated coupling				5 21/32"	4.10	2.46
* ES-4-SD	4	1.5	5	.140"	3 5/8"	3.60	2.16
* ES-4-SDI	With insulated coupling				4 3/16"	4.10	2.46

CARDWELL TRIM-AIR CONDENSER ACCESSORIES may be purchased separately as follows:

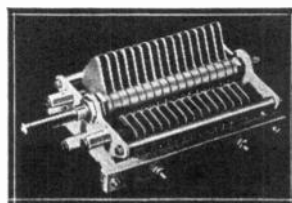
MOUNTING BRACKET, with two screws and nuts 10c list Dealers' Price 6c
MOUNTING POSTS, (one pair required per condenser) with screws and locking washers—per pair 13c list Dealers' Price 8c
EXTRA EXTENSION SHAFTS with setting nut 07c list Dealers' Price 4c

MIDWAY FEATHERWEIGHT CONDENSERS

For low and medium power transmitters and receivers, where light weight and small space are factors. Ideal for portable and aircraft equipment. Panel mounting space only 2 1/4" x 3" condenser open. 1/4" steel shaft; aluminum frame; brass bearings; plates buffed, rounded on all airgaps .070" or over. Supplied with aluminum mounting feet. G. E. Mycalex insulation.

★ SINGLE RECEIVING MIDWAYS ALSO FOR LOW POWER TRANSMITTERS

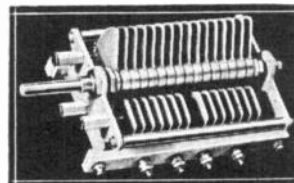
Type	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Depth Back Panel	List Price	Dealers Price
MR-25-BS	25	5	3	.030"	2 17/32"	\$2.70	\$1.62
MR-50-BS	50	6	5	.030"	2 17/32"	2.80	1.68
MR-70-BS	70	7	7	.030"	2 17/32"	2.95	1.77
MR-105-BS	105	8	11	.030"	2 17/32"	3.05	1.85
MR-150-BS	150	10	15	.030"	2 17/32"	3.15	1.89
MR-260-BS	260	11	25	.030"	3 17/32"	3.30	1.98
MR-365-BS	365	14	35	.030"	3 17/32"	3.80	2.28
MO-165-BS	165	15	25	.050"	3 17/32"	3.30	1.98



MT-150-GS

★ SINGLE TRANSMITTING MIDWAYS

Type	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Depth Back Panel	List Price	Dealers Price
MT-20-GS	20	5	5	.070"	2 17/32"	\$3.25	\$1.95
MT-35-GS	35	6	7	.070"	2 17/32"	3.50	2.10
MT-50-GS	50	8	11	.070"	2 17/32"	3.90	2.34
MT-70-GS	70	10	15	.070"	3 17/32"	4.45	2.67
MT-100-GS	100	12	21	.070"	3 17/32"	4.90	2.94
MT-150-GS	150	16	31	.070"	4 15/32"	6.00	3.60
MG-35-NS	35	12	15	.171"	4 15/32"	6.00	3.60



MT-70-GD

★ DUAL MIDWAY CONDENSERS

Type	Max. Cap.	Min. Cap.	Nr. Plates	Air Gap	Depth Back Panel	List Price	Dealers Price
MR-25-BD	25	5	3	.030"	2 17/32"	\$4.35	\$2.61
MR-50-BD	50	6	5	.030"	3 17/32"	4.70	2.82
MR-70-BD	70	7	7	.030"	3 17/32"	4.90	2.94
MR-100-BD	100	8	11	.030"	3 17/32"	5.10	3.06
MR-150-BD	150	9	15	.030"	3 17/32"	5.30	3.18
MR-260-BD	260	11	25	.030"	4 15/32"	5.50	3.30
MO-180-BD	180	15	29	.050"	6 5/32"	8.00	4.80
MT-20-GD	20	6	5	.070"	3 17/32"	5.55	3.33
MT-35-GD	35	7	7	.070"	3 17/32"	6.00	3.60
MT-50-GD	50	9	11	.070"	3 17/32"	6.35	3.81
MT-70-GD	70	10	15	.070"	4 15/32"	7.00	4.20
MT-100-GD	100	13	21	.070"	6 5/32"	8.00	4.80

NOTE—Capacities and number plates are per section.

BLILEY CRYSTAL UNITS

HF2 A fully dependable crystal unit for the 10 and 20-meter amateur bands. Engineered by Bliley, this precision-ground crystal simplifies the construction of 5, 10 and 20-meter transmitters. In use the HF2 Unit for 20-meters is directly applicable to conventional circuits. With the HF2 10-meter Unit, certain circuit considerations are necessary—for details, consult Engineering Bulletin E-5.

Type HF2—14.0 to 14.4MC., drift 20 cycles/MC./°C., within 15KC. of specified frequency* **\$5.75**
—14.4 to 15.0MC., drift 20 cycles/MC./°C., within 30KC. of specified frequency* **\$5.75**
—28.0 to 30.0MC., drift 43 cycles/MC./°C., within 50KC. of specified frequency* **\$5.75**
 *Or choice from dealer's stock.

LD2 A mounted, precision, low-drift crystal for the 80 and 160-meter amateur bands. The crystal is carefully cut from selected Brazilian Quartz and is rigidly tested. It possesses unusual activity and has a frequency drift of less than 4 cycles/MC./°C.

The mounting is low-loss molded Bakelite and the crystal is held under constant spring pressure between two stainless steel electrodes. The unit plugs into any standard 5-prong tube socket and may be mounted in any position.

Type LD2 — within 5KC. of specified frequency — or choice from dealer's stock..... **\$4.80**
 supplied to exact integral specified KC's... **\$5.90**



BC3 A moderately priced mounted X-cut crystal for the 40 and 80-meter amateur bands. Thoroughly reliable, this efficient unit is a powerful oscillator and has a drift of only 23 cycles/MC./°C. **ALSO 160 METERS**

The one-piece molded Bakelite holder is designed to plug into a standard 5-prong tube socket and may be mounted in any position. The cover plate, which also serves as one crystal electrode, aids in the dissipation of heat developed by the crystal in oscillating. As a result of this design, actual frequency drift is considerably reduced.



40--80--160
Type BC3 — within 5KC. of specified frequency or choice from dealer's stock..... **\$3.35**

supplied to exact integral specified KC's... **\$4.95**

**TYPE B5**

An outstanding development by Bliley—a superior low-drift mounted crystal for the 20 and 40-meter amateur bands. Designed, after extensive research, this highly efficient crystal unit sets new standards of performance for high frequency low-drift crystals. The correctly proportioned crystal, mounted in an individually designed low-loss holder, is distinctive in its performance. It is accurately calibrated and a drift of less than 4 cycles/MC./°C.

The B5 unit for 40-meters has a higher activity, and will safely carry 35% more RF current, than the popular LD2 40-meter crystal unit which it replaces at no increase in cost. For 20-meters, the B5 unit now extends the advantages of low frequency-drift and high activity to the higher frequencies.

Type B5—7.0 to 7.3MC., within 5KC. of specified frequency* **\$4.80**
 —frequency to exact integral specified KC's..... **\$5.90**
—14.0 to 14.4MC., within 15KC. of specified frequency*..... **\$7.50**
 —within 5KC. of specified frequency..... **\$12.00**
—14.4 to 15.0MC., within 30KC. of specified frequency*..... **\$7.50**
 —within 5KC. of specified frequency..... **\$17.50**
 *Or choice from dealer's stock.



Type CF1 Units are supplied for I. F. frequencies of 456KC., 465KC., 500KC. and 1600KC. They may also be used in low-power crystal oscillators for radio set alignment or general test purposes.

Type CF1 — for 456KC., 465KC., or 500KC..... **\$5.50**
 for 1600KC..... **\$9.50**

Bliley BC2 Crystal Holder

Molded bakelite quartz crystal holder. Threaded cover protects crystal from dust and moisture. Electrodes plane ground, stainless steel. For 80 and 160 meter, or 40 and 20 meter. Either type **\$.95**

**BLILEY CONSTANT FREQUENCY CONTROL OVEN.**

MODEL CO-6 WORKS ON 6 TO 7.5 VOLTS AC.
 FITS BOTH HF-2 AND BC-3
 YOUR COST **\$ 3.25**

MODEL CO-6 OVEN

LOW PRICED "X" CUT CRYSTALS UNMOUNTED

WA SPECIAL FOR 80 AND 160 METERS NET **\$ 1.50**
PR UNITS FOR 40 METERS ONLY* **1.85**
 * **PR UNITS** ARE STOCKED FOR FREQUENCY QUADUPLING TO THE 10 METER BAND



100 MILL. LAMP FOR INDICATION OF CRYSTAL GRID CURRENT. \$.10

--JUST OUT-- BLILEY ENGINEERING BULLETIN NO. E-6 ON FREQUENCY CONTROL WITH QUARTZ CRYSTALS. NET \$.10

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

PREMAX

TELESCOPING ADJUSTABLE VERTICAL STEEL RADIATOR

MODEL VR-136-20 METER-ADJUSTABLE UP TO 34 FEET

MODEL VR-118-10 METER-ADJUSTABLE UP TO 17 FEET

Quick, Easy Installation. No Long Pipes To Handle. Simply Erect Six-Foot Unit
— Then Extend To Height Desired.

PREMAX VERTICAL STEEL RADIATORS have been perfected only after long and comprehensive study of practical operating requirements and extensive contacts with amateurs and service men to develop their particular needs and desires in such equipment.

PREMAX VERTICAL RADIATORS are made of steel tubing in carefully designed sizes to provide complete telescoping of the entire mast into a single six-foot unit.

The 20-meter design, No. VR-136, consists of six sections of heavy gauge, and the 10-meter, No. VR-118, a lighter design, consists of three sections, all six feet long. The tubing used for No. VR-118, while of light gauge, is corrugated for extreme stiffness.

MODEL VR-118-10 -- 10 METER ANTENNA COMPLETE--NET \$ 6.30

MODEL VR-136-20 -- 20 METER ANTENNA COMPLETE-- 17.10

• Antenna Wire and EOI Cable •



EOI TRANSMISSION LINE CABLE

STANDARD SURGE IMPEDENCE OF 72 OHMS.
CONSTRUCTED OF A PAIR OF NO.12 SOLID COPPER WIRES COMPLETELY
ENCASED IN A SPECIAL HIGH FREQUENCY RUBBER COVER.
OUTSIDE COVERING IS OF COTTON BRAID AND COMPLETELY WATERPROOFED.

YOUR COST PER FOOT.....NET 4.5¢

COPPERWELD ANTENNA WIRE
ENAMELED



100'	NO. 14	NET	\$.75
100'	12		1.08
100'	10		1.56
150'	14		1.23
150'	12		1.72
150'	10		2.44



SOLID COPPER ENAMELED
ANTENNA WIRE

LENGTH	SIZE	NET PRICE
50	14	\$.25
50	12	.40
50	10	.65
100	14	.48
100	12	.75
100	10	1.25
200	14	.96
200	12	1.50
200	10	2.50

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



NEW AND IMPROVED

E. F. JOHNSON COMPANY
MANUFACTURERS OF Radio Transmitting Equipment

TYPE "Q" ANTENNA SYSTEM

ADVANTAGES OF THE TYPE "Q" ANTENNA SYSTEM

- 100% more radiation from the same power than obtained with ordinary non-matched antenna-feeder systems.
- Matched impedances throughout. Practically zero transmission loss in entire system.
- No standing waves on main transmission line. Practically zero line radiation.
- No distortion of radiation pattern or angle.
- No exact or critical overall line lengths. Line may be several thousand feet long if desired.
- Permanent low-loss construction. Glazed porcelain insulation. No deterioration or weathering.
- Easily installed and adjusted.
- May be used with long-wire harmonic radiators, directional beam and reflector systems.

THE TYPE "Q" PRINCIPLE

A quarter-wave line of suitable characteristics has the property of matching the impedance of the antenna to the transmission line, a condition necessary for maximum energy transfer. Tuned feeders and "twisted pair" lines introduce insertion losses which largely offset the gain due to matching. In contrast, the Johnson Type "Q" System uses a highly efficient quarter-wave impedance-matching section of one-half inch aluminum tubing, suspended directly from the antenna wires. The spacing of the tubes depends on the impedances to be matched. For a half-wave antenna (doublet) which has a radiation resistance of about 75 ohms, the tubing separation "D" is given for common types of transmission lines in Fig. 1. Other types of antennas will in general require different spacing of the tubes.

MULTIPLE BAND OPERATION

In common with all other impedance-matching devices, the Type "Q" System affords a match over a very limited range of frequencies only. A system designed for operation in the center of one of the amateur bands will perform satisfactorily with closely matched impedances at other frequencies in the same band. In other bands (where impedance match is not obtained), the system may be operated as a "folded" antenna with two-wire tuned feeders, or the ends of the transmission line may be connected together at the transmitter end to form a "Marconi" antenna working against ground. Many other modes of operation are possible for "other band" use.

TYPE 10Q ANTENNA SYSTEM NET	\$ 4.71
TYPE 20Q ANTENNA SYSTEM	7.35
TYPE 40Q ANTENNA SYSTEM	13.56
TYPE 80Q ANTENNA SYSTEM	25.20

Two Band "Q" Beam Antenna

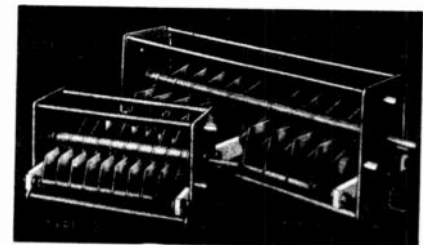
****A NEW JOHNSON ANTENNA DEVELOPMENT FOR THE AMATEURS****

THE NEW MATCHED IMPEDENCE "Q" BEAM ANTENNA IS DESIGNED TO OPERATE ON ANY TWO HARMONICALLY RELATED, ADJACENT AMATEUR BANDS WITH MATCHED IMPEDENCES ON BOTH BANDS. THE ANTENNA IS COMPACT AND CAN BE INSTALLED IN A VERY LIMITED SPACE. GAIN IS 4DB ON THE FUNDAMENTAL AND 6DB ON THE SECOND HARMONIC.

TWO STANDARD "Q" ANTENNAS ARE USED SO IF YOU ARE NOW USING ONE "Q" YOU CAN ERECT THE SECOND "Q" AND WITH A VERY FEW CHANGES YOU HAVE THE NEW BEAM HIGH GAIN UNIT. **ASK US FOR THE NECESSARY INFORMATION FOR CHANGING OVER

TRANSMITTING CONDENSERS

TYPE NO.	PLATE SPACING	CAPACITY MIN. MAX.	NO. PLATES	FRAME LENGTH	NET PRICE
TYPE "C" DUAL SECTION					
00CD110	.350	32 103	17	16 3/4	\$12.90
50CD130	.500	23 50	10	15 7/8	10.05
70CD130	.500	30 69	14	18 9/32	12.00
TYPE "D" DUAL SECTION					
150DD35	.80	15 151	12	6	\$ 5.40
70DD70	.175	16 72	11	8	6.30
100DD70	.175	21 99	15	9 1/2	7.50
150DD70	.175	31 151	23	14	9.60
50DD90	.250	18 52	10	9 1/2	6.90
100DD90	.250	29 97	19	14 1/2	9.90



GENERAL SPECIFICATIONS

Material: Aluminum. Plates .051" thick, with edges rounded; ends 1/4" thick; tie rods 1/4" diameter.
Finish: Rotor and stator plates polished, remainder satin etched finish.
Shaft: Steel, cadmium plated, 1/4" diameter, extended 1 1/4" in front, 3/4" in rear.
Voltage Ratings (approximate peak values)***
Spacing .060" .080" .175" .250" .350" .500"
Voltage 2500 3500 7000 9000 11000 13000
Insulation: Alsmog 196.

JOHNSON TRANSMITTING TUBE SOCKETS



NO. 210 SOCKET FOR ANY TRANSMITTING OR RECTIFIER TUBE WITH UX BASE.

NET PRICE.....\$.51



211 top view

NO. 209 DESIGNED FOR HIGH VOLTAGE RECTIFIERS. GREATER SPACING BETWEEN SHELL AND TERMINALS

NET PRICE.....\$.57

NO. 211 SOCKET FOR ANY STANDARD 50 WATT BASE
NET PRICE.....\$.75

"Q" BAR INSULATOR



THIS INSULATOR IS NOW STANDARD EQUIPMENT IN THE "Q" ANTENNAS. IS IDEAL FOR CENTER FED RADIATORS AND CAN BE USED AS A CROSS OVER

NO. 106 NET \$.36

HANDLE-INDICATORS



No. 204—Handle-Indicator with 4" diameter scale. Fits 1/4" diameter shaft.

NET PRICE \$.60



INDUCTOR CLIPS

LC4-Inductor Clips should be used with all "Hi-Q" Inductors, since they offer practically zero contact resistance, and are convenient to use. Spring phosphor bronze, nickel plated.

NET PRICE \$.12

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

Birnbach Standoff Insulators



CONE

NO. 430	NET \$.06
NO. 431	.09
NO. 431-J	.12
NO. 432	.12
NO. 432-J	.15
NO. 433	.15
NO. 433-J	.30



FEEDTHRU

NO. 458	NET \$.07
NO. 478	.12
NO. 4125	.15
NO. 4234	.33
NO. 4175	.30



JACK TYPE FEEDTHRU

NO. 478-J	NET \$.15
NO. 4125-J	.18
NO. 4175-J*	.45



JACK TYPE STANDOFF

NO. 966-J	NET \$.06
NO. 866-J	.09
NO. 866-SJ*	.21
NO. 4275-J*	.33
NO. 4450-J	.45

* JUMBO TYPE JACKS

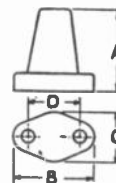
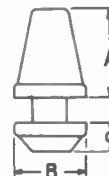
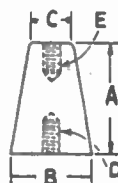


STANDOFF

NO. 405	NET \$.04
NO. 966	.05
NO. 866	.07
NO. 4275	.18
NO. 4450	.30

* JUMBO TYPE JACKS

*****COMPLETE SPECIFICATIONS*****



CERAMIC CONE STANDOFF INSULATORS

A	B	C	D	E	Mounting Hole	Cat. No.
5/8	5/8	7/16	6-32	6-32	5/32"	No. 430
1	11/16	1/2	8-32	8-32	3/36"	No. 431
1	11/16	1/2	8-32	1/4-28	3/16"	No. 431J
1-1/2	7/8	5/8	10-32	10-32	7/32"	No. 432
1-1/2	7/8	5/8	10-32	1/4-28	7/32"	No. 432J
2-3/4	1-1/4	3/4	1/4-20	1/4-20	9/32"	No. 433
2-3/4	1-1/4	3/4	1/4-20	3/8-24	9/32"	No. 433J

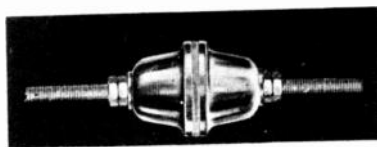
BIRNBACH STANDOFF INSULATORS

A	B	C	D	Mounting Hole	Hardware	Cat. No.
5/8	15/16	1/2	11/32	1/8"	6-32	No. 405
1	1-3/8	7/8	1	5/32"	8-32	No. 966
1	1-3/8	7/8	1	5/32"	No. 403 Jack	No. 966J
1-1/2	1-3/4	1-1/8	1-1/4	5/32"	10-32	No. 866
1-1/2	1-3/4	1-1/8	1-1/4	5/32"	No. 403 Jack	No. 866J
1-1/2	1-3/4	1-1/8	1-1/4	5/32"	No. 395 Jack	No. 866SJ
2-3/4	2-3/4	2	2-1/8	1/4"	1/4-20	No. 4275
2-3/4	2-3/4	2	2-1/8	1/4"	No. 399 Jack	No. 4275J
4-1/2	3-5/8	2-1/2	2-5/8	9/32"	1/4-20	No. 4450
4-1/2	3-5/8	2-1/2	2-5/8	9/32"	No. 399 Jack	No. 4450J

FEEDTHRU STANDOFF INSULATORS

A	B	C	Mounting Hole	Hardware	Cat. No.
5/8	11/16	1/4	5/16"	6-32	No. 458
1	13/16	5/16	7/16"	10-32	No. 478
1	13/16	5/16	7/16"	No. 403 Jack	No. 478J
1-1/4	7/8	3/8	7/16"	10-32	No. 4125
1-1/4	7/8	3/8	7/16"	No. 403 Jack	No. 4125J
2-3/4	2	1	3/4"	1/4-20	No. 4234
2-3/4	1-1/4	3/4	5/8"	1/4-20	No. 4175
2-3/4	1-1/4	3/4	5/8"	Giant Jack	No. 4175J

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY*1100 Pine Street**St. Louis, Missouri***GENUINE PYREX LEAD IN BOWLS**

TYPE 67104 LENGTH 15" NET \$ 1.50

TYPE 67105 LENGTH 20" 1.65

HEAVY DUTY TYPE STRAIN INSULATORS

TYPE 67007 LENGTH 3" NET \$.18

TYPE 67017 LENGTH 7 1/4" .68

**JOHNSON****INSULATORS****METAL BASE STANDOFF INSULATORS**

NO.	HEIGHT	HARDWARE	YOUR COST
66	2 3/4"	1/4-20	\$.21
66J	2 3/4"	JACK	.30
67	4 1/2"	1/4-20	.33
67J	4 1/2"	JACK	.42

JOHNSON FEED THRU INSULATORS

46	2 3/4"	1/4-20	\$.39
46J	2 3/4"	JACK	.48



NO.395 GIANT JACK 3/8" \$.15

NO.403 STANDARD 1/4" .04



NO.396 GIANT PLUG \$.15

NO.401 STANDARD .05

Feeder Spreaders

Accurately molded from high-quality, low-absorption porcelain, with end grooves for line conductors and holes for tie-wires. Cross-section of all sizes is, 3/4" by 1/2". White glaze overall.

2" LONG	\$.09
4" "	.12
6" "	.15

**Transposition Block**

Type 31 Ideal for lossless transmission line. Particularly suitable for use with Johnson "Q" antenna. Made of white glazed porcelain.

YOUR COST EACH \$.09

Antenna Insulators

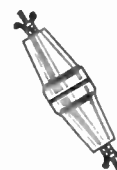
Wet-process smooth glaze porcelain. All sizes are 1" in diameter and will withstand strain of 1500 tensile pounds. White glaze.

4-1/4" LONG	NET EA.	\$.09
7" "		.30
12" "		.42
20" "		.90



NO.474 AIRPLANE INSULATOR

1-1/2" LONG NET EA. \$.04

PORCELAIN LEAD IN BUSHINGS.

NO.4235 10" ROD \$.54

NO.4236 15" ROD .60

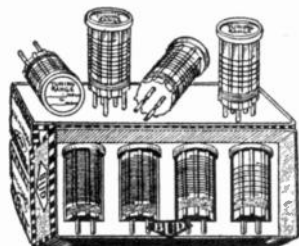
5 METER PORTABLE ANTENNA

OPENS OUT TO A LENGTH OF 102"
NO.154 NET \$1.20

IT'S EASY TO PARK AT WALTER ASHE . . .

BUD SUPER-HET LO-COIL KIT

- NO.397-SET OF 8 COILS.DETECTOR COILS HAVE 4 PRONGS AND OSCILLATOR COILS HAVE 5 PRONGS. \$ 3.30
 NO.395-SET OF 4 R.F.COILS TO MATCH DETECTOR COILS WHEN ADDITIONAL STAGE OF R.F. IS ADDED 1.65



SUPER-HET BROADCAST COILS

2 Coils to Set

- NO.398-185-360 METERS \$ 1.05
 NO.399-350-560 METERS 1.05

BUD SENIOR LO-COIL KITS



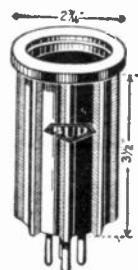
- NO.222-4 PRONG SENIOR LO-COIL KIT.
 SUITABLE FOR ANY CIRCUIT SPECIFYING 4 PRONG COILS NET \$ 1.05
 NO.916-5 PRONG SENIOR LO-COIL KIT.
 SUITABLE FOR ANY CIRCUIT SPECIFYING 5 PRONG COILS 1.98
 NO.918-6 PRONG SENIOR LO-COIL KIT.
 SUITABLE FOR ANY CIRCUIT SPECIFYING 6 PRONG COILS 2.10
 NO.917- IS AN 8 COIL KIT CONSISTING OF 4,FOUR PRONG R.F.COILS AND 4,FIVE PRONG DETECTOR COILS FOR ELECTRON COUPLED. 3.60



BROADCAST COILS TO MATCH ABOVE KITS



- | | | | |
|----------------|-----------------------|----------------------|-----|
| NO.224-4 PRONG | SENIOR BROADCAST COIL | RANGE-185-360 METERS | .54 |
| NO.223-" " | " " | " " 350-565 " | .54 |
| NO.960 6 " | " " | " " 185-360 " | .66 |
| NO.961 " " | " " | " " 350-565 " | .66 |



BUD GIANT TRANSMITTER PLUG-IN COIL FORMS

- | PLAIN FORMS
2 7/16" DIA. | | GROOVED FORMS
2 7/16" DIA. | |
|-----------------------------|------------|-------------------------------|------------|
| NO.734 4 PRONG | NET \$.39 | NO.1221 4 PRONG | NET \$.54 |
| NO.735 5 PRONG | .42 | NO.1222 5 PRONG | .57 |
| NO.736 6 PRONG | .45 | NO.1223 6 PRONG | .60 |

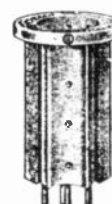


JUNIOR FORMS 1 1/4" DIA.

- 4 PRONG NET \$.15
 5 PRONG .18
 6 PRONG .18

SENIOR FORMS 1 1/2" DIA.

- 4 PRONG NET \$.21
 5 PRONG .21
 6 PRONG .24



Insulex Coil Forms

Diameter 1 9/16 Inches
 Efficient Ribbed Type

- 4 PRONG NET \$.36
 5 PRONG .39
 6 PRONG .42
 7 PRONG .45

LOT NEXT TO STORE OR LOADING ZONE

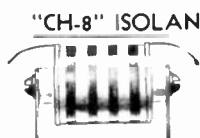
HAMMARLUND



"CH-500" TRANS-MITTING CHOKES

For parallel feed in high powered transmitters—20-, 40-, 80- and 160-meter amateur bands. High equivalent impedance more than 500,000 ohms. Effective from 1,500 to 15,000 kc. with exception of frequencies between 5,300 and 6,400 and between 8,000 and 9,000. Six thin universal pies. Isolantite core. Insulated mounting brackets secured to iron plate core with short machine screws. Brackets removable and choke mounted with a single machine screw. Ind.—2.5 mh. Dist. cap. less than 1.5 mmf. D.C. res.—8 ohms. Max. recommended D.C. (continuous) 500 ma. Overall size, less brackets—1 3/16" x 2 1/4".

CODE
CH-500.....\$14.95



"CH-8" ISOLANTITE R. F. CHOKES

For S.W. and ultra-S.W. receivers and transmitters. Effective over broadcast band too. Recommended as grid choke for multistage transmitters. Isolantite spool. Four sectionalized windings, moisture proofed, protected by radio frequency lacquer and cellophane covering. Choke 1 3/8" x 7/8". Flexible leads. Removable brackets. Ind.—8 mh. D.C. res.—70 ohms. Dist. cap.—3 mmf. Current carrying cap.—125 ma.

CODE
CH-8.....\$4.60



"CH-10-S" R.F. SHIELDED CHOKES

For use in high gain circuits. Universal impregnated wound pies enclosed in an aluminum shield 1 1/2" high x 1 3/4" in diameter. Mounting legs on 1 1/2" x 1 1/2" center. Connections to terminal are on one side of the can properly indicated. Inductance—10 mh. D.C. resistance—65 ohms. Current carrying capacity—100 ma.

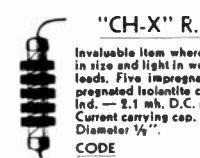
CODE
CH-10-S.....\$4.60



"RFC" HIGH IMPEDANCE CHOKES

Popular R.F. choke with special impregnated helical winding enclosed in bakelite case 1 1/2" x 1 1/2" high and 1 3/4" in diameter. Ideal for detector plate circuit and R.F. Altering systems in general. Two types—85 mh. with dist. cap. of 3 mmf. and D.C. res. of 215 ohms, and 250 mh. with dist. cap. of 9 mmf. and D.C. res. of 420 ohms. Current carrying cap. of both types 60 ma.

CODE
RFC-85.....\$1.40
RFC-250.....\$1.35



"CH-X" R.F. MIDGET CHOKES

Invaluable item where space is at a premium. It is so small in size and light in weight that it can be supported by own leads. Five impregnated universal wound pies 1/4". Impregnated isolantite core insuring ruggedness and stability. Ind.—2.1 mh. D.C. res.—35 ohms. Dist. cap.—1 mmf. Current carrying cap.—125 ma. Length across caps 1 1/4". Diameter 1/4".

CODE
CH-X.....\$3.35

ALUMINUM COIL SHIELDS

The Hammarlund coil shield shown at right is a very effective housing for coils. It is constructed of heavy aluminum and is a 3-piece affair. It is 3" in diameter. Base has mounting holes.

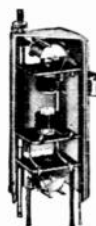
CODE
CS-3.....\$3.30



"ATT" AIR TUNED I. F. T.

Air tuned primary and secondary units with plate and grid coils of Litz wire. Exceptional "Q" of 115. Coupling co-efficient 0.77%. Gain in excess of 200 per stage together with unequalled selectivity. For 575, 581, 584, 591, etc. Center tapped units also for split input tubes. Shield 2 3/32" x 5" high.

CODE FREQUENCY
ATT-175 175 kc.....\$2.70
ATT-465 465 kc.....2.70
ATT-175-CT 175 kc. (center tapped).....2.70
ATT-465-CT 465 kc. (center tapped).....2.70
ATO 465 kc. (beat oscillator).....2.70



"VT" VARIABLE COUPLING I. F. T.

Outstanding transformers with new variable coupling feature. Approximate range of variation from 1/2 critical coupling to over 3 times critical coupling with circuit constants unaffected. Continuous variation between these limits controllable from panel where continuous variation is not required. Impregnated 3-pie Litz windings on isolantite core. Exceptionally high "Q" of 130. 2" x 2" x 5". Transformer without variable coupling feature (minimum coupling) also available. Same size as model just described known as VTF. A beat oscillator type to match this fixed type also available, known as VTO. CT types—center tapped.

CODE FREQUENCY
VT-465.....465 kc.....\$3.30
VT-175.....175 kc.....2.70
VTC (variable coupling mechanism for panel control of up to 4 transformers).....\$1.50
VTF-465.....465 kc.....2.70
VTF-175.....175 kc.....2.70
VTO-465.....465 kc.....2.70
VTO-175.....175 kc.....2.70
VTF-175-CT.....175 kc.....2.70



"T" AND "ST" I.F.T.

For experimental and replacement in superheterodyne midgets, automobile sets, etc. "T" and "ST" type with tuned grid, tuned plate, lattice wound impregnated coils. "ST" type—2 3/4" high x 1 7/16" square. Type "T" model—2 1/2" diam. x 3 1/2" high. Type "ST" illustrated at left. Litz wire in 465 kc. type.

CODE FREQUENCY
ST or T-465 465 kc.....\$0.99
ST or T-175 175 kc......99
ST or T-465-CT 465 kc. (center tapped)......99
ST or T-175-CT 175 kc. (center tapped)......99
ST-262 262 kc......99
TBO-465 465 kc. (beat oscillator)......99



"S" ISOLANTITE SOCKETS

Standard socket at left. Lowest losses. Constant resistivity. Gripping contact—cannot shift. Guide groove. Rust-proof side gripping contacts. Glazed top and sides. Sub-panel or base mounting. 2 1/4" x 1 3/4".

CODE
S-4 (4 prongs).....\$0.36
S-5 (5 prongs)......36
S-6 (6 prongs)......36
S-7 (large base, 7 prongs)......36
S-7-B (small base, 7 prongs)......45
S-8 (8 prongs)......45

Acorn socket at right. Isolantite. For new high frequency acorn tubes—954 or 955. 1 1/2" diameter. Five double grip silver plated phosphor bronze prongs. Top, sides, and plug glazed.

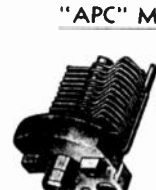
CODE
S-900.....\$0.90



"FC" FLEXIBLE COUPLINGS

This coupling permits tandem operation of any number of independent units without requiring exact shaft alignment. A great convenience and time saver. The sides of the condenser are insulated from each other, allowing instruments in series to be operated at independent electrical units. Bakelized canvas with brass bushings for 1/4" shaft. Four rust proofed and hardened steel set screws provide against shaft slipping. Overall diameter 1 1/2".

CODE
FC.....\$3.36



"APC" MICRO CONDENSERS

For S.W. and ultra-S.W. For I.F. tuning, trimming R.F. coils or gang condensers, general padding, etc. Constant capacity under any conditions of temperature or vibration. Size 100 mmf. 1 7/32" x 15/16" x 7/32". Isolantite base. Cadmium plated soldered brass plates.

CODE CAPACITY
APC-25 25 mmf.....\$0.78
APC-50 50 mmf......90
APC-75 75 mmf.....1.02
APC-100 100 mmf.....1.14
APC-140 140 mmf.....1.35



"EC" AND "MEX" EQUALIZERS

Standard type illustrated at left, popular model for neutralizing, balancing and trimming. Mica dielectric—phosphor bronze flexible plates, bakelite base 1 1/4" x 1 1/8".

CODE CAPACITY
EC-35 3-35 mmf.....\$1.18
EC-80 25-80 mmf.....2.24

The midget equalizer shown at right is an extremely small condenser designed expressly for trimming R.F. coils, but useful, of course, for many other purposes. Self-supporting in wiring. Isolantite base—3/8" x 3/8". Mica dielectric, phosphor bronze spring plates.

CODE CAPACITY
MEX 3-30.....\$1.18



"MICS" PADDING CONDENSERS

New improved type—with Isolantite base. Most expensive imported mica used. Tested for capacity, power factor and breakdown at 500 V. D.C. 1" x 1 1/2". Base mounting centers 1 1/4".

CODE CAPACITY
MICS-70 10-70 mmf.....\$0.30
MICS-140 70-140 mmf......36
MICS-220 140-220 mmf......42
MICS-1000 600-1000 mmf......60



"CF" ISOLANTITE COIL FORMS

Popular coil forms so many fans are using today. Black enameled wooden knob. Removable paper indicating disc protected by celluloid. Surface "non-skid". Plenty of holes—eliminates drilling. Solder bottom for primary or tickler. Four, five, and six prong types. 1 1/2" diameter. 2 1/2" long exclusive of knobs and prongs.

CODE
CF-4 (four prongs).....\$0.75
CF-5 (five prongs)......75
CF-6 (six prongs)......75



"XP-53" COIL FORMS

Outstanding forms using new low loss insulation material—XP-53. Natural coloring eliminating losses. Groove-ribbed for air spaced windings. Flange grips, meter indexes. Moulded threaded shell in form. 1 1/2" diameter and 2 1/2" long exclusive of prongs. Kits with wound coils for MC-140-M condenser also available.

CODE
SWF-4 (four prongs, coil form only).....\$0.21
SWF-5 (five prongs, coil form only)......21
SWF-6 (six prongs, coil form only)......24



"XS-2" CRYSTAL SOCKET

DESIGNED TO FIT INSIDE OF THE SWF COIL FORM. EASY TO MOUNT IN THE CHASSIS.

"XS-2" NET.....\$0.30

IT'S EASY TO PARK AT WALTER ASHE...

St. Louis, Missouri

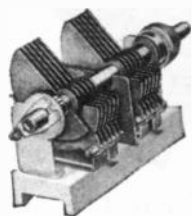
Ideal variables for ultra-short wave and short wave tuning, laboratories, etc. Insulating insulation. All contacts riveted or soldered. Vibration proof. New improved Hammerlund split type rear bearing, and noiseless wiping contact. Cadmium plated soldered brass plates. Shaft— $\frac{1}{4}$ "

NET

CODE	CAPACITY	NET
MC-20-S	20 mmf.	\$.84
MC-35-S	35 mmf.	.90
MC-50-S	50 mmf.	.96
MC-50-M	50 mmf.	.96
MC-75-S	80 mmf.	1.20
MC-75-M	80 mmf.	1.20
MC-100-S	100 mmf.	1.35
MC-100-M	100 mmf.	1.35
MC-140-S	140 mmf.	1.50
MC-140-M	140 mmf.	1.50
MC-200-M	200 mmf.	1.65
MC-250-M	260 mmf.	1.80
MC-325-M	320 mmf.	2.10

"M"—Midline Plates

"S"—Straight Line Cap. Plates



Like single midguts, these incorporate every requirement imperative to highest quality. Specifications identical to single types except that shield plate is located between stator sections. Also equipped with new Hammarlund noiseless wip: g contact and split type rear bearing. Overall length behind panel—3 3/8". Strong Isolantite base. Single hole panel mount.

CODE	CAPACITY	
MCD-50-M	50 mmf. per sect.	\$1.80
MCD-50-S	50 mmf. per sect.	1.60
MCD-100-S	100 mmf. per sect.	2.10
MCD-100-M	100 mmf. per sect.	2.10
MCD-140-M	140 mmf. per sect.	2.40
MCD-140-S	140 mmf. per sect.	2.40

"M"—Midline Plates

"S"—Straight Line Cap. Plates



For perfect band spreading or for amateur band frequency meters. Tank section may be set and locked to any desired capacity. Tuning section spreads narrow frequency range over entire dial regardless of range of bands or coils used. Tank capacity—100 mmf. Tuning cap. type "120-B"—20 mmf., type "150-B"—30 mmf. Excellent insulation at front and rear. Plates rigidly held in place.

CODE	
MC-120-B.....	\$1.80
MC-150-B.....	1.95

A compact dual—ideal as a high frequency tuning condenser, for tuning and neutralizing low-powered short wave and ultra-short wave transmitters, etc. Heavy Isolantite base. Equipped with new outstanding Hammarlund split rear bearing and individual noiseless wiping contact for each section. Rotor contacts variable to several

positions for shortest leads. Shield between sections for grounding. The 140 mmf. size is only $1\frac{1}{4}$ " high x $3\frac{3}{4}$ " long behind panel. $\frac{1}{4}$ " shaft. Cadmium plated soldered brass plates.

<u>CODE</u>	<u>CAPACITY</u>	
HFD-50	50 mmf. per sect.....	\$1.65
HFD-100	100 mmf. per sect.....	1.95
HFD-140	140 mmf. per sect.....	2.25
*HFD-15-X	15 mmf. per sect.....	1.80
*HFD-30-X	30 mmf. per sect.....	1.95

*Double-Speed



For receiving and transmitting, for short wave tuning, regeneration, antenna coupling, vernier, etc. Low loss, natural bakelite insulation. Non-corrosive aluminum plates. Phosphor bronze spring plate affords proper tension and smooth control and also provides perfect contact. Single hole mounting. $\frac{1}{4}$ " shaft, $\frac{5}{16}$ " mounting bushing. $1\frac{9}{16}$ " wide x $1\frac{1}{4}$ " high. Depth behind panel from $1\frac{1}{16}$ " to $1\frac{1}{2}$ " depending on capacity. Exceptionally light in weight and strong and compact in construction. Tinned soldered lugs on the front end are supplied to simplify wiring. Plates of straight line capacity types.

CODE	CAPACITY	
SM-15	10 mmf.	50
SM-25	25 mmf.	50
SM-30	50 mmf.	50
SM-100	100 mmf.	50
SM-140	140 mmf.	75
*SM-35-X	35 mmf.	60
*SM-50-X	50 mmf.	75

* Double Spaced Transmitting Types

Identical to split stator condensers except that plates are widely spaced—actual air gap between rotor and stator plates—.0715". No shield between stators. Equipped with new Hammarlund noiseless wiping contact, and split type rear bearing. Condenser ideal for ultra-high frequency transmitters using up to 245's or 210's in push-pull.

<u>CODE</u>	<u>CAPACITY</u>	
MCD-35-SX	31 mmf. per sect.....	\$2.10
MCD-35-MX	31 mmf. per sect.....	2.10

"MX"—Midline Plates

"SX"—Straight Line Cap Plates

Exceptional unit for ultra-s.w. receivers and transmitters particularly compact transmitters. Plate spacing—.0715". Great for tuning crystal controlled transmitter amplifier stages or for neutralizers up to 210's and 50 watters. In midline (MX) and straight line cap. types (SX).

CODE	CAPACITY	
MC-20-SX	20 mmf.....	\$1.20
MC-20-MX	20 mmf.....	1.20
MC-35-MX	32 mmf.....	1.35
MC-35-SX	32 mmf.....	1.35
MC-50-MX	50 mmf.....	1.65
MC-50-SX	50 mmf.....	1.65
MC-100-SX	100 mmf.....	2.10

For tuning or trimming on high frequencies. Cadmium plated soldered brass plates. Isolantite. Base mounting, single hole panel mount, or panel mounting with bushings. 140 mmf. size 1 9/32" high x 1 7/32" behind panel.

CODE	CAPACITY	
HF-15	17.5 mmf.....	1.75
HF-35	35 mmf.....	.90
HF-50	50 mmf.....	.96
HF-100	100 mmf.....	1.14
HF-140	140 mmf.....	1.35
*HF-15-X	15 mmf.....	.96
*HF-30-X	30 mmf.....	1.14

- Double-Spaced

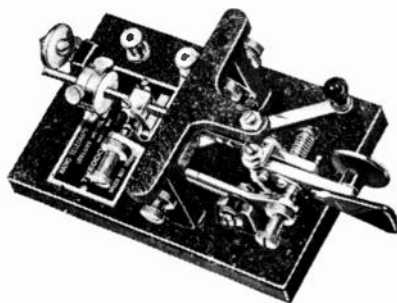
LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street  St. Louis, Missouri

T. R. McELROY

DELUXE MODEL MAC KEY \$9.50 NET



One piece casting for rhythmical, vibrationless sending. Heavy enough to stay solid on the desk. My DOT STABILIZER (pat. app. for) gives a real dot instead of the usual ftf. 3/16" contacts. Massive 1/4 by 32 adjustment & contact carrying screws. Over-sized case hardened steel main pin and bearing screws. Pigtailed carry current instead of bearings. Bakelite bushings & washers — no fibre. Molded bakelite dot paddle & dash button. Circuit closing switch. Beautiful marbledite finished base. All parts above base chromium plated.

STANDARD MODEL MAC KEY \$7.50 NET

Same design and construction as my deluxe model, excepting for economies in finish and some parts. Black crackle finish base and nickel plated parts. 10x32 screws; 3/32 contacts; no circuit closer. No stabilizer. But same carefully selected and tested Swedish blued steel springs; all bakelite bushings, etc., molded paddle & button. Oversized bearings.



JUNIOR MODEL MAC KEY \$4.95 NET

Same main lever as my deluxe and standard. So an operator knows that it will give real "speed key" results. But to bring my cost down, so as to help the fellows who must watch their money closely, I've built it on a stamped steel base in black crackle finish. It is very light and must be fastened to the desk. I have no advertising cuts of this Junior Model but like all my items, it is sold with an emphatic money back guarantee.

PARTS FOR SPEED KEYS

Main spring with rivets	.50	Dot stabilizer	.50
U shaped dot spring, complete with collar and contact point			\$1.00
1/4 by 32 screws with contacts, ea.	.50	Mac Cord	\$1.00

CO-AXIAL TRANSMISSION LINE

FOR GREATEST OBTAINABLE EFFICIENCY IN TRANSMITTERS AND
AND ANTENNAS WE URGE YOU TO INVESTIGATE THIS COMPLETE LINE

NO.	SIZE	IMPEDENCE	RATING 1000KC. 30MC. WATTS		PRICE LESS THAN 50' PER FOOT	PRICE 50' TO 500' PER FOOT
600	1/4"	75 OHMS	100	50	\$.25	\$.20
333	3/8"	75 OHMS	1000	500	.30	.25
459	7/8"	70 OHMS	15 KW. 3 KW.		\$.40 PER FOOT ANY LENGTH	

*** BROADCAST ENGINEERS AND AMATEURS WRITE US FOR COMPLETE INFORMATION ON THE ABOVE LINE. DATA AND PRICES ON VALVES, FITTINGS, NIPPLES, GAUGES COUPLING SLEEVES, CLAMPS AND JUNCTION BOXES COME COMPLETE IN AN DESCRIPTIVE CIRCULAR.

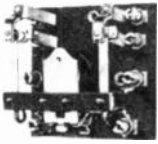


IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

WARD LEONARD RELAYS



507-531

FOR "RF" WORK SUCH AS
ANTENNA CHANGE OVER.

CONTACTS DPDT. 110V. AC.

NET PRICE \$ 6.00

VICTRON "G"

THE MAGIC INSULATOR OF RADIO



Size	Net Price Each
3/8" x 3/16" x 12"	\$.35
1/2" x 1/4" x 12"	.60

APPLICATIONS AND METHOD OF FABRICATING VICTRON

Victron cannot always be used interchangeably with other insulators which have a high temperature softening point. In this respect Victron G is in a class with hard rubber, having a softening temperature between 40 degrees and 60 degrees F. above that of the latter. This limitation may eventually yield to active laboratory studies now in progress. For the present, however, many simple and none too inconvenient expedients may be resorted to in surmounting this difficulty. In general, it is recommended that the user of Victron follow the general design and assembly coordination principles which are successfully applied to hard rubber.

Q-MAX No. 3 R. F. LACQUER

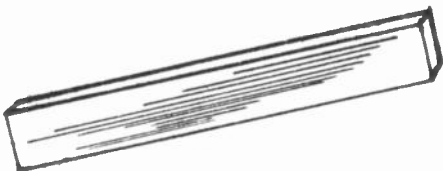


Ordinary household or industrial products, such as cement, shellac, lacquers or varnishes, should never be employed for finishing or treating communication frequency devices. Such compositions may seriously impair circuit performance owing to their high dielectric absorption at radio frequencies

and to the effects of water upon their properties. Q-Max No. 3 is prepared from a new Victron resin, the loss factor of which is remarkably low. Therefore, it may be applied freely without appreciably affecting circuit constants. As a protecting, sealing or surfacing agent it is unsurpassed by any of its type.

Price—1/8 pt. can \$.25 net

Cardwell presents G.E. MYCALEX



EASY TO DRILL WITH STANDARD MACHINE DRILLS AND IS JUST AS EASY TO CUT WITH A HACK-SAW.

FEDERAL Anti-Capacity Switches



NO. 1424 4 P.D.T. \$1.90
NO. 1425 D.P.D.T. \$1.65

Utility Coil Assembly

This convenient coil form consists of an unglazed Vitrolex tube dipped in Q-Max No. 3. Outside diameter 1", 3 1/4" long, with six holes drilled in line. The coil form is supplied with two banana plugs mounted in place at the ends. Additional plugs may be added. The base provided with the coil assembly is also of Vitrolex and is supplied with two standard jacks spaced on the same centers as the plugs on the tube. Additional jacks may be added, thus providing for a complete, six-terminal plug-in unit. Length of jack strip, 4 1/4". Shpg. wt. of set, 2 lbs.

as above, -CP-18A coil form only.
Your Cost 50¢
-CP-18 complete assembly described.
Your Cost 95¢

COTO RF TRANSMITTING CHOKE



A compact heavy-duty choke for the high power stage. Particularly suited to the 160 Meter band. Wound with five continuous universal tapered pies on a one-half inch core, three inches long. The effective impedance is high enough to make parallel plate feed practical. The current carrying capacity is conservatively rated at .6 amp. continuous and .8 amp. intermittent service.

Inductance, 3.6 mh.; D. C. resistance, 11 ohms; Size 3 3/8 in. x 1 1/8 in.

TYPE CI-20 NET \$.75

COTO RF TRANSMITTING CHOKE

Designed especially to offer maximum impedance at frequencies in the 80, 40, and 20 Meter bands. The pies are universal HONEY-COMB wound for low distributed capacity. This feature together with a unique winding method for obtaining a balanced distributed capacity between pies has resulted in a choke unparalleled in efficiency. Steatite core and current ratings similar to the CI-20.

Inductance, 1.1 mh.; D. C. resistance, 6 ohms; Size 3 3/8 in. x 1 1/8 in.

TYPE CI-21 NET \$.75



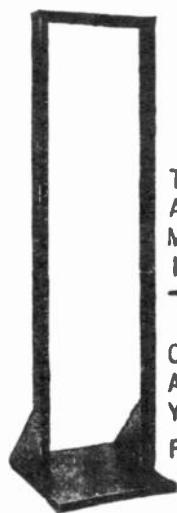
COTO 5 METER CHOKE
TYPE CI-13 NET \$.24

HIGH FREQUENCY INSULATING STRIPS. G.E. MYCALEX

NO. "ME"	4-5/16"	X 1/2"	X 1/4"	NET \$.21
"MC"	6"	X 1/2"	X 1/4"	.33
"MH"	6-1/4"	X 1/2"	X 1/4"	.36
"MJ"	10"	X 3/4"	X 1/4"	.99
"MK"	12"	X 1/2"	X 1/4"	.81
"ML"	12"	X 3/4"	X 1/4"	1.05
"MM"	12"	X 1"	X 1/4"	1.17

LOT NEXT TO STORE OR LOADING ZONE

IT'S EASY TO PARK AT WALTER ASHE...



CHANNEL RELAY RACKS

THESE RELAY RACKS ARE IDEAL FOR USE ON ALL TYPES OF TRANSMITTERS AND PUBLIC ADDRESS SYSTEMS EITHER COMMERCIAL OR OTHERWISE. MADE OF 1-8" PRESSED STEEL SECURELY WELDED AND DRILLED AND TAPPED 1 3/4" CENTER TO CENTER FOR 10-32 SCREWS. BLACK CRYSTALLINE FINISH.

NO. RR-193
OVERALL DIMENSIONS: 37 1/4" X 20" X 16"
AVAILABLE PANEL SPACE: 36 3/4" X 19"
YOUR COST \$ 9.78

NO. RR-195
72 1/4" X 20" X 16"
71 1/4" X 19"
YOUR COST \$ 12.00

FREE DELIVERY SERVICE DOES NOT APPLY TO THE ABOVE METAL RACKS

Table Type Relay Racks

A SUBSTANTIAL TABLE RACK THAT WILL NOT BEND OR SAG WHEN FULLY LOADED WITH TRANSFORMERS, ETC..

IDEAL FOR TRANSMITTERS, PUBLIC ADDRESS SYSTEMS, POWER SUPPLIES, RECEIVERS AND MANY OTHER ITEMS.

	H.	W.	H.	PANEL SPACE	NET
NO. TR2520	25	20	12	21" X 19"	\$ 3.90
NO. TR3220	32	20	12	28" X 19"	5.10



ALL PURPOSE METAL CABINETS

FOR STANDARD 19" RACK PANELS



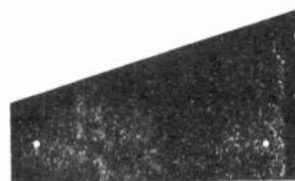
NOT STOCKED

SINGLE UNIT		
NO. SC-128	8 1/2" X 19" X 12"	
	DOOR IN TOP ONLY	NET \$ 5.04
NO. SC-1210	10 1/2" X 19" X 12"	
	DOOR IN TOP ONLY	6.24
DOUBLE UNIT		
NO. SC-1713	17 1/2" X 19" X 13"	
	DOOR IN BACK AND TOP	9.00
TRIPLE UNIT		
NO. SC-2613	26 1/2" X 19" X 13"	
	DOOR IN BACK ONLY	9.75

CHASSIS MOUNTING BRACKETS

FOR ANY PANEL OVER 7" HIGH. MADE OF HEAVY GAUGE METAL AND COMES DRILLED..

NO.	SIZE	NET	PER PAIR
SB - 78	FOR 8" BASES	\$.60	
SB - 711	11	.84	
SB - 713	13	1.05	



LOT NEXT TO STORE OR LOADING ZONE

Parmetal

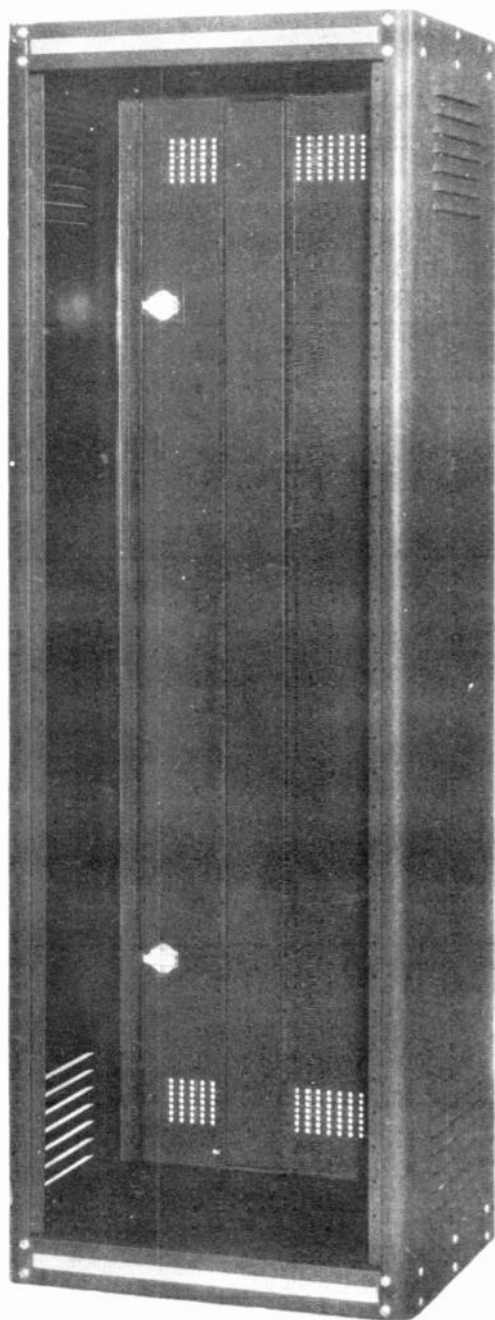
NEW DELUXE

TYPE "A" ENCLOSED RELAY RACKS

PAR-METAL again takes the lead in presenting this De Luxe type enclosed rack. Produced in the new streamlined style, it is fully in keeping with modern design, yet is very attractively priced. The front of the rack has rounded corners, and the top and bottom are effectively trimmed with chrome mouldings. The uniform slate grey ripple finish gives the assembly a superb exterior appearance.

The rack is substantially fabricated from 1/16" cold rolled steel; the panel mounting angles are of 1/8" steel, accurately drilled on 1 1/4" centers, tapped for 10/32 machine screws. Panels fit into a recess, so that the edges are not exposed. Louvers in the sides and screen sections in the rear door provide ample ventilation. The racks are shipped "knocked-down" with all necessary bolts for easy assembly. An ample supply of panel mounting screws and washers are also supplied.

BLACK RIPPLE FINISH IS OPTIONAL IF SO SPECIFIED ON YOUR ORDER.



No. ER-213
Overall dimensions: 42x22 1/4 x 16 1/2"
Available panel space: 36 1/4 x 19"
Clear inside depth: 15 1/4"
List Price: \$42.00. Shpg. wt. 75 lbs.

NET**\$ 25 20**

No. ER-215
Overall dimensions: 66 1/2 x 22 1/4 x 16 1/2"
Available panel space: 61 1/4 x 19"
Clear inside depth: 15 1/4"
List Price: \$54.00. Shpg. wt. 120 lbs.

32 40

No. ER-217
Overall dimensions: 82 1/2 x 22 1/4 x 16 1/2"
Available panel space: 77 x 19"
Clear inside depth: 15 1/4"
List Price: \$65.00. Shpg. wt. 160 lbs.

39 00**RACK SHELF**

Designed to fit racks listed above. Mounted inside of racks with side bolt mounting. Size 1" high, 13" deep.

No. ER-2112 Ship. wt. 9 lbs. **NET \$ 2.25**

THE ABOVE SHELF RACKS ARE NOT STOCKED. WE WILL BE GLAD TO ORDER THIS UNIT IF YOU WISH A SHALLOW CASE.

ANY OF THE STANDARD PARMETAL PANS AND BRACKETS WILL FIT THIS NEW DELUXE RACK.

**** **BLILEY SMC-100 STANDARD FREQUENCY CRYSTAL UNIT** ****

THE TYPE SMC-100 STANDARD FREQUENCY CRYSTAL UNIT PROVIDES A SIMPLE INEXPENSIVE MEANS FOR RAPIDLY CHECKING THE CALIBRATION OF RADIO RECEIVERS, TEST OSCILLATORS AND AMATEUR FREQUENCY MONITORS. IT IS A MOUNTED, PRECISION, DUAL-FREQUENCY CRYSTAL GROUND TO OSCILLATE WITHIN .01% OF 100KC. AND .05% OF 1000KC. EITHER FREQUENCY CAN BE CHOSEN BY INSERTING (OR SWITCHING) THE PROPER TANK COIL IN A SIMPLE OSCILLATOR CIRCUIT. 100KC. HARMONICS CAN BE DEVELOPED UP TO 20MC. AND 1000KC. HARMONICS UP TO 60MC. THE SMC-100 UNIT PLACES AN ACCURATE FREQUENCY STANDARD WITHIN THE REACH OF EVERY SERVICEMAN, AMATEUR AND EXPERIMENTER. NET PRICE.....\$ 7.75



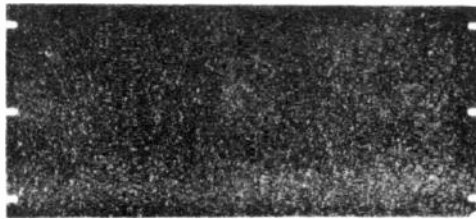
NEW BLILEY
NO. E-6 ENG.
BULLETIN.
"FREQUENCY
CONTROL WITH
QUARTZ CRYST-
ALS" NET \$1.10

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

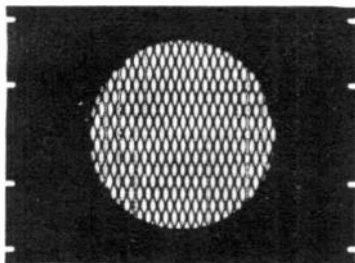
STEEL RACK PANELS - 19" WIDE



BLACK CRYSTALLINE FINISH
BLANK PANELS.
STANDARD SIZES TO FIT ANY
19" RELAY RACK OR CABINET
MADE OF 1/8" STEEL AND
UNIFORMLY SLOTTED.

NO.	WIDTH	YOUR COST
3600	1 3/4"	\$.45
3601	3 1/8"	.51
3602	5 1/4"	.63
3603	7"	.69
3604	8 3/4"	.87
3605	10 1/2"	1.05
3606	12 1/4"	1.20
3607	14"	1.38
3608	15 3/4"	1.56
3609	17 1/4"	1.74
3610	19 1/4"	1.86
3611	21"	2.10

SPEAKER PANELS



NO.	PANEL SIZE	SPEAKER SIZE	YOUR COST
SP-875	8 5/4" X 19"	6"	\$ 1.50
SP-1050	10 1/2" X 19"	8"	1.80
SP-1225	12 1/4" X 19"	10"	2.40
SP-1400	14" X 19"	12"	2.70

METER PANELS



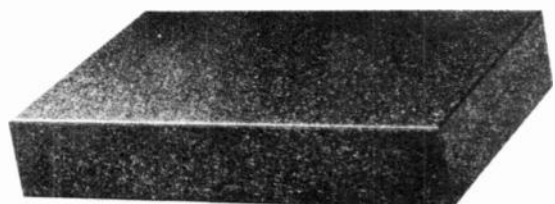
ALL METER PANELS ARE 5 1/4" HIGH. FOR EITHER 2" OR 3" METERS

CATALOG NO.	NO. OF HOLES	METER SIZE	NET
MP-32	3	2"	\$.99
MP-42	4	2"	1.23
MP-52	5	2"	1.47
MP-33	3	3"	.99
MP-43	4	3"	1.23
MP-53	5	3"	1.47

BLANK STEEL CHASSIS BASES

NO.	SIZE	YOUR COST
15280	8" X 17" X 2"	\$ 1.62
15281	8 X 17 X 3	1.80
15282	11 X 17 X 2	1.80
15210	11 X 17 X 3	1.95
15212	13 X 17 X 2	2.10
15213	13 X 17 X 3	2.31

MADE OF 1/16" STEEL WITH WELDED
CORNERS AND REINFORCING FLANGES AT
BOTTOM. BLACK CRACKLE FINISH.



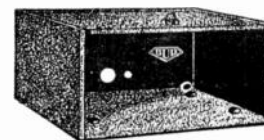
ALL CHASSIS COME COMPLETE WITH
BOTTOMS AND MOUNTING SCREWS.

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

BUD RECEIVER CABINETS

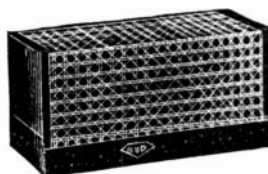
These two cabinets were designed primarily to house receivers and small transmitters. Embossed feet have been formed on the bottom. The cover is hinged at the back. Louvers have been stamped on both sides to provide adequate ventilation. The finish is black crackle, and all joints are electrically welded.



Cat. No.	Depth	Width	Height	Shipping Weight	Panel Size Required	List Price	Your Cost
1190	8"	16"	8"	7 lbs.	8"x16"	\$5.00	\$3.00
975	11"	15"	9"	8 lbs.	9"x15"	6.00	3.60

Bud Amplifier Foundation Kit

Build your amplifier on one of these foundation kits, and give it a real professional appearance.



Cat. No.	Height	Depth	Width	Chassis Height	Shipping Weight	List Price	Your Cost
699	8 1/4"	5"	9 1/2"	2 1/2"	4 lbs.	\$2.50	\$1.50
1125	8 1/4"	5"	13 1/2"	2 1/2"	5 lbs.	2.95	1.77
1126	8 1/4"	7"	17"	2 1/2"	7 lbs.	3.65	2.19
1127	8 3/4"	10"	17"	3"	10 lbs.	4.50	2.70
1128	8 3/4"	10"	12"	3"	8 lbs.	3.75	2.25

Bud Utility Cabinets



This is an excellent cabinet for housing monitors, transceiver, volt - ohm - milliameters, test equipment, etc. It is finished in black crackle, and both front and back panels are removable. (Prices shown do not include chassis deck.)

Cat. No.	Depth	Width	Height	Shipping Weight	List Price	Your Cost
883	2"	4"	4"	1 lb.	\$1.00	\$.60
728	3"	5"	4"	2 lbs.	1.15	.69
1098	6"	6"	6"	3 lbs.	1.25	.75
1099	5"	6"	9"	3 lbs.	1.85	1.11
879	7"	8"	10"	5 lbs.	2.50	1.50
1124	6"	7"	12"	5 lbs.	2.50	1.50
880	8"	10"	10"	7 lbs.	3.00	1.80
881	8"	11"	12"	8 lbs.	3.25	1.95
882	7"	9"	15"	9 lbs.	3.50	2.10

Bud Chassis Deck

These chassis decks are made to fit into the cabinets illustrated above. In some of the higher cabinets, two decks can be used if necessary for mounting equipment.

Cat. No.	Width	Depth	Fits Cab. No.	Shipping Weight	List Price	Your Cost
522	4 3/4"	5 1/2"	1098	1 lb.	\$.45	\$.27
523	3 3/4"	4 1/2"	1099	1 lb.	.40	.24
524	6 3/4"	6 1/2"	879	1 lb.	.60	.36
525	5 3/4"	5 1/2"	1124	1 lb.	.50	.30
526	8 3/4"	7 1/2"	880	1 lb.	.70	.42
527	9 3/4"	7 1/2"	881	2 lbs.	.75	.45
528	7 3/4"	6 1/2"	882	1 lb.	.65	.39



Bud Metal Instrument Cabinets

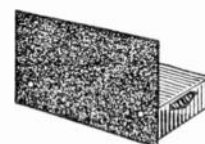
In this type of cabinet, the front panel is attached by means of self tapping sheet metal screws, and is removable. The cover is hinged for easy access to the chassis. Feet are embossed on the bottom to prevent scratching. Louvers are provided on each side for adequate ventilation. All corners and joints are reinforced and spot welded into a solid rugged cabinet. Finished in fine grain durable black crackle.

Cat. No.	Depth	Width	Height	Shipping Weight	List Price	Your Cost
993	6"	10"	7"	5 lbs.	\$2.75	\$1.65
994	7 1/4"	12"	7"	6 lbs.	3.25	1.95
995	7 1/2"	14"	7"	7 lbs.	3.50	2.10
999	8"	10"	7"	7 lbs.	3.25	1.95

Bud Cabinet Chassis

These chassis are made up for use with Instrument cabinets described above. These are of the open end type and are very rugged and inexpensive for mounting parts. Zinc plated finish. Height is 1 1/2".

Cat. No.	Depth	Width	For Cab. No.	Shipping Weight	List Price	Your Cost
996	5 1/2"	9"	993	1 lb.	\$.60	\$.36
997	6 1/2"	11"	994	2 lbs.	.80	.48
998	7"	12 7/8"	995	2 lbs.	.95	.57
981	7 1/2"	9"	999	2 lbs.	.75	.45



Bud Metal Panels

These metal panels are made from 1/16 inch thick, cold rolled sheet steel. Easy to drill. Finished on both sides in fine grain durable black crackle.

Cat. No.	Width	Length	Shipping Weight	List Price	Your Cost
1200	7"	8"	1 lb.	\$.45	\$.27
1201	7"	10"	1 lb.	.55	.33
1202	7"	12"	2 lbs.	.65	.39
1203	7"	14"	2 lbs.	.75	.45
1204	8"	14"	2 lbs.	.80	.48
1205	8"	16"	2 lbs.	.90	.54
1187	8"	18"	3 lbs.	1.00	.60
1188	8"	19"	3 lbs.	1.15	.69
700	9"	15"	3 lbs.	.95	.57

IT'S EASY TO PARK AT WALTER ASHE . . .

[illegible]

Cat. No.	Depth	Width	Height	Fits Cab. No.	Shipping Weight	List Price	Your Cost
976	7 1/2"	9 "	1 1/2"	999	1 lb.	\$.75	\$.45
996	5 1/2"	9 "	1 1/2"	993	1 lb.	.60	.36
997	6 1/2"	11 "	1 1/2"	994	1 lb.	.80	.48
998	7 "	13 "	1 1/2"	995	2 lbs.	.95	.57
30	5 "	7 "	1 1/2"		1 lb.	.50	.30
31	7 3/4"	7 1/4"	1 1/2"	870-A	1 lb.	.65	.39
32	7 3/8"	9 3/4"	1 1/2"	871-A	2 lbs.	.90	.54
33	7 3/8"	13 3/4"	1 1/2"	872-A	2 lbs.	.95	.57
34	10 3/4"	14 "	2 "	975	3 lbs.	1.45	.85
35	7 3/4"	15 "	2 "	1190	2 lbs.	1.25	.75

Cat. No.	Panel Size	List Price	Your Cost
1588	13 $\frac{1}{4}$ " x 19"	\$.55	\$.33
1589	31 $\frac{1}{2}$ " x 19"	.70	.42
1590	51 $\frac{1}{4}$ " x 19"	.95	.57
1591	7 " x 19"	1.05	.63
1592	83 $\frac{3}{4}$ " x 19"	1.25	.75
1593	101 $\frac{1}{2}$ " x 19"	1.45	.87
1594	121 $\frac{1}{4}$ " x 19"	1.65	.99
1595	14 " x 19"	1.85	1.11
1596	153 $\frac{3}{4}$ " x 19"	2.10	1.26
1597	171 $\frac{1}{2}$ " x 19"	2.35	1.41
1598	191 $\frac{1}{4}$ " x 19"	2.60	1.56
1599	21 " x 19"	2.85	1.71

Cat. No.	Holes	Hole Dia.	List Price	Your Cost
509	3	2 1/4" <i>H</i>	\$ 1.45	\$.87
510	4	2 1/4" <i>H</i>	1.65	.99
511	3	2-13/16" <i>H</i>	1.45	.87
512	4	2-13/16" <i>H</i>	1.65	.99

1/4	WATT	\$	.40
1/2	"		.40
1	"		.40
2	"		.50

***** ATTENTION *****

WE MAINTAIN A FREE DRILLING SERVICE FOR
OUR CUSTOMERS WHO HAVE PURCHASED STEEL
CANS, METAL PANELS OR METAL CHASSIS

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri

Bud Chassis Mounting Brackets



These brackets are made of heavy gauge sheet metal and are finished in black crackle. They are $6\frac{1}{2}$ " high to fit 7" or larger panels, and have a 1" flange for mounting on panel. This flange is cut away for three inches at the bottom to allow the chassis to fit flush against the panel. They fasten securely to the side of the chassis, and can be used on any chassis from 8 to 13 inches deep.

Cat. No.	Height	Depth	Shipping Weight	List Price per pair	Your Cost
458	$6\frac{1}{2}$ "	8"	2 lbs.	\$ 1.00	\$.60
459	$6\frac{1}{2}$ "	11"	3 lbs.	1.50	.90
460	$6\frac{1}{2}$ "	13"	3 lbs.	1.75	1.05

Bud Triangular Mounting Brackets



For mounting smaller chassis to panels. Due to their triangular shape, they can be used in numerous ways. Made from heavy gauge sheet steel, and finished in black crackle.

Cat. No.	Height	Depth	Shipping Weight	List Price per pair	Your Cost
1266	5"	5"	1 lb.	\$.70	\$.42
1267	7"	7"	2 lbs.	.90	.54
1268	9"	9"	2 lbs.	1.10	.66

Bud Interstage Shields



These shields find many uses on receiver and transmitter chassis for eliminating interstage coupling and to isolate individual circuits. They are made of 20 gauge electro-zinc plated steel, and are folded on front and bottom for easy mounting to panel or chassis.

Each flange is punched with two mounting holes.

Cat. No.	Height	Depth	Shipping Weight	List Price	Your Cost
1246	$5\frac{1}{2}$ "	7"	1 lb.	\$.35	\$.21
1247	$5\frac{1}{2}$ "	10"	1 lb.	.45	.27
1245	$6\frac{1}{2}$ "	10"	1 lb.	.50	.30

Bud Carrying Cases



These convenient carrying cases have found hundreds of varied uses since we first introduced them. They are just the thing for housing portable trancivers, test equipment, field strength meters, etc. An easy-grip leather handle is riveted on the top. Removable front and rear panels are fastened to the cabinet by means of self tapping screws. These cases are made of cold rolled steel of a gauge heavy enough to insure rugged construction, as well as light weight for portable work. All seams and corners are reinforced and electrically welded.

Cat. No.	Depth	Width	Height	Shipping Weight	List Price	Your Cost
1096	6"	7"	12"	5 lbs.	\$2.85	\$1.71
1097	7"	$7\frac{3}{4}$ "	15"	7 lbs.	3.75	2.25
1100	7"	10"	10"	6 lbs.	3.15	1.89

Bud Metal Cabinets



To provide a cabinet with adaptability to many uses, we have designed this series with removable back and bottom. They are furnished with a metal chassis that fits inside of the cabinet, and can be removed when the back is taken off. All joints are electrically welded, and the lid is hinged at the rear. Louvres are stamped on the sides to provide for ventilation.

Cat. No.	Depth	Width	Height	Shipping Weight	List Price	Your Cost
870	$7\frac{1}{2}$ "	$7\frac{1}{2}$ "	7"	5 lbs.	\$3.25	\$1.95
871	$7\frac{1}{2}$ "	10"	7"	6 lbs.	3.80	2.28
872	$7\frac{1}{2}$ "	14"	7"	7 lbs.	4.35	2.61

THORDARSON CLOSE OUT 50% OFF LIST

***** DUE TO CHANGES IN THE PRESENT THORDARSON LINE OF TRANSFORMERS *****
THE UNITS LISTED BELOW MUST BE CLOSED OUT AT A SACRIFICE..

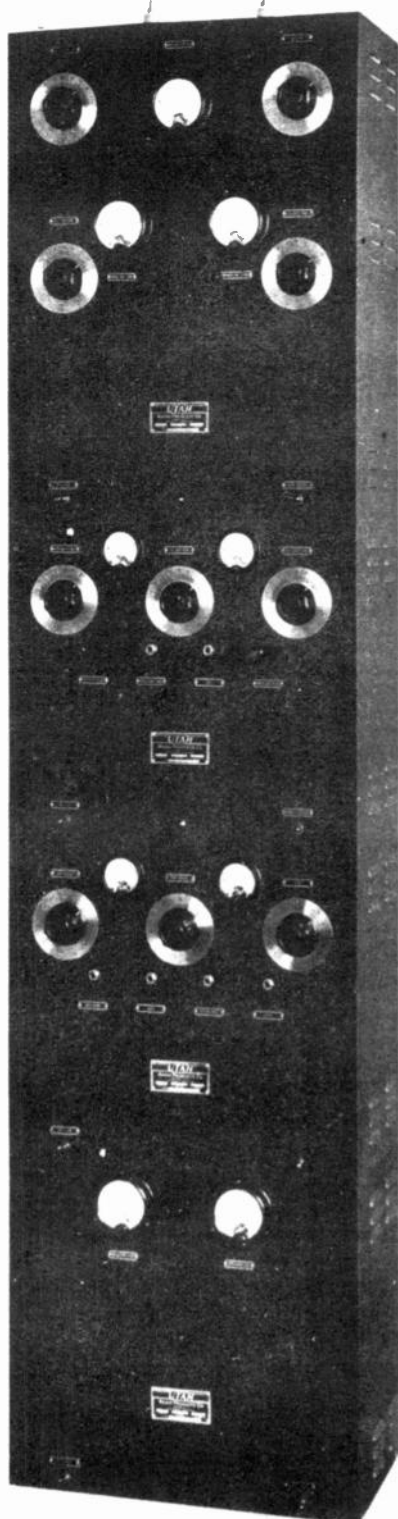
4--	R-102	P.P. OUTPUT REACTOR	265 HENRIES FOR TRIODES.....	\$ 1.00
2--	T-6123	RIBBON MIKE TO GRID. SEC. 75,000 OHMS.....		1.50
2--	T-6790	2 53 PLATES TO 2 53 CLASS "B" GRIDS.....		1.87
1--	T-7984	FIL. TRANSF. 6.3V @3A. 2.5V @3.5A. 5V. @3A.....		2.37
1--	T-7539	FIL. & PLATE 700V @50MA. 5V @3A. 2.5V @7A.....		1.37
1--	T-7540	" " " " " " " 2.5V @5A. 2.5V @1A.....		1.50
1--	T-6793	" " " 700V @200MA. 5V @3A. 2.5 @15A. 5V @2A.....		4.00
2--	T-6095	PLATE TRANSF. 450 VOLTS DC. AT 250 MILLS.....		5.00
1--	T-7584	2 SECONDARYS OF 525V. DC. EA. AT 150 MA. EACH.....		7.00

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

The UTAH Amateur Transmitter Kits!



No. 3

Antenna coupling kit. Matches any tuned feeder antenna system. Has separate tuned coil, link coupled to RF amplifier. Extra heavy tuning condensers and Low loss coil. May be used with any transmitter combination. Dimensions 18 x 8 x 9 1/2. Meters 1-0-5 RF ammeter. No tubes required.

Price **\$14⁹⁵**
Less meter

No. 4

500 watt RF amplifier. Link coupling, specially designed high Q inductor, complete metering and neutralizing facilities. Self-contained power supply. Dimensions 18 x 17 x 9 1/2. Added to No. 1 kit forms complete 500 watt CW transmitter. Tubes, 2-T55, 2-866. Meters, 1-0-500 mills.

Price **\$49⁷⁵**
Less tubes and meters

No. 1

A complete 80 watt CW transmitter. Regenerative crystal oscillator, parallel 6L6 amplifier, self-contained power supply, link coupled throughout, operates on 5 bands, dimensions 18 x 16 x 9 1/2. Tubes required—1-5Z3, 3-6L6. Meters, 1-0-50 mills, 1-0-200 mills.

Price **\$49⁷⁵**
Less tubes and meters

No. 2

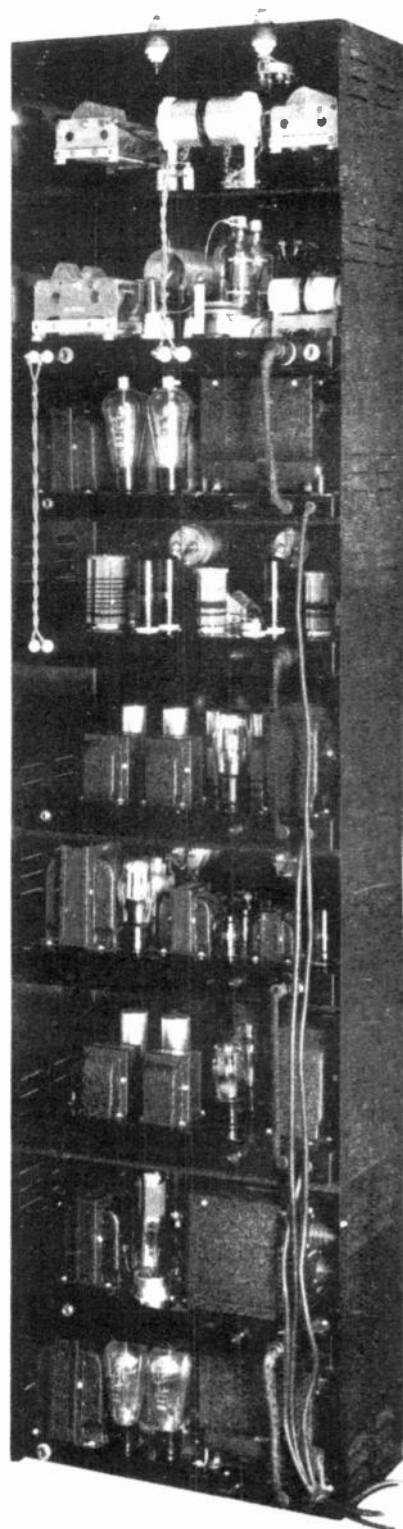
50 watt modulator. High fidelity class AB fixed bias 6L6 amplifier, electronic mixing facilities, handles any type input mike-phonos, etc., separate C bias for peak output, adjustable output impedance, self-contained power supply. Dimensions 18 x 16 x 9 1/2. Tubes required 1-80, 1-5Z3, 2-6L6G, 2-6C5, 1-6N7, 1-6J7. Meters, 1-0-25 mills, 1-0-200 mills. Combine with No. 1 for complete phone transmitter.

Price **\$49⁵⁰**
Less tubes and meters

No. 5

250 watt Class B modulator. Serves to modulate kit No. 4 by merely plugging in thus forming a complete 450 watt phone transmitter with No. 1 kit, and No. 2 kit. Self-contained power supply. Tubes, 2-203Z, and 2-866. Meters, 1-0-100 mills, 1-0-500 mills. Dimensions 18 x 17 x 9 1/2.

Price **\$49⁷⁵**
Less tubes and meters



ABOVE COMBINATION IS 500 WATT CW
OR 450 WATT PHONE

All Utah Amateur Kits have their own plate and filament supply and therefore may be used as independently-operated units for portable station, P. A. installations, etc., without disturbing permanent advantages.

LOT NEXT TO STORE OR LOADING ZONE



TRANSMITTING

TUBES



TRIODES

Type	Net Price	Description	Max. Plate Dissipation Watts	Max. Dimensions Inches Length Diam.
203-A	\$15.00	R-F Power Amplifier, Oscillator, Class B Modulator. Mu=25.	100	7 1/2 x 2 1/2
201-A	97.50	R-F Power Amplifier, Oscillator, Class B Modulator. Mu=12.	250	14 1/2 x 1 1/2
211	15.00	R-F Power Amplifier, Oscillator, Class B Modulator. Mu=12.	100	7 1/2 x 2 1/2
800	10.00	R-F Power Amplifier, Oscillator, Class B Modulator.	35	6 3/4 x 2 1/2
801	3.15	R-F and A-F Power Amplifier, Oscillator, Class B Modulator.	20	5 1/2 x 2 1/2
805	13.50	R-F Power Amplifier, Oscillator, Zero-Bias Class B Modulator. High mu. Full input to 30 Mc.	125	8 1/2 x 2 1/2
806	22.00	R-F Power Amplifier, Oscillator, Class B Modulator. Tantalum plate. Full input to 30 Mc.	150	10 x 3 1/2
808	7.55	R-F Power Amplifier, Oscillator, Class B Modulator. Tantalum plate. High mu. Full input to 30 Mc.	50	6 1/2 x 2 1/2
809	2.50	R-F Power Amplifier, Oscillator, Class B Modulator. High mu. Full input to 60 Mc.	25	6 1/2 x 2 1/2
850-B	10.00	R-F Power Amplifier, Oscillator, Class B Modulator.	60	6 1/2 x 2 1/2
831	265.00	R-F Power Amplifier, Oscillator.	100	17 1/2 x 6 1/2
833	\$85.00	R-F Power Amplifier, Oscillator, Class B Modulator. Tantalum plate. Heavy-duty triode for high power and high-frequency services.	300	8 1/2 x 1 1/2
834	12.50	Ultra-High-Frequency R-F Power Amplifier. Oscillator. Full input to 100 Mc.	50	6 1/2 x 2 1/2
838	16.00	Class B Modulator, R-F Power Amplifier, Oscillator.	100	7 1/2 x 2 1/2
841	3.25	R-F Power Amplifier, Oscillator, A-F Voltage Amplifier.	15	5 1/2 x 2 1/2
842	3.25	A-F Power Amplifier, Modulator.	12	5 1/2 x 2 1/2
843	12.50	R-F Power Amplifier, Oscillator.	15	5 1/2 x 2 1/2
845	15.00	A-F Power Amplifier, Modulator.	25	7 1/2 x 2 1/2
849	145.00	Modulator, A-F and R-F Power Amplifier, Oscillator.	100	11 1/2 x 1 1/2
851	350.00	Modulator, A-F and R-F Power Amplifier, Oscillator.	750	17 1/2 x 6 1/2
852	16.40	R-F Power Amplifier, Oscillator.	100	8 1/2 x 1 1/2
1602	2.75	A-F and R-F Amplifier, Oscillator. Low-microphonic design.	15	5 x 2 1/2
1608	1.00	R-F Power Amplifier, Oscillator, Class B Modulator.	20	5 x 2 1/2

PENTODES

802	\$3.50	R-F Power Amplifier, Doubler, Crystal and Electron-coupled Oscillator. Easy to drive.	10	5 1/2 x 2 1/2
803	34.50	R-F Power Amplifier. Excellent as suppressor-modulated amplifier. High power sensitivity.	125	9 x 2 1/2
804	15.00	R-F Power Amplifier. Excellent as suppressor-modulated amplifier. Easy to drive.	10	7 1/2 x 2 1/2
837	8.50	R-F Power Amplifier. Excellent as suppressor-modulated amplifier or as a doubler.	12	5 1/2 x 2 1/2
1610	2.00	Crystal Oscillator.	6	5 x 2 1/2

TETRODES

Type	Net Price	Description	Max. Plate Dissipation Watts	Max. Dimensions Inches Length Diam.
807	\$4.50	Beam Power Amplifier, Doubler, Crystal Oscillator. Full input to 60 Mc.	25	5 1/2 x 2 1/2
814	17.50	Beam Power Amplifier, Doubler. High power sensitivity.	50	7 1/2 x 2 1/2
844	18.00	Screen Grid R-F Power Amplifier.	15	5 7/8 x 2 1/2
850	17.50	Screen Grid R-F Power Amplifier.	100	8 1/2 x 2 1/2
860	12.50	Screen Grid R-F Power Amplifier.	100	8 1/2 x 1 1/2
861	295.00	Screen Grid R-F Power Amplifier.	100	17 1/2 x 6 1/2
865	12.75	Screen Grid R-F Power Amplifier.	15	5 1/2 x 2 1/2



RCA-808



RCA-956



RCA-1851



RCA-955



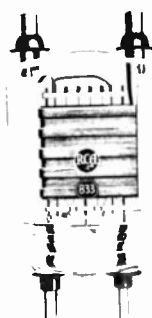
RCA-866-A

RECTIFIERS

Type	Net Price	Description	Max. Peak Inverse Volts	Max. Dimensions Inches Length Diam.
217-A	\$20.00	Half Wave, High-Vacuum. Plate current, average, 0.20 ampere; peak, 0.6 ampere.	3500	7 1/2 x 2 1/2
217-C	20.00	Half Wave, High-Vacuum. Plate current, average, 0.15 ampere; peak, 0.6 ampere.	7500	8 1/2 x 2 1/2
836	11.50	Half Wave, High-Vacuum. Plate current, average, 0.25 ampere; peak, 1.0 ampere.	5000	6 1/2 x 2 1/2
846	1.50	Half Wave, Mercury-Vapor. Plate current, average, 0.25 ampere; peak, 1.0 ampere.	7500	6 1/2 x 2 1/2
866-A	1.00	Half Wave, Mercury-Vapor. Plate current, average, 0.25 ampere; peak, 1.0 ampere.	5000† 10000†	6 1/2 x 2 1/2
872	11.00	Half Wave, Mercury-Vapor. Plate current, average, 1.25 amperes; peak, 5.0 amperes.	7500	8 1/2 x 2 1/2
872-A	16.50	Half Wave, Mercury-Vapor. Plate current, average, 1.25 amperes; peak, 5.0 amperes.	5000† 10000†	8 1/2 x 2 1/2

MISCELLANEOUS TYPES

Type	Net Price	Description	Cathode Volts†	Dimensions Inches Length Diam.
840	\$6.00	R-F Amplifier Pentode.	2.0 F	10 1/2 x 1 1/2
864	1.00	A-F Amplifier Triode. Low-microphonic design.	1.1 F	3 1/2 x 1 1/2
954	5.00	U-H-F Detector, Amplifier Pentode. Acorn type.	6.3 H	17 1/2 x 1 1/2
955	3.00	U-H-F Amplifier, Detector, Oscillator Triode. Acorn type.	6.3 H	13 1/2 x 1 1/2
956	5.00	U-H-F Super-Control R-F Amplifier Pentode. Acorn type.	6.3 H	17 1/2 x 1 1/2
1603	1.75	Triple Grid Detector Amplifier Low-microphonic design.	6.3 H	15 1/2 x 1 1/2
1609	1.60	Amplifier Pentode. Low-microphonic design.	1.1 F	12 1/2 x 1 1/2
1612	4.25	Pentagrid Amplifier. Low-microphonic design.	6.3 H	3 1/2 x 1 1/2
1651	2.10	Television Amplifier Pentode. Transconductance of 9000 micromhos. Excellent as oscillator or mixer.	6.3 H	11 x 1 1/2



RCA-844



RCA-834



RCA-807



RCA-838



RCA-809



RCA-800



RCA-800



RCA-805

IT'S EASY TO PARK AT WALTER ASHE . . .

Taylor

HEAVY

CUSTOM
BUILT

DUTY

Tubes



TAYLOR T-20

20 Watts Plate Dissipation. Efficient performance on all bands from 5 to 160 meters. Fil. 7.5 Volts, 1.75 Amps. Plate 750 Volts, 75 M.A. Amp. Factor 20.

Net \$2.25

TZ-20 Zero Bias

Same general characteristics as T-20 except Amp. Factor is 62. Recommended for Class B Audio and doubler service. Up to 80 Watts Audio Output.

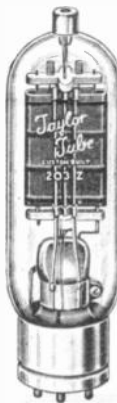
Net \$2.25



New! TAYLOR 805 Zero Bias

Standard type Carbon Anode Zero Bias. 805. Up to 450 Watts Class B Audio Output. Fil. 10 Volts 3.85 Amps. Max. Plate Volts 1750. Max. Plate Current 210 M.A. Amp. Factor 60. Also is good R.F. Tube.

Net \$13.50



TAYLOR 203-Z Zero Bias

Will work on all Standard 203-A type Transformers. 300 Watts audio in Class B. Fil. 10 Volts 3.85 Amps. Max. Plate Volts 1250. Max. Plate Current 175 M.A. Amp. Factor 85.

Net \$8.00



TAYLOR T-125

Carbon-Tantalum Anode

125 Watts Plate Dissipation. Large carbon anode with Tantalum Fins. Low interelectrode Capacity. Low impedance. Fil. 10 Volts, 3.85 Amps. Plate 2000 Volts 200 M.A. Grid to Plate 4.5 MMF. Mu 25. Easy to Drive.

Net \$13.50



New! Taylor WONDER TUBES

SET A NEW
STANDARD
IN VALUE
AND PERFORMANCE

T-40

40 Watts Plate Dissipation. Carbon Anode. Efficient on all bands. Fil. 7.5 Volts 2.5 Amps. Plate 1000 Volts 115 M.A. Amp. Factor 25. A really sensational value.

Net \$3.50

TZ-40 Zero Bias

Same general characteristics as the T-40 except Amp. Factor is 62. Class B Audio Output 175 Watts. Fine doubler.

Net \$3.50

TAYLOR 822

200 Watts Plate Dissipation. 600 Watts Audio in Class B. Fil. 10 Volts, 4 Amps. Max. Plate Volts 2000. Max. Plate Current 300 M.A. Efficient on 10-20-40-80-160 meters. A Super HD-203A.

Amp. Factor 27
Net \$18.50

TAYLOR 814

Same general characteristics as the 822 except Amp. Factor is 12. Excellent tube for grid modulated or Class B Linear Amplifier.

Net \$18.50



TAYLOR T-55

The Sales Champion

Over 8000 in use and still the fastest selling medium priced tube. Fil. 7.5 Volts, 2.75 Amps. Plate 1500 Volts 150 M.A. Grid to Plate 3.75 MMF. Amp. Factor 20. Extremely easy to drive. Ask the ham who uses one!

Net \$7.00



TAYLOR 866

Half Wave mercury vapor rectifier. Fil. 2.5 Volts, 5 Amps. Inverse Peak 7500 Volts. Peak Current 600 M.A. Multistrand filament construction.

Net \$1.50



TAYLOR 866 JR

Half Wave Mercury Vapor Rectifier for medium Voltages. Fil. 2.5 Volts, 2.5 Amps. Max. R.M.S. A.C. 1250 Volts. Max. D.C. current per pair (choke input) 250 M.A.

Net \$1.00

TAYLOR 203-A

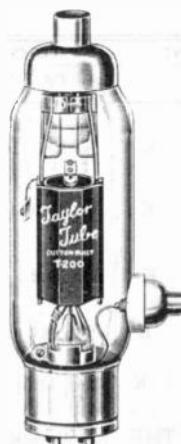
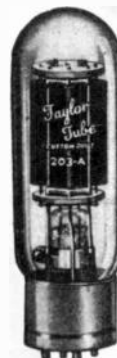
100 Watts Plate Dissipation. Efficient on 20-40-80-160 meters. Fil. 10 Volts, 3.85 Amps. Max. Plate Volts 1250. Max. Plate Current 175 M.A. Amp. Factor 25

Net \$12.50

211-C

Widely used in Diathermy apparatus. Same general characteristics and appearance as standard 211 except has lower interelectrode capacities. Grid to Plate 9 mmf. Amp. Factor 12.

Net \$12.50



TAYLOR T-200

Amateur Power House Tube

200 Watts Plate Dissipation. Oversize Carbon Anode. Fil. 10-11 Volts, 4 Amps. Plate 2000 Volts, 350 M.A. Grid to Plate 7 MMF. Amp. Factor 17. The easiest drive 1 KW Type Tube.

Net \$21.50

WALTER ASHE RADIO COMPANY

1100 Pine Street  St. Louis, Missouri

GAMMATRON

GAMMATRON TUBES HAVE TANTALUM PLATES, FILAMENTS ARE THORIATED TUNGSTEN. 254-354 HAVE 50 WATT BASES. 54 UX BASE.

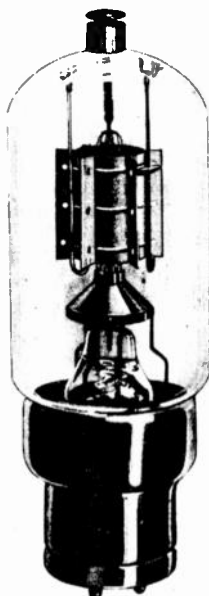
HK-354

CHARACTERISTICS

FILAMENT VOLTAGE 5.
 FILAMENT CURRENT 10.
 PLATE DISSIPATION 150 WATTS
 MAX. PLATE VOLTAGE 4000
 MAX. PLATE CURRENT 270 MA.
 HK-354-C GAMMATRON—A modification of the HK-354 specially adapted to high frequency use. Has identical electrical characteristics except for slightly lower G-P capacitance. Mechanical arrangement altered to permit grid connection at side of envelope. Grid and plate caps are welded. This tube is particularly suited to diathermy use. Appreciable outputs may be secured at frequencies as high as 100 megacycles.
 \$24.50

354 OR 354-C NET PRICE EA.

\$ 24.50



FILAMENT VOLTAGE
 FILAMENT CURRENT
 PLATE DISSIPATION
 MAX. PLATE VOLTAGE
 MAX. PLATE CURRENT

GAMMATRON

TYPE HK-254

5.
 7.5
 100 WATTS
 3000
 200

254 NET PRICE EA.

\$ 12.50

FILAMENT VOLTAGE
 FILAMENT CURRENT
 PLATE DISSIPATION
 MAX. PLATE VOLTAGE
 MAX. PLATE CURRENT

GAMMATRON

TYPE HK-54

5.
 5.
 50
 2000
 150 MA.

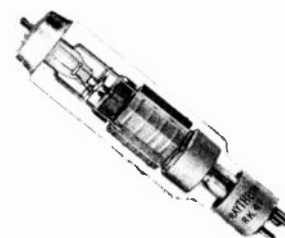
54 NET PRICE EA.

\$ 6.75

*****ASK US FOR COMPLETE INFORMATION AND DATA ON THE GAMMATRON TUBES*****



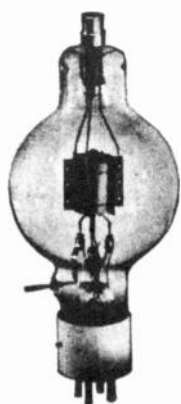
RAYTHEON RK AMATEUR TUBES



TYPE	CONSTRUCTION	FILAMENT			CAPACITIES			PURPOSE	RATED VOLTAGES				RATED MILLIAMPS.			POWER		DRIVING POWER	NET PRICE	
		Volts	Amps.		C _{gp}	C _{gf}	C _{pf}		Plate	Grid	Sc. G.	Supp. G.	Plate	Grid	Scr. G.	Pl. Diss. Max.	Output			
RK-23	R-F Pentode	2.5	2.0	K	.02	10.0	10.0	Osc.-R-F Amp. Osc.-R-F Amp. Supp. Mod. Phone	500 500 500	-90 -90 -90	200 200 200	0 +45 -45	50 55 32	6-8 6-8 6-8	40 35 40	10w 10w 10w	18w 24w 5.5w	.8w .8w .8w	\$4.50	
RK-25	R-F Pentode	6.3	0.8	K	.02	10.0	10.0	CHARACTERISTICS SAME AS RK-23 SHOWN ABOVE												4.50
RK-34	Dual Triode	6.3	0.8	K	2.7	4.2	2.1	Osc. Amp. Osc.-R-F Amp. Class B Mod.	300 300	-36 -15			80 30*	16-18		10w 10w	14w 12w*	2.5w	3.50	
RK-39	Beam Type R-F Tetrode	6.3	0.9	K	.20	13.0	10.5	Osc.-R-F Amp.	500	-60	250		90	2-5	20	21w	35w	0.3w	3.50	
RK-49	Beam Type R-F Tetrode	6.3	0.9	K	1.4	11.5	10.6	Osc.-R.F. Amp.	400	-50	250	CT	95	3-5	8	21w	25w	.2w	2.10	

JUST ANNOUNCED..THE NEW RK-59 FOR PORTABLE HI-FREQ.WORK.IT IS A DOUBLE TRIODE WITH FILAMENTARY CATHODE FOR QUICK HEATING. IF USED AS A CLASS C PUSH PULL AMPLIFIER IT WILL DELIVER 32 WATTS OF RF. NET PRICE.....RK-59 \$ 4.50

IT'S EASY TO PARK AT WALTER ASHE . . .



EIMAC 100TH

Filament voltage 5 to 5.1
 Filament current 6.5 amperes
 Amplification Factor 30
 Maximum plate current 225 milli-
 amperes
 Plate dissipation (normal) 100 watts
 Maximum plate voltage 3000

EIMAC 100TL

Filament voltage 5 to 5.1
 Filament current 6.5 amperes
 Amplification factor 12
 Maximum plate current 225 milliamperes
 Plate dissipation (normal) 100 watts
 Maximum plate voltage 3000

Net Price \$13.50

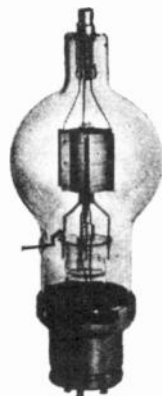


EIMAC 35T

Filament voltage 5 to 5.1
 Filament current 4 amperes
 Amplification factor 30
 Maximum plate current 150 milliamperes
 Maximum plate dissipation 70 watts
 Normal plate dissipation 35 watts
 Maximum plate voltage 2000

Net Price \$6.00

EIMAC TUBES



EIMAC 250TH

Filament voltage 5 to 5.1
 Filament current 10.5 amperes
 Amplification factor 32
 Maximum plate current 350 milli-
 amperes
 Plate dissipation (normal) 250 watts
 Maximum plate voltage 3000

EIMAC 250TL

Filament voltage 5 to 5.1
 Filament current 10.5 amperes
 Amplification factor 13
 Maximum plate current 350 milli-
 amperes
 Plate dissipation (normal) 250 watts
 Maximum plate voltage 3000

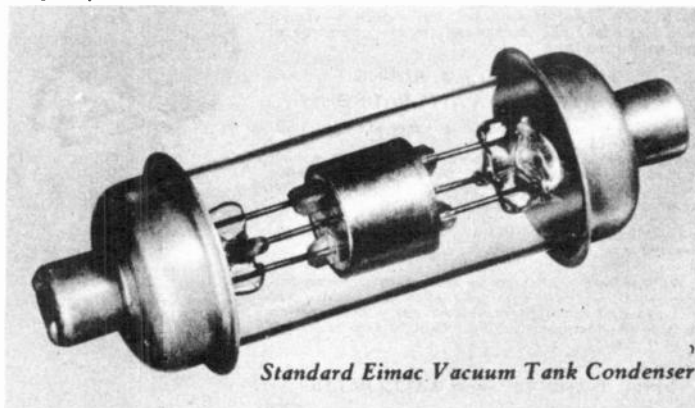
Net Price \$24.50

EIMAC VACUUM TANK	CONDENSERS
CAPACITY	NET PRICE
6 MMF	\$ 7.50
12 MMF	8.50
25 MMF	10.50
50 MMF	12.50

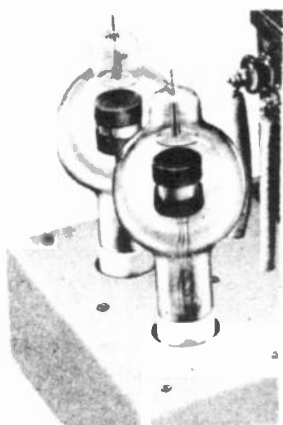
EITEL McCULLOUGH

Vacuum tank condensers provide a positive, accurate means to determine the proper "Q" of your tank circuit. No loss of power on a stray harmonic ... no loss of efficiency. They assure the proper load balance on each of the tubes and minimize "splatter" on phone signals.

Radio frequency current rating; 20 to 50 amperes per unit, depending upon frequency.



The single units are available in 6, 12, 25, and 50 mmfd capacities. These are designed for optimum circuit efficiencies in a push-pull class "C" modulated amplifier operating with 1 KW input ... plate voltage 3000 on 10, 20,



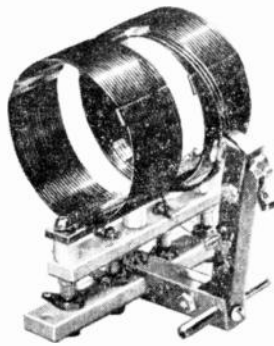
EITEL McCULLOUGH

CHARACTERISTICS ON EIMAC RX-21 AND KY-21

FILAMENT VOLTAGE	2.5
FILAMENT CURRENT	10 A.
PEAK INVERSE VOLTAGE	11,000 V.
PEAK PLATE CURRENT	3 A.
NORMAL CAPACITY 3500 VOLTS AT 1.5 AMPS.	

RX-21 HALF WAVE MERCURY VAPOR RECTIFIER NET EA. \$ 7.50
 KY-21 MERCURY VAPOR GRID CONTROL RECTIFIER 10.00

LOT NEXT TO STORE OR LOADING ZONE



"AIR INDUCTORS"

BARKER & WILLIAMSON

TYPE BVL

The newest addition to the B & W family. A small swinging link unit designed for use in all stages of 100 watts or less where variable loading is desirable

Type	Net Price	*Capacity MMfd.	Inductance Microhenries
160BVL	\$2.10	150	55
80BVL	1.90	70	30
40BVL	1.65	40	13
20BVL	1.45	40	3.1
10BVL	1.40	35	1.0
5BVL	1.35	25	0.5

BVL ASSEMBLY—\$2.50, includes swinging link and jack bar.

*Capacity required to effect resonance on low frequency end of specified band.

TYPE HD AND HDL - 1 K.W. RATING

A "Super" heavy duty AIR INDUCTOR conservatively rated for use in 1 kilowatt amplifiers.

Each coil is equipped with heavy Alsimag 1% plug bar and jumbo type banana plugs which provide ample contact for the increased circulating currents experienced when high power is used.

The rugged lock-strip type of construction developed by B & W makes these heavy duty inductors superior both electrically and mechanically to any other type of coil on the market.

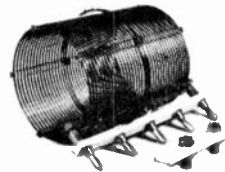
TYPE HDVL - 1 K.W. RATING

TYPE TVL - 250 WATTS RATING

Heavy duty coils are available either standard (HD) or linked (HDL).

Swinging Link coils as pioneered by B & W fill a long felt need for accurate control of loading and excitation in the final stages of a transmitter. The use of an independent link and base assembly permits front of panel control of coupling making it unnecessary to resort to make-shift means of control as is necessary with integral link systems.

We wish to call attention to an antenna matching network which we have developed after considerable test and experimentation. It provides a means of accurately matching the output of any final stage to antenna feeders of any type.



TYPE HDL

TYPE T AND TL - 500 WATTS RATING

In addition to the above de luxe units B & W continue to offer the ever popular "T" line of AIR INDUCTORS designed for use in high efficiency stages up to 500 watts and priced so low that it does not pay to wind your own. TL types carry two turn links.

TYPE BX AND BXL - 250 WATTS RATING

Type BX and BXL AIR INDUCTORS are designed for use in stages up to 250 watts input and are similar in appearance to the T type coils but are smaller in size.

TYPE B AND BL - 100 WATTS RATING

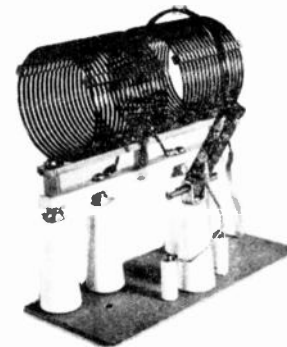
Type B AIR INDUCTORS are available either untapped, center tapped, end linked or center linked and center tapped.

They have been made as small as possible with the idea of replacing the inefficient tube base type of coil used so extensively in low power stages.

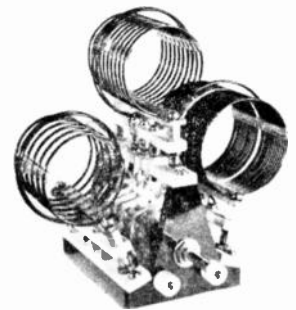
Model "B" Turret

Quick efficient band-switching is now a reality when a B & W Model "B" Turret is used. By means of a positive action wiping contact switch rapid selection of any three bands is obtained. The plug in feature provides a means of selecting any three band combination of coils (160 to 10 meters) most desirable at the time of operation. Five jacks are provided so that single ended, center tapped, end linked, or center linked type "B" coils may be accommodated.

The Model "B" Turret is ideally suited for use in crystal controlled or electron coupled oscillators as well as buffer, doubler, or final amplifier stages where power inputs of 100 watts and 1000 volts are not exceeded.



SWINGING LINK ASSEMBLY



MODEL "B" TURRET

Standard Type	Net Price	Linked Type	Net Price	Inductance Microhenries	*Capacity MMfd.	Wire Size	Diameter	Outside Plug Centers
160B	\$1.75	160BL	\$2.50	78.0	110	18	2 1/2"	3 1/8"
80B	1.55	80BL	2.30	39.0	52	16	2 1/2"	3 1/8"
40B	1.30	40BL	2.05	12.0	43	14	2 1/2"	3 1/8"
20B	1.05	20BL	1.80	3.0	40	14	2 1/2"	3 1/8"
10B	1.00	10BL	1.75	1.1	28	12	2 1/2"	3 1/8"
160BX	1.80	160BXL	2.80	84.0	100	14	4"	4"
80BX	1.60	80BXL	2.60	37.0	54	14	3"	4"
40BX	1.35	40BXL	2.35	10.0	51	14	2 1/2"	4"
20BX	1.10	20BXL	2.10	2.8	45	14	2 1/2"	4"
10BX	1.05	10BXL	2.05	1.0	35	12	2 1/2"	4"
160T	1.85	160TL	2.85	74.0	115	12	5 1/2"	5 1/2"
80T	1.65	80TL	2.65	35.0	60	12	3 1/2"	5 1/2"
40T	1.40	40TL	2.40	13.5	38	12	2 1/2"	5 1/2"
20T	1.15	20TL	2.15	4.3	30	12	2 1/2"	5 1/2"
10T	1.10	10TL	2.10	1.3	25	12	2 1/2"	5 1/2"
160HD	4.25	160HDL	6.25	94.0	90	10	5 1/2"	7 1/2"
80HD	3.50	80HDL	5.50	40.0	50	10	3 1/2"	7 1/2"
40HD	3.00	40HDL	5.00	15.0	35	8	3 1/2"	7 1/2"
20HD	2.75	20HDL	4.75	4.2	29	8	3 1/2"	7 1/2"
10HD	2.25	10HDL	4.25	1.3	25	4	2 1/2"	7 1/2"
80HDVL	4.50			47.0	44	10	3 1/2"	7 1/2"
40HDVL	4.00			18.0	28	8	3 1/2"	7 1/2"
20HDVL	3.75			5.2	25	8	3 1/2"	7 1/2"
10HDVL	3.25			1.3	25	4	2 1/2"	7 1/2"
HDV Base Assembly			5.00					
HDA Antenna Matching Coil *			4.00					
160TVL	2.25			38.0	55	14	2 1/2"	5"
80TVL	2.15			15.0	34	12	2 1/2"	5"
40TVL	1.90			4.6	28	12	2 1/2"	5"
20TVL	1.65			1.5	22	6	2 1/16"	5"
10TVL	1.60							
TV Base Assembly			4.00					
TA Antenna Matching Coil			1.75					

For the experimenter we make three unmounted coils which may be cut as desired.

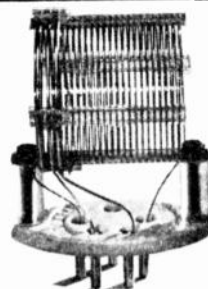
No. 1 2 1/2" Dia. 10" Length 6 turns per inch No. 12 \$1.50
No. 2 2 1/2" Dia. 10" Length 8 turns per inch No. 14 1.50
No. 3 2" Dia. 10" Length 10 turns per inch No. 16 1.50

*Capacities shown above are total needed to effect resonance on the low frequency end of specified band.

A68 - Pi Network Coil - Complete with clip \$ 1.85

MODEL "B" TURRET, less coils \$ 7.50 Net

*We will be pleased to furnish quotations on special coils or coil assemblies for either amateur or commercial applications.



DECKER COIL

FOR 10-20-40-80-160 METERS
PERMANENT LINK ON END OR CENTER
SPECIFY LOCATION OF LINK WHEN ORDERING
NET PRICE ANY COIL..... \$.90

COMPLETE SET "BI-PUSH" COILS NET \$3.00

THESE COILS WILL HANDLE
UP TO 50 WATTS INPUT.

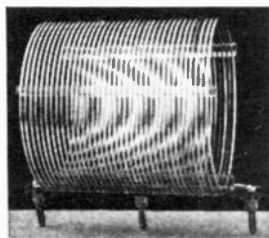
All of the coils in this series can be resonated with a 50 mmfd. variable condenser except in the 160 meter band for which 100 mmfd. should be used.

IT'S EASY TO PARK AT WALTER ASHE . . .



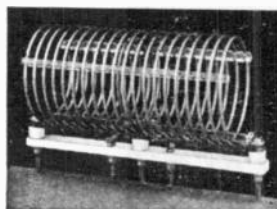
LO-LOSS TRANSMITTING INDUCTORS

COTO offers a very complete line of highly efficient inductors for All-Band operation. These inductors are wound with bright copper wire, protected from oxidation by a coating of colorless baked enamel and cemented in SLOTS in narrow strips of Cellulose Acetate, (not celluloid). The use of clear enamel, allows the skinning of the wire for taps without marring the appearance of the inductor. Note the "Q" data of each inductor, indicating its high efficiency.



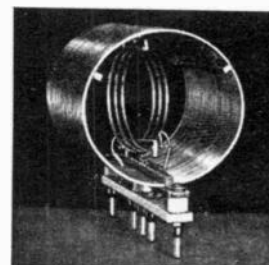
TYPE 160BT

Mounting
Centers
T, TL, &
TVL
7 1/2"
B, BT,
BTL,
BTVL
5 1/4"



TYPE 40TL

"Maxi-
mum"
Condenser
Capacity
Recom-
mended
160M
types
75 Mmf.
All others
35 Mmf.

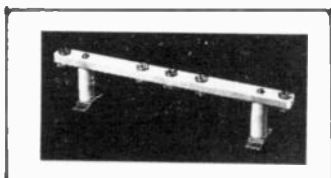


TYPE 80TVL

TO THOSE WHO WISH THE BEST IN PERFORMANCE AND QUALITY WE SUGGEST YOU USE COTO INDUCTORS IN ALL TRANSMITTER STAGES OF 50 WATTS OR MORE INPUT POWER. THIS REASONABLE EXPENDITURE WILL BE MORE THAN JUSTIFIED.

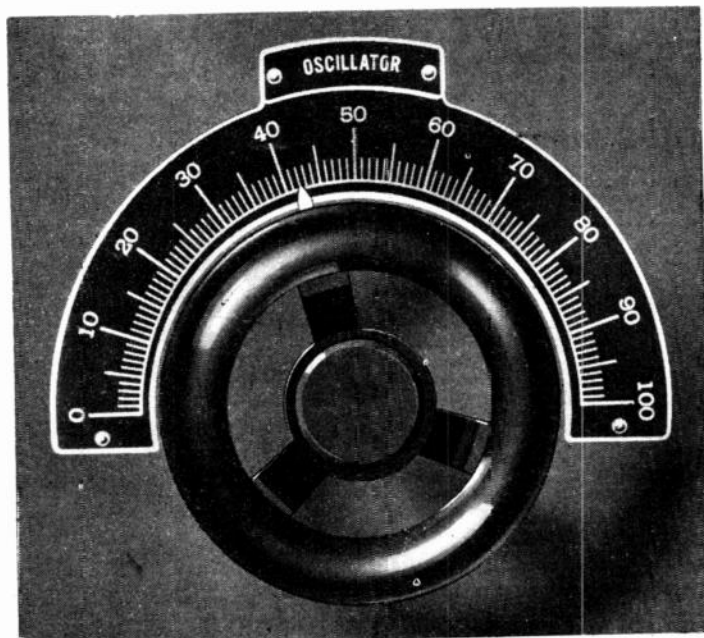
1000 WATT TYPE						300 WATT TYPE					
TYPE	WIRE SIZE	NO. TURNS	DIA.	"Q"	NET	TYPE	WIRE SIZE	NO. TURNS	DIA.	"Q"	NET
10T	10	6	2 3/4"	210	\$1.32	10BT	14	6	2 3/4"	180	\$1.17
20T	10	10	3"	175	1.38	20BT	14	10	2 3/4"	200	1.23
40T	10	20	3"	300	1.74	40BT	14	22	2 3/4"	270	1.44
80T	10	30	4"	500	1.98	80BT	14	34	2 3/4"	390	1.71
160T	12	42	5"	480	2.34	160BT	14	36	4"	400	1.80
WITH FIXED LINK						WITH FIXED LINK					
10TL	10	6	2 3/4"	210	\$2.28	10BTL	14	6	2 3/4"	180	\$2.13
20TL	10	10	3"	175	2.34	20BTL	14	10	2 3/4"	200	2.19
40TL	10	20	3"	300	2.70	40BTL	14	22	2 3/4"	270	2.40
80TL	10	30	4"	500	2.94	80BTL	14	34	2 3/4"	390	2.67
160TL	12	42	5"	480	3.30	160BTL	14	36	4"	400	2.76
WITH VARIABLE LINK						WITH VARIABLE LINK					
10TVL	10	6	2 3/4"	210	\$2.88	10BTVL	14	6	2 3/4"	180	\$2.73
20TVL	10	10	3"	175	2.94	20BTVL	14	10	2 3/4"	200	2.79
40TVL	10	20	3"	300	3.30	40BTVL	14	22	2 3/4"	270	3.00
80TVL	10	30	4"	500	3.54	80BTVL	14	34	2 3/4"	390	3.27
160TVL	12	42	5"	480	3.90	160BTVL	14	36	4"	400	3.36

STEATITE MOUNTING BASES FOR THE ABOVE COILS



TYPE	FOR COIL TYPE	JACKS	NET
CI-8TM	T	3	\$1.14
CI-8TLM	TL., TVL.,	5	1.20
CI-6BTM	BT	3	1.14
CI-6BTLM	BTL., BTVL.,	5	1.20

LOT NEXT TO STORE OR LOADING ZONE

COTO CONTROL WHEEL**INDICATOR PLATES (for scale or meters)**

- | | |
|---------------------|---------------------|
| 1. OSCILLATOR | 12. PWR. AMP. GRID |
| 2. OSC. PLATE | 13. PWR. AMP. PLATE |
| 3. BUFFER | 14. MOD. GRID |
| 4. BUFFER PLATE | 15. MOD. PLATE |
| 5. DOUBLER | 16. CLASS B MOD. |
| 6. DOUBLER PLATE | 17. SP. AMP. PLATE |
| 7. BUF. DBLR. PLATE | 18. FIL. VOLTAGE |
| 8. GRID | 19. PLATE VOLTAGE |
| 9. PLATE | 20. % MODULATION |
| 10. TANK | 21. GAIN CONTROL |
| 11. NEUTRALIZE | 22. ANTENNA |

YOUR COST

EA. \$.09

EACH COTO WHEEL WHEN BOUGHT COMPLETE WITH SCALE IS FURNISHED WITH ONE OF THE ABOVE NAME PLATES, YOUR CHOICE.

3 1/4" WHEEL COMPLETE WITH SCALE	\$1.50
3 1/4" WHEEL ONLY LESS SCALE	1.20
2 1/4" WHEEL COMPLETE WITH SCALE	1.20

ICA FINGER-GRIP POINTER KNOBS**HEAVY FLANGE KNOB**

NO. 1171-- 2-1/16" DIA. NET PRICE \$.33

NO. 1172-- 3" DIA. .42

**ICA FINGER-GRIP POINTER KNOB**

NO. 1166-- 1-1/8" DIA NET PRICE \$.27

NO. 1168-- 1-5/8" DIA .33

NO. 1170-- 2-3/8" DIA .39

**ICA PLAIN FINGER-GRIP KNOB**

NO. 1165-- 1-1/8" DIA NET PRICE \$.21

NO. 1167-- 1-5/8" DIA .27

NO. 1169-- 2-3/8" DIA .33

BUD BAKELITE VERNIER
TUNING DIALEITHER BLACK OR
WALNUT FINISH

NO. 144B NET \$.45

NO. 144W .48



DIAL MARKERS

NET EA. \$.18



NO. 2171 2-3/4" DIA. 0-100 ROTATION 180 DEG. NET PRICE \$.84

NO. 2169 4" DIA. 0-100 ROTATION 180 DEG. 1.20

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

NAME PLATES

FOR TRANSMITTERS AND SOUND EQUIPMENT



Standard Plate
(Size 1 1/4 x 1/2")
Standard.

DeLuxe Plate
(Size 2 1/2 x 1/2")
DeLuxe.

YOUR COST, EACH **6c** YOUR COST, EACH **10c**

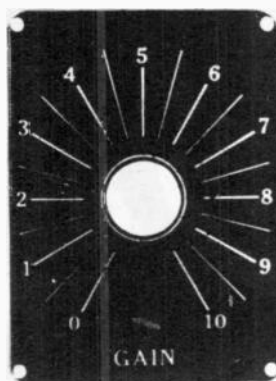
Made of brass with characters and borders chromium-plated. Back-grounds etched dull black. Available in two sizes—2 1/2 x 1/2" (especially recommended for transmitting apparatus) and 1 1/4 x 1/2" (especially recommended for sound and test equipment.) Both sizes are furnished complete with self-tapping machine screws for mounting on wood, aluminum, steel, or bakelite panels.

Oscillator
Oscillator Tank
Crystal
Crystal Osc. Plate
Crystal Osc. Grid
Triplet Osc.
Triplet Plate
Triplet Grid
Cathode Tun. Cond.
Transmitter
Buffer
1st Buffer Plate
1st Buf. Pl. Tank
1st Buffer Grid
1st Buf. Gr. Tank
2nd Buffer Plate
2nd Buf. Pl. Tank
2nd Buffer Grid
2nd Buf. Gr. Tank
3rd Buffer Plate
3rd Buf. Pl. Tank
3rd Buffer Grid
3rd Buf. Gr. Tank
1st Buf. Dblr. Plate
1st Buf. Dblr. Pl. Tank
1st Buf. Dblr. Grid
1st Buf. Dblr. Gr. Tank
2nd Buf. Dblr. Plate
2nd Buf. Dblr. Pl. Tank
2nd Buf. Dblr. Grid
2nd Buf. Dblr. Gr. Tank
3rd Buf. Dblr. Plate
3rd Buf. Dblr. Pl. Tank
3rd Buf. Dblr. Grid
3rd Buf. Dblr. Gr. Tank
56 MC BAND
28 MC BAND
14 MC BAND
7 MC BAND

Doubler
Amplifier
Power Amp. Plate
P. A. Plate Tank
Power Amp. Grid
P. A. Grid Tank
Antenna
Antenna Tuning
Ground
Neut. Condenser
Plate Voltage
Filament Voltage
Key
Screen Current
Phone — CW
Off — On
Rectifier
Send
Receive
Send-Receive
Telegraph or CW
Telephone
Speech Amplifier
Modulator Plate
Modulator Grid
Class B Modulator
Class A Modulator
Sp. Amp. Dvr. Plate
Microphone
Microphone Cur.
Gain Control
Volume
Per Cent Modulation
Transceiver
Monitor
3.5 MC BAND
1.7 MC BAND
60W SWEEP
LINEAR SWEEP

Heater Voltage
Generator
Battery Charge
Battery Discharge
Beat Oscillator
Plate No. 1
Plate No. 2
Coupling
D.C. Input
D.C. Output
A.C. Input
A.C. Output
Regeneration
Pre-Selector
Mixer No. 1
Mixer No. 2
Mixer No. 3
Fader
Power
Field
Speaker
Radio
Record
Tone
Input
Output
200 Ohm Input
200 Ohm Output
500 Ohm Input
500 Ohm Output
50 Ohm Input
50 Ohm Output
125 Ohm Input
125 Ohm Output
BIAS VOLTAGE
VERTICAL PLATES
OFF-INTENSITY

MARKED METAL DIAL PLATES



SIZE
1 5/8" X 2 1/8"

AVAILABLE TYPES

0--10
MICROPHONE
MASTER GAIN
RECORD
TONE
GAIN
NET EA. $\approx$ \$.12



UNCALIBRATED PLATES
SIZE 1 5/8" DIA.
SUPPLIED
IN THE FOLLOWING

TONE CONTROL
BEAT OSC.
VOLUME

YOUR COST EA. \$.07

BLACK ETCHED DIAL PLATES



NO.	DEGREES	DIA.	CALIBRATION	PRICE
2230	325	3 1/2"	0-100	\$.21
2231	180	3 1/2"	100-0	.21
2232	180	3 1/2"	0-100	.21
2233	180	2"	100-0	.15
2234	325	2"	0-100	.15
2235	325	2"	100-0	.15
2236	180	2"	0-100	.15

ETCHED CHROME SILVER DIAL PLATES



NO.	DEGREES	DIA.	CALIBRATION	PRICE
2294	180	2"	0-100	\$.30
2295	325	2"	0-100	.30
2296	180	3 1/2"	0-100	.51
2297	325	3 1/2"	0-100	.51
2298	180	4"	0-100	.60
2299	325	4"	0-100	.60



TYPES AVAILABLE

ON--OFF
GRID CURRENT
MICROPHONE
MICROPHONE CUR.
PLATE CURRENT
PHONES
PHONOGRAPH
PRICE EA. \$.06



PRICE EA. \$.06

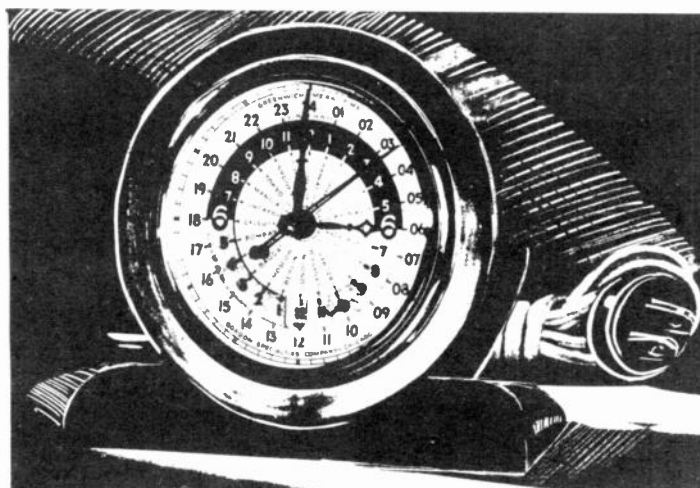


PRICE EA. \$.06

LOT NEXT TO STORE OR LOADING ZONE

WALTER ASHE RADIO COMPANY

1100 Pine Street St. Louis, Missouri



Gordon World-Wide GMT and Standard Electric Time Clock

60-Cycle self-starting genuine Waltham 24-hour movement. Base removable for panel mounting (hole size $3\frac{1}{16}$ "). List price \$15.00.

NET PRICE \$9.00

LICENSE and CALIBRATION CHART OR CURVE HOLDER



SWIVEL BASE



No. 150—License frame and chart holder with heavy desk base mounting.

Net Price to Amateurs, 75c each

IF YOU ARE INTERESTED IN THE OPERATION OF PHOTOELECTRIC CELLS AND SIMILAR DEVICES BE SURE AND BUY YOUR COPY OF ERY'S BOOK FOR ONLY \$.50. IT IS FILLED WITH CIRCUIT DIAGRAMS AND PLENTY OF ADDITIONAL INFORMATION.



"OHMITE" Heavy Duty Tap Switches

For Switching High Voltage or high amperage or both.

SHORTING TYPE

These Ohmite tap switches were developed in order to care for applications in which fairly high currents and voltages must be transferred to several circuits. Will handle from 4 to 12 single pole circuits; the units up to 8 points are only 2" in diameter while the 12 point are 3".	No. of Contacts	Stock No.	YOUR COST
	4	T504S	\$2.50
	5	T505S	2.65
	6	T506S	2.75
	7	T507S	2.94
	8	T508S	3.09
	9	T1009S	4.41
	10	T10010S	4.56
	11	T10011S	4.70
	12	T10012S	4.85

NON-SHORTING TYPE

	4	T504	\$2.79
	5	T505	2.94
	6	T506	3.09
	7	T507	3.24
	8	T508	3.38
	9	T1009	4.70
	10	T10010	4.85
	11	T10011	5.00
	12	T10012	5.15

Ohmite Model T-503 BAND-SWITCH

for all Band-Switching Circuits

Ohmite Switches

Exceptionally efficient because of their low loss, porcelain construction, low contact resistance and high current capacity. Three contacts. Mounting brackets and bakelite knob furnished.

YOUR COST
\$ 1.80



EBY ELECTRIC EYE TYPE E-12



The EBY Electric Eye is a new type photoelectric cell designed for long life, ruggedness, and sensitivity.

Its streamlined construction with the light sensitive element hermetically sealed within moulded bakelite gives a dependability hitherto unknown.

The EBY Electric Eye is an electronic device, consisting essentially of two metal electrodes between which the surface of a light sensitive material is exposed to incident light rays.

The action of the EBY Electric Eye is electronic; that is, its operation depends upon the light sensitive surface to emit electrons which are proportional in number to the frequency and intensity of the incident light.

The EBY Electric Eye is unaffected by continuous exposure to light of strong intensity and its ability to operate satisfactorily on voltages as high as 250 volts gives a device practically free from excessive voltage damage.

The curve of spectral response covers the entire visual spectrum and extends far into the infra-red region. Its peak sensitivity is in the near infra-red.

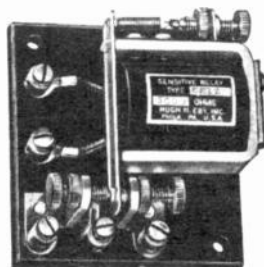
The EBY Electric Eye has no measurable time lag in its response. It will respond to frequencies as high as 9,000 cycles per second.

Its internal capacity is exceptionally low. The physical design is such that the unit is shock-proof and moisture-proof.

YOUR COST

\$ 3.00

EBY SENSITIVE RELAY TYPE ER-12



APPLICATION

The EBY Sensitive Relay is designed for direct current (and full or half-way rectified current) control circuits where the available power for operation is relatively small. Its low power consumption for positive operation makes it ideal for installation in photoelectric control equipment, vacuum tube amplifier circuits and to protect delicate contacts of sensitive control instruments.

MAGNETIC CIRCUIT

The EBY Sensitive Relay, because of the advanced design of the armature, and by the use of a high quality, special steel alloy in the magnetic circuit, has outstanding features in its low power requirement for positive action and its unusually high speed of response.

COILS

The EBY Sensitive Relay can be supplied in four (4) different coil resistances, covering most of the operating current and voltages required in sensitive relay control applications. The standard values of coil resistances are: 1,000, 2,500, 5,000 and 10,000 ohms. The relay is rated at 11.25 milliwatts for positive operation. However, it may be adjusted to operate on as little as 1.25 milliwatts. All relays are tested for operation at this latter value before they are released for shipment.

CONTACTS

Mounted as an integral part of the relay, is a single-pole, double-throw switch with sterling silver contacts. These contacts are rated to carry 2.5 amperes at 115 volts, A.C. At 115 volts, D.C., 1.5 amperes.

YOUR COST \$ 3.90

IT'S EASY TO PARK AT WALTER ASHE . . .

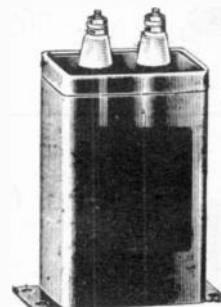
1100 Pine Street

St. Louis, Missouri

TENSION-OIL TRANSMITTING FILTER CONDENSERS

MADE BY THE LARGEST MANUFACTURERS OF TRANSMITTING FILTER CONDENSERS FOR ALL PURPOSES INCLUDING COMMERCIAL BROADCAST AND AMATEUR USE.

CAP. MFD.	TYPE NO.	WORKING VOLTAGE	NET PRICE
1	XP-1001	1000 DC	\$ 1.10
2	XP-1002	1000 DC	1.50
1	XP-1501	1500 DC	1.45
2	XP-1502	1500 DC	1.95
1	XP-2001	2000 DC	1.75
2	XP-2002	2000 DC	2.45
1	XP-3001	3000 DC	2.50
2	XP-3002	3000 DC	4.95



new low prices on...
type TJ-U capacitors

CORNELL-DUBILIER DYKANOL FILTER CAPACITORS



Prices have been substantially reduced on all Cornell-Dubilier DYKANOL universal mounting transmitting capacitors.

No sudden shift in policy is this. No cutting down on C-D high quality standards. Our price reduction is the result of months of careful planning—of enlarged production facilities, to meet an ever increasing demand. Remember—nothing has been cut but the price.

C-D type TJ-U transmitting capacitors are impregnated and filled with DYKANOL—the non-inflammable, non-explosive high dielectric impregnant used in the construction of capacitors for the U. S. Signal Corps.

Cat. No.	Cap. Mfd.	Your Cost
600 V.D.C.		
TJ-U 6010	1 Mfd.	\$1.62
TJ-U 6020	2 "	2.06
TJ-U 6040	4 "	2.65
1000 V.D.C.		
TJ-U 10010	1 "	1.76
TJ-U 10020	2 "	2.35
TJ-U 10040	4 "	2.94
1500 V.D.C.		
TJ-U 15010	1 "	2.06
TJ-U 15020	2 "	2.94
TJ-U 15040	4 "	4.12
2000 V.D.C.		
TJ-U 20010	1 "	2.65
TJ-U 20020	2 "	3.23
TJ-U 20040	4 "	5.29
3000 V.D.C.		
TJ-U 30010	1 "	7.06
TJ-U 30020	2 "	8.82
TJ-U 30040	4 "	12.94
5000 V.D.C.		
TJ-U 50010	1 "	14.70
TJ-U 50020	2 "	18.82

CORNELL-DUBILIER TRANSMITTING FILTER CONDENSERS



Type TL Dykanol Filter Capacitors

Hermetically sealed in round aluminum containers, the Type TL paper filter capacitors are Dykanol impregnated and filled. Designed for power supplies, high gain, high fidelity, high power amplifiers, etc.

Working Voltage 600 Volts D.C.

Cap. Mfd.	Size	Cat. No.	NET
2	2 1/2 x 1 1/2	TL-6620	1.35
3	4 1/2 x 1 1/2	TL-6630	1.65
4	4 1/2 x 1 1/2	TL-6640	1.80

Working Voltage 1000 Volts D.C.

Cap. Mfd.	Size	Cat. No.	NET
1	2 1/2 x 1 1/2	TL-10010	1.35
2	4 1/2 x 1 1/2	TL-10020	1.65

Working Voltage 1500 Volts D.C.

Cap. Mfd.	Size	Cat. No.	NET
.5	2 1/2 x 1 1/2	TL-15005	1.65
1	4 1/2 x 1 1/2	TL-15010	1.80

High Voltage Mica Blocking Condensers



TYPE 21-C-86

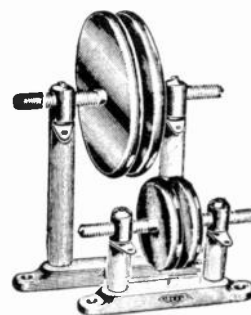
.001 MFD.
7000 V. D.C.
NET \$ 2.55

LOT NEXT TO STORE OR LOADING ZONE

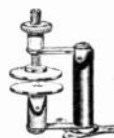
BUD HI-FREQUENCY NEUTRALIZING CONDENSERS

NO. 564-- 10MMF..130" NET. \$.90

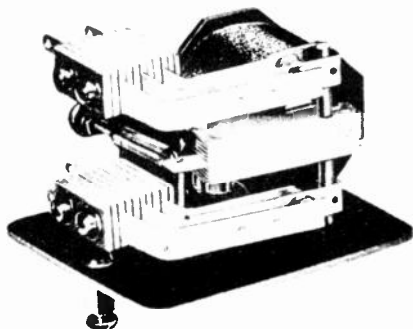
NO. 565-- 15MMF..060" .90



Cat. No.	Plate Dia.	Your Cost
892	1-27/32"	\$1.50
893	2-13/16"	2.25

**Bud 6L6 Neutralizing Condenser**

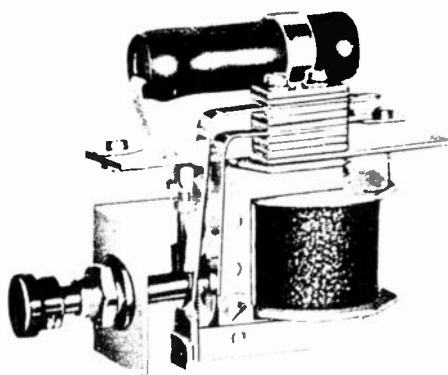
Cat. No.	Capacity Range	List Price	Your Cost
890	.5 to 9 mmfd.	\$1.00	\$.60

GUARDIAN Transmitter Relays**Model K-100 Keying Relay**

OPERATES ON 5 TO 16 VOLTS AC. CONTACTS WILL HANDLE 1500 WATTS. SPST
NET PRICE \$3.30

Model B-100 Break-in Relay

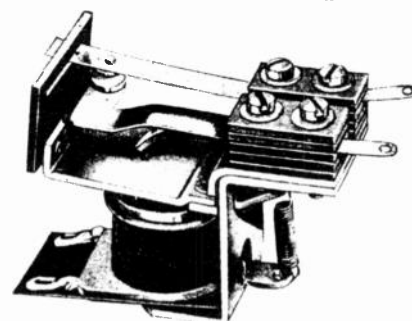
OPERATES ON 110 VOLTS AC. SAME RATING AS K-100 DPDT CONTACTS.
NET PRICE \$7.50

**Adjustable Overload Relay**

Easily set to open 110 V. input when plate currents exceed any value from 150 to 500 m.a. When current exceeds desired value relay armature closes, opening contacts which are usually placed in plate power transformer primary. Pushing reset button on panel restores circuit only if overload has been removed.
MODEL X-100 — GUARDIAN ADJUSTABLE OVERLOAD RELAY.
YOUR COST \$6.00

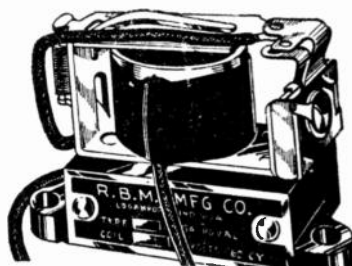
Fixed Overload Relays

MODEL L-250—Similar to X-100 but break at 250 M.A. 4.50
MODEL L-500—Same but breaks at 500 M.A.
YOUR COST 4.50

R-100 Relay

MODEL R-100 SPST RELAY FOR "RF" WORK. 110 V.AC. NET \$1.50

MODEL R-100-C SPDT " " " " " " 1.80



SPDT

MARVEL RELAYS

TYPE	OPERATING VOLTAGE	RESISTANCE	CURRENT	NET
"Q"	90 TO 135 V.AC.	1400	75 MILLS	\$2.75
"N"	8 TO 12 V.	75	.8 AMPS.	2.75

IT'S EASY TO PARK AT WALTER ASHE . . .

1100 Pine Street

St. Louis, Missouri

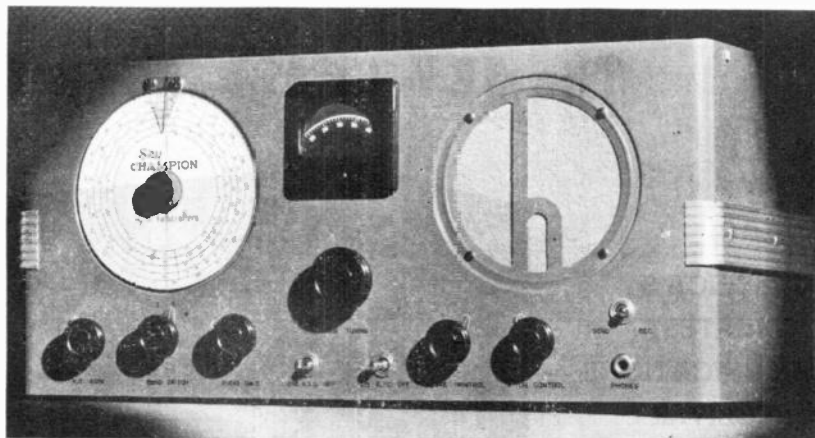


The SKY CHAMPION FEATURES

- 8 Tubes.
- Complete Coverage (44 MC to 545 KC).
- 4 Bands.
- Separate Band Spread Dial.
- Individual Coils for Each Band.
- Inertia Tuning Mechanism.
- Beat Frequency Oscillator.
- AVC Switch.
- Excellent Sensitivity and Selectivity.
- A. F. Gain Control.
- Band Switch.
- Sensitivity Control.
- "S" Meter Terminals.

Tube Complement

- 6K7—r. f. stage.
- 6L7—first detector.
- 6J5—high frequency oscillator.
- 6K7—i. f. amplifier
- 6Q7—second detector, AVC and first audio.
- 6F6—power output tube.
- 80—rectifier.
- 6J5—B. F. O.



THE SKY CHAMPION is an 8-Tube, A.C. Communications Receiver with Pre-Selection and Built-In Speaker, complete in every respect, offering the amateur a quality of performance never before available at this low price. Its sensitivity and selectivity are only to be compared with communication receivers selling at double its price. Provides full coverage from 44 MC to 545 KC, everything from the 10 meter amateur band to the top of the broadcast band. Band No. 1 (545 KC to 1800 KC). Band No. 2 (1.7 MC to 5.8 MC). Band No. 3 (5.8 MC to 18.8 MC). Band No. 4 (17 to 44 MC). The SKY CHAMPION offers all the essential controls for good amateur reception as follows: R.F. Gain Control, Tone Control, Phone Jack, AVC Switch, Beat Oscillator Switch, Send-Receive Switch, A.F. Gain Control, Band Switch, BFO Switch and Pitch Control. Sensitivity on all bands is extremely good; which is of especial importance on the popular 10 meter band. The separate Band Spread is better on all amateur bands than A.R.R.L. Handbook recommendations for band spread against scale calibration. Speaker is an integral part of the receiver—nothing else to buy.

For operation on 110-120 Volts, 50-60 cycle, AC current only. Easily adapted for battery operation with the addition of Model 301 Electronic Converter.

Dimensions of Cabinet—18½" wide, 9½" deep, 8½" high. Shipping Weight—34 lbs.

THE SKY CHAMPION (Model S-20) including speaker **\$49⁵⁰**

and tubes

MODEL SM20—"S" Meter in matching separate meter housing.....\$10.00

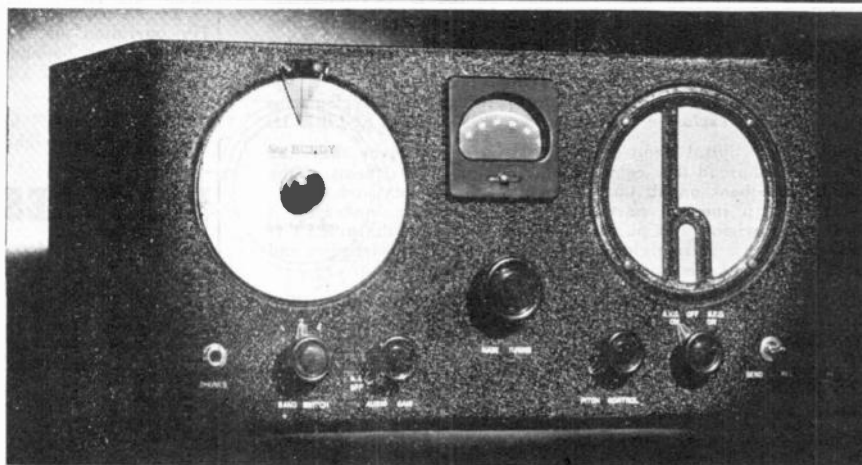
The SKY BUDDY

FEATURES

- 5 Tubes.
- 3 Bands.
- Complete Coverage (18.4 MC to 545 KC).
- Built-in Speaker.
- Phone Jack.
- Send-Receive Switch.
- AVC Switch.
- Separate Band Spread Dial.
- Beat Frequency Oscillator.
- Pitch Control.

Tube Complement

- 6K8—first detector and oscillator.
- 6P7—I. F. Amplifier, BFO.
- 6Q7—second detector, AVC, first audio.
- 6K6—power output tube.
- 80—rectifier.



The Sky Buddy is an amateurs' receiver in every respect, covering everything on the air from 18.4 MC to 545 KC including the 20, 40, 80 and 160 meter amateur bands. Band No. 1 (545 KC to 1800 KC). Band No. 2 (1.7 MC to 5.8 MC). Band No. 3 (5.8 MC to 18.40 MC).

The Sky Buddy is an AC set, with conventional Power Transformer Construction. All its components are of the finest quality, and it has sensitivity and selectivity usually found only on communications receivers selling at many times its modest price.

The following controls are incorporated in the SKY BUDDY: A.F. Gain Control; Band Switch, Combined AVC and Beat Oscillator Switch with AVC on AVC off, and Beat Oscillator on with AVC off positions; Phone Jack, Send-Receive Switch; Pitch Control. The Speaker is an integral part of the receiver, nothing else to buy. Band Spread is better than A.R.R.L. Handbook recommendations for band spread against scale calibration. Equipped for either Doublet or Marconi Antenna.

For 110-120 Volt, 50-60 cycle, AC current only. Can be adapted for 6-volt Battery operation with the addition of Model 301 Electronic Converter.

Dimensions of Cabinet: 17½" long, 8¾" deep and 8½" high.

THE SKY BUDDY (Model S-19) including Speaker and **\$29⁵⁰**

Tubes

LOT NEXT TO STORE OR LOADING ZONE

° the hallicrafters inc. °

The SKY CHALLENGER II

**AMERICA'S
GREATEST
COMMUNICATIONS
RECEIVER
VALUE**



This receiver offers the amateur and short wave listener a quality of reception that is far beyond its modest price, incorporating as it does many of the exclusive features found on the higher priced Hallicrafters receivers.

The Infinite Image Rejector is an exclusive Hallicrafters development that contributes largely to its superior performance. Annoying image interference is encountered most frequently on the 10 and 20 meter bands. Until the introduction of the Hallicrafters Infinite Image Rejector, several expensive pre-selectors were required to remove this type of interference. An illuminated rejector scale is calibrated for image interference rejection. Months of intensive research by Hallicrafters engineers showed the way to this revolutionary development, an outstanding and exclusive feature of the SKY CHALLENGER II.

The famous 1000° Spiral Band Spread used on this receiver offers the amateur a Band Spread that equals or exceeds the requirements of the A. R. R. L. Handbook on all bands, mechanically smooth and electrically efficient. An integral part of the main variable condenser, it eliminates extra wiring and parallel insulator losses in the tuned circuits, and provides a more rigid, smoother mechanical construction and more stable electrical operation.

In addition to the new recessed directly calibrated main tuning dial (no charts or tables required) the SKY CHALLENGER II has the following controls:

Tone Control, Send-Receive Switch, A. F. Gain Control, Phone Jack, AVC Switch, Beat Frequency Oscillator, Crystal Filter Circuit, Phasing Control, Pitch Control, R. F. Gain Control.

Facilities are provided for use of either Doublet or Marconi Antenna, and an auxiliary "S" meter.

The SKY CHALLENGER II tunes from 38 MC to 540 KC (7.9 to 557 meters) on five bands, offering complete coverage from the top of the broadcast band through the 10 meter band, with sensitivity and selectivity of a high order.

Tubes used include 6K7 R. F.; 6L7 first detector mixer; 6J5G oscillator; 6K7 first I. F.; 6K7 second I. F.; 6Q7G second detector; 6J7 beat frequency oscillator; 6F6G output tube; 80 rectifier.

Speaker output arranged for both 500 or 5000 ohms. No DC in output terminals.

For operation on 110-120 Volts, 50-60 cycle current. Can be operated with 6 Volt Battery by addition of Model 301 Electronic Converter.

Cabinet size: 9 $\frac{5}{8}$ " high; 21" wide by 11" deep. Shipping weight 40 pounds.

FEATURES

- 9 Tubes.
- Infinite Image Rejector.
- Recessed Main Tuning Dial.
- 1000° Spiral Band Spread.
- 38 MC to 540 KC (7.9 to 557 Meters).
- Iron Core I.F.'s.
- "S" Meter Terminals.
- Doublet or Marconi Antenna.
- Crystal Filter Circuit.

SKY CHALLENGER II—Model S-18 (with tubes but less crystal).....	\$77⁰⁰
Model SX-18 (with tubes and crystal).....	\$89⁰⁰
8-Inch P.M. DYNAMIC SPEAKER in Cabinet	\$10⁰⁰
MODEL SM18—"S" Meter in matching separate meter housing.....	\$10⁰⁰

IT'S EASY TO PARK AT WALTER ASHE . . .



The SKYRIDER 5-10

This receiver is designed for the amateur who needs and wants the exacting performance required for superior ultra high frequency reception.

The Sky rider 5-10 covers the radio spectrum from 68 MC to 27 MC (4.4 to 11.1) in two bands with a degree of sensitivity and selectivity that offers unparalleled reception of the ultra high frequencies.

The recently developed RK 1851 tube, with a gain in crease of 6 to 1, is used as an R.F. amplifier through which an ultra high frequency sensitivity of better than 1 microvolt is obtained for this receiver.

The coverage by bands is as follows: Band 1—27 MC to 42 MC. Band 2—40 MC to 68 MC. The separate Band Spread Dial provides easier and more accurate tuning, and equipped as it is with an inertia tuning control, makes tuning practically effortless.

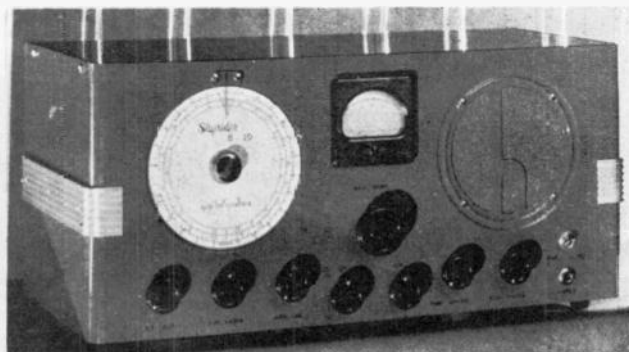
1 stage of 1600 KC I.F. amplification is used, providing a band width of 30 KC. at 10 times down. With this selectivity, even frequency modulated 5 meter signals are clearly understandable with the Sky rider 5-10. Mounted in sturdy steel cabinet finished in grey.

For the specialist in ultra high frequency reception there is no finer receiver than the Sky rider 5-10.

For operation on 110-120 Volts, 50-60 cycle current. Can be operated on 6-volt Battery current, with the addition of Model 301 Electronic Converter. Ask your dealer.

Tube Complement

- 1851—r. f. amplifier.
- 6L7—first detector.
- 6J5—high frequency oscillator.
- 6P7—I. F. amplifier B. F. O.
- 6Q7—second detector, AVC, first audio.
- 6H6—noise limiter.
- 6F6—power output tube.
- 80—rectifier.



FEATURES

- Noise Limiter.
- Improved Band Spread.
- Built-in Speaker.
- Socket for SM20 Carrier Level Meter.
- Send-Receive Switch.
- 8 Tubes.
- RK 1851 stage of pre-selection.
- Continuous coverage 27 MC to 68 MC on 2 bands.
- 1600 KC I. F. amplification.

SKYRIDER 5-10 (Model S-21), complete with tubes and speaker
SM20 Carrier Level Meter\$10.00
Overall Dimensions, 18 1/4" wide, 9 3/8" deep, 8 1/2" high

\$69⁵⁰

Shipping Weight, 34 pounds.



An 8-Tube receiver designed especially for the commercial frequencies that can be readily adapted for marine work. In its design, especial emphasis has been placed on 600 meter and 700 meter operation. Tunes from 16.2 to 2150 meters (18.5 MC to 140 KC) on 4 Bands as follows: Band No. 1—2150 to 645 meters (140 KC to 465 KC), Band No. 2—645 to 199 meters (465 KC to 1510 KC), Band No. 3—177 to 53 meters (1.7 MC to 5.8 MC), Band No. 4—54.5 to 16.2 meters (5.8 MC to 18.5 MC). Sensitivity and selectivity are excellent. Improved image rejection at the higher frequencies is achieved through the use of 1600 KC—I.F. transformers. The directly calibrated 338° Main Tuning Dial eliminates the use of complicated charts and tables, and an efficient mechanical hand spread with separate dial provides easy and simplified tuning. Mounted in sturdy metal cabinet finished in black crystal. For operation on 110 Volt, 60 cycle current. May be operated from 6-volt Battery supply by using Model 301 Electronic Converter. Ask your dealer.

Tube Complement

- 6K7—r. f. amplifier.
- 6L7—first detector.
- 6J5—high frequency oscillator.
- 6K7—i. f. amplifier.
- 6Q7—second detector, AVC and first audio.
- 6F6—power output tube.
- 80—rectifier.
- 6J5—B. F. O.

The SKYRIDER MARINE FEATURES

- Coverage — 16.2 to 2150 meters (140 KC to 18.5 MC).
- 4 Bands.
- 8 Tubes.
- Automatic Volume Control.
- Tone Control.
- Head Phone Jack.
- Beat Frequency Oscillator.
- Built-In Speaker.
- Individual Coils for each Band.
- AF Gain Control.
- Band Switch.
- Sensitivity Control.
- "S" Meter Terminals.

The SKYRIDER MARINE (Model S-22) including tubes and speaker.....

\$64⁵⁰

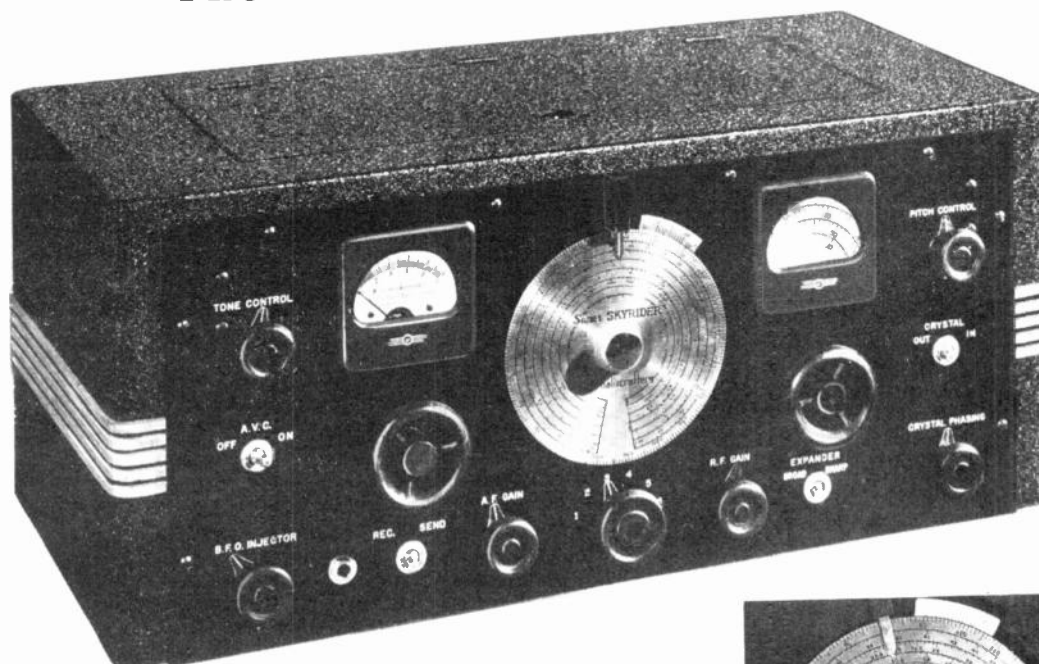
MODEL S22A—Sky rider Marine, same as Model S22 except for 110 volts AC-DC operation

\$64⁵⁰

LOT NEXT TO STORE OR LOADING ZONE

the hallicrafters inc.

The 1938 SUPER SKYRIDER



America's Leading Communications Receiver

The Super Sky Rider has everything any operator could ask for in a single receiver. It tunes from 5 meters to the top of the broadcast band, with an average overall sensitivity of better than 1 microvolt for all bands. It has Wide Range Variable Selectivity with Single Signal razor sharpness to broad high fidelity, a 1000 Band Spread that substantially better the A.R.R.L. Handbook standards, improved image and signal-to-noise ratio and an "S" meter that works on weak as well as strong signals.

COVERAGE

The Super Sky Rider covers a frequency range of 62,000 to 545 KC on 6 bands (all directly calibrated and turned without charts and tables) as follows: Band 1—545 KC to 1550 KC, Band 2—1550 KC to 4300 KC, Band 3—4.2 MC to 10.2 MC, Band 4—9.8 MC to 20.5 MC, Band 5—19 MC to 36 MC, Band 6—35 MC to 62 MC. All bands are indicated by Band Pointer directly connected to the Band Switch.

SELECTIVITY

New and improved Iron Core I. F. transformer circuits provide Wide Range Variable Selectivity (7.5 KC to 25.5 KC band width at 100 times resonant input). With crystal in the circuits, selectivity is better than 1 KC, offering a total ratio of variable selectivity of 30 to 1.

BANDSPREAD

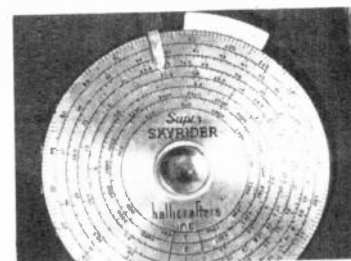
The Super Sky Rider Band Spread is unique in design, highly efficient electrically, smooth in mechanical operation. The Band Spread is an integral part of the specially built High Frequency Variable Condenser, thus eliminating extra wiring and parallel insulation losses in the tuned circuits, and providing a more stable and smoother operating unit both electrically and mechanically. Over 1000 of band spread calibration on a unique spiral dial provides better than 2 KC per division on the 20 meter band and 25 KC for a complete turn of the band spread knob. Large controls and inertia tuning mechanisms make the Super Sky Rider one of the smoothest, easiest tuning receivers available. For 110-20 volts, 50-60 cycle current. Can be operated from 12 Volt Battery Current with the addition of Model 501 Electronic Converter. Ask your dealer.

TUBE COMPLEMENT

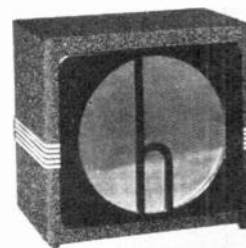
RF—6K7, 1st Detector—6L7, 1st IF—6K7, 2nd IF—6K7, 2nd Detector, AVC, 1st Audio—6R7, Power Output—PP 6V6G, H. F. O.—6J5, Meter Amplifier—6J7, B. F. O.—6J7, Rectifier—5Z3.

Model S-16 SUPER SKYRIDER, including tubes but less crystal..... **\$ 99.00**
Dimensions—21½" wide, 9¼" high, 11" deep. Shipping weight 60 lbs.

Model SX 16 SUPER SKYRIDER, including tubes and crystal..... **111.00**
12" PM DYNAMIC SPEAKER in matching cabinet..... **\$12.00**



The Super Sky Rider 6 Band Directly Calibrated Dial, characteristic of all Hallicrafters receivers.



12" PM Dynamic Speaker in matching cabinet, built by Jensen to Hallicrafters specifications.

MODEL SX 17 A SPECIAL MODEL Super Sky Rider

This model was built by special request of many amateurs who wanted two stages of Pre-Selection instead of the single stage in the standard model Super Sky Rider. It also incorporates the Dickert Automatic Noise Limiter, for better reception of Ultra High Frequency signals. Built originally upon special order, this model proved so popular that it was incorporated in the Hallicrafters line. For 110-20 Volt, 50-60 cycle current. Can be operated from 12-Volt Battery Current with addition of Model 501 Electronic Converter. **\$149.50**
The SX17 Special Model Super Sky Rider including crystal and 12" Dynamic Speaker in matching cabinet.....
Shipping Weight, including speaker, 82 lbs.

IT'S EASY TO PARK AT WALTER ASHE . . .

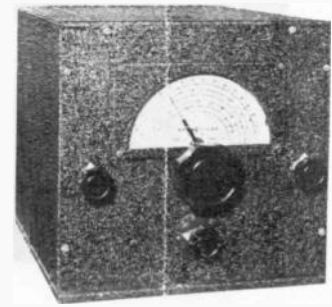
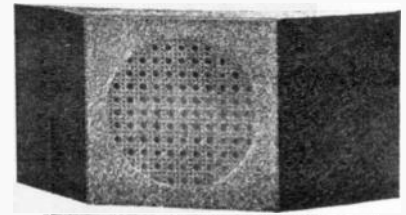
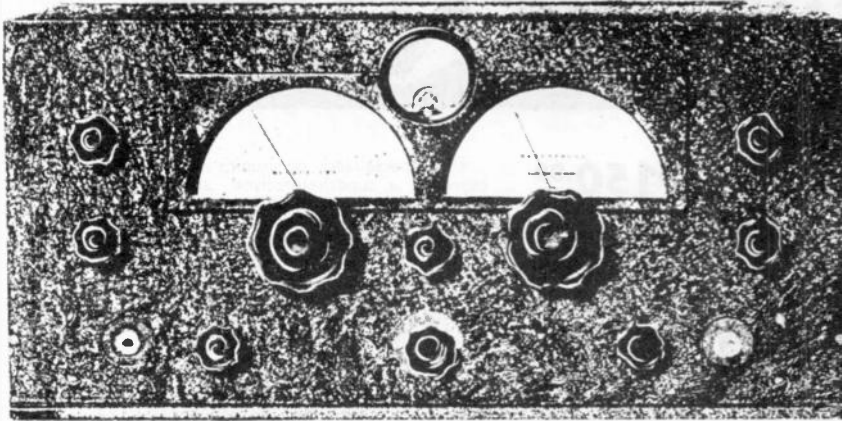
1100 Pine Street

St. Louis, Missouri

SINGLE SIGNAL SUPERHET

RME-69

THE SPEAKER, mounted in the Acoustic Chamber, finished in black or gray crinkle.



The DB-20 PRESELECTOR and IMAGE REJECTOR

RECEIVERS—Cabinet Type

LIST NET

RME-69 Single Signal Super Receiver, housed in steel cabinet, gray or black crinkle finish, 465 KC crystal, set of 9 tubes, 8" PM dynamic speaker, housed in gray or black crinkle finish baffle. 110 volt, 60 cycle model \$254.80 \$152.88

RECEIVERS—Relay Rack Type.

RME-69 Single Signal Super Receiver complete with 465 KC crystal, set of 9 tubes, relay rack model, gray or black crinkle finish, mounted on relay rack frame, black crinkle finish, complete with rack mounted speaker, gray or black crinkle finish, and shield cover on receiver, black crinkle finish. 110 volt, 60 cycle model 296.00 177.60

RME-69 Single Signal Super Receiver with 465 KC crystal, set of 9 tubes, relay rack model, mounted on 19"x8 3/4"x3 1/16" panel, gray or black crinkle finish, including shield cover, black crinkle finish. 110 volt 60 cycle model 255.80 153.48

RME-69 Receiver equipped with special band scale and circuit to cover special ranges such as 170—450 KC (eliminating broadcast band) or to extend the high frequency range to 42 mc. ADD 10.00 6.00

LS-1 Noise Suppressor Unit built into RME-69 Single Signal Super Receiver, any model, including 1-6K7, 1-6J7, 1-6L7, 1-6H6 tubes. ADD 19.00 11.40

Code: DINAR

RME-69 Receiver equipped with extra pair of binding posts on rear of chassis apron and wired to open B supply circuit when working break-in. ADD 2.00 1.20

Code: COLOR

RME-69 Receiver equipped with extra pair of binding posts on rear of chassis apron and special relay control contacts provided on monitor switch for special break-in operation to control transmitter. ADD 4.50 2.70

Permanent Magnet Dynamic Speaker, 8" in diameter, dust-proof model, speaker cord attached, housed in either gray or black crinkle finish steel cabinet. 19.75 11.85

Code: COMBS

Permanent Magnet Dynamic Speaker, 8" in diameter, dust-proof model, mounted on 19"x8 3/4"x3 1/16" relay rack panel, either gray or black crinkle finish. Speaker cord attached 27.75 16.65

Relay Rack Frame, furniture steel, 19 1/4" wide, 17 3/4" high, 10 3/4" deep, to house the Relay Rack Model RME-69 Receiver and Speaker. Black crinkle finish only 12.50 7.50

Same as ADORN, only having dimensions of 19 1/4" wide, 26 1/2" high, 10 3/4" deep, to house the Relay Rack Model RME-69 Receiver, DB-20 Preselector, and Speaker. Black crinkle finish only. 14.00 8.40

OA-1 Oscilloscope Amplifier, providing means whereby a standard cathode ray oscilloscope may be connected to the RME-69 for visual monitoring of signals. Either gray or black crinkle finish cabinet. Including 6D6 tube. 13.50 8.10

PRESELECTORS—Cabinet Type

DB-20 Preselector, in gray or black crinkle finish cabinet, over-all dimensions 9 1/4" high, 9 1/2" wide, 10 1/2" deep, including 2-6K7 and 1-80 tested tubes, interconnecting plug and cord. 110 volt, 60 cycle model 71.00 42.60

PRESELECTORS—Relay Rack Type

DB-20 Preselector, mounted on relay rack panel, 8 3/4" x 19"x3 1/16", gray or black crinkle finish, including 2-6K7 and 1-80 tested tubes, with shield cover, black crinkle finish. 110 volt, 60 cycle model. 87.00 52.20

FREQUENCY EXPANDERS—Cabinet Type

510X Expander in gray or black crinkle finish cabinet, over-all dimensions 9 1/4" high, 9 1/2" wide, 10 1/2" deep; equipped with change-over switch, interconnecting plug and cord. 110 volt, 60 cycle model, less tubes \$70.00 \$42.00

FREQUENCY EXPANDERS—Relay Rack Type

510X Expander mounted on aluminum relay rack panel 8 3/4" x 19" x 3 1/16", gray or black crinkle finish. Equipped with change-over switch. With shield cover, black crinkle finish; 110 volt, 60 cycle model, less tubes 86.00 51.60

COMBINATIONS—

RME-69 Single Signal Super Receiver with 465 KC crystal, set of 9 tubes, and DB-20 preselector with tubes, mounted side by side in one cabinet 28 1/2" long, 10 1/2" wide, 9" high. Either gray or black crinkle finish. 307.00 184.20

COMBINATIONS—Relay Rack Type

LIST NET

DB-20 preselector and 510X Expander mounted side by side on one relay rack panel, 19"x8 3/4"x3 1/16" with tubes, shield covers, and change-over switches on both units. Either gray or black crinkle finish. 177.40 106.45

DB-20 Preselector and 510X Expander with tubes and change-over switches in both units, mounted side by side in one cabinet 19" long, 10 1/2" wide, 9" high. Either gray or black crinkle finish. 148.50 89.10

LOT NEXT TO STORE OR LOADING ZONE

RECEIVERS



\$150.00

NC-510 (TABLE MODEL)

**Net, complete with
tubes, coils,
speaker,
and power unit**

Note: Receiver prices are
approximate, exact price to
be announced on Sept. 1st.

This specialized communication receiver is a superheterodyne covering 28 to 64 MC. in three ranges, each being calibrated in megacycles on a straight-line, full-vision dial.

A meter-type mirror for eliminating parallax, adjustable frequency markers for accurately logging stations directly on the dial itself, a range indicator mounted on the dial, and an inertia-type tuning drive with a 60:1 ratio are features making tuning unusually convenient. A new rotary system of automatic coil changing combines the unequalled performance of plug-in coils with the convenience of a coil switch. The coils are mounted radially in a cast aluminum turret

which is easily turned into position by a knob on the front panel. Directly above the coil turret is a three gang straight-line-frequency tuning condenser, unique in that the RF circuit and tubes are completely built inside the condenser frame thus making a compact assembly with the shortest possible leads from coils to condensers to tubes.

The use of acorn tubes (the 956 in the RF, the 954 in the First Det., and the 955 in the HF Oscillator) together with the National 1560 KC IF channel provides "HRO performance" on 5 to 10 meters for the first time. All RF and IF circuits are air dielectric tuned. The crystal filter is in the 3rd IF stage and has continuously variable selectivity from 300 cycles to 7 Kilocycles. The range of the phasing circuit (heterodyne elimination) is also extended. The filter can be switched out of the circuit at will. The 6V6G beam power tube delivers an undistorted output of 2 watts and provision is made for either speaker or head phone operation. Other circuit details include a CW Oscillator, a new AVC circuit, a vacuum tube voltmeter calibrated in "S" units and many other important features (such as the stabilized HF Oscillator) which are not found in any other receiver operating at these high frequencies. Although not standard, these receivers can be supplied on special order with Inter-channel Noise Suppression for quiet standby operation.

Shipping Weights: NC-510, 62 pounds — NC-510B, 62 pounds — Power Supply, 17 pounds.

NC-510 — Receiver, table model complete with tubes, coils covering from 28 to 64 MC., 8" speaker with cabinet but no power supply, for 6 volt A.C. operation, — black finish. **Net Price, \$150.00**

NC-510B — Receiver, table model same as above but for 6 volt battery operation. **Net Price, \$150.00**

Relay Rack models of above receivers
Net Price, \$162.00

5856 — Power Supply, less tube, for A.C. model.
Net Price, \$17.70

RRA — Relay Rack Adapter designed for mounting table model receivers in a standard relay rack.

Net Price, per pair, \$1.50

NATIONAL

NC-FIVE-TEN

The new NC-44 Communication Receiver combines capable performance with low price. It employs seven tubes in a superheterodyne circuit. The 6K3 first detector and oscillator has exceptional stability and conversion gain. Other circuit features are: Two 456 KC IF stages, second detector and AVC tube, CW oscillator and 25L6G beam power tube with 2 watts output. There are separate controls for RF and AF gain, and on and off switches for the AVC and CWO circuits. The self contained power supply operates on 105-130 volts AC or DC. A six volt battery model is also available.

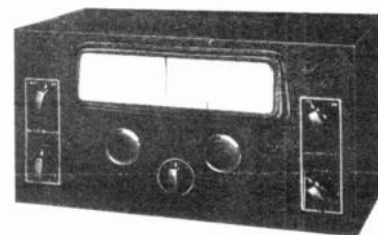
A straight-line-frequency condenser is used in conjunction with a separate band spread condenser. This combination plus the full vision dial calibrated in frequency for each range covered and a separate linear scale for the band spread condenser, makes accurate tuning easy. Both condensers have an inertia-type drive. A coil switch with silver plated contacts selects the four ranges from 550 KC to 20 MC. Provision is made for either head phone or speaker operation.

Shipping Weights: NC-44, 45 pounds — NC-4-E 45 pounds.

\$49.50

NC-44

**Net, complete with
tubes, coils and
speaker**



NC-44 — Receiver, complete with tubes, coils covering from 550 KC to 30 MC., and speaker chassis, for 105-130 volts AC or DC operation — black finish. **Net Price, \$49.50**

NC-44B — Receiver, same as above but for 6 volt battery operation, less batteries. **Net Price, \$49.50**

RRA — Relay Rack Adapters designed for mounting these receivers in a standard relay rack

Net Price, \$1.50

NATIONAL

NC-44

IT'S EASY TO PARK AT WALTER ASHE . . .

RECEIVERS



This inexpensive receiver has exceptional operating characteristics. Ten tubes are used in a high gain superheterodyne circuit. The IF amplifier is of entirely new design, operating at a frequency of 1560 KC, and providing a high order of image suppression, better, in fact, than that obtainable in many receivers having elaborate preselectors.

The crystal filter (2nd IF stage) has continuously variable selectivity from 400 cycles to 5 KC. The range of the phasing circuit (heterodyne elimination) has been similarly extended. The crystal filter remains in the circuit at all times. The 25L6G beam power tube delivers an undistorted output of 2 watts when using either AC or DC, 115 volt supply.

The tuning system, likewise entirely new, employs a multiple scale dial of the full-vision type, accurately calibrated in megacycles. Several unusual features are incorporated, such as the mirror for overcoming parallax, and the adjustable frequency markers, by means of which any particular stations, or frequencies, such as band limits, may be "logged" on the dial itself. All RF and IF circuits are air dielectric condenser tuned.

Automatic plug-in coils are used, controlled by a knob on the front panel, as in the NC-100. The frequency coverage is continuous, except for a small gap at 1560 kc., from 550 kc. to 30 mc., in four ranges.

The NC-81X is a special amateur model covering the following bands only: 1.7-2.05 mc., 3.5-4.0 mc., 7.0-7.3 mc., 14.0-14.4 mc. and 28-30 mc. The dial is calibrated in megacycles.

The NC-80X receiver can be furnished at \$6.00 net additional price with either a special high frequency (30-45 mc.) range or a low frequency range (200-550 kc.) in place of one of the standard ranges. When ordering, specify which standard range is to be omitted for the special range.

Shipping Weights: NC-80X, 44 lbs. — NC-81X, 45 lbs. — Speaker in cabinet, 15 lbs.

\$99.00

NC-80

Net, complete
with tubes,
coils, speaker



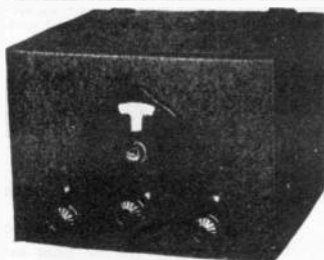
NC-80X — complete with tubes, crystal filter, 8" PM speaker, etc. for 115v. AC or DC. Net Price, \$99.00

NC-81X — Amateur Model, complete with tubes, crystal filter, 8" PM speaker, etc. for 115v. AC or DC. Net Price, \$99.00

Note: Either of the above receivers can be supplied modified for Battery Operation 6v. heater, 135v. B-supply. To order, add "B" to symbol number. List prices are the same as the corresponding AC-DC model.

NATIONAL

NC-80X



AVAILABLE IN THREE MODELS — ACSW-3 for AC operation — 6DCSW3 for 6 volt DC operation — 2DCSW3 for 2 volt DC operation. AC Models use "60" Series Coils. DC Models use "10" Series Coils.

Shipping Weights: Receiver, 17 lbs. — No. 5880 AB pack, 18 lbs.

The SW-3 Receivers employ a circuit consisting of one R.F. stage transformer coupled to a regenerative detector and one stage of impedance coupled audio. This circuit provides maximum sensitivity and flexibility with the smallest number of tubes and the least auxiliary equipment. The single tuning dial operates a precisely adjusted two gang condenser; the regeneration control is smooth and noiseless, with no backlash or fringe howl; the volume control is calibrated from one to nine in steps corresponding to the R scale.

Tubes required — 2 Volt AC Model; two 58, one 27 — 6 Volt DC Model; two 36, one 37 — 2 Volt DC; two 32, one 30.

SW-3, any model, without coils, phones, tubes or power supply. Net Price, \$21.00

5880-AB Power Supply, 115 V, 60 cycle, without 80 Rectifier. Net Price, \$17.70

General Coverage Coils

Catalog Number	Range	Net Price Per Pair
10 or 60	9. to 15. ...	\$3.00
11 or 61	13.5 to 25. ...	3.00
12 or 62	23. to 41. ...	3.00
13 or 63	40. to 70. ...	3.00
14 or 64	65. to 115. ...	3.00
15 or 65	115. to 200. ...	3.00
16 or 66	200. to 360. ...	3.30
17 or 67	350. to 550. ...	3.30

Five additional sets of coils are available to cover up to 3000 meters.

Band Spread Coils

10A or 60A — 10 meter	\$3.00
11A or 61A — 20 meter	3.00
13A or 63A — 40 meter	3.00
14A or 64A — 80 meter	3.00
15A or 65A — 160 meter	3.00

NATIONAL

SW-3

Designed chiefly for the experimenter, the One-Ten Receiver fulfills the need of the experimenter for an adequate receiver to cover the field between one and ten meters.

A four tube circuit is used, composed of one tuned R.F. stage, a self-quenching super-regenerative detector, transformer coupled to a first stage of audio which is resistance coupled to the power output stage. Tubes required: 954-R.F., 955-Detector, 6C5-1st Audio; 6F6-2nd Audio.

Type 110 Receiver and 6 sets of coils, without tubes, speaker or power supply. Net Price, \$51.00

Type 5886 Power Supply for above receiver, less tube. Net Price, \$17.70

Shipping Weights: Receiver, 16 lbs. — No. 5886 AB pack, 17 lbs.



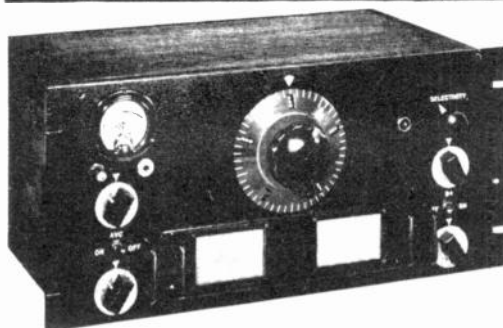
NATIONAL

ONE-TEN

LOT NEXT TO STORE OR LOADING ZONE



RECEIVERS



\$209.70

HRO
(TABLE MODEL)
Net, complete
with tubes, coils,
speaker
and power unit

The two preselector stages give remarkable image frequency suppression, weak signal response and high Signal-to-Noise

Ratio. The two high gain I.F. stages employ Litz-wound coils and are tuned with air condensers. The useable sensitivity and selectivity are exceptional. Other circuit details are automatic and manual volume control, a vacuum tube voltmeter calibrated in "S" units for carrier intensities, a phone jack, a Send-Receive switch and a Lamb Single-Signal crystal filter. This filter makes selectivity adjustable over a wide range and the circuits are so precisely balanced that heterodyning signals may be completely phased out.

When Standard HRO coils are used for general coverage, each of the 4 coils includes two amateur bands and the spectrum between. A simple switching device is provided which makes these same coils band-spread their respective amateur bands (except 160) over a span of 400 divisions on the dial.

For those who require the high performance of the Standard HRO but do not need its extreme versatility, the HRO Junior is offered. The circuit and mechanical details of both receivers are identical in every respect, but the lower priced model has been greatly simplified by omitting the Lamb Single-Signal crystal filter, the "S" meter, and by designing coils for continuous band spread only.

Shipping weights: HRO 62 lbs — HRO Jr 42 lbs — No. 5897 AB 15 lbs.

STANDARD HRO Receiver, table model, complete with tubes and four sets of coils covering range 1.7 MC to 30 MC, but no speaker or power supply — 2 1/2 volt A.C. or 6 volt battery model.
(Not illustrated) **Net Price, \$179.70**

STANDARD HRO Receiver, relay rack model — 2 1/2 volt A.C. or 6 volt battery model — (As illustrated) **Net Price, \$192.00**
Specify Grey or Black finish.

Additional sets of coils are available only as listed below

50-100 KC	Net Price, \$22.50
100-200 KC	Net Price, 18.00
175-400 KC	Net Price, 16.50
500-1000 KC	Net Price, 12.00
900-2000 KC	Net Price, 12.00

HRO JUNIOR RECEIVER table model, complete with tubes and one set of coils: 10 to 20 meters (2 amateur bands) but no speaker or power supply — 2 1/2 volt A.C. or 6 volt battery model.
Net Price, \$108.00

Additional HRO Junior Coils (2 amateur bands per coil). **Net Price, \$9.90**

MCS Table-model Metal Cabinet and 8" Dynamic Speaker (P.M. type — requires no power supply) with impedance matching transformer for a single Class A Pentode (7000 ohms). **Net Price, \$14.10**

5897 AB Power Supply — less tube — for above receivers. **Net Price, \$19.90**

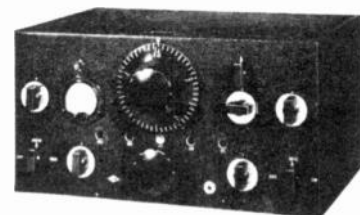
Inquire of dealer about special accessories, such as combination power unit, speaker, and coil-storage panel illustrated on Page 12

NATIONAL



\$120.00

NC-100A
Net, complete with
tubes, speaker



These 11 tube superheterodyne receivers are self-contained (except for the speaker) in a table model cabinet that is readily adapted to relay rack mounting. One stage of RF and two stages of IF are used. Low loss insulation and high-Q coils give ample sensitivity and selectivity. Separate RF and Audio Gain Controls and a signal strength meter are mounted on the panel. Other controls are Tone, CW Oscillator, AVC with amplified and delayed action, a B+ switch, and a phone jack. A self contained power supply provides all necessary voltages including speaker field excitation. The range changing system is unique in that it combines the mechanical convenience of a coil switch with the electrical efficiency of plug-in coils.

The NC-100A, illustrated above, covers the range from 540 KC to 30 MC. The large full vision dial is calibrated directly in megacycles and a separate high speed vernier scale provides high precision in logging. The NC-100XA is similar but equipped with a crystal filter.

The NC-101X, illustrated below, is built strictly for the amateur bands and covers only the following ranges: 1.7-2.05 MC, 3.5-4.0 MC, 7.0-7.3 MC, 14.0-14.4 MC, and 28.0-30.0 MC. The NC-101X is equipped with a crystal filter, S-meter, and the PW type instrument dial.

The battery models use 9 tubes. Power output of AC model 10 watts, battery model 2 watts.

Shipping weights: NC-100A 70 lbs — NC-100XA 71 lbs — NC-101X 71 lbs

HRO

NC-100A — complete with tubes.
AC model — 10" speaker chassis.
Net Price, \$120.00

Battery model — 8" speaker chassis.
Net Price, \$110.50

NC-100XA — complete with tubes and crystal filter.
AC model — 10" speaker chassis.
Net Price, \$142.50

Battery model — 8" speaker chassis.
Net Price, \$133.00

NC-100SA — complete with tubes
AC model — 12" Rola G-12 Speaker.
Net Price, \$133.50

NC-100XSA — complete with tubes and crystal filter.
AC model — 12" Rola G-12 Speaker.
Net Price, \$156.00

NC-101X — complete with tubes
AC model — 10" speaker chassis.
Net Price, \$129.00

Battery model — 8" speaker chassis.
Net Price, \$120.00

DCS-10 — Metal Cabinet for 10" speaker, same finish as receiver.
Net Price, \$5.10

DCS-8 — Metal Cabinet for 8" speaker, same finish as receiver.
Net Price, \$4.80

Note: Cabinets for 12" speaker chassis cannot be supplied.

RRA Relay Rack Adapters designed for mounting any of the above receivers in a standard relay rack.
Net Price, per pair, \$1.50

Note: 230 volt 50 cycle and 115 volt 25 cycle models of above receivers available at slightly higher price.

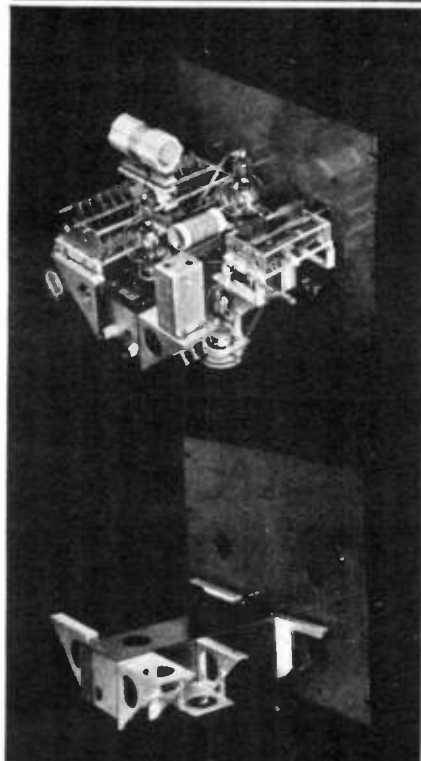
NATIONAL

NC-100XA

IT'S EASY TO PARK AT WALTER ASHE . . .



TRANSMITTER FOUNDATION UNITS



NATIONAL FINAL

AMPLIFIER UNIT

The National Final Amplifier Foundation Unit features a compact, open construction that results in short leads, symmetry of the push-pull output circuit, easy wiring, and complete accessibility. It was originally described in *QST* using RK-38's, and because of the great many inquiries received was later sold in kit form as the NT-38PC. More recently it has become a basic unit in the new transmitter featured in the Thordarson Transmitter Guide, in which Eimac 100TH's in the final are driven by a single Eimac 35T. Complete information is given in the booklets listed on the last page of this catalogue.

Final Amplifier and Buffer Foundation Unit, Type NT-100PC.

Net Price, \$9.60

National Parts (as marked with an asterisk in the listing on Page 7) for construction of the Type NT-100PC.

Net Price, \$47.64

NATIONAL MEDIUM VOLTAGE POWER SUPPLY UNIT

This power supply foundation unit is for use with the buffer stage described at the top of this page, and the modulator described at the top of the following page. It is a thoroughly engineered power supply, but is sold only in kit form. The chassis is supplied either completely drilled and punched for use with Thordarson CHT Components, or with only socket holes, terminals, etc., for use with other types of transformers and chokes.

Medium Voltage Power Supply Foundation Unit for Thordarson CHT Components, Type NT1200PC.

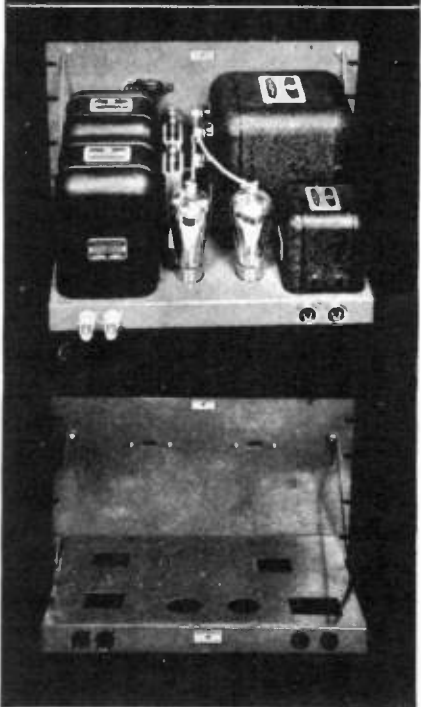
Net Price, \$7.20

Medium Voltage Power Supply Foundation Unit for use with various types of transformers and chokes, Type NT1200PU.

Net Price, \$7.20

National Parts (as marked with an asterisk in the listing on Page 7) for construction of above units.

Net Price, \$2.04



NOTE. The illustrations above and to the right show the assembled units, and immediately below each assembled unit the corresponding foundation unit. Mounting screws, grommets, spacers, brackets, lockwashers and similar hardware are furnished with each foundation unit. For convenience in shipping foundation units are packed disassembled. Panels are of $\frac{1}{8}$ " steel finished in black moire. Aluminum panels $\frac{3}{16}$ " thick, finished in either black leatherette or gray enamel, are available at an additional net price of \$4.80 for the NT100PC, and \$4.50 for the NT300PC, NT1200PC and NT2000PC.

TRANSMITTER FOUNDATION UNITS



NATIONAL CLASS B MODULATOR UNIT

The National Class B Modulator Foundation Unit employs a pair of "zero-bias 203's" in Class B, which are driven from the output of the National NTE Exciter-Speech Amplifier and which plate-modulate the final described at the top of the preceding page. Though primarily designed for use with Thordarson CHT Components, it is available also with only the socket holes, meter hole, etc. ready punched, for use with other types of transformers.

Class B Modulator Foundation Unit, for use with Thordarson CHT Components, Type NT300PC. **Net Price, \$7.20**

Class B Modulator Foundation Unit, for use with various types of transformers, Type NT300PU. **Net Price, \$7.20**

National Parts (as marked with an asterisk in the listing below) for construction of above units. **Net Price, \$3.06**

NATIONAL HIGH VOLTAGE POWER SUPPLY UNIT

The High Voltage Power Supply Foundation Unit is designed to power the final amplifier described at the top of the preceding page. As in the case of the units previously described, it is designed for Thordarson CHT Components, but is available partially drilled and punched for use with other types of transformers and chokes.

High Voltage Power Supply Foundation Unit, for use with Thordarson CHT Components, Type NT2000PC. **Net Price, \$7.20**

High Voltage Power Supply Foundation Unit, for use with various types of transformers and chokes, Type NT2000PU. **Net Price, \$7.20**

National Parts (as marked with an asterisk in the listing below) for construction of above units. **Net Price, \$2.04**

PARTS FOR TRANSMITTER FOUNDATION UNITS

BUFFER AND FINAL AMP.

- * 2 National Type O dials
- * 1 National FXTB unit with PB-10 base
- * 1 National TMC-100D condenser
- * 1 National TMA-40DC condenser
- * 2 National NC-150 neut. condensers
- * 1 National NC-800 neut. condensers
- * 1 National UR-10A coil assembly
- * 1 National XR-14A coil form for 3.5 or 7 mc. with PB-15
- * 1 National UR-13 coil assembly (for each band)
- * 1 National 6-prong Square coil socket
- * 3 National XM-10 sockets
- * 4 National GS-1 standoffs
- * 4 National GS-8 standoffs
- * 3 National R-100 chokes
- * 1 National T-8 Filament transformer
- 1 Yaxley Pilot Lamp assembly
- 2 Yaxley Plugs
- 4 Carter Jacks
- 1 General Radio Jack Terminal
- 1 AC Toggle Switch, Receptacle and Terminal Panel
- 4 Aerovox .01-mfd. Mica condensers
- 2 Aerovox .001-mfd. Mica condensers, 5000 v.
- 1 Triplett D.C. Milliammeter — 100 ma.
- 1 Triplett D.C. Milliammeter — 300 ma.
- 1 2-watt Fixed Resistor, 20,000 ohms
- 1 10-watt Fixed Resistor, 5000 ohms

MODULATOR

- * 2 National XM-50 sockets
- * 4 National GS-8 standoffs
- * 2 National No. 12 grid clip clips
- 1 Thordarson Transf. T-11F51
- 1 Thordarson Transf. T-15D82

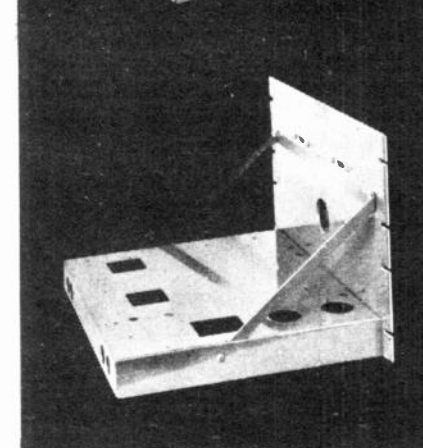
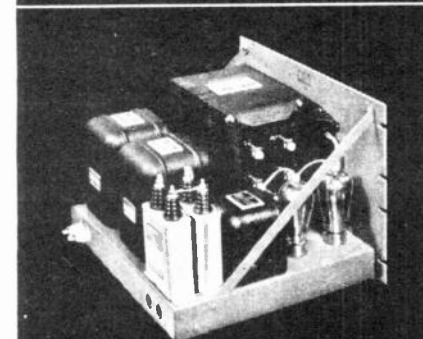
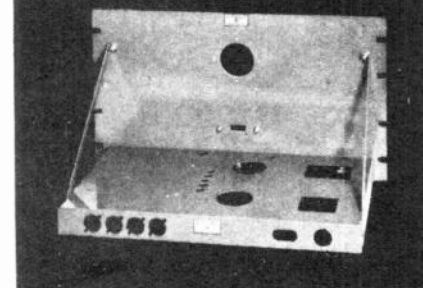
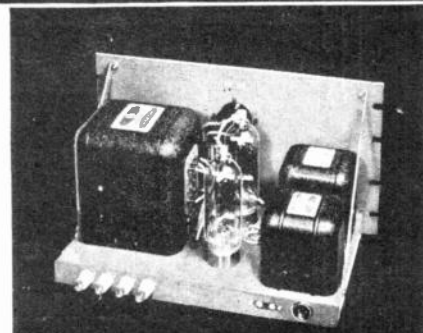
- 1 Thordarson Transf. T-11M77
- 1 AC switch — Arrow — No. 1301
- 1 AC outlet — Arrow — No. 754 and MB
- 1 Triplett 0-500 milliammeter
- 7 1/2" Rubber grommets
- 4 3/8" Socket spacers
- 1 Terminal panel

MODULATOR & BUFFER POWER SUPPLY

- * 2 National XM-10 sockets
- * 2 National No. 12 grid clip clips
- * 2 National GS-8 standoffs
- 1 Thordarson Transf. T-11F53
- 1 Thordarson Transf. T-15P15
- 1 Thordarson Choke T-15C46
- 1 Thordarson Choke T-15C37
- 2 Aerovox 2 mfd. 1500v. Type 15C2
- 2 AC outlets — Arrow — No. 754 and MB
- 2 AC switches — Arrow — No. 1301
- 7 1/2" Rubber Grommets
- 4 3/8" Socket spacers

FINAL AMP. POWER SUPPLY

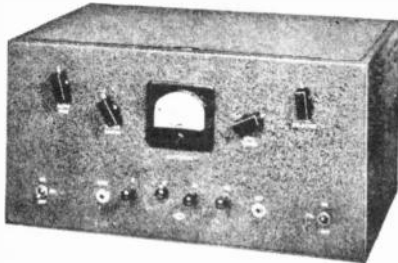
- * 2 National XM-10 sockets
- * 2 National No. 12 grid clip clips
- * 2 National GS-8 standoffs
- 1 Thordarson Transf. T-11F53
- 1 Thordarson Transf. T-15P19
- 1 Thordarson Choke T-15C46
- 1 Thordarson Choke T-15C37
- 2 Aerovox 2 mfd. 2500v. Type 2502
- 2 AC outlets — Arrow — No. 754 and MB
- 2 AC switches — Arrow — No. 1301
- 7 1/2" Rubber Grommets
- 4 3/8" Socket spacers
- 1 Triplett 0-3000 Voltmeter



IT'S EASY TO PARK AT WALTER ASHE . . .



UNIVERSAL EXCITER SPEECH AMPLIFIER



NATIONAL NTE EXCITER AND SPEECH AMPLIFIER

The new National Combination Exciter and Speech Amplifier is the ideal answer to transmitter control at the operating position. It includes a versatile multi-band exciter unit with a choice of frequencies in each band, and a high-gain speech amplifier. The exciter can be used with either a conventional single crystal, a National "Vari-gap" variable frequency holder, or a National four-crystal multiple holder, although the multiple holder is usually supplied. The crystal oscillator is followed by three frequency-multiplier stages using 6L6's. The crystals can be controlled from the front panel, and the same is true of the frequency-multiplier stages which are selected by a convenient interlocking push switch of special low-loss design. The four stage amplifier delivers 15 watts output from PP 2A3's with an input of .005 Volts. Although the power supply is entirely self-contained, the hum level is exceedingly low. A meter is provided for circuit adjustments.

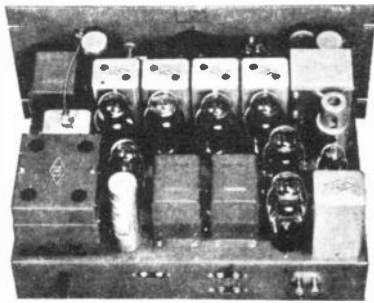


Table models are furnished in black wrinkle-finish steel cabinets to match the NC-101X Receiver, at prices listed. Relay rack models can be supplied at an increased price of \$6.00 net for black wrinkle-finish steel panels $\frac{1}{4}$ inch thick, or at an increase of \$9.00 net for black leatherette or gray enamel panels of aluminum $\frac{3}{16}$ inch thick.

Type NTE Exciters are available in three models as follows:

Exciter Speech Amplifier, for 5, 10, 20 and 75 meters, table model, Type NTE-A.

Net Price, \$129.00

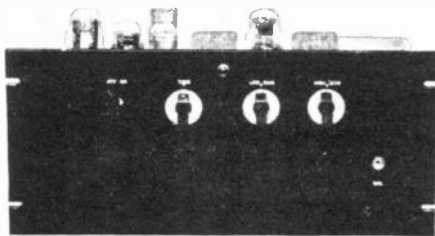
Same as NTE-A, but for 10, 20, 40 and 75 meters, Type NTE-B.

Net Price, \$129.00

Same as NTE-B, but without speech amplifier, Type NTE-C.

Net Price, \$ 93.00

Shipping Weight Approx. 70 Lbs.



NATIONAL NSA SPEECH AMPLIFIER

The new National Speech Amplifier has two input channels with an electronic mixer. One input circuit provides an over all gain of 125 db, and is suitable for crystal microphones, etc. The other input circuit has one less amplifier stage and is intended for high level sources such as phonograph pickups, etc. The frequency characteristic is flat within less than 1 db from 25 to 10,000 cycles. A separate rectifier supplies bias voltage for the PP 2A3's, which deliver 15 watts output. A tone control is provided.

Speech Amplifier, table model, in wrinkle-finish steel cabinet, including tubes, Type NSA.

Net Price, \$69.00

Extra for relay rack mounting with black wrinkle-finish steel panel $\frac{1}{4}$ inch thick

Net Price, \$ 6.00

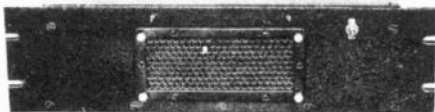
Extra for relay rack mounting, with black leatherette or gray enamel aluminum panel $\frac{1}{8}$ inch thick.

Net Price, \$ 9.00

Approx. Shipping Weight 50 Lbs.

NATIONAL POWER SUPPLIES

These Power Units have exceedingly low inherent hum as a double section filter, using high quality chokes and condensers, is employed. The transformer primary is shielded from other windings and "tunable hums" are eliminated by a built-in R.F. filter. These units are equipped with a receptacle for plugging in the power cable from the set and special filament windings compensate for power cable voltage drop. At the left is shown a rack-mount pack; at the right is a table-model pack.



Type GRSPU Single Pack for rack mount can be supplied with same characteristics as 5897 5935 or 5880.

Net Price, less tube, \$29.70

Type GRDPU Double Pack for rack mount, same characteristics as GRSPU but with two complete and separate power supplies built in.

Net Price, less tubes, \$47.70

Type 5897 Table Pack — for 2½ volt tubes, 220 volts, 60 mls. }

Net Price, less tube, \$15.90

Type 5896 Table Pack — for 6 volt tubes, 180 volts, 35 mls. }

Net Price, less tube, \$17.70

Type 5880 Table Pack — for 2½ volt tubes, 180 volts, 35 mls. }

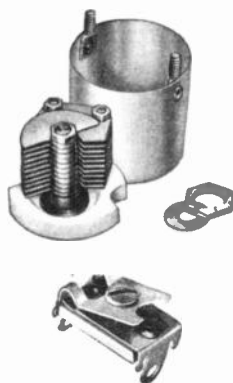
Net Price, less tube, \$17.70

For other voltages and frequencies, prices slightly higher



LOT NEXT TO STORE OR LOADING ZONE

PARTS

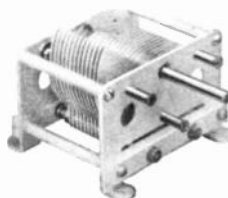


PADDING CONDENSERS

National Air-Dielectric Padding Condensers are extremely compact and have a very low temperature coefficient. The aluminum shield is $1\frac{1}{4}$ " diameter by $1\frac{1}{2}$ " high.

A very small mica Padding Condenser is also available, mounted on an Isolantite base and designed to be supported by the circuit wiring. The maximum capacity is 30 mmf, and the overall dimensions are $1\frac{1}{2}$ " long x $\frac{9}{16}$ " wide x $\frac{1}{2}$ " high.

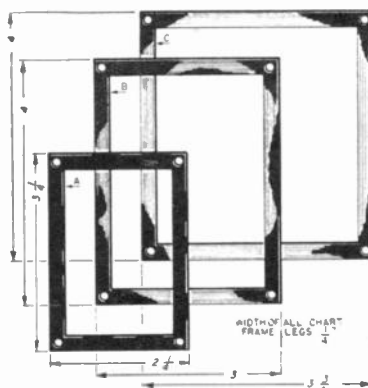
W 75 (75 Mmf. Air) Net Price, \$1.35
W 100 (100 Mmf. Air) Net Price, 1.50
M 30 (30 Mmf. Mica) Net Price, .18



GENERAL PURPOSE CONDENSERS

National EMC Condensers have high electrical efficiency, and calibrations may be relied on. Insulation is of Isolantite, and Peak Voltage Rating is 1000 volts. Plate Shape is SLW.

Capacity	No. of Plates	Cat. Symbol	Net Price
150	9	EMC 150	\$1.95
250	14	EMC 250	2.25
350	18	EMC 350	2.55
500	26	EMC 500	2.85
1000	56	EMC 1000	4.35
Split-Stator Models			
350-350	18-18	EMCD-350	4.50



COIL CHART FRAMES

Nickel Silver Chart Frames are available in the sizes shown. The largest frame is the same as that used on the AGS, the medium frame is the same size as that on the FB-7, and the smallest is the same as the HRO frame. Prices include celluloid sheet to protect the chart.

Size A. Net Price, \$.30
Size B. Net Price, .36
Size C. Net Price, .42

H.F. BUSHING

This small Steatite bushing has many uses in Amateur equipment. Type XS-6 Net Price, \$.09

SHAFT BUSHING

A bushing that gives a professional touch to equipment where $\frac{1}{4}$ " shafts have to be brought through panels. Type SB Net Price, \$.15

ROTOR SHAFT LOCK

This lock is designed to clamp securely either the TMA or the TNC rotor shafts. Type RSL Net Price, \$.51

GRID GRIPS

This Grip provides the best means for attaching a wire to the top-cap of tubes. Made in three sizes.

Type 24 — for standard glass tubes

Type 12 — for transmitting tubes

Type 8 — for metal tubes

Screw Terminal

Shaft Extension

Net Price, \$.03

Net Price, .06

Net Price, .03

Net Price, .09

Net Price, .15

INSULATORS

A number of our standard condenser insulators are shown above. In addition to their obvious use as repair parts they may be used for a variety of other purposes such as supports for coils, spreaders, etc. The insulator shown in Fig. 1 is the same as Fig. 3, but has a metal solder lug riveted to each end. It is useful as a 5-meter lead-in spreader, or as a mounting for 5-meter inductances.

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Net Price, \$.18

Net Price, .09

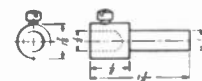
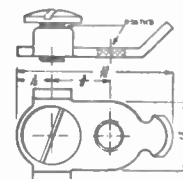
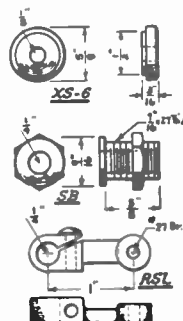
Net Price, .09

Net Price, .18

Net Price, .18

Net Price, .24

Net Price, .24



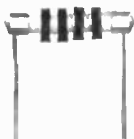


PARTS

NATIONAL R. F. CHOKES

R-100. Isolantite mounting, continuous universal winding in four sections. For pig-tail connections or standard resistor mountings. Inductance $2\frac{1}{2}$ m.h.; distributed capacity, 1 mmf.; D.C. resistance 50 ohms; Current rating, 125 M.A. For low powered transmitters and high frequency receivers.

Net Price, \$3.36



R-152, R-154, R-154U. These transmitter chokes have honeycomb coils (0.6 amps. rating) wound on Isolantite cores. The R-152 is designed for the 80 and 160 meter bands; inductance 4 m.h., D.C. resistance 10 ohms. The R-154 and R-154U give maximum impedance on the 20, 40 and 80 meter bands; inductance 1 m.h., D.C. resistance 6 ohms. The R-152 and R-154 are as illustrated. The R-154U does not have the small insulating pillar and the third mounting foot.

Net Price, \$1.35
Net Price, \$1.05

R-201. A two-section honeycomb-wound choke in R-39 case, suitable for output circuit of second detector in H.F. receivers (475 KC Intermediate Frequency). Inductance, approximately 12 m.h., D.C. resistance approximately 120 ohms.

Net Price, \$.75



NATIONAL I. F. TRANSFORMERS

This new I.F. Transformer has air dielectric condensers (isolated from each other by an aluminum shield) and Litz wound coils mounted on an Isolantite base which is treated against moisture absorption. The aluminum shield can, housing the assembly, measures $4\frac{1}{8}'' \times 2\frac{3}{8}'' \times 2''$. These transformers are available with or without Iron Cores in the 450-550 KC model; the 175 KC model is air core only. For iron core add \$.30 to price.

An additional model, Type IFD, having a tuned primary and a closely-coupled, untuned, push-pull secondary is intended for operation with diode rectifiers. It is particularly suitable for use in noise silencing circuits. It is available only with an air core, and for 450-550 KC use.

Type IFC Transformer (air core)
Type IFCO Oscillator (air core only)
Type IFD Diode Transformer (air core only)

Net Price, \$3.00
Net Price, \$3.00
Net Price, \$2.10



NATIONAL FIXED TUNED EXCITER TANK

Similar in general construction to the I. F. transformer described above, this unit has two 25 mmf, 2000 volt air condensers and an unwound XR-2 coil form.

Type FXT, without plug-in base. **Net Price, \$2.70**
Type FXTB, with base (either 5- or 6-prong). **Net Price, \$2.94**

NATIONAL PLUG-IN BASE AND SHIELD



The low-loss R-39 base is ideal for mounting condensers and coils when it is desirable to have them shielded and easily removable. Shield can is $2'' \times 2\frac{3}{8}'' \times 4\frac{1}{8}''$. Two models are available; 5- or 6-prong.

Type PB-10, (Base and Shield). **Net Price, \$.45**
Type PB-10A, (Base only). **Net Price, \$.24**

NATIONAL COIL FORMS

RECEIVER COIL FORM. These well-known R-39 forms (illustrated at right) are machinable, permitting the experimenter to groove and drill them to suit individual requirements. They are available in 4-, 5- and 6-prong types. Length, $2\frac{1}{4}''$. Dia. $1\frac{1}{2}''$. XR-4, XR-5, or XR-6.

Net Price, \$.45



Also R-39, these small coil forms are designed with excellent form factor, contributing to high efficiency in H.F. circuits. Diameter, $1''$; Length, $1\frac{1}{2}''$; Wall thickness, $1/16''$. Type XR-1 has four prongs, others are plain. Type XR-1, four prongs. **Net Price, \$.30**
Type XR-2, without prongs. **Net Price, \$.21**
Type XR-3, $9/16''$ dia. x $3/4''$ long. **Net Price, \$.18**



PLUG-IN COIL FORMS. These R-39 coil forms, plug-in through the front panel of a receiver, monitor, etc. The coil shield listed is bolted to the back of the panel, and supports the Isolantite socket.

Net Price, \$2.85
Net Price, \$2.19
Net Price, \$1.05

LOW FREQUENCY OSCILLATOR COIL

Two separate inductances, closely coupled, in an aluminum shield. It is used in the SRR and other super-regenerative receivers for the interruption-frequency oscillator. Sec. Inductance 6.25 m.h. Tunes to 100 KC with .00041 Mfd. Type OSR.

Net Price, \$.90



EXCITER COILS AND FORMS

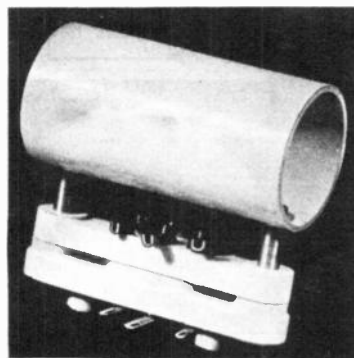
These coils are suitable for use in exciters, buffers, and low power finals. The series of Victron insulated, air spaced coils all fit the same plug-in mount. In addition an unglazed Isolantite form, drilled for leads, also fits the same base. All of the listed sizes will tune over their respective bands with 30 mmf and all have separate windings for link coupling. Add the letter E to symbol for end link, and C to symbol for center link.

Type PB-16 Plug **Net Price, \$.24**

Type XB-16 Socket **Net Price, \$.30**

Type XR-16 Coil Form **Net Price, \$.36**

Type UR-16 Assembly **Net Price, \$.90**



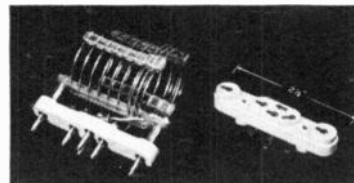
AIR SPACED COILS

Type AR16-80 (80 meters) **Net Price, \$.90**

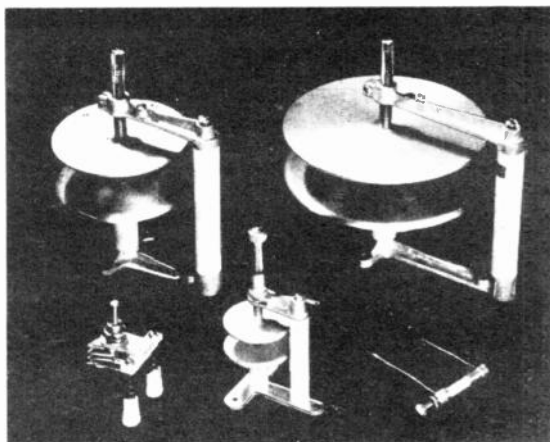
Type AR16-40 (40 meters) **Net Price, \$.90**

Type AR16-20 (20 meters) **Net Price, \$.90**

Type AR16-10 (10 meters) **Net Price, \$.90**

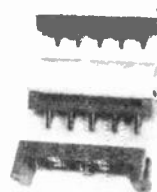
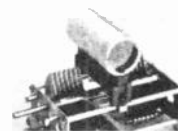


TRANSMITTING COILS



BUFFER COIL FORMS

Two Isolantite Buffer Coil Forms are now available. In addition to the XR-13 ($1\frac{3}{4}'' \times 3\frac{1}{2}''$) the new XR-13A form ($1'' \times 3\frac{1}{2}''$) is now listed for the first time. Both are drilled for leads and both fit the PB-5 Plug. The XB-5 Socket makes a convenient plug-in mount that attaches readily to the tie bars of a TMC Condenser. Plug and Socket are of molded R-39.

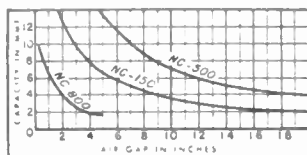


Type XR-13 Coil Form only	Net Price, \$.66
Type XR-13A Coil Form only	Net Price, \$.36
Type PB-5 Plug only	Net Price, \$.45
Type XB-5 Socket only	Net Price, \$.45
Type UR-13 Buffer Coil Assembly	Net Price, \$1.50
Type UR-13A Buffer Coil Assembly	Net Price, \$1.20

NATIONAL Neutralizing Condensers

In the group above, the Type NC-600 is shown at the lower right. It is suitable for 6L6's and similar beam tubes and has a range of adjustment from $\frac{1}{2}$ mmf to 5 mmf. Type STN, lower left, has a capacity of 18 mmf (3000 V) making it suitable for tubes such as the 10, 45 and 47. Of the disk type condensers, the smallest is the NC-800 with micrometer type thimble and clamp, suitable for the RCA-800. The medium sized model, Type NC-150,

is for the HK-345, RK-36, 300T and 852. Type NC-500 is the largest, and is for the WE-251A and similar tubes. The capacity of these disk type condensers is given in the chart below. In addition, the Type TCN, similar to TMC on the preceding page, is available for the 203A, 852, 204A, etc. (Max. Cap. 25 mmf., 6000V) All National Neutralizing Condensers have Isolantite insulation.

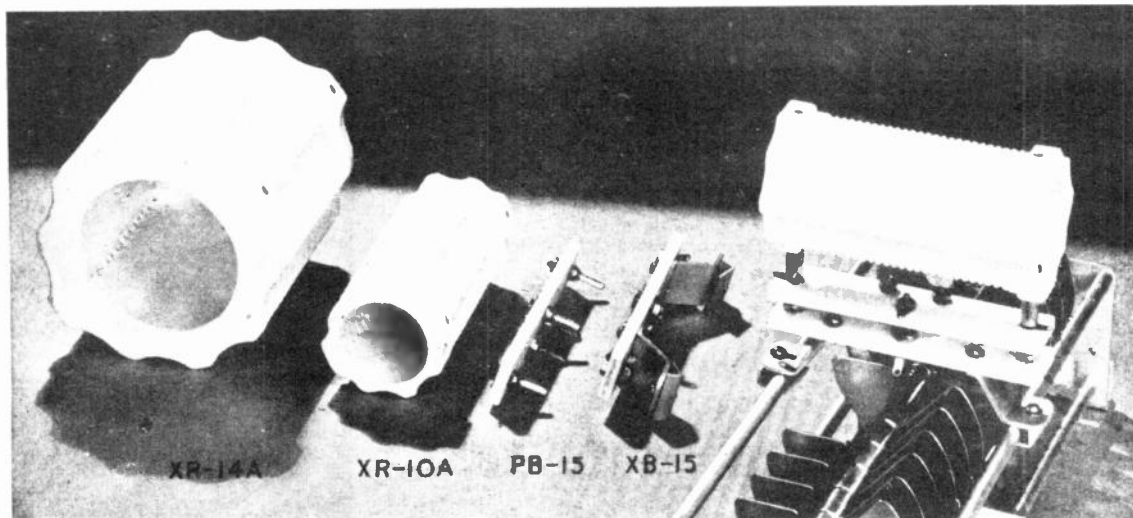


Type NC-600	Net Price, \$.27
Type STN	Net Price, \$1.20
Type NC-800	Net Price, \$1.80
Type NC-150	Net Price, \$3.90
Type NC-500	Net Price, \$7.50
Type TCN	Net Price, \$2.40

TRANSMITTER COIL FORMS

Two Transmitter Coil Forms are now available to fit the PB-15 Isolantite Plug and the XB-15 Socket. The XR-10A Form ($2\frac{1}{2}''$ winding dia. x 5'' long) is intended for the 20 and 40 meter bands. The new XR-14A Form ($5''$ winding dia. x 5'' long) is for the 80 meter band. The XB-15 Socket clamps on the tie bars of a TMA Condenser.

Type XR-10A Coil Form only	Net Price, \$.90
Type XR-14A Coil Form only	Net Price, \$2.10
Type PB-15 Plug only	Net Price, \$.81
Type XB-15 Socket only	Net Price, \$1.05
Type UR-10A Coil Form Assembly	Net Price, \$2.76
Type UR-14A Coil Form Assembly	Net Price, \$3.76



IT'S EASY TO PARK AT WALTER ASHE . . .

RECEIVING CONDENSERS



NATIONAL Type ST and SS

The ST Condenser has 180 Straight-Line-Wavelength plates. General construction is the same as the SE Condenser although its overall height is less. For minimum overall length, a single bearing model — the STHS — is offered. All other models are double bearing.

The SS Condenser has 180 Straight-Line-Capacity plates and except for this detail is the same in all other respects as the ST Condenser. When ordering, substitute SS for ST under the catalog symbol column in the listing at the right.

NATIONAL Type SE

The SE Condenser has 270° Straight-Line-Frequency plates. Insulation is Isolantite. All models have two rotor bearings, the front bearing being insulated to prevent noise. The rotor contact is through a constant impedance pigtail. The SEU models are suitable for high voltages as their plates are thick polished aluminum with rounded edges. The other SE models do not have this feature.

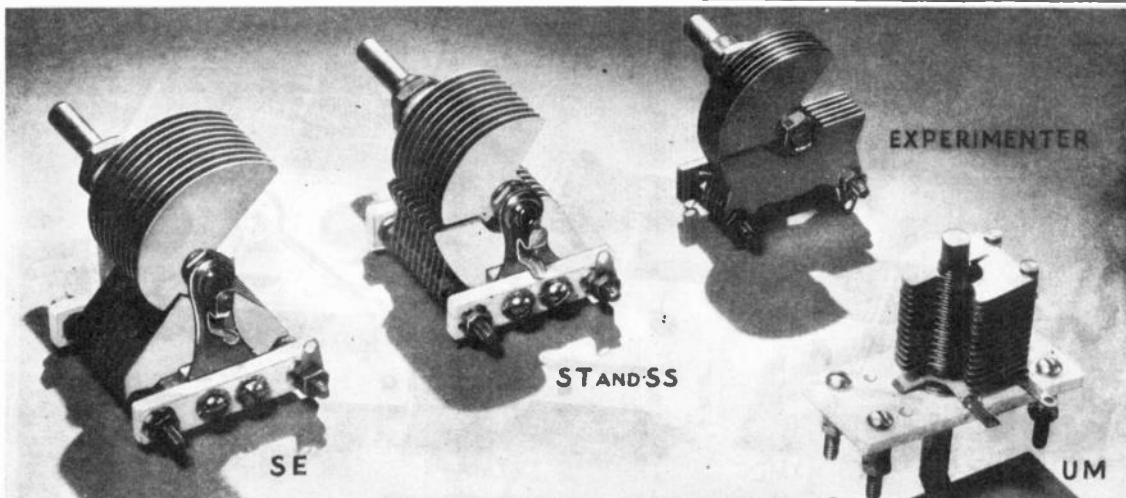
NATIONAL Type UM

The UM Condenser is designed for ultra high frequency use and is small enough for convenient mounting in our square shield cans. They are particularly useful for tuning receivers, transmitters and exciters. Shaft extensions at each end of the rotor permit easy ganging when used with one of our flexible couplings. The UMB-25 Condenser is a balanced stator model, two stators act on a single rotor. The UM can be mounted by the angle foot supplied or by bolts and spacers.

NATIONAL "Experimenter" Models

The National "Experimenter" Type Condensers are low-priced models suitable for general experimental work. They are of all-brass construction, except for the Bakelite insulation. The rotor has only one bearing. Plates can be removed without difficulty if desired.

Capacity	Air Gap	Plates	Cat. Symbol	Net Price
15 Mmf.	.018"	3	STHS 15	\$.84
25	.018"	4	STHS 25	.90
50	.018"	7	STHS- 50	.96
35	.026"	8	ST- 35	.90
50	.026"	11	ST- 50	1.08
75	.026"	15	ST- 75	1.20
100	.026"	20	ST-100	1.35
140	.026"	28	ST-140	1.50
150	.026"	29	ST-150	1.50
200	.018"	27	STH-200	1.65
250	.018"	32	STH 250	1.80
300	.018"	39	STH 300	1.95
335	.018"	43	STH 335	2.10
50 50	.026"	11 11	STD 50	2.10
100-100	.018"	14 14	STHD-100	2.70
15 Mmf.	.055"	6	SEU- 15	\$1.50
20	.055"	7	SEU- 20	1.65
25	.055"	9	SEU- 25	1.65
50	.026"	11	SE- 50	1.80
75	.026"	15	SE- 75	1.95
100	.026"	20	SE-100	2.10
150	.026"	29	SE-150	2.25
200	.018"	27	SEH-200	2.25
250	.018"	32	SEH-250	2.40
300	.018"	39	SEH-300	2.40
335	.018"	43	SEH-335	2.55
15 Mmf.	.017"	6	UM- 15	\$.75
35	.017"	12	UM- 35	.90
50	.017"	16	UM- 50	.96
75	.017"	22	UM- 75	1.02
100	.017"	28	UM-100	1.14
25	.050"	14	UMA- 25	1.11
25	.017"	4-4-4	UMB- 25	1.11
15 Mmf.	.045"	5	EX- 15	\$.51
25	.045"	7	EX- 25	.51
35	.045"	10	EX- 35	.60
50	.017"	6	EX- 50	.54
100	.017"	12	EX-100	.60
140	.017"	15	EX-140	.75



LOT NEXT TO STORE OR LOADING ZONE



TRANSMITTING CONDENSERS

Capacity	Peak V.	Plates	Cat. Symbol	Net Price
100 Mmf.	1,000	10	TMS-100	\$1.50
150	1,000	14	TMS-150	1.65
250	1,000	23	TMS-250	1.80
300	1,000	27	TMS-300	2.16
50-50	1,000	5-5	TMS-50D	2.25
100-100	1,000	9-9	TMS-100D	2.70
35	2,000	8	TMSA-35	1.80
50	2,000	11	TMSA-50	1.95
50-50	2,000	11-11	TMSA-50D	2.40
50 Mmf.	3,000	7	TMC-50	\$2.40
100	3,000	13	TMC-100	2.70
150	3,000	21	TMC-150	3.15
300	3,000	39	TMC-300	3.90
100-100	3,000	13-13	TMC-100D	4.50
300 Mmf.	3,000	23	TMA-300	\$7.20
200-200	3,000	16-16	TMA-200D	9.00
50	6,000	8	TMA-50A	3.90
100	6,000	17	TMA-100A	6.00
150	6,000	23	TMA-150A	7.20
230	6,000	35	TMA-230A	9.60
50-50	6,000	9-9	TMA-50DA	6.60
100-100	6,000	15-15	TMA-100DA	10.50
100	9,000	23	TMA-100B	8.10
150	9,000	35	TMA-150B	10.20
60-60	9,000	15-15	TMA-60DB	11.10
50	12,000	13	TMA-50C	4.80
100	12,000	27	TMA-100C	8.70
40-40	12,000	11-11	TMA-40DC	8.10
75 Mmf.	20,000	17	TML-75E	\$15.60
150	15,000	27	TML-150D	15.90
100	15,000	19	TML-100D	14.10
50	15,000	9	TML-50D	9.90
245	10,000	35	TML-245B +	17.10
150	10,000	21	TML-150B +	15.60
100	10,000	15	TML-100B +	15.00
75	10,000	11	TML-75B +	10.80
500	7,500	49	TML-500A +	21.00
350	7,500	33	TML-350A +	16.80
250	7,500	25	TML-250A +	15.60
30-30	20,000	7-7	TML-30DE	15.90
60-60	15,000	11-11	TML-60DD	17.10
100-100	10,000	15-15	TML-100DB +	18.90
60-60	10,000	9-9	TML-60DB +	16.50
200-200	7,500	21-21	TML-200DA +	21.00
100-100	7,500	11-11	TML-100DA +	17.10

NATIONAL Type TMS

Type TMS is a condenser designed for transmitter use in low power stages. It is compact, rigid, and dependable. Provision has been made for mounting either on the panel, on the chassis, or on two stand-off insulators.

Insulation is Isolantite. Voltage ratings listed are conservative.

NATIONAL Type TMC

The TMC is designed for use in the power stages of transmitters, where peak voltages do not exceed 3000. The frame is extremely rigid and arranged for mounting on panel, chassis or standoff insulators. The plates are aluminum, with buffed edges. Insulation is Isolantite, located outside of the concentrated electrostatic field. The stator in the split stator model is supported at both ends.

NATIONAL Type TMA

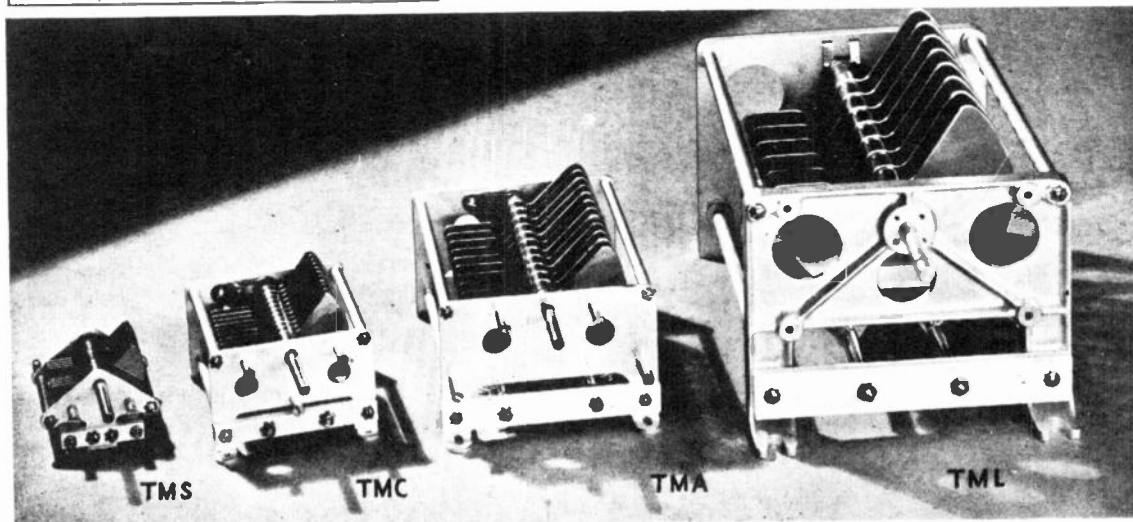
The TMA is a larger model of the popular TMC. The frame is extremely rigid and arranged for mounting on panel, chassis or standoff insulators. The plates are of heavy aluminum with rounded and buffed edges. Insulation is Isolantite, located outside of the concentrated field.

NATIONAL Type TML

The TML condenser is a 1 KW job throughout. Isolantite insulators, specially treated against moisture absorption, prevent flashovers. A large self-cleaning rotor contact provides high current capacity. Thick capacitor plates, with accurately rounded and polished edges, provide high voltage ratings. Sturdy cast aluminum end frames and dural tie bars permit an unusually rigid structure. Precision end bearings insure smooth turning and permanent alignment of the rotor. End frames are arranged for panel, chassis or standoff mounting.

PLATE SPACINGS

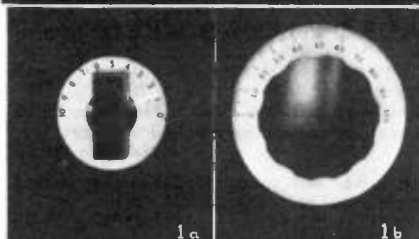
Peak Volts	Spacing	Peak Volts	Spacing
1000	.026"	9000	.265"
2000	.065"	10000	.344"
3000	.077"	12000	.359"
6000	.171"	15000	.469"
7500	.219"	20000	.719"



IT'S EASY TO PARK AT WALTER ASHE . . .



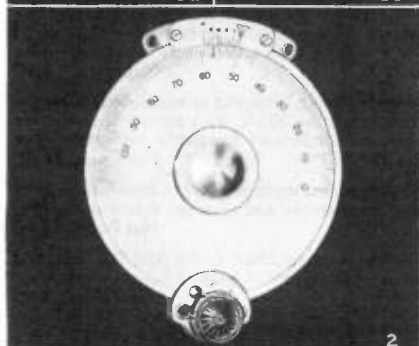
DIALS



NATIONAL "HRO" & "O" DIALS

FIGS. 1a & 1b

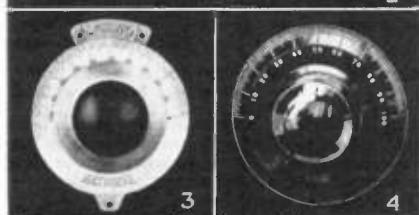
The 1 1/4" dia. HRO dial (Fig. 1a) is etched nickel silver and fits 1/4" shafts. Reads from 0 to 10 over 180°. **Net Price, each \$1.45. Knob alone, Net Price, \$1.15**
 The insulated 3 1/2" dia. O dial (Fig. 1b) is circular-grained German Silver and fits 1/4" shafts. **Net Price, each \$2.90**
 The type HRK Knob used on the O dial is also available alone. Fits 1/4" shafts. **Net Price, \$1.15**
 The type ODL locking device with thumbscrew control is available for use with the type "O" dial. **Net Price, each \$3.30**



NATIONAL "N" & "NW" DIALS

FIGS. 2 & 3

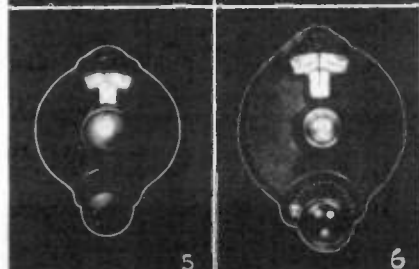
Precision Dials, Type N, have engine divided scales and verniers of solid German Silver. The Verniers are flush, eliminating errors from parallax.
 The four-inch Type N dial (Fig. 3) employs a smooth and powerful planetary mechanism with a 5 to 1 ratio. No. 2, 3, 4 or 5 scale. **Net Price, each \$4.05**
 The six-inch Type NW dial (Fig. 2) has a variable ratio drive that is unusually powerful at all settings. It is recommended for use on large transmitters and precision instruments. No. 2, 3, 4 or 5 scale. **Net Price, each \$9.00**



NATIONAL "A" DIAL

FIG. 4

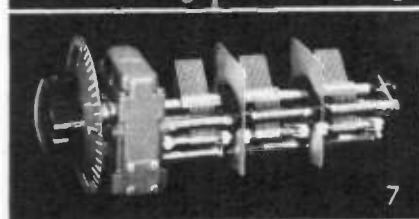
The original "Velvet Vernier" Dial, Type A, is still an unchallenged favorite for general purpose use. It is exceptionally smooth and entirely free from backlash. The mechanism is contained within the bakelite knob and shell. Ratio 5 to 1. No. 2, 4 or 5 scale in 4" diameter. No. 2 scale in 3 1/2" diameter. **Net Price, each \$1.80**



NATIONAL "B" & "BM" DIALS

FIGS. 5, 6

"Velvet Vernier" Dial, Type B (Fig. 6) provides a compact variable-ratio drive that is smooth and trouble free. The mechanism is inclosed in a black bakelite case, the dial being read through a window. No. 1 or 5 scales. **Net Price, each \$1.65. Illuminator, \$3.30 extra**
 The Type BM Dial (Fig. 5) is a smaller version of the Type B Dial for use where space is limited. It is similar to the Type B Dial in appearance and mechanism, but does not have the variable-ratio device. No. 1 or 5 scales. **Net Price, each \$1.50**



NATIONAL MICROMETER DIAL AND PRECISION CONDENSER

The Micrometer dial reads direct to one part in 500. Division lines are approximately 1/4" apart. The dial revolves ten times in covering the tuning range, and the numbers visible through the small windows change every revolution to give consecutive numbering by tens from 0 to 500. The condenser is of extremely rigid construction, with four bearings on the rotor shaft. The drive, at the mid-point of the rotor, is through an enclosed preloaded worm gear with 20 to 1 ratio. Each rotor is individually insulated from the frame, and each has its own individual rotor contact, of the multi-fingered brush type. Stator insulation is Stellite.

PW Ganged Condensers are available in 2, 3 or 4 sections, in either 160 or 225 mmf per section. Larger capacities cannot be supplied. The single-section PW condenser is supplied in capacities of 150, 200, 350 and 500 mmf, single spaced. Capacities up to 125 mmf can be supplied double spaced. The rotor is not insulated on the single section model. Plate shape is straight-line-frequency when the frequency range is 2:1.

PW condensers and drives are all with rotor shaft parallel to the panel, as in the HRO receiver. N-PW units are also available, as used in original type NC-100 and NC-101X receivers, with rotor shaft perpendicular to panel, as listed below:

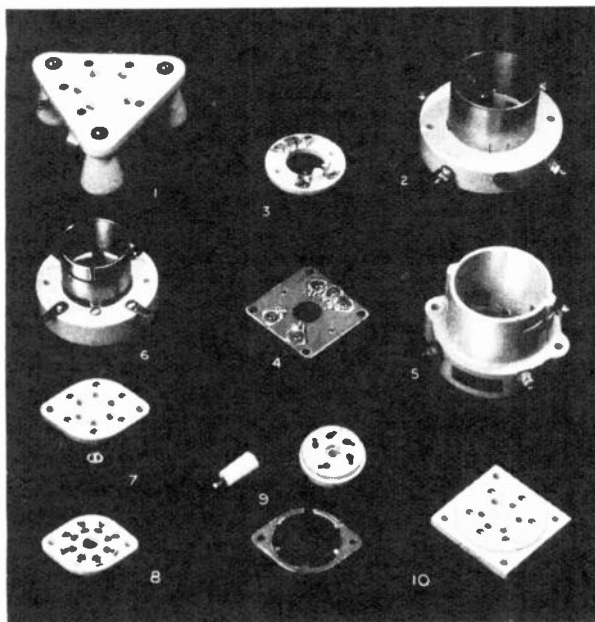
- | | |
|---|---------------------------|
| PW-1, Single Section. | Net Price, \$9.00 |
| PW-2, Two Section. | Net Price, \$12.00 |
| PW-3, Three Section. | Net Price, \$14.40 |
| PW-4, Four Section. | Net Price, \$16.50 |
| PW-0, Dial and Worm Drive, only, with TX-9 Coupling. | Net Price, \$8.10 |
| N-PW3 (Fig. 7), capacity per section 225 mmf. | Net Price, \$14.40 |
| N-PWX, capacity per section 25 mmf. | Net Price, \$12.30 |
| Other sizes of N-PW condenser, or drive alone, not available. | |
| PWL, Worm Drive Unit in special housing for TML Condensers. | Net Price, \$5.70 |



DIAL SCALES

Scale	Divisions	Rotation	Direction of Condenser Rotation for increase of dial reading
1	0-100-0	180°	Either
2	0-100	180°	Counter Clockwise
3	100-0	180°	Clockwise
4	150-0	270°	Clockwise
5	200-0	360°	Clockwise
6	0-150	270°	Counter Clockwise

PARTS



NATIONAL LOW-LOSS SOCKETS

1 is a wafer type Isolantite socket for power Pentodes such as the RK-28 and the RCA-803.

Type JX-100S, as illustrated.

Net Price, \$2.16

Type JX-100, as above but without stand-off insulators.

Net Price, \$1.80

2 is a fifty watt socket with sturdy side wipe contacts and employs the conventional bayonet-lock metal shell.

Type XM-50.

Net Price, \$1.05

3 is an Isolantite socket for the Triode Acorn tube. The socket contacts are of a new design providing very short leads and have a current path nearly independent of tube position. Type XCA.

Net Price, \$.90

4 is for the Pentode Acorn tube and is assembled, with the same type of contacts as the XCA, on a square copper base with built-in by-pass condensers for stable high frequency operation. Type XMA.

Net Price, \$1.20

5 is another 50 watt socket made entirely of low-loss Steatite and is for higher frequencies and voltages than the XM-50. Type XC-50.

Net Price, \$2.10

6 is a socket, similar in construction to the XM-50, designed for those tubes using the type IX base.

Type XM-10.

Net Price, \$.75

7 is one of the complete line of National Isolantite Receiving Sockets that fit all standard receiving tubes. Types 4 prong, 5 prong, 6 prong, 7 prong — small, 7 prong — large.

Net Price, \$.36 each

8 is an Isolantite wafer socket for the Octal (metal) tubes. Type 8 prong.

Net Price, \$.36

9 is a new socket of Isolantite, modern in every detail; from the contact that grips the tube prong for its full length to the metal ring for six-position mounting. The sockets for the glass type tubes are supplied with a stand-off insulator that allows center mounting for bread board layouts. This line also includes an 8 prong socket (for metal tubes) which is supplied with two metal stand-offs.

Type 4 prong, 5 prong, 6 prong, 7 prong — small, 7 prong — large, 8 prong (octal), CIR Series.

Net Price, \$.24

10 is a square Isolantite coil socket designed to fit National 6 pin coils. A wafer type socket, similar to figure 6, is also available to fit these same coil forms.

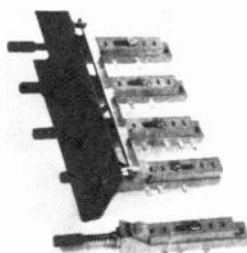
Type 6 prong Square Coil Socket.

Net Price, \$.45

Type 6 prong Wafer Coil Socket.

Net Price, .36

INTERLOCKING PUSH SWITCH



The new National Interlocking Push Switch was first designed for the NTE Exciter where the requirements of low losses, complete reliability and positive contacts required a special design. This switch fills these specifications so completely that it is now listed separately. Insulation is R-39. The silver-plated contacts are double pole, double throw.

Type ACS-4, Four gang, with trigger bar.

Net Price, \$3.00

Type ACS-1, Single section, less trigger bar.

Net Price, \$.75

NATIONAL SHAFT COUPLINGS

1 is a small coupling of Steatite, providing high electrical efficiency when used to isolate circuits.

Type TX-9.

Net Price, \$.66

2 is a popular small coupling, free from backlash. Insulation is canvas bakelite.

Type TX-10.

Net Price, \$.33

3 is a coupling providing high insulation with compact size. Insulation is glazed Isolantite.

Type TX-1 (leakage path 1").

Net Price, \$.60

Type TX-2 (leakage path 2 1/2").

Net Price, .66

4 is a flexible shaft which provides a driving means between offset shafts, or shafts at angles up to 90 degrees, and virtually eliminates mis-alignment problems. Isolantite insulators are provided at each end.

Type TX-12, overall length 4 5/8".

Net Price, \$.75

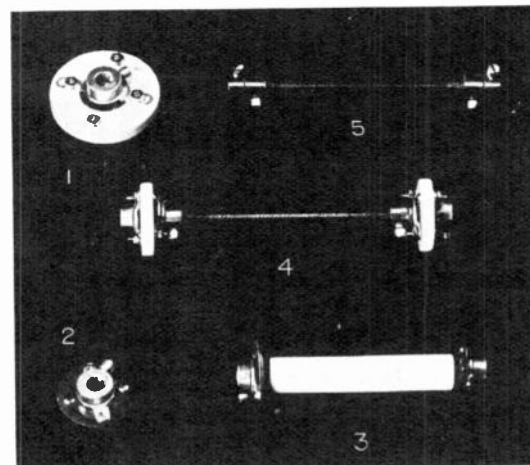
Type TX-13, overall length 7 1/8".

Net Price, .90

5 is a flexible shaft without the insulation of the TX-12, but otherwise the same.

Type TX-11.

Net Price, \$.36



IT'S EASY TO PARK AT WALTER ASHE . . .



PARTS

RELAY RACKS

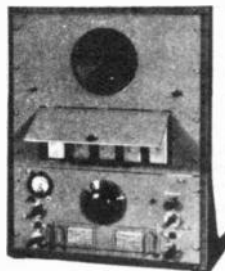
These steel relay racks are drilled and tapped to accommodate, up to their capacities, standard relay rack panels of all sizes. At the right is a Type MRR table model rack featuring the HRO Receiver.

Type RR Relay Rack built to government specifications, panel capacity 63", black finish.

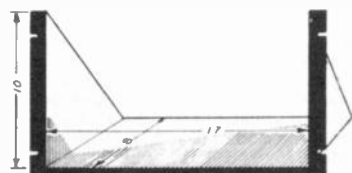
Net Price, \$39.00

Type MRR Relay Rack, panel capacity 24 1/2", gray or black finish.

Net Price, \$13.50



RELAY RACK SHELF



This recessed shelf will fit any standard relay rack, and is particularly useful for supporting portables, instruments, test equipment, etc.

Type RRS.
Net Price, \$2.40

RELAY RACK PANELS AND CHASSIS

Undrilled standard relay rack panels are available in both 1/8" steel and 3/16" aluminum. The steel panels are finished in black wrinkle, and the aluminum panels in either black leatherette or gray enamel.

Width	Shipping Weight		Net Price	Net Price
	Steel	Aluminum	Steel	Aluminum
1 3/4"	—	5/8 lbs.	—	\$1.95
3 1/2"	5 lbs.	1 1/4 lbs.	\$.60	2.70
5 1/4"	7 lbs.	1 3/4 lbs.	.69	3.45
7"	8 lbs.	2 1/2 lbs.	.72	4.20
8 3/4"	9 lbs.	3 lbs.	.96	4.95
10 1/2"	10 lbs.	3 3/4 lbs.	1.17	5.70

Larger sizes available on special order.

Gray enamel blank chassis of 1/16" steel are available in the following sizes:

Size	Net Price
4 x 17 x 3"	\$1.50
6 x 17 x 3"	1.65
8 x 17 x 3"	1.89
10 x 17 x 3"	2.10
12 x 17 x 3"	2.70

TUBE AND COIL SHIELDS

The Aluminum Shields shown are from left to right:

Type	Net Price
HRO coil shield, 2" x 2 3/8" x 4 1/8" high	\$1.21
J30 coil shield, 2 1/2" dia. x 3 3/4" high	.21
B30 coil shield, 3" dia. x 3 3/4" high	.21
B30 coil shield, with mounting base	.30
TS Tube Shield, with cap and mounting base	.24
T58 Tube Shield, with cap and mounting base	.24
T78 Tube Shield, with cap and mounting base	.24

The T58 and T78 fit such tubes as the 57, 58, 77, 78, etc.



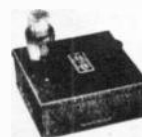
CODE PRACTICE OSCILLATOR

This small audio oscillator is suitable for either code practice, or as an audio signal source for ICW on the Ultra High Frequency Bands.

A type 30 tube is used, and four flashlight cells in the case provide filament and plate current.

Type CPO, without batteries or tube.

Net Price, \$3.60



JACK SHIELD



High gain speech amplifiers require a completely shielded input circuit. The new National Jack Shield accommodates small standard jacks and provides a convenient shield. It is primarily designed for mounting behind the panel, where it is held in place by the bushing of the jack.

A removable cover gives access to terminals. The shield may also be used for shields on the ends of extension cords, etc.

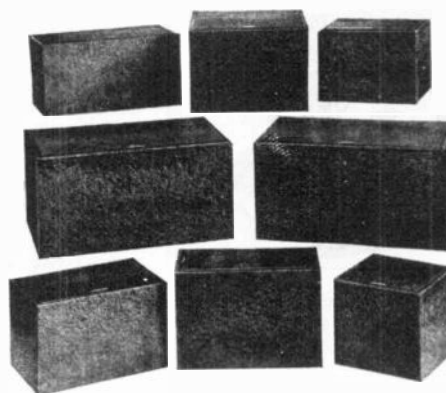
National Jack Shield, Type JS-1

Net Price, \$.21

SCREEN GRID DETECTOR COUPLING UNIT. This impedance coupling unit, when employed to couple the output of a screen grid detector to an audio amplifier tube, will give from two to three times as much amplification as resistance coupling. Plate choke, 700 henries. Coupling condenser, .01 mfd. Grid leak, 250,000 ohms.

Type S-101.

Net Price, \$3.60



STANDARD CABINETS

The National Receiver Cabinets illustrated above, are for use in constructing special equipment. List Prices include sub-bases and bottom covers. Reading left to right:

	Width	Height	Depth	Net Price
Top Row				
Type C-HWR	13 1/2"	7"	7 1/4"	\$3.00
Type C-FB7	11 1/2"	8"	12"	4.20
Type C-SW3	9 3/4"	7"	9"	3.30
Middle Row				
Type C-NC100	17 1/4"	8 3/4"	11 1/4"	5.10
Type C-HRO	16 3/4"	8 3/4"	10"	5.10
Bottom Row				
Type C-One-Ten	11"	7"	7 1/4"	2.70
Type C-PSK	6"	8"	12"	3.60
Type C-SRR	7 1/2"	7"	7 1/2"	2.10

AUXILIARY EQUIPMENT



NATIONAL OSCILLOSCOPES



Cathode Ray Oscilloscopes are available in two models. The Type CRR, which is listed for the first time, is mounted on a standard $3\frac{1}{2}$ " relay rack panel and employs a two-inch screen RCA-902 and 80 rectifier. Type CRM is mounted in a small steel cabinet ($4\frac{1}{8}$ " x $6\frac{1}{8}$ " x 8") and uses a one-inch screen RCA-913 with 6X5 rectifier. Both models

are self contained and power supply and input controls are built in. A panel switch permits use of built in 60 cycle sweep or external audio sweep for securing the familiar trapezoid pattern, which is more convenient for modulation measurements.

Type CRR Oscilloscope, 2" screen, less tubes.

Net Price, \$19.50

Type CRM Oscilloscope, 1" screen, less tubes.

Net Price, \$11.10



MOUNTED "S" METER



For use with the NC 80X or 81X Receivers which do not have built-in "S" meters, a meter of the same type as that used in the HRO is now available in a desk mounting. The necessary resistor network is built into all receivers of the NC-80 series, and it is only necessary to connect two wires to install the meter.

Complete directions are given in the receiver instruction book. Specify whether gray or black wrinkle finish.

Mounted "S" Meter, Type SM-80

Net Price, \$6.00

HIGH FIDELITY TRF UNITS

For broadcast reception of the highest possible tone quality, the simplest circuit gives the best results. The new National Tuners are based on a high performance TRF circuit reduced to its simplest terms. Similar in construction to an IF Amplifier, each chassis provides a three-stage RF Amplifier tuned to one station only. A group of four or more separate chassis are usually used in each installation to receive a like number of stations. A push switch, relay system, etc., is used to select the desired station.

Each RF Transformer has an individual coupling adjustment and is tuned both primary and secondary (8 tuned circuits). The coupling is adjustable to include 10 KC with less than 1 db variation in the audio range. Sensitivity is adjustable from 5 microvolts to one volt. For best efficiency, three models have been made available covering ranges of 540-875, 740-1230, and 1100-1700 KC. Complete filtering eliminates regeneration which causes lop-sided resonance curves. The triode power detector is linear and capable of handling large percentages of modulation. For circuit simplicity, there is no AVC. The chassis fits a standard $3\frac{1}{2}$ " relay rack panel.

Drilled and formed chassis, Type DLC.

Net Price, \$1.50

As above, but with sockets and terminals riveted in place, Type DLCA.

Net Price, \$2.76

Steel $\frac{1}{8}$ " panel. Type DLPS.

Net Price, \$.90

Aluminum $\frac{3}{16}$ " panel. Type DLPA.

Net Price, \$3.00

RF Transformer, set of four required. Type DLT.

Net Price, each, \$3.90

(Specify approximate operating frequency)

CRYSTAL HOLDERS

These crystal holders are moulded of low-loss R-39 and have prongs moulded in for easy plug-in mounting.

1 is a new type holder that will accommodate 4 crystals and has a built-in low-capacity switch for selecting frequencies. It accommodates crystals up to 1" square and is very convenient; when an immediate choice of frequencies is desirable.

Type 4 in 1 — pressure type.

Net Price, \$4.50

2 is a holder for a single crystal in which crystals may be changed readily.

Type CHR — for use in receivers, resonator type.

Type CHS — for use in transmitters, Pressure Constant Air-Gap, type.

Type CHT — for use in transmitters, Pressure type, no air gap.

Net Price, less crystal, of \$1.50 each

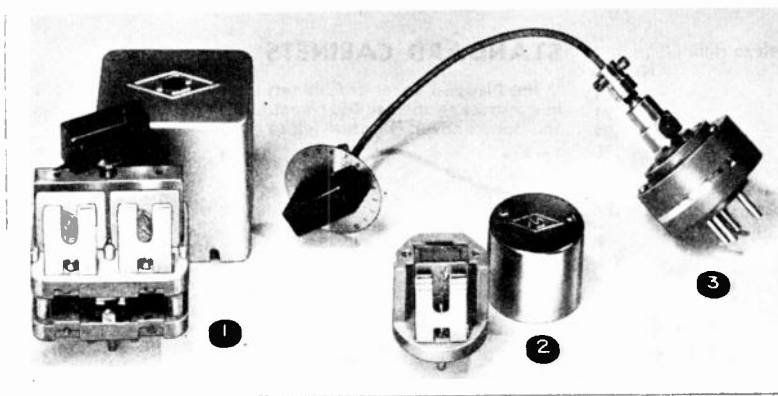
3 is a novel holder permitting front-of-panel tuning of the crystal over a range of one part in 600 without loss in output. Only specially selected crystals should be used.

Type CHV (less crystal)

Net Price, \$5.70

Type CHV (with 80 meter Hollister crystal that will double into the 20 meter phone band)

Net Price, \$19.50



IT'S EASY TO PARK AT WALTER ASHE . . .



DIELECTRICS

NATIONAL STRAIN INSULATORS

The antenna insulator illustrated at the left is particularly suited to general use. It has a long leakage path, ample strength for all but the heaviest loads, and high efficiency. Made of Steatite. Type AA-6, Net Price, \$.21. The small aircraft-type insulator at the right is ideal where compactness is desirable. Type AA-5, Net Price, \$.18

NATIONAL SPREADERS

The Steatite spreaders at the right provide a six-inch line spacing, and when used with No. 12 wire will give feeders having a surge impedance of 600 ohms. Type AA-3, Net Price, \$.18. The Isolantite insulators at the left when used to space $\frac{3}{4}$ " tubes 2" apart will give a "Q" transformer matching a 72 ohm center-fed half-wave antenna to a 600 ohm line. Type QB, Net Price, \$.21

NATIONAL STAND-OFFS

With metal base and cap	Cone type, with internal thread at each end
Type GS-1 ($\frac{1}{2}$ " x $1\frac{3}{8}$ ") Net, \$.15	Type GS-5 ($1\frac{1}{4}$ ") Net, \$.15
Type GS-2 ($\frac{1}{2}$ " x $2\frac{7}{8}$ ") Net, \$.21	Type GS-6 (2") Net, \$.27
Type GS-3 ($\frac{3}{4}$ " x $2\frac{7}{8}$ ") Net, \$.54	Type GS-7 (3") Net, \$.45
Type GS-4 ($\frac{3}{4}$ " x $4\frac{7}{8}$ ") Net, \$.66	Type GS-10 ($\frac{3}{4}$ ")
Type GS-4A ($\frac{3}{4}$ " x 6") Net, \$.96	Per box of 10 Net, \$.45

NATIONAL LEAD-THROUGHS

The combination lead-through bushing and stand-off insulator pictured at the right is available either plain (Type GS-8, Net Price, \$.21) or with a jack (Type GS-9, Net Price, \$.30). The bushings shown at the left are made in two sizes and are sold in pairs with the necessary metal fittings. Type XS-1 (Fits 1" Hole) Net Price, per pair, \$.45. Type XS-2 (Fits $1\frac{1}{2}$ " Hole) Net Price, per pair, \$.54

NATIONAL BOWLS

Larger in size than the bushings listed above, these Steatite bowls are suitable for lead-in purposes and high voltages. Type XS-3 (Fits $2\frac{3}{4}$ " Hole) Net Price, per pair, \$3.00. Type XS-4 (Fits $3\frac{3}{4}$ " Hole) Net Price, per pair, \$3.90. Type XS-5 (with flange for bolting down, $5\frac{1}{4}$ " Dia.) Net Price, each, \$4.50, per pair with metal fittings, \$9.30

VICTRON SHEET AND COIL DOPE

The Loss Factor (0.2) of this non-hydroscopic material is $\frac{1}{8}$ of "Low-Loss" rubber and $\frac{1}{90}$ of the usual R.F. insulators. Its Power Factor is .06%-.08%. Ideal for mounting high frequency gear and it is readily drilled or sawed. In color it is a transparent amber. National Coil Dope, a special R.F. lacquer using this same Victron as a base, is ideal as a cement for holding windings in place as it will not spoil the properties of the best coil form.

12" x 6" x $\frac{3}{16}$ " thick sheet.

12" x 6" x $\frac{1}{8}$ " thick sheet.

6" x 3" x $\frac{3}{16}$ " thick sheet.

6" x 3" x $\frac{1}{8}$ " thick sheet.

Coil Dope, per can.

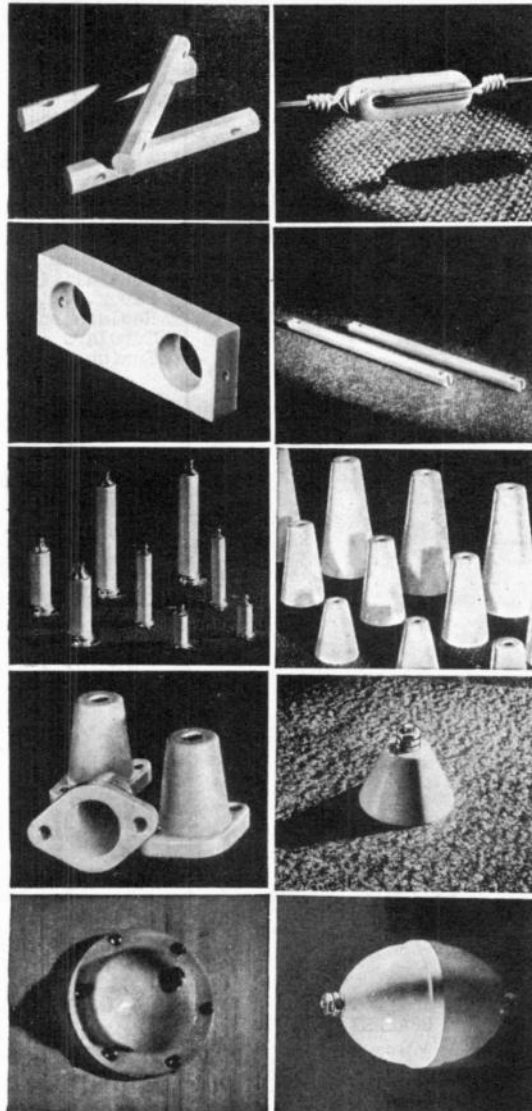
Net Price, \$3.60

Net Price, 3.00

Net Price, .90

Net Price, .75

Net Price, .90



TRANSMITTER BOOKLETS

"Notes on Amateur Radio Transmitter Design" by James Millen is a source book of ideas, rich in suggestions for the construction of modern and efficient transmitters. The six chapters cover equipment from exciter to antenna, and are an invaluable supplement to such treatises as the ARRL Handbook.

Net Price, \$.50

"The National-Thordarson 600 Watt Transmitter" is an Engineering Booklet published by National and describing the complete transmitter using the Foundation Units listed in this catalogue. It is available without cost from our dealers.

INDEX

SUBJECT	PAGE NO.	SUBJECT	PAGE NO.	SUBJECT	PAGE NO.
AC-DC Antenna Wire	33	COILS, ALL WAVE.	28,111	FAHNESTOCK CLIPS.	26
AMPLIFIERS	51,52,53, 54,55,88	Antenna.	28	FILTER CONDENSERS	
Kits, Thordarson	77	Barker & Williamson.	128	Receiving	4,5,6,7,8
UTC.	120	Coto Transmitting.	129	Transmitting.	133
AMPLIFIER FOUNDATION	120	Decker	128	FILTER CHOKES	79,81,83, 84,85,86
ANALYZERS.	47,50,65,66, 67,68,69, 70,71,73	Oscillator	26,29,147	FLOOR STANDS.	63
ANTENNA, ALL WAVE.	44	Plug in (wound).	115,147	FUSES	26
Automobile	45	Radio Frequency.	28-29	Clips	26
Eliminator	41	COIN MACHINE SUPPLIES.	37	Mountings	26
Equipment	41	COIL FORMS	111,112, 147	Connectors.	16
Insulators	110	Transmitting	147-148		
Portable	110	Coil Dope.	155		
Rod, 5 Meter	110	CONDENSERS, AIR PADDING.	146	GENERATORS, GAS - ELECTRIC.	50
Transmitting	108	Condenser Analyzer	47	GRID BIAS CELLS AND	
Vertical Radiator.	107	Electrolytic	4-5 7-8	HOLDERS.	21
Wire	107	Equalizer.	112	GRID CAPS	26,146
AUTO RADIO CONDENSERS.	6	Mica	6,89,133	GRONNETS.	25
		Mica Padding	112	GROUND CLAMPS	41
		Neutralizing	134,140		
BAFFLES.	57-60	Paper.	5		
BAFFLES, HORNS	57-60	Replacement.	6		
BALLAST TUBES.	3	Tubular.	4		
BARGAINS	116-122	Tuning, Receiving.	30,104, 146,149, 150	HARDWARE.	31
BATTERIES.	24	Transmitting	89,105, 113,133	HEADPHONES.	61
BATTERY CLIPS.	46	Vacuum Tank.	127	Cords	61
BATTERY CLIP INSULATORS.	46	CONDENSERS, TRANSMITTING	123	HOLDERS, BIAS CELL.	21
BINDING POSTS.	25	FILTER.	104,108, 146,150	Crystal	106,154
BLILEY CRYSTALS.	106	Receiving.	4,5,6,7	HOOK UP WIRE.	36
Holders.	106,154	Vibrator Condensers.	6		
BOOKS.	38-39	CONE CEMENT.	47	I.F. TRANSFORMERS.	29,29, 112,147
BRACKETS	21,117,122	CONNECTORS, ANTENNA.	16	INSULATED COUPLINGS	104,152
BUS BAR.	31	Cable.	18,19,20, 21	INSULATING ROD.	31
BUSHINGS	32,110,146	Chassis.	1,12,20, 21	INSULATING STRIPS	115
BUZZERS.	89	Fuse	16	INSULATORS.	41,108, 109,110, 155
		Plug	22		
CABINETS	37,57,60, 120,122,153	CONTROL WHEELS	130	JACKS	21,110
Metal.	117,120,122	COTO COILS	129	Banana.	22
Speaker.	58-60	COUPLINGS.	32,104, 112,152	Extension	21
CABLE, ANALYZER.	36	Brass.	32	Tip	22
Battery.	33	CRYSTAL FILTER TRANS- FORMERS	28	Twin.	21
Coaxial.	114	Standard Frequency	116	JACKSON INSTRUMENTS	68-69
Dial	23	CRYSTALS, QUARTZ	106	JENSEN SPEAKERS	59-60
Mike	35	Holders.	106,154		
Shielded	33	CRYSTAL DETECTORS.	42		
Speaker.	33	UNITS	37,64	KEYS, TRANSMITTING.	89,114
Transmission Line	35,107	CRYSTAL PICKUP REPLACEMENT		KITS, COIL.	111
CANS	120,122,153	CRYSTAL MICROPHONES.	62	Crystal Filter.	29
CARBON MICROPHONES	62			Transmitting Kits	77,123, 143,144
Resistors.	11	DIAL CABLE	25	KNOB, DIAL	42,130
CALCULATORS.	40	DIAL PLATES.	130-131	Key	89
CATHODE-RAY OSC.	72	DIALS, FRICTION DRIVE		Radio Replacement	42
CATHODE-RAY TUBE BRACKET	2	RUBBERS	25		
CATHODE RAY TUBES.	72	DIALS, VERNIER	130	LAMP BRACKETS	21
CELLS, GRID BIAS	21,132	DRILLS	16	LAMP CORD	35
Photo Electric	37,132			LEADIN STRIPS	41
CHASSIS BASES.	119,120,121	ELIMINATORS, ANTENNA	41	LEADIN WIRE	34
CHOKES, AUDIO.	79,81,83, 84	EXACT DUPLICATE CONDEN- SERS	6	LICENSE HOLDER.	132
See Transformers	82,84,86	EXTENSION SHAFTS	31	LIGHTNING ARRESTORS	41
CHOKES	31,79,81,85	EXTENSION COUPLINGS.	152	LINE CORD RESISTORS	14
Rf. Receiving.	31,112,147	EXTENSION SPEAKERS	37,58,59, 60	LINE FILTER CHOKES.	29
Rf. Transmitting	29,112,115, 147			LINE NOISE FILTERS.	6,16
CIRCLE CUTTERS	27			LINE VOLTAGE REGULATORS	3
CLOCKS, WORLD WIDE GMT	132			WGS.	32,48
CLIPS.	22				
Inductance	108				
CLOUGH-BREngle INSTRU- MENTS	72				
COAXIAL LINE	114				
COIL KITS.	111				

INDEX — (CONTINUED)

SUBJECT	PAGE NO.	SUBJECT	PAGE NO.	SUBJECT	PAGE NO.
MAGAZINES.	40	RESISTORS, BROWNDEVIL. . .	12	TERMINAL STRIPS.	32
MAGIC EYE ASSEMBLY.	2	Carbon.	11	TEST EQUIPMENT.	65,66,68, 69,70,71, 73
MAGNET WIRE.	36	Center-Tapped.	14	TEST PRODS.	22
MAJESTIC BLOCKS.	6	Filament Dropping.	14	Thordarson.	90 to 103 incl.
MALLORY VIBRATORS.	17	(IRC) Insulated.	15	Handles.	22
MANUALS.	2,38,39	Indicator.	15	TIE POINTS.	32
METERS.	65,66,73, 74,75,76	Line Cord.	14	TOOLS.	16,27,30, 46
METER RECTIFIERS.	75	Precision.	16	TRANSFORMERS.	
MICA CONDENSERS.	6,89	Transmitting Bleeders. . .	13	Audio.	78,81,82, 84,85,87
MICROPHONES.	62,63,51	RHEOSTATS.	10,12	Bargain Specials.	81,84,85
MIKE CABLE.	35	RIDER MANUALS.	38	TRANSFORMERS, AUTO-FORMERS. .	81,86
Granules.	43	RIDER CHANYLIST.	50	Crystal Filter.	28
Jacks.	43	ROD, INSULATING.	31	Duplicate Power.	80
Plugs.	43	ROTARY SWITCHES.	23	Filament.	79,83,85
Rings.	63	RECEIVERS.		Filter Chokes.	29,79,81, 83,84, 85,86
Springs.	43	Hallcrafters.	135,136, 137,138	I.F.	28,29, 112,147
Stands.	63	National.	140,141, 142	I.F. Noise Silencer.	29
MYCALEX.	115	RME 69.	139	R.F.	28,29
NAME PLATES.	131	RCA TUBES.		Modulation.	87
NEON BULBS.	121	Receiving.	1	Speaker.	60
NEUTRALIZING TOOLS.	30	Transmitting.	124	Power.	79,83,84, 85,86
NEUTRALIZING COND.	104,112, 134,148	SCRATCH FILTERS.	62	TRANSMISSION LINE CABLE. . .	35,107
NUTS.	31	SCREWS.	31	TRIPLET.	66,75
OSCILLATORS.	66,68,69, 70,71	SCREWDRIVERS.	37	TUBES, RECEIVING.	1,2
Beat Frequency.	29	SERVICE MANUALS.	38,39	Transmitting.	124,125, 126
Coils.	28-29	SHIELDING.	34	Manuals.	2
OSCILLOGRAPH.	72,154	SHIELDED CABLE.	33	TUBE SHIELDS.	25
PAINT, CRYSTALLINE.	32	SHIELDS.	25,112, 122,153	TUBING, BAKELITE.	31
PANEL LIGHTS.	42	SIGNAL GENERATORS.	66,68,69, 70,71,72	Copper.	31
PANELS, RELAY RACK.		SIMPSON METERS.	76	Spaghetti.	26
Metal.	119,120, 121	SOCKETS, PILOT LIGHT. . .	21,46	TUBULAR CONDENSERS.	4,6,8
Meter, Speaker, Etc.	119,121	Tube.	19,42,108, 112,152	TUNING METERS.	74
PHONES.	61	Crystal.	112	TURNTABLES.	56
Crystal.	61	SOCKET WRENCHES.	27	TWIN JACKS.	21
PHONE TIPS.	22	SOLDER, ACCESSORIES, IRONS	48,49	UTC KITS.	77,78
PHONOGRAPH PICKUPS.	37,64	Lugs.	48	VELOCITY MICROPHONES. . . .	63
Motors.	56	Replacement Elements. . .	48,49	VERTICAL RADIATOR.	107
Replacement Pickup.		Solder.	48	VIBRATORS.	17
Heads.	37,64	Soldering Paste.	48	VIBRATOR CONDENSERS. . . .	6
PHOTO ELECTRIC CELLS. . . .	37,132	Stands.	48	VICTRON.	115,155
PILOT LIGHTS.	2	Tips.	48,49	VOLTAGE DIVIDERS.	13
Brackets.	21,46	SPACERS.	32	VOLUME CONTROLS.	9,10,23,47
Pliers.	27	SPAGHETTI TUBING.	26	WASHERS.	31
PLUGS.	18,19,20, 22,47	SPEAKERS.	37,58,59, 60,61	WAVE TRAPS.	29
Jones Plugs.	20	SPEAKER CASE.	37,57,58, 60,119	WESTON METERS.	65,73
POWER LINE CHOKES.	14	Cement.	47	WIRE.	31,33,34, 35
POWER RHEOSTATS.	10,14	Shims.	47	Antenna.	107
PRECISION INSTRUMENTS. . . .	73	STAPLES, INSULATED. . . .	47	Bus Bar.	31
PRECISION RESISTORS.	16	SUPPRESSORS.	11	Extension Cable.	33
PUNCHES.	27	SUPREME INSTRUMENTS. . .	67	Filament.	36
QUARTZ CRYSTALS.	106	SWITCHES, ANTI-CAPACITY. .	115	Hookup.	36
Q - Max - Lacquer.	115	Band Change.	23,132	Magnet.	36
RACKS, RELAY TYPE.	117,118, 153	Jack.	23	Shielded.	33,35
RAYTHEON REPLACEMENT. . . .	2	Knife.	42	Transmitting.	34
RELAYS.	115,132, 134	Push Button.	23,152	WRENCHES.	27,30
		Rotary.	23,42	WRIGHT DECOSTER.	58
		Tap.	23,132	YAXLEY VOLUME CONTROLS. . .	23
		Toggle.	42	Tap Switches.	23,132
		Volume Control.	9		
		TAP SWITCHES.	23		
		TAPE, FRICTION.	26		
		TAPE, ANTENNA QUICK UP. . .	41		
		TATTELITE.	6		

WALTER ASHE RADIO CO.

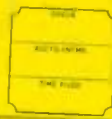
1100 PINE STREET ST. LOUIS, MISSOURI

RETURN POSTAGE GUARANTEED

DELIVERED BY WESTERN UNION MESSENGER



**WESTERN
UNION**



*for John Biersch
819 Regina
St. Louis, Mo.*

OLIVE

STREET

CARSON
FURNITURE
CO.

MAJESTIC
HOTEL

FREE PARKING
FOR
CUSTOMERS

LOADING ZONE
FOR
CUSTOMERS

PINE

1100 PINE
Walter
Ashe
Radio

BELL TELEPHONE BLDG.

CHESTNUT ST.

ST.

12TH.

ST.

11TH.

ST.

10TH.

J.C. Wilson