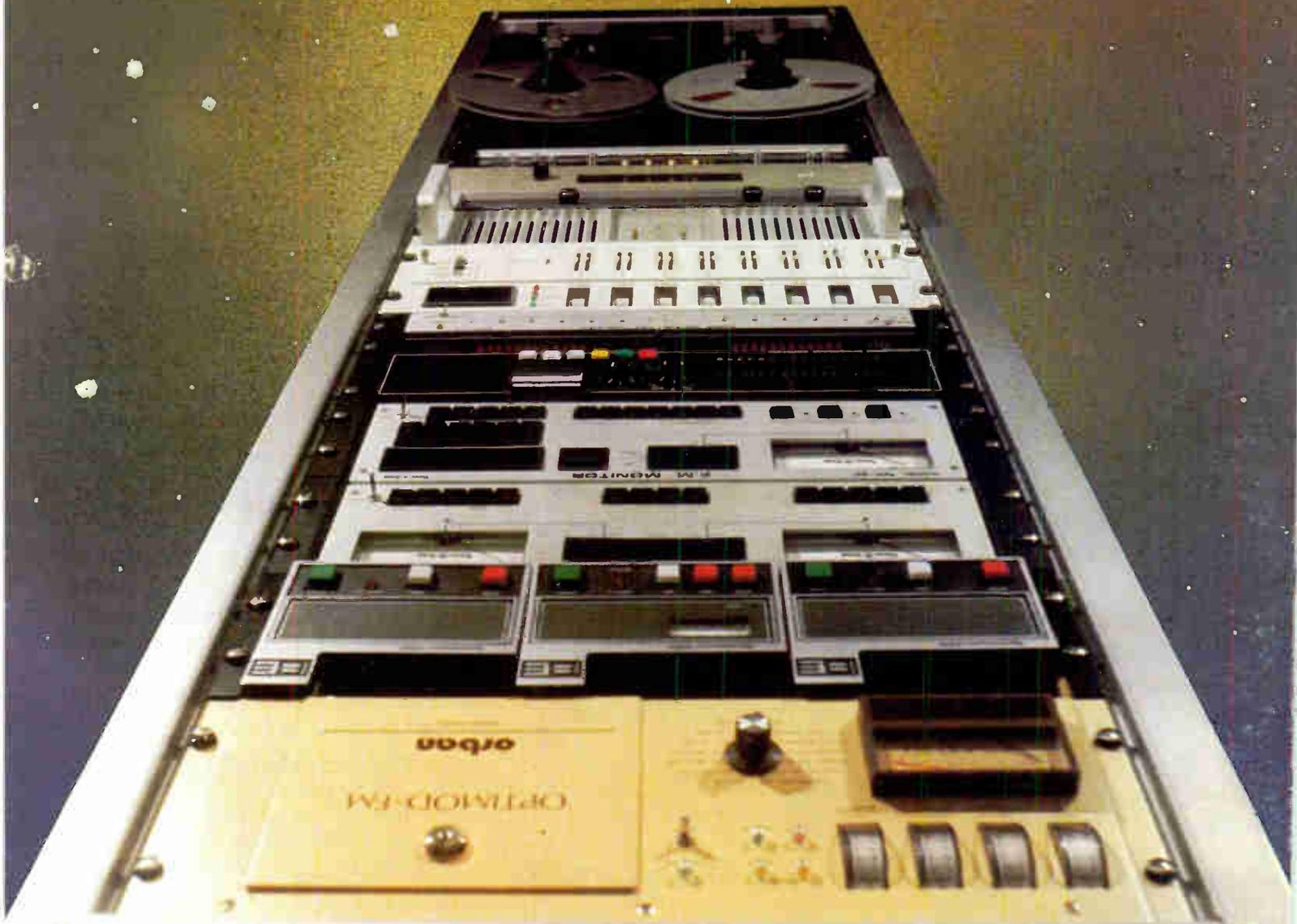


ALLIED BROADCAST EQUIPMENT





Roy M. Ridge
President

Our Staff

In eight (8) short years Allied has become one of the nations largest broadcast distributors. One of the main reasons for this rapid growth and success can be attributed to our staff. They represent broadcast equipment knowledge and experience unequalled in the business. Our sales and service personnel are broadcast people sincerely interested in the industry. Over 5000 satisfied customers will agree that there is more to Allied than broadcast equipment.



J. Robert Galyean
Comptroller



Jim Jones
Customer Service



Dave Burns
Sales Manager



Fred Harkness
West Coast Sales



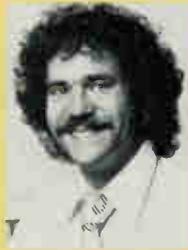
Cal Vandegrift
West Coast Sales



Tom Harle
Chicago Sales



Chuck Maines
Sales



Tom Lewis
Sales



Norma Jones
Secretary



Jan Webb
Accounts Payable



Judy Fink
Accounts Receivable



Millie Ingram
Secretary



Betty Hamner
Accounting



Gerogeann Young
Sec. W. Coast



Ed Wooley
Advertising



George Yarian
Advertising



Lou Duning
Service Engineer



Jack Harris
Service Engineer



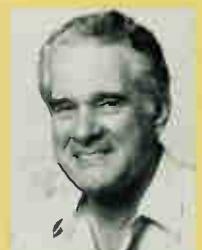
Ray Slick
Service Engineer



Dennis Mackey
Shipping



Harry Jones
Printing/Dist.



Ron Garrison
Printing

Allied Broadcast Equipment

HOME OFFICE: PO Box 786-635 So. E St., Richmond, IN 47374 PH.317-962-8596/317-935-5193

To order call the number listed for your area

Indiana 800-382-6907 Western States (OR, ID, MT, CA, NV, UT, AZ) 800-426-4254
Washington 800-562-0062 Chicago/Milwaukee Area 312-784-2257 Other States 800-428-6954

ALLIED

**serving the broadcast industry
at home and abroad**

Call The Allied Office Nearest You

(See page 2 for ordering instructions)

SEATTLE SALES OFFICE

Washington State 800-562-0062
Western States 800-426-4254

CHICAGO-MILWAUKEE AREA

312-784-2257

RICHMOND OFFICE

Indiana State 800-382-6907
Unlisted States 800-428-6954
Customer Service 317-935-5193



INTERNATIONAL

TWX 810-345-1394

CORPORATE OFFICE

PO BOX 786 - 635 SOUTH E STREET, RICHMOND, INDIANA 47374 317-962-8596/317-935-5193

ORDERING PROCEDURES AND POLICIES

BY TELEPHONE: Your fastest and best way to order from Allied is by telephone followed with a written purchase order confirming the order. Place your order with the Allied Office nearest you (See Page 1). We do not accept collect telephone calls. Office hours are 8:00 AM to 5:00 PM EST. Written purchase orders sent to confirm a telephone order must be stamped CONFIRMING. Failure to do so could result in additional charges for freight.

CREDIT TERMS: We ship open account to firms rated high by Dun & Bradstreet, Inc., otherwise, terms are cash or chargeable to Visa or Master Charge with Bank approval. Payment terms are Net/30 days from date of invoice unless otherwise specified. Accounts placed for collection lose all credit privileges. COD orders require a 25% payment in advance unless the customer is established with ABE. Shipping terms are F.O.B. Richmond, Seattle, or point of origination if it's a factory drop ship.

PARTIAL BILLING: Unless previous arrangements are made, partial shipments will be invoiced to open accounts when shipped and the net charges shall become due as the terms dictate on each shipment.

TRIALS & SALES ON APPROVAL: Trials and sales on approval require a firm purchase order or payment in advance unless otherwise specified. Approval terms are applicable only if specified in advance on the order and accepted by our Sales and Credit Department. Goods must be returned within the specified time on the invoice or the sale is considered final.

LEASING: Allied offers several Leasing Plans from various companies. Just about any type lease can be arranged to suit your individual needs, including a Lease Purchase Plan. The customer is responsible for all transportation and insurance charges unless previously arranged in advance with the Leasing Company.

USED EQUIPMENT: Used equipment offered and purchased as an "as-is, no-return" situation must be paid for in advance or sent COD. Allied will make a fair representation and the customer will buy at his own risk but usually at great savings. If a return is requested within 10 days, Allied will authorize a return, upon the receipt of which, the customer will be credited the full amount less all shipping and packing charges.

BACK ORDERS: Should an item you ordered be temporarily out of stock or have to be drop shipped from the manufacturer, it will be placed on back order. If the merchandise cannot be shipped within a reasonable time, you will be advised of the shipping date.

TAXES: Indiana and Washington residents--please add sales tax to your order. We reserve the right to add any taxes required by local law or ordinance. Firms operating under tax free condition must state applicable license or contract numbers and be prepared to furnish necessary certificates or proof.

SHIPMENT: Your order will be shipped via UPS, if possible. Otherwise, equipment will be shipped via Parcel Post, Truck or Air Freight. If you require a special or particular form of shipment, please specify. Please be aware of insurance limitations on certain forms of shipments and we cannot always follow your exact shipping requests due to limitations in services available in various parts of the country and tariff restrictions. Allied will make every effort to make your shipment the

least expensive and fastest way delivery time. If at all possible, shipments will be made the same day they are received on all orders in stock. If it is a drop shipment from the manufacturing plant, the request will be made via telephone to expedite shipment. Pickups are made several times a day from our facility to expedite service. Please allow extra time for truck shipments and parcel post.

GUARANTEE: All merchandise is covered by the manufacturer's warranty. Allied backs these warranties with personal interface between the problem and the factory solution. Many parts and replacement units are available from our stock and those not will be expedited from the manufacturers at Allied's direction as the customer requests. Allied or the manufacturer, will at their option, repair or replace each defective part or merchandise in warranty. The customer will be billed for the replacement or repair and full credit will be issued, less the freight, upon satisfactory return of the defective unit in the time period specified.

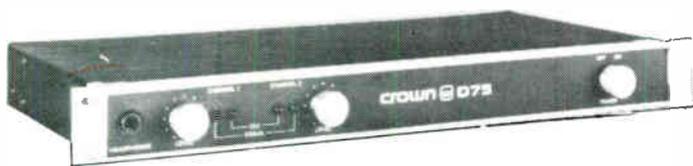
CLAIMS & RETURNS: Inspect all shipments immediately upon receipt. Missing cartons or obvious damage to cartons, shipped by common carrier, should be noted on the delivery receipt before shipping. Concealed damage or loss should be reported at once to the carrier and an inspection requested. Losses or damage to parcel post shipments should be reported to our Customer Service Department. All claims for shortage or damage must be made within two days after receipt of shipment. Claims for lost shipments must be made within 20 days of receipt of invoice or other notification of shipment. Save damaged or pilfered cartons until claim is settled. Do not return any goods to Allied without obtaining a prior approval and instructions from our Customer Service Department. Goods returned unauthorized by collect freight may be refused. Goods returned which were ordered by customers in error are subject to a 15% restocking charge. **IMPORTANT--**Under present rules and regulations by most carriers it is the end user's responsibility to inspect and report losses and damage. It is essential you follow correct procedure in applying for claims and most of all, do it promptly.

REPAIRS & WARRANTY SERVICE: Contact our Customer Service Department for instructions on repair. Do not return goods without instruction and make sure proper documentation is enclosed stating the problem encountered. If you feel your problem can be solved by conversation with a technician, please ask our Customer Service Department to connect you with the Repair Department.

PERSONAL SERVICE: Regardless of quantity, it's our Company policy to treat each order and inquiry as a person-to-person encounter. Your questions, comments and criticisms are welcome. Our staff is made up entirely of people willing to give you helpful assistance and work out possible problems to your full satisfaction.

CORPORATE REFERENCES & POLICIES: Allied Broadcast Equipment and Allied International are divisions of Allied Advertising Corporation an Indiana Corporation since 1966. It is our sincere desire to give the broadcast and recording industry the best possible service anywhere. Please direct any comments concerning service and policy to - - - President, Allied Broadcast Equipment, PO Box 786, Richmond, Indiana 47374 USA.

CROWN D75 AMPLIFIER



The CROWN D75 offers significant benefits to the professional user that were not previously available.

Standard features include:

- * IOC-Input/Output Comparator that reports all forms of signal overload.
- * Lockable level control shafts.
- * Active, balanced XLR connectors as well as unbalanced 1/4 inch phone plugs.
- * Signal presence indicators that notify the user whenever the D75's output signal is greater than 1/8 watt into 8 ohms.

- Separate signal and chassis grounds to minimize ground loops.
- * Grounds may be tied together at rear panel terminals if desired.
- * 35 watts continuous per channel into 8 ohms.
- * 45 watts continuous per channel into 4 ohms.
- * 95 watts continuous mono into 8 ohms.

D75.....\$449.00

CROWN D-150A AMPLIFIER



The CROWN D-150A is a single or dual channel power amplifier designed for precision amplification of frequencies from 1Hz to 20 kHz. The design of the D-150A provides extremely low harmonic and intermodulation distortion with very low noise. A switch on the rear of the unit allows stereo or mono operation with no internal wiring changes. In the mono mode, the D-150A is capable of a 50 volt balanced line output. The Unit operates on AC current from 120V to 240V.

The D-150A has two direct coupled amplifier circuits employing a dual integrated op amp and silicon transistors in all amplifier stages. Input voltage amplifiers are powered by two regulated voltage supplies. The output stages utilize CROWN patented circuitry, including the class AB + B configuration. No quiescent bias current is used in the output transistors for better efficiency and wide band response.

OUTPUT POWER:

80 watts per channel minimum RMS (both channels operating) into an 8 ohm load over a bandwidth of 1Hz-20kHz at a rated RMS sum total harmonic distortion of 0.05% of the fundamental output voltage.

FREQUENCY RESPONSE: 0.1 dB DC-20kHz at 1 watt into 8 ohms.

(cont.)

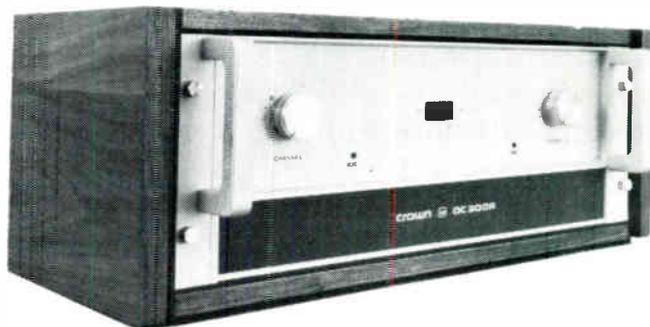
I.M. DISTORTION (SMPTE): Less than 0.05% from 0.01 watt to 0.25 watt.

SLEWING RATE: 6 volts per microsecond.

LOAD IMPEDANCE: Rated for 8 ohms usage; safely drives any load including completely reactive loads.

D-150A.....\$599.00

CROWN DC-300A AMPLIFIER



The CROWN DC-300A is a single or dual channel power amplifier designed for precision amplification of frequencies from 1Hz to 20kHz. The design of the DC-300A provides extremely low harmonic and intermodulation distortion with very low noise. A switch on the rear of the unit allows stereo or mono operation with no internal wiring changes. In the mono mode, the DC-300A is capable of a 70V balanced line output. The unit operates on AC current from 120V to 256V.

Specifications:

OUTPUT POWER:

155 watts per channel minimum RMS (both channels operating) into an 8 ohm load over a bandwidth of 1Hz-20kHz at a rated RMS sum total harmonic distortion of 0.05% of the fundamental output voltage.

FREQUENCY RESPONSE: 0.1 dB DC-20kHz at 1 watt into 8 ohms. 1 dB DC-100kHz at 1 watt into 8 ohms.

1kHz Power: 180 watts RMS into 8 ohms, per channel, both channels operating, 0.1% total harmonic distortion.

I.M. DISTORTION (SMPTE): Less than 0.01% from 155 watts into 8 ohms per channel.

SLEWING RATE: 8 volts per micro-second

LOAD IMPEDANCE: Rated for 8 ohm usage; safely drives any load including completely reactive loads.

DC-300A.....\$1049.00



CROWN M600 AMPLIFIER



M-600.....\$2395.00

CROWN IC-150A PREAMPLIFIER



The Crown IC-150A is an input control center designed for the professional user and the sophisticated audiophile.

A new phono circuit incorporates an exclusive complimentary parallel discrete input, driving an operational amplifier output. This combination results in extremely low distortion, wide dynamic range, and a noise level 85dB or more below a 10 millivolt input. Audibly, the results extend from clean, controlled bass reproduction to precisely accurate music transient response all the way to the top of the audio band.

The high level amplification section incorporates a new integrated circuit design which combines very low distortion with an unweighted hum and noise figure 95dB below the rated 2.5 volt output.

Tone controls allow independent channel compensation for program or environmental problems at the frequency extremes. A cancel switch may be activated bypassing the tone controls to obtain a flat response for comparison.

The panorama and balance controls offer further facilities for compensating balance or image problems occurring in the program material or caused by the system surroundings.

Two tape inputs are provided with front panel monitor buttons, while one of the auxiliary inputs is provided with front panel phone jacks. A stereo phone jack monitor output is also provided at the front panel. The phono and main outputs are capable of driving loads from 600 ohms up.

Six AC outlets are available on the rear panel of the IC-150A,
(cont.)

five switched and one unswitched.

The IC-150A may be rack mounted, or as shown, an optional cabinet is available.

IC-150A.....\$529.00

UREI 6500 DUAL POWER AMPLIFIER



As opposed to the "fix-it-up with feedback" approach in common use today, we carefully departed from conventional design techniques. Overall negative feedback is used primarily to fix gain and establish the output operating point. Each amplifier stage in the 6500 was engineered for optimum performance with no overall feedback applied. Only after all stages were individually characterized was the "loop" closed. The result of this extra effort is what we believe characterizes some of the critical differences that set the 6500 apart.

- * Two channels on independent, modular plug-in chassis with front panel access.
- * Output Power & Distortion: 275 watts into 8 ohms (20Hz-20kHz, .1% THD) – 450 watts into 4 ohms (20Hz-20kHz, .2% THD) – 600 watts into 2 ohms (20Hz-20kHz, .5% THD) – 900 watts into 8 ohms (Mono mode, 20Hz-20kHz, .2% THD) – 1200 watts into 4 ohms (Mono mode, 20 Hz-20kHz, 5% THD) – Designed for any load impedance of 2 ohms or greater.

UREI 6500.....\$1996.00

CONEX PA-30/PA-20 POWER AMPLIFIER



SIZE: 3.5" rack mounting

WEIGHT: 10.5 lb.

POWER REQUIREMENTS: 115 VAC 60Hz 2A

DISTORTION: Less than .15% THD @ 1000 Hz (30 watts output)

- * Headphone jack
- * Short circuit protection (indefinite with no power out . . . 3 minutes at 30 watts, 1000 Hz sine wave)
- * Low cost

PA-30.....\$249.00

PA-20 (20 watts x 2, 1 3/4" rack space)\$249.00

PRECISION POWER AMPLIFIER – G-62



Mono Rack Mount Amplifier

- * 60 watts RMS
- * Frequency Response: ± 1 db 30 to 15 KHz
- * T.H.D. less than 0.3%
- * 19" x 5 1/4" rack mount

LOZ plug-in transformer available

G-62.....\$234.00

PRECISION POWER AMPLIFIER – G-125



Mono Rack Mount Amplifier

- * 125 watts RMS
- * Frequency Response: ± 1 db 30 to 15 KHz
- * T.H.D. less than 0.3%
- * 19" x 5 1/4" rack mount

LOZ plug-in transformer available

G-125.....\$300.00

PRECISION POWER AMPLIFIER – G-252



Mono/Stereo Rack Mount Amplifier

- * 250 watts (125 x 2) RMS
- * Frequency Response: ± 1 db 30 to 15 KHz
- * T.H.D. less than 0.3%
- * 19" x 8 1/4" rack mount

LOZ plug-in transformer available

G-252.....\$660.00

NAD 3020 AMPLIFIER



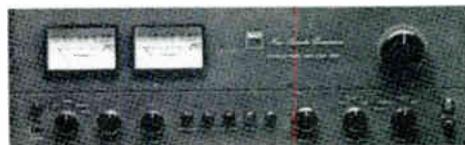
The NAD 3020 is perhaps the most highly praised integrated amplifier in the world. A 20W state-of-the-art unit, the NAD 3020 offers totally uncompromised performance at a cost that most budget-minded buyers can afford. Among other things, the 3020 contains a unique Soft-Clipping circuit which allows it to play much louder than its rated power suggests.

- * Rated power 20 watts/channel
- * Less than 0.02% of all types of distortion
- * LED peak power indicator

NAD 3020.....\$198.00

RACK MOUNTS For 3020, Only.....\$20.00

NAD 3045 AMPLIFIER



Contains much of the same circuitry as in the 3060, including its extremely quiet phono preamp stage and its flexible tape copying and monitoring provisions. Includes power meters, fuse protection for speaker outputs, and a straightforward control layout.

- * Rated power 45 watts/channel
- * Less than 0.05% of all types of distortion

NAD 3045.....\$350.00

NAD 3060 AMPLIFIER



Contains much of the same high-performance circuitry as in the top-of-the-line 3080, with slightly less power. Includes power meters, and fast instrument-grade output relay for speaker protection.

- * Rated power 60 watts/channel
- * Less than 0.03% of all types of distortion

NAD 3060.....\$425.00

AMPLIFIERS AND AUDIO PROCESSING

NAD 3080 AMPLIFIER



The most powerful and most flexible integrated amplifier in the NAD line. Includes a high-speed relay for speaker protection, ambience-recovery circuit for secondary speakers, meters switchable to either 14 or 140 watts full-scale, switchable 12 dB/octave hiss filter, and a microphone input.

- * Rated power 90 watts/channel
- * Less than 0.03% of all types of distortion
- * Switchable Bass and Treble turnover frequencies

NAD 3080.....\$535.00

ATI MA-1000-1 AMPLIFIER



- * 10 Watts per channel - stereo
- * 25 Watts - mono bridged
- * Balanced bridging inputs
- * Front level control and headphone jack rear speaker terminals
- * Electronic output protection instantaneously limits output voltage and current to safe levels
- * Mode control switches both inputs and outputs for mono bridged operation
- * Ideal headphone booster or monitor amplifier for low output consoles. Balanced differential inputs allow internal console connection without causing ground loops.

POWER OUTPUT: 10 Wrms/ch Stereo. 20 - 20,000 Hz

25 Wrms Mono. Both channels driven.

DISTORTION: THD, 20-20,000....0.1% Max.

10W/8 ohms IMD (SMPTE)....0.003% Max.

SLEW RATE: 1Vin, 10W out.....20V/usec.

RESPONSE: 30 to 20,000 Hz....±.1 db

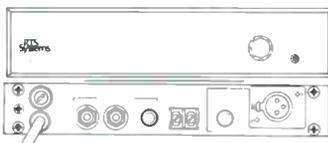
SIZE: 8½" W x 1¾" H x 7" D, 4 lbs.

MA 1000-1.....\$325.00

RACK MOUNT KIT Single Unit.....\$15.00

Dual Units.....\$20.00

RTS 410 MONITOR AMPLIFIER



The Model 410 is a self-contained compact 10-watt power amplifier (cont.)

fier designed to power loudspeakers, headphones or 70-volt loudspeaker distribution systems. Its input is balanced and designed to bridge 600 ohm / +4 dBu program lines. The 410 features a front panel volume control and two separate outputs: a direct amplifier output available on push terminals and/or ¼ inch phone jack, and an optional transformer isolated output, on a barrier strip, for 70-volt distribution. The input connection may be made via a 3 pin XLR type connector and/or ¼ inch phone jack.

FREQUENCY RESPONSE: ±0.25 dB, 50 Hz to 20 kHz

SIGNAL/NOISE RATIO: -95dB

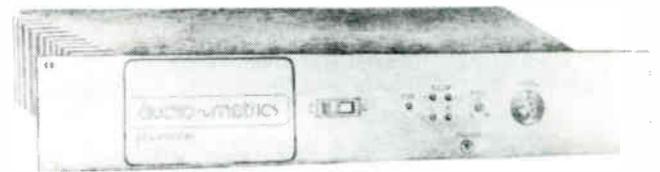
OUTPUT POWER: 10 watts

TOTAL HARMONIC DISTORTION: 0.05%

RTS 410.....\$177.00

Rack Mount & 70V Transformer Available

AUDIO METRICS PROFESSIONAL POWER AMPLIFIER



"THE PRO AMPLIFIER" — Now from the team who brought to the industry the best broadcast phono preamplifier, a power amplifier that is second to none.

Audio Metrics' engineers publish specs which can be verified in the laboratory. Specs which approach theoretical limits. Here's the most popular level of amplification for the average control or production room at a price that will please.

- * Active balanced bridging inputs
- * Assymetrical clipping indicators
- * State-of-the-art discrete double differential SEPP topology
- * High speed balanced emitter driver and output devices
- * Multiple output transistors with 480 watts of dissipation per channel

POWER OUTPUT: 50 watts min./channel, 8 ohms, 20-20 kHz
— 65 watts min./channel, 4 ohms, 20-20 kHz - 130 watts mono, 8 ohms, 20-20 kHz.

THD 20-20 kHz: 50 watts, 8 ohms .01% — 65 watts, 4 ohms .015% - 130 watts mono, 8 ohms .015%

SMPTE IM: .25 watts to rated output .006%

FREQUENCY RESPONSE: ±.1db 20-20 kHz, ±3db .5Hz-100 kHz

HUM & NOISE: 100 db below 50 watts

GAIN: 28 db

INPUT IMPEDANCE: 20K ohms balanced

INPUT COMMON MODE REJECTION: 60db

LOAD RATING: 3 ohms or greater, resistive or reactive

SLEW RATE: 50 V/micro sec.

POWER BANDWIDTH: 5Hz-40kHz

DYNAMIC HEADROOM: 2db

Audio Metrics Pro Amplifier\$399.00

BGW PROFESSIONAL POWER AMPLIFIER/MODEL 50A



- * 25 watts per channel (8 ohms, 20 Hz-20kHz, .05% maximum THD) 50 watts monaural, .08% THD.
- * Full complementary output devices with full 180 watt dissipation.
- * Peak current limiter to prevent shutdown under shorted load conditions.
- * Front panel headphone jack.
- * Individual front panel gain controls.
- * Easy access stereo/mono switch.
- * Separate signal and chassis grounding rear panel barrier strip.
- * Switchable 120V/240V (or 100V/220V) A.C. power.

50A\$349.00

BGW PROFESSIONAL POWER AMPLIFIER 250D/250E



Identical but for their front-panel power indicators, the Models 250D & E offer these exclusive features:

- * Magnetic circuit breaker mains switch.
- * Redundant output stage circuitry using six (6) 150-watt complementary transistors per channel.
- * High-speed, 15MHz operational amplifier front-end.
- * Professional input connectors including XLR-type and 1/4" phone jacks with octal sockets for optional plug-in input transformers.
- * Separate circuit and chassis groundings.
- * Exclusive Teflon harness wiring.
- * Sophisticated loss-of-feedback clipping indicators using discrete circuitry (Model 250D).
- * LED light ladder V.U. meter with rear-panel adjustable sensitivity control (Model 250E).
- * 100 watts minimum sine wave continuous average power output per channel with both channels driving 8 ohm loads over a power band from 20Hz to 20kHz.

250D\$699.00

250E\$779.00

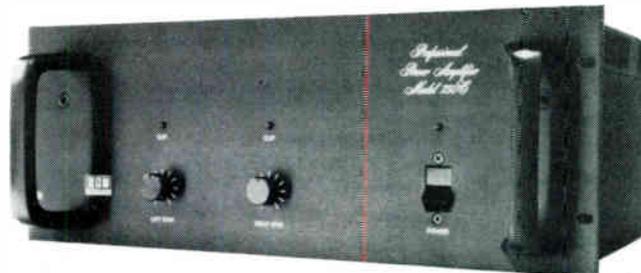
BGW PROFESSIONAL POWER AMPLIFIER/MODEL 100B



- * 50 watts minimum sine wave continuous average power output per channel with both channels driving 8-ohm loads over a power band from 20 Hz to 20kHz.
- * Increased filter capacitor ratings.
- * LED front panel metering with indicators at idle, 0.5% of rated output, 50% power and separate loss of feedback indicator using discrete one shot circuit.
- * The latest full complimentary output devices with full 180 watt dissipation.
- * Peak current limiter to prevent shutdown under shorted load conditions.
- * New rear panel layout with both XLR and quarter inch input connectors. Provisions for plug-in input transformers for balanced line capability. Relocated mono/stereo switch for easy access, and barrier strip availability to circuit and chassis grounds—a BGW first! Mains power selection switch is also located on the rear panel.
- * The 1 1/4 inch (4.45 cm) high rack panel matches, in layout and finish, all other current BGW professional products. The front panel features independent gain controls with shaft locks.

100B.....\$489.00

BGW PROFESSIONAL POWER AMPLIFIER 750B/750C



- * 225 watts minimum sine wave continuous average power output per channel with both channels driving 8-ohm loads over a power band from 20 Hz to 20 kHz.
- * Guaranteed transient intermodulation distortion of less than 0.02%.
- * Increased power output: 720 watts total.
- * Inclusion of clipping indicators on the Model 750C.
- * Addition of LED light ladder V.U. meter display on the Model 750B.
- * Dual professional input connectors (both XLR and 1/4" phone jacks provided).
- * Plug-in input matching transformer provision.

750B\$1259.00

750C\$1159.00

AMPLIFIERS AND AUDIO PROCESSING

BGW PROFESSIONAL POWER AMPLIFIER/MODEL 1250



- * 400 watts minimum sine wave continuous average power output per channel with both channels driving 8-ohm loads over a power band from 20 Hz to 20 kHz.
- * Full complementary circuit using forty eight 200-watt power transistors.
- * Forced air cooling with 3-speed solid-state fan control.
- * Mains voltage changed from rear panel with no additional parts.
- * Electronically balanced inputs with sockets for optional input transformers.
- * New multicolor L.E.D. peak reading power meter with true clipping, temperature and mode indicators.
- * Standby mode during turn-on, and when D.C. offset or over-temperature conditions occur.
- * Soft turn-on for low mains inrush current.
- * High input sensitivity, full output for 0 dBm input.
- * True step-attenuator gain controls calibrated directly in decibels.
- * XLR-type and 1/4" -phone connectors.
- * Separate circuit and chassis grounds at rear panel barrier strip.
- * Speaker protection circuit using arc-interrupting techniques.
- * Modular construction.
- * All steel package for strength and RFI shielding.

MODEL 1250..... \$1999.00

ORBAN 8100A OPTIMOD FM AUDIO PROCESSOR



Airsound so clean, your competition will hate it with the new versatile OPTIMOD-FM 8100A. Cleaner, Brighter, Louder than the industry - standard 8000A it replaces.

PERFORMANCE HIGHLIGHTS:

- * Wideband or multiband operation
- * More versatile setup controls permit precise "tuning" for different formats.
- * New freedom from processing artifacts and distortion

(cont.)

- * Improved voice/music balances
- * Improved high frequency power handling for brighter sound
- * Improved stereo generator with cleaner baseband
- * New overshoot compensator permits full modulation at all frequencies, yet doesn't increase low frequency IM distortion.

PLUS:

- * Dual chassis (studio/transmitter) option
- * Plug-in card construction for easy maintenance
- * Built-in crosstalk test generator
- * Quad coupling ability
- * Rigorous RFI shielding
- * True VCA gain control
- * True peak-reading gain reduction meter

8100A Standard Single Unit.....\$3995.00

ORBAN 9000A OPTIMOD AM AUDIO PROCESSOR



OPTIMOD-AM advances the state-of-the-art in AM audio processing by a full generation. In subjective terms, OPTIMOD-AM processing creates a night-and-day improvement in audio quality on typical auto, table, and portable AM radios. The improvement is far more dramatic than the improvement that OPTIMOD-FM created when compared to the old generation of FM processors.

This is good news for AM broadcasters who are losing ratings to FM's. Because OPTIMOD-AM creates an "almost high fidelity" sound on typical radios, AM's can now compete seriously with FM's having music formats. We don't believe that FM's edge is stereo—too much FM listening is done in mono. We believe that its edge is audio quality—quality that OPTIMOD-AM can now deliver to the AM broadcaster for the first time.

ABOUT STEREO

Each OPTIMOD-AM is equipped with a rear-panel connector to accept an AM stereo adapter chassis, if and when such a system is approved by the FCC.

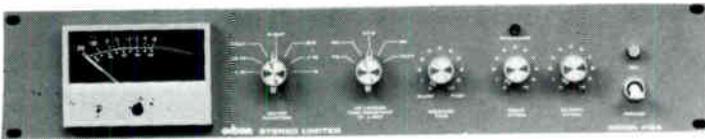
OPTIMOD 9000A AM Complete Processor.....\$3995.00
 OPT-14 Lo-Pass Cutoff Option.....N/C
 OPT-15 Speech Input Circuitry Option Installed.....\$25.00
 OPT-16 Key-Lock Door Option.....\$15.00

STA-MAX COMPOSITE CLIPPER

For the loudest legal sound attainable on FM. Already proven in major markets, the unit interfaces with any stereo generator/exciter combination, is easy to use, easy to set up and will quickly pay for itself by increasing your station's ratings and revenue. STA-MAX is designed for FM Stereo "composite clipping" applications.

STA-MAX \$995.00

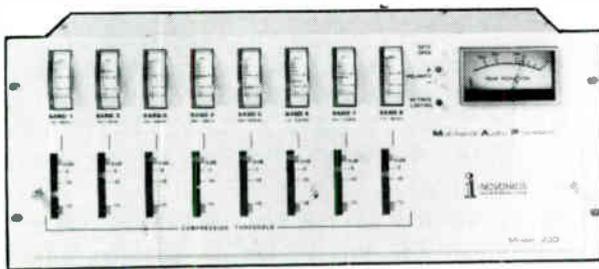
ORBAN 418A STEREO LIMITER/COMPRESSOR



The 418A is a complete limiting system consisting of a pair of ganged broadband compressor/limiters with exceptionally smooth and subtle characteristics, followed by a high frequency limiter with four different time constants, user selectable by means of a front-panel switch. This variable time constant feature is unique in the industry, and permits the characteristics of the high-frequency limiter to be tailored to the recording medium following the limiter, such as disc, cassette, or 7.5 ips tape. Not suitable for use by itself as an FM processor.

ORBAN 418A\$795.00

INOVONICS MAP II MULTIBAND AUDIO PROCESSOR



A user-oriented discriminate processor of advanced design to assure optimum modulation, specifically in AM Broadcast applications.

- * Selectable High-Pass Filter
- * Gated A.G.C.
- * Multiband Compressor
- * Inaudible Phase-Follower
- * Integrated Peak Controller
- * Selectable Low-Pass Filter
- * Built-In Pink Noise Source
- * Two MAP II's may be interconnected for stereo operation. Not only are the Bandpass Compressors slaved on a band-for-band basis, but one Phase-Follower may be slaved to the other or both may be defeated.

COMPLETE AM PROCESSOR.....\$1670.00
 COMPLETE FM PROCESSOR.....\$1645.00
 (2) NEEDED FOR STEREO

DORROUGH DAP DISCRIMINATE AUDIO PROCESSOR



The Dorrough Discriminate Audio Processor now features the latest in peak limiting known as "Version II". This permits equalization for increased intelligibility without disturbing ad-
 (cont.)

acent discriminate limiters. A pink noise generator to assist in setup is also a part of the package. Specify for use on AM or FM.

DORROUGH DAP Per Channel\$2250.00

UREI BL40 MODULIMITER



The Universal Audio BL-40 MODULIMITER is specifically designed for AM Broadcasting, but will also find wide application in TV and CCTV audio signal processing, background music systems and commercial sound systems.

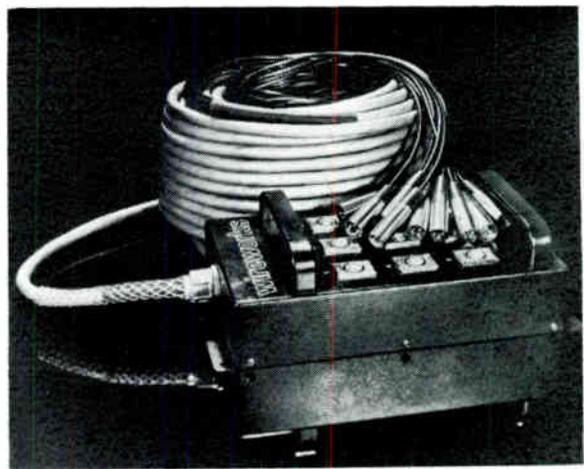
For the AM broadcaster, MODULIMITER eliminates unwanted overmodulation without clipping. Independent adjustments are provided for RMS and peak limiting, and variable positive overmodulation up to 125%. This permits tailoring of the modulation envelope to any program format or transmitter characteristics: constant full modulation or a more conservative approach.

A proprietary "Phas Optimizer" circuit automatically maintains most favorable signal polarity, reversing phase whenever negative peaks exceed positive peaks by a preset amount. Its action is instantaneous and silent -- no relays are used.

No matter what YOUR format, hard rock to classical, MODULIMITER can be readily adjusted to maximize transmitter efficiency and extend coverage.

UREI BL-40.....\$796.00

WIREWORKS MICROPHONE ACCESSORIES



The number one name in microphone "snakes", custom cables and accessories can supply stock to custom orders.

Call Allied With Your Specifications.

UREI LA-4 COMPRESSOR OR LIMITER



The LA-4 Compressor/Limiter is another great performer in the continually expanding product line from UREI—the company which has built and sold more limiters and compressors throughout the world than any other manufacturer. Making use of patented Electro-Optical Attenuator technology owned by UREI, the LA-4 offers smooth, predictable performance coupled with ease of operation. It's electroluminescent light source is a light-emitting semiconductor, which will not change or deteriorate with age.

- * Long-life LED Optical Attenuator
- * Smooth natural-sounding RMS action
- * Selectable compression ratios
- * Input overload indicator
- * Simple stereo coupling
- * True standard volume indicator (VU)
- * Space-saving half rack size
- * UREI Quality, of course

UREI LA-4.....\$424.00

UREI 1176LN LIMITER



The Universal Audio 1176 was a major break through in limiter technology. It brought to the professional audio industry for the first time a true peak limiter with all transistor circuitry and superior performance on all types of program material. The 1176LN retains all of the features of the 1176, but generates 6 dB less noise. In addition, a redistribution of noise spectrum leaves even less noise in the sensitive 500 Hz to 3 kHz range.

Since its introduction in 1968, the 1176 has become the industry leader. The 1176LN will carry on that tradition with the following plus features:

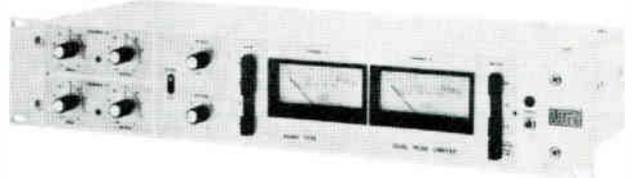
- * F.E.T. Gain Reduction ahead of first stage. No tricky balancing required, ever. No distortion adding active element in gain reduction circuit.
- * Pushbutton selection of four different compression ratios, to satisfy every program requirement.

(cont.)

- * ULTRA FAST attack time . . . independent of peak duration or frequency. Adjustable from front panel during operation.
- * Release time adjustable from front panel . . . independent of degree of limiting.
- * Extremely stable operation . . . no costly maintenance . . . no tubes to select or replace.
- * Stereo operation of two units easily accommodated, so peak in one channel causes equal limiting in both.
- * Contemporary styling . . . eye pleasing industrial design.

UREI 1176LN.....\$496.00

UREI 1178 DUAL PEAK LIMITER



The Model 1178 is a two channel version of the very successful 1176LN Peak Limiter used in many recording studios and broadcast stations. The Dual Peak Limiter was designed for those applications where two channels of program material are processed and the balance of these audio channels must be maintained. The two limiters inside the Model 1178 are perfectly matched to assure the high degree of tracking necessary for critical stereo applications.

The Model 1178 was designed to have performance characteristics similar to the single channel 1176LN. Limiting is accomplished by utilizing FETs as voltage variable resistors.

- * Two independent Peak Limiters with perfect tracking when used in stereo mode.
- * Pushbutton selection of four compression ratios, to satisfy various program requirements.
- * High impedance, balanced, bridging inputs.
- * Balanced, transformer outputs.
- * UREI quality, of course.

MODEL 1178.....\$796.00

ADR FM STEREO EX-PRESS LIMITER



- * Compressor-Limiter-Expander (AGC)
- * Switchable Ultimate Level Clipper (employing Audio & Design's exclusive Clever Clipper Circuit)
- * Dynamic Pre-Emphasis (switchable—25, 50, 75 u-sec.)
- * Function Switching via Digital Logic
- * Stereo—Self Powered—1 1/4" ht. Rack Mounting
- * Differential Inputs/Outputs

Express Limiter.....\$1270.00

DBX 160 COMPRESSOR/LIMITER



DBX 160 series compressor/limiters are a family of single channel devices using true rms level detection circuitry for signal sensing and highly sophisticated voltage controlled amplifiers as the control element.

While most available compressor/limiters use peak detection and fast response characteristics, their action is frequently displeasing to the ear, even at moderate compression ratios. This results from the psychoacoustic phenomenon that the ear responds not to the peaks, but to the rms value of the signal, defined as the sum of all the frequencies/energies present.

Accordingly, the DBX 160 series uses true rms sensing to most closely simulate human hearing response for the most listenable result in dynamic range signal processing.

DBX 160\$400.00

DBX 162 COMPRESSOR/LIMITER



- * True rms level detection.
- * Compression ratio variable from 1:1 to infinity.
- * Threshold; variable from 10 mV to 3 V.
- * LED above/below threshold indicators.
- * Low distortion even at high compression ratios.
- * Ground loop compensated and turn-on, turn-off transient protected.
- * Small, easily mounted 3 1/2" rack package.

COMPRESSION RATIO: Variable from 1:1 to infinity

THRESHOLD: Variable from 10mV to 3 V (-38 to +12 dBm)

INPUT IMPEDANCE: 50 k ohms, balanced or 25 k ohms, unbalanced.

INPUT LEVEL: +26 dBm max.

EQUIVALENT INPUT NOISE: -78 dBm typical (10 Hz to 20 kHz).

OUTPUT SOURCE IMPEDANCE: 25 ohms

OUTPUT LEVEL: +24 dBm into 600 ohms.
+26 dBm into 10 k ohms.

FREQUENCY RESPONSE: ±1dB 30 to 20,000 Hz.

CONNECTORS: Input, Output: Cinch-Jones type barrier terminal strip. Multi-Unit Coupler: 12 pin Jones connector.

CASE: Black painted steel sides; extruded aluminum front and rear panels; vinyl clad steel covers top and bottom.

DIMENSIONS: 3 1/2" H x 19" D (8.9 cm x 48.3 cm x 26.7 cm).

POWER LINE REQUIREMENTS: 117 VAC ±10%, 50-60 Hz, 20 watts.

WEIGHT: 10 lbs. (4.5kg).

DBX 162\$790.00

DBX 165 COMPRESSOR/LIMITER



The DBX 165 is the most advanced compressor/limiter available within the limits of current technology.

Besides the standard DBX circuit advantages, the 165 uses "Over Easy" compression — you literally cannot hear it "working". It is the product the recording industry has been waiting for.

The 165 was designed for professional applications, with a balanced high impedance differential input stage and an unbalanced output, terminating in a Jones barrier strip.

It is a single-channel compressor/limiter that is strappable for true stereo operation. The front panel has a master/slave switch. The unit switched to "master" will control all the functions of the "slave".

In the hands of a good engineer, the DBX 165 is more than the most natural-sounding compressor/limiter available; it is an integral part of the creative recording process.

INPUT IMPEDANCE: 22k ohms balanced. 11k ohms unbalanced.

OUTPUT IMPEDANCE: Less than 47 ohms (active low impedance output).

FREQUENCY RESPONSE: +0, -1 dB, 20 Hz-20kHz.

DISTORTION: 2nd harmonic .05%. 3rd harmonic .2% (auto, or manual with attack and release controls centered).

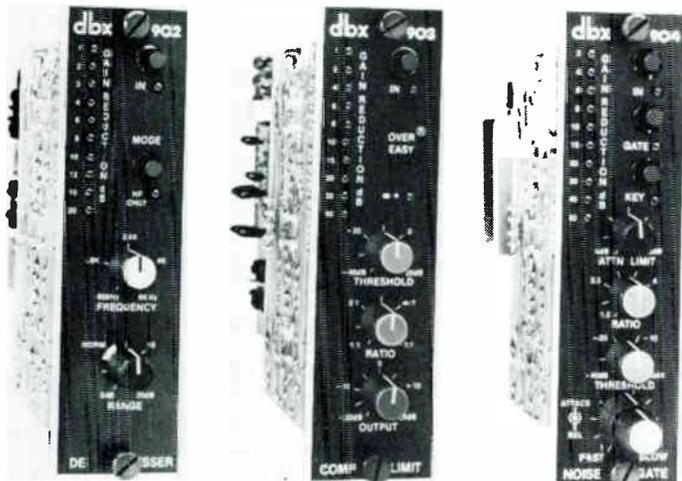
CONNECTORS: Input/output: Cinch-Jones type barrier terminal, stereo coupler: 12 pin Jones connector.

DIMENSIONS: 3 1/2" H x 19" W x 10-1/8" D (8.9 cm x 48.3 cm x 25.7 cm)

DBX 165\$650.00

(cont.)

DBX 900 SERIES MODULAR SIGNAL PROCESSING SYSTEM



Today signal processing plays a greater role in sound production than ever before, both in the studio and on the road. As a result, rack space is at a premium. Innovative packaging eliminates redundant power supplies, simplifies interconnects, and saves space. With this in mind, DBX has created the 900 Series Modular Signal Processing System.

The DBX 900 Series features convenience with flexibility. You can fit up to 8 sophisticated signal processing modules into a rackmount unit measuring just 5¼" high. Each 900 Series module represents a step forward in state-of-the-art technology. Installation is quick and easy to accomplish. Standard connectors enable you to wire the rack into your system like any other component. The interchangeable signal processing modules slip in and out in seconds.

The DBX 900 Series is the ultimate in flexibility. These modules place at fingertip control creative tools to express your unique sense of artistry in sound production.

902 DE-ESSER

The Model 902 De-esser can be used as a conventional broadband de-esser, or for attenuating only a user-determined portion of the high frequency range of the audio signal. Gain reduction is adjustable from 0 to -20 dB. A feature unique to the 902 (not found in other de-essers) is its continuous analysis of the input signal spectrum, thereby providing the exact amount of de-essing selected regardless of signal level. The 902 does not require recalibration for signal level changes. Just set it and forget it.

- * No dynamic threshold to set
- * Two gain reduction modes (Broadband or HF only)
- * Adjustable crossover frequency
- * Adjustable gain reduction range
- * Control voltage output

903 COMPRESSOR

The Model 903 Compressor gives you all the features you'd expect from DBX. And then some. For starters, you have at your command a unique new negative compression feature that actually begins reducing output volume once the threshold is exceeded. Signals are given a new and unusual sense of "punch". And the 903, like our acclaimed 165, is an Over Easy compressor, with a soft knee threshold that increases compression ratio gradually over a range of several dB. It features true RMS level detection, continuously variable compression ratios, and a threshold that's adjustable from -40 dB to +20 dB.

(cont.)

- * Over Easy threshold
- * "Through Infinity" compression ratios
- * Detector input access

904 NOISE GATE

The Model 904 Noise Gate is the ultimate noise gate, with a combination of features not found on any other noise gate, at any price. It features adjustable attack and release rates, threshold adjustment from -30 to +10 dB, attenuation limit adjustment from 0 to 60 dB, with DBX Over Easy downward expansion for a smooth sound. It also features a KEY input that allows gating of one instrument by another.

The special GATE mode of the 904 allows users without automated consoles to put threshold programmed muting on solo channels. After the user sets the correct solo level on the console, the 904 will automatically keep the channel muted, eliminating spurious signals which frequently precede the solo itself. When the solo begins, the 904 will un-mute the channel, allowing the solo into the mix at the pre-set level.

- * Over Easy expansion
- * External "Key" input
- * Gate Mode
- * Control Voltage output (50mV/dB)

DBX 902.....	\$325.00
DBX 903.....	\$325.00
DBX 904.....	\$325.00
HOUSING INCLUDING P.S.	\$ 800.00
BLANK PLATES (ea.).....	\$17.50

ORBAN 622 PARAMETRIC EQUALIZER



The 622 Parametric Equalizer consists of a balanced input buffer amplifier, an input attenuator, and four peak/dip equalization sections connected in series, assuring no interaction between sections. The final section contains a current booster capable of driving 600 ohm loads. The output of the input buffer and each of the equalization sections is monitored at all times by the overload indicator. The EQ IN/OUT switch bypasses all circuitry but the input buffer and output amplifier; it is arranged so that the gain and signal polarity are maintained constant in the IN and OUT modes.

Equalization is accomplished by adding or subtracting the output of a two-pole bandpass filter to the main signal. This arrangement, which we call "constant Q", results in non-reciprocal curves. However, it permits narrowband notch curves to be created. In addition, the characteristics tend to be more musical than the usual reciprocal characteristics, because large amounts of equalization do not result in increased "Q" with concurrent increases in ringing, resonance, and objectionable coloration. If reciprocal characteristics are desired, they may be generated exactly by simply readjusting the bandwidth control.

622A	Single Channel.....	\$509.00
622B	Dual Channel.....	\$799.00
Optional Output Balancing Transformer		
	OPT-16, 1 per channel (ea.).....	\$16.00

ORBAN 672 PARAMETRIC EQUALIZER



The ORBAN 672A is a cost-effective, professional, quasi-parametric equalizer with the convenience of graphic-type EQ controls. Wide-range high-and low-pass filters with 12dB/octave Butterworth slopes follow the graphic section for added versatility. The 672A has two outputs, arranged so that these filters can also be used as a full tunable electronic crossover.

Each feature of the 672A has been thoughtfully chosen and cleverly implemented to make the equalizer a particularly powerful tool in nearly all areas of audio: sound reinforcement, public address, recording studio, broadcasting, motion picture sound, disco, theater . . .

GRAPHIC EQ SECTION

- * Eight bands, each with TUNING and BANDWIDTH control
- * Each band tunes over 3:1 frequency range
- * "Q" typically variable between 0.3 and 20 (center TUNING)
- * ±16dB equalization range

HP/LP FILTER SECTIONS

- * Each section continuously tunable over 100:1 range in 2 decades
- * Each section independently switchable
- * 12dB/octave slopes

GENERAL

- * Very low noise and distortion
- * High slew rate for minimum TIM (SID)
- * Front-panel GAIN control; 12dB gain available
- * "Peak-stretching" overload lamp warns of clipping anywhere in equalizer
- * Active balanced input; unbalanced outputs. Transformer-balanced outputs optional

ORBAN 672A\$589.00

Optional Output Balancing Transformer -
Model OPT-17, 1 per channel (ea.).....\$16.00

NEW 674A Dual Parametric Equalizer..... TBA

WHITE ACTIVE EQUALIZERS 4000 SERIES



27 One-third octave bands from 40 Hz through 16 kHz. ±10 dB control range. 12 dB/octave high-pass filter variable from 20 Hz through 160 Hz. Noise better than -90 dBm. Accessory socket for optional low-level crossover networks. Barrier strip connectors.

4001 Transformer isolated input, single-ended outputs.....\$820.00
(cont.)

4002 Single-ended input and outputs. Wood end blocks. Optional rack mounting. Phono connectors.....\$820.00
4003 Transformer isolated input and outputs.....\$860.00

WHITE TWO CHANNEL, OCTAVE BAND, ACTIVE EQUALIZERS 4100 SERIES



Each channel features 10 octave bands from 31.5 Hz through 16 kHz. ±10 dB control range. 12 dB/Octave high-pass filter variable from 20 Hz through 160 Hz. LED overload indicator. In addition an accessory socket provides for the insertion of optional low-level crossover networks. An EQ in/out switch is mounted on the front panel.

4100RM Rack mounted, Phono Connectors.....\$740.00
4100RMP Same as 4100RM. 0.25" phone jack connectors.....\$740.00
4103 Rack mount. Transformer isolated inputs. Barrier strip connectors.....\$780.00
4104 Rack Mount. Transformer isolated inputs and outputs. Barrier strip connectors.....\$820.00

WHITE 151 PINK NOISE GENERATOR

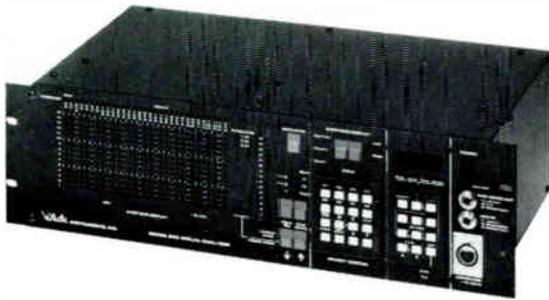


Compact battery powered digitally generated Pink Noise. 268,000,000 bit word length. Flat 20 Hz through 20 kHz. Microphone or line level output. Rugged - inexpensive.

WHITE 151\$125.00

AMPLIFIERS AND AUDIO PROCESSING

WHITE 200 SIGNAL ANALYZER



30 Triple-tuned filters on 1/3 octave I.S.O. centers from 25 Hz through 20 kHz. Octave band and 1/6 octave plug-in filters are available. 30 by 15 LED display plus separate dB-SPL, overrange, and 2 seven segment readouts. 8 Memories. One, two and three dB scales. Processes peak and average simultaneously. 3-time constants. All functions are microprocessor controlled. Long list of plug-in options.

WHITE 200\$4990.00

WHITE 140 SOUND ANALYZER



27 Double-tuned 1/3 octave filters on I.S.O. centers from 40 Hz through 16 kHz. 27 by 10 LED display plus separate dB-SPL and overrange readout. One and two dB scales. Display vernier. Built in pink noise generator. Mic and line level inputs. Sync and log amplifier outputs for remote oscilloscope display. Rugged road case. Meets ANSI S1.11-1971 Class II Specifications.

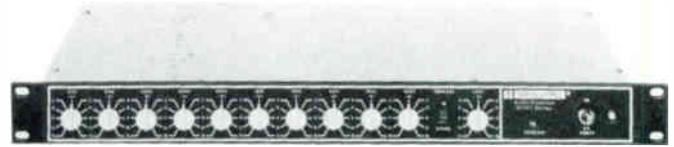
WHITE 140\$2700.00

WHITE FILTERS FOR AUDIO APPLICATIONS



Standard products include low-level crossover networks for bi-amp, tri-amp and four-way applications. We also build low & high-pass filters, shelving filters and narrow-band tuning filters. Call or write us with your particular needs. We build custom filters for special applications every day.

SHURE SR107 AUDIO EQUALIZER



The SR107 contains a total of ten octave band filters extending over the frequency range of 31 Hz to 16 kHz. Each is adjustable for approximately 15 dB of boost or attenuation. The equalized output is adjustable over a ± 15 dB range.

A peak-responding overload indicator provides a visual indication approximately 3 dB before output clipping occurs in either equalizer in or bypass operation.

The input is high-impedance, balanced and two parallel-wired LINE INPUT connectors, a three-pin female professional audio type and a three-conductor 1/4-inch phone jack are provided. Outputs include: a three-pin male professional audio OUTPUT connector switchable by means of a MIC/LINE slide switch to line level or microphone level output, a LINE OUTPUT three-conductor 1/4-inch phone jack, and an AUX OUTPUT two conductor 1/4-inch phone jack. The microphone and line level outputs are balanced and low impedance. The auxiliary output is unbalanced and low impedance.

FREQUENCY RESPONSE: ± 2 dB from 30 Hz to 20 kHz, Equalizer In or Bypass

SIGNAL TO NOISE RATIO: Typically 99 dB

CLIPPING LEVEL INPUT: +18 dBm minimum,

OUTPUT +18 dBm minimum.

INPUT IMPEDANCE: 70 kilohms actual, balanced bridging

OUTPUT IMPEDANCE: Mic Output....1 ohm actual, balanced.

Line Output....115 ohms actual, balanced. Aux Output....630

ohms actual, unbalanced.

DISTORTION: Intermodulation....0.25% max. at 12.2 dBm.

Harmonic....1% max. total harmonic distortion at 12.2 dBm.

OPERATING VOLTAGE & POWER: 120 Vac

ACCESSORY POWER: 31 Vdc open circuit, 27 Vdc at

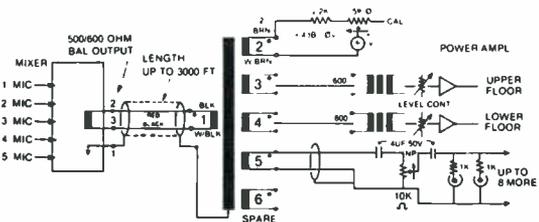
10 mA, maximum.

DIMENSIONS: (1 3/4" x 19" x 8-9/16")

WEIGHT: 7 lb, 12 oz

SR107\$300.00

AUDISAR REPEAT COIL



The Answer To:

- * Mass Feeds
- * Telephone Conferencing
- * Distribution

Audisar Repeat Coil (ea.) \$70.00

Audisar Repeat Coil orders of 2 or more (ea.) \$65.00

TAPCO 2200 EQUALIZER



The TAPCO 2200 Graphic Equalizer has all the functions necessary to serve as a creative problem solver. The absolute versatility of this equalizer gives it plug-in compatibility with virtually every sound system. Used properly, the 2200 will only solve problems, never cause them.

Because the 2200 is intended for use in professional applications, it has many features not usually found on low cost graphic equalizers.

INPUT/OUTPUT

2 Balanced (XLR connector) and unbalanced (phone jack connectors) inputs & outputs.

PROCESSING

2 Separate channels of 10 one octave continuously variable (15dB cut or boost) slide controls.

2 AutoPad level matching controls.

2 Channel in/out switches.

Stereo output level meters (adjustable).

Supplied in 19" rack mount enclosure.

TAPCO 2200 10-BAND EQUALIZER.....\$340.00

CROWN EQ-2 EQUALIZER



The CROWN EQ-2 is a stereo equalizer designed for the professional user and sophisticated audiophile. Eleven bands per channel provide full equalization from 10Hz to 20KHz with each band featuring a ± 15 dB boost or cut capability. Nineteen-position step switches permit precision control of the individual band levels. The filters are of half octave constant band width design, set nominally on octave centers. Each filter has an associated control allowing $\pm .5$ octave adjustment of the center frequency. The two channels can be cascaded to produce a full range half-octave equalizer.

Flexible shelving-type tone controls allow the user to adjust the bass or treble frequency response before detailed equaliza-

(cont.)

tion. The combination of tone controls and graphic equalizer permits extremely accurate low phase distortion equalizing. Transformerless balanced inputs providing either unity or switched 10dB gain are featured for the professional user, along with unbalanced inputs for other audio applications (all inputs include an attenuator control to maintain overall system balance when boost controls are in use). Balanced and unbalanced outputs are available.

The EQ-2 may be rack mounted, or as shown, an optional cabinet is available.

FREQUENCY RESPONSE: 10Hz to 100Kz $\pm .3$ dB

CLIP LEVEL: 10V RMS before overload

HUM AND NOISE: 90dB below rated output

RATED OUTPUT: 2.5V RMS into IHF load

DISTORTION IM: Less than .01% at rated output

INPUTS: Balanced (transformerless) and unbalanced inputs

INPUT IMPEDANCE: 25K unbalanced, 20K balanced (transformerless)

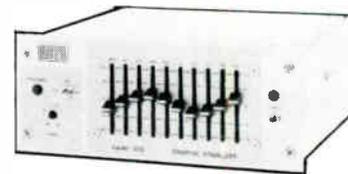
OUTPUT IMPEDANCE: 300 Ohm, 600 Ohm balanced

DIMENSIONS: 19 x 7 x 14½ inches

WEIGHT: 16 lbs

EQ-2.....\$1195.00

UREI 533 OCTAVE GRAPHIC EQUALIZER



The UREI 533 Octave Graphic Equalizer is a studio quality product which has wide application in recording, sound reinforcement, radio and TV production, and monophonic music systems.

The Model 533 is identical to one channel of the Model 535 Dual Graphic Equalizer, offering real economy where 2 channels are not required. The input may be fed from a balanced or unbalanced source. The output amplifier is transformer isolated, and will accommodate balanced or unbalanced loads.

- * Nine equalizers on octave centers
- * Professional quality throughout
- * Balanced or unbalanced inputs and outputs
- * 115 or 230 VAC operation, 50/60 Hz

GAIN: Unity ± 1 dB

FREQUENCY RESPONSE: 20 Hz to 20 kHz, ± 1 dB with EQ out

DISTORTION: 0.5% THD at +20 dBm, 30 Hz to 15 kHz

INPUT IMPEDANCE: 20 kohm, balanced or unbalanced, bridging.

RATED LOAD: 150 ohms resistive or higher

RATED OUTPUT: +24 dBm into 600 ohms (7.75 volts rms)

OUTPUT CIRCUIT: Transformer isolated; floating

EQUIVALENT INPUT NOISE: Below -90 dBm with EQ switched in.

EQUALIZATION FREQUENCIES: 50, 100, 200, 400, 800, 1600, 3150, 6300, 12,500 Hz.

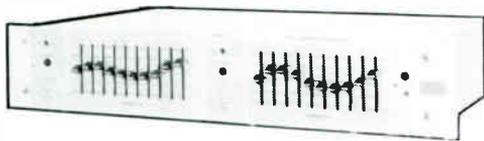
DIMENSIONS: 3½" high x 8½" wide x 8" deep (89 x 216 x 203 mm).

WEIGHT: 6½ pounds, 2.95 kg

ACCESSORIES: SR-21 Single Rack Mount Kit, DR-21 Double Rack Mount Kit

UREI 533.....\$346.00

UREI 535 DUAL GRAPHIC EQUALIZER



The 535 Dual Graphic Equalizer is a studio quality product which has wide application in recording, sound reinforcement, radio and TV production, and high fidelity music systems. It is a successor to the popular UREI Model 530 offering 10 filter sections per channel with increased control range, and more output capability.

The 535 provides 12 dB of boost or cut at each of its 10 frequencies, which are centered at ISO one-octave increments from 31.5 Hz to 16 kHz.

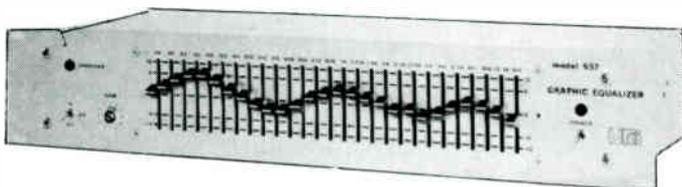
- * Two Channels in one compact package
- * 10 Adjustable equalizers on ISO one-octave center frequencies for each channel.
- * 12 dB boost or 12 dB attenuation at each center frequency
- * Stepless, noiseless, calibrated controls
- * Gain variable from -10 dB to +20 dB
- * State-of-the-art synthesized LC filter circuitry
- * Low distortion, lowest noise, minimum phase shift
- * Standard rack mounting, only 3½ inches high
- * Optional front panel security cover

ELECTRICAL: (Each Channel)

INPUT: Balanced bridging differential amplifier
 INPUT IMPEDANCE: 40 kohms, used as balanced input
 20 kohms, used as unbalanced (single ended) input
 MAXIMUM INPUT LEVEL: +20 dB (Ref. 0.775 V rms)
 EQUIVALENT INPUT NOISE: Less than -90 dBm
 GAIN: Variable -10 dB to +20 dB, ±1 dB
 FREQUENCY RESPONSE: ±1 dB, 20 Hz - 20 kHz, (with no EQ)
 OUTPUT: Floating, transformer isolated
 OUTPUT LOAD: 150 ohms or greater
 DISTORTION: Less than 0.25% THD, 30 Hz - 15 kHz, at maximum rated output.
 CENTER FREQUENCIES: Standard ISO, (Hz)
 31.5 63 125 250 500 1k 2k 4k 8k 16k
 DIMENSIONS: 19" x 3½" rack panel, depth behind panel 8", (19" x 3½" x 8")
 WEIGHT: 4.31 kg (9.5 pounds)
 ACCESSORY: Model SC-1 Security Cover; smoke gray transparent plastic; covers all operating controls.

UREI 535.....\$486.00

UREI 537 1/3 OCTAVE EQUALIZER



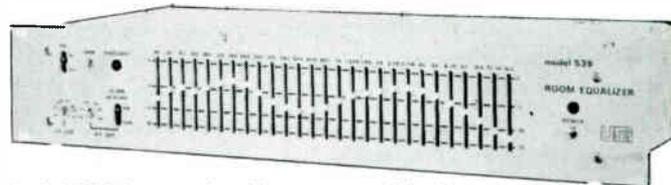
Model 537 is an active filter set for general purpose frequency response adjustment of audio signals. It is a worthy successor to the highly popular UREI Model 527A, offering greatly im-
 (cont.)

proved signal-to-noise characteristics and increased control range.

- * 27 adjustable equalizers on ISO 1/3-octave center frequencies.
- * 12 dB boost or 12 dB attenuation at each center frequency.
- * Stepless, noiseless controls, precision calibrated.
- * State-of-the-art active L - C filter circuitry.
- * Low distortion, lowest noise, minimum phase shift.
- * Zero insertion loss, up to 20 dB gain.
- * Standard rack mounting, only 3½ inches high.
- * Optional front panel security cover.
- * Competitively priced.
- * UREI quality, of course.

UREI 537.....\$796.00

UREI 539 ACTIVE FILTER ROOM EQUALIZER



Model 539 is an active filter set specifically designed for room "equalization" or tuning. Successor to the highly popular UREI Model 529, the 539 utilizes advanced circuit technology and latest state-of-the-art components to achieve quantum improvements in performance, and added features at lower cost.

Signal-to-noise ratio is better than 110 dB at maximum output. Filter parameters have been optimized to produce excellent combining and minimum phase shift. Output capability of +24 dBm combined with this exceptional noise figure provides widest dynamic range. Band-end tunable hi-pass and lo-pass filters are 12 dB/octave, with the lo-pass (H.F. cut) switchable to 6 dB/octave to permit more accurate control of band-end contouring and "house curve" rolloff.

UREI 539.....\$824.00

UREI 545 PARAMETRIC EQUALIZER

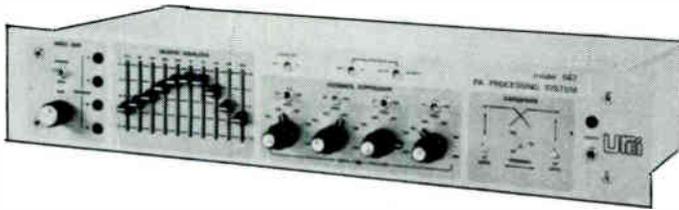


The Model 545 is a true parametric Equalizer, in which all important filter parameters are continuously variable. It is an ideal tool for creative and corrective equalization in professional sound recording, broadcast production, sound reinforcement systems, motion picture and TV recording, and live performances.

- * Four sections of Parametric Equalization; each continuously variable in Bandwidth, Frequency, and Boost and Cut.
- * Two end cut filters tunable over a wide range for bandwidth restriction.
- * Large, easy-to-adjust controls.
- * Multi-point overload detection circuit.
- * Balanced or unbalanced bridging input.
- * Transformer isolated output.
- * Self contained with regulated power supply.
- * UREI quality, of course.

UREI 545.....\$496.00

UREI 567 P.A. PROCESSING SYSTEM



The Model 567 P.A. Processing System has been designed to satisfy the requirements for signal processing in a majority of public address and sound reinforcement installation. It is particularly cost-effective in church and small auditorium systems where economic restraints preclude full 1/3-octave equalization and/or elaborate tuning.

The system is designed to operate at high or low impedances and at any nominal level from -20 dB (Ref. 0.775 V), allowing use with low level mixers, high or low impedance, balanced or single-ended circuits.

- * Input preamp allows operation from low level, high or low impedance mixers.
- * Built-in pink noise generator for equalization and setup.
- * Headroom indicator monitors signal levels and the approach of overload.
- * Ten-band octave Graphic Equalizer ± 10 dB each frequency.
- * Four independent, tunable notch filter Feedback Suppressors.
- * Built-in peak clipper for Feedback Suppressor Setup.
- * 12 dB per octave, tunable Electronic Crossover.
- * Patch point allows addition of limiter, compressor, etc.
- * Bypass switches for easy setup and A-B comparison.
- * Low distortion, low noise, wide dynamic range.
- * Optional front panel security cover.
- * Self-contained regulated power supply.
- * 3 1/2" standard rack mounting.
- * UREI quality, of course.

UREI 567 \$796.00

SHURE M63 AUDIO MASTER



Economical total control of audio response. Can be used in production and transfer studios to equalize sound systems, correct room acoustics, produce special sound effects, reduce stand or stage noise, and for tape recording and duplication. Has two high-level inputs and five output provisions for the greatest response control and flexibility.

Output VU Meter—Five Outputs: High impedance high level, high impedance mic level, low impedance mic level, 600-ohm balanced line, and headphone. Two high-level high impedance inputs controlled by single volume control accept signal from virtually any high level source.

FREQUENCY RESPONSE: ± 2 dB 20-20,000 Hz (controls flat)
 GAIN: Line out. 38.5 dB (600 ohm load). Aux. out. 39.0 dB (47 kilohm load). High Impedance Mic out. -1.0 dB (33 kilohm load). Low Impedance Mic out. -21.0 dB (150 ohm load).

(cont.)

TONE CONTROLS: Bass +14, -19 dB at 100 Hz

Treble +16, -19 dB at 10 kHz

FILTERS: High Cut and Low Cut 6 dB per octave, continuously variable -3 dB points.

NOISE OUTPUT: (Line with 600 ohm load): 68 dB below +8 dBm 20-20,000 Hz

DISTORTION: Under 1% THD at +8dBm output

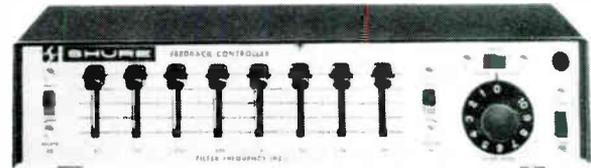
OUTPUT: +18 dBm max. 600 ohm load

SIZE: 11-3/8" x 6" x 2 1/2"

Rack Mount Available

M63.....\$193.20

SHURE M610 FEEDBACK CONTROLLER



The Shure M610 Feedback Controller marks the beginning of a new era in sound reinforcement. When the M610 is included in the sound system, its special set of filters and roll-off switches are used to smooth out the peaks and valleys in the system's frequency response, so that the system gain may be increased to significantly higher levels before reaching the feedback threshold! The user is able to "tune" the sound system according to the special acoustics of the room to maximize output and minimize feedback. The M610 gives you the basic advantages of room/system equalization—but without the high costs involved in elaborate, complex, highly specialized equalization equipment. The M610 may be used to improve sound quality and increase intelligibility by filtering out "problem frequencies" that cause oscillating ("ringing"), boominess and other disruptive resonances in acoustically difficult rooms, and to equalize program material and monitor speakers in studio and broadcast operations.

SIZE: 11-3/8 x 6 x 2 1/2 inches

Rack Mount Available

M610\$195.60

EVENTIDE HARMONIZER H910



PITCH CHANGE: one octave up, one down.

DELAY: output one, 112.5 ms. output two, 82.5 ms.

FREQUENCY RESPONSE: 12 kHz

DYNAMIC RANGE: 90 dB. Feedback control.

H910.....\$1500.00

TRANSFORMER BALANCING IN/OUT\$100.00

AMPLIFIERS AND AUDIO PROCESSING

EVENTIDE BD955 BROADCAST AUDIO DELAY LINE



The BD955 was designed specifically for the policing of live talk shows. It is a RAM based digital delay line, available in two frequency ranges—7.5 kHz for reproduction of telephone audio, and 15 kHz for quality reproduction of the full audio spectrum. There are three maximum delay times available—1.6, 3.2 or 6.4 seconds.

The unit has a unique 'catch-up' feature, which enables it, after the objectionable material has been dumped, to regain its delay safety margin automatically, without recourse to a taped jingle or announcement. For use as a production tool, the delay line can be set to give delay times ranging from 6.5 milliseconds up to its maximum by adjustment of a front panel control. The protection of tape delay with no moving parts.

15 kHz Units:		
1.6 s - \$3350.00	3.2 s - \$4300.00	6.4 s - \$6700.00
7.5 kHz Units:		
1.6 s - \$2700.00	3.2 s - \$3350.00	6.4 s - \$4300.00
Stereo Interconnect - \$150.00, Plus Cost Of Two Units		

EVENTIDE HARMONIZER H949



Eventide Harmonizers are used by top bands and top recording organizations around the world. They are incredibly versatile units, combining digital delay, pitch change, and a variety of other features. They can be used for 'doubling' vocals, for delay equalization in sound reinforcement, and for many types of reverb/echo. When used with a variable speed tape recorder, a Harmonizer can be used to tailor program material to fit a particular time-slot, while retaining the original pitch.

PITCH CHANGE: one octave up, two down

DELAY: two outputs, each 393.75 ms.

FREQUENCY RESPONSE: 15 kHz

DYNAMIC RANGE: 96 dB. Micro pitch change, for extremely precise, stable settings near unison. Time reversal, repeat, randomized delay, flanging. High and low feedback equalization. Two selectable algorithms, to optimize pitch change performance. Long delay permits simulated reverb.

H949.....\$2760.00

EVENTIDE DELAY LINE 1745M



The modular construction of this unit makes it exceptionally flexible—up to five outputs, each with a maximum of 320 ms of delay (640 ms in the 'double' mode), selectable in 20 us steps. Optional modules available include a pitch changer, which will change the frequency of the input signal up to an octave above or below the original, and a remote control module which controls the delay line with a microcomputer.

FREQUENCY RESPONSE: 16 kHz (8 kHz in 'double' mode).
DYNAMIC RANGE: 90 dB

1745M.....\$4100.00
BALANCING INPUT TRANSFORMER.....\$15.00
BALANCING OUTPUT TRANSFORMER per output..\$25.00

EVENTIDE RD770 MONSTERMAT MONO/STEREO MATRIX UNIT

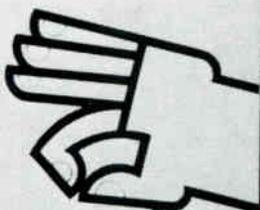


The Monstermat solves the problem of broadcasting in stereo to a predominantly mono audience. The mono/stereo matrix converts the signal into L+R and L-R, putting the important L+R mono signal on to one cart track, safely out of the way of phase shifts due to machine misalignment or tape warp. The second track carries the L-R signal. Full stereo is restored on playback and dematrixing. Old mono carts can be played on stereo machines with the full mono signal on both channels. Use of DBX noise reduction ensures the best possible signal-to-noise ratio from the system. Switching of the DBX circuitry is automatic, so encoded and non-encoded carts can be mixed. The Monstermat is available in two formats: record/play, which provides encoding and decoding for one stereo cart machine, or play/play, which can handle two stereo cart machines in play mode.

RD770.....\$795.00

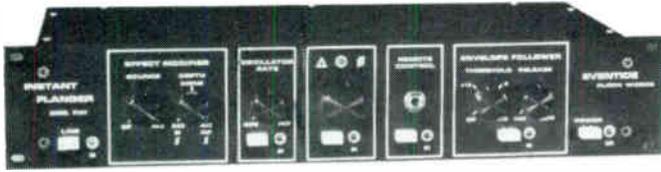
Service

fast, efficient
and very friendly



Allied Broadcast Equipment

EVENTIDE FL201 INSTANT FLANGER WITH BPC101 PHASER CARD



'Flanging', the use of differential delay to cause cancellations in the frequency spectrum of a signal, is one of the most popular special effects in the recording industry today. The FL201 was designed to meet the demanding specifications of professional users. Its controls—oscillator, manual, remote and envelope, may be used in any combination. A unique 'bounce' feature simulates tape motor 'hunting'. The depth control permits any desired percentage of direct versus delayed signal, and controls the relative phase of each.

FL201\$700.00
 TRANSFORMER BALANCING In/Out..... \$50.00

ORBAN 245E STEREO SYNTHESIZER



If you think our 245E stereo synthesizer is just for old mono records, you don't know what you're missing!

The O/P Stereo Synthesizer creates pseudo-stereo from mono originals which preserves the spectral balance of the mono original and which adds not the slightest audible noise or distortion. Compatibility is assured by the fact that the sum of the left and right output channels is equal to the mono original. This sum represents the lateral modulation of a stereo disc or the main channel in FM stereo.

Recording studios can use the 245E to reprocess old mono masters into pseudo-stereo, spread strings or horns in mixdown from multitrack masters, stereoize mono echo changers, and much more. Broadcasters can use it to reduce phase distortion in stereo carts or reel-to-reel tape, replace stereo tape cartridges with higher-performing mono units, and create a "total stereo" format.

ORBAN 245E\$389.00

ORBAN 516EC DYNAMIC SIBILANCE CONTROLLER



The O/P Model 516EC is the industry's first truly satisfactory de-esser. Unlike older designs, the 516EC has noise and distortion characteristics comparable to state-of-the-art amplifiers. Attack and release times have been optimized to totally eliminate pumping and audio "holes". The 24 dB/octave filter selectivity eliminates possibility of false triggering by low-fre-

(cont.)

quency information. Sibilants are controlled by reducing the gain of the whole channel - not filtering - so sibilants are not colored by the action. There is only one control, which controls the balance between energy in the sibilance range and low-frequency energy. De-essing is constant whether the input is loud or soft. Control action can be switched in or out without clicks, pops, or gain changes. An LED lights whenever control action occurs.

516EC 3-Channel Unbalanced.....\$659.00
 526A Single Channel Balanced.....\$449.00

TAPCO 4400 REVERB



The 4400 Reverberation System represents the new state-of-the-art in low cost reverb systems. The many design innovations incorporated into the 4400 have given it the kind of flexibility and quality you would expect only in systems costing many times more. Complete compatibility is inherent in the design of the 4400, so it can be used with all common sound equipment. And like all TAPCO products, the 4400 is built to withstand all the rigors of professional use, day in and day out.

INPUT/OUTPUT

- 2 Line level inputs and outputs (phone jacks)
 - 2 AutoPad gain controls
 - Stereo input level meters (adjustable)
 - 2 Channel in/out switches
 - 2 Spring delay lines
 - 2 Specially designed reverb contouring equalizers each with 4 slide controls giving 15dB of cut or boost.
 - 2 Reverberation percentage slide controls (9% - 100%)
 - 2 Independent slide output gain controls with AutoPad Circuitry
- TAPCO 4400\$495.00

Charge It

for convenience
use your master charge
or visa charge card

Allied Broadcast Equipment

AMPLIFIERS AND AUDIO PROCESSING

ORBAN 111B DUAL SPRING REVERB

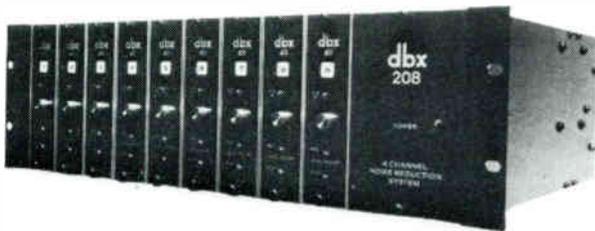


The integral "floating threshold limiter", exclusive to Orban/Parasound protects the spring against both overload and "boing" sounds. This circuit serves to eliminate sharp, sudden changes in level regardless of average level. This makes it possible to reverberate such instruments as guitar or drums for the first time with a spring system. The limiter makes sure that "twangs" are ducked out and masked by the direct sound mixed with the echo return.

Further versatility is achieved through a bass control and quasi-parametric midrange equalizer which permits continuously variable adjustment of the frequency of maximum equalization (1.5 to 5.5 kHz), the amount of equalization (up to 12 dB), and the bandwidth (Q's from 0.5 to 5.0).

ORBAN 111B\$799.00

DBX 208 TAPE NOISE REDUCTION SYSTEM



- * Fully compatible with all DBX professional studio noise reduction systems.
- * Modular design with free spare plug-in module to eliminate down-time.
- * More than 30 dB noise reduction.
- * 10 dB additional recorder headroom.
- * No level match tones required.
- * Balanced inputs with 27 pin gold plated connectors, unbalanced outputs (same connectors).

DBX 208\$3700.00

DBX 142 TAPE NOISE REDUCTION SYSTEM



The DBX Model 142 broadcast noise reduction system is a two-channel compressor/expander providing a minimum of 30 dB broadband audio noise reduction with a 10 dB increase in system (cont.)

headroom. The two channels are independent and switchable from the front panel to record (encode), bypass, or play (decode) functions. In addition, either channel may be remotely bypassed.

In the record mode, the system compresses the input signal by a 2:1 ratio, linear in decibels over a 100 decibel range. Upon playback, the circuitry is switched to provide an exact mirror image 1:2 expansion of the encoded signal.

True RMS level sensing insures perfect encode/decode tracking for accurate transient response irrespective of phase shifts in the transmission or storage medium. There is no audible breathing, pumping or other coloration of the sound with this encode/decode system, and there are no pilot tones or routine calibration procedures necessary for its use.

The DBX system eliminates tape hiss in recording, and prevents the noise build-up normally encountered in transferring information from one recorded medium to another; it does not remove noise present in the original signal. The DBX 142 noise reduction system is built to professional standards using the latest advances in circuit design and technology. Input balancing transformers available.

DBX 142\$900.00

DBX 155 TAPE NOISE REDUCTION SYSTEM



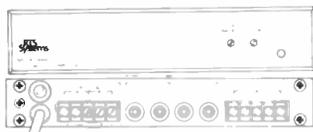
The DBX Model 155 is built to provide four independent channels of tape noise reduction for the small studio, audio-visual house, and any kind of musical organization desirous of making professional quality, noise-free recordings with a wider dynamic range and cleaner sound than would be otherwise possible. In two channel application, the 155 allows you to simultaneously monitor the decoded (normalized) signal as you record.

It can also be used to play back dbx-encoded tape recordings from professional outside sources. Its small size permits easy installation.

- * 30 dB broad band tape noise reduction.
- * 10 dB added system headroom.
- * True RMS detection for accurate encode/decode tracking.
- * Linear decibel compression/expansion over 100 dB range.
- * No pilot tones or level match adjustments necessary.
- * All inputs and outputs terminate in RCA phono connectors.
- * Front panel record and play level adjust.
- * User changeable modular circuit boards for each channel; spares available at additional cost.
- * Rack mount kits available to accommodate either a 155 pair or single unit.

DBX 155\$600.00

RTS 444 BUFFER AMPLIFIER



The Model 444 is a dual, two-channel buffer amplifier designed to interface professional systems with semi-pro and home high-fidelity equipment. Although components designed for home use offer desirable features for studio applications, interconnections between the two kinds of equipment are complicated by differences in levels, impedances and balanced and unbalanced modes of operation. The 444 corrects these problems while maintaining signal integrity.

INPUTS: The model 444 accepts a stereo pair of balanced lines at a nominal level of +4 dBu. These signals are attenuated and isolated through active circuitry, and fed to a pair of RCA ("phono") jacks at nominal IHF level (0.5 volt rms), unbalanced. Simultaneously, the model 444 accepts a pair of unbalanced, IHF-level lines, amplifies and transformer-isolates them, and delivers the signals at +4 dBm, balanced and floating. Level controls in the IHF-to-balanced section permit the user to trim gain and channel balance as needed.

ADVANTAGES: The Model 444 provides a transparent, trouble-free interface between balanced and unbalanced inputs and outputs. It prevents the distortion, hum, instability and inconvenient signal levels that often result from direct connection of home and semi-pro equipment into professional systems. It is a convenient, easy to use device that will find numerous applications in any studio.

FREQUENCY RESPONSE: ±.25 db
TOTAL HARMONIC DISTORTION: .1%
CHANNEL SEPARATION: 70 db
SIGNAL/NOISE RATIO: 90 db

RTS 444.....\$312.00

RTS 1400 MICROPHONE PREAMPLIFIER



The RTS 1400 is more than a microphone preamplifier; it is a unique and versatile tool. Its well-planned features, rugged construction and excellent specifications make it a professional problem solver, an audio "adapter" with countless applications.

The 1400's gain is continuously variable via a front panel control. At lower gain settings (minimum 23 dB) the 1400 will boost the level from a low-output microphone to drive low-
 (cont.)

gain mixers at their specified nominal level. At higher gain settings (56 dB maximum), the 1400 has ample gain to boost a mic output to line level. Because the 1400 has a high quality built-in limiter, it can be used to prevent overdrive of individual mic (or line) inputs while maintaining high average levels. These features make it useful in location recording, remote broadcasting, and broadcast production.

EXTERNAL CONNECTORS: Input...XLR-3-31 (female XLR) Output...XLR-3-32 (male XLR) Battery...rear panel test points.
NOMINAL INPUT SOURCE IMPEDANCE: 150 ohms balanced (floating transformer)

INPUT IMPEDANCE (1kHz): 1,000 ohm balanced. Common mode rejection: at least 90dB at 1kHz, at least 70dB at 10kHz.
OUTPUT SOURCE IMPEDANCE: 50 ohms (floating transformer)

OUTPUT LOAD IMPEDANCE: 600 ohms to infinity
GAIN: 23dB to 56dB, externally adjustable
MAXIMUM INPUT LEVEL: -16dBm (123mv) at full gain setting, +20dBm (7.75V) at minimum gain setting
MAXIMUM OUTPUT: +16dBm (4.89V)
FREQUENCY RESPONSE: .5dB, 20 Hz to 20kHz, at any gain setting

NOISE: Equivalent input noise of -127dBv RMS typ (reference 0.775v), 150 ohm source, 20kHz bandwidth
LIMITER: 4:1 Compression Ratio, 100ms attack time threshold: Full gain: -52dBv input; Mid gain: 32dBv input; Min gain: -20 dBv input.

POWER REQUIREMENTS: Bipolar 9-volt supply (±9 V) (two) Mallory Alkaline Duracell No. MN1604 give approximately 100 hour life.

EXTERNAL POWER: ±9 to ±18 volts @ 6ma power may be supplied to the battery test terminals (back panel) if the batteries are removed.

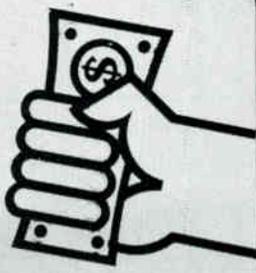
DIMENSIONS: 4" wide by 2" deep by 5" high
WEIGHT: 2 lbs

RTS 1400.....\$290.00

Terms

cash
master-charge, visa

Allied Broadcast Equipment



Personal Service

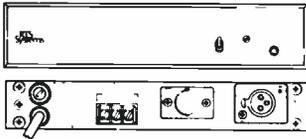
before and after
the sale

Allied Broadcast Equipment



AMPLIFIERS AND AUDIO PROCESSING

RTS 465 MICROPHONE PREAMPLIFIER



The Model 465 is a single channel, wideband microphone preamplifier designed for professional use in areas such as broadcast operations, television production, sound reinforcement, and commercial and industrial applications. It features outstanding electrical specifications along with fully floating transformer balanced input and output circuits, switchable phantom microphone powering, and an integral power supply. The 465 employs a (switchable) limiter to preclude the possibility of preamplifier overload from any microphone source.

INPUTS: The 465 is designed to accept a normal dynamic or condenser low impedance balanced microphone with a nominal impedance of 150 to 250 ohms and an output level of -60 to -3 dBu. Regulated 48 volts dc is applied to both sides of the input transformer primary, positive with respect to ground, for powering a variety of condenser microphones. This phantom power can be switched off if desired, to prevent the possible difficulties with unbalanced input sources.

LIMITER: A simple, low distortion limiter circuit keeps the output from exceeding a factory set (non-adjustable) level of +5 dBu. The circuit acts to shunt the secondary of the input transformer thus preventing the input of the amplifier from overloading. A 5:1 compression ratio works with a 1 ms attack time and a 200 us release time. The limiter may also be used to maintain a high average level without affecting the gain of the amplifier. A front panel toggle switch is provided for switching the limiter circuit on or off.

FREQUENCY RESPONSE: +0, -1 dB

TOTAL HARMONIC DISTORTION: -50 dB/0.03%

EQUIVALENT INPUT NOISE: -127 dBu

INPUT IMPEDANCE: 1000 ohms ±15%

NAXIMUM OUTPUT LEVEL: +22 dBu

RTS 465.....\$392.40

ATI PRECISION DUAL MICROPHONE AMPLIFIERS



- * Transformer coupled inputs and outputs incorporate full electrostatic and magnetic shielding.
- * XLR type input connectors.
- * Low noise: 124dBm equivalent input noise (20kHz bandwidth).
- * High input overload: 125mVrms minimum.

M-1000-1 Dual, Transformer Outputs.....\$335.00

M-1000-2 Dual, Balanced Differential Outputs.....\$299.00

M-1000-3 Dual, Single Ended (Unbalanced) Outputs.....\$289.00

(cont.)

Rack Mount, Single Unit No. 20021-501.....\$15.00

Rack Mount, Dual Units No. 20024-501.....\$20.00

Dimensions 8½" W x 1¾" H x 7" D

ATI PRECISION DUAL LINE AMPLIFIERS



- * Balanced differential inputs: 30,000 ohm bridging, fully transient protected and RF suppressed.
- * 80dB common mode hum rejection.
- * High input overload capability: +24dBm bridging.
- * Low noise: -107dBm equivalent input noise (20kHz bandwidth).

L-1000-1 Dual, Transformer Outputs.....\$285.00

L-1000-2 Dual, Balanced Differential Outputs.....\$252.00

L-1000-3 Dual, Single Ended(Unbalanced) Outputs....\$245.00

Rack Mount, Single Unit No. 20021-501.....\$15.00

Rack Mount, Dual Units No. 20024-501.....\$20.00

Dimensions 8½" W x 1¾" H x 7" D

VOICE-ACT TELEPHONE/VOICE/CASSETTE INTERFACE



Now for the first time . . . A new, proven device for newsmen that brings studio quality to reporting and feeding tape by telephone.

All newsmen know the shortcoming of telephoned reports: typical "phone quality"; the inconvenience of using alligator clips; not being able to talk while clipped on; and disconnects while setting up.

Voice-Act is versatile. Use it whether your spots are live or on tape. It's also great for play-by-play sportscasting, remotes, stocks and weather reports, talk shows—any phone communication that's aired! Simply put Voice-Act onto the telephone and you're all set. It's as simple as that!

For Western Electric Bell System \$78.00

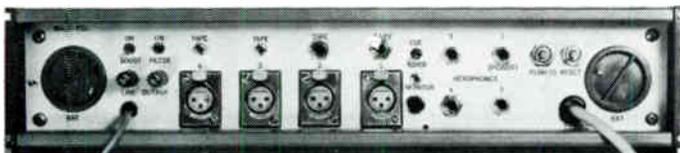
For All Other Systems \$83.00

Includes Handy Carrying Case

MAXI-TEL TELEPHONE REMOTE UNIT



FRONT



REAR

THE LATEST IN REMOTE BROADCAST EQUIPMENT . . .

Utilizing the latest "state-of-the-art" electronic design, the MAXI-TEL is your answer to all of your remote broadcast problems when using telephone lines. When you are at sports games, grand openings, conventions, or whatever. The "MAXI-TEL" will serve you flawlessly with exceptional broadcast quality. 120 volt operation plus up to 40 hours of battery back-up with alkaline "D" cell batteries makes the MAXI-TEL one of your most reliable pieces of broadcast equipment that you own.

- * High intensity flourescent digital time of day clock.
- * High intensity flourescent digital timer, minutes/seconds. (Clock and timer can be read in direct sunlight or darkness).
- * Pulse loss of line indicator.
- * Pulse visual/aural ring system.
- * Automatic pulse low battery indicator. (Warns you when 3 hours of battery life remains).
- * Ladder logarithmic VU indicator, from minus 15 to plus 3 dbm, 7 step.
- * 4 mike/line channels with no switching required. (Will accept cart or cassette tape inputs).
- * Failsafe power circuit prevents batteries from being drained unintentionally. (System automatically merges to batteries when 120 volt power fails).

INPUTS:

Microphones: Four: Channel 4 is selectable to program buss or headphone amplifier.

Tape: Four: Two miniature jacks (for cassette recorder players) and two standard 1/4" phone jacks (for cart decks, R-R tape transports, PA input, etc.) Channel 4 input is selectable to program buss or headphone amplifier for cueing.

External Monitor: One miniature jack for input of off air monitor radio.

OUTPUTS:

Program: Balanced, hybrid transformer for direct connection to standard telephone line or leased line. Modular cord with 4 prong adapter furnished, plus two 5-way binding posts for connection to hard line.

Headphone: Four: Will drive any impedance from 4 ohms and up (A full watt of headphone power available to overcome crowd noises).

POWER REQUIREMENTS:

Eight standard "D" cell alkaline batteries are used for up to forty hours. 120 VAC.

(cont.)

CASE:

Super durable all aluminum, blue with bright trim, complete with tilt stand, all metal shelf contained enclosure.

DIMENSIONS:

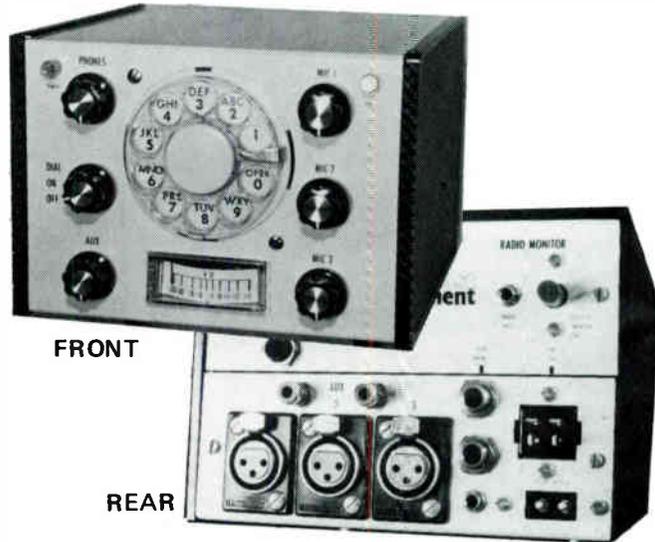
16.88" Wide x 3.5" High x 12.7" Deep

WEIGHT:

Without batteries 10 1/2 lbs., shipping weight 13 1/4 lbs.

MAXI-TEL \$895.00

TELFAX TELEPHONE REMOTE UNIT



FRONT

REAR

This is the TFX-31, the first truly self-contained miniature [only 4 1/2 x 6 1/4 x 6 1/2 and only 6 1/2 pounds] telephone remote unit with the features you need for sports and news broadcasts. Just connect the TFX-31 to the phone line, plug in your headset and you're ready to go!

The TFX-31 was designed by broadcasters, for broadcasters, resulting in a "feature packed" unit:

- * Built in telephone dial, line amplifier, buzzer, and light [to indicate incoming calls]. No phone company equipment is needed.
- * Three microphone inputs, plus an auxiliary input for a cassette recorder . . . each input has its own pot. An auxiliary output jack is also provided for feeding a recorder or a PA system.
- * A built-in headphone amplifier with two quarter inch output jacks for connecting headphones. The amplifier samples the audio across the phone line at all times so that you can hear cues from the studio . . . you'll also know if you've been disconnected upon hearing a reset to dialtone.
- * AC or battery operation . . . the built-in rechargeable NiCad battery pack provides up to 10 hours use away from AC. To recharge just plug the unit into an AC outlet. The quick charge batteries recharge in just 7 hours and last up to 10 years. The L.E.D. Power light indicates the status of the batteries [charge or discharge].
- * Dual level output . . . The TFX-31 can be used on either a standard dial telephone line or a direct loop to your station.

TFX-31 \$469.00

AMPLIFIERS AND AUDIO PROCESSING

MICRO-TRAK SPORT III TELEPHONE REMOTE UNIT



The SPORT III is the newest addition to Micro-Trak's Sports portable console line. This two channel console incorporates many features found desirable by sports broadcast personnel.

- * Talkback for set up
- * Built in AC supply
- * Low cost batteries
- * Telephone dial
- * Three headphone outputs

The SPORT III is attractively packaged in a self-contained carrying case. Open the cover, connect the telephone line, plug in the AC if available, turn to battery operation if not. Plug in a microphone, or sportscaster headset and its play by play time.

INPUTS:

Microphones: Three, , Two mixable to program, Spotter to -40 dbm internally adjustable, low impedance.

Auxiliary: One, shares channel two with microphone via select or switch.

Level: -20 dbm nominal.

External Monitor: Allows input via off air monitor radio, etc.

Level: -20 dbm 10K ohms unbalanced.

Talkback: Via hybrid transformer from telephone line. With null control. Level: -35db null.

OUTPUTS:

Program: Balanced, transformer isolated, 600 ohm.

Level: +8 dbm nominal, +15 dbm max. Meter zero reference level is internally adjustable.

Headphones: Three, switch selects— Program and spotter, external monitor and spotter, or Auxiliary cue and Talkback, one on each side of stereo headset. 8 to 6000 ohms impedance.

POWER:

Line: 115 VAC 50 - 60 Hz. Battery supply automatically takes over on power failure.

Battery: Four 9V Alkaline transistor radio cells. Provides 5 approximately five hours operation (battery life will vary with output levels).

SIZE: 13,75 inches (34.92 cm) x 9.5 (24.13 cm) x 4.00 (10.16 cm)

WEIGHT: 6.5 lbs. (2.94 kg.) with batteries. 8.0 lbs (3.62 kg.) packed.

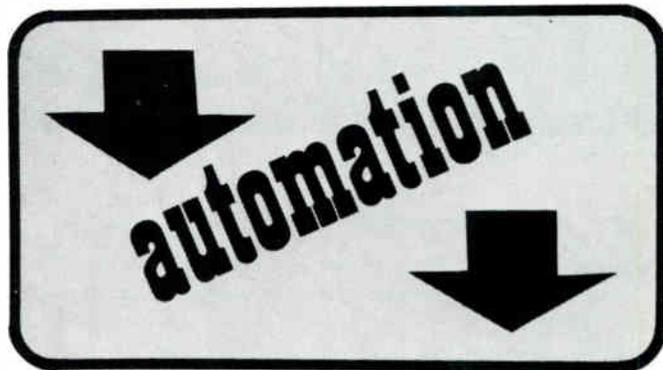
INCLUDES:

Telephone Dial: Push button rotary electronic dial system.

(cont.)

Remembers last number dialed for redial (same function as round mechanical dials).

SPORT III.....\$569.00



AUTOMATED BROADCAST CONTROLS 1600S SEQUENTIAL CONTROLLER



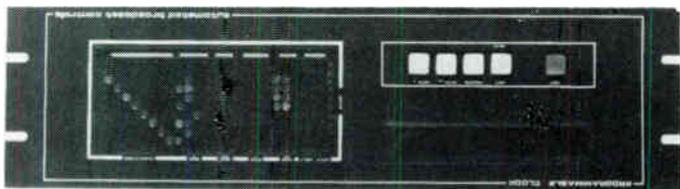
The 1600S Sequencer is a new concept in low cost broadcast automation programming. It lends itself to simple operation and programming with the utmost in reliability. Its flexible design meets the demanding criteria of simple sequencing of background music to the more sophisticated type of sequential programming. The standard model contains 16 events and 9 audio sources with one special event.

- * VU meter and internal speaker for monitoring PGM, CUE or external audio
- * 600 ohm balanced stereo output strapable for mono out
- * Provision for external off air monitoring
- * EOM advance hold for manual "jock assist" operation
- * Remote control for STOP, START, S.E.
- * FET audio switching
- * 600 ohm stereo inputs
- * LED next to play indications
- * External clock control, FOR EVENT RESET, EOM, START, STOP
- * Adjustable silent sense with relay output
- * Internal clock for deck reset 15, 30, 60 minutes
- * Internal 25 Hz notch filter

1600S\$2495.00

1600X Additional 16 Events.....\$725.00

**AUTOMATED BROADCAST CONTROLS
1200C PROGRAMMABLE CLOCK**



The 1200C Programmable Clock has been carefully designed to offer maximum flexibility, reliability, and ease of operation.

Front panel controls are kept to a minimum, and the crisp digital LED time display can be read from ten feet away.

A push-pin matrix programming board provides the capability to instantly reprogram timed events without having to remove panels, unplug circuit cards, or desolder jumper wires. Up to ten timed events may be programmed, with a total of eight relay outputs for such functions as:

- * Start
- * Stop
- * End of message (advance)
- * Update
- * Network Join/Leave

1200C.....\$1425.00

**AUTOMATED BROADCAST CONTROLS
2800 APM AUTOMATION CONTROL SYSTEM**

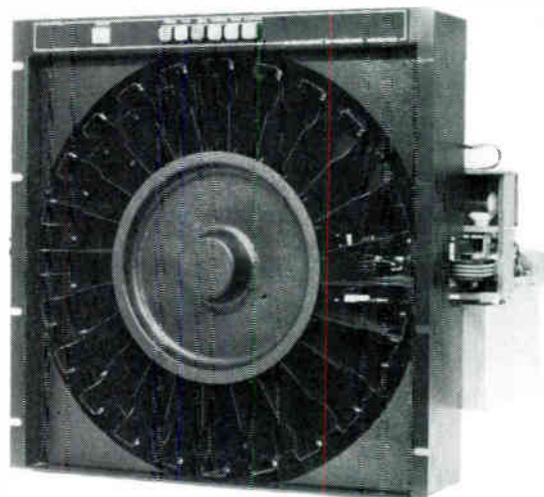


The new ABC 2800 APM Digital Automatic Program Control Center marks the introduction of ABC's FIRST generation automatic programming hardware. This completely random access audio switching system with solid state MOS memory storage and digital logic consists of three basic units.

- * Program Memory Control Unit with capabilities of 2,000-event memory storage under nine functions and instructions to twelve audio sources; two LED event/source displays; control/access switching; and ten digit keyboard tabulating entry panel.
- * Audio Control Unit with space for up to twelve source interface cards, stereo VU monitoring, audio monitor cue; monitor level control, alarm reset, manual control switch and LED on-air display.
- * Computer Type Power Supply with backup fail-safe battery pack for automatic switching of AC power.

2000 Event (Source cards & cables optional).....\$7610.00
4000 Event (Source cards & cables optional).....\$8825.00
8000 Event (Source cards & cables optional).....\$11255.00

**AUTOMATED BROADCAST CONTROLS
2400P MULTIPLE CARTRIDGE PLAYER**



FEATURES INCLUDE:

- * 7 Second access to any cartridge
- * Reliable solid state switching circuitry
- * Random tray selection is standard
- * Built to military specifications
- * Senses 4 separate pre-recorded cue tones
- * Takes command from any automation system
- * All modular construction
- * Stereo at no extra charge

OPTIONS AVAILABLE:

- * Stereo record
- * Fast forward

2400P \$2950.00

ABC 2501G 25HZ TONE GENERATOR



The 2501G is designed to insert the standard 25 Hz audio automation actuating tone on the left channel of program material originating from audio sources providing a program level up to +8 dBm.

Operation is easily mastered by even the most inexperienced station personnel. The Start Button starts the tape transport in motion and the Tone Button applies the 25 Hz tone and stops the transport after the tone has been applied. A specially designed internal gating circuit is activated by the Start Button to mute the audio during the start period when bias pops and other start/stop mechanical noises normally occur.

- * Built-in 25 Hz notch filter
- * FET muting of audio in start mode
- * Single board construction
- * Optional right channel tone insertion for voice track updating or other tone signaling

2501G\$585.00

AUTOMATION

ABC 2501S TONE SENSOR

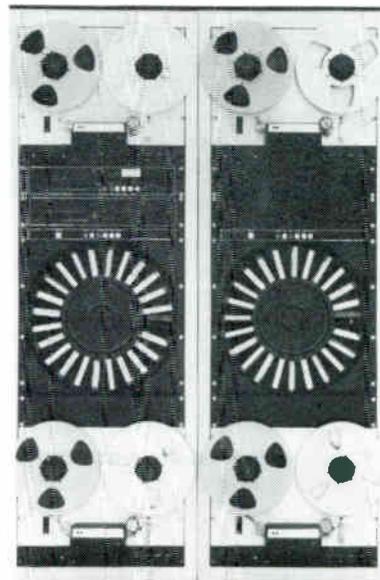


The 2501S provides control functions for sensing the pre-recorded 25 Hz tones on audio material. It also has an exclusive fixed tone alarm with an eight second activation to initiate tape rewind and end of tape alarms.

- * Flexibility in source switching
- * Automatic tape rewind
- * End of tape alarm
- * Adjustable delay to 10 sec.
- * 25 Hz notch filters
- * Single board construction

2501S.....\$395.00

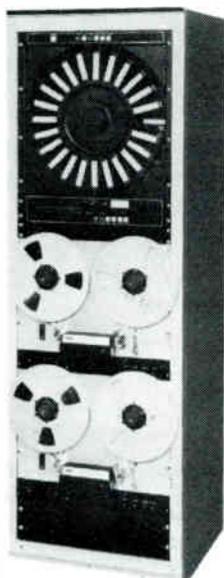
ABC SYSTEM TWO



For the growing station that needs a long walk away time, as well as a system that can easily be reprogrammed by a simple controller . . . the 1600S Sequential Programmer and the 1600S Expander. This system is ideal for freeing the announcer for other duties while still following the scheduled format. The 1600S has a special event control that allows inserting news and then returning to the normal program schedule.

The popular Two Bay System can grow with you and has room to expand additional audio sources, net join and english logging.
TYPICAL SYSTEM \$16620.00

ABC SYSTEM ONE



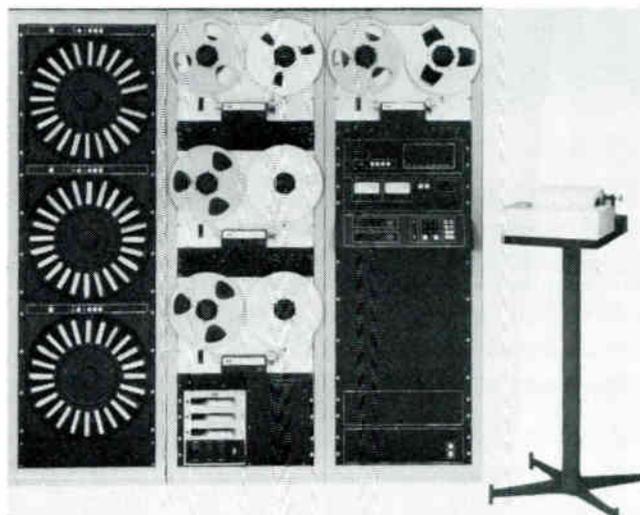
The Mini One Bay System is ideal for short walk away time and is an ideal system for the budget-minded station.

Broadcast Controls' incomparable 1600S Sequential Controller is a solid state automation programmer. The 1600S gives you 16 events, and the capability of expanding to 32. It offers 9 repeatable audio sources with one special event.

The internal clock can be programmed to repeat your station format in 15 and 30 minutes or 1 hour segments, sound an alarm with the adjustable silence sense delay, monitor upcoming programs and all in stereo.

TYPICAL SYSTEM.....\$9225.00

ABC SYSTEM THREE



The big station system for a small price. With the 2800 APM Digital Automatic Program Control Center, the three bay system provides a 2000 event program memory storage capability that is expandable to 8000 events.

Automatic Logging is an Available Option.

TYPICAL SYSTEM.....\$34770.00

Save time

we'll ship by air

Allied Broadcast Equipment

CP 201 PROGRAM CONTROL UNIT



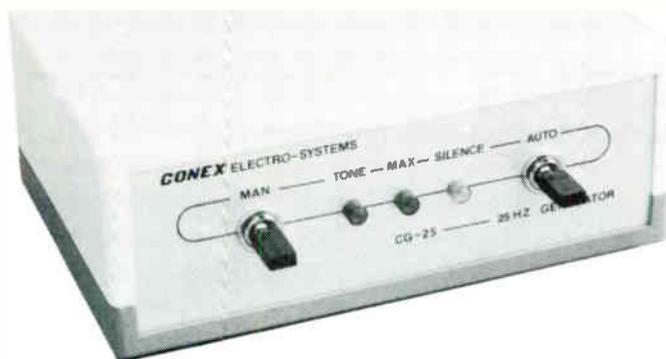
Provides 100 event, random selection for carousel type multiple cartridge players

Easy manual programming by means of front panel keyboard. Keyboard entries are entered into memory by pressing ENTER key. Manual control of EVENT counter is provided by (a) RE-SET key which resets counter to zero. (b) COUNTER key which advances counter at 6 hz rate. (c) ADVANCE key advances counter one step.

100% solid state. No relays. Two LED type displays indicate event number and tray selection. Mounts in standard 19 inch rack. Requires 3½ inch panel space. Three size AA rechargeable batteries hold memory and event counter during power failure. Battery charge is maintained during normal operation.

CP 201.....\$695.00

CONEX CG-25 25HZ TONE GENERATOR



- * Built-in high pass filters for both left and right channels
- * Front panel LED's to indicate duration of tone, silence and maximum length of untimed tone.
- * All timing intervals, tone levels and audio levels easily adjustable from rear panel.
- * Standard six-pin "Jones" type connectors provided for simple connection between console and recorder.
- * Switch selectable for recording tones on left and/or right channels.
- * All IC's are on sockets for easy maintenance
- * Low distortion circuitry . . . Oscillator and audio typically less than .5% THD. Balanced bridging inputs and balanced 600 OHM outputs.
- * Compact size . . . Measures only 8"W x 3¼"H x 5½"D

CG-25 \$295.00

EUMIG FL-1000 MICROPROCESSOR CONTROLLED CASSETTE SYSTEM



ALLIED's new FL-1000, in conjunction with the PET computer, makes cassettes the broadcast medium.

The Eumig FL-1000, an extraordinary new cassette tape deck, has started a revolution in the world of broadcasting. We believe—and radio engineers agree—that it will soon make the cassette the standard tape format in the broadcast industry.

The FL-1000 is the world's first computer-interfaceable cassette recorder. Up to sixteen FL-1000 decks can be controlled by any 8-bit computer, such as the PET. Some of the decks can be used for commercials; others for news and weather; still others for music and station ID's. And the location of every item on every cassette can be stored at the beginning of each tape and then in the computer, so any sequence can be played back—automatically, with no human intervention, all day and all night long.

Watching a bank of FL-1000's working together is an awesome experience. One deck is rewinding while another is playing, and still another is moving in fast-forward to locate the next selection. Meanwhile, other decks are copying from a network feed and recording an air check.

The technology of the FL-1000 is so advanced that half a dozen units can do the work of more than 100 individual cartridge players—plus several reel-to-reel recorders. And they do it better, at far less cost, with sound quality comparable to that of the finest open-reel equipment. And the Eumig FL-1000's have none of the mechanical problems that plague endless-loop broadcast cartridges.

To see the end of the endless loop, call Allied about the new FL-1000. Once you see and hear this amazing new recorder in action, you'll agree that this is the long-awaited deck that will make cassettes the standard medium in the broadcast industry.

EUMIG FL-1000 (ea.).....\$1550.00

PET 2001-8K (ea.).....\$795.00

Warranties

ours in addition to
the manufacturers



Allied Broadcast Equipment

CARTRIDGE MACHINES

AMPRO CARTRIDGE MACHINES



- * Solid 1/2 inch precision machined aluminum desk construction.
- * Precision airdamped solenoid provides fast, noise-free pinch roller operation without pre-loading, cocking or release mechanisms.
- * SELF-ALIGNING, BALL BEARING PINCH ROLLER, assures smooth tape flow for best phasing.
- * Cool running (17w) four inch direct drive capstan motor—600 RPM SPEED for highest rotating momentum—lowest "WOW" and flutter.
- * Human engineered panel design, rugged and quiet push buttons, 1-1/2" START BUTTON.
- * Timed and shaped F.E.T. audio muting eliminates pops and clicks.
- * Wideband, DIGITAL cue detectors, immune to noise crosstalk, cue frequency and level variation. NO ADJUSTMENT REQUIRED. Accepts logging tones with fast forward.
- * DIGITAL cue tone generator guarantees stable cue amplitude and frequency. No LC networks to age and drift.
- * BUFFERED I.C. LOGIC CONTROLLED. All functions removable by momentary contact closures.
- * RELOAD INDICATOR flashes ready light after play until cartridge is reloaded.
- * LED RECORD LEVEL INDICATOR
- * DIGITAL MESSAGE TIMER (option)—5 digit LED display of elapsed playing time.
- * ELECTRONIC SPLICE FINDER (option).

	OPTIONAL FEATURES (NOTES 1, 2 & 3)			MONAURAL			STEREO		
	END CUE	TRIP CUE	FAST FWD.	MODEL	PRICE	CODE	MODEL	PRICE	CODE
SERIES 2500	—	—	—	CT2501B	\$1029 00	D	CT2511B	\$1163 00	D
REPRODUCER	X	X	—	CT2505B	\$1087 00	D	CT2515B	\$1233 00	D
NAB TYPE A CARTS	X	X	X	CT2507B	\$1195 00	D	CT2517B	\$1341 00	D
SERIES 3500	—	—	—	CT3521B	\$1029 00	D	CT3531B	\$1163 00	D
REPRODUCER	X	X	—	CT3525B	\$1087 00	D	CT3535B	\$1233 00	D
NAB TYPE A & B CARTS	X	X	X	CT3527B	\$1195 00	D	CT3537B	\$1341 00	D
SERIES 3500	—	—	—	CT3541B	\$1779 00	D	CT3551B	\$2122 00	D
RECORDER REPRODUCER	X	X	—	CT3545B	\$1880 00	D	CT3555B	\$2224 00	D
NAB TYPE A & B CARTS	X	X	X	CT3547B	\$2001 00	D	CT3557B	\$2344 00	D
SERIES 4500	—	—	—	CT4561B	\$1048 00	D	CT4571B	\$1195 00	D
REPRODUCER	X	X	—	CT4565B	\$1118 00	D	CT4575B	\$1265 00	D
NAB TYPE A, B & C CARTS	X	X	X	CT4567B	\$1226 00	D	CT4577B	\$1371 70	D
SERIES 4500	—	—	—	CT4581B	\$1779 00	D	CT4591B	\$2122 00	D
RECORDER REPRODUCER	X	X	—	CT4585B	\$1880 00	D	CT4595B	\$2224 00	D
NAB TYPE A, B & C CARTS	X	X	X	CT4587B	\$2001 00	D	CT4597B	\$2344 00	D

- NOTES: 1 ALL UNITS INCLUDE 1K Hz STOP CUE AND AUDIO SWITCHER AS STANDARD FEATURES
 2 Units are available for 50Hz operation To order, suffix model number 50 —
 Thus, CT3541-50 D \$ 121 00
 3 Mono Recorder Reproducers are available with erase feature To order suffix model number with 'E' D \$ 253 00
 4 Electronic Splice Finder (installed) is available on models 3547 3557 4587 and 4597 To order suffix model number with 'ESF' D \$ 325 00

DIGITAL MESSAGE TIMER FOR SINGLE DECK TAPE CARTRIDGE EQUIPMENT		PRICE	CODE
FACTORY INSTALLED	MODEL DMT 1	\$ 165 00	D
RETFIT KIT	FOR CT2500 SERIES	MODEL DMT A	\$ 182 00 D
	FOR CT3500 SERIES	MODEL DMT B	\$ 182 00 D
	FOR CT4500 SERIES	MODEL DMT C	\$ 182 00 D

TRI-OEK				MONAURAL			STEREO		
	END CUE	TRIP CUE	FAST FWD.	MODEL	PRICE	CODE	MODEL	PRICE	CODE
SERIES 5500	—	—	—	5501	\$2269 00	D	5511	\$2530 00	D
REPRODUCER	X	X	—	5505	\$2390 00	D	5515	\$2651 00	D

- NOTES: 1 ALL UNITS INCLUDE 1K Hz STOP CUE AND AUDIO SWITCHER AS STANDARD FEATURES
 2 Units are available for 50Hz operation to order suffix model number 50
 3 If Tri-Oek is to be used with Record Module (below) suffix model number (R)

RECORDER MODULE FOR TRI-OEK		PRICE	CODE
RM5501	MONO WITH 1 KHZ STOP CUE	\$ 787 00	D
RM5505	MONO WITH STOP CUE END CUE TRIP CUE	\$ 817 00	D
RM6611	STEREO WITH 1 KHZ STOP CUE	\$ 999 00	D
RM5515	STEREO WITH STOP CUE END CUE TRIP CUE	\$1029 00	D

AUDI-CORD 100 SERIES PLAYBACK



- * Very rugged head mountings with top adjustments that stay put.
- * Thick aluminum deck is overlaid with stainless steel for a wearing surface.
- * Fully solid state and motionless control system includes cartridge sensing, solenoid and motor switching.
- * All front accessible controls.
- * Dual equalization — HI and LO
- * All principal circuits on plug-in boards.
- * Extensive use of mother boards.
- * Replay/Lock system to prevent accidental replays. Selectable for operation.
- * Complete remote facilities include internal strappable options.

100 Series Premium Playbacks

100 Mono, 1 Cue.....	\$919.00
101 Mono, 3 Tones.....	\$959.00
105 Stereo, 1 Cue.....	\$1019.00
106 Stereo, 3 Tones.....	\$1059.00

AUDI-CORD 3 TRANSPORT REPRODUCER

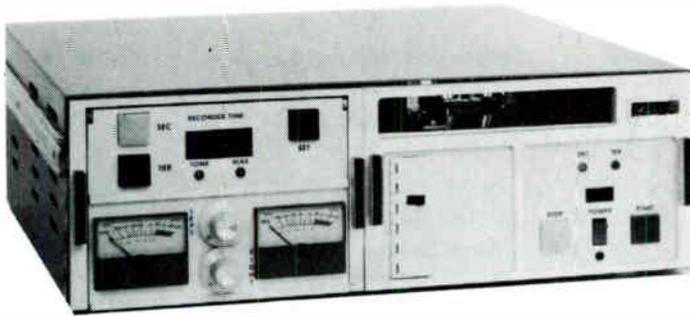


- * Just 5 1/4" high—perfect for those console built-ins where height is a premium.
- * Three independent outputs—three independent control systems.
- * Rack or desk mountings.
- * Same features of single playbacks.

"A" Series 3 Transport

A30 Mono, 1 Tone.....	\$2175.00
A31 Mono, 3 Tones.....	\$2250.00
A35 Stereo, 1 Tone.....	\$2355.00
A36 Stereo, 3 Tones.....	\$2430.00

AUDI-CORD 100 SERIES RECORD-PLAY



- * Front accessible controls. Panel tilts open for principal adjustments.
- * Dual record equalization – HI and LO.
- * Bias and tone recording indicators.
- * 5 K ohm bridging input – balanced transformer.
- * Optional precise digital recording timer.

100 Series Premium Record-Playbacks

110 Mono, 1 Cue.....	\$1579.00
111 Mono, 3 Tones.....	\$1619.00
115 Stereo, 1 Cue.....	\$1719.00
116 Stereo, 3 Tones.....	\$1759.00
120 Mono, 1 Cue w/Timer.....	\$1719.00
121 Mono, 3 Tones w/Timer.....	\$1749.00
125 Stereo, 1 Cue w/Timer.....	\$1849.00
126 Stereo, 3 Tones w/Timer.....	\$1889.00

A21 Mono, 3 Tones.....	\$1269.00
A25 Stereo, 1 Tone.....	\$1475.00
A26 Stereo, 3 Tones.....	\$1495.00

AUDI-CORD TWIN TRANSPORT RECORD-PLAY



- * Mono or stereo – 1 or 3 tones.
- * Slide-out front panel (recorder).
- * All the other "A" Series features and playing capabilities.

"A" Series Dual Transport R/P

A50 Mono, 1 Tone.....	\$1979.00
A51 Mono, 3 Tones.....	\$2049.00
A55 Stereo, 1 Tone.....	\$2295.00
A56 Stereo, 3 Tones.....	\$2365.00
A51-6 Mono, W/L.H. Stereo Deck.....	\$2149.00
A56-1 Stereo, W/L.H. Mono Deck.....	\$2285.00

AUDI-CORD "A" SERIES PLAYBACK



- * Interchangeable transports and other assemblies.
- * 1 or 3 tone – mono or stereo.
- * Replay reminder system.
- * Full remote control – automation compatible.

"A" Series Playbacks

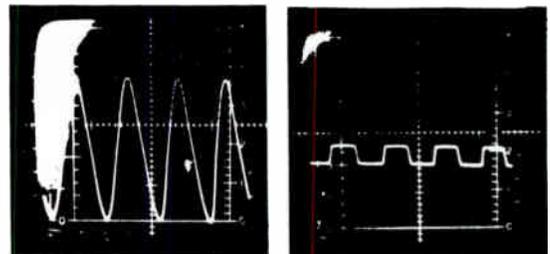
A10 Mono, 1 Tone.....	\$735.00
A11 Mono, 3 Tones.....	\$760.00
A15 Stereo, 1 Tone.....	\$795.00
A16 Stereo, 3 Tones.....	\$820.00

"A" Series Record-Playbacks

A20 Mono, 1 Tone.....	\$1249.00
-----------------------	-----------

(cont.)

VOLT-GUARD SURGE PROTECTOR



SURGE PRESENT, (1 Div.=300 V) VOLT-GUARD CLIPS

Volt-Guard is available for protection of 120V, 208V, 240V, 480V, and 550V AC lines.

Call Allied for pricing.

CARTRIDGE MACHINES

BROADCAST ELECTRONICS 3000 SERIES TAPE CARTRIDGE MACHINES



3200RPS
WF.F. & Tones



3100P



3200RP
WF.F. & Tones

The 3000 Series is the new SPOTMASTER family of professional quality tape cartridge machines. Now in use worldwide, and proven and up-dated during continuous production, this family of equipment represents a new standard of excellence.

Long Life Nortronics Duracore Heads Are Now Standard Components In All Spotmaster Series 3000 Tape Cartridge Machines.

Series 3000 machines offer numerous benefits: a wide selection of options and models; an inherently reliable electronic design

(cont.)

which makes extensive use of solid-state and integrated circuit technology; the exclusive Phase Lok III head bracket; and a rugged mechanical design which is second to none.

3100P	Mono, P/B Only, A Sz. Carts.....	\$975.00
3100PS	Stereo, P/B Only, A Sz. Carts.....	\$1125.00
3200P	Mono, P/B Only, A&B Carts.....	\$990.00
3200RP	Mono, R/P, A&B Sz. Carts.....	\$1695.00
3200PS	Stereo, P/B Only, A&B Sz. Carts.....	\$1140.00
3200RPS	Stereo, Rec/Play, A&B Sz. Carts.....	\$2050.00
3200RP/DL	Mono, Delay/Prog, A&B Sz. Carts.....	\$1900.00
3300P	Mono, P/B Only, A,B&C Sz. Carts.....	\$1050.00
3300RP	Mono, Rec/Play, A,B&C Sz. Carts.....	\$1725.00
3300PS	Stereo, P/B Only, A,B&C Sz. Carts.....	\$1215.00
3300RPS	Stereo, Rec/Play, A,B&C Sz. Carts.....	\$2075.00
3300RP/DL	Mono, Delay/Prog, A,B&C Sz. Carts.....	\$1975.00
3400P	Mono, P/B Only, Rack Mount.....	\$1095.00
3400PS	Stereo, P/B Only, Rack Mount.....	\$1250.00
3400RP	Mono, Rec/Play, Rack Mount.....	\$1740.00
3400RPS	Stereo, Rec/Play, Rack Mount.....	\$2090.00

BROADCAST ELECTRONICS 2100 SERIES TAPE CARTRIDGE MACHINES



MODEL 2100RPS. Stereo record/playback.

Totally new, Broadcast Electronics' 2100 family of tape cartridge machines combines versatile operation, quality components and top specifications, all at an economical price. There's more value in the 2100 series than ever found before in any professional cart machine. The combination of advanced engineering design and Broadcast Electronics' cost saving production methods produces a cart machine with double value for the most quality minded users and for those who can now afford the best.

The 2100 series has numerous benefits making it just right for nearly any application: Flexibility in size of carts accepted — A, B or C; Two cue tones (1 kHz and 150 Hz) are standard; Modular construction for easy field maintenance; Top quality Nortronics heads for exceptional performance; Direct drive transport and 1/2 inch aluminum deck for rugged, reliable operation; New Phase Lok IV head assembly for azimuth adjustment independent of height and zenith adjustment; Exclusive Mono/Stereo switching to aid in future conversions from mono to stereo broadcasting.

(cont.)

CARTRIDGE MACHINES

2100P	Mono, P/B Only, 115V, 60 Hz.....	\$900.00
2100RP	Mono, Rec/Play, 115V, 60 Hz.....	\$1450.00
2100PS	Stereo, P/B Only, 115V, 60 Hz.....	\$1000.00
2100RPS	Stereo, Rec/Play, 115V, 60 Hz.....	\$1700.00
2100PA	Mono, P/B w/Aud/Spkr, 115, 60 Hz.....	\$995.00
2100P	Mono, P/B Only, 220V, 50 Hz.....	\$975.00
2100RP	Mono, Rec/Play, 220V, 50 Hz.....	\$1550.00
2100PS	Stereo, P/B Only, 220V, 50 Hz.....	\$1075.00
2100RPS	Stereo, Rec/Play, 220V, 50 Hz.....	\$1800.00
2100PA	Mono, P/B w/Aud/Spkr, 220V, 50Hz.....	\$1070.00
	Rack Mount Shelf for EIA 19" Rack.....	\$60.00
	Top Cover for 2114 Shelf.....	\$25.00
	Rack Shelf Filler Panel, 1/3 Rack.....	\$15.00
	Rack Shelf Filler Panel, 2/3 Rack.....	\$20.00
	Top Cover for 2100 Series.....	\$25.00
	Test Extender PC Board.....	\$40.00
	Adj. for Equal. to IEC/CCIR Spec.....	N/C

BROADCAST ELECTRONICS 5300 SERIES TRI-DEK CARTRIDGE MACHINES



The Model 5300A is the most advanced multi-deck cartridge machine on the market. It is a top-of-the-line professional machine which features: solid-state/integrated circuit design, a direct-drive hysteresis synchronous motor, air damped solenoid, and a one-half inch thick machined aluminum deck.

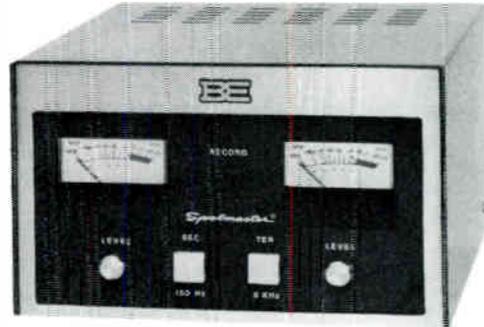
Long Life Nortronics Duracore Heads Are Now A Standard Component in all Spotmaster Series 5300A Tape Cartridge Machines. Features unique to this multi-deck design are plug-in decks, computer ribbon cabling, rear panel LED service aids, and run lights adjacent to each deck.

NEW MECHANICAL DESIGN — The Model 5300A has a new internal mechanical design which insures stable and accurate deck and capstan positioning. The motor mounting and the top capstan bearing mounting are mechanically supported by a sturdy aluminum bulkhead insuring consistent mechanical alignment independent of front panel reference.

(cont.)

ADVANCED ELECTRONICS — This machine has all the latest Spotmaster features: Ultra-reliable, low-voltage solenoid switching, wide dynamic operating ranges, Phase Lok III head bracket, accurate cartridge positioning and modular design;

The solenoid control circuit utilizes solid-state switching and a low-voltage regulated current source. With this circuit, solenoid operation is smooth and unaffected by ac line variations, heat dissipation is reduced, and the combination of low voltage and solid-state switching significantly enhances reliability.

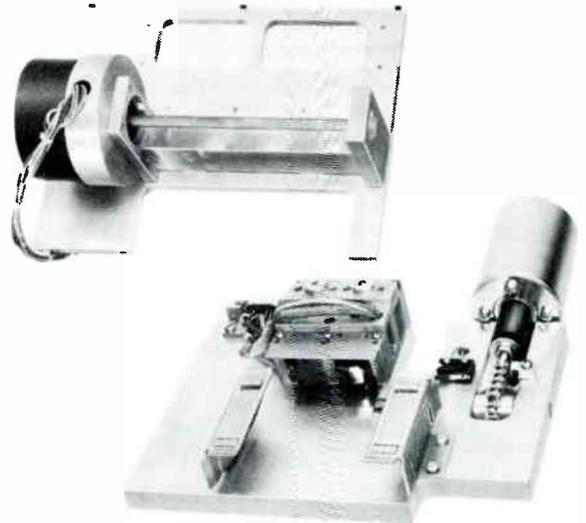
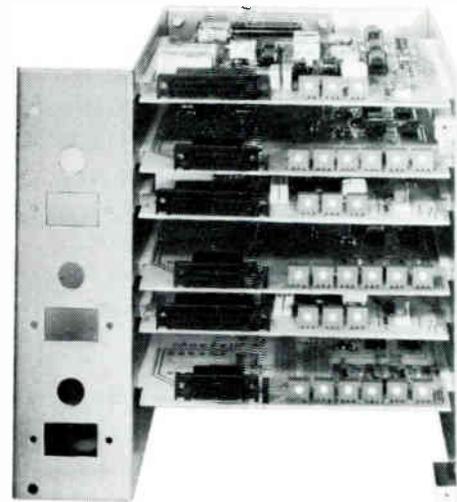
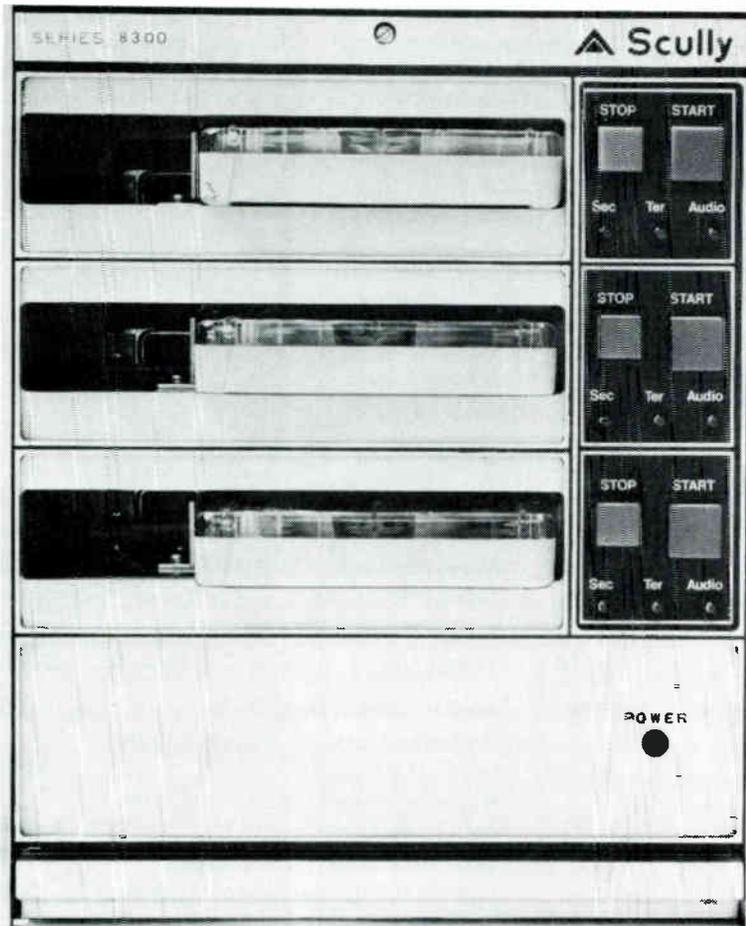


5301B	Mono Playback (A & B Size).....	\$2300.00
5302B	Mono P/B, Sz. A&B, w/Cue Tones.....	\$2400.00
5303B	Stereo Playback (A & B Size).....	\$2700.00
5304B	Stereo P/B, Sz. A&B, w/Cue Tones.....	\$2800.00
SW5E	Audio Switcher for 3 Decker.....	\$195.00
	Recorder, Mono for 3 Decker, Without Q Trip Option.....	\$850.00
	Recorder, Stereo for 3 Decker, Without Q Trip Option.....	\$1050.00
	Secondary (150 Hz) & Tertiary (8 kHz) Q Trips for Mono Recorder.....	\$75.00
	Secondary (150 Hz) & Tertiary (8 kHz) Q Trips for Stereo Recorder.....	\$75.00
	Rack Mount (1) Unit, 3 Decker.....	\$50.00
	Rack Mount (2) Units, 3 Decker.....	\$30.00
	Additional Cost for 220/50 Hz Power Source, 5300 Series.....	\$150.00
	Extender PC Board.....	\$40.00



Prices subject to change without notice

SCULLY SERIES 8300 THREE DECK CARTRIDGE TAPE REPRODUCER



The new Scully Series 8300 three deck tape cartridge reproducer provides a new standard of excellence in a convenient modular configuration. All presently marketed three deck machines were evaluated, which resulted in a new packaging concept with all decks removable, a new servo motor without bearing adjustments, a new head bridge assembly, and graphics that won't wear off.

Standard features include a two bearing crystal-controlled D.C. brushless servo motor, 150 Hz secondary cue tone, audio mixer, audio switcher, and a reload indicator.

Modular construction allows field conversion from Mono to Stereo, as well as fast and easy maintenance.

CLOSED LOOP SERVO MOTOR—The motor used in the Series 8300 is of totally new design and a Scully exclusive. It is a brushless D.C. motor controlled by a crystal referenced phase locked loop. This is the first three deck with a servo motor designed specifically for this application. It is a single unit, housing all motor parts, upper and lower bearing, support arm, as well as rotor and stator assembly. There is no upper bearing adjustment to make...previously, the reason for most three deck down time. No bearing adjustments coupled with a brushless design assures long trouble-free operation.

BULKHEAD—A central bulkhead is used as the main reference point in the machine. The motor mounts to it and the decks all lock against it, guaranteeing proper transport alignment.

DECKS—The decks are ½ inch thick machined aluminum, fitted with new side support cartridge guides for precise cartridge po-

sitioning. A low voltage solenoid coupled with a two step circuit insures fast reliable starts with cool operation. The pressure roller is self-aligning to prevent tape skew.

HEAD BRIDGE ASSEMBLY—A new concept was pioneered for the Series 8300 head bridge assembly. The entire assembly including overbridge, head mounting and guides, mount to the deck with only three screws, allowing a prealigned assembly to be quickly installed. The tape guides travel in a vertical channel allowing smooth minute adjustments to be made. All adjustments (height, zenith, azimuth) are noninteractive with locks.

MODULAR DESIGN—The front panel hinges down and all decks are removable (a Scully exclusive) after removing one screw from the bulkhead. A motherboard with plug-in boards, as well as connectorized motor and transformers, were employed for fast and easy maintenance.

ELECTRONICS—The playback section consists of low noise I.C. amplifiers with differentially balanced output. The dual equalizer covers a wide adjustment range to encompass any recording standard encountered, as well as to extend head life.

AUDIO MIXER/SWITCHER—An Audio Mixer/Switcher is standard. The audio mixer combines (sums) audio from two or more decks. If the switcher control bus is activated, only the most recently started deck will appear at the output.

RELOAD INDICATOR WITH START DISABLE—The stop lamp flashes when a cartridge has been played. A jumper can be placed on the logic control board to prevent a cartridge from being replayed by disabling the start switch if the stop lamp is flashing.

ALLIED LAZY SUSAN 500 CART RACK



- * Overall height 76"
- * Diameter (max) 28"
- * Assembly Required

ALLIED 500 Cap. Wire Cart Rack \$465.00
 ALLIED 50 Cap. Wall Wire Cart Rack \$39.95

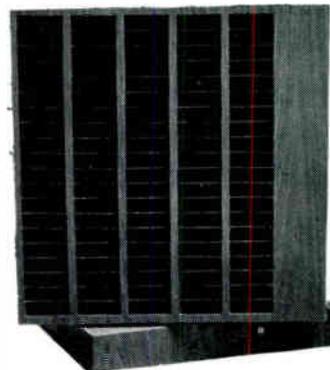
maple or walnut stained wood finished with a durable acrylic lacquer, also available in walnut, pecan, or black formica.

We will build, at additional charge, any size lazy susan to meet your individual needs. Special laminates in your preferred color or pattern available at additional charge.

Walnut, Pecan or Black Formica Standard

KK240LS 19 1/4" Sq. x 32" T, Turn Dia. 28" \$269.00
 KK100LS 12-5/8" Sq. x 40-7/8" T, Turn Dia. 18" \$149.00
 KK160LS 15" Sq. x 32" T, Turn Dia. 22" \$229.00
 Add \$12. Crating For Each Lazy Susan

KUSTOM KRAFT 400LS CART RACK-WALNUT, PECAN OR BLACK FORMICA STANDARD



KK400LS 29-1/8" Sq. x 36" T, Turn Dia. 42" \$469.00
 KK800LS 29-1/8" Sq. x 64 1/2" T, Turn Dia. 42" \$799.00
 Add \$12. Crating For Each Lazy Susan

KUSTOM KRAFT KK1000LS CART RACK-WALNUT, PECAN OR BLACK FORMICA STANDARD



KK1000LS 29-1/8" Sq. x 78" T, Turn Dia. 42" \$1199.00
 KK1200LS 29-1/8" Sq. x 84 1/2" T, Turn Dia. 42" \$1399.00
 Add \$12. Crating For Each Lazy Susan

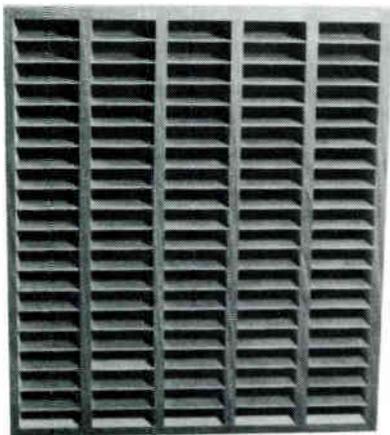
KUSTOM KRAFT KK240LS LAZY SUSAN CART RACK



Kustom Kraft Lazy Susans are available to hold from 100 to 1200 cartridges. Kustom Kraft Lazy Susans are available in
 (cont.)

CARTRIDGE ACCESSORIES

KUSTOM KRAFT KK100 A-100 CAPACITY CART RACK



Walnut, Pecan or Black Formica Standard
REGULAR SERIES CARTRIDGE RACKS

Model	Cap.	Rows W / H	Dimensions Wide/High	
KK 20	20	4 x 5	20-1/4" x 8-3/8"	\$ 18.00
KK 40	40	4 x 10	20-1/4" x 14"	36.00
KK 50	50	5 x 10	25-1/8" x 15-1/4"	45.00
KK 60	60	5 x 12	25-1/8" x 18"	54.00
KK 100A	100	5 x 20	25-1/8" x 29"	79.00
KK 100B	100	10 x 10	50-1/4" x 15-1/4"	79.00
KK 150	150	10 x 15	50-1/4" x 22-1/8"	118.00
KK 200	200	10 x 20	50-1/4" x 29"	158.00

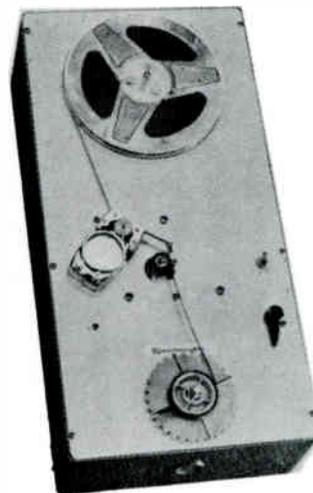
N SERIES CARTRIDGE RACKS

Narrow Cartridge Racks In
Walnut, Pecan or Black Formica

Model	Cap.	Rows W / H	Dimensions Wide/High	
KK 100N	100	2 x 50	10-1/2" x 74"	\$ 79.00
KK 150N	150	3 x 50	15-5/8" x 74"	118.00
KK 200N	200	4 x 50	20-1/4" x 74"	158.00
KK 250N	250	5 x 50	25-1/8" x 74"	203.00
KK 300N	300	6 x 50	30" x 74"	237.00
KK 350N	350	7 x 50	34-1/8" x 74"	282.00
KK 400N	400	8 x 50	39" x 74"	316.00
KK 450N	450	9 x 50	43-7/8" x 74"	361.00
KK 500N	500	10 x 50	50-1/4" x 74"	380.00
KK 600N	600 (2, 300N's)	60"	x 74"	456.00
KK 800N	800 (2, 400N's)	78"	x 74"	608.00
KK1000N	1000 (2, 500N's)	100-1/2"	x 74"	800.00

Custom size cart racks to fill your exact needs available. Please call with your measurements. Special laminates in your preferred color or pattern available at additional charge.

BROADCAST ELECTRONICS TW-100 TAPE CARTRIDGE WINDER



The SPOTMASTER Tape Cartridge Winder is a rugged, dependable and field tested tape cartridge winder which fills a need in every station using cartridge equipment. It is no longer necessary to limit your cartridge operation by using only stock sizes or to tie up your conventional tape equipment to load tape cartridges. The SPOTMASTER Winder will handle all reel sizes and runs at 22½" per second. Worn tape in old cartridges is easily replaced. New or old cartridges may be wound to any length. Tape Timer installed, optional. Model TW-200 includes timer.

SIZE: 10" W x 20" L x 6¾" H

WEIGHT: 9½ lbs.

POWER REQUIREMENTS: 117V ac, 50/60 Hz, 30 watts

WINDING SPEED: 22½ IPS

TAKE UP REEL: Up to 7¼" dia.

CAPACITY: Handles supply reel up to 3600' 1 mil lubricated tape.

TW-100.....	\$250.00
TW-200 w/Timer	\$315.00

BROADCAST ELECTRONICS TI-50 TAPE TIMER



Precise tape or speed measuring device with scale calibrated in minutes and seconds at 7.5 and 3.75 ips. Features time reset knob and strobe disc for speed checks. Use with reel-to-reel decks, cart machines and tape winder.

TI-50.....	\$105.00
------------	----------

BROADCAST ELECTRONICS TAPE TAGS

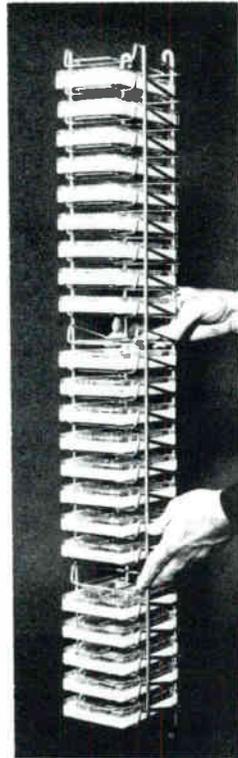
Handy self-adhesive labels especially die-cut and color-coded for cartridge cataloging . . . and are easy to remove . . . Room for three typewritten lines . . . Sheets of 8 tags each . . . Eight distinctive colors.

(Quantity Discounts Available)

BROADCAST ELECTRONICS WIRE UNIT LS-200 LAZY SUSAN



LS-200

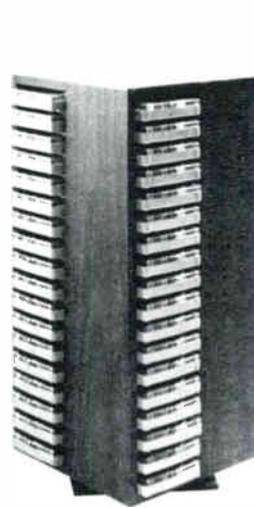


RS-25 Rack Section

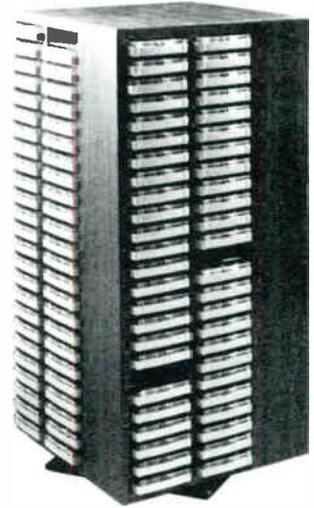
Holds 200 cartridges on rotating stand. Ideal for large storage situations requiring mobility. Equipped with 4 heavy-duty casters and constructed of heavy steel rod finished bright zinc. Each individual RS-25 section is removable. 51¼" high, 20½" diameter.

LS-200.....\$260.00

BROADCAST ELECTRONICS DESK MOUNT MODULES



DM-72



DM-200

Rotating racks present four-sided storage in attractive Walnut Formica. DM-72 holds 72 cartridges, measures only 22" H x 11" W x 11" D. DM-200 provides 200 storage slots. 29½" H x 15¾" W x 15¾" D.

DM-72.....\$100.00
DM-200.....\$175.00

BROADCAST ELECTRONICS DM-40 WALNUT WOODGRAIN FINISHED CABINET

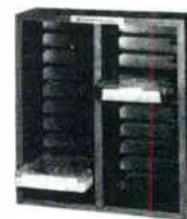


DM-40

Lazy Susan designed for tabletop operation; holds 40 "A" cartridges. 9½" W x 8" D x 11 7/8" H. Weight 6½ lbs.

DM-40.....\$40.00

BROADCAST ELECTRONICS DM-20 WALNUT WOODGRAIN FINISHED CABINET



DM-20

Holds 20 "A" cartridges. Units may be stacked; 9½" W x 4" D x 10 7/8" H. Weight 3½ lbs.

DM-20.....\$20.00

Charge It

for convenience
use your master charge
or visa charge card

Allied Broadcast Equipment

CARTRIDGE ACCESSORIES

BROADCAST ELECTRONICS RM-20 RACK MOUNT CART RACK



RM-20

Designed for standard 19" rack installation. Put vacant rack space to good use. Holds 20 "A" size cartridges in only 5 1/4" vertical space. Made of aluminum.

RM-20.....\$115.00

BROADCAST ELECTRONICS RM-100 WALL MOUNT RACK

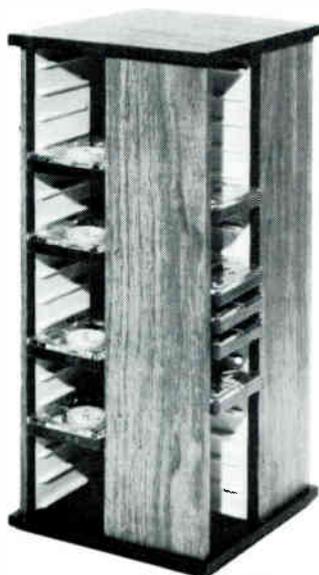


RM-100

Holds 100 "A" size cartridges in minimum space. Walnut Formica trim. 2' H x 2' W x 4 3/8" D.

RM-100.....\$95.00

MICRO-TRAK L-72 LAZY SUSAN CARTRIDGE RACK



The Model L-72 Lazy Susan Cartridge Tape Rack shown is Micro-Trak's answer for an attractive and durable tape rack at (cont.)

a reasonable price. Designed to compliment the Series L studio furniture line, the L-72 provides a small, but substantial rotary tape rack for use at the console. Only 10 1/2 inches square and 22 inches high, the L-72 packs in 72 of the most used spots for easy access by your DJs. The L-72's clean stylish lines and its low cost make it an attractive addition to any studio. The wood grain formica covering with the contrasting black and white interior matches our Series L furniture and will attractively compliment any studio decor.

L-72.....\$59.50

MICRO-TRAK L-90 WALL OR CONSOLE RACK

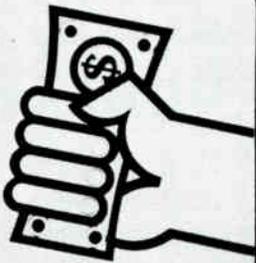


The most useful member of the Series L Cartridge Rack group is the Model L-90. The L-90 can be used as a wall mounted unit, stacked from floor to ceiling, mounted on the inside and outside of a closet door, or as a stand alone unit at the console. Also with addition of simple 2 x 4 supports, the L-90 can be mounted over the top of your turntables. Flexibility, low cost, attractive wood grain Formica brand covering, versatility are all reasons that you should equip your studio with several L-90s. The L-90 rack is finished to match our Series L Turntable Furniture, and our newer System D equipment, and will also attractively compliment your present system

L-90.....\$59.50

Terms

cash
master-charge, visa



Allied Broadcast Equipment

CAPITOL AUDIOPAK TAPE CARTRIDGES



A-2



AA-3

Allied prices Audiopak Cartridges at the best 96+ price whether your needs are one or one thousand units.

A-2		AA-3	
Time And Length (Loaded)		Time & Length (Loaded)	
I. Standard Lengths		HOLN Tape I. Standard Lengths	
96+	96+	96+	96+
Empty	\$2.07		
10 Second	2.71	10 Second	\$3.46
20 Second	2.73	20 Second	3.49
35 Second	2.78	35 Second	3.55
40 Second	2.79	40 Second	3.58
65 Second	2.83	65 Second	3.62
70 Second	2.85	70 Second	3.66
90 Second	2.89	90 Second	3.72
100 Second	2.95	100 Second	3.78
140 Second	3.02	140 Second	3.86
2.5 Minute	3.06	2.5 Minute	3.93
3.0 Minute	3.12	3.0 Minute	4.03
3.5 Minute	3.20	3.5 Minute	4.10
4.0 Minute	3.25	4.0 Minute	4.18
4.5 Minute	3.33	4.5 Minute	4.27
5.5 Minute	3.47	5.5 Minute	4.45
7.5 Minute	3.68	7.5 Minute	4.72
8.5 Minute	3.79	8.5 Minute	4.87
10.5 Minute	4.03	10.5 Minute	5.16

A-2 Reload Lube Tape, 7" Reel-1800'	\$6.18
4200' Hub	\$11.00
AA3 Reload Lube Tape - 7" Reel-1800'	\$8.75
3600' Hub	\$9.00
7200' Hub	\$13.50

Prices Subject To Change Without Notice

FIDELIPAC MASTER CART TAPE CARTRIDGES



MASTER CART

Mastercart—for the modern stereo broadcaster satisfied with nothing less than the ultimate in performance.

(cont.)

Empty	\$3.82
20 Second	\$4.22
40 Second	\$4.31
70 Second	\$4.44
90 Second	\$4.55
100 Second	\$4.63
140 Second	\$4.77
2½ Minute	\$4.85
3 Minute	\$4.99
3½ Minute	\$5.11
4 Minute	\$5.24
4½ Minute	\$5.38
5 Minute	\$5.52
5½ Minute	\$5.65
7½ Minute	\$6.01
8 Minute	\$6.15
10 Minute	\$6.52
10½ Minute	\$6.67

For Cartridges Loaded With H.O.T. Tape, Add -H To Part Number And Increase Cost By 15%.

Prices Are Subject To Quantity Discount.

FIDELIPAC PROFESSIONAL TAPE CARTRIDGES

300 600 1200

Model 300—the most popular NAB cartridge—performance and price make it the mono broadcaster's first choice.



MODEL 300

Empty	\$3.57
20 Second	\$4.02
40 Second	\$4.11
70 Second	\$4.23
90 Second	\$4.33
100 Second	\$4.42
140 Second	\$4.55
2½ Minute	\$4.62
3 Minute	\$4.76
3½ Minute	\$4.89
4 Minute	\$5.03
4½ Minute	\$5.16
5 Minute	\$5.31
5½ Minute	\$5.46
7½ Minute	\$5.84
8 Minute	\$5.97
10 Minute	\$6.38
10½ Minute	\$6.52
16 Minute 600	\$12.66

(cont.)

CARTRIDGE ACCESSORIES

Empty 600.....\$6.30
 32 Minute 1200.....\$20.85
 Empty 1200.....\$8.66
 For Cartridges Loaded With H.O.T. Tape, Add -H To Part
 Number And Increase Cost By 15%.
 Prices Are Subject To Quantity Discount.

FIDELIPAC ACCESSORIES



WORLD STANDARD STUDIO WARNING LIGHTS

340 On Air.....\$ 39.95
 340-S On Air, in French, German, Greek,
 Japanese, Polish, Russian, Spanish
 or Swedish.
 Specify when ordering.....39.95
 340-REC RECORDING.....39.95
 340-REC-S GRABANDO(Recording in Spanish)...39.95
NEW AND REDESIGNED CARTRIDGE RACKS
 WR-25 Wall Rack—Holds 25.....20.90
 MRB-1 Mobile Rack Base—Holds 8 WR-25
 Racks.....47.30

(cont.)

MR-200 Mobile Cartridge Rack—Holds 200.....214.50
 TR-48 Table Top Cartridge Rack—Holds 48.....59.95
 TR-96 Table Top Cartridge Rack—Holds 96...102.85
**CARTRIDGE MACHINE PRECISION ALIGNMENT
 EQUIPMENT**

390 Wow & Flutter Meter.....425.00
 401 Cartridge Equipment Test System—
 Mono.....575.00
 402 Cartridge Equipment Test System—
 Stereo.....575.00
 450 Alignment Cartridge—Monophonic.....46.20
 451 Alignment Cartridge—Stereophonic.....46.20
 452 Wow & Flutter Cart—3150 Hz.....30.80
 455 Fast Sweep Cart—Monophonic.....38.50
 456 Fast Sweep Cart—Stereophonic.....38.50
 457 Cue Tone Test Cartridge.....43.00
 326 Height Gage.....25.90
 328 Head Insertion Gage.....7.00
 387 Right Angle Zenith Gage.....30.80

CARTRIDGE MAINTENANCE & TAPE ITEMS

395 Blank-It, Bulk Eraser, Hand
 Held (110 Volt).....59.95
 TAS-431 Splicing Tape—7/32 wide x 100 feet
 long roll (2400½" splices).....9.50
 406 Professional Splicing Block, for
 ¼" Tape.....14.25
 310 Professional Splicing Kit—¼" Tape.....18.45

FIDELIPAC INSPECTED & CERTIFIED LUBRICATED CARTRIDGE TAPE

TAS-434 3600' 10" hub Ampex 675 lubricated
 tape (bulk packed).....11.75
 TAS-436 1800' 7" reel Ampex 675 lubricated
 tape (individually boxed).....8.10
 TAS-437 3600' 10" hub Ampex 675 lubricated
 tape (individually boxed).....14.75

FIDELIPAC HIGH PERFORMANCE LUBRICATED TAPE—H.O.T. TAPE

TAS-500 3600' 10" hub (bulk packed).....15.25
 TAS-501 1800' 7" reel (individually boxed).....9.75
 TAS-502 3600' 10" hub (individually boxed).....17.75

DELAY CARTRIDGES

140-5DL Model 300, 8 sec., Curved Pressure
 Pads and Special Lube.....6.15
 140-6DL Model 300, 10 sec., as above.....6.15
 149-5DL Model 600, 8 sec., Curved Pressure
 Pads and Special Lube.....8.00
 149-6DL Model 600, 10 sec., as above.....8.00

Call us

we have discounts on
many items

Allied Broadcast Equipment

ARISTOCART TAPE CARTRIDGES



Empty.....	\$2.91
40 Second.....	\$3.68
70 Second.....	\$3.77
90 Second.....	\$3.82
100 Second.....	\$3.83
2½ Minute.....	\$3.88
3½ Minute.....	\$4.02
4½ Minute.....	\$4.09
5½ Minute.....	\$4.17
6 Minute.....	\$4.21
7 Minute.....	\$4.27
8 Minute.....	\$4.36
9 Minute.....	\$4.50



WESTCLOX QUARTZMATIC CLOCK—PRECISION ACCURACY



12" Clock.....	\$49.95
8" Clock.....	\$45.95

GARNER TAPE ERASERS



Garner tape erasers provide clean erasures in only four seconds—with no noise residue. Tapes are wiped cleaner than new. Our simple, safe, continuous belt operation handles all sizes of reels, cartridges and cassettes. Several models: Up to 16". Also Video Erasers.
Contact Allied for complete details and pricing.

EXTEND-A-PHONE



- * Cordless, free and easy to carry
 - * No phone company monthly service charges
 - * Early callouts from Convention Floor, Legislative Chamber, Election Returns
 - * FCC approved and accepted by the Telephone Company
 - * A one time moderate investment
 - * You can install it yourself
- Extend-A-Phone.....\$249.00

CLOCKS & TIMERS

ESE TIMERS

ES 112/124

DIGITAL CLOCK \$152.00

ES 112 (12 hr.) and ES 124 (24 hr.) are solid state, six digit clocks. Can drive 80 Series and 90 Series slaves. Displays are incandescent filament, .6" high.

Dimensions: 2 1/4" High x 8" Wide x 6" Deep.



\$262.00

ES 142/144

DIGITAL CLOCK THERMOMETER

ES 142 (12 hr.) and ES 144 (24 hr.) are solid state digital clock/thermometers. Six digits of time (hours, minutes, seconds) and 3 digits of temperature (-50°F to +150°F or -45°C to +66°C) in gas discharge displays. .55" high. Temperature sensor on 25 ft. cable included.

Dimensions: 2 1/4" High x 10" Wide x 6" Deep.

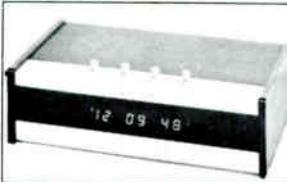
ES 240/241

ES 240 DIGITAL THERMOMETER is calibrated for °F and °C. Displays are planar gas discharge, .55" high.

Dimensions: 2 1/4" High x 8" Wide x 6" Deep.

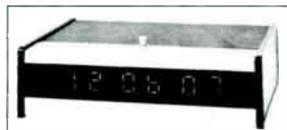
ES 241 DIGITAL THERMOMETER is calibrated for °F and °C, alternating between the two every four seconds. Displays are planar gas discharge, .55" high.

\$208.00



ES 1372 \$250.00

The ES 1372 is similar to the ES 1296, except that ES 1372 has two timed AC outlets. AC power is applied to outlet "1" at the alarm time and day selected and remains on for 138 minutes and 53 seconds. AC power is applied to outlet "2" 60 minutes after power has been applied to outlet "1" and remains on for 78 minutes and 53 seconds. All other specifications of the ES 1296 apply.



ES 251 \$273.00

ES 251 SMPTE TIME CODE READER: ES 251 is a six digit SMPTE Time Code Reader displaying Hours, Minutes and Seconds. Receives the standard SMPTE Time Code through rear mounted BNC connector, converts it into six digits of clock time.

Dimensions: Aluminum Case 2 3/4" High x 8" Wide x 5 1/2" Deep.

ES 252 SMPTE TIME CODE READER: Exactly like ES 251, but displays Minutes, Seconds and Frames.

ES 253 SMPTE TIME CODE READER: Similar to ES 251 and 252, but displaying EIGHT DIGITS of information—HOURS, MINUTES, SECONDS and FRAMES, using .3" red LED's.



ES 270 IRIG B TIME CODE READER \$350.00

The ES 270 TIME CODE READER has been designed to be an economical solution to the problem of receiving and displaying IRIG B.

Nine digits (Days, Hrs, Min, Sec) of time are shown on bright red LED's, .3" character height. ES 270 comes in a rack mounting enclosure, 1 3/4" High, 19" Wide and 10" Deep.

The power requirement is 117V AC, 50/60 Hz, 230V AC, 50 Hz is available as an option.



70 SERIES

CONSOLE MOUNT CLOCKS AND TIMERS

ES 172 SIX DIGIT, 12 HOUR CLOCK: Three setting controls—Fast Advance, Slow Advance and Hold.

ES 174 SIX DIGIT, 24 HOUR CLOCK: Otherwise identical to the ES 172.

ES 370 FOUR DIGIT, ONE HUNDRED MINUTE UP/DOWN TIMER: Six controls—Count Up, Count Down, Stop, Minutes Advance, Seconds Advance, Reset.

ES 371 UP/DOWN TIMER: Similar to the ES 370 except with Leverwheel Preset capability for faster setting of the desired time.

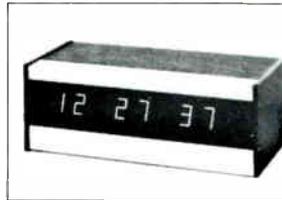
ES 570 FOUR DIGIT, SIXTY OR 100 MINUTE TIMER: Select 60 or 100 minute mode on rear connector. Start, Stop and Reset controls. Runs continuously unless stopped. Reset will return all displays to zero. Unit will run if reset while running or will stay at zero if reset when stopped.

ES 572 SIX DIGIT, 12 HOUR CLOCK OR TIMER: Five controls—Start, Stop, Reset, Fast Advance, Slow Advance. Will run continuously to 12:59:59. Advances to 1:00:00 and continues as clock unless stopped or advanced.

ES 574: A 24 hour version of ES 572.

ES 575: Exactly like ES 570, with the addition of a "freeze" button. When the button is released, the display "catches up" with the correct elapsed time.

Dimensions: 2.16" High x 4.5" Wide x 4.13" Deep.



80 SERIES

JUMBO CLOCKS AND TIMERS

Large, bright 1" gas discharge displays provide effortless long distance viewing from 40 feet.

ES 182 SIX DIGIT, 12 HOUR CLOCK: Three rear-mounted setting controls—Fast Advance, Slow Advance, and Hold.

ES 184 SIX DIGIT, 24 HOUR CLOCK: Otherwise identical to the ES 182.

ES 380 FOUR DIGIT, 100 MINUTE UP/DOWN TIMER: Displays minutes and seconds, with rear-mounted connector to allow remote wiring of six momentary SPST CONTROLS—Count Up, Count Down, Stop, Minutes Advance, Seconds Advance and Reset. Other features similar to ES 301.

ES 381 UP/DOWN TIMER: Similar to ES 380, except that leverwheel preset is used.

ES 580 FOUR DIGIT, 60 MINUTE TIMER: Displays minutes and seconds. Rear connector allows remote wiring of three momentary SPST controls—Start, Stop and Reset. Reset returns all displays to zero, and timer will continue to run from zero if reset while running.

80 Series slaves are also compatible with other ESE clocks and timers: ES 112/124, 301, 302 and 510.

Dimensions: 4.45" High x 10.38" Wide x 6.58" Deep.

172-\$146 371-\$292 574-\$174 184-\$252 580-\$211 992-\$415
174-\$146 570-\$146 575-\$174 380-\$292 391-\$450 994-\$415
370-\$187 572-\$174 182-\$252 381-\$385 590-\$315



90 SERIES

2 INCH DISPLAYS—VIEWABLE AT 60 FEET

ES 391—Presettable Up/Down Timer: 100 Minute Range—Displays Minutes and Seconds, uses Leverwheel Preset. Controls are Count Up, Count Down, Stop, Reset and Preset.

Dimensions: 4.45" High x 10.38" Wide x 6.58" Deep

ES 590—Sixty Minute Timer: Displays Minutes and Seconds. Rear-mounted connector provides for wiring to user's single pole, momentary, push-button controls: Start, Stop and Reset. Reset returns all displays to zero, and timer will continue to run from zero if reset while counting.

Dimensions: 4.45" High x 10.38" Wide x 6.58" Deep

ES 992/994—6 Digit Clocks: ES 992 (12 Hr) and ES 994 (24 Hr)—Hours and Minutes on Two Inch Gas Discharge Displays, Seconds on One Inch Gas Discharge Displays. Three top-mounted setting controls—Fast Advance, Slow Advance and Hold.

Dimensions: 5" High x 12" Wide x 3 1/4" Deep.



ES 562/564

SIX DIGIT CLOCK/ \$289.00
TIMER WITH MEMORY

ES 562/564 is a combination six digit clock and 24 hour timer with memory, allowing the user to set the clock to the correct time of day, switch to timer mode, then switch back to time of day by pushing one button; time of day will be correctly displayed, in hours, minutes and seconds. Five pushbutton controls are mounted on the top of the unit, near the front of the desk-top case. When panel mounting is specified, they will be mounted on the front panel, below the display. The controls may also be removed, through two rear-mounted five pin connectors (Option R or Option D). These controls are Clock, Fast/Start, Slow/Stop, Timer and Hold.

Display: Six digits of .55" Planar Gas Discharge Display.



ES 512/524

FOUR DIGIT CLOCK/
TIMER WITH MEMORY

Exactly the same specification as ES 562/564, except that time of day is displayed in hours and minutes, and the timer counts up to 60 minutes only.

\$218.00

ES 400

\$114.00

THREE DIGIT
10 MINUTE TIMER

The ES 400 has three controls—Start, Stop, Reset. Displays up to 9:59. If stopped, display will hold time reading. If reset while running, timer will continue to run. Displays are incandescent filament, .6" high.

Dimensions: 2 1/4" High x 6" Wide x 6" Deep.



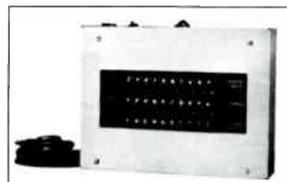
ES 510

\$146.00

FOUR DIGIT
60 MINUTE TIMER

ES 510 is a four digit, sixty minute timer (59:59) with Start, Stop and Reset controls. If stopped, display will hold time reading and when restarted will continue with next count from last displayed figure. If reset while running, timer will continue to run. ES 510 can drive 80 Series and 90 Series Slaves.

Dimensions: 2 1/4" High x 6" Wide x 6" Deep.



\$82.00

ES 203/205

ES 203/205 is a 20 input Timer/Source Interface. It was designed to provide a simple means of connecting a variety of sources such as carts and turntables to the remote input of ESE Timers. The most common application for this product is resetting either an ES 400 or ES 510 Timer each time a source is started.

The 20 inputs are divided into ten DC voltage inputs and ten contact closure inputs. Activation of any one of these inputs will cause an output which will momentarily reset an ESE timer.

Mechanical: Aluminum Case 8" x 6" x 2".



\$216.00 \$277.00

ES 301/302

100 MINUTE
UP/DOWN TIMERS

ES 301 is a four digit, one hundred minute timer (99:59) with six controls: Count Up, Count Down, Stop, Minutes Advance, Seconds Advance, Reset. Counting can be activated up or down or set back to zero. When "Stop" control is pressed, the four digit display is held. Counting direction (up or down) can be changed or time can be reset to zero without stopping the count. The ES 301 can drive 80 Series and 90 Series Slaves. Displays are gas discharge, .55" high.



With the ES 302, the user can preset times much faster than with the ES 301, because lever-wheel type switches are used for the preset feature. The ES 302 can drive 80 Series and 90 Series Slaves.

Dimensions: ES 301: 2 1/4" High x 8" Wide x 6" Deep.
ES 302: 2 1/4" High x 10" Wide x 6" Deep.



BROADCAST ELECTRONICS 4-MIXER, STEREO FOUR, MODEL 4S50



ACCOMMODATES 12 STEREO INPUT SOURCES—The Broadcast Electronics 4S50 four-mixer stereo console features quality stereo performance at a practical price. This versatile console allows preselection of eight stereo input sources with intermix and level control of four of these simultaneously.

- * High/Low Input Sensitivity Selection
- * Cue Switches, All Mixers
- * Individual Monitor, Cue, Headphone Amplifiers
- * Excellent Performance-Reasonable Cost
- * Ideal For Stereo Production, Discotheque Or On-Air

4S50.....\$1595.00
 4S50R Rack Mount Version.....\$1625.00

BROADCAST ELECTRONICS 4-MIXER, MONO, MODEL 4M50



COMPACT, PROFESSIONAL PERFORMANCE—Incorporating modern solid-state technology, the Broadcast Electronics Model 4M50 4-Mixer Monaural Console affords professional performance at reasonable cost. Compact, yet uncluttered, the 4M50, with two inputs per mixer, can handle the selection and level control/mix of up to eight sources.

- * Selectable Hi/Lo Sensitivity, All Channels
- * Individual Monitor, Headphone And Cue Amplifiers
- * Straightforward, Neat Installation
- * Excellent For On-Air, Newsroom, Remote And Production Use.

4M50.....\$825.00
 4M50R Rack Mount Version.....\$875.00

BROADCAST ELECTRONICS 150 SERIES ROTARY MIXER CONSOLES



Mixing controls are of sealed potentiometer, high-reliability, long-life design, each equipped with cue bus switches. The 150 series features contact-free FET bus selection and field-proven 3600 series plug-in modular electronics. Each mixing channel accommodates two pushbutton-selected inputs, and may be preset for either microphone or high-level service. Mono/stereo mode switching optional on stereo models. Monitor, headphone and cue amplifiers insure full-monitoring capability. Professional performance at a reasonable price insures the broadcaster of a console tailored to his needs. Front panel graphics are under a laminated poly carbonate overlay for maximum durability.

5S150 5 Mix Stereo, Sealed Pots, Dual Channel and/or Mono Outputs Optional.....\$2250.00
 8S150 8 Mix Stereo, Sealed Pots, Dual Channel and/or Mono Outputs Optional.....\$2995.00

BROADCAST ELECTRONICS DELUXE 250 SERIES ROTARY-MIXER CONSOLES



Featuring ladder-type maintainable step attenuators with cue bus switching, telephone-type channel keys and contact-free FET bus selection. Separate monitor, headphone and cue channels. Field proven 3600 Series modular plug-in electronics. Two input pushbutton pre-selection and microphone or high level capability (cont.)

CONSOLES & MIXERS

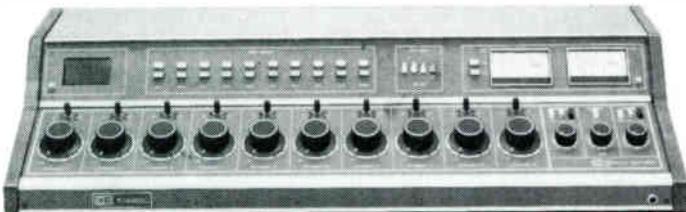
for each mixing channel. Mono/stereo mode switching optional on stereo models. Front panel graphics are under a laminated poly carbonate overlay for maximum durability.

5S250	5 Mix Deluxe Stereo, Step Type Atten., Dual Channel.....	\$2995.00
8S250	8 Mix Deluxe Stereo, Step Type Atten., Dual Channel.....	\$4195.00

5M150	5-Mix Mono, Sealed Pots, Dual Channel.....	\$1695.00
8M150	8-Mix Mono, Sealed Pots, Dual Channel.....	\$2195.00

5M250	5-Mix Deluxe Mono, Step Type Atten., Dual Channel.....	\$2250.00
8M250	8-Mix Deluxe Mono, Step Type Atten., Dual Channel.....	\$3195.00

BROADCAST ELECTRONICS DELUXE 10-MIXER, DUAL CHANNEL, STEREO 10S250



NEW TEN MIXER STEREO CONSOLE—The Broadcast Electronics 10S250 Stereo Console accommodates twenty inputs into ten mixing channels. The console features identical line-level output stereo program and audition channels, with VU meter switching to either stereo channel pair. Mixing controls are maintainable, step-type dual ladder attenuators. Quiet-operating, telephone-type channel select switches are used.

- * Ladder Step Attenuators
- * Modular Plug-In Electronics
- * Contact-Free Bus Selection
- * Telephone-Type Channel Key Switch
- * Talk-Back Capability
- * Four Line-Level Outputs
- * Mono Mix-Down Option

10S250	\$4695.00
--------------	-----------

BROADCAST ELECTRONICS DELUXE 10-MIXER, DUAL CHANNEL, MONO

NEW TEN MIXER MONO CONSOLE—The Broadcast Electronics 10M250 Mono Console accommodates twenty inputs into ten mixing channels. The console features identical line-level output mono program and audition channels, with VU meter switching to either mono channel. Mixing controls are maintainable, step-type ladder attenuators. Quiet-operating, telephone-type channel select switches are used.

- * Ladder Step Attenuators
- * Modular Plug-In Electronics

(cont.)

* Contact-Free Bus Selection	
* Telephone-Type Channel Key Switch	
* Talk-Back Capability	
* Two Line-Level Outputs	
10M250	\$3695.00

AMPRO AC CONSOLES



ILLUSTRATED:

The Ampro AC-12, our ten, twelve, eight and six channel consoles are available.

Ampro consoles are complete, full-function audio control centers, requiring no options, and built for operational simplicity and ease of maintenance.

Representing the ultimate in electronic and human engineering, Ampro consoles are designed to shut out built-in obsolescence. They feature total flexibility and versatility for virtually any control situation, and offer you years and years of reliable operation.

- * Balanced transformers on all mic and high level inputs.
- * Stereo preamps for all mic and high level inputs on all stereo, dual stereo and simulcast models.
- * Four interlocked pushbutton switches per input channel.
- * Step-type rotary faders with silver contacts and detented cue.
- * Telephone grade lever switches.
- * Fully shielded.
- * Muting programmer to control any of the four muted monitor outputs.
- * Two studio intercom.
- * 20 Watt monitor amplifier.
- * Headphone amplifier with 4 inputs.
- * Plug-in modular electronics.

Plus logical board layout for ease of operation without extensive operator training, wear-proof etched and filled front panel markings and full shielding to virtually eliminate RFI problems.

AC-6MB 6-Channel Monaural-24 Inputs.....	\$3208.00
AC-6DB 6 Channel Dual Monaural-24 Inputs.....	\$3551.00
AC-6SB 6 Channel Stereo-24 Inputs.....	\$4606.00
AC-8MB 8 Channel Monaural-32 Inputs.....	\$8844.00
AC-8DB 8 Channel Dual Monaural-32 Inputs.....	\$4161.00
AC-8SB 8 Channel Stereo-32 Inputs.....	\$5240.00
AC-8DSB 8 Channel Dual Stereo-32 Inputs.....	\$5698.00
AC-8SCB 8 Channel Stereo-Mono-32 Inputs.....	\$5558.00
AC-10MB 10 Channel Monaural-40 Inputs.....	\$4769.00
AC-10DB 10 Channel Dual Monaural-40 Inputs.....	\$5113.00
AC-10SB 10 Channel Stereo-40 Inputs.....	\$6144.00
AC-10DSB 10 Channel Dual Stereo-40 Inputs.....	\$6595.00
AC-10SCB 10 Channel Stereo-Mono-48 Inputs.....	\$6460.00
AC-12MB 12 Channel Monaural-48 Inputs.....	\$5381.00
AC-12DB 12 Channel Dual Monaural-48 Inputs.....	\$5698.00
AC-12SB 12 Channel Stereo-48 Inputs.....	\$6918.00
AC-12DSB 12 Channel Dual Stereo-48 Inputs.....	\$7364.00
AC-12SCB 12 Channel Stereo-Mono-48 Inputs.....	\$7236.00
Part No. 7888-501 Spare Semiconductor Kit.....	\$50.00
Summing Amplifier - Sums Stereo Output.....	\$303.00

(cont.)

To Mono (Converts Stereo or Dual Stereo To Simulcast)
Each Console Includes Spare Semiconductor Kit

AMPRO MICROTOUCH CONSOLES



The Ampro Microtouch is a complete, full function audio control center built for operational simplicity and long life. Ampro, the leader in broadcast console design, has utilized the latest component and packaging technology to produce a cost-effective console for the station that demands the quality, low maintenance, ease of use and ease of service of a top-of-the-line board. Ideal for small to medium studio use, news-rooms, remote vans and TV audio. MICROTOUCH avoids the component reliability compromises and maintenance headaches inherent in most economy console approaches.

- * MICROTOUCH bus switching eliminates lever key switches.
- * Balanced transformer input preamps on all mixers eliminate RF pickup and ground loops.
- * 2 Inputs per mixer, selectable mic, high level or mixed.
- * Programmable muting for every input.
- * 5 Input remote line selector assignable to any high level input.
- * 3 Input selector to 10-watt monitor amplifier, two muting relays.
- * 3 Input selector to 1-watt headphone amplifier.
- * Built-in cue amplifier and speaker.
- * Dual mono and dual stereo program outputs plus extra output line, front panel switchable to either PROGRAM 1 or PROGRAM 2 outputs.
- * All circuits on plug in boards, one preamp and one program amplifier spare entire console.
- * Power supply status indicators.
- * Tally outputs for on-air light relay control.
- * All user connections to screw terminal barrier strips.
- * Entire input selector panel is removable with all user connections intact for ease of console service. All plug in boards accessible through top cover.
- * Permanent anodized panel markings.
- * Extended life AB pots – 3 times normal life.
- * Comfortable, full width armrest.
- * Optional script rack.

Available stereo or mono, rotary or slide fader, 5 or 8 mixers.

MT5M/R 5-Chan, Dual Mon. Rotary-15 Inputs.....	\$2156.00
MT5M/L 5-Chan, Dual Mon. Linear-15 Inputs.....	\$2338.00
MT5S/R 5-Chan, Dual Ster. Rotary-15 Inputs.....	\$2613.00
MT5S/L 5-Chan, Dual Ster. Linear-15 Inputs.....	\$3141.00
MT8M/R 8-Chan, Dual Mon. Rotary-21 Inputs.....	\$2635.00
MT8M/L 8-Chan, Dual Mon. Linear-21 Inputs.....	\$3009.00
MT8S/R 8-Chan, Dual Ster. Rotary-21 Inputs.....	\$3575.00

(cont.)

MT8S/L 8-Chan, Dual Ster. Linear-21 Inputs.....	\$4219.00
MTSR Optional Script Rack.....	\$83.00
MTSP Spare Semiconductor Kit.....	\$77.00
MTPR/M Spare Preamp Board - Monaural.....	\$88.00
MTPR/S Spare Preamp Board - Stereo.....	\$110.00
MTPA/1 Spare Program Amp/Board - All Modes.....	\$110.00

AUTOGRAM AC-6 MONO/STEREO AUDIO CONSOLE

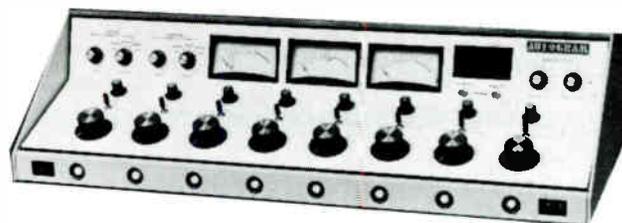


Autogram consoles are built in only one series. A premium-grade series which features ladder-type attenuators, engraved numbers and letters, ¼ inch front panel, and fully balanced and floating inputs and outputs. Flexible, Functional and "Bullet-proof".

- * 23 Inputs
- * 1 High level cassette
- * Height: 10 in.; 25.4 cm.
- * Depth: 20 in.; 50.8 cm.
- * Width: 32-3/8 in.; 82.2 cm.

AC-6 Typical Stereo.....	\$4046.00
AC-6 Typical Mono.....	\$3554.00

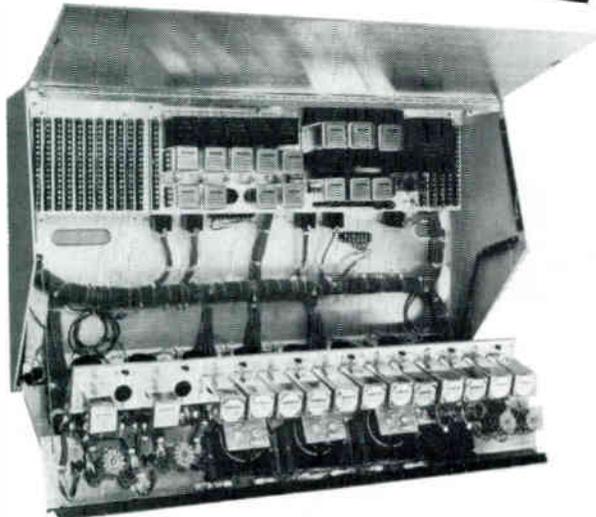
AUTOGRAM AC-8 MONO/STEREO AUDIO CONSOLE



- * 26 Inputs – customer's option as to use by plug-in modules
- * 1 High level cassette
- * Height: 10 in.; 25.4 cm.
- * Depth: 20 in.; 50.8 cm.
- * Width: 37¼ in.; 94.6 cm.

AC-8 Typical Stereo.....	\$5070.00
AC-8 Typical Mono.....	\$4499.00

AUTOGRAM IC-10 MONO/STEREO AUDIO CONSOLE



- * 28 Inputs-customer's option as to use by plug-in modules
- * 1 High level cassette
- * Height: 10 in.; 25.4 cm.
- * Depth: 20 in.; 50.8 cm.
- * Width: 44 in.; 118 cm.

IC-10	Typical Stereo.....	\$6817.00
IC-10	Typical Mono.....	\$6184.00

INPUT CHARACTERISTICS COMMON TO ALL SERIES:

IMPEDANCES:

Microphone, 200 or 50 ohms. High level 10K ohm bridge or 600 ohm terminate. External monitor 10K ohm.

LEVELS:

Microphone -65 to -50 dBm. High level -10 dBm to +10 dBm. External monitor -10 dBm to +10 dBm.

NOISE:

Program/audition -120 dBm, Monitor -110 dBm.

OUTPUT CHARACTERISTICS COMMON TO ALL SERIES

OUTPUTS (DEPENDS ON MODULES USED)

1 program, 1 audition, 1 or 2 monitor amplifiers, 2 headphone amplifiers, 1 cue amplifier.

IMPEDANCES:

Program/audition 600 ohm balanced or unbalanced - 10K ohm balanced or unbalanced. Monitor 4-16 ohm unbalanced. Cue 4-16 ohm unbalanced.

LEVELS:

Program/audition or mono: +8 dBm nominal - +24 dBm mazimum. Monitor - 15 watts RMS into 8 ohm load . Cue and headset - 1 watt into 8 ohm load.

(cont.)

FREQUENCY RESPONSE:

Program/audition ±1 dB 30 to 15K Hz. Monitor ±1.5 dB 30 to 15K Hz.

DISTORTION:

Program/audition less than 0.5% THD. Monitors less than 1.5% THD.

MICRO-TRAK MODEL 6618 AUDIO CONSOLE



Broadcast, Six Channel, Stereo/Mono

- * Six mixing channels
- * Eighteen inputs - three per channel
- * Stereo and mono outputs
- * Built in 10 watt monitor amp
- * Selectable muting - switch selected
- * Relays for "on-the-air" lights
- * Attractive durable package
- * High quality VU meters
- * Voltage controlled attenuators
- * Plug in PC cards & switches for easy maintenance
- * Push button input selector switches-color coded
- * Noiseless latch logic line switches
- * Choice of input preamplifier types
- * Built to take broadcast wear and tear
- * LED line switch indicators
- * Barrier terminal strip input and output terminations
- * High durability panel-will not wear from hands on
- * Extra monitor output at line level
- * Conductive plastic main pots
- * Simple quick release fastening for circuit carts for easy replacement
- * Compact design
- * Highly workable layout
- * Can be used for main control or satellite studio installation
- * Excellent value

Microtrak 6618.....	\$1895.00
---------------------	-----------

We also offer:

package discounts—
educational discounts
Allied Broadcast Equipment



QUANTUM BROADCAST PRODUCTION CONSOLES



The QM-8P and QM-12P consoles were designed to provide the modest broadcast station with a good state-of-the-art production console. Quantum has used its recording console expertise to develop a production board which allows the ultimate in programming and commercial material. These consoles may be used to do stereo or mono production work with complete equalization, overdub and remix capability. Their high slew rate, low distortion and low noise combine to insure that your program material has the most natural, pleasing and ear catching sounds available with any console. Top performance comes only from experience and meticulous design. Careful selection of components insures that these consoles are reliable, low noise, low distortion and are capable of the highest slew rates available. Considerable market research has provided a functional design which will satisfy the most exacting engineer and at the same time fit even the most modest budget.

- * Dual stereo output
- * 8 or 12 channels
- * Up to 25 inputs
- * All inputs & outputs balanced
- * QM-8P, 4 stereo channels standard, 0.2 or 6 optional
- * QM-12P, 4 stereo channels standard, 0,2,6,8 or 10 optional
- * 3 Knob EQ with in/out switch
- * Echo, headphone and cue send
- * Channel on and remote start
- * High quality conductive plastic faders
- * 4 Independent monitors
- * Flexible control room selection
- * Talkback to studio muting

QM-8B	Console(8in-4 out).....	\$3500.00
	Phantom Power Option.....	\$200.00
	Direct Out Option.....	\$200.00

(cont.)

QM-12B	Console (12in-4 out).....	\$4395.00
	Phantom Power Option.....	\$200.00
	Direct Out Option.....	\$225.00
QM-8P	Production Console(8 Channel).....	\$4395.00
	Phantom Supply Option.....	\$200.00
	Spare Parts Kit.....	\$150.00
QM-12P	Production Console(12 Channel).....	\$5600.00
	Phantom Supply Option.....	\$200.00
	Spare Parts Kit.....	\$150.00

AUDITRONICS 110A RECORDING/REMixING/
PRODUCTION AUDIO CONTROL CONSOLE



The Model 110A is an expandable, completely modular professional recording/remixing audio control console built by professionals experienced in sophisticated console design and manufacture. Designed to accommodate up to 16 track mixing, the free standing unit is expandable to 18 mixing positions—36 inputs—in only 38" width. The system provides complete metering, two echo send/receive channels, talkback communications, programmable control room and studio muting, optional EQ at each input, two foldback mix outputs (one optional), test oscillator, optional stereo inputs, and a full line of matching accessories including a plug-in patch bay. A second generation, full capacity system at a moderate price, the 110A fills the gap between conventional consoles and sophisticated recording consoles. Customization of each console is possible simply by selecting from a wide variety of plug-in modules those that exactly meet your requirements.

110A	Systems Start At.....	\$12610.00
------	-----------------------	------------

Save time
we'll ship by air

Allied Broadcast Equipment



CONSOLES & MIXERS

AUDITRONICS 110B ON AIR MIXING CONSOLE



The Auditrronics 110B is an audio mixing console of modular design that combines state-of-the-art signal amplification and conditioning with the switching flexibility required for on-the-air broadcast use. The modular design concept allows a virtually limitless variety of board layouts to be created using an inventory of standard off-the-shelf input, output and signal conditioning modules that can be interchanged within the console (or among other Auditrronics consoles) on a direct plug-in basis.

AVAILABLE OPTIONS INCLUDE: Patchbay with 156 jacks in six rows of 26 each, supplied in either standard 7" rack panel or desk top cabinet mounting. Backplane connections are to Molex connectors.

EXPANDED MAIN FRAME: To accept up to 26 input modules. Identical to standard main frame except for width dimension of 50 inches.

FADER: With on-off position cue switch in either 2P2T or 4P2T configuration for the control of tape machines or other equipment.

- * On-the-air broadcast mixing
- * Commercial production
- * Fixed base or remote truck installation

110B Systems Start At\$11470.00

- * 12x4x2x1 in/out format
- * Stereo and mono sub groups
- * 3 Knob, sweep midrange EQ on every input channel
- * Solo on inputs, send masters
- * Stereo headphone monitoring with automatic solo switching
- * Self contained stereo headphone amp
- * Solo switching to main outputs
- * +48 phantom power
- * Extensive patching/routing facilities with front panel patchbay
- * Transformer coupled balanced inputs
- * Overload LEDs, all inputs
- * Mic/line switching
- * 2 Pannable effects returns
- * 3 Sends on each input: pre, post and pre/post
- * Switchable metering
- * Compatible with +4 and -10dB tape machines

Tapco C-12.....\$2375.00

Tapco C8E 8-Channel Expander, Add.....\$1545.00

SHURE PRO MASTER MODULAR SOUND SYSTEM



REVOLUTIONARY NEW 700 SERIES CONSOLE

Creatively Engineered For Creative Performances—New Ease Of Operation! Finally! The best of both worlds. A console simple enough so it won't overwhelm the beginning group, yet with advanced features and capabilities required by the most experienced professional performers. If you're new on the musical scene, this system will grow with you and add immeasurably to your act as you develop increased performance capability. If you're a veteran concerned about stage monitoring, equalization, stereo, and special effects—you've got it! If you're looking for pure power, you have twin 200-watt solid-state amplifiers at your command. (And the unit doubles as a stereo recording console for groups that want to "lay down a few tracks" without paying for studio time!)

Unsurpassed Flexibility, Adaptability, Expandability—Up to 14 inputs—right up front—for high-or low-impedance microphones (or both simultaneously), or electric pianos, guitars, synthesizers, tape recorders. Built-in simplex power supply for professional condenser microphones. Outputs for all needs: stereo or mono speakers, monitors, effects devices, headphones, distributed house systems, you name it. Beautifully organized, read-at-a-glance, full-capability control panels. Unique FEED-BACK FINDER. Twin 10-band graphic equalizers. Ultra-fast LED

(cont.)

(cont.)

TAPCO C-12 MIXER



peak level, overload, and input clipping indicators. And an ingenious PATCH BLOCK rear panel that enables you to cope with an extraordinary range of performance situations. All this and lots more, in a lightweight 21.3 kg (47 lbs) super-compact package!

Shure 700.....\$1250.00

UREI MOD-1 MIXING CONSOLE



UREI Models 110 Mono, 210 Stereo

- * Up to 10 input modules. Will provide maximum of 30 inputs, high level or microphone monaural or stereo.
- * Silent action switches for all on-air functions. Illuminated PGM-OFF-AUDITION lever switches.
- * Long life conductive plastic vertical faders, with detented cue position (line & cartridge modules).
- * Automatic muting of monitor & cue speakers.
- * Monitor Select Switch with aux. & tape inputs.
- * VU meter switching.
- * Built-in headphone amplifier.
- * Highest quality components throughout for troublefree service.
- * Easy installation — easily expandable.
- * Modern, attractive styling.

TYPICALLY

UREI 110	5 Mixer Mono.....	\$3668.00
UREI 110	8 Mixer Mono.....	\$4458.00
UREI 110	10 Mixer Mono.....	\$4966.00
UREI 210	5 Mixer Stereo.....	\$4306.00
UREI 210	8 Mixer Stereo.....	\$5338.00
UREI 210	10 Mixer Stereo.....	\$6014.00

TANGENT BC-1 SERIES PORTABLE PROFESSIONAL MIXING CONSOLES



(cont.)

The Tangent BC-1 is a series of professional, compact mixing consoles. Modular in design, this series was designed to fulfill the needs of professional broadcast studios, mobiles, outside broadcast facilities, location film and ENG sound, stereo recording, and professional sound reinforcement. Utilizing the latest in technology, the finest quality components, and versatile system architecture, the BC-1 is at home in the most demanding and varied applications. Some of the features of the BC-1 are:

SLEW RATE: Measured at any point in the audio chain—10 volts/micro-second minimum, 13 volts/micro-second typical.

FREQUENCY RESPONSE: Any input to any output. (3db bandwidth extends from below 10hz to above 50khz) $\pm 0.5db$, 20hz-20khz. Maximum output 20hz-20khz +24dbv (600 load balanced) +20dbv (600 load unbalanced).

MAXIMUM GAIN: Balanced Lo-Z microphone 82db, Hi-Z line or microphone 64db, Buss-in 20db, Gain control range 40db, Peak indicator threshold +15db, Crosstalk 60db @ 1khz. Input Channel Equalization: Treble $\pm 15db$ @ 10khz shelving, Midrange $\pm 10db$ @ 1.5khz peak/dip, Bass $\pm 15db$ @ 100hz shelving. Meter Calibration 0db = +4dbv (600 ohm).

BC-1-8S	8 Input Stereo Mixer.....	\$5400.00
BC-1-12S	12 Input Stereo Mixer.....	\$7225.00
BC-1-16S	16 Input Stereo Mixer.....	\$9050.00
BC-1-24S	24 Input Stereo Mixer.....	\$12600.00

TANGENT BC-163 SERIES PROFESSIONAL BROADCAST MIXING CONSOLE



The Tangent Phoenix BC-163 Series of radio consoles have been developed to meet the specific and demanding requirements of the radio broadcasting industry.

Combining high technology, unique human engineering and "gorilla proof" construction, the Phoenix BC-163 is truly the industries only "NO COMPROMISE" audio console.

Totally human engineered, the BC-163 offers immediate operator access to necessary controls. A clean uncluttered front panel provides for the quick recognition and reaction so necessary in radio broadcasting.

Below the front panel, the BC-163 is more than just another pretty face. Important features such as equalization, input gain adjust, stereo/mono switches, etc., are located below the fader cover plate, secured from tampering by unauthorized fingers.

(cont.)

CONSOLES & MIXERS

Modular in design, the BC-163 is probably the most easily maintained console ever built. Designed with only the finest components available, no expense has been spared to produce a mixer that provides 24 hour operation with minimal "downtime".

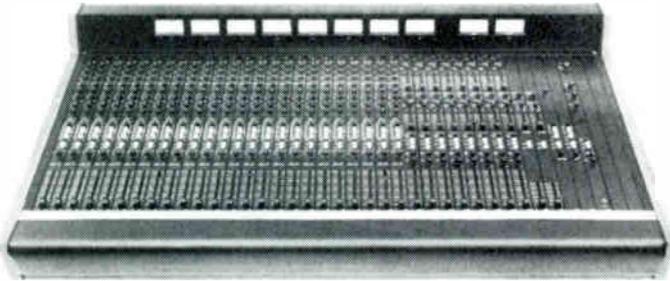
If service is ever necessary, it is easily accomplished thanks to Tangent's exclusive construction and design techniques. A module may in fact be removed and laid on top of the console without disconnection, for quick access and troubleshooting. All active components (I.C.'s, switches, faders, etc.) plug in for quick replacement. Even the input module itself is broken into sub-assemblies. All interconnection is accomplished via flexible ribbon cable, totally eliminating troublesome p.c. edge connectors and motherboards. All circuitry reflects the absolute state-of-the-art, proven in hundreds of Tangent recording consoles.

Complete Console Systems:

BC-163 Twelve Input Console.....\$14700.00
 BC-163 Sixteen Input Console..... \$17100.00

Console systems include: Mainframe with hardwood cabinetry, meter panel with output meters, digital timer, digital clock, all interconnect cables, program and audition output modules, monitor module, termination kit, spares kit, appropriate input modules, power supply and full documentation.

TEAC/TASCAM MODEL 15 MIXING CONSOLE



Buying a big mixer can be very deceiving. From the time of delivery to the moment your board is operational, you can run into quite a few additional costs and frustrating time delays.

But consider the Model 15. Rear panel patch points are already wired. Included in the cost. The meter bridge is already wired. Included in the cost. The separate power supply plugs right in. Also included in the cost. It's not unusual to get your board in the morning and use it that same night.

With the Model 15, you've got performance and flexibility wired, too. From the discrete microphone preamplifier, equivalent input noise is -126dB (weighted). With one input assigned to one output buss, signal-to-noise is 76dB (weighted).

Formats are 16- or 24- channel input/8-buss output. Fully modular.

The Model 15 will drive any 16-track recorder and give you a vast array of mixing, monitoring and cueing capabilities. For example, the Cue mixing position can be fed by 48 sources simultaneously (all the inputs plus all 16 tape playback positions plus all eight echo receives).

Out of the crate, you'll have a lot more mixer in the Model 15 than you can get elsewhere for the money. Add your savings on installation (both parts and labor), and the Model 15 becomes even more cost-effective.

So think about the real, often hidden costs of buying a mixer. (cont.)

When you add it all up, we think you'll see the practical advantages of getting it wired with a Model 15.

Model 15 16-In, 8-Out, 16 Monitor Mixer.....\$8500.00
 Model 15 24-In, 8-Out, 16 Monitor Mixer..... \$10500.00

TEAC/TASCAM MODEL 5 MIXER



One of the hottest selling mixers available today is the Tascam Model 5. An incredible amount of control is packed into this small, sixty-two pound unit, and it has an amazingly low price tag. The basic mixer is modular, and has eight inputs and four outputs; an expander accessory can increase the total number of inputs to twenty.

- * Slide fader for volume control with 2-3/8" travel.
- * A two section equalizer with: (1) Up to 15 dB low-frequency boost or cut at 75 Hz or 250 Hz. (2) Up to 15 dB high-frequency boost or cut at 3 kHz or 10 kHz.
- * Pre-fader cue send "pot".
- * Post fader echo send "pot".
- * A switch to select line input or microphone.
- * A "pot" for varying the input gain (affecting both microphone and line).
- * A switchable pad switch with 0 dB, 20 dB or 40 dB of attenuation for microphone inputs.
- * Four switches and a pan-pot allow assignment of input signal into combinations of four outputs.
- * A solo pushbutton.
- * A pushbutton assigning the input signal to a "direct output" jack on mixer's rear panel.

Model 5 Mixer 8-In, 4-Out, 4 Monitor.....\$1990.00
 Model 5 BEX 8-Input Expander.....\$1400.00

Shipments

so fast, you'll be amazed



Allied Broadcast Equipment

TEAC/TASCAM MODEL 3 MIXER



Model 3 8-In, 4-Out, 2 Monitor Mixer\$1200.00

TEAC/TASCAM MODEL 1 MIXER



Model 1 8-In, 2-Out Mixer.....\$200.00

TAPCO 6200 MIXER



Performance in demanding situations is an everyday occurrence for Tapco products. Tapco builds professional audio equipment. Rugged construction for on the road musicians, premium performance in concert and in the studio, that's what it's all about.

The Tapco 6200B is designed for quad and stereo recording as well as for studio multi channel mix-down to stereo.

The Tapco 6200B simplifies the complex problems faced by recording engineers, semi-professional recording enthusiast and travelling musicians because Tapco's are designed to be flexible for multiple application and yet easy to use. Recording or performance situations can be as simple as an artist, mike, mixer, and a recorder or power amp/speaker. Or as complex as you can imagine. The Tapco 6200B is a building block, flexible to meet the simple and the complex and still not sacrifice performance.

TAPCO 6200 \$445.00
TAPCO 6200B (Balanced) \$535.00

NUMARK DM1700W PRO SERIES STUDIO MIXER



GREAT FOR DISCO! Pro Series Studio Mixer.

- * With six band active equalizer
- * 4V output, 2 phono, 4 line
- * 2 Mic inputs w/professional panpots
- * Variable headphone level control
- * 2 VU meters, 2 additional peak reading LEDs
- * Black pro finish
- * Mic & gooseneck optional

DM1700W.....\$499.00

SHURE M67 MIXER/REMOTE AMPLIFIER



The M67 is a transistorized microphone mixer/remote amplifier specifically designed for professional applications. The excellent performance and versatility of this complete, compact console make it an ideal choice for studio, remote, or original sound reinforcement use, and as an "add-on" mixer for expanding existing facilities. It is also ideally suited for use with tape recorders and VTR's to provide multiple microphone inputs.

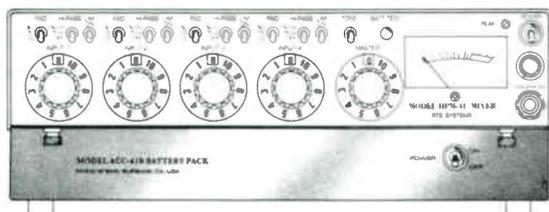
NOISE: Equivalent input Noise -129 dBV. Equivalent input hum and noise -125 dBV.

DISTORTION: Under 1% THD from 20 to 20,000 Hz.

MINIMUM COMMON MODE REJECTION: 100 dB with microphone input of 10 volts at 100 Hz.

M67.....\$304.20

RTS HPM-41 MICROPHONE MIXER



The Model HPM-41 microphone mixer is a compact, lightweight unit, designed for professional applications ranging from location film and tape to major recording console input augmentation. A no-compromise design provides high performance electronic circuitry in a functionally efficient, durable package.

INPUTS

- * Four balanced, transformer-isolated input positions with phase reverse switches and high quality Neutrik XLR-type connectors.
- * Switchable 12 V A-B and 48 V phantom power for condenser microphones.
- * Selectable pre-transformer pads for reduction of input levels.
- * Switchable dual-frequency high pass filters to cut rumble, wind noise, and pops.
- * Switchable limiter on each input prevents over-drive distortion without affecting other channels.
- * Auxiliary unbalanced line level input.

OUTPUTS

- * Balanced (floating) 600-ohm output available on binding posts for TelCo (telephone) feeds.
- * Balanced (floating) low impedance output on XLR-type connector is switchable between line and microphone level.
- * Powerful headphone amplifier with front panel volume control and output jack.
- * Two independent IHF line-level outputs available to feed external equipment such as: video cassettes, audio cassettes, consumer audio gear, etc.

HPM-41.....\$1200.00

Battery pack optional.

SHURE SE30 GATED COMPRESSOR/MIXER



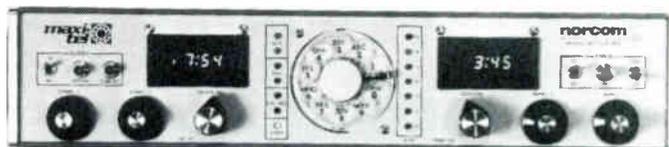
The SE30 Gated Compressor/Mixer is the first and only component for professional users that combines a mixer with 600 ohm line output (for remote or studio applications) with a high-quality "hands-free" gain riding compressor in a single, portable unit. Makes output control in remote pickups, talk shows, recording, program line compression and professional sound reinforcement smoother, surer and more trouble-free than it's ever been before.

(cont.)

The SE30 offers maximum compatibility with all types of associated professional equipment, especially field equipment widely used in news, sports and special events remote coverage (such as sound film cameras, and tape and cassette recorders). Wide range of input and output options (microphone, line and high level auxiliary) equip it for almost any professional application.

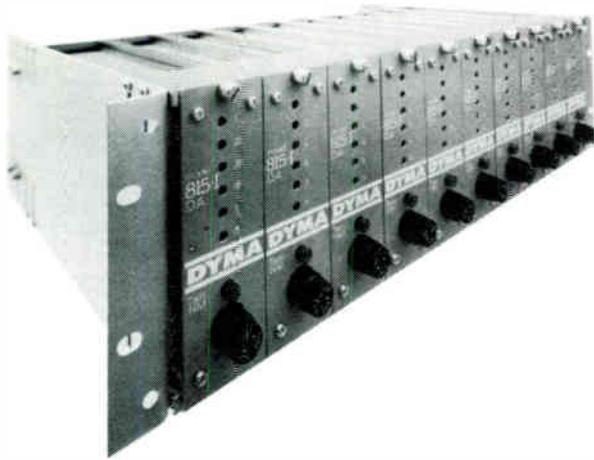
Loaded with useful features, such as: feedback-type gain controls that automatically increase the input clipping level as the individual gain controls are turned down; a built-in low-distortion 1 kHz tone oscillator; three-function VU meter; stereo parallel jack, human-engineered "tactile-design" control knobs; self-contained battery and ac power supply, with automatic switchover to battery in case of ac failure; auxiliary meter light source for battery operation; removable ac line cord; disable switches for compressor and Gated Memory that convert the SE30 to a high quality linear mixer; and impressive performance specifications, with extremely low distortion, noise and RF susceptibility.

SE 30 \$594.60



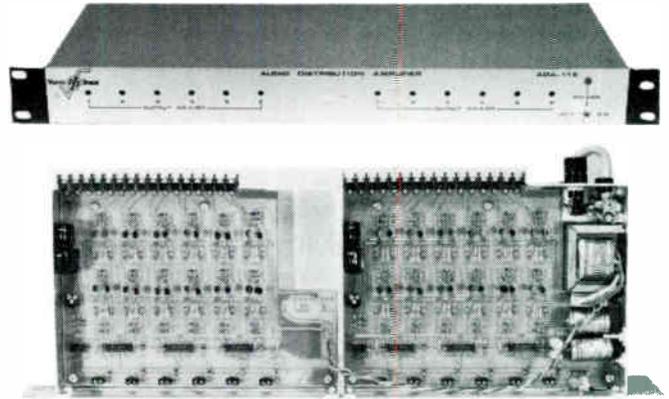
TELFAX TFX-31 — Full Details In Amplifier Section
MAXI-TEL — Full Details In Amplifier Section
MICROTRAK SPORT III — Full Details In Amplifier Section

DYMA AUDIO DISTRIBUTION AMPLIFIER MODEL 815



AD1B	(Emitter Follower Output).....	\$450.00
AD1B/T	(Transformer Output).....	\$550.00

ALLIED/VERSA COUNT AUDIO DISTRIBUTION AMPLIFIERS



Model ADA - 112 shown

Model ADA-16 is a 1 input 6 output device designed for professional applications in recording studios, radio and TV broadcast. Low noise performance coupled with ruler flat frequency response and extremely low distortion, marks these units as truly "STATE OF THE ART" devices.

Model ADA-112 is a 1 input 12 output device for use in monaural applications or it may be used as a 2 input for stereo with 6 outputs per channel. 2 monaural inputs will yield 6 outputs for each input.

INPUT IMPEDANCE: Balanced bridging 180K ohms

GAIN CONTROL: 0 to +20 DBM

OUTPUT LEVEL: (nominal)+20 DBM max.

OUTPUT IMPEDANCE: 600 ohm balanced

FREQUENCY RESPONSE: ±.25 db 20 Hz to 20 KHz

THD: .04% 20 Hz to 20 KHz

INTERMODULATION DISTORTION: (SMPTE method).05%

OUTPUT ISOLATION: 80 db

INPUT ISOLATION: 180 k ohm from GND

PHASE DIFFERENCE BETWEEN ANY TWO AMPS: Less than 1 degree at 15 KHz

COMMON MODE REJECTION: 60 db at 60 Hz

COMMON MODE INPUT: +20 DBM Max.

BROADBAND NOISE: -90 db

MOD ADA - 16.....\$230.00

MOD ADA - 112.....\$365.00

- * Maximum Output: Model 815 - +26 dBm RMS. Model 8151 - +21 dBm RMS.
- * Latest state-of-the-art LSI design.
- * Excellent common mode rejection.
- * Easy installation: No wires to lug, no connectors to put on.
- * Each module separately powered.
- * Ten modules per rack frame.

INPUT: Bridging, balanced or unbalanced (Electronic).

OUTPUTS: 10 for Model 815, 6 for Model 8151, Electronic balanced - 600 ohms source terminated. Isolation 60 dB.

GAIN: 0-30 dB - Individually adjusted on 8151.

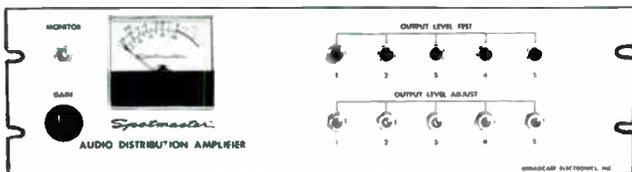
PERFORMANCE: Exceeds FM broadcast requirements.

DIMENSIONS: Module - 1.6 inches wide, 4.62 inches high, 9.8 inches deep. DAF 815 rack frame - 19 inches wide, 5 1/2 inches high, 12 inches deep.

Model 815 D.A. Modules, (ea.).....\$259.00

Model 815 Main Frame.....\$155.00

BROADCAST ELECTRONICS AD1B AUDIO DISTRIBUTION AMPLIFIER



The SPOTMASTER Audio Distribution Amplifier is specifically and meticulously designed for the purpose of distributing audio signals to multiple points within a studio system or to telephone lines. Therefore, this unit is readily adaptable to AM, FM, and TV broadcast stations plus recording and audio studios.

INPUT IMPEDANCE: Matching: 600 ohms, Bridging, 10K ohms AD1B: 10 ohms, unbalanced

OUTPUT LOAD IMPEDANCE: 600 ohms (Optional 150/600 ohms)

INPUT LEVEL: Max: +30 dBm, Min: Matching -26 dBm, Bridging -10 dBm

OUTPUT LEVEL: (Per Channel) +4 dBm (+14 dBm peak)

(cont.)

Hold on to capital

check our leasing plan—let's discuss the tax savings

Allied Broadcast Equipment

DISTRIBUTION AMPLIFIERS

HEACO 5002A AUDIO DISTRIBUTION AMPLIFIER



The new HEACO 5002A Audio Distribution Amplifier is a technically "ideal" distribution amplifier. The 15K balanced input is a transformer input; thus, the input signal is isolated in all respects from the amplifier ground by many megohms. The frequency response of the amplifier itself is down less than ¼ db over a frequency range from 20 hz to 20 khz. Distortion is less than .25% over the same frequency range. Eighteen 600 ohm balanced outputs are provided that are isolated by greater than 80 db. Thus, an input to the DA is highly isolated, then amplified, and distributed to eighteen individual outputs. The output level, as well as input level, can be monitored by a high quality VU meter allowing the operator to check the operation of the distribution amplifier as well as accurately set the audio level to the output loads. Panel height is small (1¾ inches), so that many inputs may be distributed in a small area.

- * 1-In, 18-Out
- * All-integrated circuitry
- * 18 isolated outputs
- * "Popless" input to output meter switch

5200A\$369.00

HEACO 5004A AUDIO DISTRIBUTION AMPLIFIER



The new Dual HEACO 5004A Audio Distribution Amplifier is a technically "State-of-the-Art" amplifier, only 1¾ inches high and obsoletes bulky, costly audio distribution systems. The 5004A consists of dual, extremely low distortion amplifiers. Each amplifier has a differential, balanced, bridging input. The frequency response is down less than ¼ db over a frequency range from 20 Hz to 20 KHz. Distortion is less than .25% over the same frequency range. Eight 600 ohm balanced outputs per amplifier are provided, that are isolated by greater than 80 db. Thus, input signals are fed into balanced circuitry, amplified, and distributed via rear terminal strips. The output levels, as well as input levels, can be monitored by high quality VU meters, allowing the operator to check the operation of each distribution amplifier as well as accurately set the audio levels to the output loads.

- * 1-In, 8-Out x 2
- * All-integrated circuitry
- * 8 Isolated outputs per channel
- * "Popless" input to output meter switch

5004A\$525.00

ATI DISTRIBUTION AMPLIFIER DA 1008



- * MicroAmps provide individual adjustment for each output. Audio taper, hot molded, sealed, premium level controls eliminate noise and erratic operation.

- * MicroAmp headphone monitor provides two channel monoaural drive for stereo headphones with front panel level control and phone jack.

OUTPUT CLIPPING LEVEL: All channels simultaneously driven to full output. DA2016 - 1,2 +22 dBm, 600/150 ohms. DA1008-1,2 +22 dBm, 600/150 ohms. DA1008 - 3,4 +30 dBm, 600/150 ohms.

DISTORTION: .25% maximum THD, 30 to 20,000 Hz. Rated output and input levels to +24 dBm bridging.

FREQUENCY RESPONSE: +/- .25 db 30 to 20,000 Hz.

OUTPUT NOISE: -60 dBm maximum. 20 KHz measurement bandwidth. 600 ohm source impedance, full gain.

HUM REJECTION: 80 db, Common mode, 60 to 120 Hz.

INPUT OVERLOAD: +24 dBm bridging, 600 ohms.

INPUT IMPEDANCE: Balanced differential inputs, 30,000 ohm bridging.

GAIN: 24 db, front panel screwdriver adjustable.

METERING: Electronic SCAN switching, 12 segments, 3 color, peak reading LED. VU indicator, 0 VU selectable to +4, +8, or +18 dBm by front panel switch. LED channel indicator.

HEADPHONE OUTPUT: 20 volt p-p output to 600 ohm phones, 30 mW output to low impedance phones.

DA 1008-1 1-in x 8-out Trans. coupled outputs.....\$695.00

DA 1008-2 1-in x 8-out Bal. differential outputs.....\$655.00

DA 1008-3 1-in x 8-out Trans. coupled outputs.....\$995.00

DA 1008-4 1-in x 8-out Bal. differential outputs....\$855.00

DA 2016-1 2-in x 16-out Trans. coupled outputs.....\$995.00

DA 2016-2 2-in x 16-out Bal. differential outputs....\$895.00

DA 1000-1 Mass fed 1 x 8 D.A. Bal. Diff. outputs..... \$295.00

ATI DISTRIBUTION AMPLIFIER DA 2016



- * Handsome, reverse printed polycarbonate panels and textured polyurethane paint will resist years of wear and abuse.
- * MicroAmps are rackable and stackable, only 1¾" high (one rack unit). Rack mount brackets are removable for desk-top use and non-slip suction feet keep them where you put them.
- * MicroAmps are fully RF protected with shielded cases, double ground plane PC boards and interwinding transformer shielding.
- * MicroAmps provide +22 dBm at clipping (all channels driven). +30 dBm models available for critical headroom requirements.
- * MicroAmps are quiet, total output noise below -60 dBm at full gain.
- * MicroAmps are transparent, a 13 V/microsecond slew rate eliminates the irritating harshness of Transient Intermodulation Distortion (TIM). Exclusive use of the 5533 audio IC provides 100 db open loop gain with a 50 MHz gain-bandwidth product to hold typical circuit distortion below .005%, even at 30 KHz.

DA 2016 - See above for pricing.

ATI L-1000 SERIES PRECISION DUAL LINE AMPLIFIERS

L-1000-1 Dual, Transformer Outputs.....\$285.00

L-1000-2 Dual, Balanced Differential Outputs.....\$252.00

L-1000-3 Dual, Single Ended (unbal.) Outputs.....\$245.00

KUSTOM KRAFT FURNITURE

KUSTOM KRAFT specializes in custom and standard design furniture of all types for control, production, and record and tape storage.

If your requirements are special, do not hesitate to talk with one of Allied's sales specialists about them. We have assisted many stations and production facilities in realizing their ideas.

Choose from the standard designs pictured here, or let us know your ideas for the custom facility you desire.

KUSTOM KRAFT STANDARD BROADCAST DESK MODEL KK230



Here is a heavily-built, "real" piece of control room furniture. Standard in 29" height with a tabletop of 36" x 96", this unit can be varied in size to meet your precise needs.

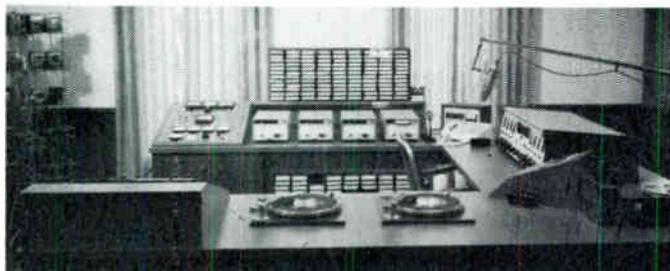
A pull-out kneewell back affords easy access to hidden wiring compartments.

Shipped modular for rapid assembly.

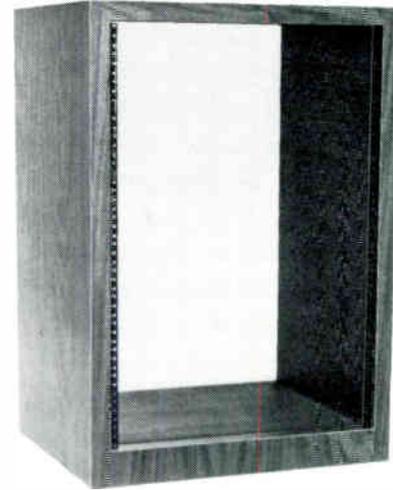
- KK230 Without Drawers.....\$550.00
 - KK230 With 2 Drawers In Bridge.....\$599.00
- (Amplifiers shown are extra and shown to illustrate possibilities)

"STANDARD OR CUSTOM' KUSTOM KRAFT WILL BUILD IT TO YOUR NEEDS"

"CUSTOM CRAFTED BY KUSTOM KRAFT"



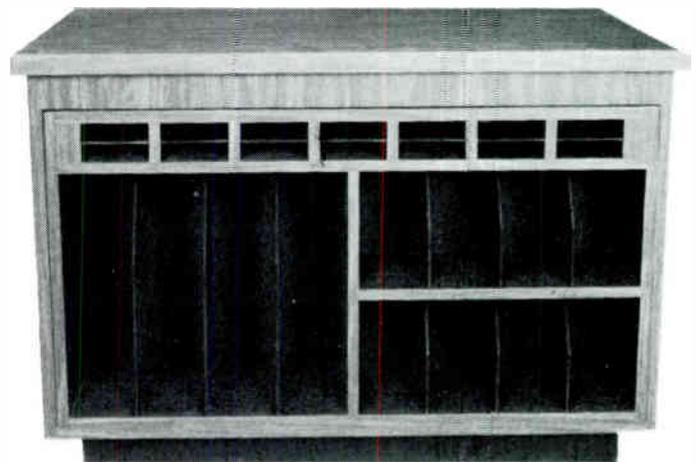
KUSTOM KRAFT SERIES R100 EQUIPMENT RACKS



KUSTOM KRAFT equipment racks offer an attractive method of mounting components in the esthetics-conscious operation. EIA increments of from 7" table top racks to 78 3/4" floor models are available. Depths of 18" or 24".

R100 Walnut, pecan or black formica \$95.50 to \$341.00

KUSTOM KRAFT 201 SERIES TURNTABLE PEDESTALS



Single, Dual (shown), and triple-bay cabinets of conventional design permit the user to facilitate turntables and tonearms up to a total of 3. Standard pricing includes rack rails in the vertical portion of the cabinet beneath each bay which faces the operator. These rails and spaces come with integral cover plates finished in the same formica pattern as the remainder of the cabinet.

As shown in the illustration above, custom record, tape and storage slots are available at additional charge. These storage compartments can be customized to your needs.

The 201 Series perfectly complements the KK230 broadcast desk.

- KK201A Single pedestal TT base 22x24x29"..... \$210.00
- KK201B Dual-bay pedestal TT base 42x24x29"..... \$320.00
- KK201C Triple-bay pedestal TT base 62x24x29"... \$410.00

Walnut, pecan, black or Adobe gold formica standard. Various colors, color combinations, and patterns of laminates available at additional charge.

FURNITURE

RUSLANG MODULAR FURNITURE



If you're building or remodeling, you can add the elegant look of expensive furniture for much less than you might expect to pay. Modular control stations, consisting of single and double turntable cabinets and console tables, mix and match to form an efficient unit that will best utilize your available space. Table and cabinet tops come in a variety of colors while bottom sections are walnut wood grained. Customized stations using standard units, such as overhead bridges for additional rack space, are available on request. All our modules are constructed of quality materials, including high pressure laminates, making them sturdy and functional as well as attractive. For further information, contact Allied.

Console Base Panels (Set of 4).....	\$270.00
Vanity Shield 12" Wide.....	\$11.00
Single Pedestal T.T. Cabinet.....	\$211.00
Dual Pedestal T.T. Cabinet.....	\$349.00
Blank Panel, (ea.).....	\$25.00
32" x 96" Console Table-Top.....	\$150.00

RUSLANG FURNITURE RL500



Accepts any 19" x 15 3/4" tape transport, such as Ampex, MCI, Otari, Scully & Tascam. Designated RL500, this console is constructed with the same care as the Scully consoles manufactured for the past 12 years.

RL500.....	\$390.00
Tilt Feature.....	\$402.00
Additional Charge For More Than 14" Electronics.....	\$12.00

RUSLANG FURNITURE RL600



Accepts decks which are 19" by up to 21". This console was designed specifically for the newer generation of decks which have their electronics integrated with the transport. Designated RL 600, this console is constructed with the same care as the Scully consoles manufactured for the past 12 years.

RL600.....	\$327.00
Tilt Feature.....	\$339.00
Additional Charge For More Than 14" Electronics.....	\$12.00

RUSLANG CUSTOM RACKS



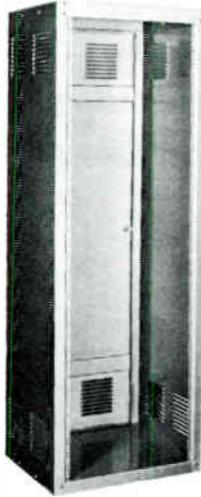
CUSTOM RACKS OF ALL TYPES—Call For Pricing

Need info

call the Allied office
nearest you
see page 1 of catalog

Allied Broadcast Equipment

SOUNDOLIER RELAY RACKS



- * 16 Gauge CRS throughout
- * 1 1/4" x 1/2" panel mount spacing standard
- * 5/8" offset for panel mount
- * 10-32 tapped mounting rails
- * 10-32 x 5/8" pan head screws for assembly of panels
- * Slip jointed hinges on rear door
- * 3/4"-1" conduit knockouts on top, bottom and rear flanges (exclusive with Soundolier).
- * Internal louvers on all sides and rear door (exclusive with Soundolier).
- * Engineered scuff resistant packing
- * Models shipped disassembled. (WA Series is welded and assembled).
- * Standard 19"
- * Standard finish grey hammertone on phosphate coating
- * Other standard and non-standard colors. Available at slight increase in price.
- * Knocked down - Assembly required

100-36	Rack Space 36.75"	.....\$134.00
100-42	Rack Space 42.00"	.....\$140.00
100-61	Rack Space 61.25"	.....\$166.00
100-70	Rack Space 70.00"	.....\$185.00
100-77	Rack Space 77.00"	.....\$194.00

All prices plus freight – Allow up to 40 days.
 If pre-assembled units are desired, add \$10.00 each and the prefix "WA" to each model.

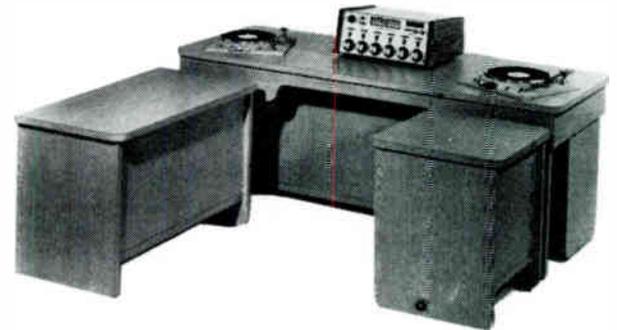
Series L single bay turntable cabinet in Adobe gold and pecan shown with optional turntable/tonerarm.

Cabinet Price.....\$214.50
 Turntable Arm Extra



Series L Dual Bay\$324.50
 Series L Single Bay\$214.50
 30 x 80" Table Including Legs (2 Prs.).....\$164.50
 Turntable and Tone Arms, Extra

MICRO-TRAK, THE "S" LINE STUDIO FURNITURE



The "S" line of modular studio furniture is the ideal way to create a stylish, functional broadcast studio. A fashionable group of desks, cabinets, tables and racks engineered to fit the needs of today's broadcaster are rugged and durable.

All "S" line units are finished in Natural Oak laminate. Thick tops and legs shaped from high density panel assures you of the longest possible life and easiest maintenance.

Call Allied For Pricing

MICRO-TRAK TURNTABLE CABINETS



(cont.)

ALLIED TURNTABLE ISOLATOR



The AK10 MKII, a sandwich consisting of an upper and a lower plate which reduces physical contact to live rubber only, can be accommodated to all popular turntable/tone arm combinations. Installation is a breeze.

(cont.)

FURNITURE

The sandwich's upper plate is composed of high-density particle board with an inlaid lead strip around the entire perimeter to reduce resonance and vibrations to an even greater degree. Coupling to the bottom plate is achieved through suspension with compounded natural rubber only.

The bottom plate is supplied in sufficient size to completely cover any previous turntable hole. This permits easy retrofit with existing turntable pedestals. Problems associated with two turntables having to share the same cabinet will thus be ameliorated.

Tests in a real studio environment with the help of a real-time analyzer and calibrated attenuator reveal the following data:

- * The head-room of the speaker-to-tonearm/turntable acoustic coupling (structure-borne and air-borne) was increased 8 db.
- * Acoustic coupling (feedback) was not only reduced, but the coupling took place in the spectrum area of 200 Hz instead of 80 Hz, as was the case without the sandwich. 80 Hz would tend to damage speakers more readily than 200 Hz.
- * Tapping fingers and tapping pencils, as well as infuriated fists, were all reduced better than 20 db with the ease of the sandwich.
- * Thuds, which were identified in the spectrum as peak energy around 100 Hz, were reduced 18 db.

Different environments, woods, floors, etc., are going to exhibit different figures. However, this method provides solutions simply, easily and economically. This new isolation system, the AK10 MKII is available in any color or combination of formica.

Allied Turntable Isolator.....\$199.00

Walnut or Pecan Formica.

Add 10% for any Pattern Formica.

Three-fourths of the cabinet is sand loadable creating an acoustically-and sympathetic-vibration-free environment as a foundation for the further isolated top plate, turntable, and arm.

- A. Custom cut for your turntable—inlaid lead around entire plate perimeter.
- B. Turntable mount plate isolated from perimeter.
- C. Double suspension compound rubber shock mounts.
- D. Pocket door hinged at bottom—access to shelf for electronics—shelf removes so that sand may be poured or bagged into entire lower chamber.
- E. Below this line, all joints are sealed for sand loading.
- F. Cutout of lower plate is large enough to accommodate turntable, arm, arm cord, and arm rest underhang to insure that there is no physical contact with upper plate.
- G. 2" I.D. plastic ABS pipe—one left rear corner, one right rear corner. AC cords—audio cords.

PROBLEM

1. Airborne Noise
2. Structureborne Noise
3. Acoustical Coupling Feedback
4. Floor Vibrations and Shocks

SOLUTION

1. The Shock Absorber
2. The Shock Absorber
3. The Shock Absorber
4. The Shock Absorber

Allied Shock Absorber..... \$499.00

ALLIED'S STUDIO PACKAGE



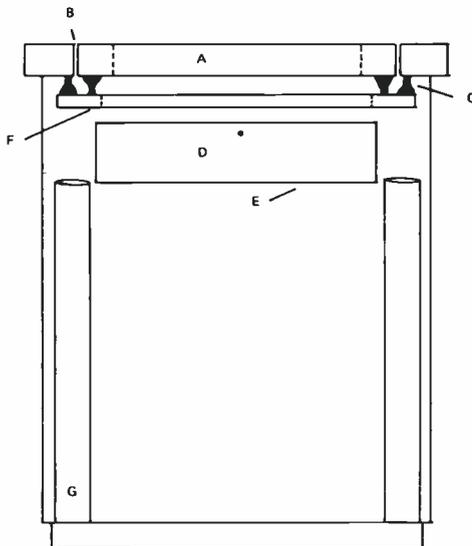
Here in one neat compact system is all necessary equipment for production, remote program origination, or disco use, wired and tested, with ample space and input facilities for additional sources such as reel machines, cart decks and others.

The basic system includes the cabinetry, two Russco Cuemaster 3 speed professional 12" turntables, Shure M-232 arms, Stanton 500AL cartridges, Shure M-64 preamps and a Spotmaster 4M50 mono 4 channel console or Russco mono 5 channel mixer. Microphones and a choice of tone arms and cartridges are available at slight extra cost. This complete system is assembled and tested in our facility, ready for immediate use.

For stereo operation, we offer a choice of the 4 channel Spotmaster 4S50 stereo console or the Russco 5 channel 505S stereo mixer. The Numark DM1700W disco mixer is supplied in the disco package.

Mono Package	(Spotmaster 4M50 mono).....	\$2128.00
	(Russco 505 mono).....	\$2215.00
Stereo Package	(Spotmaster 4S50 stereo).....	\$2848.00
	(Russco 505S stereo).....	\$2666.00
Disco Package	(Numark DM1700W stereo — described in Mixers/Console section).....	\$1688.00
Packing Charge	(Unless picked up at our dock).....	\$60.00
Cabinetry Alone	.....	\$260.00

THE ALLIED SHOCK ABSORBER



Allied's AK10 MKII turntable isolator has been integrated into a new package known as the "shock absorber". This approach attacks head-on the many problems associated with protecting otherwise noise-free turntable/arm combinations from all types of interference.

(cont.)

AKG K-40 STEREO HIT

AKG K-140S STUDIO CARDAN



K40

K140S

The AKG K-40 is an economical version of the much touted K-140. Designed with supra-aural foam pads, the K-40 allows for an acoustic awareness of the listener's surroundings...contributing to greater listening comfort.

K-40..... \$29.00

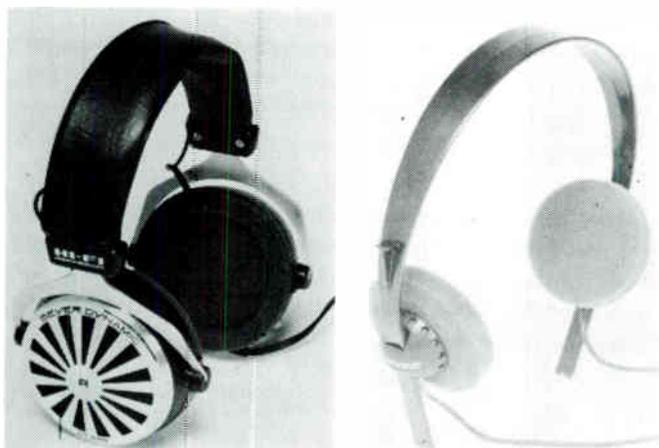
This headphone is an improved version of the "best seller" K-140 (used by most recording studios), in which modifications in the design of the transducers have resulted in improved high-frequency performance.

First developed by AKG, the K-140S "open-air" design provides the listener with superb bass response—free from "boominess" which often detracts from low-frequency fidelity—a shortcoming often evident in similarly priced competitive designs. The light-weight K-140S also features the patented principal of "cardan" earpiece suspension in which each earpad independently adjusts to individual ear and head configurations.

K-140S.....\$59.00

BEYER DYNAMIC DT302 HEADPHONE

BEYER DYNAMIC DT440 HEADPHONE



DT302

DT440

* Weighing only 2.3 ounces, the DT302 is no light-weight on sound reproduction. Full range response (20Hz to 20KHz) ensures accurate translation of any audio program.

* Impedance: 600 ohms per headphone.

DT302.....\$32.95

(cont.)

* The alternative to the 'closed ear' headphones. This 'open' headphone weighs less than 9 ounces. Frequency response 20Hz to 20KHz.

* Impedance: 600 ohms per headphone.

DT440.....\$69.95

BEYER DYNAMIC DT441 HEADPHONE

BEYER DYNAMIC DT220 HEADPHONE



DT441

DT220

* Electrically the same as the world famous DT440. This headphone has been designed to match the most modern audio equipment. Pleasing to look at, pleasing to hear.

* Frequency response 20Hz to 20KHz.

* Impedance: 600 ohms per headphone.

DT441.....\$79.95

* High quality 'closed ear' headphone, Frequency response 20Hz to 20KHz. Weight 9 ounces. Extremely comfortable over long periods of use.

* Impedance: 400 ohms per headphone.

DT220.....\$64.95

SENNHEISER HD 414X HEADPHONE

SENNHEISER HD400 HEADPHONE



HD414X

HD400

Sennheiser's HD 414X open headphone design was the first to become a worldwide success. The HD 414X affords top quality for an economical price. With a minimum of headband pressure

(cont.)

HEADSETS

the soft and airy cushions caress the ears. The driver elements slide along the headband and adjust with their swivel action to any head shape. The high efficiency and impedance allow the direct connection to almost all tape recorders, hifi amplifiers, receivers or cassette recorders, preserving the full dynamic range of modern hifi components.

- * Impedance: 2000 ohms
- * Frequency Response: 20...20,000 Hz
- * Open aire dynamic transducers
- * Big and soft ear cushions
- * Weight: 135 g.
- * Reliable cord

HD 414X.....\$79.00

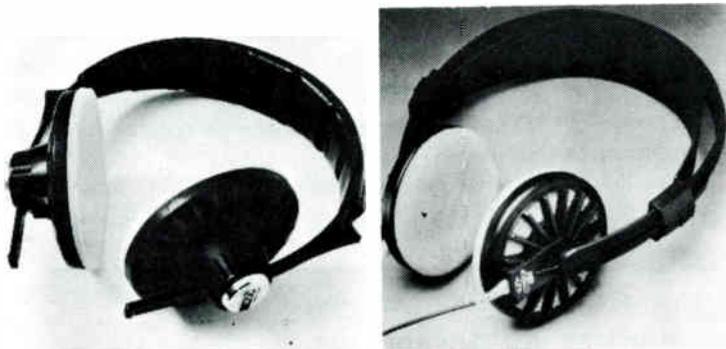
The HD 400 well complements the line of Sennheiser's wellknown open stereo headphones. It was designed with the requirements of many who wish to obtain headphones of outstanding quality at a moderate price. The very low weight of only 80 g sets an example for any high-quality stereo headphones and it is mainly this low weight which makes the HD 400 so comfortable. Even after many hours of wearing, the HD 400 will not cause discomfort.

- * Impedance: 600 ohms
- * Frequency Response: 20...18,000 Hz
- * Dynamic 600 ohm transducers
- * Super light—only 80 g
- * Especially rugged connecting cable

HD 400.....\$46.00

SENNHEISER HD 424X HEADPHONE

SENNHEISER HD420 HEADPHONE



HD424X

HD420

The HD 424X was developed from the HD 414 and features, of course, the acoustically open design with its uninhibited and natural sound impression.

- * Impedance: 2000 ohms
- * Frequency Response: 16...20,000 Hz
- * Open aire dynamic transducers
- * Large-area ear cushions of soft foam
- * Weight: 170 g.
- * Durable cable

HD 424X.....\$115.00

Nothing is left to be desired. Very good comfort, no distortion, excellent sound definition. The dynamic headphones with superior price-quality-ratio.

The outstanding transient response is due to the extremely small
(cont.)

mass of the new whirl-shaped surround diaphragm.

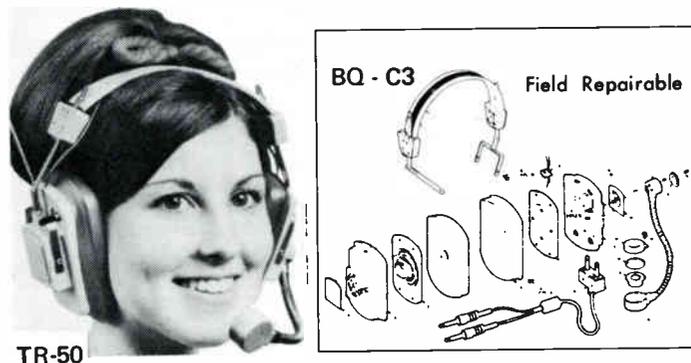
- * Impedance: 600 ohms
- * Frequency Response: 18...20,000 Hz
- * Open aire dynamic transducers
- * Weight: 127 g
- * Durable cable

HD 420.....\$89.00

R-COLUMBIA MODEL TR-50 FM WIRELESS INTERCOM HEADPHONES

R-COLUMBIA TYPE BQ HEADPHONES

R-COLUMBIA TYPE C3 HEADPHONES



TR-50

A Whisper Transmits Loud And Clear Without Wires—Truly a cordless wonder . . . any number of R-Columbia Model TR-50 wireless intercom headphones can communicate within the range of operation. Within that range (up to 150 yds depending on terrain) the TR-50 will provide 2-way voice communication as clear as any wired system, and superior to many!

FCC certified as a wireless transceiver, the TR-50 can be ordered to operate on any one of 5 channels: Ch A (49.830 MHZ), Ch B (49.845 MHZ), Ch C (49.860 MHZ), Ch D (49.875 MHZ), or CH E (49.890 MHZ).

TR-50 FM Wireless Intercom Headphones—
Double ear headphone/microphone with built-in FM transmitter and receiver. Complete wireless intercom headphone with crystals and accessories for single channel operation . . . less batteries\$275.00

R-Columbia "Broadcast Quality" headphones provide acoustic performance desirable in broadcasting, recording and industry. The basic headphone main frame is identical to the "time proven" R-Columbia C/C3 series. Fatigue over long listening periods is greatly reduced.

FREQUENCY RESPONSE: 20hz to 20K hz
SENSITIVITY: 100 db re .0002 micro-bar for 1 mw input @ 1K hz.
HARMONIC DISTORTION: Less than 0.3% @ 90 db SPL
COLOR: Two tone brown

BQ3 - Monaural headphone - 8 ohm impedance..... \$51.15
Type BQ3H - Same as BQ3, but in impedances of 150, 600, and 2K ohms (specify)..... \$54.95
Type BQ - Stereo headphone - 8 ohms per channel..... \$61.05
Type BQH - Same as stereo Type BQ, except in impedances of 150, 600, or 2K ohms per channel (specify)..... \$65.95

(cont.)

HEAD SETS

Type C3 - Monaural headphone - 8 ohm impedance.....	\$30.75
Type C3H - Same as C3, but in impedances of 16, 150, 300, or 600 ohms (specify).....	\$33.60
Type C3H - As above, but in impedances of 2K, 10K, or 50K ohms (specify 50K ohms to replace crystal types like Clevite) (specify).....	\$43.95
Type C3X - Same as C3, but with built-in volume control	\$40.65
Type C3HX - Same as C3H, but with volume control (16, 150, 300, or 600 ohms) (specify).....	\$43.45
Type C3HX - As above, but 2K, 10K, or 50K ohms, (specify)	\$51.15

ASTROLITE SPORTCASTER HEADSETS



Sportscasters—Disc Jockeys eliminate off-mike problems—Sportcaster headsets are in daily service by ABC, CBS, NBC and major group and independent radio and TV stations across the country for news, sports commentary and D.J. applications. These specially modified Astrolite headsets are supplied with close-talking dynamic or noise-cancelling dynamic mikes which equal the performance of studio mikes — even in noisy environments.

Sportscaster headsets are supplied with a split cable for mounting both a mike plug and phone plug.

2626B Close-Talking	\$175.00
2633B Noise-Cancelling	\$245.00

TELEX CS-85/CS-81 HEADSET



CS-85



CS-81

Professional headsets specifically designed for communications in television studio, camera intercom systems. Features magnetic receivers with boom mounted carbon microphone and compatible with existing Western Electric circuits. Available in single or dual side configurations, with or without in-line push-to-talk switch. 275 ohm receiver on left side, binaural units have

(cont.)

625 ohm receiver on the right side. 12' cord, unterminated.

CS-85	\$210.00
CS-81	\$85.00

TELEX CS-78 HEADSET



Professional communications headset with precision transducers, impervious to environmental temperature and humidity changes. Exceptional performance stability with highly sensitive, distortion free receivers and excellent frequency response. Carbon boom microphone.

CS-78.....	\$75.00
------------	---------

TELEX CS-11/CS-7 HEADSET



Professional communications headphone with precision transducers, impervious to environmental temperature and humidity changes. Exceptional performance stability with highly sensitive, distortion free receivers. Excellent frequency response.

CS-11.....	\$45.00
CS-7	\$62.00

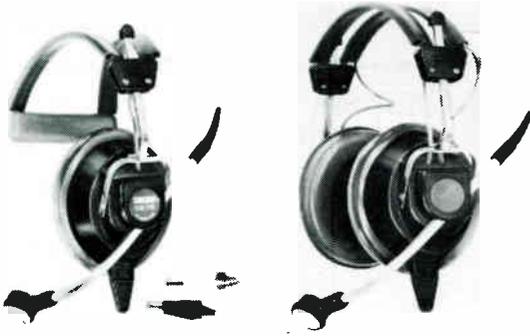
EDCOR HEADPHONE AMPLIFIER

Small headphone amplifier designed to power four headphones—Individual controls.

AP10.....	\$158.00
HM100 (Rack mount kit for one AP10).....	\$21.50
Studio Headphone Amplifier designed to power eight headphones—Individual controls. Ready to rack mount. 1.75 x 19 inches.	
HA100.....	\$263.00

HEADSETS

TELEX CS-75/CS-61 HEADSET



Professional communications headset with precision transducers and microphone element. Impervious to environmental temperature and humidity changes. Exceptional performance stability with highly sensitive, distortion free receivers. Excellent frequency response. Noise cancelling dynamic boom microphone.

CS-75 \$75.00
 CS-61 \$85.00

TELEX CS-91 SPORTCASTER HEADSET



Professional, binaural headphone and wide range, omnidirectional, dynamic boom microphone for live, remote broadcasting. Non-metallic headphone and microphone elements resist environmental extremes for precise transmission and reception under all conditions. Supplied with 2 meter un-terminated cord and in-line "push-to-cough" switch. Padded headband and ear cushions. Black with grey trim.

CS-91..... \$135.00

DAVID CLARK COMMUNICATIONS HEADPHONES & SYSTEMS



H3330



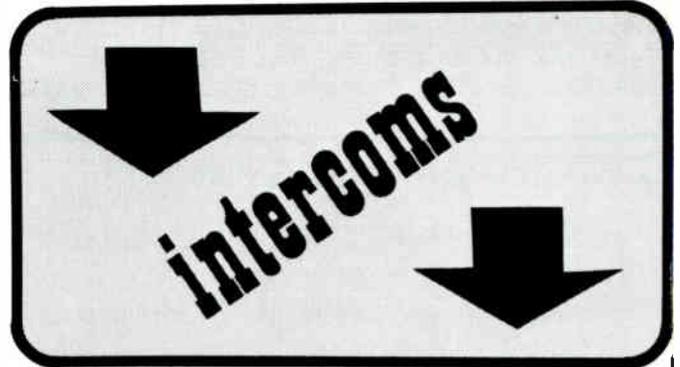
H3050

NOISE-ATTENUATING HEADSETS: All our Communication Systems can be used with our wide choice of Noise-Attenuating Headsets for high, medium or low noise areas.

(cont.)

H3330 Gets through the noise-Headset/
 Boom Mic..... \$154.75

H3050 Headphones..... \$87.25



RTS TW INTERCOM SYSTEM



The TW Intercom System is an innovative new intercom system for teleproduction communications in the studio and field. With Super System Phase III, we've incorporated a number of advances which mark a significant increase in product versatility. Our new design features the portability of 12 volt battery power and convenience of dry-line operation. The system can be arranged with up to 50 various user stations on line, and may be coupled to existing communications lines with one of our active interface devices.

Phase III offers impressive capabilities like powerful headphone amplification, two (or more) channel operation, microphone level limiting, and stable sidetone level. The new units are handsomely packaged and completely field serviceable.

For Information, Contact Allied Broadcast Equipment

Refer to headset section for R-Columbia Model TR-50 FM wireless intercom headphones.

AKG D1000E MICROPHONES



The D1000E has been developed to meet the broadcaster's special needs for equalizing tonal color right at the microphone. A unique "B-M-S" switch controls the bass and mid-frequency response of the D1000E.

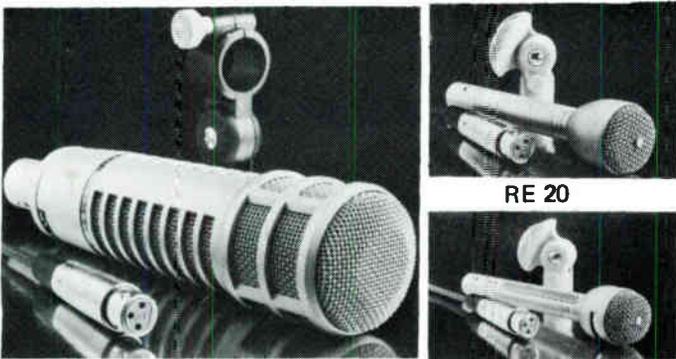
Announcers can control the degree of proximity effect (bass boost) when working at close distances; intelligibility and "punch" can be added.

Its "tight" cardioid pattern and ability to reproduce high sound-pressure levels without distortion further increase the value of the D1000E in any broadcast/recording studio. Complete with SA-12 stand adapter and foam-lined vinyl case.

D1000E.....\$110.00
 (With MCH-20, 20' Mic Cable & PF-10 Windscreen
 Combination).....\$131.00

Allied Carries The Entire AKG Microphone Line

ELECTRO-VOICE 635A MICROPHONE
 ELECTRO-VOICE RE20 MICROPHONE
 ELECTRO-VOICE RE15 MICROPHONE



635A

RE 20

RE 15

The 635A is quite simply the most rugged, durable microphone Electro-Voice manufactures. The 635A's moderately high output level (-55 dB) is appropriate for a broad range of studio and field applications.

EV635A.....\$81.50

The RE20 was created especially for critical recording, broadcast, and sound reinforcement applications which require response that extends to the frequency extremes. Unlike many dynamic condensers microphones, the RE20 provides undistorted output at the high sound pressure levels found in excess of 160 dB. And its Variable-D design frees it of any bass boosting proximity effect.

(cont.)

The sound of the RE20 has made it one of the most coveted, unique microphones in the world. The RE20 has become a recording studio standard in Japan and the microphone of choice for many eminent vocalists throughout the world.

Model RE20.....\$416.65

Literally born in a Hollywood TV studio, the performance and reliability of the RE15 have made it the workhorse directional microphone for broadcast and high-quality sound reinforcement. Two nulls at 150° off axis provide greater average rejection over the microphone's rear hemisphere than a traditional single-null cardioid pattern, particularly useful on the boom and in many on-stage and recording studio applications.

Model RE 15.....\$228.70

ELECTRO-VOICE RE16 MICROPHONE

ELECTRO-VOICE RE18 MICROPHONE

ELECTRO-VOICE RE10 MICROPHONE



RE 18

RE 10

RE 16

Another professional favorite, the RE16 is like the RE15 except it has a different blast filter. An integral part of the RE16, the blast filter makes possible the closest hand-held use without any "P-pops". In all other respects, the RE16 is like the RE15. Its rugged, mechanically "nested" design is highly resistant to damage. Super-cardioid rejection of unwanted sounds at 150 degrees off axis dramatically reduce coloration of off-axis pickup.

Model RE 16.....\$238.00

The RE18 is a direct descendant of the popular RE15 and RE16 microphones. While maintaining the accurate frequency response characteristics and super-cardioid polar pattern of the RE15, the RE18 has added an integral shock mount for even better performance. The superb shock isolation sharply reduces handling and cord noise, and in sound reinforcement systems effectively silences the transmission of mechanical stand and lectern noises.

Model RE 18.....\$255.00

A fine, moderate-cost microphone for sound reinforcement, broadcasting, choir pickup and stage work. The RE10 is similar in design to the RE15, but meets requirements where somewhat more unit-to-unit variability is acceptable. Use with "mike mouse" for phase-interference-free stage pickup.

Model RE 10.....\$144.50

MICROPHONES

ELECTRO-VOICE RE11 MICROPHONE

ELECTRO-VOICE DO56 MICROPHONE

ELECTRO-VOICE RE50 MICROPHONE



RE 11



DO 56



RE 50

An excellent microphone for broadcast and quality sound reinforcement, the RE11 is a modestly priced unit with many of the features of the RE16 but where the most precise unit-to-unit matching is not necessary.

Model RE11.....\$159.70

The DO56 is a shock-mounted omnidirectional microphone for hand-held broadcast and sound reinforcement applications. All handling noises and cord vibration are isolated from the microphone element. Shock isolation is enhanced by having the main acoustic cavity and the diaphragm/voice-coil assembly isolated as a unit from the case. Butyl rubber shock rings act as the spring in the isolation system. A capsule/case collision is impossible. This "G-factor" margin makes the DO56 less susceptible to the bell-like clang heard from other shock-mounted microphones when they are accelerated or decelerated rapidly.

A slim, attractive silhouette and the silver tone beige finish are ideal for on-camera use.

Model DO56.....\$113.25

The RE50 was designed expressly for hand-held news-gathering work. It has the same tailored frequency response and high output level as the famous 635A. The RE50's rubber shock-mount "mike-within-a-mike" design achieves a degree of shock isolation never before known in the industry. The construction is also highly resistant to damage from mechanical shock. A built-in windscreen is a super effective "P-pop" filter too. Rugged extruded aluminum case and a Memraflex grille screen allow the RE50 to go anywhere, indoors or out.

Model RE50.....\$146.50

SENNHEISER STUDIO CARDIOID MICROPHONE MD421



(cont.)

This microphone affords a very wide frequency response with an intentional increase of sensitivity in the upper range. The MD 421-U-5 incorporates a bass control which is adjustable in five steps. External magnetic stray fields are eliminated by means of a compensation coil.

The Model MD 421-U-5 comes equipped with XLR connector. This model is also low impedance and balanced.

The MD 421-U-5 comes with a black semigloss surface.

MD 421-U-5.....\$326.00

SHURE SM11 MICROPHONE



MODEL SM11: The Shure Model SM11 is a miniature dynamic lavalier microphone designed for use in television broadcasting (on-camera), sound reinforcement, in certain radio and motion picture applications, and similar uses where a small, professional quality, versatile microphone is required. Flat, natural response, tailored for lavalier use: 50 to 15,000 Hz.

SM11.....\$80.40

SHURE SM7 MICROPHONE



MODEL SM7: A dynamic microphone with a very smooth, flat, wide-range frequency response; cardioid polar pattern, uniform with frequency and symmetrical about the axis; internal "air suspension" shock isolation; highly effective pop filter; extremely good rejection of electro-magnetic hum due to a built-in hum rejection system; bass roll-off and mid-range emphasis. The Model SM7 was field-designed to be the finest dynamic microphone available for music recording and reproduction.

SM7.....\$406.20



SM33

MODEL SM33: A compact and rugged unidirectional ribbon microphone combining wide range response and a super-cardioid directional pattern. The performance characteristics are ideal for studio use in broadcasting and recording and for critical sound reinforcement applications. Built-in shock mount for quiet operation. Slotted Response Selector Switch. Frequency Response: 40 to 15,000 Hz.

SM33..... \$265.20



SM5B

MODEL SM5B: Specifically designed to minimize boom microphone problems in television and motion-picture sound stage and location recording. Painstakingly developed to provide extremely high reproduction quality and great flexibility of application. The SM5 features a wide-range, smooth, natural response, especially tailored for dialogue and vocal pickup with excellent presence, yet well-suited to scoring assignments. Its pickup pattern is cardioid.

A highly effective integral windscreen completely surrounds the SM5's suspension elements to prevent wind noise generated by the suspension assembly, and provide maximum wind noise suppression in outdoor locations and with fast boom swings.

SM5B.....\$463.80

SHURE SM53/SM57 MICROPHONES



SM53



SM57

MODEL SM53: Is designed for professional applications requiring the ultimate in sound quality and control. Broad, smooth
(cont.)

frequency response: provides clean, natural reproduction of both voice and music. Mechanical noise isolation. Type: Dynamic. Frequency Response: 70 to 16,000 Hz.

SM53\$270.60

MODEL SM57: Is a slender dynamic microphone built to provide wide range reproduction of music and voice. It features an exceptionally uniform and effective unidirectional pickup pattern. Bright, clean sound. Cartridge shock-mounted for quiet operation. Frequency Response: 40 to 15,000 Hz.

SM57.....\$130.80

SHURE SM58/SM59 MICROPHONES



SM58



SM59

MODEL SM58: Is a rugged unidirectional dynamic microphone; self-contained spherical filter to control explosive breath sounds and wind noise; unusually effective cardioid pickup pattern to minimize background noise and undesirable effects of studio and location acoustics. Rear and side rejection uniform to very low frequencies and completely symmetrical about microphone axis; bright, clean sound; cartridge shock-mounted for protection and quiet operation; wind and "pop" filter readily removable for cleaning or replacement. Frequency response: 50 to 15,000 Hz.

SM58.....\$163.80

MODEL SM59: Cardioid dynamic microphone. Essentially flat, wide response. 50 to 15,000 Hz. Patented Mechano-pneumatic shock mount system. Built-in "pop" filter, and hum-bucking coil. Durable construction. Ideal for speech, vocal and instrument pick-up, for broadcast, recording and sound reinforcement uses.

SM59.....\$175.80

MICROPHONES

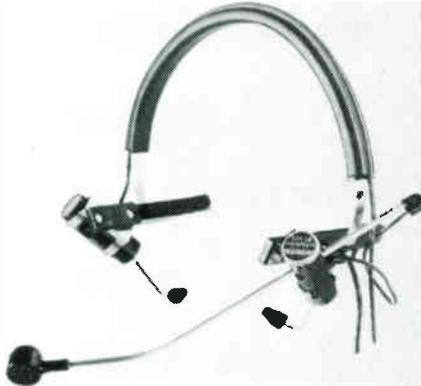
SHURE SM81 MICROPHONE



MODEL SM81: A high-quality, unidirectional condenser microphone designed for professional applications in studio recording, broadcasting and sound reinforcement. Especially applicable in situations requiring extremely low wide frequency response, low noise and distortion characteristics, very low RF susceptibility, and reliable operation over a wide range of temperature and humidity extremes.

SM81.....\$274.80

SHURE SM14/SM18 MICROPHONES



SM14

MODEL SM14: Professional head-worn microphone with receivers. Low impedance, unidirectional, dynamic microphone with two integral earphone assemblies. Close talking microphone allows use under noisy conditions. Lightweight and reliable.

SM14.....\$163.80



SM18

MODEL SM18: The Shure SM18 microphone is a high quality, palm-sized microphone available encased in either a white or brown foam "envelope". They are designed to be virtually invisible when placed on altars, lecterns, tables, and in other settings. Great for conference table pick-up.

SM18 Brown or White.....\$69.60

SONY ECM-50PS MICROPHONE

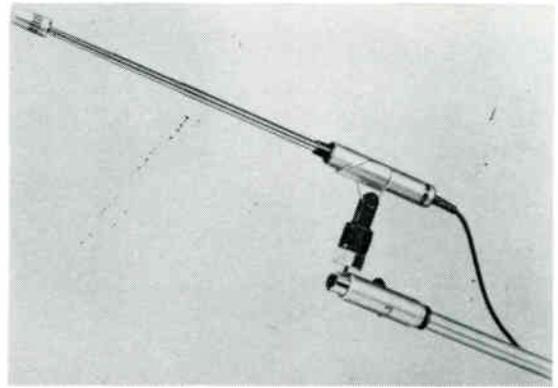


Professional omni-directional electret condenser microphone with miniature design.

- * Wide frequency response
- * 2-way powering system
- * Non-reflective design

ECM-50PS.....\$225.00

SONY ECM-31M MICROPHONE



Uni-directional electret condenser microphone for newsgathering and interviews.

- * Uni-directional
- * Telescopic design
- * Urethane windscreen

ECM-31M.....\$55.00

SONY C-37P MICROPHONE

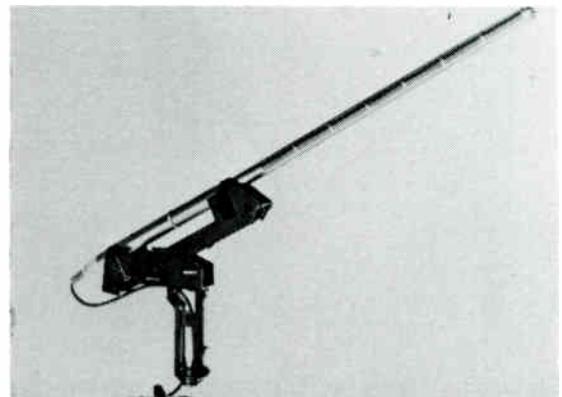


Professional condenser microphone with selector switch for omni-directional characteristics.

- * Phantom power system
- * Windscreen and shock mounting

C-37P.....\$495.00

SONY C-76 MICROPHONE



(cont.)

Super uni-directional, gun-type electret condenser microphone for theatrical and media use.

- * Uni-directional precision
- * Urethane windscreen
- * Low-cut switch
- * Long battery life
- * AC/DC operation

C-76\$795.00

SONY ECM-56F MICROPHONE



Professional uni-directional back electret condenser microphone with exceptional frequency response.

- * Back electret condenser capsule
- * External power system
- * Battery check lamp
- * Adjustable angle

ECM-56F\$265.00

CROWN PRESSURE ZONE MICROPHONE



The CROWN PZM is a radical departure from conventional microphone technology. Available in several models including a lavalier, each includes its own power supply in the listed pricing.

5" x 6" General Purpose

PZM-30GPG (Gold).....\$349.00
 PZM-30GPB (Black).....\$349.00

(cont.)

Low Profile

PZM-6LPG (Gold).....\$349.00

PZM-6LPB (Black).....\$349.00

Lavalier

PZM-2LVG (Gold).....\$349.00

PZM-2LVB (Black).....\$349.00

Recess Mount

PZM-20RMG (Gold).....\$349.00

PZM-20RMB (Black).....\$349.00

Microphone price includes a power supply.

Please specify one of the units listed below:

PX-18B – Transformer, battery or phantom powered

PA-18B – Active, battery or phantom powered

VEGA MICROPHONE SYSTEM



Professional II

Performer I



Performer II

66 Receiver

Vega offers a variety of systems that give you a new order of freedom and fosters new confidence in your performance. The sound these systems deliver, especially systems with diversity receivers, is comparable to hardwired microphones.

Professional I

Model 77B transmitter & Model 58 receiver.....\$1800.00

(cont.)

MICROPHONES

- Professional II
 - Model 77B transmitter & Model 63 receiver\$2915.00
 - Performer I
 - Model 54 transmitter & Model 58 receiver \$1699.00
 - Performer II
 - Model 54 transmitter & Model 63 receiver \$2814.00
 - Traveler I
 - Model 77B transmitter & Model 66 receiver \$1666.00
 - Orator
 - Model 88 transmitter & Model 89 receiver \$832.00
- Systems include all cables, batteries & choice of microphones for 77B.

HME MICROPHONE SYSTEM



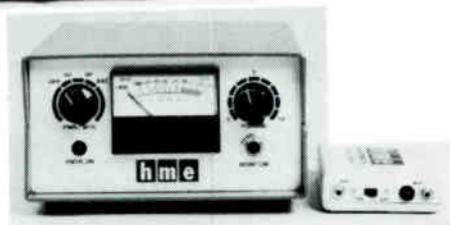
System 25



System 22F



System 25F



System 22

HME Wireless Microphones sound better, have better radio properties and are more reliable than any other wireless microphone built! An ambitious statement—but not ours. Literally hundreds of the most demanding professionals in the motion picture, broadcast and entertainment industries have reported this to us. HME systems are the most enthusiastically acclaimed systems in use today.

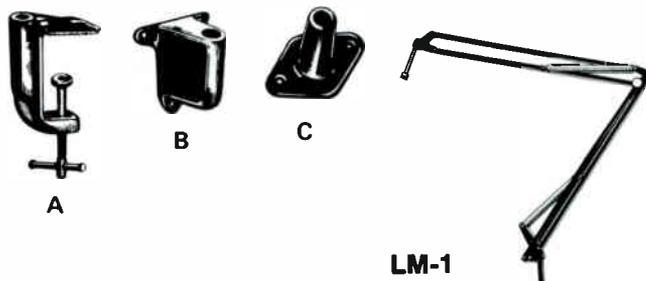
Body Pac Wireless Microphone Systems

- System 22 \$1945.00

(cont.)

- System 22E \$2195.00
 - System 24E \$2925.00
 - System 22F \$1925.00
 - System 22EF..... \$2095.00
 - System 24EF..... \$2825.00
 - System 22R..... \$1320.00
 - System 42M..... \$1085.00
 - System 42C..... \$1015.00
 - System 64E \$715.00
- ### Hand Held Wireless Microphone Systems
- System 25 \$2075.00
 - System 25E \$2325.00
 - System 27E \$3075.00
 - System 25F \$2065.00
 - System 25EF..... \$2220.00
 - System 27EF..... \$2975.00
 - System 25R..... \$1455.00

LUXO LM-1 MICROPHONE ARM



- EXTENSION: 41 inches
- WEIGHT RANGE: 1 ounce to 3 pounds
- COLOR SELECTION: Grey, Tan, Oyster or Black
- RECOMMENDED MOUNTS: A,B or C included
- LM-1\$45.00

ALLIED SPRING LOADED MICROPHONE BOOM



Heavy-duty spring-loaded mic boom. 1 Ft. pedestal riser permits behind-console or cart machine placement.

- Mic Boom.....\$75.00
- w/Extra Heavy Springs.....\$85.00

ADAPTORS & FITTINGS

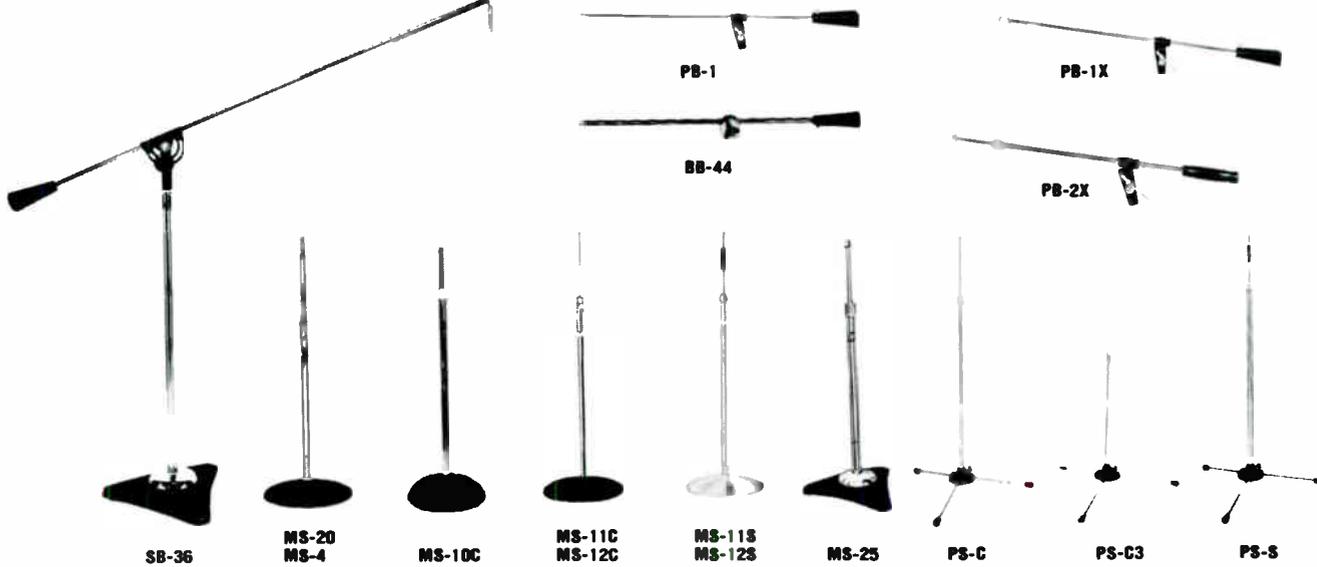


MICROPHONE DESK STANDS

Model	Application	Height	Base Size	Wt. Lbs.
DS-1	Executive Desk	4"	7" x 5"	2
DS-2	Vibration-Isolating	4"	5 1/4" x 4 1/4"	2
DS-4	Lightweight	4"	5" Dia.	1/2

Model	Application	Height	Base Dia.	Wt. Lbs.
DS-5	General Purpose	4"	6"	2
DS-7	Adjustable Height	8" - 13"	6"	3
DS-14	Contemporary Style	3"	—	1 1/2

AD-1B 3/8"-27 female to 1/2" pipe thread male.	AD-2B 1/4" pipe female to 3/8"-27 male.	AD-3B 1/4" pipe female to 3/8"-27 female.	AD-4B 3/4" long, 3/8"-27 male running thread.	AD-5B 3/8"-27 female to 3/8"-27 female, coupling.	AD-6B 3/8"-27 female to 3/8"-27 female, coupling.	AD-7B 3" long tube 3/8"-27 male each end.	AD-8B 6" long tube 3/8"-27 male each end.
AD-9B 3/8"-27 female to 3/8"-27 female.	AD-10B 3/8"-24 female to 3/8"-27 female.	AD-11B Flange, 3/8"-27 female. Base diameter 1 1/4".	AD-12B Flange, 3/8"-27 male. Base holes on 1 1/4" mounting centers.	AD-13B 3/8"-27 male to 3/8"-27 female.	AD-14B Right angle tube: 3/8"-27 male and female end.	AD-15B Cable feed-thru adaptor: 3/8"-27 male and female end.	AD-16B Heavy duty triangular flange: 3/8"-27 female.



GRIP-ACTION MICROPHONE FLOOR STANDS

Include self-leveling, shock-absorbing pads and stabilizers. Tube assemblies and clutch are chrome plated. Threaded for use with any 3/8"-27 microphone or microphone holder.

Model	Application/Features	Height	Base Dia.	Wt. Lbs.
MS-10C	General Purpose	35" - 63"	10"	10
MS-12C	Low Profile Base	34" - 62"	10"	11
MS-11C	Chrome Base	34" - 62"	10"	12
MS-4‡	Special Height	25" - 65"	10"	11
MS-20	Heavy Duty/Stage	37" - 66"	12"	14
MS-25	Professional/Studio	38" - 67"	17"	23

TOUCH-CONTROL MICROPHONE FLOOR STANDS

Unique, automatic sleeve-action clutch for effortless, instantaneous height adjustment at any level.

MS-11S	Chrome Base	39" - 62"	10"	13
MS-12S	Charcoal Base	39" - 62"	10"	13

‡ 3-Section Tube, 2 Grip-Action Clutches

PORTA-SERIES MICROPHONE FLOOR STANDS

Unitized construction for fast set-up and storage-convenience.

Model	Application/Features	Height	Wt. Lbs.
PS-C	General Purpose	35" - 63"	6
PS-C3†	Special Height	25" - 66"	6
PS-S	Touch-Control Clutch	40" - 63"	7

MICROPHONE BOOM STANDS AND BOOM ATTACHMENTS

SB-36 General Purpose Studio Boom — Secure and dependable. "Air-Lock Cushion" and swivel joint at mic end. Boom 62" long; adjustable 48" to 72" vertically. All tubular section chrome plated. Modern base. Weight 36 lbs.

SB-36W Mobile — Identical to Model SB-36, equipped with rubber casters on base. Shipping Weight, 38 lbs.

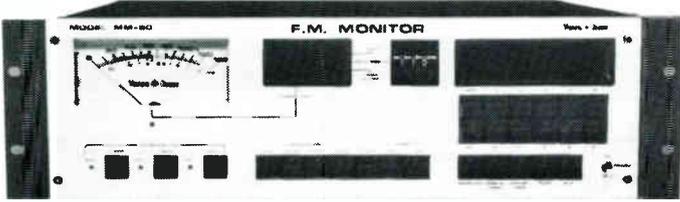
BB-44 Contemporary Boom Arm — One-piece swivel. Length, 31".

PB-1 Porta-Series Boom Arm — Chrome tube, 31" long. Tapered counterweight.

PB-1X Microphone Boom with Extension — 2-section tube. Adjusts from 31" to 50". With counterweight.

PB-2X Microphone Boom with Extension — For portable application. 2-section tube. Adjusts from 21" to 40".

VERSA COUNT FM MODULATION MONITORS



"Off air" monitoring of a competitor has been possible for several years now, however, actual modulation percentages, as well as several other parameters which have been desirable, have been unavailable. Audio monitoring is about all that has been available.

The new Versa Count MM-80P FM modulation monitor includes a micro-processor based FM tuner of advanced design which will allow for accurate measurements of most parameters directly off-the-air. A built-in memory allows storage of up to nine pre-selected FM stations which may be recalled at the touch of a button.

A digital display will show the actual station frequency in mhz up to eight digits with an accuracy of ten cycles. Center frequency stability may be checked with a button so designated which will initiate a display of the amount of difference from the nominal frequency in actual cycles.

When inputs from a stereo monitor are provided, pilot frequency may be observed directly in the digital display. SCA frequency may also be measured when an SCA monitor input is provided.

The new Model MM-80P modulation monitor includes the pre-select tuner and frequency measurement capability. This pre-select is integral with the monitor and must be ordered as a complete unit with the above designation.

The modulation monitor is available, less these features, as a Model MM-80. Nominal specifications for either unit include:

- * Phase-lock-loop circuitry to insure low intermodulation distortion and ultimately off-the-shelf availability.
- * Shortest duration program peaks response independent of polarity through sample-hold peak modulation meter circuitry.
- * A 100% peak indicator which is independent of polarity and suitable for ATS.
- * Complete proof facilities.
- * Adjustable carrier-level-limit alarms with outputs for ATS.
- * Noise may be measured down to minus 80 db.

For use in conjunction with the main channel modulation monitor, the SM-80 stereo monitor is also truly state-of-the-art featuring:

- * Accurate measurements of the phase relationship (quadrature error) between the 38 khz (L-R) sub-carrier and the pilot (19 khz).
- * No external measuring equipment necessary to properly adjust or check the pilot phase of any stereo generator.
- * Accurately measures stereo separation as great as 60 db.
- * Simplified automatic measurement of channel separation,

(cont.)

- cross-talk, noise and sub-carrier suppression.
- * Outputs for proof measurements.

MM80P	Main channel FM modulation monitor w/Micro-proc based tuner (illustrated)....	\$3500.00
MM80	Main channel FM modulation monitor for use w/external RF amplifier.....	\$2000.00
SM80	Stereo FM modulation monitor	\$2200.00

BELAR FM FREQUENCY & MODULATION MONITOR



The Belar FM monitors were designed as a totally integrated, solid state system to enable the broadcaster to fulfill his monitoring equipment requirements as the need arises. The Belar FMM-1 Frequency and Modulation Monitor is a wideband, all solid state FM monitor designed expressly to fulfill all the new requirements for monaural monitoring as well as to provide a virtually pure, distortionless demodulated signal to drive the companion FMS-1 Stereo Frequency and Modulation Monitor and the SCM-1 SCA Frequency and Modulation Monitor for multiplex monitoring.

FMM-1	\$1650.00
-------------	-----------

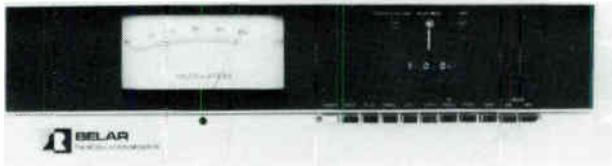
BELAR FMS-1 FM STEREO FREQUENCY MONITOR



Belar FM monitors were designed as a totally integrated, solid state system to enable the broadcaster to fulfill his monitoring equipment requirements as the need arises. The Belar FMS-1 Stereo Frequency and Modulation Monitor, when added to the FMM-1 FM Frequency and Modulation Monitor, provides complete monitoring and test functions to meet the daily requirements for stereo monitoring and provides additional facilities for making the proper tests for weekly and monthly maintenance checks to insure maximum performance from stereo transmitters.

FMS-1	\$1500.00
-------------	-----------

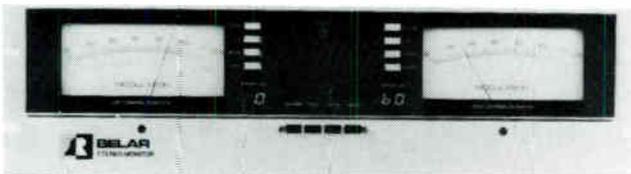
BELAR FMM-2 FM MODULATION MONITOR



The FMM-2 sets new standards in accurate FM monitoring - the first to incorporate a sample hold peak modulation meter circuit independent of modulation polarity to allow the meter to respond to program peaks of the shortest duration. The heart of the FMM-2 is an ultra-linear digital discriminator which provides a distortionless baseband signal for accurate monitoring as well as precise stereophonic, quadrasonic and SCA decoding. The Belar FM monitors were designed as a totally integrated system to allow the broadcaster to fulfill his monitoring requirements as the need arises.

FMM-2.....\$1250.00

BELAR FMS-2 FM STEREO MODULATION MONITOR



- * Two independent peak modulation meters for simultaneous monitoring of left and right channels or L+R and L-R.
- * Two independent auto-ranging voltmeters with LED displays for range for simplified automatic measurement of channel separation, crosstalk, sub-carrier suppression, and noise.
- * Pilot alarm with front panel indicator.
- * Rear illuminated meters eliminate shadows for easy viewing.
- * Balanced audio outputs, +10 dBm.
- * Outputs for proof-of-performance measurements.

FMS-2.....\$1450.00

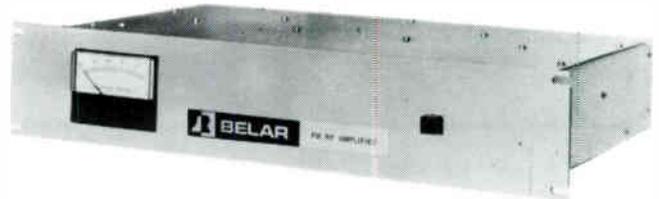
BELAR SCA FREQUENCY & MODULATION MONITOR



The Belar FM monitors were designed as a totally integrated solid state system to enable the broadcaster to fulfill his monitoring equipment requirements as the need arises. The Belar SCM-1 SCA Frequency and Modulation Monitor, when added to the FMM-1 Frequency and Modulation Monitor, provides complete monitoring and test functions for SCA storecasting and remote telemetering applications. Up to four crystal switch positions allow four channels to be operated and tested.

SCM-1.....\$1500.00

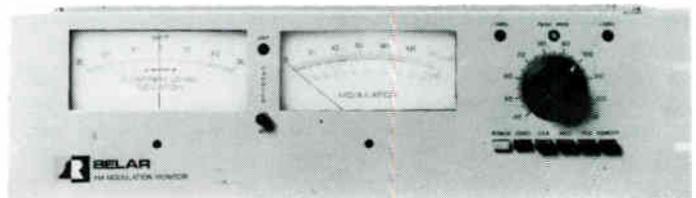
BELAR RFA-1 SOLID STATE FM RF AMPLIFIER



For Off-Air monitoring at remote control location in conjunction with main and sub-channel FM modulation monitoring equipment.
 RF INPUT SENSITIVITY: 100 uV for full output.
 RF INPUT IMPEDANCE: 50-75 ohms.
 RF FREQUENCY RANGE: 88-108 MHz.

RFA-1.....\$550.00

BELAR AMM-2A AM MODULATION MONITOR



The AMM-2 Modulation Monitor sets new standards in accurate AM monitoring—the first AM monitor to incorporate true ratio-type peak indicators. The AMM-2 contains a unique modulation cancellation scheme to recover unmodulated carrier to reference the modulation peaks. Thus the instantaneous program peaks are referenced to the instantaneous carrier without the need of time-constants, as with AGC devices. True carrier is indicated with asymmetrical modulation encountered in today's high positive peak modulation, and peaks are automatically referenced to this true carrier to give the most accurate indication of program peaks.

FCC Type Approval No. 3-224

AMM-2A.....\$950.00

BELAR AMM-3 AM MODULATION MONITOR



The AMM-3 Modulation Monitor sets new standards in accurate AM monitoring—the first AM monitor to incorporate true ratio-type metering circuits. The AMM-3 contains a unique modulation cancellation scheme to recover unmodulated carrier to reference the modulation peaks. Thus the instantaneous program peaks are referenced to the instantaneous carrier without the need of time-constants, as with AGC devices. True carrier is indicated with asymmetrical modulation encountered in today's high positive peak modulation, and peaks are automatically referenced to this true carrier to give the most accurate indication of program peaks.

- * Two modulation meters—one for positive and one for negative (cont.)

MONITORS

tive modulation, independent of carrier level.

- * Outputs for listening as well as test functions.

FCC Type Approval No. 3-231

AMM-3.....\$1400.00

BELAR RFA-2 AM RF AMPLIFIER



The state-of-the-art design of the BELAR RFA-2 AM RF Amplifier—a selective, high gain, all silicon solid state unit with automatic gain control (AGC)—companion to the BELAR modulation monitors—now makes it possible to monitor off-the-air AM signals accurately and conveniently without the problems associated with changes in transmitter power level, antenna patterns, and signal fading. The RFA-2, when used with the AMM-1, AMM-2, & AMM-3 allows monitoring of modulation characteristics from a point remote from the transmitter, usually the studio, for AM transmitters in the 530–1610 kHz band.

RF SENSITIVITY: 100 uv' across 50 ohms

ANTENNA REQUIRED: Whip or loop

RFA-2..... \$595.00

BELAR AM RF AMPLIFIER



The Belar tunable RF amplifier allows the broadcaster to monitor any station in the AM band. A front panel three digit thumb-wheel switch assures quick and precise frequency selection from 500 kHz to 1.99 MHz in 10 kHz steps. A frequency synthesized digital front end and a wide range AGC provides a virtually distortionless, spurious-free output for modulation monitoring. A rear panel lock-in switch presets the amplifier to station frequency and overrides the thumbwheel switch, thus preventing unauthorized personnel from inadvertently changing frequency. A 12 volt DC output is provided to power antennas with active loads or amplifiers via the center conductor of a coaxial cable. An optional 10 kHz whistle filter and a switchable narrow band IF filter may be added. The RF amplifier may be used with any Belar AM modulation monitor.

- * Frequency synthesized digital tuning.
- * Quick frequency selection via 3-digit thumbwheel switch.
- * Rear illuminated input level meter.
- * Front panel attenuator allows operation in the strongest RF fields.
- * Extremely wide range AGC assures constant output.
- * Front panel LED lock indicator.
- * Low profile design.

RFA-4

Available Soon

McMARTIN PRECISION TWO-TONE EBS GENERATOR



The McMARTIN Model TG-2/EBS Precision Two Tone EBS Generator is FCC Type-Accepted to produce the Two-Tone Attention Signal for the Emergency Broadcast System (EBS) effective for all AM, FM and TV stations.

TG-2/EBS.....\$305.00

McMARTIN EBS TWO-TONE MONITOR



The McMARTIN Model EBS-2, EBS Monitor is FCC certified and satisfies the need for a reliable, trouble-free method of monitoring the two-tone Emergency Broadcast Service (EBS).

EBS-2.....\$189.00

McMARTIN AM/FM FIXED-FREQUENCY TUNERS

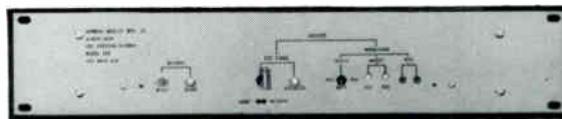


The McMARTIN AMR-1 and FMR-D are low cost, high performance, AM or FM broadcast tuners. These professional tuners insure high-reliability, fixed-frequency signal sources for use with sound distribution systems ideally suited for EBS receivers.

AMR-1..... \$158.00

FMR-1D..... \$200.00

GORMAN REDLICH EBS EQUIPMENT



The Model CEB offers, in a single 3½" rack mounting chassis, everything necessary for the two-frequency EBS system required by the FCC except a receiver that can be tuned to the station being monitored. Any stable receiver will do; if you presently have a satisfactory EBS receiver it can be used with the Model CEB. If you are interested in a low cost, tunable AM/FM, EBS monitor receiver, we can supply a receiver for \$80.00

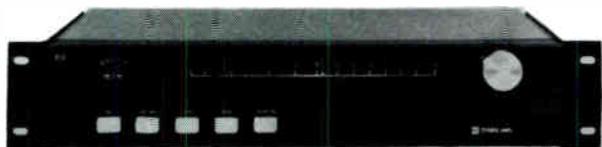
- * Encoder FCC type accepted. Decoder FCC certified. Meets all legal requirements.
- * Exceeds FCC specifications.
- * Provision for remote operation. Programming Loop-Through

(cont.)

Standard in Encoder. Decoder Demutes Monitor Receiver and/or Actuates Auxiliary Alarm.

CEB	Encoder-Decoder	\$310.00
CE	Encoder only.....	\$225.00
CD	Decoder only.....	\$180.00

McKAY DYMEK AM-5



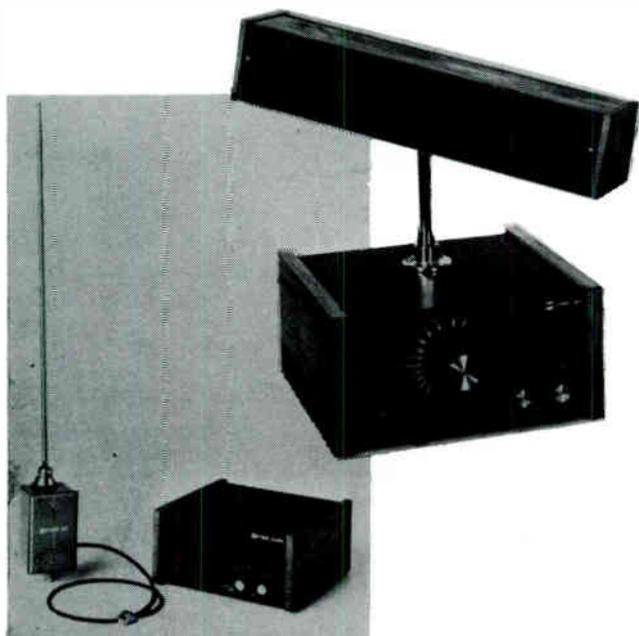
As we went to press, the McKay Dymek AM-5 tuner was being re-designed to address 9 khz specifications and stereo AM. The manufacturer will be ready to almost immediately supply the new version of this familiar receiver as soon as WARC and FCC decisions are final.

Specifications of the original AM-5,permitted reception capabilities which were legendary.

If your reception problems are such that you have difficulty in receiving your own station or those of your competitors, the McKay Dymek AM-5 successor is the answer to your problems.

Pricing and updated model numbers to be announced.

McKAY DYMEK DA5 ANTENNA



A shielded ferrite rod directional AM antenna with frequency and sensitivity controls—The DA5 is a shielded ferrite rod directional antenna containing a FET two stage amplifier with frequency and sensitivity controls. The shielded ferrite rod can be rotated and tilted to null out undesirable signals. A frequency control permits precise selection of incoming signals while a sensitivity control provides optimum reception of distant stations.

This state-of-the-art antenna is designed to eliminate interference and background noise commonly prevalent in AM reception,

plus it will greatly enhance reception in areas where AM signals are marginal. Nighttime off-air monitoring in congested-signal-areas is now a reality. Mod monitor accuracy is enhanced.

DA 100D	Antenna, All Wave, 50kHz-29.7 MHz.....	\$135.00
DA 5	AM, 540-1605kHz, Shielded, Directional..	\$185.00
DA 7	International, 150-300kHz & 540-1605kHz Shielded, Directional.....	\$200.00

POTOMAC INSTRUMENTS – FIELD STRENGTH METERS



The Models FIM-21, FIM-22, and FIM-41 represent a new generation of precision instruments for direct measurement of electromagnetic fields in the 100 kHz to 5.0 MHz frequency spectrum. These units are intended for portable field use and include a laboratory quality receiver, integral shielded loop antenna, precision attenuator, internal calibration source, and voltage regulated battery power supply. An interlock switch prevents inadvertent battery discharge when the cover is closed. Batteries Not Included.

FIM-21	535 to 1605 Khz.....	\$1525.00
FIM-22	200 to 550 Khz.....	\$2050.00
FIM-41	540 Khz to 5 Mhz.....	\$2050.00

POTOMAC INSTRUMENTS

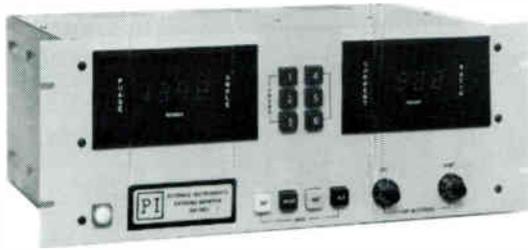


AM-19(204)

(cont.)

Prices subject to change without notice

MONITORS



AM19D(210)

AM-19(204).....	\$1860.00 to \$3520.00
AM19D(210).....	\$2460.00 to \$4120.00
PM-19.....	\$5010.00 to \$12170.00

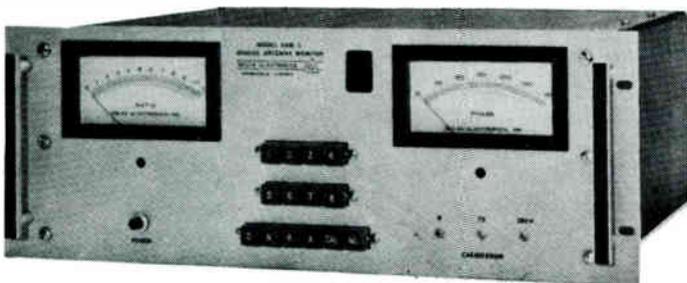
DELTA DAM-1 DIGITAL ANTENNA MONITOR



This is a true digital antenna monitor that utilizes the latest digital techniques to achieve a truly digital approach toward phase and ratio measurements. FCC type approved, the DAM-1 combines simplified pushbutton operation with the accuracy of a digital display. The DAM-1 phase accuracy is ± 1 degree, and the typical current ratio accuracy is $\pm 2\%$. Increased ratio accuracy can be provided for stations with critical arrays. Output data from the digital circuit appears on the rear connector, as well as on the front panel display, permitting remote reading without any loss of accuracy.

DAM-1	2 Towers	\$3500.00
	3 Towers	\$3560.00
	4 Towers	\$3620.00

DELTA AAM-1 ANALOG ANTENNA MONITOR



This FCC type approved monitor combines state-of-the-art circuitry with simplified operation. The AAM-1 provides true ratio monitoring, and does not require the operator to recalibrate if reference tower variations occur. The ratio displayed is self-correcting for reference tower amplitude changes. Operation is pushbutton, and all data and operating functions are available through a rear connector for remote control interfacing.

(cont.)

AAM-1	2 twr	\$2650.00
	Additional twr inputs (ea.).....	\$100.00

DELTA AMC-1 AMPLITUDE MODULATION CONTROLLER



The AMC-1 utilizes a patented closed-loop concept to provide modulation enhancement. The AMC-1 detects and corrects over or under-modulation operation, as well as providing a digital display of the number of over-modulation bursts for the previous and present one-minute period. An optional ATS panel is available to make this product conform with the FCC requirements concerning modulation control in an automatic transmitter atmosphere.

AMC-1	Amplitude Modulation Controller.....	\$2395.00
	With ATS Option.....	\$2695.00

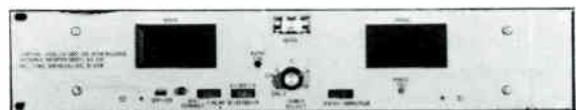
DELTA APC-1 AUTOMATIC POWER CONTROLLER



The APC-1 monitors the output power of either AM or FM broadcast stations; and by interconnection to the transmitter's Raise/Lower power controls, it causes the power to remain well within the F.C.C. limits. An optional ATS panel provides a means for incorporating the APC-1 into an ATS system.

APC-1	Automatic Power Controller	\$1495.00
	With ATS Option	\$1695.00

GORMAN REDLICH MODEL CM DIGITAL ANTENNA MONITORS FOR DIRECTIONAL AM ARRAYS



The Model CM is a stable, accurate monitor for DA installations not requiring telemetering of antenna readings.

* True ratio readout. Non-reference and reference amplitudes are separately measured and divided electronically to give a

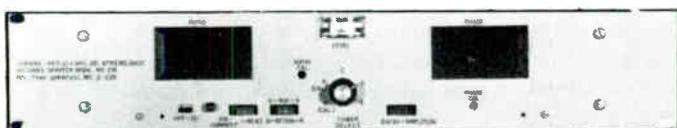
(cont.)

digital readout that will not change with transmitter power and is exceptionally stable under conditions of unsymmetric modulation. Stability of readout makes readings easy to take and accurate.

- * Stable phase indication with automatic display of phase sign.
- * Either True Ratio or Relative amplitude may be selected.
- * FCC type approval No. 3-239.

2 Towers, DA1, with engraved aluminum front panel, brushed or black anodized finish.....	\$1420.00
2 Towers, DA1, with steel front panel, grey enamel silkscreened finish (illus.).....	\$1390.00
DA2 Option.....	\$25.00
Extra Tower Connections, ea.	\$20.00

GORMAN REDLICH MODEL CMR DIGITAL ANTENNA MONITOR FOR DIRECTIONAL AM ARRAYS



The Model CMR is a state-of-the-art instrument at a price comparable with analog monitors. With typical modulation, the CMR's true ratio readout is a factor of 10 more stable than instruments that measure normalized amplitude, and its phase readout is rock solid. Phase sign is automatic; no extra operation. Practically, these features mean quick, accurate log or remote cal. readings. The CMR is fully remoteable via land line or telemetry, using standard remote control equipment. An optional repeater-controller is available for hardwire remote control and readout via multiconductor cable at distances up to 1500 feet.

- * True Ratio Reading. Non-Reference and Reference amplitudes are separately measured and divided electronically to give an accurate digital reading (and an equally accurate D.C. voltage for remote readings) that will not vary with carrier level, and is exceptionally stable under conditions of deep, unsymmetric modulation.
- * Up to 6 towers DA-1 or DA-2.
- * FCC type approval No. 3-242.

2 Tower, DA-1, Grey silkscreened front panel	\$1950.00
2 Tower, DA-1, Alum. engraved front panel	\$1990.00
CMR-1 Remote controller.....	\$450.00

GORMAN REDLICH BROADCAST QUALITY WEATHER RECEIVER



Take advantage of the expanding network of National Weather Service VHF weather stations. This sensitive, selective (and reasonably priced) receiver can bring you accurate local weather, national weather, weather radar data, emergency alert messages, plus farming and marine information where applicable. Its capability for unattended recording of emergency alert messages and

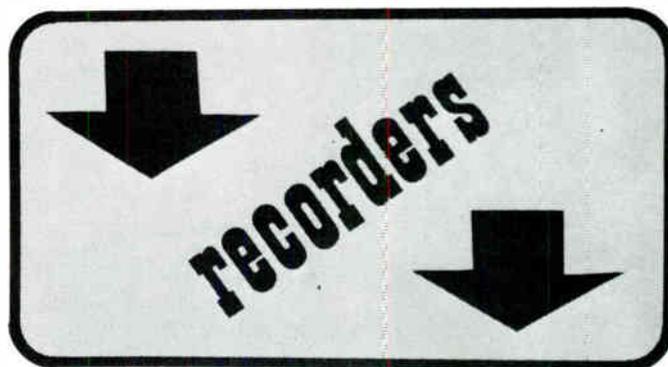
(cont.)

update forecasts can save time and money. Rebroadcast if FCC authorized.

Receiver is rack mountable, remoteable, with an attractive black anodized panel. Demuting and remote alarm are initiated by 1050 "Alert" tone. A relay closure is initiated by either the 1050 tone or a 1650 hz forecast update signal tone. These are the only tone signals NWS uses. 600 ohm output available.

Crystal and ceramic IF Filters, plus double tuned dual gate MOS-FET RF stage, give excellent interference rejection and high sensitivity (.28 microvolts for 12 db (S + N)/N). Whip antenna, jack and terminals for external antennas. Guaranteed to work where others won't.

Weather Receiver\$325.00



OTARI MX5050B BROADCAST RECORDER



Otari's MX5050B is used by television and radio broadcasters worldwide. The 5050B has proven features including front adjustable bias and record EQ, built-in test oscillator, edit and cue, splicing block, motion sensing, selective reproduce, ultra reliable

(cont.)

RECORDERS

TTL switching, noise free inserts, three speeds in field-selectable pairs of 15/7½ or 7½/3¾ ips, 24 dBm headroom with 28 dBm output into 600 ohms, dc capstan servo and ±7% speed control, peak reading LED plus standard full sized VU meters, and LED function indicators, among others.

Add these features to a 66 dB S/N ratio and a frequency response from 30 to 22,000 Hz ±2 dB at 15 ips and you have a machine that competes with those costing thousands of dollars more.

MX5050B (2-Track) \$2150.00

MX5050B (Full-Track) \$2195.00

(Input Transformers Optional)

OTARI MARK II BROADCAST RECORDER



A second generation recorder incorporating all the field-proven Otari features plus several new items of special interest to broadcasters. These include: modular transport and electronics for convenient console, rack or portable mounting, plug-in cards for ease of maintenance, splicing block, complete accessibility to all electronics adjustments for fast bias and record/reproduce alignment, variable speed (±7%) dc capstan servo to precisely match program length to a specific time slot, and interface jack for dbx or Dolby noise reduction switching: Standard Otari features include true professional quality and reliability, motion sensing, selective reproduce on all channels, 19 dBm headroom, XLR connectors, edit and cue, and built-in test oscillator. Available in two-channel ¼-inch or four-channel ½-inch models.

COMPARE features and benefits, compare performance, compare our track record for reliability. Call ALLIED at 317/962-8596.

Mark II-2 \$2695.00

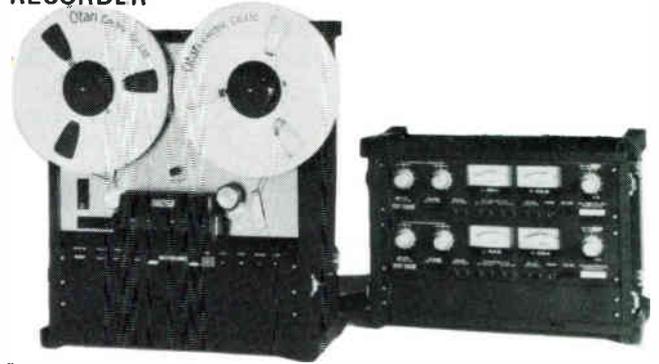
(cont.)

Mark II-4 \$3895.00

(In/Out Transformers Optional)

(Roll-around Console Extra)

OTARI MX5050-QXD COMPACT FOUR CHANNEL RECORDER



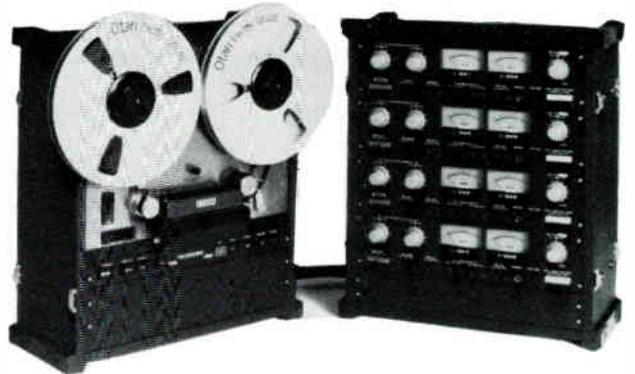
- * 4 Tracks on ¼" tape
- * Exceptional signal-to-noise and crosstalk
- * Front panel edit and adjustable cue
- * Punch-in and punch-out record capability without clicks or pops.
- * Motion sensing control logic prevents tape damage
- * Synchronous reproduce on all four channels
- * 600 ohm output, variable or fixed level
- * Fixed level switchable between +14 or -10 dB
- * Variable speed (±10%) dc capstan servo standard
- * Bias adjustable for new high energy mastering tapes
- * Plug-in boards and head assembly

MX5050-QXD \$2995.00

Optional OPT output-balancing transformer, ea..... \$35.00

Optional IPTHW input-balancing transformer, ea..... \$43.00

OTARI MX5050-8D RECORDER



TRANSPORT: 8 tracks, ½ inch tape
 TAPE SPEEDS: 15 and 7½ ips
 REEL SIZE: ½ x 10½ inches NAB
 HEADS: Three eight track in-line: erase, record, reproduce
 MOTORS: Capstan: Variable speed dc servo (±10% correction)
 REELS: Two induction torque motors
 WOW & FLUTTER: 7.5 ips .08% - 15 ips .06%
 DISTORTION: Less than 1% at 1000 Hz at 200 nWb/m
 TEST OSCILLATOR FREQUENCY: Nominal 1000 Hz.

MX5050-8D \$4995.00

(Input/Output Transformer Optional)

OTARI MX7800 RECORDER

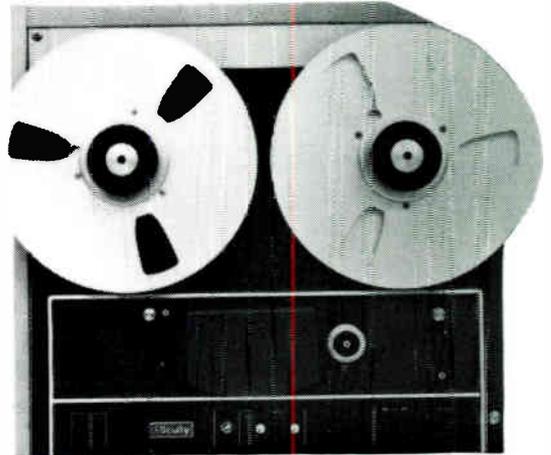


- * 1 inch, 8 track
- * Full-servo constant-tension tape drive
- * Dynamic braking
- * 30/15 ips (15/7½ on special order)
- * Coarse and fine ±12% pitch controls
- * DC capstan servo with direct drive motor
- * Automatic monitor switching
- * Built-in 700 and 15,000 Hz test oscillator
- * Rapid access to transport and electronics

MX7800.....	\$8895.00
CR706 Full facility remote control.....	\$995.00
CT501 Timer.....	\$495.00
IPT Balanced Input Transformers, each.....	\$25.00

ARS-1000	DC with tone sensors.....	\$1465.00
ARS-1000	DS less tone sensors.....	\$1375.00

SCULLY 250 SERIES RECORDER/REPRODUCER



Contemporary . . . yet totally compatible with the traditions of all Scully Recording Instruments, the new 250 Series will meet your quality, reliability, and operational needs in a professional, compact, moderately priced 10.5" broadcast recorder/reproducer.

For rack mounting in your studio, or case mounting for field recording, the Scully 250 will take on all assignments. You can plug in mic preamps for direct news, sports, and other portable recording requirements . . . and in the studio the 250 will complement your audio system requiring only 19¼" rack height.

Configurations include full or half track mono; two or quarter track stereo. All models have two-speed Hysteresis Synchronous direct drive Capstan motors. Unmounted weight about 45 lbs.

Series 250 Recorder/Reproducer

250-FT	Full Track, Mono.....	\$2620.00
250-1	Half Track, Mono.....	\$2620.00
250-2	Two Track, Stereo.....	\$2745.00
250-24	Quarter Track, Stereo.....	\$2745.00

Two Speeds— Specify 7.5–15 in/s (19.05–38.1 cm/s) or 3.75–7.5 in/s (9.52–19.05 cm/s) When Ordering.

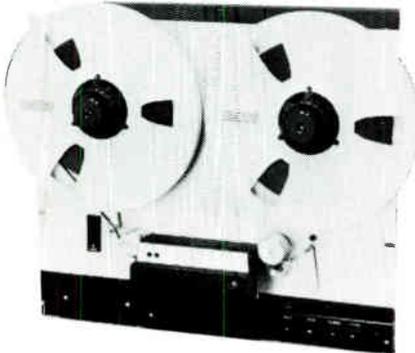
Series 255 Reproducer Only

255-FT	Full Track, Mono.....	\$1525.00
255-1	Half Track, Mono.....	\$1525.00
255-2	Two Track, Stereo.....	\$1595.00
255-24	Quarter Track, Stereo.....	\$1595.00

Single Speed—7.5 in/s (19.05 cm/s) Standard; 3.75 in/s (9.52cm/s) Available on Request.

255 Mic preamps, input/output transformer, 25 hz tone sensor, remote control, extender board, optional at extra cost.

OTARI ARS-1000 AUTOMATED RADIO STATION REPRODUCER



Widely used in leading automation systems. Specifically designed to meet their stringent requirements for highest audio performance, long term reliability and around-the-clock operation. Basically, the ARS-1000 is a work horse two-channel stereo reproducer with two tape speeds (7½ and 3¾ ips) and the following features: heavy duty 19-inch top plate, head mounted pre-amp to minimize hum and RFI and yield superior S/N. It's easy to maintain with its plug-in PCB's and mother board configuration, easy-access flip-up head cover, and front adjustable output level and head azimuth (to minimize stereo phasing errors). Its operating features include remotable Play and Stop, a ready light to indicate proper tape threading, head lifters for fast modes, a cue control for audible monitoring and optional 25 Hz cue tone sensor. All connectors are brought out to a single 25 pin Cinch connector.

(cont.)

Hold on to capital

check our leasing plan—let's
discuss the tax savings

Allied Broadcast Equipment

RECORDERS

SCULLY 270 SERIES PROFESSIONAL LONG PLAY RECORDER

The Scully 270 professional long play reproducer has become the standard of excellence in the automated broadcast industry. Designed to run for long periods, reliably and with trouble-free performance, the 270 is an extra-rugged, heavy duty reproducer designed and built with typical Scully craftsmanship.

Last of the 14" playbacks.

HEAD CONFIGURATION: Monophonic half or full-track; stereo 2 or quarter-track.

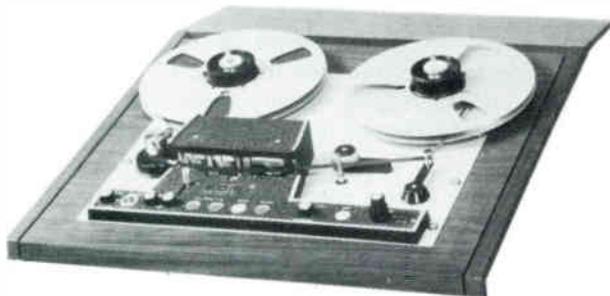
TAPE SPEED: 3¾-7½ ips; 7½-15 ips.

TAPE WIDTH: ¼"

REEL SIZE: Up to 14".

270 FT mono F.T.....	\$3933.00
270-1 mono ½ T., bi-directional.....	\$4076.00
270-2 stereo 2 T., 2-channel.....	\$4428.00
270-44 stereo ¼ T., 2-channel, bi-directional.....	\$4857.00

SCULLY 285B REPRODUCER



The Scully 285B Reproducer is a professional quality playback or editing system for broadcast or studio applications, as automated tape players, quality control monitors, broadcast control room reproducers, or music library reproducers. The 285B electronics include 600 ohm line output and 8 ohm (3 watt) speaker output for cueing, editing and monitoring. Speaker gain control is on the front panel.

* ¼" (6.35mm) tape, up to 11.5" (29.21cm) reels

285B-FT Mono Full Track.....	\$3075.00
285B-2 Stereo 2 Track, 2 Channel.....	\$3185.00
285B-24 Stereo Qtr. Track, 2 Channel.....	\$3185.00

SCULLY 280B PRO RECORDING SYSTEM



(cont.)

A Benchmark! Scully's 280B continues to be a leader. Heavy-duty, precision, professional . . . The phrases have never been better applied.

All the important features you seek in a pro recording system including motion-direction sensing, dynamic braking, and constant tension are incorporated with a machine full of desirables.

Scully offers either AC or servo drive. The servo drive permits vari-pitch control. Two advantages are gained, in addition to servo control: The ability to adjust pitch up or down to a desired level; and the more positive tape drive at all speeds afforded by the large capstan and pinch roller in the servo system.

All this adds up to a standard in broadcast and studio recording where smooth, positive tape handling, low noise electronics, and control convenience provide truly professional results.

		A.C.	Servo
280B-FT ¼"	Mono, Full Track.....	\$3675.00	\$3955.00
280B-1 ¼"	Mono, Half Track.....	\$3675.00	\$3955.00
280B-2 ¼"	Ster., 2 Trk, 2 Chan.	\$4565.00	\$4895.00
280B-4 ½"	Quad, 4 Trk, 4 Chan.	\$6375.00	\$6815.00

Consoles Extra

SCULLY 284B SERIES RECORDER/REPRODUCER



Scully's Master Recorder/Reproducer is available in an eight channel version using the popular low noise 280B electronics. These 284B-8's use 1" tape for maximum eight-channel separation and quality; up to 14" tape reels to provide a realistic supply of tape for program-length recording and post-production. The 284B-8 has motion-direction sensing, dynamic braking, and automatic start-torque boost for smooth, positive tape shuttling; uses Scully's new constant tension system for added tape handling precision in the Play/Record modes. Scully DC capstan servo drives are standard on all units, as is the variable pitch control. Any two specified adjacent speed-pairs will be present when the machine is ordered. Equalization is automatically switched with speed control. A sturdy console cabinet is included as standard equipment. These features make the Scully 284B-8 the most desirable eight-track system in its price range.

ACCESSORIES: Vari-Sync Accessory, remote transport control.

(cont.)

280B-24	¼" Stereo Qtr.Trk.,2 Chan....	\$4615.00	\$4945.00
280B-44	¼" Quad 4-Trk,4 Chan.	\$6485.00	\$6925.00
284B-8	1" 8 Track, 8 Channel (complete w/servo & console) Console extra....	\$12650.00	

AMPEX ATR-700 SERIES RECORDER



ATR-700-1	F.T.	¼"	.....	\$1995.00
ATR-700-2	2 T.	¼"	.....	\$1995.00
ATR-700-4	4 T.	¼"	.....	\$1995.00

Please specify 3¾/7½ ips or 7½/15 ips

AMPEX ATR-100 SERIES RECORDER



Four standard record/playback speeds are available on all ATR-100 Series recorders, any two of which can be selected—or changed—by the user. The speeds do not even have to be adjacent. Choose any pair from 3¾, 7½, 15 or 30 inches per second. You can order a 7½/15 in/s version, for example and later set it up for any other speed pair, even 3¾ and 30 in/s if you wish.

ATR-101	F.T.	¼"	.....	\$5900.00
ATR-102	2 T.	¼"	.....	\$7200.00
ATR-104	4 T.	½"	.....	\$9400.00

REVOX B77 TAPE RECORDER



- * Integrated Drive Logic
- * Operation By Computer—Type Pushpoint Keys
- * Cutter Device To Facilitate Tape Editing

B77	Standard 2 or 4 Track.....	\$1649.00
-----	----------------------------	-----------

TECHNICS MODEL RS-1506US TAPE DECK



"Professional" is not just a cliché when applied to the RS-1506-US tape deck. The two-track, two-channel design bespeaks a commitment to sound quality, with increased dynamic range, lower noise, and editing/splicing capabilities required in professional applications. The four-head configuration, with both two-track playback heads, provides recording, playback and erasure capabilities worthy of this high quality unit. The sophisticated electronics of the RS-1506US too, provide the control and performance essential to truly professional recording. The RS-1506-US is no shelf-top, stay-at-home, either. With the optional carrying case and 24-volt battery adaptor, the RS-1506US is ready to go anywhere, record anywhere.

- TRACK SYSTEM: 4-track, 2-channel recording, playback, erasing and 2-track, 2-channel playback.
- PITCH CONTROL: ±6% (recording and playback)
- WOW AND FLUTTER: (Rec/PB): .03% max.
- FREQUENCY RESPONSE: 15 ips — 30-30,000Hz
- SIGNAL-TO-NOISE RATIO: NAB weighted, 15 ips, 60 dB.

RS-1506US.....	\$1500.00
RS-1500US Specs of 1506US w/2-trk, 2-channel recording, playback, erasing & 4-trk, 2-channel playback.....	\$1500.00

RECORDERS

TECHNICS RS-1520 TAPE DECK



The RS-1520 is a tape deck designed to meet the needs of professional recordists . . . the original RS-1506US plus a number of additional features. This is combined with a three motor direct-drive system utilizing quartz phase-locked control for the capstan motor, and tape tension control for the reel motors. The full IC logic control system and the feather-touch solenoid operation convenience make operational performance and reliability extremely high. The amplifier section has a superb dynamic margin and a high signal-to-noise ratio. The RS-1520 has most of the excellent features and functions which have made the RS-1506-US so successful worldwide...plus a great many new and exciting features sure to please the professional recordist. Professional balanced cannon-connector inputs and outputs and broadcast-compatible impedances and levels throughout.

- * 2-Track Studio Model
- * Cannon connectors in and out
- * Broadcast levels in and out

RS-1520.....\$2000.00

TEAC TASCAM 32-2B RECORDER/REPRODUCER



TRACK FORMAT: [track—2 channel
 REEL SIZE: 7—10½ inch
 TAPE SPEED: 15 ips and 7½ ips
 PITCH CONTROL: ±6%
 WOW & FLUTTER: 15 ips 0.02%, 7½ ips 0.04%
 TAPE DRIVE SYSTEM: Capstan Motor: Feedback governed servo controlled DC brush type. Reel Motor: 2 DC slotless
 HEAD CONFIGURATION: 3 heads
 MOUNTING: Can be installed in standard EIA 19" rack with
 (cont.)

the optional RM-32

LINE INPUT: Impedance 50K ohms

MICROPHONE INPUT: Input source impedance-200 ohms nominal

LINE INPUT: Impedance greater than 10k ohms; inbalanced, Nominal output level: 10dB (0.3V)

TOTAL HARMONIC DISTORTION (THD): 0.6% at Ovu, 1,000 Hz, 185 nWb/m; 3.0% at 12dB above Ovu

SIGNAL TO NOISE: Reference to 3.0% THD level at 1000 Hz, at 15 ips 63dB NAB equalization A weighted

FREQUENCY RESPONSE: 15 ips 30 Hz—30kHz overall, 7½ ips 30 Hz—28kHz overall

DIMENSIONS: W 17 inches H 17-13/16" D 10-5/16"

32-2B.....\$1125.00

DBX-2 (optional).....\$650.00

(Increases S-N to 87 db)

TEAC TASCAM SERIES 35-2 RECORDER/REPRODUCER



Now with independent channel record and monitor the Tascam 35-2 is a tape deck that is specifically designed for 2-track mastering in studios with Teac's latest precision technology. Not only the highest performance and reliability, but it will also give you exceptional ease and comfort in operation while you are at work.

TRACK SYSTEM: 2-track stereo; 4-track stereo playback switchable.

3 MOTORS: 1 DC-Servo controlled capstan motor, 2 Eddy current induction reel motors.

4 HEADS: Erase, record, playback and 4T-playback.

REEL SIZE: 10-½" and 7".

TAPE SPEED: 15 ips and 7½ ips (±0.5%).

WOW & FLUTTER: 0.03% at 15 ips.

FREQUENCY RESPONSE (Overall): 40—22,000 Hz ±3dB/0 VU at 15 ips; 40—18,000 Hz ±3dB/0 VU at 7½ ips.

SIGNAL-TO-NOISE RATIO (Overall): 87dB with dbx; at 3% THD level, weighted.

HARMONIC DISTORTION (Overall): 0.6% at normal operating level.

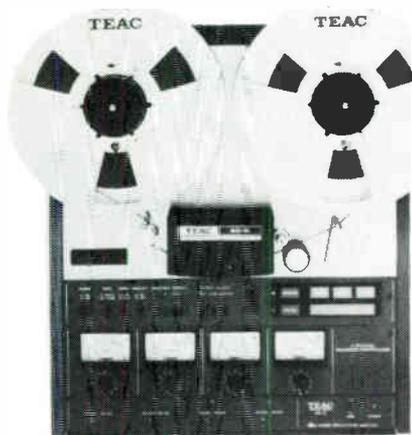
INPUTS: 2 Line: -24dB (60mV)/50k ohms.

OUTPUTS: 2 Line: -7dB (0.45V)/10k ohms.

35-2B.....\$1990.00

CS-600 Metal roll-around console.....\$650.00

TEAC TASCAM 40-4



Professional Heavy Duty Production and Playback 1/4" 4-track deck.

- * 10 1/2" reel capacity
- * EQ/bias adjustment access
- * 7 1/2-15 ips operation
- * Function select switching for individual track
- Punch In/Out record
- * Full I.C. logic and motion sensing

40-4 \$1790.00

TEAC TASCAM 80-8 8-TRACK 1/2" RECORDER

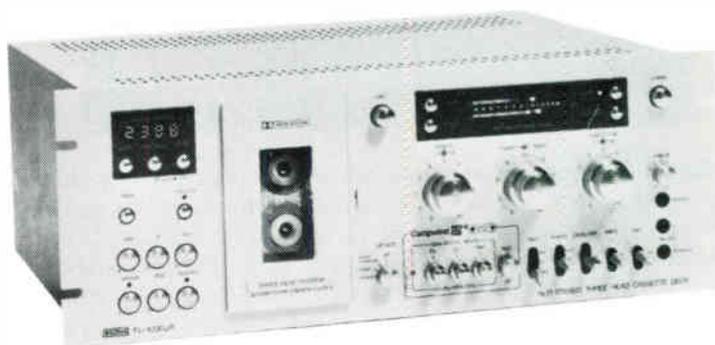


The Most Popular 8-Track Multichannel Recorder In The World.

- * 1/2" 8-track/15 ips
- * 10 1/2" reel capacity
- * Full I.C. logic and motion sensing
- * Function select switching for individual track
- Punch In/Out record

80-8..... \$3990.00

EUMIG FL-1000 CASSETTE DECK



Excellence both in engineering and styling combine in the Eumig FL-1000 to create a cassette deck with unexcelled performance, versatility, and elegance.

The front-loading, microprocessor-controlled tape transport features Eumig's exclusive opto-electronic servo system and a sophisticated 3-head design that lets you monitor directly from the tape as it is recorded. The digital control system of the FL-1000 is even capable of being interfaced with almost every popular microcomputer.

The "command center" of the FL-1000 is an integrated circuit microprocessor which directs all tape-motion functions. Naturally, the microprocessor provides the fail-safe transistor logic that permits the fast-winding, forward, stop, pause and record touch-buttons to be depressed in any desired sequence, and provides for automatic rewind (to 0000 or any selected location) with stop or repeat options. But the FL-1000 microprocessor does much more than this.

The tape counter of the Eumig FL-1000 is electronic rather than mechanical. This not only eliminates the usual imprecision caused by belt slippage; it also contributes significantly to the extraordinarily low wow and flutter. And, it allows the same touch-buttons used for transport control to serve a second function, like that of the keys on a calculator.

No matter where you are in a tape, by pressing the "go to" and "memory" buttons simultaneously, then punching in any selected counter reading, the FL-1000 will automatically advance or return to that exact location, slowing down as it nears it, and automatically recovering any slight overshoot. When the end of a side is reached, the word "End" is displayed.

Because of the extreme accuracy and completely digital microprocessor control of the FL-1000, it can also be interfaced with a number of popular microcomputers. An 8-line bus termination is provided, and adaptors for other formats are available.

FREQUENCY RESPONSE: Ferric: 30-18,000Hz ±3dB
 SIGNAL-TO-NOISE (A-Weighted): Ferric: 66dB with Dolby; 58dB without Dolby.
 WOW & FLUTTER: 0.035% (WRMS)
 REWIND TIME (C-60): Less than 35 seconds
 DIMENSIONS: 19" W x 7" H x 13" D

FL-1000 (In Chrome or Black).....\$1550.00
 See Automation Section For Full Automation Capabilities

RECORDERS

TECHNICS RS-M85MK2 CASSETTE DECK



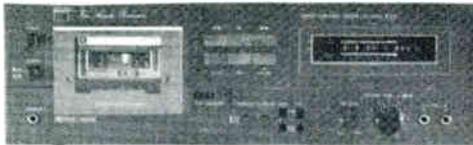
Behind its elegant "Flat-chassis" design, this cassette deck boasts a quartz-locked direct-drive capstan motor for durability and excellent speed control (wow and flutter is just 0.035% WRMS). Metal tape compatibility provides great specs: frequency response is 30-17,000Hz \pm 3dB with metal tape, and S/N ratio is 69dB.
RS-M85MK2\$700.00

TECHNICS RS-M95 QUARTZ LOCKED DIRECT DRIVE CASSETTE DECK



There are countless cassette decks to choose from when your object is price. But when your only object is performance, look at Technics RS-M95. Its quartz/locked direct drive motor provides constant tape tension, remarkably low wow and flutter, and virtual immunity from speed inaccuracy.
FREQUENCY RESPONSE: 20–20,000 Hz (metal tape), 20–19,000 Hz (CrO₂/FeCr).
WOW & FLUTTER: 0.03% WRMS
S/N RATIO: 70 dB (Dolby in)
SPEED DEVIATION: \pm 0.1%
RS-M95\$1300.00

NAD 6100 CASSETTE DECK



The NAD 6100 combines luxuriously convenient operation with recording quality of unexcelled clarity, accuracy, and dynamic range. It is a 2-head solenoid-operated recorder employing the latest ICs for tape motion (with optional remote control), accurate Dolby tracking, quiet electronics, and generous headroom for clean, uncompressed transients. Model NAD 6100-M features metal tape compatibility.
6100..... \$398.00

SUPERSCOPE PORTABLE CASSETTE SYSTEMS



C-206LP



C-207LP

The Superscope C-206LP and C-207LP portable cassette systems are the obvious successors to the broadcast radio ENG format. Sony's TC-110 and TC-142 and Superscope's previous models C-204 and C-205 have been discontinued.

The new 206 and 207 by Superscope, offers more to the Broadcast News Operation than ever before available.

- * Outstanding Features Include: 15/16 ips, 1/2 speed or regular 1-7/8 ips
- * Vari-speed control which allows correction of tapes which may have been recorded with less-than-full battery power
- * DC servo controlled motor for accuracy under all conditions
- * Ton control
- * PA/Play mix permits one of the most sought-after abilities: Live intro with optional microphone, actuality on tape, then back to live. (Using the cassette machine as an integral part of a telephone report)

In addition to features listed which are common to both machines, the 206 also has three heads and variable bias for normal, CrO₂, and/FeCr Tape. FeCr tape permits a frequency response of up to 14 khz.

C-206LP\$165.00
C-207LP\$225.00

Optional Accessories Include

CLC-330 Carrying Case.....\$25.00
RBD-1 Rechargeable Battery Pack\$25.00

OTARI DP4050-C2 CASSETTE COPYING MACHINE



Otari's new DP4050-C2 is a full professional 8:1 speed In-Cassette Duplicator System scaled down in size but not in performance, features, or reliability. Basically, the DP4050-C2 is a new family member of the world popular Otari DP4050 Series In-Cassette Duplicator.

(cont.)

It consists of one cassette master deck and two slave-recorders in one desk top type cabinet and expandable up to 11 slaves using 3 add-on slave units which contain 3 slaves each. Two C-30 copies may be made in less than two minutes, or two C-60's in less than four minutes. All tracks, four track stereo, are copied simultaneously in one pass so that the cassette doesn't have to be turned over to copy the other side.

AUTOMATIC REWIND: Photocell sensing of reflective tape at beginning and end of programme.

FREQUENCY RESPONSE: 50 to 10,000 Hz \pm 3 dB. (with Maxell UD cassettes).

WOW & FLUTTER: 0.25% WRMS

S/N RATIO: Greater than 50 dB

BIAS FREQUENCY: 800 KHz

TOTAL HARMONIC/DISTORTION: Less than 1.5%

EXPANDABILITY OF SLAVE UNIT: Up to 3 (1 unit contains 3 slaves).

AVERAGE PRODUCTION: 30 C-60 cassettes per hour

DP4050-C2	\$2950.00
DP4050-23	\$2750.00



MOSELEY TRC-15A REMOTE CONTROL



With 15 metering channels and 30 individual control functions, the all SOLID-STATE TRC-15A remote control system has sufficient versatility to fulfill current requirements and future needs. Flexibility and adaptability are easily obtained with the TRC-15A. Two versions of the TRC-15A Remote Control System are available. These are Models TRC-15AW and TRC-15AR. The only interconnection requirement of the TRC-15AW is any duplex, voice-grade circuit. True wireless remote control can be accomplished with the TRC-15AR. Control subcarrier equipment is standard in this version for multiplexing control information on a Moseley Aural Studio-Transmitter Link. Field conversion to either configuration is possible without rewiring . . . simply exchange the appropriate modules.

TRC-15AW.....	\$3295.00
TRC-15AR	\$3695.00

MOSELEY TCS-1, TCS-2A TELECONTROL SYSTEMS



TCS-1 COMMAND TERMINAL—General purpose applications including remote ENG, earth station and security. Ideal for international broadcasters. A combination of two TCS-1 systems can be stacked on a single 3kHz interconnect to double facilities.

TCS-1.....	\$2195.00
------------	-----------

(cont.)

OTARI DP4050-OCF PROFESSIONAL 8:1 IN-CASSETTE DUPLICATOR SYSTEM



Both sides of the cassette are recorded in one pass, either four track stereo or two track mono, so that cassettes do not have to be turned over to record the other side.

- * Professional quality and reliability
- * Two-speed reel-to-reel master (7½ or 3¾ ips) with six slaves
- * 8:1 speed ratio; both sides duplicated in one pass
- * Produces six C-30 copies in less than two minutes
- * Handles C-30 through C-90 cassettes
- * Duplicates ¼ or ½ track mono or ¼ track stereo
- * Easy to operate by non-technical personnel
- * Automatic rewind of master tape with easily applied reflective tape and photosense cell

DP-4050-OCF	\$7350.00
-------------------	-----------

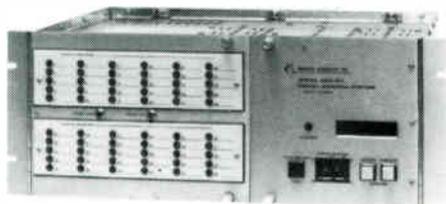
REMOTE CONTROL

TCS-2A COMMAND TERMINAL—Meets FCC requirements for AM and FM Transmitter Remote Control. Microprocessor based; multi-site capability. One-man calibration.

- * 8 Channels Command
- * 8 Channels Status
- * 8 Channels Telemetry

TCS-2A.....\$3395.00

MOSELEY DCS-2A DIGITAL REMOTE CONTROL

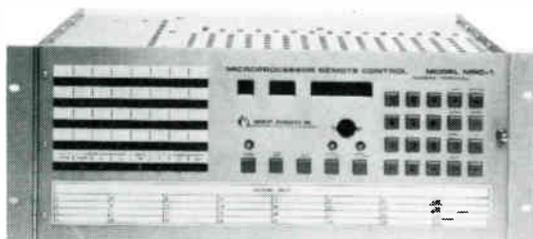


With the capability of facilitating gruly automated operation, the Moseley Associates Model DCS-2A Digital Control System utilizes the latest state-of-the-art digital techniques and allows computer-assisted operation. Designed to permit field expansion of all capabilities, the DCS-2A enables accurate operation of a remotely-located plant or multiple plants such as broadcast transmitting facilities. The system enables the remote execution of a command and the telemetering of analog and status parameters while requiring only the most basic interconnecting facilities.

- * Fully integrated system concept
- * Multiple-Transmitter-Site Operation
- * Telemetry/Command—to 180 channels
- * Status/Alarm—to 180 channels
- * Internal data modems provided
- * Telemetry accuracy—0.1%
- * Automatic parameter logging
- * Computer option—total automatic control possible

DCS-2A Systems start at\$17795.00

MOSELEY MRC-1 MICROPROCESSOR REMOTE CONTROL



In step with technology, the MRC-1 provides facilities and features only available before in much more elaborate, computer assisted systems. Up to 32 channels of status and telemetry, 64 command lines and 9 separate remote sites outline the capabilities.

Keyboard telemetry calibration, programmable assignment of control, full telemetry tolerance alarming, momentary/latching control and status, as well as software power to linear conversion, and indirect power calculation are provided. Automatic Logging, CRT, Multiple Direct Command, and Long Term Memory option-

(cont.)

ally available.

MRC-1 Systems start at.....\$7395.00

MOSELEY TRL-1 TELEMETRY RETURN LINK



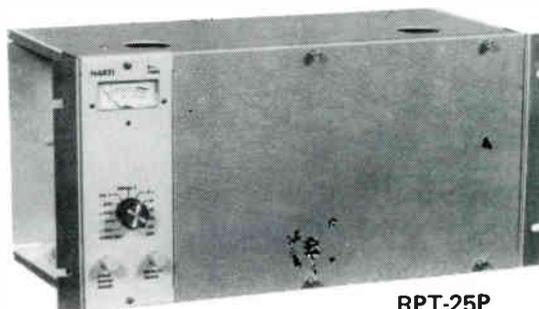
The TRL-1 Telemetry Return Link allows you to transmit telemetry or control data to or from your control point on the 450 MHz band. The TRL-1 receiver and transmitter characteristics have been optimally selected for continuous duty and unattended service. An optional MCW identifier and battery pack as well as a separate MIC input for voice communication are also provided.

TRL-1.....\$2745.00

MCW Identifier.....\$275.00

Battery Pak\$120.00

MARTI TSL-25/450 TRANSMITTER-STUDIO LINK



RPT-25P



R-30/450

The Marti-25/450 Transmitter-Studio Link is a narrow band point-to-point data/communication channel consisting of the FCC type accepted RPT-25P 25-watt transmitter and FCC certified R-30/450 receiver with a directional antenna system. This system operates in the FCC frequency group P channels (450.01-455.99 Mhz) designed for signalling, tone and operational communications as authorized in Part 74, Subpart D, 74.402 (a) (7) of the FCC Rules and Regulations. A system frequency response of 20 Hz. to 3000 Hz. permits transmission of subaudible as well as voice band information.

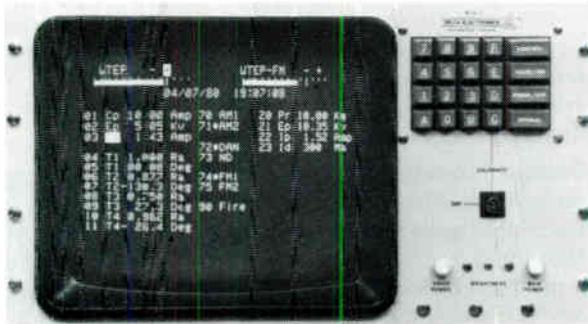
- * FCC type accepted 25-watt transmitter for 10F3 emission.
- * Modulation control by built-in compressor/limiter.
- * Continuous duty operation.
- * Subaudible and voice band operation (20-3000 Hz response).
- * 115/230 V. AC or 13.6 V. DC operation of transmitter.
- * FCC certified receiver with 90 DB spurious rejection.
- * Carrier operated relay in receiver.

FREQUENCY: Group P (10.F3) Channels 450.01, 450.02, 450.98, 450.99, 455.01, 455.02, 455.98, 455.99 Mhz

(cont.)

AUDIO RESPONSE: +2 db 20 Hz. to 3000 Hz.
 DISTORTION: Less than 2% THD
 NOISE: 38 db below 100% modulation.
 RPT-25P..... \$1405.00
 R-30/450.....\$925.00

**DELTA ELECTRONICS RCS-1 REMOTE CONTROL
 ATS SYSTEM**



It talks to you! This unit provides a basic simplified approach to today's micro-processor technology. The RCS-1 displays all parameters on a video monitor, simplifying operation for non-technical operators.

The RCS-1 is modular so the engineer need only purchase the number of plug-in metering and control channel boards that are required. Additional boards or options may be added later.

Options include a Modulation Monitor Bargraph (patent pending) complete with peak indicators, an Autolog Printer Option to provide hard-copy logs, and a Telephone Coupler Option that permits the RCS-1 to "talk" via synthesized speech to the engineer. The system is competitively priced with other micro-processor-based remote control systems.

A detailed data sheet can be obtained by calling Allied Broadcast Equipment.

RCS-1 Basic systems start at about.....\$12000.00

**DELTA ELECTRONICS TMCS-1 TRANSMITTER/MONITOR
 REMOTE CONTROL SYSTEM**



For AM directional arrays, complete transmitter and antenna monitor remote control capability can be found with the TMCS-1. This system works in conjunction with the Delta DAM-1 Digital Antenna Monitor to provide control and parameter display for both the antenna monitor, as well as the transmitter and associated equipment. The basic system provides 15 analog channel inputs, 8 alarm inputs, 15 on/off, raise/lower (cont.)

contact closures, as well as full parameter monitoring of the DAM-1 antenna monitor. Remote antenna monitor calibration is necessary as the digital data from the DAM-1 is also transferred to the TMCS-1 remote display. Available for use with up to 12 towers.

TCMS-1B 15 metering/15 control channels-up to 6 towers.....\$7200.00
 TCMS-1C/TMX-1B 30 metering/15 control channels-up to 6 towers.....\$9300.00
 For up to 12 towers, add \$420.00 to either system.

HALLIKAINEN DIGITAL TELEMETRY TEL 171



The TEL 171 converts your Moseley TRC-15AW or TRC-15AR to digital metering transmission and the TEL 172 does the same for the Moseley PBR30, a method that eliminates the offset and gain drift in the analog metering. A local display in the transmitter control unit duplicates the readings displayed by the studio control unit. This permits one-man weekly meter calibration.

The system consists of printed circuit boards which substitute directly for the audible metering generator, the audible metering demodulator, and the meter. The local display for the transmitter control unit includes a replacement front panel and a liquid crystal display printed circuit board.

Installation is quick and simple since the same PC mounting hardware is used, and the same wiring harness connects to the new boards.

3½ digit (-1999 to +1999) display are used. These easily read displays are updated twice a second. Should the metering carrier be lost, or a framing or parity error occur, the display at the studio will blank and a front panel LED will indicate the problem.

Through the use of digital transmission and display, we eliminate the error inherent in analog transmission, and simplify the task of remote meter calibration and meter reading.

TEL 171 For Moseley TRC-15AW.....\$600.00
 TEL 172 For Moseley PBR-30.....\$700.00

Terms

cash
 master-charge, visa



Allied Broadcast Equipment

REMOTE PICK-UP

COMARK 5000 REMOTE CONTROL SYSTEMS



In this mode of operation each amplifier is displayed as a page of information complete with headings, units and data arranged in easy to read format. A system page is provided showing summary of all other pages as well as Driver/System data.

Commands are entered via a keyboard in easy to understand codes.

- * Microprocessor Control
- * Typical Application: Complete remote control of parallel amplifier 50 KW FM transmitter system.
- * 24 command channels
- * 48 status channels
- * 32 analog channels

Call Allied For Systems Pricing



MARTI REMOTE PICKUP SYSTEM



Marti is a generic for remote pickup. "Hook up the Marti unit... We'll broadcast it on the Marti unit".

Broadcasters all over America are short circuiting their local telephone companies in favor of shooting the game, grand opening, news report, etc. Directly back to the station. Marti pricing permits easy justification for the initial expense by paying for itself in a very short time.

For maximum coverage and use, remember: Use the largest practical coax at your receiver to overcome the downlead loss (don't lose any of that precious free signal in the downlead that you don't have to); Yagi antennas at the transmitting site will channel all the Marti transmitters' energy in one direction. . .back to your station; and, if the downlead at the receiving end is inordinately long, invest in a Marti preamp.* Everything you do to insure maximum signal upon installation will permit further remotes and fewer telephone loops.

*Preamps may not be used on HOT AM towers.

TRANSMITTERS

RPT-40	40 watt, solid-state, complete w/crystal, tuned to 150 MHz	\$1250.00
RPT-40-2	Dual freq, 40 watt, solid-state, complete w/ crystals, tuned to 150 MHz band, max freq separation 0.5 MHz ...	\$1355.00
RPT-25	25 watt, solid-state, complete w/crystal, tuned to 450 MHz	\$1405.00
RPT-25-2	Dual freq, 25 watt, solid-state, complete w/crystals, tuned to 450 MHz band, max freq separation 1.5 MHz...	\$1515.00
RPT-1/150	1 watt, solid-state, complete w/crystal, tuned to 150 MHz.....	TBA
RPT-1/150-2	Dual freq, 2.5 watt, solid-state, complete w/crystals, tuned to 150 MHz band, max freq separation 0.5 MHz.....	TBA
RPT-1/450	Solid-state, complete w/crystal, tuned to 450 MHz.....	TBA
RPT-1/450-2	Dual freq, solid-state, complete w/ crystals, tuned to 450 MHz band, max freq separation 1.5 MHz.....	TBA

RECEIVERS

R-30/150	Solid-state, complete w/crystal, tuned to 150 MHz, for use w/RPT-40 & RPT-1/150 series transmitters.....	\$735.00
R-30/150-2	Dual freq, solid-state, complete w/ crystals, tuned to 150 MHz band, for use w/RPT-40 & RPT-1/150 transmitters.....	\$775.00
R-50/450	Solid-state, complete w/crystals, tuned to 450 MHz, for use w/RPT-25 & RPT-1/450 series transmitters.....	\$925.00
R-50/450-2	Dual freq, solid-state, complete w/ crystals, tuned to 450 MHz band, for use w/RPT-25 & RPT-1/450 transmitters.....	\$965.00

(cont.)

- R-100/450 Solid-state, complete w/crystal & tuned to 450.925 or 455.925 MHz. Group S (100 KHz) channels. For use w/RPT-25S.....\$925.00
- RR-30/150 Solid-state, portable-mobile repeat receiver complete w/crystal, tuned to 150 MHz w/de-code circuitry & hi-pass filter to eliminate encoding tone. Operates - 12 VDC or 120 VAC.....\$735.00
- RR-50/450 Solid-state, portable - mobile repeat receiver complete w/crystal, tuned to 450 MHz w/de-code circuitry & hi-pass filter to eliminate encoding tone. Operates - 12 VDC or 120 VAC.....\$925.00
- MRA-150 RF preamp, solid-state, 10 db gain, 150-170 MHz complete w/120 VAC power supply\$160.00
- MRA-450 RF preamp, solid-state, 10 db gain, 450-460 MHz complete w/120 VAC power supply\$160.00

Call Allied For Information & Pricing On Accessories, Antennas, And Feedline.

MARTI RPT-1/150 & RPT-1/450 PORTABLE BROADCAST REMOTE PICKUP TRANSMITTERS



- * 2.5 Watts
- * Portable operation on internal rechargeable nickel-cadmium battery. Total weight only 5½ lbs.
- * All solid-state
- * Built-in battery charger
- * Dual frequency operation (one crystal included)
- * Whip antenna mounted directly on unit
- * Broadcast-quality compressor/limiter handles toughest remote pickup conditions
- * Two microphone inputs (one push-to-talk) and one Hi-Level input each with individual mixing gain control

Prices To Be Announced



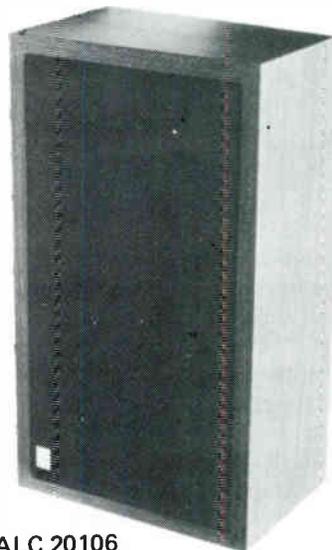
ALC 10302 SPEAKER



The ANNOUNCER full range loudspeaker is the ultimate in performance in a compact size. The wood cabinet is covered in walnut grained vinyl and is perfectly square, 7-7/8" cube, (20 cm cubed). As with all ALC loudspeakers, the grill snaps away and the system has an overall fuse.

ALC 10302.....\$54.00

ALC 20106 SPEAKER



The MONITOR-II full range system incorporated two 4½" transducers each with a 10 oz. magnet, in a ported cabinet. A series L-C network and two L-pads on the front panel allow adjustment of high frequency response and countour between low and mid-range.

- * Size: 19½" x 11" x 7¼"
- * Weight: 20 lbs.

ALC 20106.....\$102.00

SPEAKERS

ALC 20306 SPEAKER



The MONITOR 2-way system incorporates an 8" woofer with a 14 oz. magnet in a ported cabinet; combined with an L-C cross-over network at 2800 Hz; L-pad, and a 1 3/4" phenolic ring tweeter with a 2.4 oz. magnet.

- * Size: 19 1/2" x 11" x 7 1/4"
- * Weight: 20.25 lbs.

ALC 20306.....\$118.00

ALC 21314 SPEAKER



The STUDIO loudspeaker system has been designed with today's music in mind. The full range of the audio spectrum comes through whether its Rock, Folk, Jazz, Classical, or Synthesized. The carefully damped 10" woofer produces well defined bass down to 41Hz while the phenolic tweeter carries the highs beyond 20 KHz. The tweeter control and the system fuse are up front just behind the snap away grill. This grill is so acoustically transparent that the system sounds the same with or without it in place. The totally enclosed cabinet is finished in walnut grained vinyl and is 23 1/2" x 12 3/4" x 11-7/8".

ALC 21314.....\$153.00

ELECTRO-VOICE SPEAKERS

The Encore loudspeaker line represents an extraordinary development in loudspeaker design. These speakers combine the low-frequency performance associated with acoustic suspension (sealed box) speakers with efficiency that approaches that found in vented-enclosure designs. And, you get this performance at a reasonable price. All in simulated walnut-grain vinyl.

(cont.)

ELECTRO-VOICE TWO-WAY, 8-INCH SPEAKER SYSTEM ENCORE 33



- * Frequency Response: 50-18,000 Hz
- * Sound Pressure Level, 1 Meter, 1 Watt Input: 89 dB
- * Amplifier Power, Continuous Watts Per Channel, Recommended Range: 10-60 Watts
- * Maximum: 150 Watts
- * Transducers: 8" woofer; 2 1/2" tweeter
- * Nominal Impedance: 8 ohms
- * Size: 21 1/4" x 11-3/8" x 9-11/16" hwd
- * Net Weight: 20 lb.

Encore 33.....\$108.00

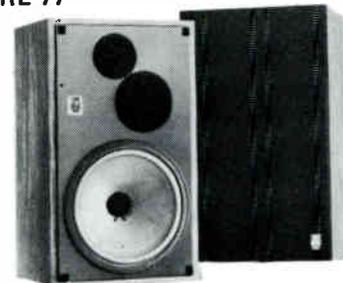
ELECTRO-VOICE TWO-WAY, 10-INCH SPEAKER SYSTEM ENCORE 55



- * Frequency Response: 40-18,000 Hz
- * Sound Pressure Level, 1 Meter, 1 Watt Input: 92 dB
- * Amplifier Power, Continuous Watts Per Channel, Recommended Range: 5-60 Watts
- * Maximum: 150 Watts
- * Transducers: 10" woofer; 2 1/2" tweeter
- * Nominal Impedance: 8 ohms
- * Size: 24 1/4" x 13 3/4" x 10-11/16" hwd
- * Net Weight: 23 lb

Encore 55.....\$156.00

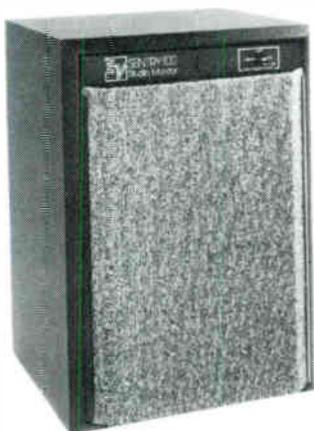
ELECTRO-VOICE THREE-WAY, 12-INCH SPEAKER SYSTEM ENCORE 77



(cont.)

- * Frequency Response: 30-18,000 Hz
 - * Sound Pressure Level, 1 Meter, 1 Watt Input: 92 dB
 - * Amplifier Power, Continuous Watts Per Channel, Recommended Range: 5-80 watts
 - * Maximum: 200 watts
 - * Transducers: 12" woofer; 4" midrange; 2½" tweeter
 - * Nominal Impedance: 8 ohms
 - * Size: 25¼" x 14¾" x 13-1/8" hwd
 - * Net Weight: 31 lb
- Encore 77.....\$192.00

ELECTRO-VOICE SENTRY 100 RACK-MOUNTABLE BROADCAST/RECORDING STUDIO MONITOR



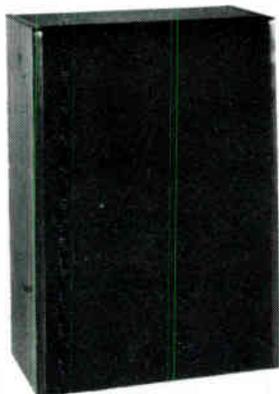
It's here at last! The compact high-performance monitor speaker system that is specifically human engineered to meet the complex demands of today's broadcast, recording and production studios.

The Sentry 100 is sized for use in those tight quarters where serious monitoring is required but high-quality systems have previously been too large. Cabinet dimensions are only 17.25" high x 12" wide x 11.125" deep. And, it's even rack-mountable!

- * Frequency Response: 1 meter on axis, 45 to 18,000 Hz, Sound pressure level at 1 meter, 91 dB.
- * Long-Term Average Power-Handling Capacity (above 40 Hz): 30 watts
- * Net Weight: 12.7 kg (28 lb)

Sentry 100.....\$200.00
 SRB-7 Accessory Rack Mounts\$18.00

ELECTRO-VOICE SENTRY V TWO-WAY PROFESSIONAL MONITOR SYSTEM



(cont.)

- * Frequency Response: 1 meter on axis, 45 to 18,000 Hz
 - * Usable Lower Limit Frequency: Normal, 35 Hz
 - * Step-down: 30 Hz
 - * Sound Pressure Level at 1 Meter, 1 Watt into Nominal Impedance - 96 dB
 - * Long-term Average Power - Handling Capacity, 30 watts
 - * Dimensions: 28½" high x 20" wide x 11¾" deep
 - * Net Weight: 23.6 kg (52 lbs)
- Sentry V.....\$383.00

ELECTRO-VOICE SENTRY III PROFESSIONAL LOUDSPEAKER MONITOR



The Sentry III is one of a generation of monitor loudspeaker systems resulting from creative engineering and critical listening by the Electro-Voice product engineering staff. The Sentry III is a direct descendant of the Sentry IV, utilizing the same high-frequency components but with a new low-frequency section.

The Sentry III system is housed in a handsome veneer enclosure with a dramatic dark grille treatment, making the system as equally appropriate for demanding home installations as for professional monitoring and sound reinforcement.

- * Frequency Response: 40-18,000 Hz ±3 dB
- * Sound Pressure (4' on axis, 1W): 98 dB
- * Power Handling Capacity: 50 watts
- * Finish: Polished walnut
- * Size - Cabinet: 28½" W x 20½" D x 34½" H
- * Pedestal: 1½" high
- * Weight: 156 lbs. (70.8kg)

Sentry III\$999.00

JBL SPEAKERS



4311BWX



4313BWX

(cont.)

SPEAKERS



JBL... The most extensively used monitor for broadcast and recording facilities. Available in a wide range of configurations and prices, this is the quality control tool most desired by sound professionals for their finished product.

4301BWX	Broadcast Monitor	\$180.00
4301BEWX	Broadcast Monitor, Amplifier	\$321.00
4311B	Control Monitor, Studio Grey	\$351.00
4311BWX	Control Monitor, Oiled Walnut	\$360.00
4313BWX	Cntrl Mon., Oiled Walnut, 3-Way	\$396.00
4315B	Compact Studio Monitor, Studio Grey, 4-Way	\$1008.00
4315BWX	Compact Studio Monitor, Oiled Walnut, 4-Way	\$1026.00
4331B	Studio Monitor, Studio Grey, 2-Way	\$1107.00
4331BWX	Studio Monitor, Oiled Walnut, 2-Way	\$1125.00
4333B	Studio Monitor, Studio Grey, 3-Way	\$1260.00
4333BWX	Studio Monitor, Oiled Walnut, 3-Way	\$1275.00
4343B	Studio Monitor, Studio Grey, 4-Way	\$1590.00
4343BWX	Studio Monitor, Oiled Walnut, 4-Way	\$1608.00
4350B	Studio Monitor, Studio Grey, 4-Way, for Bi-Amplification	\$2184.00
4350BWX	Studio Monitor, Oiled Walnut, 4-Way, for Bi-Amplification	\$2226.00

UREI 811 TIME ALIGNED STUDIO MONITOR SYSTEM



(cont.)

TYPE: Single woofer coaxial with Model 828 two-way TA network.
 POWER RATING: 75 watts 40 Hz to 20 kHz, with pink noise.
 FREQUENCY RESPONSE: ± 3 dB, 80 Hz to 15 kHz measured "freespace".
 CABINET: Utility flat black painted.
 WEIGHT: 110 lbs.
 DIMENSIONS: 20 $\frac{3}{4}$ " H x 26 $\frac{1}{2}$ " W x 17 $\frac{1}{2}$ " D without grille, 19" with grille.
 UREI 811.....\$1096.00
 UREI 811G Accessory Grille.....\$46.00

UREI 813 TIME ALIGNED STUDIO MONITOR SYSTEM



The 813 Studio Monitor System is the first generation product of a joint R&D effort of UREI and E.M. Long Associates. The TIME-ALIGN TECHNIQUE is a real-time design method, utilizing proprietary instrumentation developed by Long which allows the driver placements and network parameters to be adjusted simultaneously, achieving near perfect alignment of the frequency components of a complex transient waveform as heard by a listener.
 TYPE: Dual woofer coaxial with Model 838 three-way TA network.
 POWER RATING: 75 watts 40 Hz to 20 kHz, with pink noise.
 FREQUENCY RESPONSE: ± 3 dB, 40 Hz to 15 kHz.
 CABINET: 813F Formica woodgrain finish, 813U Utility flat black painted.
 WEIGHT: (176 lbs).
 DIMENSIONS: H = (35 $\frac{3}{4}$ "). W = (31"), D = (22") cabinet only (25 $\frac{1}{4}$ ") with grille.
 UREI 813.....\$1596.00
 UREI 813G Accessory Grille.....\$48.00

UREI 815 TIME ALIGNED STUDIO MONITOR SYSTEM



(cont.)

The 815 Studio Monitor System is the latest and third product of a joint R&D effort of UREI and E.M. Long Associates.
 TYPE: Triple woofer coaxial with Model 848 three-way TA network.

POWER RATING: 75 watts 40 Hz to 20 kHz, with pink noise.
 FREQUENCY RESPONSE: ±3 dB, 40 Hz to 15 kHz measured "freespace".

CABINET: Utility flat black painted.

WEIGHT: (225 pounds).

DIMENSIONS: Height (32").

WEIGHT: (43½).

DEPTH: (19½") without grille, (21") with grille.

UREI 815.....\$1996.00

UREI 815G Accessory Grille..... \$60.00

PARALLAX IC-6510 6½" CUBE SPEAKER



Uniquely designed, produces a remarkably wide range of low distortion sound. Will accommodate up to 25 watt RMS continuous power. Front loaded speaker; removable foam grille.

ENCLOSURE: Walnut-grain vinyl, high density particle board.

SPEAKER: 4½" full range.

NOMINAL IMPEDANCE: 4 ohms.

POWER RATING: 25 watts RMS.

DIMENSIONS: 6½" H x 6½" W x 6½" D

IC-6510.....\$33.00

PARALLAX IH-2430 10" 3-WAY SYSTEM



Front loaded speakers, electronic cross-over, acoustic insulation. Removable knit grille on wood frame. Model IH2430 has 20 watts RMS continuous power.

ENCLOSURE: Walnut grain vinyl, high density particle board

WOOFER: 10"

MIDRANGE: 4½"

TWEETER: 3"

FREQUENCY RESPONSE: 38-20,000 Hz

CROSSOVER FREQUENCY: 2000 Hz, 5000 Hz

NOMINAL IMPEDANCE: 8 ohms

(cont.)

POWER RATING: 20 watts RMS

GRILLE: Removable brown knit

TERMINALS: RCA-type, 2 post screw

DIMENSIONS: 24" H x 14" W x 10½" D

SHIPPING WEIGHT: 30 lbs. (single)

IH-2430\$75.00

PARALLAX 1H2841 THE UTMOST: 15" 4-WAY HIGH PERFORMANCE BASS REFLEX SYSTEM



Presenting: a brilliant performer incorporating features to impress the most discerning ear. Powerful 50 watt RMS continuous power system is augmented by electronic crossover. Tweeter and midrange speakers offer individual level controls. Circuit breaker provides protection from overload. Bass Reflex features a tuned port to heighten and dramatize deepest bass tones. The finely crafted, tuned cabinet with removable brown knit grille.

ENCLOSURE: Walnut grain vinyl high density particle board.

SPEAKERS: 15" woofer, matched pair 4½" midranges, 3" high compliance tweeter.

FREQUENCY RESPONSE: 20-20,000 Hz

POWER RATING: 50 watts RMS

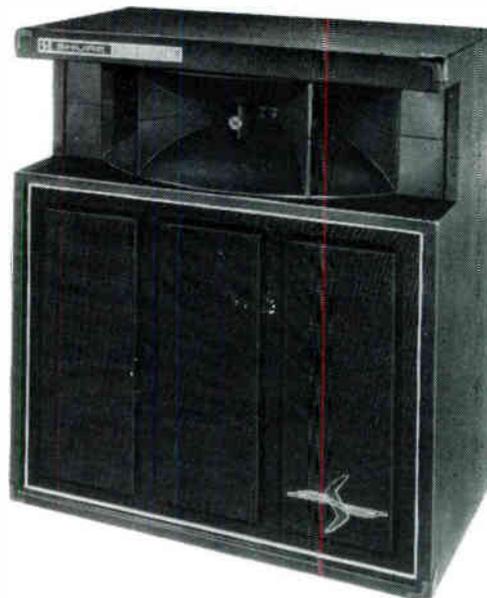
LEVEL CONTROLS: Tweeter & midrange

DIMENSIONS: 27½" H x 19" W x 14" D

SHIPPING WEIGHT: 40 lbs. (single)

1H-2841.....\$199.00

SHURE 701 PRO MASTER SPEAKER SYSTEM



(cont.)

SPEAKERS

The Shure 701 Pro Master speaker system is a wide-range, high efficiency, lightweight, portable, two-way speaker system—is an ideal companion unit to Shure's 700 Pro Master Power Console or similar high-power amplifiers. The 701 provides high SPL sound reinforcement of wide frequency range program material in every location from the largest auditoriums to the most intimate clubs. The speaker system consists of a 15-inch woofer in a front-ported bass-reflex cabinet and a high-frequency horn and driver combination with an adjustment for either a 120° or 60° horizontal dispersion angle.

Shure 701.....\$495.00

SHURE 707 LOW-FREQUENCY SPEAKER



The low-frequency portion of the Model 701.

* Frequency Response: 50 to 2,600 Hz

* Impedance: 8 ohms

Shure 707.....\$280.00

SHURE 702 STAGE MONITOR SPEAKER SYSTEM



A compact, high-quality, two-way speaker system designed for localized sound coverage in on-stage monitor (foldback) applications. The 702 may be used with virtually any power amplifier capable of delivering up to 50 watts to a 16-ohm load. It can be placed in either of two slanted positions facing the performer.

* Built in volume control

* Frequency Response: 100 Hz to 20 kHz

* Impedance: 16 ohms

Shure 702.....\$238.00

SHURE 708 HIGH-FREQUENCY SPEAKER



The high-frequency portion of the Model 701, including adjustable dispersion horn. It has a frequency response of 2,000 to 15,000 Hz and impedance - 8 ohms.

Shure 708.....\$290.00

SHURE 703 PRO MASTER STAGE MONITOR

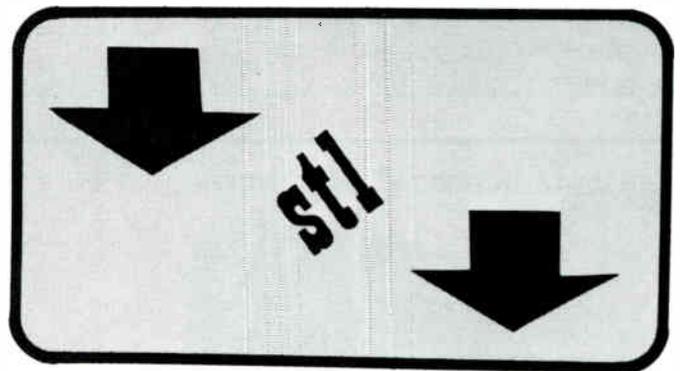


Professional, high-output, two-way monitor system designed on-stage use. Has two 8-inch speakers and a high-frequency driver coupled to a 120° radial horn. Horn dispersion angle may be reduced to 60° for tighter control of foldback signal. Can be positioned at 30° or 60° angle to the stage. Maximum recommended amplifier output: 100 watts continuous to 8 ohms, output 117 dB SPL at 1.2m (four feet) with 100 watts.

* Frequency Response: 100 Hz to 16 kHz

* Impedance: 8 ohms

Shure 703.....\$400.00



MOSELEY AURAL STUDIO-TRANSMITTER LINKS

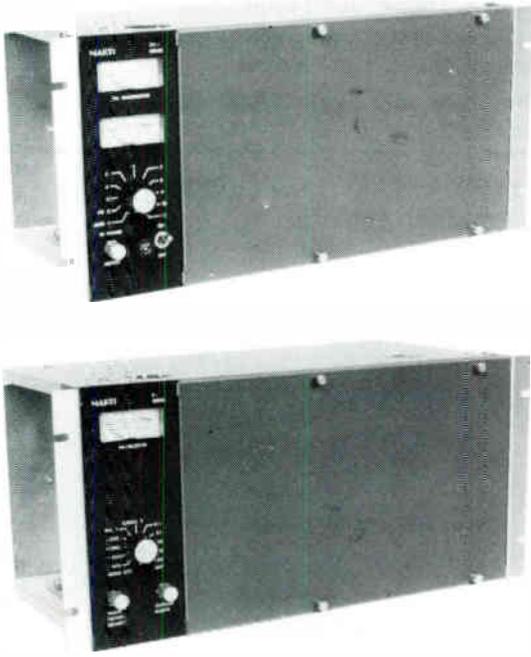


The Model PCL-505 and PCL-505/C composite Aural Studio-Transmitter Links offer superior program handling capabilities. State-of-the-art strip-line techniques and direct FM provide completely dependable performance. Solid-state integrated circuitry and continuous duty design make for ease of operation and maintenance.

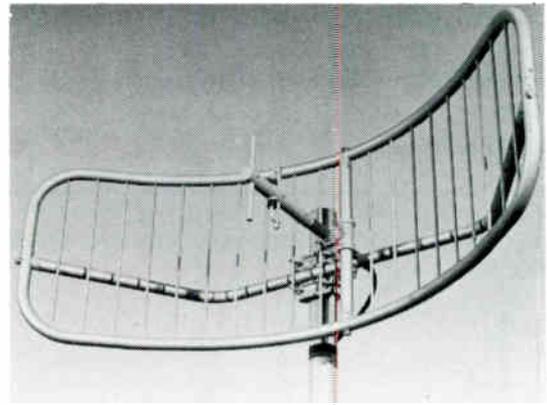
PCL-505 System.....\$4695.00

PCL505C Composite For Stereo System.....\$4950.00

MARTI AURAL STUDIO-TRANSMITTER LINK



SCALA MF-960 MINIFLECTOR ANTENNA



- * Aural Broadcast STL
- * Telemetry
- * Point-To-Point Communications

MF-960\$250.00

STL-8 TRANSMITTER

- * All solid state
- * Direct FM modulator
- * Modular construction
- * Test meter built-in
- * Proven reliability in hundreds of installations
- * Unsurpassed for dual channel stereo STL, Single channel AM STL or inter City Relay.

Specifications—Stereo

- * Stereo Cross Talk . . . -65 DB
- * Noise . . . -65 DB or less
- * Response . . . +/-0.5 DB 30-15000 Hz
- * Distortion . . . Less than 0.5%

STL PACKAGES

Package A AM/and/or FM Monaural..... \$2580.00

- (1) STL-8 Transmitter, c/w crystal & tuned
- (1) R-200/950 Receiver, c/w crystals & tuned

Package B AM and/or FM Monaural w/HOT STANDBY.....\$5635.00

- (2) STL-8 Transmitters, c/w crystals & tuned
- (2) R-200/950 Receiver, c/w crystals & tuned
- (1) ASO-8A Transmitter switcher
- (1) ASO-200A Receiver switcher

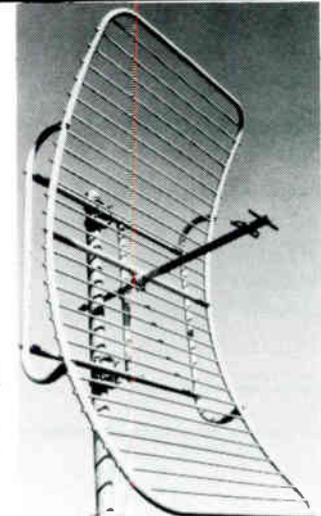
Package C FM Stereo.....\$4765.00

- (2) STL-8 Transmitters, c/w crystals & tuner
- (2) R-200/950 Receivers, c/w crystals & tuned
- (1) HRC-8 Transmitter combiner
- (1) MTS-1 Receiver combiner

Package D FM Stereo w/HOT STANDBY..... \$10350.00

- (4) STL-8 Transmitters, c/w crystals & tuned
- (4) R-200/950 Receivers, c/w crystals & tuned
- (2) HRC-8 Transmitter combiners
- (2) MTS-1 Receiver combiners
- (1) ASO-8A Transmitter switcher
- (1) ASO-200A Receiver switcher

SCALA PR-450U ANTENNA

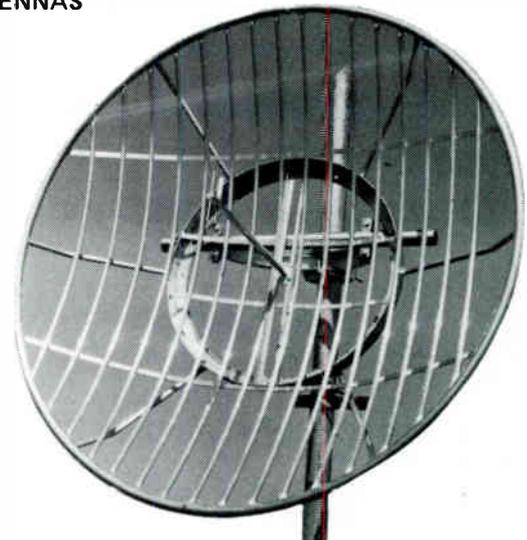


- * Aural Broadcast STL
- * UHF-TV Reception
- * UHF-TV Translators
- * Telemetry

PR-450U..... \$435.00

Call Allied For Information On Any Scala Antenna

ANIXTER-MARK MICROWAVE GRID PARABOLIC ANTENNAS



(cont.)

TELEPHONE ANSWERING EQUIPMENT

- * Aural STL applications meets or exceeds all existing FCC requirements
- * Lightweight, yet extremely strong
- * Cross polarization discrimination response exceeds solid parabola

Call Allied For Pricing

ANIXTER-MARK "MINI-GRID" MICROWAVE ANTENNA 890 - 960 MHz



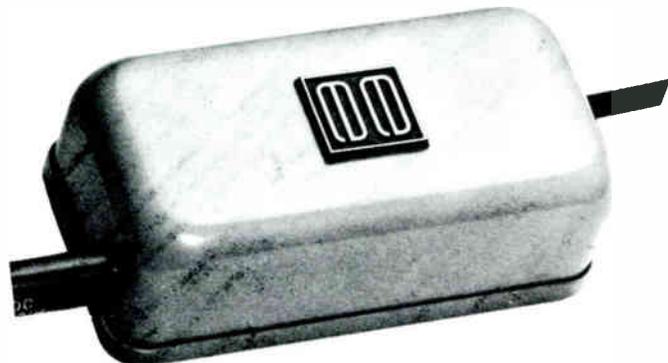
- * Light Weight
- * Low Cost
- * Easy Mounting
- * Moderate Gain
- * Durable Components
- * Low Wind Load

Mount on round member up to 3.5"

MG-944GN\$199.00



ELGIN EC-30A VOICE COUPLER



(cont.)

PURPOSE—Provide 2-wire connection of customer-provided (CP) voice transmitting and/or receiving equipment to telephone lines. These couplers must be associated with a telephone set equipped with an exclusion key. The coupler provides dc isolation and limits excessive signals.

EC-30A\$39.00

ELGIN ERC-19522-21 -22 RECORDER COUPLERS, ERC-19522-11 VOICE CONTROL UNIT



The ERC-19522 recorder coupler is used to connect customer provided recording equipment to a telephone line. The ERC-19522-22 recorder coupler is supplied with the ERC-19522-11 voice control unit factory-installed. The ERC-19522-21 or -22 recorder coupler may be used with individual or 2-party service. The ERC-19522-21 or -22 recorder coupler:

- * Answers incoming calls automatically.
- * Couples pre-recorded announcements to telephone line from customer-provided unit.
- * Couples incoming messages from telephone line to customer-provided recording equipment.
- * Transmits a single short beep tone to telephone line at the time of mode transfer (start and end of recording period).
- * Transmits low-level tone to telephone line as required by customer unit.
- * Disconnects from telephone line on receipt of calling party disconnect signal, voice operated relay disconnect signal, or opening of Ready Leads by customer provided equipment.

19522-21.....\$206.00

19522-22.....\$262.00

ELGIN ERC-19645-4 RECORDER-CONNECTOR



(cont.)

The TM Model ERC-19645-4 registered recorder coupler is designed to connect customer-provided recording equipment, typically manually-operated voice recorders, to the switched telecommunications network. This apparatus provides a warning notice on telephone lines when the conversation is being recorded. ERC-19645-4 Recorder-Connector is intended for use with customer-owned voice recorders. The Universal Service Order Code (USOC) is RCZ. ERC-19645-4 Recorder-Connector is used with conventional dialing equipment as well as stations equipped for TOUCH-BUTTON dialing.

When a voice recorder is used on a telephone line, adequate notice must be given to all parties that their conversation is being recorded. This notice is to be given by an automatically produced warning tone (beep), repeated at approximately 15-second intervals.

ERC-19645-4\$190.00

ELGIN ESC20721-1 RDMZR STATION AIR COUPLER



Medium and major-market radio stations from coast to coast are taking advantage of a sales tool that puts them in direct touch with major time buyers. The Elgin ESC20721-1, when interfaced between a telephone line and your air sound, will permit any potential buyer to hear your air sound simply by dialing the appropriate number. . . .anywhere in the world!

ESC20721-1.....\$172.00

EC30A QKT Voice Coupler, FCC Reg. No. AE498D-62644-PC-N, R.E.N. No. 0.0B – Voice frequency access to telecommunications network; limits abnormally high voice signal voltages; isolates hazardous voltages and currents; provides longitudinal impedance balance.

ERC19522-21 RDL Recorder Coupler, FCC Reg. No. AE498-D-62354-PC-N, R.E.N. No. 0.5A – Couples recording equipment to telecommunications network; isolates hazardous voltages; maintains control of speech signal power, line termination and impedance. Has a unidirection transmission path and provides supervisory beep tone signalling.

ERC19522-22 RDL Recorder Coupler w/Voice Control, FCC Reg. No. AE498D-62351-PC-N, R.E.N. No. 0.5A – Combination of ERC19522-21 and ERC19522-11.

ERC19522-11 Voice Control for Recorder Coupler – Automatically disconnects coupler from the line when speech is absent for 12 seconds. Separate P.C. assembly for connecting to the recorder couplers.

ERC19522-21 (2W) RDM Recorder Coupler, FCC Reg. No. AE498D-62645-PC-N, R.E.N. No. 0.5A – Same as ERC 19522-21 except it has a bidirectional transmission path.

ERC19522-22 (2W) RDM Recorder Coupler, FCC Reg. No. AE498D-62622-PC-N, R.E.N. 0.5A – Combination of ERC

(cont.)

19522-21 (2W) and ERC19522-11.

ERC19645-4 RCZ Recorder Connector, FCC Reg. No. AE498D-62641-PC-N, R.E.N. No. 0.0B – Provides high impedance bridging connection to telephone line, transmission path with one way amplification and optional AVC to recording device. Beep tone @ 15-second intervals to remote party.

BROADCAST ELECTRONICS TELCO 80/91 SERIES



TELCO 80 (904-0080) – Record/Play Telephone Answering Interface System for use with Spotmaster Cartridge Machine Series 400/500/605/610

TELCO 91 (904-0091) – Record/Play Telephone Answering Interface System for use with Spotmaster Cartridge Machine Series 3000/4000.

Spotmaster Telco 80 or Telco 91 are interface devices installed between cartridge machines and the telephone company coupler to provide automatic answering and message recording. All Spotmaster cart machines may be adapted for use with Telco equipment.

AUTOMATIC PLAY – In this position the play machine will automatically answer the call.

MANUAL PLAY – This is used in conjunction with a telephone handset. The phone can be answered by an operator, the caller can tell operator what message he/she wants to hear. The operator inserts cartridge, pushes manual play and the pre-recorded message will play.

AUTOMATIC RECORD – In this position the record machine will automatically answer the call at the end of the first full ring and record the incoming message.

MANUAL RECORD – This is used in conjunction with the telephone handset. The phone can be answered by an operator. When the caller is ready, the operator can insert cartridge and push manual record and the caller's message will be recorded.

AUTOMATIC PLAY AND RECORD – In this position the play machine will automatically seize the phone line at the end of the first full ring and give a pre-recorded announcement to the caller. At the end of the recorded announcement a 150 Hz (Q1) pre-recorded tone will start the recorder and record the caller's reply.

* Provides automatic response to incoming calls.

* Interfaces between Spotmaster cartridge machine and Bell recorder coupler.

CONNECTING CABLE: Provided with 15 feet of cabling and mating connector for W.E. RDM/RDL connector. Also pro-

(cont.)

TEST EQUIPMENT

vided with 15 feet of cabling and connectors for two Spotmaster cartridge units.

POWER: Required voltage supplied from associated cartridge machine.

PLAY AUDIO MONITOR: Allows normal use of cartridge machine without disconnecting the TELCO 80/91.

80/91 (each)..... \$450.00

BROADCAST ELECTRONICS TELCO III, IV, V & VI SERIES



The Telco III, IV, V & VI are interface devices which provide automatic answer only capability. All Spotmaster record-play-back units can be adapted for Automatic telephone response. Install the Telco between the unit and a standard Bell system RDM Recorder Coupler. Allows pre-recorded messages, advertising, audio reports, etc. to automatically respond to incoming calls. The Telco provides the required signal level and switching interface between the cartridge machine and Elgin ERC 19522-L1 (or L2) recorder coupler. Models are available for automatic or combined manual/automatic operation.

Telco III, IV, V & VI Series..... \$175.00 to \$299.00



DELTA ELECTRONICS CPB-1 COMMON POINT IMPEDANCE BRIDGE



(cont.)

The Common Point Impedance Bridge is an invaluable device for directional array maintenance. The CPB-1 is designed for permanent installation in existing phasing equipment to provide an accurate indication of the common point impedance. The CPB-1 will handle common point powers of up to 5kW with 100% amplitude modulation. The CPB-1A is designed for powers up to 50 kW.

CPB-1 to 5 KW\$1300.00

CPB-1A to 5 KW\$1540.00

RF Ammeters, If Desired, Are Optional

DELTA ELECTRONICS OIB-1/OIB-3 OPERATING IMPEDANCE BRIDGES



The Operating Impedance Bridge is a device that measures the impedance of networks, transmission line sections, radiators, and the like, while they are functioning under normal power. This "operating impedance" cannot be measured by conventional bridges due to the disrupted system characteristics that occur when such a bridge is inserted. The OIB-1 provides the engineer with the capability to directly read up to ± 400 ohms resistive and $\pm j 300$ ohms reactive. The OIB-3 offers additional ranges of up to ± 1000 ohms resistive and $\pm j 900$ ohms reactive.

OIB-1..... \$1250.00

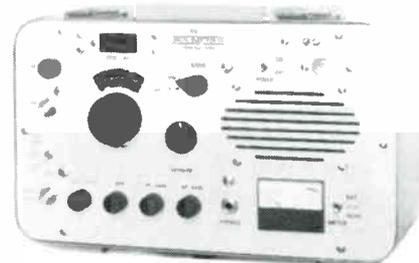
Extended R&X, R to 1000 ohms & X to 900 ohms....\$350.00

OIB-1 Transport Case.....\$200.00

D3354 Installation of DC Amp \$175.00

OIB-3 \$1750.00

DELTA ELECTRONICS RG-3 RECEIVER/GENERATOR



The RG-3 is designed to provide interference-free, accurate measuring capability for AM broadcast antenna measurements. The RG-3's many features include a frequency counter, correlation detector for interference elimination, high output power, excellent receiver shielding, and single-knob continuous tuning. Operation from AC line current or rechargeable Nicad batteries. The RG-3 is designed to be used with any conventional impe-

(cont.)

dance bridge.

- RG-3.....\$3650.00
- D51-8-4 Set of 2 Coax Cables.....\$40.00
- D05-72 Set of 10 Rechargeable Nicad Batteries.....\$170.00

POTOMAC INSTRUMENTS – AT51 TEST SYSTEM



Designed primarily for commercial broadcast proof-of-performance measurements and equipment maintenance. The AG51 Audio Generator and AA51 Audio Analyzer are packaged separately for remote measurements requiring physical separation of signal source and signal analyzer. Both units are RFI shielded to enable accurate measurements in high level radio frequency environments typical to broadcast transmitter facilities. Signal input and output connectors are also RFI shielded.

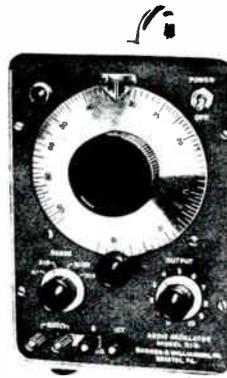
MEASURES: harmonic distortion, intermodulation distortion, volts, dB, signal + noise/noise ratio, wow and flutter, stereo phasing, differential gain in stereo channels.

- * Separate generator and analyzer
- * Transformerless stereo outputs (balanced or unbalanced; switch selectable)
- * Source resistance 150 ohms or 600 ohms (switch selectable)
- * Automatic signal leveling
- * Precision 10 dB, 1.0 dB and 0.1 dB step attenuators
- * RFI shielding
- * Automatic "set level" and "balance" circuits
- * Scope display of distortion products
- * Output level monitor

- AT51 Systems consisting of AA51 & AG51.....\$2790.00
- AA51 Analyzer Only.....\$1595.00
- AG51 Generator Only.....\$1335.00

BARKER WILLIAMSON 210 AUDIO OSCILLATOR

BARKER WILLIAMSON 410 DISTORTION METER



Model 210 Audio Oscillator



Model 410 Distortion Meter

Model 210 Audio Oscillator—A source for low distortion signals from 10 to 100,000 cycles. Frequency response is ± 1 dB over entire range when connected to 600 ohm load, referenced at 5 KC. Other specifications are: calibration $\pm 2\%$ over entire range; power output: up to 10 V into 600 ohms; waveform distortion: less than .2% at 5 volts output from 50-20,000 cps. Weight: 11 lbs.

- 210.....\$410.00

Model 410 Distortion Meter— Measures audio distortion, noise level, audio gain or loss in dB and ac voltages. Distortion ranges provided are: 1% full scale, 3%, 10%, 30% and 100%. Calibration is in 1 dB steps from 0 dB to -15 dB. Attenuator provides additional ranges from -60 dB to $+50$ dB in 10 dB steps. Weight: 12 lbs.

- 410.....\$495.00

BRIGHT C1000 FREQUENCY COUNTER



Bright's C1000 frequency counter is known throughout the communications industry for its ruggedness and reliability. This unit is housed in a tough .125" metal cabinet. Built to exacting commercial standards, many companies rely on the C1000 as their local frequency standard.

- * Useable & accurate 50 Hz to 1 GHz
- * 10 MHz proportional over time base
- * Input required 20 mv to 100 mv, frequency dependent

- C1000 including antenna & AC supply.....\$595.00

Available Options:

- C1000-1.25 extended range.....\$149.00
- Full 9 digit resolution.....\$149.00
- Nicad battery pack.....\$69.00
- C1000 shown with full 9 digit resolution option

We invite:

bids and requests for quotations
Allied Broadcast Equipment



TEST EQUIPMENT

WHITE 151 PINK NOISE GENERATOR



- * Compact battery powered digitally generated pink noise
- * 268,000,000 bit word length
- * Flat 20 Hz through 20 kHz
- * Microphone or line level output
- * Rugged
- * Inexpensive

White 151.....\$125.00

WHITE 200 SIGNAL ANALYZER



30 Triple-tuned filters on 1/3 octave I.S.O. centers from 25 Hz through 20 kHz. Octave band and 1/6 octave plug-in filters are available. 30 by 15 LED display plus separate dB-SPL, overrange, and 2 seven segment readouts. 8 memories. One, two and three dB scales. Processes peak and average simultaneously. 3 Time constants. All functions are microprocessor controlled. Long list of plug-in options.

White 200.....\$4990.00

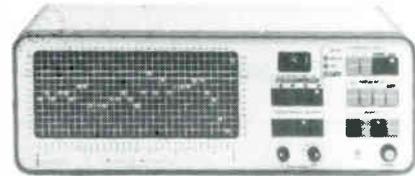
WHITE 140 SOUND ANALYZER



27 Double-tuned 1/3 octave filters on I.S.O. centers from 40 Hz through 16 kHz. 27 by 10 LED display plus separate dB-SPL and overrange readout. One and two dB scales. Display vernier. Built in pink noise generator. Mic and line level inputs. Sync and log amplifier outputs for remote oscilloscope display. Rugged road case. Metts ANSI S1.11-1971 Class II Specifications.

White 140.....\$2700.00

INOVONICS 500 ACOUSTIC ANALYZER



A fully portable unit for real time, one-third octave audio spectrum display and reverberation analysis. Peak and averaged measurements, two memories, RT 60 and Decay Plot capabilities, built-in Pink Noise generator. I/O logic interfaces with digital peripherals.

Inovonics 500.....\$2850.00

STL PRECISION MAGNETIC TEST TAPES



STL Test Tapes are recorded directly from precision generating equipment to provide the most accurate reference possible. An independent standards laboratory, STL provides a completely objective service, with test tapes available to major manufacturers, governments, and all who need a precision reference tool. If your needs cannot be accommodated by our wide selection of catalog items, we will quote on custom tapes. However, if your quantity requirements are low, our set-up costs are such that adapting your needs to catalog items will result in substantial cost savings and is, therefore, recommended.

REEL TO REEL – REPRODUCE TAPES

Tape	Speed (IPS)	Track Config.	Reproduce 185 nWb/m	Align Level	Pink Level	100 MS Sweep
¼"	7½	Full	\$35.00		\$30.00	\$30.00
¼"	7½	2	\$40.00		\$35.00	\$35.00
¼"	15	Full	\$35.00		\$30.00	\$30.00
¼"	15	2	\$40.00		\$35.00	\$35.00

EL3—For 2 db elevated level (261 nWb/m) (7½, 15, and 30 ips only)

EL6—For 6 db elevated level (369 nWb/m) (15 and 30 ips only)

BROADCAST CARTRIDGE TEST TAPES

7½ ips Speed – A type cartridge

(cont.)

All items are manufactured to the 1976 NAB standardized characteristic.

All cartridges have the Q track area unrecorded, except for the Q track test tape. All are available in any of 6 popular type cartridges. —AR(Aristocart), —AP (A2 Audiopak), —AA (AA3 Audiopak), —FI (Fidelipac 350), —MA (Mastercart), —MT (Marathon 300-AA), —ML (Marathon 300-S).

Reproduce Alignment.....	\$45.00
Frequency Check	\$35.00
Pink Noise.....	\$40.00
Sweep (100 ms).....	\$40.00
Level Set (1 kHz, 160 nWb/m).....	\$25.00
Azimuth (12.5 kHz)	\$30.00

CASSETTE TEST TAPES

1-7/8 ips — Full track recordings

Reproduce Alignment	\$55.00
Frequency Check.....	\$25.00
Frequency Check	\$35.00
Pink Noise.....	\$45.00
Azimuth (10 kHz).....	\$30.00

Call Allied For Information On The Entire STL Line of Laboratory Alignment Tapes

DURO-TEST CODE BEACON AND OBSTRUCTION BULBS



You need rugged, dependable, long-lasting, quick-to-see bulbs wherever there are tall air traffic hazards. The best bulbs that money can buy are built by Duro-Test.

In addition to giving added protection, Duro-Test Code Beacon and Obstruction bulbs are life-rated to reduce changes at precarious heights, cut down on dangerous burn-outs . . . and save money in terms of replacement and maintenance costs.

Heavier, longer filaments withstand severe intermittent operation. Automatically positions filament for maximum visibility.

- * Radio Towers
- * TV Towers
- * Microwave Towers
- * Building Towers

CODE BEACON \$22.80 ea.

Watts	Bulb	Base	Description	Voltage	Lumens	Hours
620	PS-40	Mog.Pref.	Clear	125-130	10,500	4500-5500

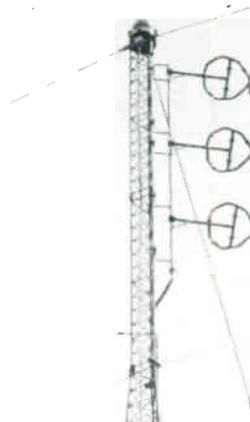
OBSTRUCTION \$3.20 ea.

Watts	Bulb	Base	Description	Voltage	Lumens	Hours
116	A-21	Med.	Clear	125-130	1260	7500-8500

Meets Requirements Of F.A.A. Obstruction Marking & Lighting

Contact Allied For Information And Pricing

PI-ROD TOWERS



- * Solid rod, all-welded construction provides greatest strength with minimum surface exposure to wind and icing conditions. Local wind and icing conditions are analyzed for optimum design efficiency. Slim Line design offers minimized air resistance.
- * A complete line of standard (proven performance) models.
- * Computerized analysis of loading factors for structure conformity to meet and exceed customer specifications. Working with these data, licensed professional engineers review your specific requirements and determine the ultimate solution.
- * Engineered concepts utilizing minimum space requirements. We design systems to meet critical space limitations, with 50% and smaller guy radiuses available.
- * Minimized interference with reduced face width design improves transmission—another PI-ROD engineering innovation.

Contact Allied For Pricing

UNION METAL SELF-SUPPORT STEEL ANTENNA POLES



Pole and accessories assembled on ground prior to erection.



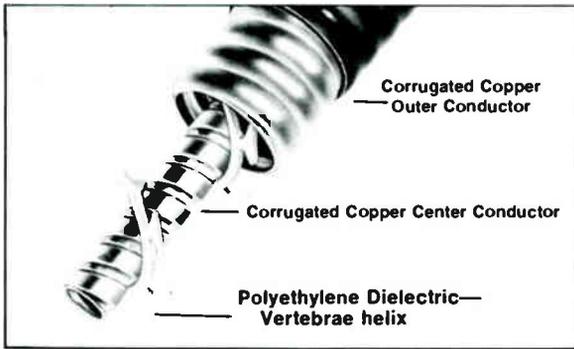
Pole in position to be lowered on plumbing nuts.

- * No guy wires required
- * 25' - 300'
- * Also suitable for top-mounting FM antennas on towers

Contact Allied For Pricing

TRANSMISSION LINE

CABLEWAVE SYSTEMS



3½" Air Wellflex — Type HCC		
3½" Jacketed HCC312-50J	810915-001	16.18/ft.
3-1/8" EIA (GP)	734579.....	\$312.00
3-1/8" EIA (GB)	734578.....	\$322.00
Splice	734574.....	\$312.00
3-1/8" EIA Anchor Inner Connector	622720.....	\$52.95
4-1/8" [4½" O.D.] Flexwell		
4-1/8" [4½" O.D.] Jacketed HF 4-1/8" Cu2Y		23.00/ft.
6-1/8" EIA (GP)	734600.....	\$560.00
6-1/8" (GB)	734602.....	\$590.00
6-1/8" Bullet	920270.....	\$138.00

Call Allied For The Complete Cablewave Line



ANDREW HELIAX CABLE



1-5/8" Air-Dielectric Heliax Cable		
HJ7-50A	1-5/8", 50 ohm cable	9.00/ft.
87R	1-5/8" EIA flange.....	\$132.00
87G	1-5/8" flange, gas barrier.....	\$156.00
87S	Reducer to 7/8" EIA.....	\$156.00
87SG	Reducer to 7/8" EIA, gas barrier.....	\$178.00
87N	N jack.....	\$190.00
87T	End terminal.....	\$200.00
87L	LC jack.....	\$190.00
1061	90° EIA miter elbow.....	\$140.00
1261B	1-5/8" EIA gas barrier.....	\$134.00
2061	1-5/8" EIA end terminal.....	\$140.00
34660	1-5/8" EIA inner connector.....	\$20.00
3" Air Dielectric Heliax Cable		
HJ8-50B	3", 50 ohm cable	17.25/ft.
78ARM	3-1/8" EIA flange, male.....	\$230.00
78AGM	3-1/8" EIA flange male, gas barrier.....	\$250.00
78ARF	3-1/8" EIA flange, female.....	\$225.00
78AGF	3-1/8" EIA flange, female, gas barrier.....	\$248.00
15093A	3-1/8" EIA inner.....	\$48.00
78AS	Reducer to 1-5/8" EIA.....	\$275.00
78BZ	Splice.....	\$275.00
1062	90° EIA miter elbow.....	\$240.00
2062	3-1/8" EIA end terminal.....	\$230.00
1861	Reducer to 1-5/8" EIA.....	\$152.00
4" Air-Dielectric Heliax Cable		
HJ11-50	4" 50 ohm Cable	19.20/ft.
81GF	3-1/8" EIA flange, female, gas barrier.....	\$380.00
81RF	3-1/8" EIA flange, female.....	\$360.00
15093A	3-1/8" EIA inner connector.....	\$48.00
42896	6-1/8" EIA flange, female.....	\$820.00
42826	6-1/8" EIA flange, female, gas barrier.....	\$890.00
18902	6-1/8" EIA inner connector.....	\$185.00
1062	90° 3-1/8" EIA miter elbow.....	\$240.00
2062	3-1/8" EIA end terminal.....	\$230.00

1-5/8" Air Wellflex — Type HCC		
1-5/8" Jacketed HCC158-50J	810903-001	7.70/ft.
1-5/8" EIA (GP)	738314.....	\$118.00
1-5/8" EIA (GB)	738303.....	\$124.00
N Female	738301.....	\$112.00
7/8" EIA (GP/Low VSWR Tunable)	738308.....	\$270.00
7/8" EIA (GB/Low VSWR Tunable)	738310.....	\$280.00
7/8" EIA Reducer (GB)	738304.....	\$140.00
7/8" EIA Reducer (GP)	738311.....	\$136.00
End Terminal	738306.....	\$170.00
Splice	738305.....	\$160.00
LC Female	738302.....	\$160.00
3" Air Wellflex — Type HCC		
3" Jacketed HCC300-50J	810905-001	14.50/ft.
3-1/8" EIA (GP)	738355.....	\$210.00
3-1/8" EIA (GB)	738350.....	\$220.00
Splice	738352.....	\$258.00

(cont.)

(cont.)

TRANSMITTERS

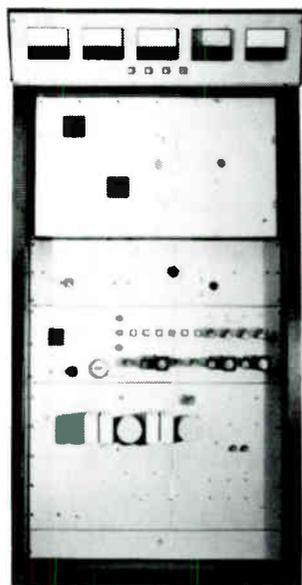
1861	Reducer, 3-1/8" to 1-5/8" EIA	\$152.00
81Z	Splice.....	\$380.00
5" Air-Dielectric Heliac Cable		
HJ9-50	5", 50 ohm Cable	28.50/ft.
79R	6-1/8" EIA flange, male.....	\$635.00
79G	6-1/8" EIA flange, male, gas barrier	\$690.00
1073	90° miter elbow, 6-1/8" EIA	\$750.00
1872	Reducer, 6-1/8" to 3-1/8" EIA	\$800.00
79Z	Splice.....	\$690.00

Call Allied For The Complete Andrew Coax Line



T-1-A, 500 Watts.....	\$10000.00
Conversion to 1KW.....	\$2100.00
Power Cutback (Specify Power).....	\$487.00
100% Spare Tubes	\$760.00
T-1-A, 1KW.....	\$11250.00
Power Cutback (Specify Power).....	\$487.00
100% Spare Tubes	\$760.00
T-2.5-A, 2.5KW	\$16650.00
Power Cutback (Specify Power).....	\$769.00
100% Spare Tubes	\$1415.00
T-5-A, 5KW.....	\$32750.00
Conversion to 10KW.....	\$4850.00
Power Cutback (Specify Power).....	\$980.00
100% Spare Tubes	\$3420.00
T-10-A, 10KW	\$35200.00
Power Cutback (Specify Power).....	\$980.00
100% Spare Tubes	\$3420.00

CSI TRANSMITTERS



T2.5A

CSI's AM line of transmitters is available in power levels of from .25 to 10 kilowatts, all FCC type accepted. You may choose from several modifications including power cutbacks & conversion to a higher power in many cases.

In conjunction with a Pi-Rod tower array, Munn LTU's, and Cablewave or Andrew coaxial cable, Allied can supply a complete AM transmitting system of any size as directed by your consulting engineer.

T-1-A, 250 Watts.....	\$9500.00
Conversion to 500 Watts.....	\$1100.00
Conversion to 1KW.....	\$2100.00
Power Cutback (Specify Power).....	\$487.00
100% Spare Tubes	\$760.00

(cont.)



T1F

FM transmitters from CSI feature grounded grid circuitry, excellent efficiency, time-and field-proven Versa Count Exciters, and are completely ready to install when received.

* Levels range from 1KW to dual 20KW units which will produce a TPO of 40KW.

* A complete complement of accessories is also available.

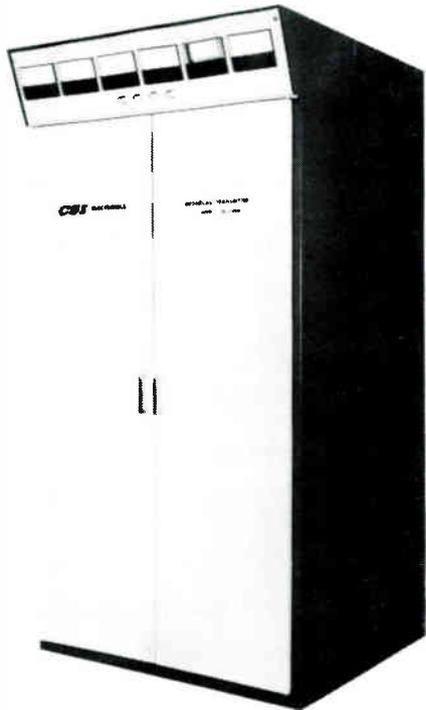
TRANSMITTING TUBES



Allied has a broad selection of transmitting tubes to fit your requirements with same-day shipment.

Call Allied For Complete Information And Pricing.

TRANSMITTERS



FM12000E

Models T1F through T20F are housed in a single cabinet. T25F is housed in two cabinets one of which is a stand-alone 3KW driver which can be used in emergencies in case of failure of the P.A.



T25F

- T-20-F, 20KW Transmitter, Includes
 - Versa Count V322 exciter\$36500.00
 - Spare Transistors and Tubes\$2688.00
- T-25-F, 25KW Transmitter, Includes Independent 3KW Driver and Versa Count V322 exciter\$3200.00

FM DUAL TRANSMITTERS

- FM-T-40-F, 40KW Dual Transmitter consists of two T-20-F transmitters with one operating and one standby exciter, one combiner, reject load, alarm and automatic switch\$83500.00

FM ACCESSORIES

- Auxiliary Remote Meter Panel\$595.00
- RPC-1, Motor Driven Rheostat*\$230.00
- RP-1, Auxiliary Relay Panel*\$203.00
(For all Transmitters Except T25F)
- VSW-1, VSWR Monitor\$487.00
- Versa Count Stereo Generator, Add\$905.00
- Versa Count SCA Generator, Add\$495.00
- RP2, Relay Panel for T25F*\$265.00
- SD-1 Short Distance Remote Control\$615.00

*All AM & FM Transmitters Require Remote Options For Remote Control Use.

BROADCAST ELECTRONICS FX-30 EXCITER



The new Broadcast Electronics FX-30 Exciter offers performance so superior that it rivals the best hifidelity tuners available. Distortion in the FX-30 is extremely low, while programming is loud and clear.

Whether it is used in one of the new Broadcast Electronics FM transmitters, or as a replacement for an existing exciter, the FX-30 is the new performance leader in FM broadcasting.

A digitally programmed frequency synthesizer that permits field frequency changes in 10 KHz increments puts more than 2000 channels at your command, without requiring new crystals.

The solid-state FX-30 exciter is completely broadband and requires no tuning adjustments for a conservative 30 watt output. The RF output is continuously adjustable from 3 watts to 30 watts.

A color coded LED display constantly monitors the composite signal applied to the modulated oscillator, and provides a clear indication of short transient peaks exceeding 100% modulation. The ballistics and speed of this built-in modulation monitor make it more accurate and useful than ordinary modulation monitors.

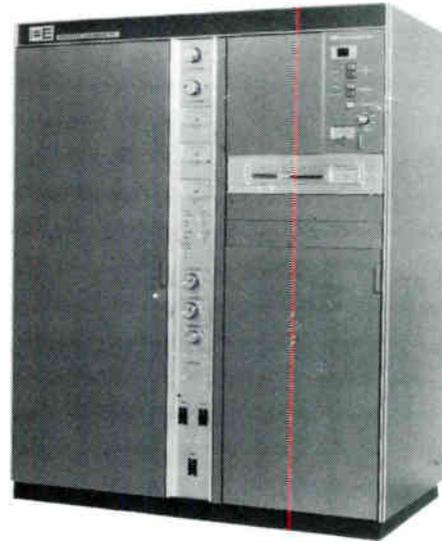
The entire chassis is mounted on slides, so when the unit is pulled out from the rack or transmitter, all sub-assemblies are easily accessible while the unit continues to operate.

(cont.)

- T-1-F, 1KW, one tube transmitter, includes
 - Versa Count V322 exciter\$11500.00
 - Spare Transistors and Tube\$930.00
- FM-3000E, 3KW Transmitter, Includes
 - Versa Count V322 exciter\$17300.00
 - Conversion to 5KW\$3700.00
 - Spare Transistors and Tubes\$1125.00
- FM-5000E, 5KW Transmitter, Includes
 - Versa Count V322 exciter\$19984.00
 - Spare Transistors and Tubes\$1125.00
- FM-12,000E, 12KW Transmitter, Includes
 - Versa Count V322 exciter\$29500.00
 - Spare Transistors and Tubes\$2583.00

(cont.)

BROADCAST ELECTRONICS FM-30, 30KW, SINGLE TUBE FM TRANSMITTER



Totally new, the 30 kW Model FM-30 is the most advanced transmitter since the advent of FM broadcasting.

The single-tube FM-30 incorporates a unique folded half-wave cavity power amplifier design, digitally programmed FX-30 ultra-linear exciter and, for the first time in a broadcast transmitter, a microprocessor based control system.

Broadcast Electronics' experienced engineering group has created the first truly unique power amplifier design since the beginning of FM broadcasting. The new high power cavity employs a half-wavelength folded tank circuit. This new cavity design eliminates the plate blocking capacitor and all sliding contacts.

The FM-30 uses a single, efficient, high gain Eimac 8990/4CX 20000A tetrode to provide 30 kW power output on any frequency between 87.5 and 108 MHz. The tetrode operates in a high-gain, grid-driven configuration.

Plate efficiency of the final amplifier approaches 80% at 30 kW output, resulting in comparatively low power consumption.

The solid-state IPA assembly in the FM-30 transmitter is composed of 5 identical amplifier modules (one used as a driver for the other four) coupled together by a quadrature hybrid combiner/splitter.

Failure of any one of the four output IPA modules will cause only a 15 percent power reduction, and in the event of two modules failing only a 35 percent transmitter power reduction will result.

Since all five modules in the IPA are identical, only one type of spare module is necessary.

The FM-30 transmitter is designed so that all necessary operating functions can be remote controlled. The control logic circuitry used in the transmitter can interface directly with most modern remote control and ATS systems.

- * World's most powerful one-tube FM transmitter
- * Folded half-wave output cavity — no plate blocking capacitor or sliding contacts
- * Microprocessor control provides 127 status indications
- * Includes synthesized FX-30 exciter with extremely low distortion
- * Conservative 30 kW output
- * High efficiency for low operating cost

(cont.)

Front panel test jacks allow measurements of the composite signal to be made without removing or opening the unit. Other connections are made to the rear panel via a clearly labeled terminal strip and BNC connectors.

MODULATION TYPE: Direct FM at the carrier frequency
MODULATION INDICATION: Peak reading, color coded, LED display with baseband overmodulation indicator.

ASYNCHRONOUS AM S/N RATIO: 70 dB below reference carrier with 100% AM modulation @ 400 Hz, 75 microsecond de-emphasis. (no FM modulation present).

SYNCHRONOUS AM S/N RATIO: 50 dB below reference carrier with 100% AM modulation @400 Hz, 75 microsecond de-emphasis. (FM modulation ± 75 kHz @400 Hz)

CABINET SIZE: 17.70" W x 5.25" H x 19.00" D. Standard 19" rack mounting with slide out feature for easy access.

COMPOSITE FM S/N RATIO: 72 dB below ± 75 kHz deviation @400 Hz (78 dB typical). Measured in a 30 Hz to 1.00 kHz bandwidth with 75 microsecond de-emphasis.

COMPOSITE HARMONIC DISTORTION; 0.08% or less (.04% typical).

COMPOSITE INTERMODULATION DISTORTION: 0.08% or less (.04% typical)

COMPOSITE TRANSIENT IMD: 0.1% or less (square wave/sine-wave)

COMPOSITE AMPLITUDE RESPONSE: ± 0.1 dB 30 Hz to 100 kHz

COMPOSITE PHASE RESPONSE: $\pm 0.5^\circ$ from linear phase 30 Hz to 53 kHz

COMPOSITE GROUP DELAY: 390 nanoseconds ± 25 nanoseconds 30 Hz to 53 kHz

COMPOSITE SLEW RATE: 12 V/microsecond (symmetrical)
SCA INPUTS: 2 Total (1) unbalanced and (1) balanced, BNC connectors

MONO AUDIO FREQUENCY RESPONSE: ± 0.5 dB 30 Hz to 15 kHz, selectable flat, 25, 50 or 75 microsecond pre-emphasis.

MONO HARMONIC DISTORTION: 0.08% or less 30 Hz to 15 kHz.

MONO INTERMODULATION DISTORTION: 0.08% or less, 60 Hz/7 kHz 4:1 ratio

MONO TRANSIENT IMD: 0.1% or less (square wave/sine wave)

MONO FM S/N RATIO: 72 dB below ± 75 kHz deviation @400 Hz (78 dB typical) measured in a 30 Hz to 15 kHz bandwidth with 75 microsecond de-emphasis.

Specifications subject to change without notice.

The FX-30 is included in all Broadcast Electronics transmitters and is available for use with any transmitter.

FX-30.....\$4695.00

Charge It

for convenience
use your master charge
or visa charge card




Allied Broadcast Equipment

TRANSMITTERS

POWER OUTPUT: (From 15kW to 30kW)
 OUTPUT CONNECTOR: 3-1/8" EIA flange
 RF HARMONICS: Suppression meets all FCC requirements and CCIR recommendations.

POWER SUPPLY RECTIFIERS: Silicon
 AC INPUT POWER: 208/240V, 60Hz, three phase (taps for 196 to 252 V range) (Available for 50 Hz to order) Exciter operates from 97V to 133 V, 50/60 Hz or 194 V to 266 V, 50/60 Hz

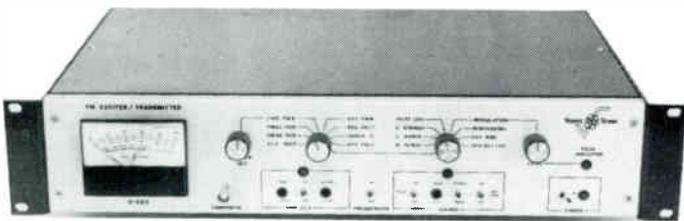
POWER CONSUMPTION: 50kW
 SIZE: Transmitter (excluding HV supply) 56.5" W x 70" H x 31.5" D. HV power supply cabinet-34.5" W x 70" H x 31.5" D

WEIGHT & CUBAGE: Transmitter (excluding HV supply) 1500 lbs.; packed 1750 lbs.; 72 cu. ft. HV power supply 1200 lbs.; packed 1250 lbs; 44 cu. ft.

FM-30\$46500.00

FX-30 Exciter Included – See details on FX-30 for further specifications.

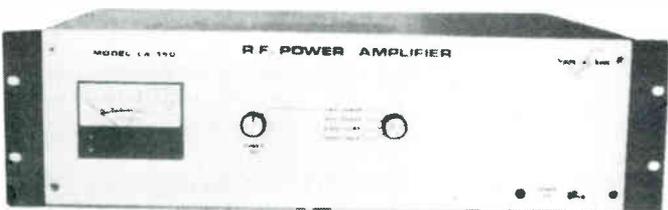
VERSA COUNT V322 EXCITER



An efficient, ultra-reliable package that embodies the most advanced solid-state physics known, and it costs thousands of dollars less than the well-known, big-name competition. Order your Versa Count exciter today, and insure that the heart of your FM station is the best, most reliable, distortion and noise-free design that today's electronic design permits. (Send For Details).

V322 Mono.....\$2395.00
 Stereo Generator, Add\$905.00
 SCA Generator, Add\$495.00

VERSA COUNT LA-150 R.F. POWER AMPLIFIER



The RF-150 is ideal for combination with the Versa Count V-322, 10 watt FM exciter to yield 100 watts ERP as now required by FCC for educational stations.

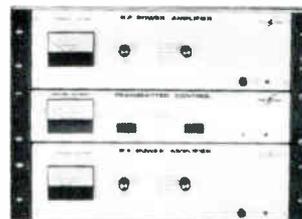
- * Low cost combined with high performance
- * All solid state

(cont.)

- * Output power regulation of $\pm 1\%$
- * May be driven to full power with any 10-watt FM exciter
- * Built-in harmonic filter
- * Built-in multi-meter to measure forward or reverse power
- * Reverse power protection, for shorts and open circuits
- * Designed for complete remote control, all signals are conditioned for use in ATS systems.

LA-150 Dual for 250 watts TPO model \$2850.00

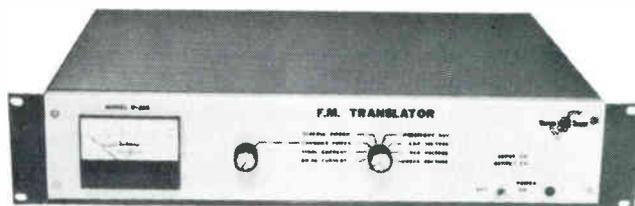
VERSA COUNT LA-250



By combining two of the LA-150 amplifiers with a common controller, 250 watts transmitter power output may now be achieved for a very reasonable cost.

LA-250 \$5800.00

VERSA COUNT V-316 & V-317 F.M. TRANSLATOR



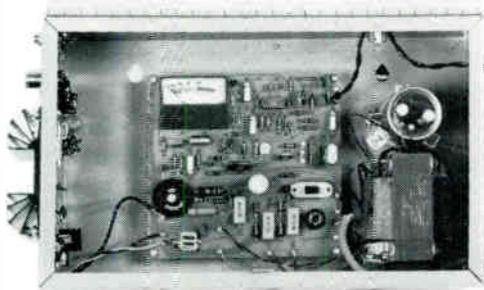
- * Dynamic range in excess of 120 db – These features enable the down converter to operate with an adjacent channel (200 KC away) level 60 db above the received channel.
- * Built-in true power reflectometers sample and regulate R.F. output power with 1% for 10% change in line voltage and also protects the output transistors against open or shorted transmission lines.
- * Complete metering of all critical circuits.

V-316 1 watt.....\$1700.00

V-317 10 watt.....\$2200.00



RADIO SYSTEMS DESIGN TR-20 TRANSMITTER



If you operate a carrier station, chances are your transmitters are old tube models. Most of these units no longer sound good and frequently break down. And nothing effects your sound quality more than your transmitters.

Radio Systems has developed a better, solid state transmitter. Phase II equipment will sound better and perform more dependably than your old transmitter ever could. Write today for more information.

- TR-20 (20 watt solid state transmitter).....\$565.00
- CP-15 (coupling unit).....\$130.00
- SP-2, 3 & 4 way (power splitters)..... \$45.00
- SP-5 way or more (power splitters).....\$60.00



COMARK CIRCULAR POLARIZED ANTENNAS



The series of FMC Circularly Polarized Antennas utilizes identical radiating elements for both the Lower Power (L) and High Power (H) series. The L series utilizes 1-5/8" feedline while the H series uses 3-1/8" feedline. Both series of antennas are available in systems that incorporate 1 to 14 elements. Normally, systems with 8 or less elements are fed at the bottom while above 8, the system is fed from the center.

Each antenna contains a matching tuner which is approximately 6 ft. long. It is extremely simple to adjust and has a fool-proof method of adjustment without losing pressure. Mounting brackets are supplied with the antenna to assure proper mounting to the supporting structure.

Up to 6-1/8" input & feedline and up to 75 KW pwr input on special order.

- * Prices include complete mounting hardware for leg mounting on uniform guyed towers
- * Brackets for face mounting or self supporting towers are extra
- * Prices upon request
- * Antenna input flange on H series is 3 1/8" EIA Female. The L series is 1-5/8" EIA Female
- * Windload ratings are 50/33 PSF, 110 miles per hour
- * Antenna weights include standard mounting hardware. Add 5 pounds per bay for deicers
- * Deicers require 230 volts, single phase balanced to ground with 400 watts consumption per bay.

FMC Model No.	Power Gain	Max. Input In KW	Net. Wt. Pounds	Standard 1-5/8 or 3-1/8 Input
FMLC-1	.44	5	40	\$1112.00
FMHC-1	.47	10	60	\$1403.00
FMLC-2	.97	10	90	\$1652.00
FMHC-2	.99	10	140	\$2526.00
FMLC-3	1.50	10	140	\$2395.00
FMHC-3	1.54	15	220	\$3656.00
FMLC-4	2.04	10	190	\$3121.00
FMHC-4	2.14	20	300	\$4773.00
FMLC-5	2.55	10	240	\$3859.00
FMHC-5	2.70	25	380	\$5896.00
FMLC-6	3.14	10	290	\$4531.00
FMHC-6	3.30	30	460	\$6921.00
FMLC-7	3.65	10	340	\$5256.00
FMHC-7	3.84	35	560	\$8031.00
FMLC-8	4.18	10	390	\$5987.00
FMHC-8	4.30	40	640	\$8854.00
FMLC-10	5.20	10	490	\$7443.00
FMHC-10	5.40	40	570	\$11178.00
FMLC-12	6.25	10	580	\$8168.00
FMHC-12	6.54	40	730	\$13268.00
FMLC-14	7.30	10	660	\$10349.00
FMHC-14	7.70	40	860	\$15527.00
Deicers/Bay				\$160.00
Deicer Control Box.....				\$370.00

(cont.)

TRANSMITTING ANTENNAS

Replacement Deicer Element (each).....\$15.40
 Non Standard MTG Bracket (each).....\$112.00

	Bays	Pwr Gain	Net Wt/Lb	Nominal Power In KW	Wind Load/Lb.	
FMCE-	1	.43	10	.5	20	\$332.00
FMCE-	2	.90	22	.5*	40	\$665.00
FMCE-	3	1.4	35	.5*	65	\$1000.00
FMCE-	4	1.92	47	.5*	88	\$1248.00
FMCE-	5	2.4	59	.5*	112	\$1680.00
FMCE-	6	2.90	68	.5*	135	\$1860.00

* = 2,3,4,5, & 6 Bay will take .5 KW more per bay (up to 3KW on 6 bay) with 1-5/8 input available @ \$200 more per complete antenna.

Normally supplied w/N-fitting which will take Nominal .5KW input.

Interbay Feeds Are Of Flexible Cable.

FMCE 2 Through FMCE 6 Are Center Fed.

WHEN ORDERING BE SURE TO SPECIFY: Antenna Type Number—Deicers, if any—Frequency, between (between 88-108 MHz)— Description of Tower—Make and Model.

BOGNER BLP, BHP FM – BAND III CIRCULARLY POLARIZED HIGH POWER BROADCAST ANTENNA



An extremely broadband low Q slot fed design with excellent circularity and axial ratio, no feed point straps, and large gap form factor.

(cont.)

ANTENNA TYPE: Slot excited double V arm
 POLARIZATION: Circular, clockwise
 AXIAL RATIO: 2.9 dB max.
 CIRCULARITY: Hor. Component ± 1.4 dB, Vertical Component ± 1.0 dB

INPUT VSWR: Under 1.1 over any one channel

INPUT FLANGE: BLP: 1-5/8" EIA; BHP: 3-1/8" EIA; 50 ohm

GAIN: Up to 16 bays (9.3 gain = 9.7 dB)

DEICING: Electrical deicers optional

MATERIAL: All copper, fiberglass insulators

NULL FILL, TILT: Available

POWER INPUT: Up to 40 kw

Manufactured by Electronic Research.

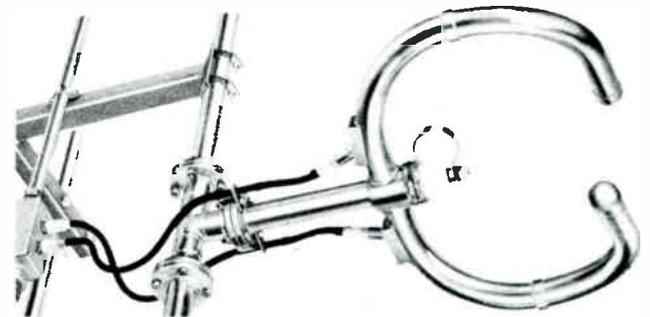
Type No.	Power Gain	Power Rating	
BLP-1E	.46	5KW	\$1376.00
BHP-1E	.46	5KW	\$1982.00
BLP-2E	.98	10KW	\$2751.00
BHP-2E	.98	10KW	\$3965.00
BLP-3E	1.56	10KW	\$4128.00
BHP-3E	1.56	15KW	\$5946.00
BLP-4E	2.13	10KW	\$5503.00
BHP-4E	2.13	20KW	\$7928.00
BLP-5E	2.72	10KW	\$6879.00
BHP-5E	2.72	30KW	\$9910.00
BLP-6E	3.30	10KW	\$8254.00
BHP-6E	3.30	30KW	\$11893.00
BLP-7E	3.89	10KW	\$9630.00
BHP-7E	3.89	30KW	\$13874.00
BLP-8E	4.49	10KW	\$11005.00
BHP-8E	4.49	30KW	\$15856.00
BLP-9C	5.08	10KW	\$12942.00
BHP-9C	5.08	40KW	\$18679.00
BLP-10C	5.68	10KW	\$14317.00
BHP-10C	5.68	40KW	\$20660.00
BLP-12C	6.88	10KW	\$17068.00
BHP-12C	6.88	40KW	\$24625.00
BLP-12C	8.08	10KW	\$19820.00
BHP-14C	8.08	40KW	\$28590.00
BLP-16C	9.28	10KW	\$22571.00
BHP-16C	9.28	40KW	\$32553.00

E = End Feed; C = Center Feed (9 Bay Off Center)

Prices include complete mounting hardware for leg mounting on uniform guyed towers. Other mounts available.

Electrical heaters are available at \$202/Bay additional.

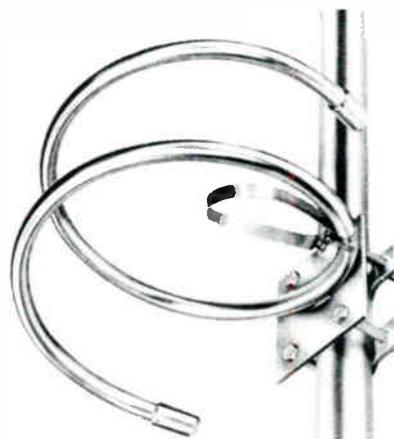
PHELPS-DODGE CIRCULARLY POLARIZED FM BROADCAST ANTENNAS



Standard circularly polarized FM antennas are fabricated of 1-5/8 O.D. copper tube formed into a 1½ turn helical radiating

(cont.)

PHELPS DODGE FM EDUCATIONAL ANTENNAS



Educational FM antennas using the same general design concepts as the commercial High Power and Low Power antennas are available.

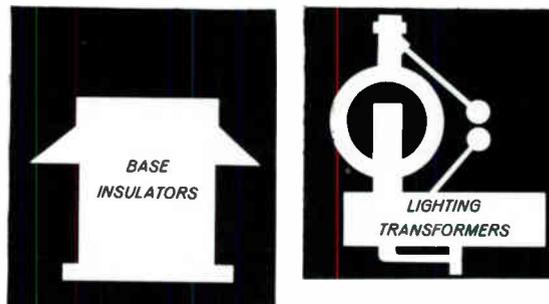
However, these antennas, because of the normally lower power required in the educational service, are fabricated of 7/8" stainless steel tube. The circularly polarized antenna is a 1½ turn helix and the horizontal polarized element has a U configuration. The educational antennas are complete with a matching harness of RG type cables and are designed to mount on tower legs or support pipes 1½" to 2¾" diameters. The multi-element arrays have an element spacing of 10 feet.

- * Educational FM Antennas are designed to mount on tower legs or support pipes having diameters up to 2¾". The spacing between bays is 10 ft.
- * Educational FM Antennas are fed with RG-8 and RG-11 cables and all have a type N Male Input Connector.

Type No. & Bays	Power Gain	Net/Wt. Lbs.	Power Rating KW	
ECFM-1	.43	9	.2	\$399.00
ECFM-2	.90	21	.4	\$799.00
ECFM-3	1.42	32	.5	\$1189.00
ECFM-4	1.95	43	.5	\$1589.00
ECFM-6	2.99	65	.5	\$2320.00

When ordering specify Radome PD-1203 @ \$300.00/Bay

DECCA AUSTIN INSULATORS



Contact Allied for details and pricing.

element. This element produces a transmitted signal that is circularly polarized in all directions in the azimuth plane.

Antennas are available with all elements fed inphase to produce maximum gain on the horizon with 1 through 8 elements end fed and 10 through 16 elements center fed. If beam tilt and/or null fill is required the multi-element array needed to produce the required pattern is center fed with appropriate power divider and phaser supplied.

All antennas are supplied complete ready for installation on the tower. Each antenna has an input transformer to correct for any minor variations between the antenna test site and the actual field installation.

If required, stainless steel internal deicer heaters are available.

- * Length of antenna in feet is 984 divided by frequency in MHz x (No. of Bays - 1) Plus 6½.
- * Power gains are for 50/50 horizontally and vertically polarized ratios. Other ratios available.
- * Antenna polarization is circular in all directions of azimuth.
- * Prices include complete mounting hardware for leg or face mounting on uniform towers 24" face or less. Brackets for other than uniform towers are extra and will be quoted upon request.
- * High Power Antennas—input flange is 3-1/8" EIA female. Low Power Antennas—input flange is 1-5/8" EIA female.
- * Antenna weights include standard mounting hardware. Add 10 lbs. per bay for deicers. Deicers require 230 volts single phase balanced to ground with 500 watts consumption per bay.

Type No. & Bays	Power Gain	Net/Wt. Lbs.	Power Rating KW	
CFM LP-1	.45	118	5	\$1355.00
CFM HP-1	.475	178	5	\$1810.00
CFM LP-2	.95	145	10	\$2150.00
CFM HP-2	1.00	223	10	\$3275.00
CFM LP-3	1.5	172	10	\$3050.00
CFM HP-3	1.55	268	15	\$4690.00
CFM LP-4	2.05	198	10	\$3955.00
CFM HP-4	2.15	313	20	\$6105.00
CFM LP-5	2.55	225	10	\$4945.00
CFM HP-5	2.70	358	25	\$7515.00
CFM LP-6	3.15	251	10	\$5735.00
CFM HP-6	3.30	404	30	\$8760.00
CFM LP-7	3.65	278	10	\$6670.00
CFM HP-7	3.85	449	35	\$10115.00
CFM LP-8	4.2	305	10	\$7575.00
CFM HP-8	4.4	494	40	\$11190.00
CFM LP-10	5.2	365	10	\$9365.00
CFM HP-10	5.5	600	40	\$14015.00
CFM LP-12	6.25	418	10	\$10230.00
CFM HP-12	6.6	690	40	\$16555.00

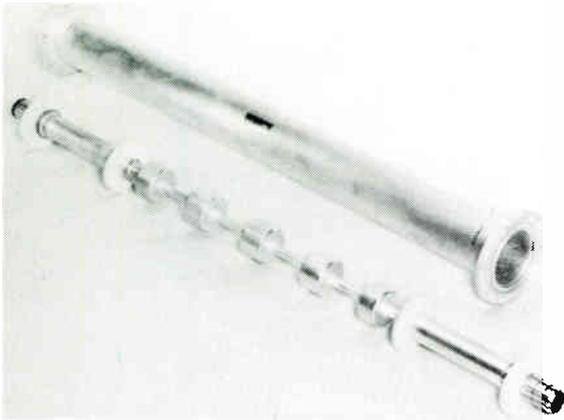
CFM LP = Circularly Polarized Low Power Shunt Fed with 1-5/8" Feed Line complete with 1-5/8" Fine Matcher.

CFM HP = Circularly Polarized High Power Shunt Fed with 3-1/8" Feed Line Complete with 3-1/8" Fine Matcher.

When Ordering—specify: Antenna Type No., Deicers, PD-1201 (\$227.00 ea.), Frequency (88.1 to 107.9 MHz), 1-8 bays end fed, 10-16 bays center fed, Horizontal and Vertical Power Gains, Description of Tower—make and model, Beam tilt and Null Fill, if required (extra), Thermostat and Control Box—PD-1202 (\$405.00).

TRANSMITTING RF EQUIPMENT

COMARK 2300 & 2600 SERIES LOW PASS FILTER



The Comark Low Pass Filters are reactive type structures designed to attenuate the second, third and fourth harmonics at the transmitter output to ensure compliance with FCC regulations.

Each filter is manufactured for a single channel with an extremely low VSWR for system compatibility. Standard EIA flanges (one fixed and one swivel) are supplied with an anchor connector for simple installation.

FREQUENCY RANGE: Any single FM channel

CONNECTORS: Up to 6-1/8"

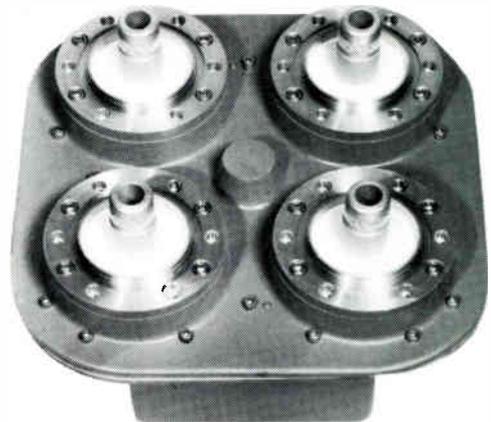
POWER: Up to 50KW

Model	Connectors	Freq. Band	Power Peak Sync	
CI-2310	3-1/8" EIA	UHF	30 kW	\$825.00
CI-2311	3-1/8" EIA	VHF	35 kW	\$1050.00
CI-2312	3-1/8" EIA	VHF-FM	25kW(avg)	\$825.00
CI-2314	1-5/8" EIA	VHF-FM	3kW(avg)	\$465.00
CI-2610	6-1/8" EIA	UHF	60 kW	\$1050.00
CI-2611	6-1/8" EIA	VHF-FM	50 kW	\$1830.00

* Handles for ease of patching

Model	Line Size	Poles	Links	
CI-7511	1-5/8	3	1	\$450.00
CI-7512	1-5/8	4	2	\$655.00
CI-7513	1-5/8	5	2	\$885.00
CI-7514	1-5/8	7	3	\$1100.00
CI-7541	3-1/8	3	1	\$600.00
CI-7542	3-1/8	7	3	\$1315.00
CI-7543	6-1/8	3	1	\$1715.00
CI-7544	6-1/8	7	3	\$3435.00
CI-7545	3-1/8	4	2	\$700.00

COMARK MOTORIZED COAXIAL TRANSFER SWITCH



The 9301, 9302, & 9303 Coaxial Transfer Switches have been totally designed from the standpoint of the operator. Features such as watchband spring contacts, visual status of position, and ease of maintenance provide a versatile switch for use in the "real world". Micro switch interlocks supplied are easily interfaced with any transmitter, for protection & control.

Features such as low VSWR and low insertion loss together with maximum isolation make these switches the ideal instrument for routing RF, especially in remote control applications. The positive action switching solenoid may be remotely controlled or manually overridden.

An optional control panel is available for remote RF switching and includes visual RF flow indication. The panel is 5 1/4" high and mounts in a standard 19".

Watchband springs are used for all electrical connections to provide the most reliable contact possible. Three separate satchband springs are used for each inner conductor to further assure troublefree operation.

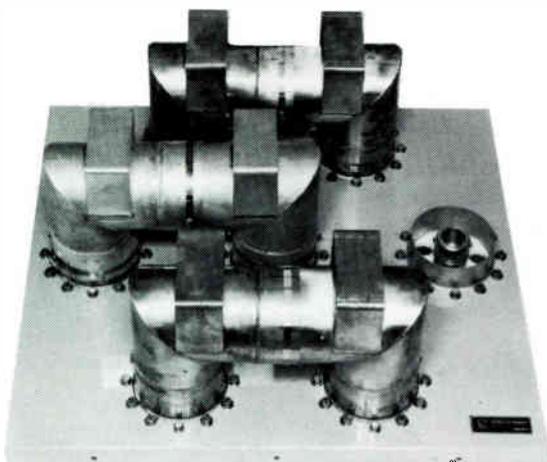
IMPEDANCE: 50 ohms

FREQUENCY RANGE: dc to 900 MHz

CONNECTORS:

CI-9301	1-5/8"	EIA Fixed Flange	\$1750.00
CI-9302	3-1/8"	EIA Fixed Flange	\$2245.00
CI-9303	6-1/8"	EIA Fixed Flange	\$4495.00

COMARK MANUAL PATCH PANEL



Coaxial Patch Panels are available in all standard transmission lines—sizes in three, four and seven port standard configurations. The patch link construction allows the patch link to self align with the panel ports for ease of operation.

* Self aligning

* Take apart patch links

(cont.)

DELTA ELECTRONICS 6700 SERIES 1-5/8 & 3-1/8 INCH COAXIAL TRANSFER SWITCH



6740B



6730E

The 6700 series of Coaxial Transfer Switches provides the engineer with the capability to switch between transmitters, antennas, or dummy loads with a minimum of off-the-air time. Both models can be operated by remote control or manually. Remote operation can be achieved using either 120V or 220/240V, 50/60 Hz. The transfer switch is fully interlocked with two isolated interlock circuits that duplicate the RF path exactly. The 6730/6732E is a 1-5/8 inch switch. The 6740B/6742B is a 3-1/8 inch switch and may be pressurized up to 15 lb/sq. in. A gas barrier is built into each terminal, and an air inlet port is also provided in the 6740B/6742B model.

6730E.....	\$1100.00
6732E.....	\$1200.00
6740B.....	\$2850.00
6742B.....	\$2950.00
3363 Control Panel.....	\$350.00

MCI COAXIAL TRANSFER SWITCH



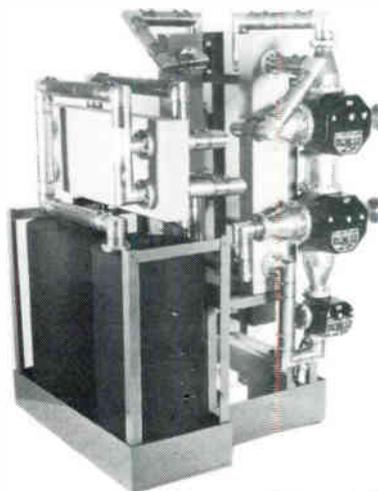
MCI Coaxial Transfer Switches are designed primarily for application in television, FM and AM broadcast transmitter plants, and HF, VHF, and UHF communications systems. As four-port transfer switches they will switch two signal sources between two loads. Since they can also be used as SPDT switches, complex switching matrices can be easily assembled.

MCI can furnish completely integrated switching systems and control/indicator panels to any degree of complexity. Outline your particular requirements for a prompt and comprehensive proposal.

- * 6-1/8", 3-1/8" and 1-5/8" EIA
- * Very fast switching
- * Independent interlock/logic circuits
- * Compatible with computer control
- * Compact, light weight

61103	1-5/8.....	\$2090.00
61104	3-1/8.....	\$2500.00
61105	6-1/8.....	\$5200.00

MICRO COMMUNICATIONS RF COMPONENTS



Integrated Switching Combiner

Micro Communications, Inc. is a communications system oriented Company and a manufacturer of equipment used extensively by the broadcasting industry.

- * RF Components of all types and sizes.
- * VHF and UHF duplexers with capabilities up to 220 KW
- * VHF, FM and UHF combiners with capabilities up to 220KW
- * Filters, directional couplers, loads, hybrids, switching systems, etc.
- * Master antennas
- * Complete RF systems

Contact Allied For Complete Information And Pricing

BIRD 8645 25KW MODULOAD LOAD RESISTOR



- * Power rating 25KW continuous duty up to 900 mhz.
- * Weight: 155 lbs.
- * Distilled water or Ethylene Glycol.
- * 10KW and 40KW in this series plus 2½ to 7KW dry loads and Econo wet loads up to 80KW.

Contact Allied For Pricing

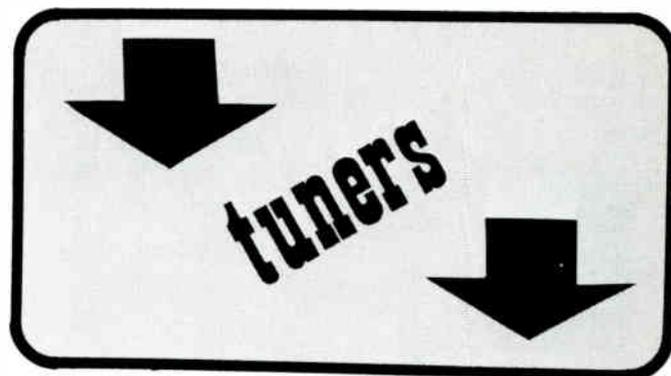
TRANSMITTING RF EQUIPMENT

BIRD ELECTRONICS



Bird Electronics known for accuracy for more than a quarter of a century, offers thru-line RF directional watt meters, RF load resistors, up to 80KW, and "watcher" protection systems.

Allied carries the entire BIRD professional line.



NAD 4020A TUNER



A sensitive, low-distortion, high-performance AM/FM tuner with a minimum of frills. In real-use conditions the 4020A equals the performance of many tuners costing two or three times more.

- * 1.8 uV (10.3 dBf) IHF sensitivity
- * 50 dB quieting sensitivity: 16 dBf mono, 38.3 dBf stereo
- * 70 dB S/N ratio in stereo, 75 dB in mono
- * Selectivity 62 dB
- * Dual-gate MOSFET front end, phase-locked loop multiplex decoder

4020A	\$198.00
Rack Mounts.....	\$20.00

ELECTRO IMPULSE



DPTC 50K FM

DPTC 10 KFM

RF Coaxial Loads—Air, oil, dry, and water cooled of all sizes from .5 to 80 KW.

Representative models and prices include:

1500 watt oil dielectric cooled and self-contained Model CPTN-1500-Good out to 1GHz.....	\$519.00
10,000 watt dry load, forced air cooled and self contained Model DPTC-10KFM-Good out to 110Mhz	\$1750.00
25,000 watt dry load, forced air cooled & self-contained Model DPTC-25KFM-Good out to 110Mhz	\$3475.00
80,000 watt water load, running-water cooled Model CLW-84-Good out to 1Ghz.....	\$2200.00

CROWN FM1 TUNER



Sonically, the FM1 is simply luxurious. Nothing has been spared to make it possible for you to capture FM signals that are as clear, complete, and undistorted as possible.

It is therefore, a very special audio component, suitable for the most demanding listeners.

The FM1 is all-digital and controlled through a combination of touch buttons for tuning, and push buttons for auxiliary functions.

There is no tuning dial, nor a tuning wheel. But tuning is easy, instantaneous, precise and absolutely stable, because the FM1 is a true digitally synthesized tuner.

The FM1 is a professional tuner in that it controls frequency in
(cont.)

the same manner that commercial broadcasters do. "Pre-set" or memory is one reason why Crown chose an all-electric tuning system. The FM1 memory system depends on an electronically alterable ROM integrated circuit. This IC makes it possible to store stations without any risk of memory loss due to power failure. And there are no batteries in the FM1 to worry about.

SENSITIVITY: 10.8dBf IHF Useable
QUIETING: .6 microvolt (75 ohm) for 30dB mono quieting. 36dBf for 50dB stereo quieting. 10.8dBf for 50dB mono quieting
SIGNAL TO NOISE RATIO: Mono 70dB below 100% modulation at 65dBf reference level. Stereo 65dB below standard stereo modulation at 65dBf reference level
ALTERNATE CHANNEL SELECTIVITY: 75dB at 25dBf
FREQUENCY RESPONSE: ±.5dB 30Hz to 15KHz
AM SUPPRESSION RATIO: Greater than 73dB at 25dBf
FM1\$995.00

TECHNICS SP-10MKII QUARTZ-CONTROLLED DIRECT-DRIVE TURNTABLE



The first with instant torque and no rumble. The world's best and most desired professional turntable. Used by 80 of the 100 top U.S. Radio Stations.
SP-10MKII\$950.00

TECHNICS SP-25 TURNTABLE



The new SP-25 offers you a high professional standard of excellence, plus the kind of flexibility and convenience that is important for home use. Features include total quartz-locked pitch control within ±6% range from rated speeds, full cycle detector FG, extremely high torque for fast starts and load stability, large turntable platter with extra-high moment of inertia, electronic braking system, integral rotor/platter motor construction, and highly effective damping.
 * 45 and 33 RPM
 * About 1/2 revolution to full speed
SP-25.....\$370.00

THE ALLIED SHOCK ABSORBER

Allied's AK10 MKII turntable isolator has been integrated into a new package known as the "Shock Absorber". This approach attacks head-on the many problems associated with protecting otherwise noise-free turntable/arm combinations from all types of interference.

Three-fourths of the cabinet is sand loadable creating an acoustically—and sympathetic vibration-free environment as a foundation for the further isolated top plate, turntable, and arm. Please refer to Furniture Section for information and pricing.



TECHNICS SP-15 TURNTABLE



- * Setting high standards for professional performance and flexibility.
- * Quartz Synthesizer Pitch Control in 0.1% steps up to ±9.9% at all three standard speeds—with digital display.
- * Instant starts (0.4 sec.) (About 1/3 revolution).
- * Heavy duty construction stands up to long term professional use.
- * Three precision speeds, 33-1/3, 45 and 78.26 rpm make this unit perfect for all phono reproduction applications.

SP-15.....\$650.00

TURNTABLES – ARMS – CARTRIDGES

RUSSCO STUDIO-PRO



- * Unit is powered by a heavy duty Bodine synchronous motor.
- * 2 Speeds – 45 & 33 RPM.
- * Detachable tone arm mounting plate.
- * Acceleration, extremely fast.

WEIGHT OF ENTIRE UNIT: 20 pounds

WEIGHT OF PLATTER: 6½ pounds

CHASSIS DIMENSIONS: 15½ by 15½ inches

DEPTH REQUIREMENT BELOW CHASSIS: 7½ inches

Studio-Pro.....\$399.00

RUSSCO CUE-MASTER



- * The unit is powered by a heavy duty Bodine synchronous motor.
- * Three speeds – 33, 45, 78 RPM.

WEIGHT OF ENTIRE UNIT: 16 pounds

WEIGHT OF PLATTER: 5½ pounds

CHASSIS DIMENSIONS: 15½ by 15½ inches

DEPTH REQUIREMENTS BELOW CHASSIS: 6½ inches

Cue-Master\$355.00

RUSSCO MARK V VARI-SPEED TURNTABLE



Here's the fantastic NEW value packed variable speed turntable from the people who have set the industry standard for performance and reliability! The speeds are now precision variable plus or minus 10% at 33 or 45 RPM. The Mark V is instant starting! . . .Less than one inch back cue required at 45. Here's more good news. . .Remote start & stop, digital speed readout, Wow and Flutter under .05%, Rumble (RRL) Mono. . . -63 db, Stereo. . . -57 db, Removable tone arm plate, line voltage 120 or 240, 50 or 60 Hz. This dandy RUSSCO RUGGED low profile turntable also features an attractive antique silver no mar finish that makes the studio deluxe.

Mark V..... \$650.00

QRK 12C INSTANT START BROADCAST PROFESSIONAL TURNTABLE



- * Instant start (full speed in less than 1/16 revolution).
- * Rugged construction
- * Three standard speeds: 33, 45, 78.
- * Turntable powered by 60 Hz hysteresis synchronous motor.
- * 45 Adapter – built into precision platter.
- * Tone arm is optional.

12C Drilled For Tone Arm..... \$342.00

REVOX B790 TURNTABLE

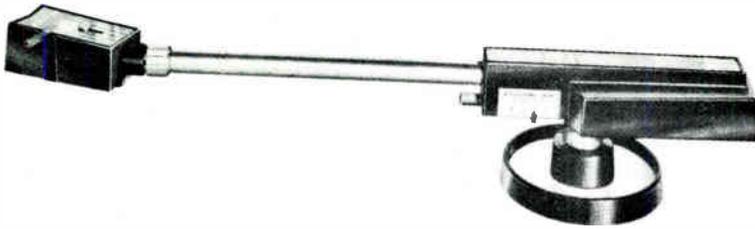


Straight line tracking turntable including cartridge and mounting kit.

B790.....\$899.00

(cont.)

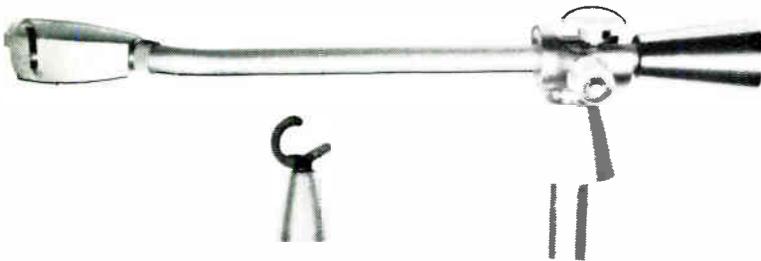
SHURE M232 TONE ARM



- * An inexpensive tone arm that features high impact plastic head shells.
- * Dynamic and static balancing.
- * Stylus force is adjustable by spring pressure.
- * Accepts all standard American cartridges.

M232..... \$57.00

REC-O-KUT S-320 TONE ARM



This attractive tone arm is constructed of tubular aluminum with a die-cast cartridge shell, that accepts all standard stereo or mono cartridges. It has a vertical height adjustment and friction-free chrome steel ball vertical movement. It tracks at 1 gram or less and includes a counterweight. Connects with standard plugs.

S-320..... \$110.00

MICRO-TRAK 303 TONE ARM



This tone arm features modern styling, plug-in memory balance head, laminated wood and epoxy body makes for rugged, light-weight construction. Stylus force once set is tamper proof, and adjusted by counter-weight. A standard of the industry.

303 (12 inch).....\$106.50

SYNTEC S-220 PROFESSIONAL STEREO TONE ARM



For Broadcast Applications
Removable Cartridge Shell

MOUNTING: 7/8" diameter single hole, 1" long threaded shank
LATERAL BALANCE: Adjustable to compensate for various cartridges

TRACKING FORCE ADJUSTABLE: Adjusts tracking force for any cartridge

ARM HEIGHT ADJUSTABLE: Locking screws on shafts of arm and rest adjust height of arm from 1-9/16" – 2-3/8"

S-220\$90.00

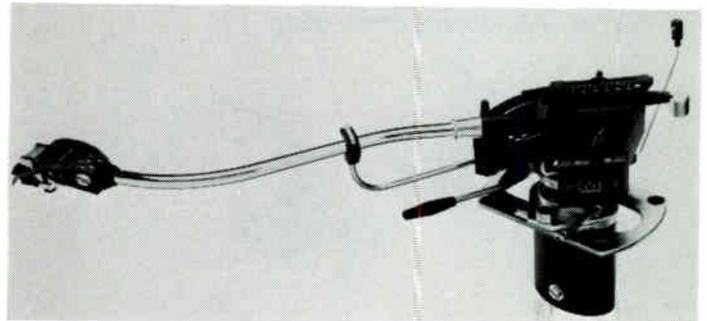
AUDIO-TECHNICA ATP-12T TONE ARM



- * Fits wide range of turnable heights and base thicknesses.
- * Sealed horizontal and vertical ball bearing pivots.
- * Accurate, built-in VTF gauge, no accessory gauge needed.
- * Low resistance, anti-corrosion, gold-plated connectors throughout.
- * Wimplified installation . . . plug-in head shell with color coded wiring, 4 cartridge mounting positions.
- * Handy arm lift and tone arm rest provided.
- * Pre-wired, color-coded, low capacity cable with ground lug.
- * Set screws provided to lock all critical adjustments, if desired.

ATP-12T \$150.00

SHURE SME 3009 SERIES III



Type III.....\$294.00

Type IIIS.....\$240.00

TURNTABLES – ARMS – CARTRIDGES

STANTON 500A PHONO CARTRIDGE

STANTON 500AL PHONO CARTRIDGE



For Heavy-Duty On-The-Air Use With Excellent Sound Reproduction.

For all around broadcast application, the 500A is widely recognized and applauded. It satisfies the most stringent requirements of the control room, from Bach to rock.

500A \$15.75

For Heavy-Duty On-The-Air Use With Wide Tracking Force Range.

Even under the most adverse handling, 500AL operates trouble-free without sacrificing broadcast quality. Small Wonder, that it has become "the broadcasters' mainstay". And small wonder too, that it is probably the first choice of more broadcasters than any other cartridge.

500AL.....\$15.75

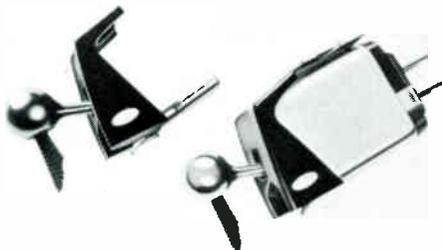
STANTON 600A PHONO CARTRIDGE



In all broadcast usages, the 600A is applicable to those situations that demand a spherical stylus tip—and a cartridge that tracks at 2 to 4 grams. It has been successfully employed by many hundreds of radio stations for on-the-air usage.

600A.....\$24.20

STANTON 681A PHONO CARTRIDGE



This cartridge is indispensable for the recording engineer as a calibration standard for recording system checkout. Features

(cont.)

extreme linearity plus widest and flat-test possible response essential for precise alignment of cutting heads.

Its factory calibrated frequency response meets the most rigid tolerances.

681A\$48.00

SHURE SC35C PROFESSIONAL STUDIO PHONO CARTRIDGE

SHURE SC39 PROFESSIONAL PHONO CARTRIDGE



The SC35C is designed for use on the heaviest and most rugged tone arms which require a tracking force of 4 to 5 grams. The stylus assembly of the SC35C is rigid enough to withstand the punishment of continuous backcuing, yet compliant enough to offer excellent mid- and high-frequency reproduction.

SC35C\$33.25

SS35C Spherical Stylus is the replacement stylus.....\$9.75

Up to now, it was necessary to compromise true hi-fi performance to get the ruggedness required for professional use . . . To identify precisely the use and abuse to which professional phono cartridges were subjected in actual work situations, Shure engineers went into the field where they virtually "lived with" the professionals: they sat up with the all-night man in broadcast stations; they worked in recording labs; they shared the booth in discos.

- * Built to stand up to professional use
- * Designed to stand up to a professional's critical listening

SC39ED ¼ to 1½ grams, Biradial (Elliptical) stylus\$110.00

SC39EJ 1½ to 3 grams, Biradial (Elliptical) stylus\$76.75

SC39B 1½ to 3 grams, Spherical stylus.....\$66.00

Allied carries the entire Shure line—Many in stock

AUDIO-METRICS PHONO PREAMPLIFIER



A combination of efforts by Allied Broadcast Equipment and Radio Systems Design has produced a new turntable preamplifier for the broadcaster which tempts perfection. By picking up the lead of the recording industry which has pioneered the use of

(cont.)

differential outputs, a new technology has resulted which has relegated transformers to working only in the power supply. Positively RF Proof – Tested in Sears Tower for RF Immunity . . . it passed with flying colors.

Specifications that were originally drawn as ideal have been realized or exceeded. Lab verified specs include:

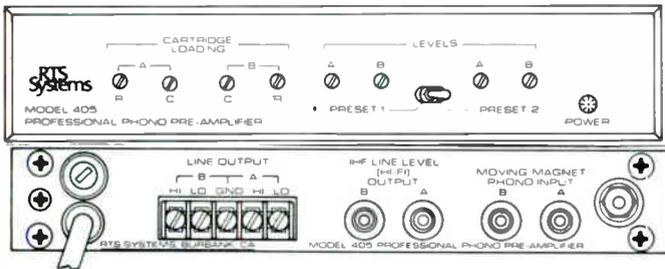
- * New RIAA curve within $\pm .25$ db
- * Electronically-balanced output +27 dbM into 600 ohms
- * SMPTE IM Distortion .05% @ +18 dbM output
- * THD .03% @ +18 dbM output
- * Noise -80 db relative to 5 mv input @ 1Khz, unweighted
- * Maximum input 350 mv broadband
- * Gain 5 mv input creates +10 dbM balanced output
- * Output headroom above 0 dbM +27 dbM

Multiple switches and controls were purposely excluded. RCA-type phono inputs, barrier strip outputs, and one-each-channel level controls (recessed away from the casual operator) are the only facilities on the unit aside from the AC line cord.

Always sold with a guarantee of performance.

Audio-Metrics Phono Preampfier.....\$250.00

RTS 405 PROFESSIONAL 2-CHANNEL PHONO PREAMPLIFIER



The Model 405 is a high-quality two-channel phono preampfier designed for professional applications, including disc mastering rooms, broadcast stations and high quality commercial installations. It features adjustable cartridge termination, switchable rumble filter, two selectable sets of level controls and two output formats.

FREQUENCY RESPONSE: Re RIAA ± 0.5 dB
 SIGNAL/NOISE RATIO: -72 dB
 TOTAL HARMONIC DISTORTION: -90 dB/.003%
 MAXIMUM OUTPUT LEVEL, BALANCED: +24 dBm
 RTS 405.....\$345.00

UREI 1122 STEREO TRANSCRIPTION PREAMPLIFIER



(cont.)

The 1122 is a two-channel, solid-state, equalized preampfier/line ampfier designed to provide the highest quality disc reproduction for broadcast and recording applications. While primarily intended for stereo use, it may be utilized for two separate monophonic channels.

- * Precise RIAA/NAB equalization
- * Individual high and low frequency equalization trimmers on each channel
- * Separate level controls on each channel
- * Extremely low noise and rf susceptibility
- * Transformer isolated balanced output
- * Line level output capability

UREI 1122.....\$346.00

ATI P-1000 SERIES PRECISION STEREO PHONO AMPLIFIERS



OUTPUT CLIPPING LEVEL: +22dBm/600 ohms (P-1000-1,3) +26dBm/600 ohms (P-1000-2)

DISTORTION: @ +20dBm output – P-1000-1 (.2%, 30Hz to 20,000 Hz;) P-1000-2,3 (.05% 20Hz to 20,000 Hz)

FREQUENCY RESPONSE: RIAA Curve $\pm .25$ dB, 30 to 20,000Hz

MOUNTING: Brackets supplied for internal turntable cabinet or desk top mounting. Single and dual rack mount kits available

- P-1000-1 Dual/Stereo Transformer Outputs \$299.00
- P-1000-2 Dual/Stereo Balanced Differential Outputs\$279.00
- P-1000-3 Dual/Stereo Single Ended (Unbal) Outputs \$269.00

STANTON 310 PROFESSIONAL PHONO PREAMPLIFIER

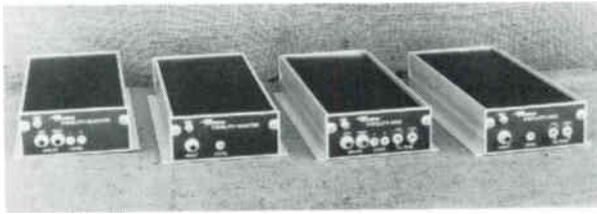


Model 310 stereo phono preampfier, designed to interface correctly all phonograph cartridges for optimum performance, precision playback of disc records and calibration of audio systems. Universal mounting of the unit by means of special brackets supplied with the unit, instant selection of flat or NAB post-emphasis curves, switchable effective rumble filter, individual adjustment of gains and high frequency responses, & trimming of the capacitive cartridge loading at the input.

310..... \$190.00

TURNTABLES – ARMS – CARTRIDGES

RUSSCO FIDELITY-PRO & FIDELITY-MASTER PROFESSIONAL PHONO PREAMPLIFIERS



Mono or stereo versions available with balanced or unbalanced output. The FIDELITY-MASTER series offers RIAA equalization. The FIDELITY-PRO units feature switchable high and low frequency filters. The balanced output models include highest quality transformers for true line isolation!

FPMU	Monaural – Unbalanced Output.....	\$137.00
FPMB	Monaural – Balanced Output	\$163.00
FPSU	Stereo – Unbalanced Output	\$204.00
FPSB	Stereo – Balanced Output.....	\$246.00

MICROTRAK 6400/6401 MONO/STEREO PREAMPLIFIER



6400	Mono Preamp.....	\$134.50
6401	Stereo Preamp.....	\$179.50

RUSSCO PHONO-MATE



(cont.)

Consider These Value-Packed Features Of The PHONO-MATE Pre-Amps:

- * Full solid state circuitry
- * Lots of headroom at +16 dBm
- * RIAA equalization
- * Mono or stereo versions are available with balanced or unbalanced output
- * The balanced output models include highest quality transformers for true line isolation

1U	Mono, Unbalanced.....	\$85.00
1B	Mono, Balanced.....	\$96.00
2U	Stereo, Unbalanced.....	\$133.00
2B	Stereo, Balanced.....	\$150.00
PS	Power Supply	\$50.00

SHURE M64 UNIVERSAL STEREO AMPLIFIER



The Model M64 is a low-cost, versatile, compact, low noise and low distortion stereo preamplifier that provides gain, equalization, and choice of impedances and levels to solve an unusually broad variety of preamplification and equalization problems. Silicon transistor circuitry, easy permanent-mount installation. Single ended output.

- * For phonographs, tape decks, microphones
- * Equalizes and amplifies tape decks

M64	\$88.75
-----	-------	---------

EDITALL SPLICE BLOCKS



KITS, Audio—

KP-2.....	\$5.00
KS-1.....	\$21.00
KS-2.....	\$19.00
KS-3.....	\$22.00
KS-3.5.....	\$25.00
KS-3.75.....	\$37.00
KS-4.....	\$47.00

BLOCKS ONLY, Audio—

P-2.....	\$3.00
S-1.....	\$19.00
S-2.....	\$17.00
S-3.....	\$20.00
S-3X.....	\$22.00
S-3.5X.....	\$42.00
S-3.75.....	\$40.00
S-4.....	\$45.00
A-2.....	\$100.00

GORMAN REDLICH BROADCAST QUALITY WEATHER RECEIVER



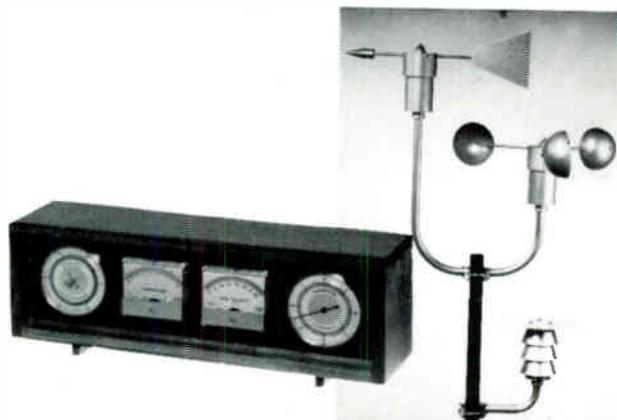
Take advantage of the expanding network of National Weather Service VHF weather stations. This sensitive, selective (and reasonably priced) receiver can bring you accurate local weather, national weather, weather radar data, emergency alert messages, plus farming and marine information where applicable. Its capability for unattended recording of emergency alert messages and update forecasts can save time and money. Rebroadcast if FCC authorized.

Receiver is rack mountable, remoteable, with an attractive black anodized panel. Demuting and remote alarm are initiated by 1050 "Alert" tone. A relay closure is initiated by either the 1050 tone or a 1650 hz. forecast update signal tone. These are the only tone signals NWS uses. 600 OHM output available.

Crystal and ceramic IF filters, plus double tuned dual gate MOS-FET RF stage, give excellent interference rejection and high sensitivity (.28 microvolts for 12 db. (S + N). Whip antenna, jack and terminals for external antennas. Guaranteed to work where others won't.

Weather Receiver.....\$325.00

TEXAS ELECTRONICS MARK IV-T WEATHERMINDER



These attractive consoles continuously give a direct indication of wind velocity, wind direction, barometric pressure and outside air temperature.

- * Wind velocity
- * Wind direction
- * Barometric pressure
- * Outside temperature

Mark IV-T\$569.00

**TEXAS ELECTRONICS MODEL 525-1AC
TEXAS ELECTRONICS MODEL 525-1DC**



The 525-1 AC (which includes the Model 525 transmitter) is a single, 4-digit, counter console which contains a power supply for 120 volt AC operation. The 4-digit counter indicates up to 99.99 inches of rainfall and is reset to zero with a front panel-mounted mechanical lever.

525-1 AC.....\$193.00

The 525-1 DC is identical to the 525-1 AC except that it is battery powered (3 self-contained pen light batteries).

525-1 DC \$179.00

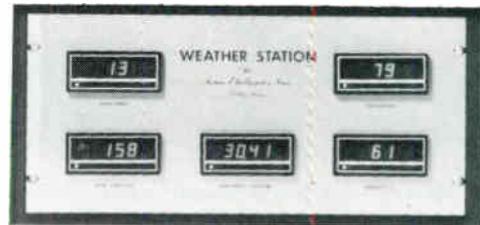
TEXAS ELECTRONICS MODEL 525-3AC



The 525-3 AC (which includes the Model 525 transmitter) is a triple, 4-digit, counter console which contains a power supply for a 120 volt AC operation. Each counter indicates up to 99.99 inches of rainfall, and each is reset to zero with a front panel-mounted mechanical lever. The counters are identified to indicate daily, monthly, and yearly rainfall totals. The monthly and yearly counters have a latching mechanism installed on the reset levers so that they cannot be inadvertently zeroed. A rear-mounted push button stepping switch is incorporated to initially set the counters at any mid-year point in time.

525-3 AC.....\$248.00

TEXAS ELECTRONICS SERIES 800



Digital Readout Meteorological Instruments.
Typical Price As Shown.....\$3595.00
(Send For Complete Details)

TEXAS ELECTRONICS ELECTRIC TEMPERATURE SYSTEM



(cont.)

(cont.)

PRODUCTION AIDS

The Model 308T electric temperature indicator reads air temperature from remote locations. The sensing element may be located up to 1000 feet away from the indicator.

308T\$200.00

TEXAS ELECTRONICS DIGITAL REMOTE READING TEMPERATURE SYSTEM

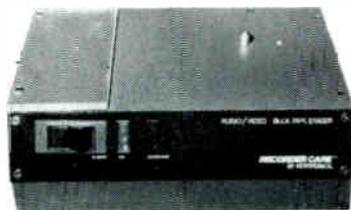


The Model 809 is an all electronic remote reading thermometer which indicates air temperature on a large easily read digital display. Range indications span from -40° to $+120^{\circ}$ F, and -40° to $+50^{\circ}$ C. The thermal sensing elements may be located up to 1000 feet or more away from the indicator.

809.....\$307.00



NORTRONICS QM250 PROFESSIONAL AUDIO/VIDEO BULK TAPE ERASER



The QM250 Professional Audio Video Table Top Bulk Tape Eraser employs a "U" core/coil having 240 turns of 15 awg. wire. The QM250 draws 15 amps of current at 115 VAC 50/60 Hz operation. A thermal protective device is incorporated in the coil of the QM250 which automatically opens the electrical

(cont.)

circuit, and actuates the overheat indicator when the internal coil temperature reaches 115° C. The coil will remain off until it has had time to return to its normal operating temperature usually requiring about 30 minutes, at which time the thermal device will reset itself. The safe operating duty cycle for the QM250 is 2 minutes "ON" 15 minutes "OFF". From a cold start the QM250 will run continuously for 5 minutes.

PEAK MAGNETIC FIELD STRENGTH: On Surface—3,000 Gauss; At $\frac{1}{4}$ " Spacing—1,300 Gauss.

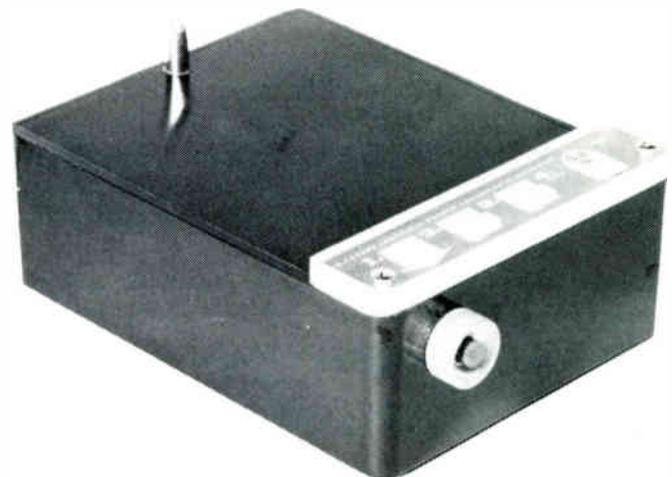
REEL SIZES: Up to $10\frac{1}{2}$ "

DIMENSION: $10'' \times 7'' \times 3\frac{1}{4}''$

WEIGHT: 11 pounds

QM250\$336.40

AUDIOLAB ELECTRONICS TD-1A TAPE DEGAUSSER



- * Erases audio, video, computer, data tape, magnetic films, cartridges and cassettes.
- * Accommodates up to $10\frac{1}{2}$ inch NAB reels.
- * Provides a wide focused magnetic field to assure complete erasure.
- * Radio's most popular bulk eraser.
- * Positive results everytime with a simple two pass operation for broadcast NAB audio cartridges.

TD-1A\$85.00

AUDIOLAB ELECTRONICS TD-2 TAPE DEGAUSSER



(cont.)

Erases Audio, Video, Computer and Cartridge Tape.

- * Erases tape reels up to 14 inches in diameter and 2½ inches wide.
- * Built in timer has adjustable "ON" cycle and automatic shut-off.
- * Efficient "ferro-tune" design assures strongest degaussing field.
- * Built in blower makes normal continuous service cool and quiet.
- * Standard 5/16 inch center post and 3 inch NAB hub supplied.
- * Designed for radio, television, computer and audio-visual tapes.

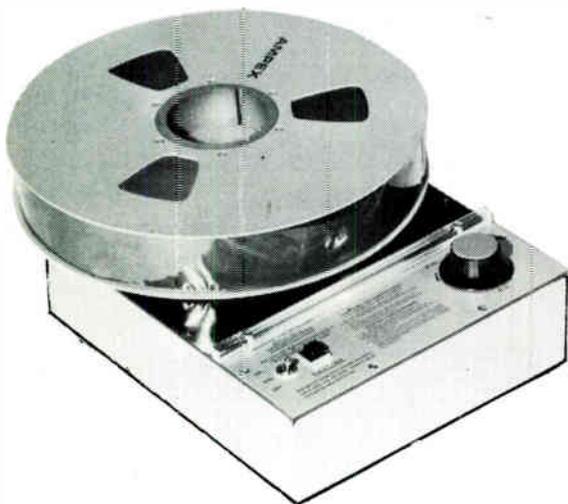
DUTY CYCLE: 50%, 30 minutes maximum with fan on.

POWER CONSUMPTION: 500 watts nominal.

DIMENSIONS: 13 x 17 x 4 inches.

TD-2.....\$595.00

AUDIOLAB ELECTRONICS TD-3 TAPE DEGAUSSER



Erases Audio, Video, Computer, and Cartridge Tape.

- * Strong degaussing field insures full erasure of new high coercivity tapes.
- * Erases tape reels up to 14 inches in diameter and 1 inch wide.
- * Tapes may be erased in original carton by sliding along guide rail.
- * Timer with adjustable ON cycle and automatic shut-off.
- * Built in blower assures cool and quiet operation.
- * Standard 5/16 inch center post and NAB hub supplied.

DUTY CYCLE: 50%, 30 minutes maximum with fan on.

POWER CONSUMPTION: 1350 watts nominal.

DIMENSIONS: 10 x 13 x 4 inches.

TD-3.....\$440.00

ALLIED WARNING LIGHT



Horizontal or vertical format.....\$40.00

Warranties

ours in addition to
the manufacturers

Allied Broadcast Equipment

EVENTIDE H910 HARMONIZER



PITCH CHANGE: one octave up, one down
 DELAY: output one, 112.5 ms. output two, 82.5 ms
 FREQUENCY RESPONSE: 12 kHz
 DYNAMIC RANGE: 90 dB. Feedback control

H910..... \$1500.00
 Transformer Balancing In/Out.....\$100.00

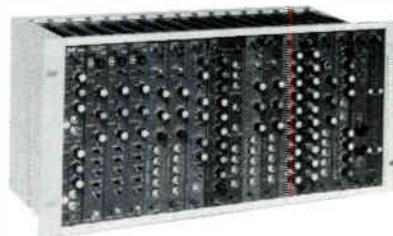
EVENTIDE FL201 INSTANT FLANGER
 WITH BPC101 PHASER CARD



"Flanging", the use of differential delay to cause cancellations in the frequency spectrum of a signal, is one of the most popular special effects in the recording industry today. The FL201 was designed to meet the demanding specifications of professional users. Its controls—oscillator, manual, remote and envelope, may be used in any combination. A unique "bounce" feature simulates tape motor "hunting". The depth control permits any desired percentage of direct versus delayed signal, and controls the relative phase of each.

FL201.....\$700.00
 Transformer Balancing In/Out.....\$50.00

ADR SCAMP MODULAR RACK SYSTEM



AVAILABLE MODULES INCLUDE: Expander Gate; Dual Gate; Compressor-Limiter; Mic Pre-amp; Sweep Eq; Parametric Eq; Dynamic Voice Filter; Distribution Amp; Pan Effects; and Time Shaper/Flanger.

Call Allied For Details and Pricing

PRODUCTION AIDS

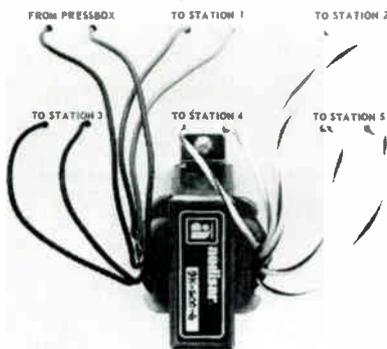
EDITALL BLOCK



The EDITALL block is a precision instrument. Its patented design and the methods used in its manufacture are two reasons why it remains virtually the universal choice of all who must attain professional, distortion-free results in their tape editing work. If you are aspiring to do top quality work, there isn't a significant alternative to using the EDITALL block.

EDITALL Kits contain all the materials you need to do professional quality editing and splicing work. The kits feature the precision machined aluminum block, 30 EDITABS, a grease marking pencil for marking your tape, and razor blade for making your cuts.

AUDISAR REPEAT COIL



The Answer To:

- * Mass Feeds
- * Telephone Conferencing
- * Distribution

FREQUENCY RESPONSE: 50 hz

INSERTION LOSS: 0.75 dB

HEAD ROOM: +30 dB @ 1 KHz

WEIGHT: 11.5 oz.

IMPEDANCE: 600 ohm x 6 (1 in, 5 out)

Audisar Repeat Coil (ea.).....\$70.00

Audisar Repeat Coil Orders of two or more (ea.)\$65.00

BELDEN'S UNREEL CONTINUOUS CABLE PAYOUT SYSTEM

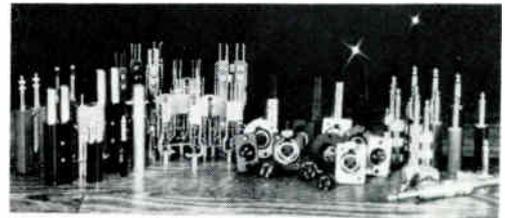
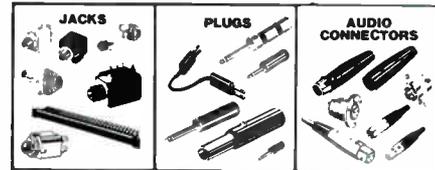


Belden's Unreel continuous cable payout system means fewer set-ups and reduced processing time.

Some of the most dramatic savings derived from Belden UNREEL cartons are reported by the users of Belden's palletized, multi-carton, continuous cable payout system. In this system, cables in individual UNREEL cartons are linked together by a taped splice joining the leading end of one cable to the trailing end of another.

Allied carries the Belden line—Call for complete information and pricing.

SWITCHCRAFT/ADC PRODUCTS



If you're in the business of getting sound from one place to another, ADC and Switchcraft have a growing ensemble of products to help you. Eliminate interconnection problems.



Custom pre-wired jack panels of all types. Standard long frame and bantam—tip-sleeve and tip-ring sleeve. Let us build one to your specifications.

Call For A Quote.

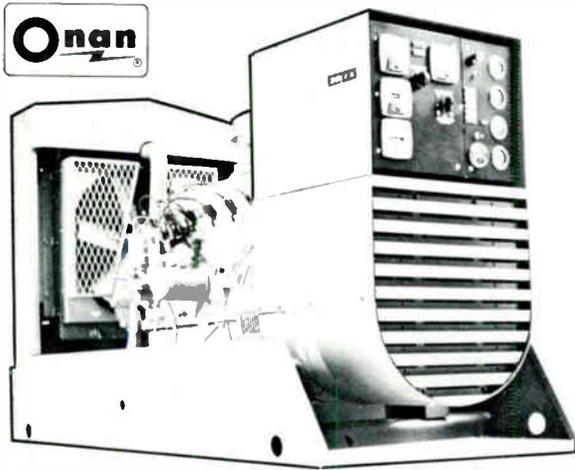
CALZONE CUSTOM CASES



CALL WITH YOUR REQUIREMENTS.

(cont.)

ONAN STANDBY POWER EQUIPMENT



Protect your station against power outages with an Onan Standby Power System—an independent source of electricity right there when you want it during a commercial power outage. Allied can help you pick the size you need—small, medium or large, manual or automatic operation.

Onan manufactures a complete line of standby electric generating sets. Choose from more than 45 different sizes, from one to 750 kW, gas/gasoline or diesel-powered, air-cooled or radiator-cooled. Onan makes hundreds of different models, and one of them is built and equipped to fill your exact requirements.

Call Allied For Full Details And Pricing.

BEVCO CONTROL ROOM CHAIR



Just as important to your air sound as a turntable—ALLIED HAS IT—The chair built for any environment including black Naugahyde back and seat covers and wheels. (High or low versions for standup or sitdown)

Bevco Chair\$85.00

COMMODORE PET COMPUTERS



Allied can supply the entire Pet Computer Line. Two of the more popular Pet units are the 2001-8k and the added-capacity 2001.

Whether for personal, professional, or business applications, Pet and Allied have a computer for you.

2001-8K	Standard w/integral cassette, 40 column	
Personal	by 25 line display, calculator type keyboard, & 8K bytes of memory.	
	(Basic 3.0 OS).....	\$795.00
	8N.....	\$795.00
2001	16N.....	\$995.00
Prof.	32N.....	\$1295.00

3M/RELIABLE EQUIPMENT

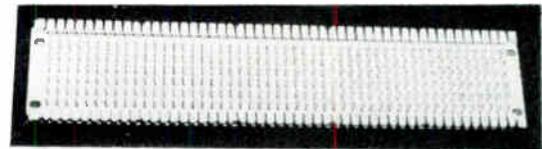


Figure C

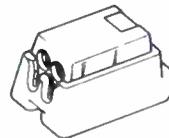


Figure A



Figure B

The ST push-on connector in Figure A is a clever little machine which will accept Belden 8450 or 8451, for example, and, without skinning provides a firm anchor whose electrical integrity is excellent. The wire is inserted in one of the two holes provided—the ST is pressed together with an E9E tool (Figure B) or regular pliers. This pressing action closes the ST and simultaneously makes electrical connection. After collapsing with tool, the ST is only 7/32" square x 17/32" overall length.

The third element of this time-saving trio is a telephone-type terminal block shown in Figure C. While the ST was particularly designed for use on Christmas-Tree type blocks, it also perfectly fits the telephone block.

Easy reassignment is accomplished merely by removing and re-installing the ST's on different pins. A second wire may also be inserted in the ST in the second hole provided for tapping, bridging, etc.

Figure A	(per 100).....	\$12.00
Figure B	(each).....	\$16.00
Figure C	(each).....	\$12.00

We also offer:

package discounts—
educational discounts
Allied Broadcast Equipment

INDEX

Alignment Tapes.	38,96	Lamps, Tower.	97
Amplifier, Buffer.	21	Limiters.	8,9,10,11,12
Amplifiers, Distribution.	51,52,118	Line Amplifier.	22
Amplifiers, Headphone.	59	Microphone Amplifier.	21,22
Amplifier, Mic & Line.	21,22	Microphone Booms, Stands, Accessories.	9,66,67
Amplifiers, Power.	3,4,5,6,7,8	Microphone Connectors.	118
Amplifiers, RF.	69,70	Microphone Snakes.	9
Analyzers, Audio.	13,14,95,96	Microphone, Wireless.	65,66
Antennas, FM.	103,104,105	Monitors, AM & FM.	68,69,70
Antenna Monitors.	71,72,73	Monitors, Antenna.	71,72,73
ATS.	72,83	News Facilities.	22,80
Automation.	24,25,26,27	Noise Reduction.	20
Buffer Amplifier.	21	On Air Lights.	38,117
Bulbs, Tower.	97	Optimod.	8
Cartridges, Broadcast Audio Tape.	37,38,39	Patch Bays & Cords, Audio.	118
Cartridge Accessories.	33,34,35,36,37,38,39	Patch Panels, RF.	106
Cartridge Machines.	28,29,30,31,32	Phono Cartridges.	112
Cartridge Racks.	33,34,35,36,38	Power Amplifiers.	3,4,5,6,7,8
Cartridges, Phono.	112	Preamps, Phono.	113,114
Cartridge Winder.	34	Preamps, Mic.	21,22
Cases, Custom Equipment.	118	Processors, Audio.	8,9,10,11,12
Cassette Tape Systems.	79,80	Processors, Transmitter.	8,9
Chair, Control Room.	119	Production Aids.	116,117
Clocks & Timers.	39,40	Rack Cabinets.	53,55
Coaxial Cable.	98	Recorders.	73,74,75,76,77,78,79,80
Coaxial Transfer Switches.	106,107	Remote Broadcast Equipment.	21,22,23,24,41,44,46,47,49,50,56
Compressors/Limiters.	8,9,10,11,12	Remote Control.	81,82
Computers.	119	Remote Pick-Up.	84,85
Consoles & Mixers.	41,42,43,44,45,46,47,48,49,50	Repeat Coil.	14,118
Connectors.	118,119	Reverb.	18,19,20
Delay, Digital.	18	RF Equipment.	106,107,108
Distribution Amplifiers.	51,52,118	RF Loads.	107,108
Dummy Loads.	107,108	RF Patch Panel.	106
Duplicators, Tape.	80,81	RF Switches.	106,107
EBS.	70	Speakers.	85,86,87,88,89,90
Equalizers.	12,13,14,15,16,17	Splicing Blocks.	118
Equipment Cases.	118	STL.	82,90,91,92
Erasers, Tape.	38,39,116,117	Surge Protectors.	29
Exciters, FM.	100,102	Synthesizer, Stereo.	19
Field Intensity Meters.	71	Tape Recorders.	73,74,75,76,77,78,79,80
Filters, Audio.	14	Telephone Interface & Answer Equipment.	92,93,94
Filters, RF.	106	Test Equipment.	94,95,96
Flanger.	19	Test Tapes.	38,96
FM Antennas.	103,104,105	Tone Arms.	111
FM Translators.	102	Towers.	97
FM Transmitters.	99,100,101,102	Transformers, Ring.	105
FM Exciters.	100,102	Translators, FM.	102
FM Tuners.	108	Transmission Line.	98
Furniture.	53,54,55,56	Transmitters.	99,100,101,102,103
Generators, Power.	119	Transmitter Audio Processors.	8,9
Harmonizer.	17,18	Tubes.	99
Headsets.	57,58,59,60	Tuners, AM.	71
Headphone Amplifier.	59	Tuners, FM.	108
Insulators.	105	Turntables, Arms, Cartridges.	55,56,109,110,111,112
Intercoms.	58,60	Weather Equipment.	73,115,116
Jack Strips, Audio.	118		

OVER 140 PRODUCT LINES TO BETTER SERVE YOU OUR CUSTOMER

ABCO
 ADC
 ADR
 AIPHONE
 AKG
 ALC
 ALLIED
 ALTEC
 AMPEX
 AMPRO
 ANDREW
 ANIXTER-MARK
 ANVIL
 ARISTOCART
 ASTROLITE
 ATI
 ATLAS
 AUDICORD
 AUDIO DESIGN
 AUDIOLAB
 AUDIO METRICS
 AUDIO TECHNICA
 AUDISAR
 AUDITRONICS
 AUTOGRAM
 AUTOMATED BROADCAST
 BARKER & WILLIAMSON
 BEAU
 BELAR
 BELDEN
 BROADCAST ELECTRONICS
 BEYER
 BGW
 BIRD
 BOGNER
 BRIGHT

CABLEWAVE
 CAPITOL AUDIOPAK
 CLARK
 COMARK
 COMMODORE PET
 CONEX
 CROWN
 CSI
 C.S.P.
 DBX
 DECCA
 DELTA
 DORROUGH
 DURO TEST
 EDITALL
 EIMAC
 ELECTRO IMPULSE
 ELECTRO SOUND
 ELECTRO VOICE
 ELECTRONIC RESEARCH
 ELGIN
 ESE
 EUMIG
 EVENTIDE
 FIDELIPAC
 FILMAGIC
 FOUR CORNERS
 GARNER
 GORMAN REDLICH
 HALLI KAINEN
 HME
 INOVONICS
 IRISH
 JBL
 JVC
 KINTRONICS

KOSS
 KUSTOM KRAFT
 LUXO
 McKAY DYMEK
 McMARTIN
 MARTI
 MAXELL
 MAXITEL
 MCI
 MICROTRAK
 MOSELEY
 MUNN ASSOCIATES
 NAD
 NEOTEK
 NORTRONICS
 NUMARK
 ONAN
 ORANGE COUNTY
 ORBAN ASSOCIATES
 ORBAN BROADCAST OPTIMOD
 OTARI
 PHELPS-DODGE
 PI-ROD
 POTOMAC
 PRECISION
 QEI
 QRK
 QUANTUM
 R-COLUMBIA
 RADIO SYSTEMS DESIGN
 REVOX
 ROTEL
 RTS
 RUSLANG
 RUSSCO
 SCALA

SCOTCH
 SCULLY
 SENNHEISER
 SHURE
 SONY
 SOUNDCRAFT
 SOUNDOLIER
 STAMAX
 STANTON
 STEVENSON INTERFACE
 STL
 SUPERSCOPE
 SWAGER
 SWITCHCRAFT
 SYNTEC
 TANGENT
 TAPCO
 TASCAM
 TAYLOR
 TEAC
 TECHNICS
 TELEX
 TELFAX
 TEXAS ELECTRONICS
 3M
 UNION METAL
 UREI
 VEGA
 VERSA-COUNT
 VOICE ACT
 VOLTGUARD
 WESTCLOX
 WHITE
 WHITE, O.C.
 WIREWORKS
 YAMAHA

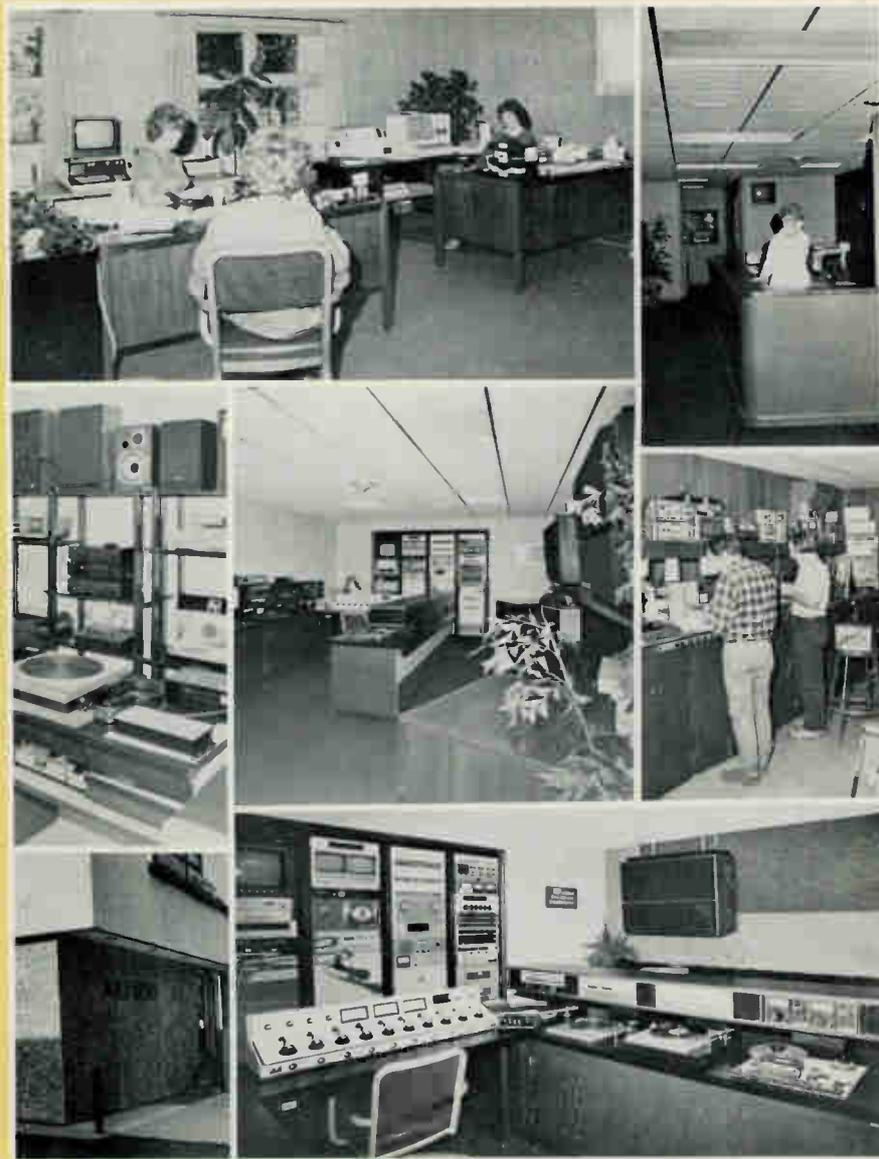
WE'RE WORKING TODAY FOR YOUR TOMORROW IN BROADCASTING

**Allied
Broadcast
Equipment**

HOME OFFICE: PO Box 786—635 So. E St., Richmond, IN 47374 PH.317-962-8596/317-935-5193

To order call the number listed for your area

Indiana 800-382-6907 Western States (OR, ID, MT, CA, NV, UT, AZ) 800-426-4254
 Washington 800-562-0062 Chicago/Milwaukee Area 312-784-2257 Other States 800-428-6954



CORPORATE OFFICE: P.O.Box 786 - 635 South E Street, Richmond, Indiana 47374 Phone 317-962-8596 or 317-935-5193

OVERSEAS: Allied International TWX 810-345-1394

World Radio History