MARCH 1964 ANNUAL DIRECTORY ISSUE

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## **TV & Communications**



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# **WEAK** SIGNALS

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Model TPR-\* \$165

# NEW CHANNEL CHAMP" PREAMPLIFIER

## (4db max., low band; 5½db max., hi band)

Jerrold's new Channel Champ beefs up weak signals to insure clear, sharp pictures on your customer's TV set.

This totally new solid-state preamplifier not only boasts a super-low noise figure but features a matched input and output that gives you *all* the signal your antenna picks up.

Built with a thick cast-aluminum housing protecting an inherently trouble-free transistorized circuit, the Channel Champ will *outperform* and *outlast* any other CATV preamplifier on the market.

Ultra-stable Hi-Q preselector circuitry employs helical \*Specify channel. Price does not include power supply.

resonators. AC-powered to eliminate electrolysis problems. Works with Jerrold 405-P power supply or new PPS-8 power supply which handles up through eight Channel Champs. Zener-diode regulation eliminates signal fluctuations due to voltage changes.

The "Channel Champ", like the famous Channel Commander signal processor, is another member of the Jerrold family of superior equipment designed specifically for the CATV industry. Contact your Jerrold man now . . . Channel Champs are now in stock and available for immediate delivery.

JERROLD ELECTRONICS Community Systems Division

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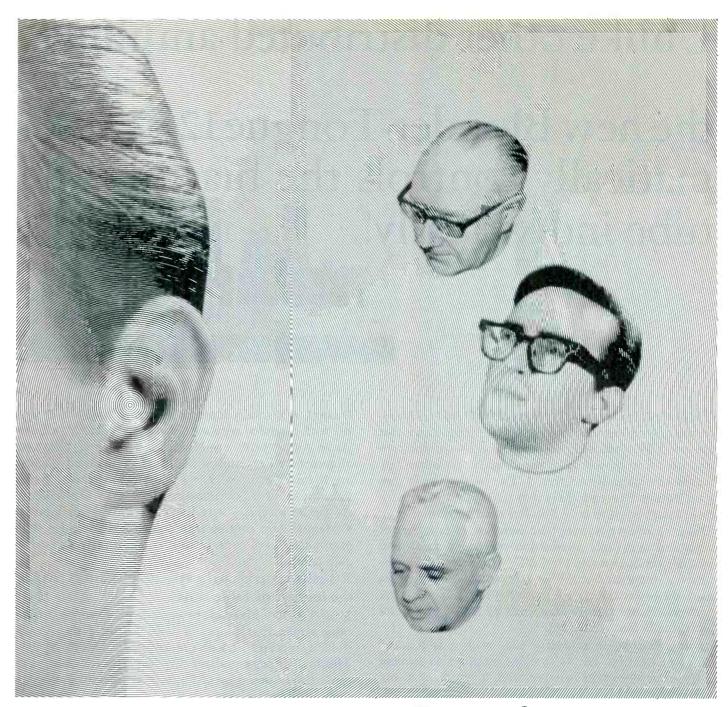
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## You Listen When You're Number 2

Problems with your coax and unstable attenuation characteristics? Try the other company lately and they didn't listen? Listening is part of our business. Knowing that poor welds and cracked seams cause moisture and attenuation problems, VIKING developed a solid sheath aluminum cable made of the finest flexible drawn tubing. Our design engineers listen to you, you, you, and you, in developing and producing equipment to overcome YOUR problems. Foresight in production enables us to meet your demands when and where necessary. As **NUMBER TWO** company in the CATV industry, our quality control is just a little better and our service just a little faster. It has to be if we are to be competitive. Competition means savings and we pass on our savings for greater profits to you. So if THEY won't listen to your problems . . . try us . . . call VIKING about all your problems. We listen . .

MANUFACTURERS OF QUALITY COAXIAL CABLES AND TELEVISION SYSTEM PRODUCTS. VIRING

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TV & COMMUNICATIONS

## Unlike other distributed amplifiers

the new Blonder-Tongue 1232 automatically controls the bias of each tube individually!

The newest and most professional distributed amplifier on the market has many features that make it ideal for use in CATV systems: *First, the 1232 automatically controls the bias of each tube individually.* As tubes age, bias is automatically decreased. The result is such constant output that amplifiers may be safely spaced with cable losses equal to only 2 db less than maximum gain. This 2 db reserve is more than sufficient to take care of variations and cable attenuation caused by aging and weather conditions. As all CATV engineers know, the closer a distributed amplifier is operated to maximum gain, the lower the system noise figure. Thus, the 1232 delivers cleaner signals than units where tubes are not individually bias controlled.

Another benefit of automatic bias control is reduced maintenance costs. The 1232 seldom requires adjustment —not even when tubes are replaced. This means a considerable savings in terms of labor.

The six tube frame grid triode input stage (6HA5) is another key feature. It assures an exceptionally low amplifier noise figure. And the patented neutralizing circuit means wide band stability. Other quality features of the 1232 include: Long-life, frame-grid tubes — six (6HM6) tubes in the output stage give high output capability. • Low VSWR at input and output at all gain settings. • Virtually indestructible regulated power supply with extended regulation range 90 to 150 V. • Interstage connections easily accessible for testing and alignment. • Reversible rack or surface mounted brackets are standard equipment. • Rigidly mounted distributed lines tunable for best impedance match. • Convenience AC outlet accepts 3-wire line cord with safety ground. • Manual gain control with connection for solid state automatic level control unit or thermally activated gain control.

## Accessories to keep the system constant even over the longest of cable runs.

MODEL 3350—Fixed slope equalizers. Compensate for cable attenuation. Slopes of 3 db, 4.5 db, 6 db, 7.5 db, 9 db, 11 db and 12.5 db are available. MODEL 3349— Thermal slopes equalizer. Compensates for changes in cable slope caused by changes in temperature. MODEL 3348 — Thermal gain control and slope equalizer. Compensates for changes in cable attenuation as well as changes in cable slopes caused by changes in temperature. MODEL 1518—Automatic level control. Used in conjunction with pilot carrier generator to maintain constant amplifier output level. MODEL 1519—Pilot carrier generator. Generator pilot carrier frequency which activates automatic level control. For further information contact:

engineered and manufactured by



## and still waterproof!

Coaxial cable for community television applications <u>must</u> provide complete protection from moisture. It can do this only if the following two requirements are met: <u>The moisture barrier</u> material must provide complete protection against water vapor and water when the barrier is still intact. <u>When the moisture barrier is</u> penetrated, the construction of the cable must prevent the longitudinal transmission of either water vapor or water between the dielectric material and the inner surface of the moisture barrier.

Only one cable type will give you this protection: JT 1000 series cable by Times...<u>seamless</u> aluminum tube sheath coaxial cables.

Puncture it, splice it, apply as many pressure taps as you like...water vapor and/or water can't penetrate Times self-sealing solid sheath cable.

Whether buried or up on the poles, the penetration of water vapor and/or water presents the most serious threat to transmission capability, efficiency and cable longevity. Times solid seamless' drawn aluminum tubing cable solves this costly problem by swedging the aluminum sheath down to the point where the dielectric (foamed polyethylene) is actually under compression. It forms a complete gas and moisture barrier at all points along its lineal length.

We can prove that this advanced cable will cost you less. Sure, you initially pay more for this self-sealing cable! But the benefits and the system's ultimate lower costs make it more than worthwhile. Ordinary cable, without moisture barrier protection, requires optimum performance of all amplifiers in service, resulting in higher maintenance, higher technician cost, and tube replacement cost. What's more, you must account for increased attenuation when planning and operating your system. Otherwise, you will be faced with the problem of replacing cables much sooner than originally planned.

For long-term, maintenance-free payouts and higher dollar yields per dollar invested, specify Times JT-1000 series solid sheath cables.

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COMPLETE CABLE ASSEMBLIES 

TEFLON\* HOOK-UP WIRE

## **TV & COMMUNICATIONS**

Published By COMMUNICATIONS PUBLISHING CORPORATION - P.O. Box 63992, Okla. City 6, Okla.

#### Editorial

For the staff of this magazine it is a real privilege to be part of the CATV industry, with its related fields of CCTV, ETV and microwave communications. Your acceptance of **TV & Communications** has further challenged us to provide you with an increasingly valuable and informative publication each month. This special Directory issue represents a measure of extra effort on our part aimed at showing our appreciation by providing a convenient reference volume for locating information on equipment and services.

During the next few months you can look forward to some highly interesting reading in "TV&C." Topics which will receive special attention include CATV public relations, dealing with anti-CATV groups, microwave applications, microwave servicing, use of directional couplers, temperature effects on solid state equipment, auxiliary services, ETV, . . . and, of course, all new development on the technical, legislative and regulatory fronts as they occur.

Your comments and suggestions are solicited. It's your industry . . , and this is your magazine. We would like to hear any ideas you have for improving either one.

Another very welcome and necessary form of support is your subscription. If you're already a regular subscriber how about recommending "TV&C" to a friend or business associate? (There's a handy clipout subscription coupon on page 51 of this issue.) Once again—a sincere "thank you" for your encouraging support of "TV&C".

#### OUR COVER

Our cover photo this month shows Mr. Robert Harmon of Davco Electronics Corporation installing an amplifier cabinet while an Arkansas Power & Light Company lineman, in the bucket, hooks up the AC power.

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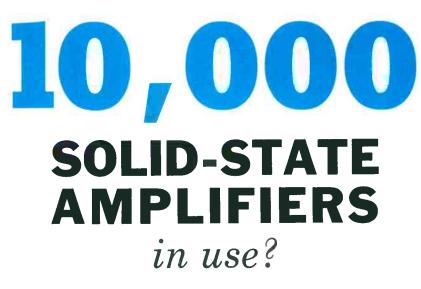
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MARCH, 1964

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## WHO is the <u>ONLY</u> CATV MANUFACTURER

who has over



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#### COMMISSION OK'S CATV PURCHASE OF WBOY-TV

The proposed purchase of WBOY-TV, Clarksburg, W. Va., (reported last month in TV&C) has been approved by the Federal Communications Commission. Fortnightly Corporation which operates Fairmont TV Cable Co., Inc., in Clarksburg and Fairmont, W. Va., is buying the broadcast station from Rust Craft Broadcasting Co. The purchase is through Northern West Virginia Television, a Fortnightly subsidiary. Consideration is reportedly \$825, 000. The Commission has stipulated that Fortnightly is to protect WBOY-TV and WJPB-TV from simultaneous duplication by the signals of other stations carried over Fortnightly's CATV systems at Clarksburg and Fairmont.

The FCC opinion stated: "We believe there are reasons for approving this transfer, with the safeguards which attend it. . . . Clarksburg and Fairmont-Weston have been a continuing battleground between broadcasters and CATV operators. This has required all parties to devote energies and resources to ends which do not directly serve the public. This transaction represents an effort to settle these differences and make a fresh start. We think the dangers in Clarksburg are adequately provided forand that there is a net advantage in the improved chances of survival of WJPB. It is true that this bettered status, which grew out of this transaction, will take place in any event now-but if the transfer is not approved, WBOY-TV will presumably not be carried on the Fairmont system and the competitive tables will be turned

"While the result is by no means an ideal one, we conclude, on balance, that it is in the public interest. However, we regard situations of this kind with growing concern and therefore propose in the near future to institute an inquiry into the problem of joint ownership of CATV systems and television stations in the same communities. Pending that event, we serve notice that any applicataions involving such combined ownership — however accomplished—will be carefully scrutinized any may, in appropriate cases, be deferred until we finally develop a long range policy with respect to this problem."

Chairman Henry dissented and issued a statement in which Commissioner Loevinger joined; Commissioners Bartly and Ford concurred in the result.

#### FEES OPPOSED IN CONGRESS

Chairman Walter Rogers of the House Subcommittee on Communications and Power recently completed hearings on a bill which would prohibit the Commission from assessing license fees without specific authority from Congress. Chairman Rogers has strongly opposed the licensing program since its inception. Congressman J. Arthur Younger, ranking Republican on the Subcommittee, spoke in defense of the Commission's fee plan. Chairman E. William Henry, speaking for the Commission, noted that the fees forthcoming from the Safety and Special Radio Service applicants will put that bureau on an almost self-sustaining basis. However, he testified that the cost of running the Broadcast Bureau would require fees of more than \$1000 per application, an amount which the FCC deemed "inappropriate."

Since the court put the fee program into effect on March 17, the monies collected are being held in a special account and any application fee found to be invalid by the court will be returned to the applicant.

#### **BRITISH CATV GIANT**

In Toronto, Mr. Leslie A. Allen, head of Atlas Telefilms, Ltd., has announced formation in England of a new firm with plans to operate 200 CATV systems. A reported \$12 million in U. S. and British capital is backing the venture, Canadian Home and Theatre Vision, Ltd. Atlas will manage the systems. CHTVL will construct new systems and buy up existing CATVs.

#### LEGISLATION TO PROTECT CABLES IN SOUTH CAROLINA

A newly enacted statute has made cable tempering or tapping a misdemeanor in South Carolina. Punishment by imprisonment up to one year or fine to \$1000—or both—may be assessed against "any person who shall willfully or maliciously break, injure or otherwise destroy or damage any of the posts, wires, towers or other materials or fixtures employed in . . . a television coaxial cable, or a microwave radio system or a community antenna television system or . . . in any way attempt to lead from its uses or make use of the electrical signal."

#### INTERIOR RADIO EXPANSION

The Department of the Interior has reported that its two-way radio network, which links three Bureau of Mines Helium installations at Amarillo and Exell, Tex., and Keyes, Okla., will soon be extended to include all Bureau of Mines activities in Texas, Oklahoma and Kansas.

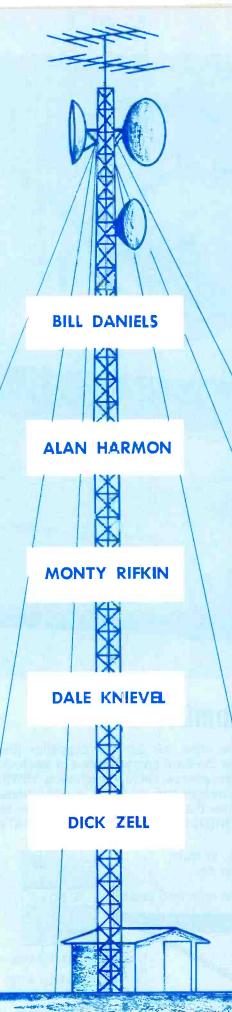
#### CATV MICROWAVE APPROVED

The FCC has granted authorization in the Business Radio Service to Television Cable Co., Inc., Conway, S.C., to construct a microwave relay system. The installation will supply signals to the community antenna system in Myrtle Beach, S.C. The authorization is subject to conditions specified in Docket 14895.

#### JERROLD SIGNS TWO CATV "TURN-KEY" CONTRACTS

"Turn-Key" contracts for systems in Laurel and West Point, Mississippi, have been awarded to Jerrold Electronics Corporation, according to Mr. Robert H. Beisswenger, Vice-President and General Manager. Jerrold's Community Systems Division is currently installing more than a dozen community antenna systems across the nation, with contracts totalling a reported \$4 million.

The new CATVs in Mississippi are owned by two Philadelphia concerns. Lancaster Corporation owns the Laurel operation and American Cable Systems, Inc., manages the West Point system.



President 4

## The True Pioneers in the CATV Industry

FIRST in Brokerage	
FIRST in Finance	
FIRST in Appraisals	
FIRST as Consultants	
FIRST in Managemer	h

## WE INTEND TO REMAIN FIRST!

The result has been an impressive number of mutually satisfactory and beneficial CATV sales. Seventy-three (73) transactions in four and one-half years totaling over \$65 million dollars.

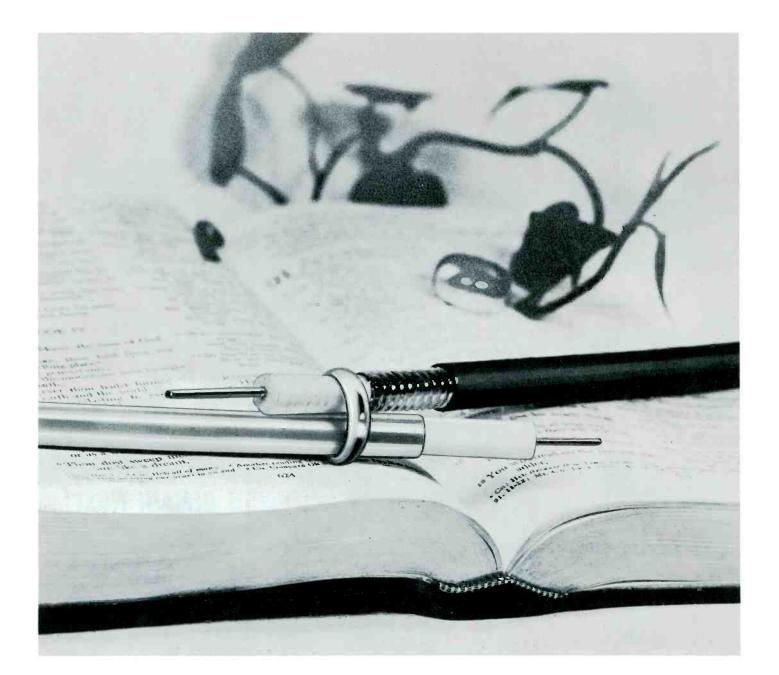
For expedient performance and total interest, call the firm that is devoted **exclusively** to CATV . . . including all phases of management financing, consulting, appraisals, tax information, and brokerage.



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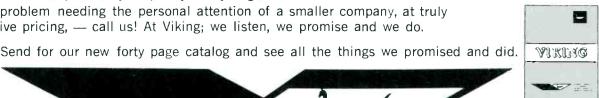


## You Promise and Do When You're Number 2

Most marriages pose problems, but not the one pictured above. Here we show you our new coppaflex (the new he-man of the industry) and our solid sheath aluminum cable (notice the form on her) joined in wedlock. The attenuation characteristics, velocity of propagation, characteristic impedance, cable capacitance, VSWR, and pulse response of these cables are equal to the most stringent government and industrial specifications. Used together, these cables are perfectly matched. As individual cables the industry might use either as a standard. This marriage shows promises are made and kept by the NUMBER TWO company in the CATV industry where we promise you quality and you get it.

For any problem needing the personal attention of a smaller company, at truly competitive pricing, --- call us! At Viking; we listen, we promise and we do.

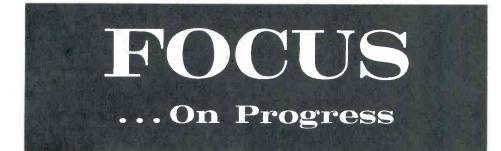
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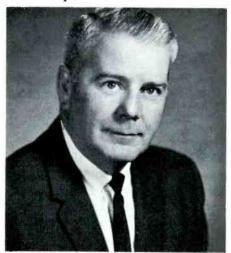


M A N U F A C T U R E R S O F Q U A L I T Y C O A X I A L CABLES AND TELEVISION S Y S T E M P R O D U C T S.



#### ENTRON PROMOTES

The new president and chief executive officer of Entron, Inc., is Mr. R.J. McGeehan who was elected to succeed Mr. J. L. Lahey who resigned recently. Mr. McGeehan, one of the founders of Entron, served as its vice president until September 1961 when he resigned to join General Radionics Corp. as executive vice president. He rejoined Entron in December of 1963 as executive vice president. He has been a board member and major stockholder since inception of the firm.



Mr. McGeehan has announced a sales goal for 1964 of an increase of  $33\frac{1}{3}\%$ over last year with "re-emphasis of Entron's activity in the Pay TV field." He noted that Entron's new plant provides the capability for a 50% increase in productivity. Entron's operation includes installation and operation of CATV systems ae well as manufacturing, engineering and systems planning.

Other new appointments at Entron have been announced by Mr. Edward Shafer, General Sales Manager. The new Assistant Sales Manager is Mr. George Kanen who formerly managed marketing services for the firm. Newly named Advertising Manager is Joan M. Homa. Her responsibilities will include public relations, technical publications and advertising. Patricia Whiteman is Entron's new Sales Office Supervisor.

#### CAS MANAGEMENT RENAMED

In Dallas, Texas, CAS Management Company has been merged through a consolidation of assets, into National Trans-Video, Inc. an established corporation which has existed since formation under the same ownership and control as CAS Management. Mr. J. C. Roberts, Vice President, advises that National Trans-Video will be administered by the same officers, directors and key employees who were associated with CAS, and there will be no significant change in either present policies or future objectives.

#### LENKURT ADVANCES LAWRENCE

In San Carlos, Calif., Richard N. Lawrence has been named Sales Engineer at Lenkurt Electric Co., Inc., it was announced by Robert E. Graham, Western District Manager. In his new position, Mr. Lawrence will call on industrial communication customers in the 12-state area covered by Lenkurt's San Carlos office.

Prior to joining Lenkurt in October, 1959, Mr. Lawrence was associated with Pacific Telephone & Telegraph Co. At Lenkurt, he served as an applications engineer in various departments including marketing services, commercial products engineering, and marketing engineering standards. Lenkurt's products include microwave equipment for CATV and a variety of communications applications.

#### COMMUNITY ENGINEERING NOW C-COR

James R. Palmer, President, has advised that Community Engineering Corp., State College, Pa., has changed its name to C-COR Electronics, Inc. C-COR manufactures a line of CATV equipment and accessories.

#### NEWSPAPER NAMES CATV MAN

New television editor of The Huntsville News is *Mr. William O. Neal*, manager of Huntsville TV Cable. Mr. Neal's column will include television schedules, comment on local and network programs, and technical, historical and current information relative to television.

#### JERROLD NAMES METZ

Mr. Elmer W. Metz has been named Sales Manager for the Community Systems Division of Jerrold Electronics Corporation. The announcement was made by Mr. Robert H. Beisswenger, Vice-President and General Manager of Jerrold Electronics.



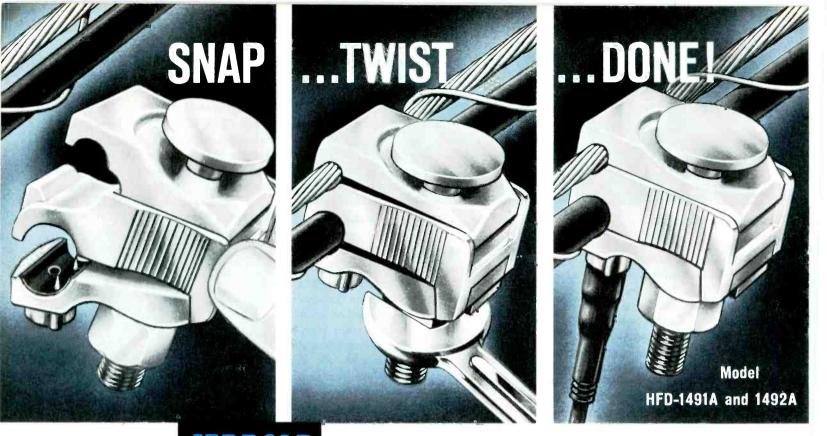
Mr. Beisswenger stated that, "Mr. Metz is well qualified to handle this new position, having had ten years experience with Jerrold in the CATV industry. His promotion is due to outstanding success as Midwest Regional Manager."

#### PLASTOID EXPANDS CATV LINE

An expanded line of CATV accessories has been announced to the industry by *Plastoid Corporation*. Matching transformers, pressure taps, line splitters, and a complete line of cable connectors and fittings are now available. Plastoid has also introduced .412 OD solid aluminum sheath cable. in addition to 1/2" solid aluminum sheath.

#### **BILOXI SYSTEM LAUNCHED**

The formal opening of the *Biloxi TV Cable System* attracted 3,306 visitors to the Broadwater Beach Motel in Biloxi, Miss., on February 19. The new system is reportedly hooking up subscribers at the rate of 50 per month with a backlog of several hundred. Mr. Robert Lee is manager of the \$500.000.00 Biloxi operation; Mr. Robert Jernigan is Division Manager. Equipment used in the system includes Entron components in a Davco "functional head-end" and TeleMation "Weather Channel."



## NEW **MINUTEMAN''** TAP FOR SPEEDY TAP-OFF INSTALLATION

Easiest, quickest, best-performing line tap ever made . . . that's what you get with Jerrold's new HFD-1491A & 1492A Minuteman Pressure Taps and at no increase in price.

New unified assembly means no dropping or hunting for parts—the nut is swaged on to stay, yet unit opens up wide enough to quickly snap over the feeder-line cable. Pre-molded weatherproof gland is built right into recessed groove. Insert hole is pre-formed...no more clogged cutting tools.

#### NEW "MINUTEMAN" MATCHING TRANSFORMER

Here's the rugged new transformer designed to work with new Minuteman Pressure Taps to make your home installations fast and dependable. Built to take it, the Model T-378 is housed in high-impact plastic, has a big, hefty "F" fitting on one end, thick, tough 300-ohm leads on the other. The new transformer goes on in a jiffy, and features built-in isolation for both set and system. All at no increase in price.

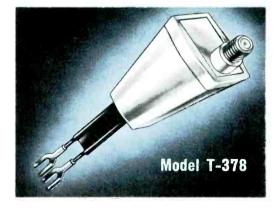
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DALLAS, TEXAS 4924 Greenville Avenue Area Code 214 368-1911 SAN CARLOS, CALIF. 1042 Terminal Way Area Code 415 593-8273 New interlocking design eliminates troublesome swiveling of block sections. No going back for another unit . . . every unit works every time . . . completely weatherproof and corrosion-resistant. These features *plus* the added ease of fast installation make Minuteman Taps an *incomparable value*.

Model HFD-1491A is for single-shielded RG-11type cables and JT-1412 aluminum-sheathed cables. HFD-1492A is for double-shielded cables.



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At the 1963 Conference of the International Association of Chiefs of Police, the Committee on Comunications submitted a report from which the following is quoted:

"A number of small and mediumsized cities in the West have installed and are successfully operating co-ordinated communication centers. These centers are set up with a telephone switchboard. a radio microphone, fire equipment dispatching equipment, burglar alarm control and so forth. The in-coming telephone trunks for police, fire and city business all terminate on the switchboard. The three services have separate numbers and the associated trunks are grouped on the switchboard in such a way as to insure priority of answering.

"Advantages claimed by users of such systems are:

- 1. 24 hour answering for all city services which is an aid to overall operation as well as good public relations.
- 2. No one must remain in any fire house or other city department during an emergency to answer the telephone. This frees personnel to respond to the scene.
- 3. Improved co-ordination of tactical forces at the scene of an emergency.
- 4. Extremely rapid notification of all city forces in any emergency. If the radio circuits are properly designed, this notification can be simultaneous.
- 5. Rapid dispatch of emergency equipment.
- 6. Improved control over long distance telephone calls.

While the report is necessarily reduced to the simplest terms, the basic theory behind it is so completely logical that to implement such a plan requires only those modifications needed because of the size of the city involved. For example, a small city would have one switchboard position, one Local Government radio channel handling police, volunteer fire department and other city services. One person is able to operate such a system without difficulty.

County systems serving over one million people are today using this coordinated approach successfully. Thus, the idea is logical regardless of size.

One such system, which has recently

## COORDINATED COMMUNICATIONS

By Robert E. Brooking

been placed in operation, is in the City of Pomona, California. The City has just opened its new Public Safety Building which will house the Police Department, Fire Department, Civil Defense Department and the Communications Department. The building is a two story structure but that is only part of the story. Below ground is a radiation proof and natural disaster proof area having its own power supply, fuel, water well, cooking and housing facilities and office space. In times of natural disaster or enemy action, the functions of government would be carried on from this space.



View of underground facility in Pomona, Calif., shows city switchboard and police dispatch position.

However, in any major disaster, the most important item is a functioning communications system. Also, the more serious the disaster, the more probably will be the loss of wire lines for both power and communications. The diesel-electric generating system will provide the power but communications may be limited to radio. This is the time when those Public Safety Radio systems are most needed. Their continued successful operation in Pomona is assured; the equipment and, more important, the people who operate it are located in this underground area. Thus, the facilities required are used every day. City Officials do not need to trust to Civil Defense equipment set up in some other place but not in use. Even more important, the operating personnel already know what to do; it is their daily job to handle "little emergencies," even some not so little. Finally, there is no problem of getting the operators to the equip-

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ment-they are already on the job.

A city of about 200,000 has a police department with its own communications system, a fire department with its own communications system, a water and street lighting department, a public works department and city parks department-each with its own communications system. Late one evening a big windstorm strikes; trees are uprooted, limbs broken off, street lighting wires knocked down. Police cruisers check out the damage and report back to headquarters by radio; fire apparatus takes care of hot power wires that are down; the load dispatcher at the street lighting plant starts telephoning supervisors to get repair crews on the job only to find that some telephones are not working; but he does have the radio system. Once he gets a man on the air with a mobile unit, he can send him to the homes of personnel. Supervisory personnel in public works and city parks are called to supply barricades, flashers and heavy equipment for clearing streets; but, they have a problem. The base stations, located at the office, are shut down at 5 P.M. and it is necessary to call people to work to get them in operation.

Meanwhile another problem has developed. Those telephones which are still in operation are being used by citizens to notify the police that trees and wires are down; but the police have no way to pass this information to other services: they do not operate on the other frequencies and the telephone lines are jammed.

The story above is true, but it won't happen in Pomona. Base stations for all radio systems are located in the underground control center and are working 24 hours a day. In addition, the time delay in getting information from one service to another is limited to the time required to put it on the air; all other delays are eliminated. Obviously, this kind of centralization and organization of municipal communications offers some very interesting advantages. R.E.B.

## CORR-O-FOAM COAXIAL CABLE

#### **LOW ATTENUATION = EXCELLENT FREQUENCY RESPONSE NO RADIATION LEAKAGE = MINIMUM COST**

Available in 5,000 foot lengths, Corr-O-Foam construction consists of a copper center conductor and foamed polyethylene dielectric, outer conductor may be either a copper or aluminum corrugated tape. A resilient, semi-flexible Habirlene jacket fully eliminates moisture seepage, preventing deterioration and maintaining low attenuation.

Here's what C. M. Kirkeeng, General Manager, Cable-Vision, Inc., said after completion of a 4200 subscriber network utilizing 65 miles of Corr-O-Foam: "Corr-O-Foam cable was very easy to handle on the ground and in the air; extremely adaptable in connecting amplifiers, Multitap boxes, line splices and Chromataps. Much of the construction was made through heavy tree laden areas, but the usual problems were minimal."

Corr-O-Foam, available with a full line of matching connectors, is setting new standards of economy, ease of installation and reliable performance. Our new catalog provides full details on why Corr-O-Foam is first choice for CATV. Write for your copy today.





	Nom. Outer Diameter (In.)		Attenuation Max. (db/100 ft.)			Ship. Wt.
Туре	Conductor	Jacketed	Chan. 6	100 Mc	Chan. 13	(ibs/ 1900 ft.)
*CF 38-75	0.071	0.435	1.03	1.15	1.69	55
* * CF 12-75	0.098	0.570	0.77	0.85	1.29	118

\*Corr-O-Foam, 3/8" diameter, 75 ohms \*\*Corr-O-Foam, 1/2" diameter, 75 ohms

#### Also Available for CATV

STYROFLEX®

#### FOAMFLEX

The original foamed polyethylene insulation cable . . . a Phelps Dodge Electronics development.

Reliable, high-power, uniform, low-loss cable unsu-bassed in meeting critical stancards.

## 1964 DIRECTORY

This special Annual Directory Issue has been compiled as a permanent reference manual for equipment and services used in CATV, MATV and other CCTV applications including Educational Television and industrial systems. Current information has been supplied by most major suppliers, however, a few companies were not able to provide current information for this special issue. (Listings for products or firms marked with an asterisk\* have been taken from previous listings and may not reflect current prices or specifications.)

For the convenience of the reader, an Index of Products appears on Page 57. A complete list of manufacturers and suppliers with their addresses is reproduced on Page 56. Readers are invited to contact individual firms for complete product and price information.

TV & Communications assumes no liability for the accuracy or content of information in this directory. However, every effort has been made to provide accurate information and any errors or omissions brought to our attention will be corrected in a subsequent issue.

#### **BROADBAND EQUIPMENT**

#### HEAD-END AMPLIFIERS BLONDER TONGUE - BENCO

Low noise, mast-mounted amplifier, Model AB-3. Provides 25 db minimum gain on all VHF channels plus FM. Choice of 300 ohm or 75 ohm output. Stripless terminals for 300 ohm twinlead; solderless "quick-disconnect" terminals for 75 ohm co-ax. Amplifier uses low noise framegrid tubes. Complete with remote power supply. Net: \$75.00.

Low noise amplifier, Model HAB. 25 db minimum gain. Both 300 ohm inputs and outputs. Separate high and low band gain controls. Uses frame-grid tubes. Maximum output (across 75 ohms): 0.9 volts for less than 1% cross-modulation (low band); 0.6 volts for less than 1% crossmodulation (high band); 2.5 volts for less than 3% cross modulation (low band); 1.0 volts for less than 3% cross-modulation (high band). Net: \$49.65.

Pacemaker 35 db TV/FM amplifier, Model PM-2. Broadband amplifier with low band gain of 35 db and high band gain of 30 db. Noise figure 6 db average; maximum output 2 volts per band. Separate gain controls for each band allowing up to 10 db change. Net: \$131.00.

**DAVCO ELECTRONICS CORPORATION** Functional design head end. Handles five adjacent channels (low band). Complete control of audio and video carrier levels. Regulated primary AC power, electronically regulated DC voltages. Built-in remote power supplies for antenna mounted preamplifiers. Hi-Q and band pass filtering for elimination of adjacent channel interference. Equipment is mounted in 4 racks which are bonded together. Comes fully aligned and ready for service. All connecting cables are pre-assembled. All conversions are crystal-controlled. Tubes are selected, long-life types. Each

system is custom designed to your specifications and uses rugged Entron equipment. Write for further information.

#### JERROLD ELECTRONICS CORP.

Unitized head end for completely controlling any VHF channel, Model COM\*. Unit controls signals in such a way that adjacent channels on both high and low bands can be fed to a distribution system. Compatible with existing system equipment, the unit may be used to supply an additional VHF channel, to replace obsolete equipment, or as a spare head end for any VHF channel. Covers VHF channels 2 to 13. Has IF AGC; automatic frequency control circuitry to keep the tuner "on-the-button"; automatic sound control circuitry to maintain the desired relationship between sound and video carriers. Highly selective IF amplifier incorporates specially-designed traps and filters to eliminate adjacent channel interference. Output of IF amplifier is fed to a crystal-controlled converter for offchannel conversions. When on-channel conversion is desired, the crystal-controlled converter-oscillator is switched out and the tuner oscillator is used. Unit also incorporates a standby carrier oscillator which is energized after a specific time delay to provide a replacement carrier. Has built-in regulating transformer. Stacked multichannel rack mount provides complete head end installation at minimum space requirements. PNS. (\*Specify channel.)





Transistorized all-band line extender, Model ATM-20C-HS. Average gain, 20 db. Maximum output, 40 db. Noise figure, 10 db, measured at 220 mc. Tilt control, 10 db. Gain-tilt control is tilt compensated. AC/DC cable powered. Regulated power supply. 75 ohm impedance. Cascadeable, 10 units at 30 db. Strand, in-line mounting, 26 db variable input pad and internal gain control, 10 db range, available. Unit is hermetically sealed. Price: \$84.95. Transistorized trunkline AGC amplifier, Model ATAL-35. Low band. One input, 40-110 mc. Two outputs: one trunk; one 10 db bridger. Average gain, 35 db. Maximum output, 50 db. Noise figure, 10 db, measured at 110 mc. 5 db tilt control; manual and AGC gain controls. minus 15 vdc adjust potentiometer. Powered by 28 vac, regulated power supply, 75 ohm impedance. Cascadeable. Pole or strand mounting. Special 1:8 db AGC action temperature compensated plus or minus 1 db minus 50 degrees F to 160 degrees F. Price \$263.95.

Transistorized all-band trunkline amplifier, Model ATA-60-40-220 mc, one input. Outputs as above. Average gain, 30 db. Maximum output, 50 db. 10 db noise figure measured at 220 mc. 5 db till control. Manual and AGC gain controls, till compensated. 28 vac powered. Regulated power supply. Cascadeable. Pole or strand mounting. AGC compensation as above. Price: \$395.00

Transistorized Iow band trunkline amplifier, Model ATML-35. One 40-110 mc input. Outputs as above. Average gain, 35 db. Maximum output, 50 db. Noise figure, 10 db. Gain control tilt compensated. Powered by 28 vac or 115 vac. Regulated power supply. Cascadeable, 40 units at 35 db output. Pole or strand mounting. Price: \$202.50. Transistorized mainline all-band amplifier, Model ATM-60. One 50-220 mc input; outputs as above. Average gain, 30 db. Maximum output, 50 db. Noise figure is 10 db measured at 220 mc. 5 db tilt control. Tilt compensated gain control has 15 db range. 28 vac or minus 115 vac powered. 75 ohm impedance. Recommended for remote cable powered cascade. Cascadeable with 40 units at 32 db out. Pole or strand mounting. Price: \$295.00.

Transistorized low band line extender, Model ATL-30. One 40-110 mc input; one 40-110 mc output. Gain is 30 db at 110 mc. 45 db maximum output. Noise figure is 10 db at 110 mc. Gain-tilt control has 20 db range. Tilt compensated for cable. AC/DC powering. Regulated power supply. 75 ohm impedance. Cascadeable, 8 units at 35 db. Strand or pole mounting. Price: \$95.50.

Transistorized line extender amplifier, Model ATM-21C. 40-220 mc; single input and output. Average gain, 20 db. Maximum output, 40 db. Noise figure, 7.5 db, measured at 54 mc. 3 db tilt control. Gain control, 15 db at ch. 13. AC or DC powered. Regulated power supply. 75 ohm impedance. Cascadeable, 8 units at 32 db. Strand or pole mount. 3 position switchable pad, any value, internal attenuation. All aluminum construction. Any fitting up to and including 1/2" aluminum. Switchable 3 way powering. Output VSWR 1.3:1 low band; 1.5:1 high band. Plus or minus 2 db temperature stability over 210 degrees F range.



Transistorized all-band trunkline amplifier and bridger combination, Model ATMB-60. One 40-220 mc input, one trunkline and 4 bridger outputs. Average gain: trunk 30 db, bridger 7 db. Maximum output: trunk 50 db, bridger 45 db. Noise figure, 10 db measured at 220 mc. 10 db tilt control. Mainline gain control and tilt control; bridger gain control and tilt control. Cable powered AC/DC; regulated power supply. 75 ohm. Can cascade 40 units. Pole or strand box mount. Price: \$375.00.

#### **BLONDER TONGUE - BENCO**

Trunkline amplifier, Model 1232. Flat response, neutralized triode input for excellent noise figure and wide band stability. Automatic individual tube bias control compensated to equalize variations between tubes. 75 ohm impedance with 26 db minimum voltage gain. Features manual gain control with connection for automatic level control or thermally activated gain control. PNA, Line **amplifier**, **Model 1217**. "Powerhouse" amplifier has two separate sections; one for low and one for high band. Bandpass response is flat within plus or minus 1.0 db. Gain is greater than 19.0 db low band 54-108 mc; geater than 17.0 db high band 174-216 mc. Tube life extender switch adds gain reduction of 3.5 db ave, low band and 4.0 db ave. high band. Impedance is 75 ohm in and out. Unit also features full wave silicon rectifier power supply plus regulated bias supply. PNA.



Line amplifier, Model MLA-C. Provides at least 40 db gain on all VHF channels. Separate gain controls for channels 7-13 and 2-6. Separate till controls. Maximum output (across 75 ohms) 2.0 volts per band for less than 1% cross-modulation. 3.5 volts per band for less than 3% cross-modulation. Net: \$94.85.

#### CAS MFG. CO.

All-band line extender, Model TRA-215. Bandwidth 40 to 220 mc. Output 40 db. Remote powered, 24 to 30 volts AC plus DC. Tilt and gain controls, weatherproof housing, strand mounted.

All-band line amplifier, Model TRA-220. Bandwidth 40 to 220 mc. 21 db spacing, 31 db output. Tilt control for high and low band, gain control. Remote powered with 24 to 30 volts AC or plus DC, regulated, temperature compensated. Weatherproof housing, strand mounted.

Line extender amplifier, Model TRA-200ex. Gain: 10 db minimum at channel 13. Single input and output. Remote powered from 20 to 30 vac or plus DC source. Size 1" x 3".

#### **C-COR ELECTRONICS INC\***

Low and sub-band amplifier, Model 100-C. Covers 10 to 110 Mc. Gain: 25 db. Designed for cable powering from 24 vac source. Messenger mounting. Output: 40 dbmv recommended for operation with tapered levels. Weatherproof enclosure. 75 ohm input and output. UHF connectors.

#### ENTRON



Broadband amplifier, Model FA-283B. Covers channels 2 thru 13 plus FM. Noise figure 8 db. Separate high and low band gain controls. Gain: 38 db high band and low band, 32 db FM. 75 ohm Input and output impedance. Built-in power supply. Input and output impedance, 75 ohms. Price: \$99.50.

Broadband amplifier, Model SA-23B. Covers channels 2 thru 13. Noise figure 7.5 db. Gain: 38 db on both high and low band. Separate high band and low band gain controls. Flat frequency response. Built-in power supply. Impedance 75 ohms. Price: \$80.00.



Low band trunkline amplifier, Model LRA-40D. Utilizes 10,000 hour input tube and 10,000 hour DC amplifier tube. Gain control range, continuously variable 0 db to full gain of amplifier. Average gain, 35 db. Output, plus 52 dbmv. Mounts any position on pole crossarm. Price: \$170.00.

High band trunkline amplifier, Model HRA-4008. 10,000 hour tubes. Serves as high band repeater amplifier. Incorporates ALC circuit. Average gain, 32 db. Max. output, plus 44 dbmv. Gain control range, 32 db. Tilt: 3 db. Flat response. Pole or indoor mounting. Price: \$270.00.

All-band trunkline amplifier, HRA-406. Low and high band repeater. Used as trunkline midspan compensator. Adjustable tilt. Flat frequency response. Average gain: 2 db, low band; 32 db, high band. Maximum output level: plus 32 and plus 44 dbmv for low and high band respectively. High and low band gain controls. High band ALC maintains 1 db change in output level with 10 db input variation. 10,000 hour tubes throughout. Self-contained power supply. Mounts indoor or on pole crossarm. Price: \$287.50.



Low band line extender amplifier, Model DLX-26. Extends lines up to 2000 additional feet, using low-loss cable, or 1000 feet with standard cable. Average gain, 20 db. Maximum output, 41 dbmv. Noise figure, 8 db. Self-contained power supply; local or remote powered. 10,000 hour input tube. Mounts built-in or with mounting bracket Model QAB. Price: \$80.00.

#### **HOLT ELECTRONIC RESEARCH \***

Transistorized all-band line extender, remote. Gain; 20 db. Output: 33 db. 75 ohm input and output.

Transistorized all-band line amplifier, AGC equipped. Gain: 40 db. Output: 33 db. Separate low and high band tilt controls and gain controls. Low and high band switches, 75 ohm input and output.

Transistorized all-band chain amplifier. Manual gain control. Delay line adjustment, 75 ohm input and output.

Transistorized all-band remote line amplifier. Gain: 38 db. Output 33 db. Manual. Low and high band tilt and gain controls, 75 ohm input and output. Transistorized low band remote line extender. Gain: 38 db. Output: 33 db. Tilt and gain controls, 75 ohm input and output. Transistorized low band manual remote line amplifier .Gain: 38 db. Output: 33 db. Tilt and gain controls, 75 ohm Input and output.

Low band line extender amplifier, Model LEA. 5 to 8 db variable tilt. Manual gain control. Output: 40 db. Gain overall: 40 db at Channel 6. 75 ohm input and output. Self-contained power supply.

Low band line amplifier, Model LBB-MAN-40. 4 to 9 db variable tilt. Manual gain. Output: 40 db. Gain: 40 db at Channel 6. Utilitizes an electronic regulator to minimize output changes with changes in line voltage. 75 ohm input and output. Self-contained power supply.

Low band line amplifier, Model LBB-MAN-50. 4 to 9 db variable tilt. Manual gain. Output: 45 db. Gain: 50 db at Channel 6. Utilizes electronic regulation. 75 ohm input and output. Self-contained power supply.

Low band line amplifier, Model LBB-AGC. Manual or automatic gain control. Output: 40 db. Gain: 40 db at Channel 6. Tilt variable from 4 to 9 db, 75 ohm input and output. Self-contained power supply.

#### JERROLD ELECTRONICS CORP.

High band line extender, Model HDX-713. Designed to reamplify TV channels 7 thru 13. Incorporates a low band, by-pass filter which passes signals from 0 to 95 Mc around the amplifier. Can be powered from 117 vac or 24 vac. Gain: 20 db. Flat response. Noise figure: 12 db. Output: 40 dbj. 75 ohm input and output. Use CPS-4 power supply for remote powering. PNS.

Low band amplifier, Model AOC-26B. Has automatic overload control. Covers channels 2-6 and FM. 75 ohm input and output. Gain: 32 db at Channel 6. Output: 46 dbj for 1 AOC-26B at IML of --57 db. Noise figure: 9 db. Manual gain control adjustable over 10 db range. Plug-in pads for additional gain reduction. Can be used inline or for line-bridging applications. Built-in power supply. Uses P.I.P. or B.T.C. pads. PNS.



Low and sub-band amplifier, Model LSA-795A. Broadband distributed amplifier for the sub and low TV band frequencies (6 to 95 mc). Unit comprises three separate distibuted amplifies each with 75 ohm inputs and outputs, a tube-testing meter circuit, and a voltage-regulated power supply. Usually employed as a single-output amplifier it may also be used as a dual-output amplifier. Noise figure: 8 db. Gain: 36 db max, when used with push-pull output. Output: 42 dbmv at 90 mc. Manual gain control variable over 0-4 db range.

Line extension amplifier, Model WLA-88. Covers channels 2 thru 6. Minimum gain of 23 db on Channel 6 and 17 db on Channel 2. Maximum undistorted output: .1 v rms for three channel operation. Voltage regulating transformer and built-in power line filter. Cabinet is weatherproof with iridite finish. Quick mount back plate and twist lock AC disconnect plug. PNS.

RF distributed amplifier, Model SCA-213. Covers 6 to 220 Mc. Plug-in equalization. Flat response. Regulating transformer. Gain: 28 db at 216 Mc. Output: 42 dbj (maximum) per channel for 12 channels @ cross modulation distortion of 0.14%. Manual gain control has 8 db range. Noise figure: 9 db, low band; 10 db, high band. Self-contained power supply. Order AGC-213 for model with AGC. PNS. Push-pull sub-channel amplifier, Model SDX-440. Covers 4 to 47 Mc. 60 db second order beat suppression. Voltage stabilized transformer. Built-in AGC. Manual gain and tilt control. Builtin filter by-pass, Gain: 25 db (at 47 Mc). 6 db gain control range. Output: 36 dbj (operating). 75 ohm input and output impedance. F-61 fittings. Self-contained power supply. PNS.

#### SPENCER-KENNEDY LABORATORIES



Low band amplifier, Model 251. Covers 20 to 100 Mc. Operates from 28 vdc. Noise figure: 8 db at 100 Mc. Cable powered with ALC unit to compensate for temperature changes. Gain: 17-25 db. All transistorized, cascadable.



Low band amplifier, Model 211C. Covers 10-100 Mc. Gain: 33 db at 88 Mc. Choice of gain control, either manual or automatic using external 830 ALC or thermatic using external 832A Thermatic Gain control. Regulated, self-contained power supply. Cup core type transformers at the input and output provide excellent impedance match to the line. Rack or cabinet mounting.

All-band amplifier, Model 222A. Covers 40 to 216 Mc. Sloped response to square root of frequency. Gain: 28 db at 216 Mc. Two position slope control switch. Choice of gain control, either manual (12 db), thermatic (3 db) using external 832A Thermatic Gain control or 830 ALC unit. Regulated power supply. Cascadable mainline unit. Rack or wall mounting.



All-band line extension amplifier, Model 209B. Frequency range: 20 to 216 Mc. Gain: 27 db at 216 Mc. Cabinet mounting. Noise figure under 14 db over entire band. 10 db manual gain control. Low cost distribution amplifier with mainline dependability. 115 vac powered.

#### **TELESYSTEM SERVICES CORP.**

Trunkline amplifier, Model TAD-500. Distributed type wide band design with built-in equalizer, manual switches-4 step positions plus incremental in or out. Gain, 28 db at 216 mc in 3 db equalizer position. Noise figure, less than 12 db. Frequency response is flat within 1/2 db. Band width, 40-220 mc. Maximum output, 42 dbmv for TV channel operation for maximum intermodulation of .14%. Price: \$325.00 (in lots of 6-\$292.50) (in lots of 24-\$263.25).

Line extender amplifier, Model DAE-120T. The TSC "X-tender" provides 20 db minimum gain at 216 mc. Recommended operating output 33 dbmv. Separate gain and tilt controls. Built-in continuously variable equalization. In-line "F" connectors permit insertion in existing cable run. Weatherproof housing. Messenger mounting clamp.

#### VIKING CABLE COMPANY

All-band amplifier, Model 940. See under Distribution Amplifiers.

#### WESTBURY CATV CORP.

Trunkline amplifier, Model ABB-8. Covers low band and FM. Average gain, 32 db. Maximum output, 40 dbmv. 10 db noise figure. 117 vac powered. 75 ohm impedance. Rack mounting. Cascadeable, 20 units at plus 36 dbmv. Price: \$150.00.

Transistorized line amplifier, Model ABB-9. Covers low band and FM. Average gain, 35 db. Maximum output, 46 dbmv. 5 db noise figure measured at 88 mc. Gain control. 117 vac powered. 75 ohm impedance. Cable mounted. Cascadeable with 20 units at plus 37 dbmv. Price: \$200.00.

Transistorized AGC line amplifier, Model ABB-10. Covers low band and FM. Average gain, 35 db. Maximum output, 46 dbmv. 5 db noise figure measured at 88 mc. 117 vac or cable powered. 75 ohm impedance. Cascadeable, 20 units at plus 37 dbmv. Price \$235.00.

Transistorized line amplifier, Models ABB-11/12. Cover low band and FM. ABB-11 has manual gain control; ABB-12 has AGC. For use in either trunk or feeder lines. Adjustable tilt. Cable powered. Gain is 35 db measured at 88 mc. Output at ch. 6 is plus 46 dbmv, for one amplifier; plus 37 dbmv for 10-20 cascaded. Weatherproof housing. 75 ohm impedance. Prices: ABB-11, \$135.00; ABB-12, \$170.00.

High band AOC line amplifier, Model ABB-13. For 173-216 mc. Average gain, 35 db; maximum output, 48 dbmv; noise figure 10 db, measured at 200 mc. Tilt control, 2-10 db. Gain control. 117 vac powered, uses ruggedized tubes. Cascadeable with 14 units at plus 40 dbmv. 75 ohm impedance. Price: \$180.00.



Low band AOC line amplifier, Model ABB-14. Covers low band and FM. Gain of 35 db; maximum output of 48 dbmv. Tilt control, 2-5 db. Gain control. Line powered. Ruggedized tubes. Cascadeable with 14 units at plus 48 dbmv. 75 ohm. Price: \$135.00.

Transistorized all-band line extender amplifiers, Models LEX-ACC, LEX-DCC and LEX-PLP. Gain: 20 db, maximum output 55 db and noise figure of 10 db measured at 220 mc. 75 ohm mpedance. Messenger cable mounted. Cascadeable with 4 unitst 8 channels, a, plus 36 dbmv. LEX-ACC is 117 vac line-powered; LEX-ACC is 24 vac cable powered; LEX-DCC is 24 vdc cable powered. PNS.

#### BRIDGING AMPLIFIERS

AMECO



Transistorized all-band bridger amplifier, Model ATB-11. Two 40-220 mc inputs; four 40-220 mc outputs. 15 db average gain with maximum output of 45 db. Noise figure 10 db measured at 220 mc. Tilt control, 15 db. AC/DC cable powered, regulated power supply. 7 Sohms-input and butput impedance. Cascadeable. Pole or strand mounting. PNS.

Transisterized low band bridger amplifier, Model ATBL-20C. Two inputs, four outputs, 40-110 mc. 20 db average gain. 45 db maximum output. 10 db noise figure measured at 110 mc. Tilt control, 20 db. Changeable pads for adjustment of input level. Cable powered, AC/DC. Regulated power supply. 75 ohm. Cascadeable. Pole or strand mounting. Price: \$130.00.

#### CAS MFG. CO

Transistorized all-band bridging amplifier, Model TRA-4W. Bandwidth 40 to 220 mc. 16 db gain, maximum output plus 40 db, gain and tilt controls. Remote powered, 24 to 30 volts AC or plus DC, regulated. Weatherproof housing, strand mounted.

Low band bridging amplifier, Model TR-4W. Covers 30 to 110 Mc. Gain: 14 db across bandwidth on 4 outputs. Remote powered from 20 to 30 vac or + DC source. 20 db variable pad on input for gain control. Maximum of I db thru loss. Weatherproof aluminum housing.

Low band bridging amplifier, Model TR-95B. Covers 54 to 95 Mc. Gain: 30 db at Channel 6. Gain and tilt is temperature compensated thus reducing the need for AGC. Remote powered from 20 to 30 vac or + DC source. Weatherproof aluminum housing. Two inputs and two outputs for line bridging or cascaded runs.

#### **ENTRON**



Low band bridging amplifiers, Model BA-254 series. Two inputs, four outputs, 50-88 mc. Gain: 20 db. Output, plus 42 db noncascaded; plus 37 db cascaded. 2 - 4 db noise figure. Gain control range 3 db variable. Attenuator plugs in 3 db steps. Built-in power supply. Available with or without regulated power supply. 75 ohm. Mounts any position. Price: \$99,50.

All-band bridging amplifier, LHB-254 series. Two inputs, 4 outputs. Gain: low band 25 db; high band 24 db. Tilt control. Gain control range: low band 25 db continuous; high band 14 db switchable. 75 ohm. 10,000 hour tubes used throughout. Mounts on trunk or distribution linas. Price: \$195.00.

#### HOLT ELECTRONIC RESEARCH



Low band bridging amplifier, Model BA-1-4. Low output loss, transformer coupling on output, variable tilt. Gain: 3 db at channel 6. Selfcontained power supply. Output: 45 db, channel 6. Designed to drive 4 sub-trunk lines.

Low band bridging amplifier, Model BA-2-2. Low output loss, transformer coupling on output, variable tilt. Gain: 21 db at channel 6. Self-contained power supply. Output: 46 db, channel 6. Designed to drive two sub-trunk lines.

Low band bridging amplifier, Model BA-2-4. Same characteristics as BA-2-2 except has gain of 17 db and designed to drive four sub-trunk lines.

Low band bridging amplifier, Model BA-3-4. Same characteristics as BA-2-2 except has gain of 25 db and designed to drive four sub-trunk lines. All-band bridging amplifier, Model LH-BA4-4. Covers channels 2-13. Variable tilts, low and high band. Designed to drive 4 feeder lines. Gain: 8 db at channels 6 and 13. Output: 40 db, channel 6; 47 db, channel 13. elf-contained power supply.

#### WESTBURY CATV CORP.

All-band bridging amplifier, Model AB-4. Covers channels 2 to 13. Separate high and low band amplifiers. Separate controls for high and low bands-4 db range plus input pads. Output level. 0.25 v per carrier for 5 low channels and 4 high channels. Adjustable O to 3 db slope. 4 isolated outputs. Built-in cable powering circuitry. Price: \$120,00.

Transistorized all-band bridging amplifier, Model SBA. Average gain, 30 db. Maximum output, plus 45 dbmv, each, 8 channels. 10 db noise figure, measured at 220 mc. Tilt control 0-10 db. Plug-in attenuators. 117 vac powered, with regulated power supply. 75 ohm impedance. Temperature independent. High output; maintenance free. Price: \$174.50.

#### DISTRIBUTION AMPLIFIERS

#### CAS MFG. CO.

Low band distribution amplifier, Model TR-100ex. Covers 40 to 110 Mc. Gain: 12 db minimum across bandwidth. Single input and output. Remote powered from 20 to 30 vac + DC source. Size: 1" x 3".

#### ENTRON

High-low distribution amplifier, Model LHD-404R. One input, four outputs. Gain: 42 db on low band; 46 db on high band. Maximum output' high band plus 53 dbmv; low band plus 49 dbmv, Noise figure, 9 db in pass band. Plus or minus 2 db tilt control. Gain control range, O to 18 db, 4 db continuously. 75 ohms. 10,000 hour tubes and highly reliable compactrons. Mounts on four rubber bumpers. Plug-in attenuator. Price: \$375.00. Distribution line amplifier, Model ABX-40R. Average gain, 38 db. Maximum output plus 46 dbmv. Noise figure, 8.5 db. Tilt control: low plus 1.5 to plus 3.5 db; high plus 1 to plus 3 db. Gain control range 200 db. Self-contained regulated power supply. 10,000 hour tubes throughout. Price: \$170.00.



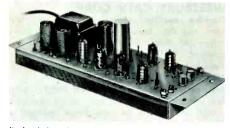
Distribution line ampliifer, Model ABX-640B. 32 db gain. Maximum output 46 dbmv. Tilt control: low band plus 1 to minus 2 db; high band plus or minus 1 db. Gain control range, 32 db for low band, 20 db for high band. Self-contained power supply remote powered. 75 ohm. 10,000 hour input tubes. Mounting clamp for strand suspension. Price: \$170,00.

Line terminating amplifier, Model TDA-114R. Low band unit with four inputs. 29 db gain. Local or remote powering. Linear frequency response. 10,000 hour tubes throughout. Regulating transformer. Maximum output 51 dbmv. Noise figure, 9 db. 13 db gain control range. 75 ohm. Mounts any position. Price: \$140.00.

#### JERROLD ELECTRONICS CORP.

High output distribution amplifier, Model SDA-4. Covers all VHF channels plus FM. Low-loss bridging input (under 1 db). Rack mounting with selfcontained power supply. Gain: 14 db (four outlets). Flat response. Maximum output: 44 dbj per channel for 12 channels 4 outlets. 75 ohm input and output impedance. Separate high and low band gain controls with 4 db range. PNS.

All-band amplifier, Model 2880. Designed for distribution service in apartment buildings, hotels, schools and similar installations. One volt output on both low and high band. Gain: 45 db (minimum). Manual gain control and receptacle for plugging in .automatic overload control, Model OC-238. Plug-in pads. Covers all VHF channels and FM. Manual gain control has 14 db range. Built-in 4 db low band cable equalization and 3



db high band equalization. Relay rack mounting. Self-contained power supply. PNS.

All-band bridging distribution amplifier, Model BDA-213. Covers all VHF channels plus FM. Matched-line bridging or single-ended input. Two-way output. Insertion loss: 1 db maximum. 5 db gain control range and 1.5 db tilt control range. Plug-in pads. Gain: 18 db minimum, low band and 25 db minimum, high band. Amplifier contains two separate amplifier strips for low band and high band fed from self-contained power supply. Output: 44 dbj (maximum) both low and high band. 75 ohm input and output impedance. PNS.

Accessory pads for BDA-213, Model BTD-OL to 15L for the low band amplifier and Model BTD-OH to 30H for the high band amplifier. Attenuation range at Channel 6 is 0, 3, 6, 9, 12 and 15 db for BTD-OL to 15L and 0, 5, 10, 20, 25 and 30 db for BTD-OH to 30H. Insertion loss is 1.0 db maximum. PNS.

All-band distribution amplifier, Model 2300-A. Designed for service in apartment buildings, hotels, schools and similar installations. Accommodates automatic overload control. Self-contained power supply. Low and high band gain controls with 14 db range. Low band equalization provision. Output: .3 v (50 dbj). 70 ohm input and output impedance. Flat response. Covers all VHF channels plus FM. Gain: 39 db, low band; 40 db, high band. PNS.

All-band distribution amplifier, Model ABD-1A.. Accommodates new 8-way splitter. Heavy duty construction. Output: 3 v (50 dbj). 75 ohm input and output. Response flat within  $\pm$  1.25 db. Self-contained power supply. Gain: 22 db, low band; 20 db, high band. Covers all VHF channels plus FM. Ideal for small systems. PNS.

All-band distribution amplifier, Model ACL-200. Ideal for dealer showrooms and deluxe home installations. High overload capability. 75 or 300 ohm output selected by a slide switch. Gain: 20 db, low band; 19 db, high band. 300 ohm input impedance. Response within 1 db. Self-contained power supply. Output: .15 v, low band; .10 v, high band (at 75 ohms). PNS.

Line-bridging distribution amplifer, Model UBC-26B. Covers low band plus FM. Gain: 30 db minimum. Flat response. Maximum output: 47 dbj\* for 5-channel operation. Less than 0.3 of 1% distortion, single unit. Noise figure: 9 db or less. 3 db manual gain control range and plug-in pads (either P.I.P. or B.T.C. series). 75 ohm input and output impedance. Self-contained power supply. Can be used for line-bridging or cascading. PNS.

(\*0 dbj=1,000 uv into 75 ohm load)

Line-bridging distribution amplifier, Model MDA-4. Covers channels 2 thru 6. Response flat within 2 db. Gain: 4 db. 75 ohm input and output impedance. Less than .5 db insertion loss. Gain control obtained by use of capacitive plug-in pad in the input circuit. Output .3 v/channel for 5 channels (maximum). Self-contained power supply. PNS.

#### **TELESYSTEM SERVICES CORP.**

All-band distribution amplifer, Model MLA-b-S. Special modified unit meets requirements of allband CATV systems. Features ruggedized tubes throughout. Covers channels 2-13 plus FM. Accepts "F" B-T and enconnectors. Separate gain and tilt control for high and low band makes unit ideal for use as distribution amplifier. Gain, 30 db min. on low band; 37 db min. on high band. Two units can be used in cascade on feeders. Companion AGC unit can be used at cascaded feeder stations to improve output level stability. Unit price: \$77.50.

#### VIKING CABLE COMPANY



All-band distribution amplifier, Model 940. Separate low and high band gain controls. Low and high band tilt controls. Gain: 40 db (minimum). Covers all VHF channels plus FM. Output: 64 dbm (1.7v) total per band for less than 1% crossmodulation. Available with either F or UHF fittings at no extra cost. Add \$10.00 to-price for 10,000 hour tubes. Price: \$65.00.

All-band distribution amplifier, Model 950. Separate low and high band gain controls. Low and high band gain controls, Low and high band tilt controls. Gain: 36 db minimum. Covers all VHF channels plus FM. Available with either F or UHF fittings at no extra cost. Price: \$48.00.

All-band distribution amplifier, Model 955. Separate low and high band gain controls. Low and high band tilt output for 1% distortion. 1.5 volt band flatness, 1 db maximum. 75 or 300 ohm impedance on input and output. PNS.

#### UHF AMPLIFIERS BLONDER TONGUE - BENCO

UHF mast-mounted amplifier, Model UB. Six standard models cover specific UHF channels from 14 to 83. Uses two low-noise EC88/6DL4 frame-grid tubes. Gain of 14 db. Remote AC power supply. Stripless 300 ohm terminals. Net: \$66.00.

UBP-Similar to UB but 300 ohm input, 75 ohm output. Net: \$106.50.

**UBC**-Custom UB. Choice of frequency ranges and connectors. Net: \$147.90.

#### JERROLD ELECTRONICS CORP.

UHF preamplifier, UAP series. Six models to cover entire UHF range. Model UAP-7276 especially designed for MPATI areas and has 75 ohm input plus two 75 ohm outputs. Other models have 300 ohm input and output. Gain: 16 db at each of 2 outputs on UAP-7276 and 15 db on other models. Units have remote power supply. RF head is enclosed in rugged, irridited housing. Stabi-Life circuit for long tube life. PNS.

#### MIXERS

#### AMECO

**Combining filter, Model CN-5.** Frequency response: 50 to 90 Mc. Isolation: 27 db average. Insertion loss: 7.5 db average. Allows 6 channel mixing.

**Combining filter, Model CN-3.** Same characteristics as CN-5 except for 3 channel mixing. PNS.

#### **BLONDER TONGUE - BENCO**

MX Series-MX2 thru 13. Bandpass filters pretuned to one of 13 TV channels. Used either separately or with MX mixing bases to form mixers or splitters. 75 ohm input and output. At least 6 db down 9 mc from center of channel. Net: \$6.70.

MX-FM—Same type as MX-2-13, pretuned to pass entire FM band. At least 8 db down 12 mc from center of channel. Net: \$6.70.

MX-LB-Lo band mixing base for mounting MX series filters. Accommodates up to 4 low band filters. Up to three hi based filters can be mixed; insertion loss increases with more than two hi

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203669	490—9M	Same as Cat. No. 203469 except with integrated .109" solid galvan- ized messenger.	137.90	131.90 129.90
203769	650	No. 9AWG Copper Center Conduc- tor. Foamed Polyethylene dielectric. Corrugated copper shield, Polyethy- lene jacket. O.D650''.	155.90	149.90 142.90
203869	650—14M	Same as Cat. No. 203769 except wi†h integrated extra high strength, 7-wire 1⁄4″ messenger.	227.90	218.90 213.90
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150199	CF-490FF	F Female Connector for .490" Copperfoam Cable	3.95	3.50	
150299	CF-490S	Splice Connector for .490" Copperfoam Cable	3.95	3.50	
150399	CF-650FM	F Male Connector for .650" Copperfoam Cable	4.95	4.50	
150499	CF-650FF	F Female Connector for .650'' Copperfoam Cable	4,95	4.50	
150599	CF-650S	Splice Connector for .650" Copperform Cable	4.95	4.50	

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0.50 db         Ø         50 mc           0.65 db         Ø         Ch. 6           0.69 db         Ø         100 mc           0.80 db         Ø         150 mc           0.96 db         Ø         200 mc           1.05 db         Ø         Ch. 13	0.60 db @ 50 mc 0.88 db @ Ch. 6 0.95 db @ 100 mc 1.19 db @ 150 mc 1.39 db @ 200 mc 1.50 db @ Ch. 13				



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band filters. Net: \$13.30.

MX-HB-Hi band mixing base mounts up to 4 hi band filters only. Net: \$13.30.

MX-M-Used to mix or split hi band and low band signals. Can be also used without MX series filters. 20 db minimum isolation between branches. Net: \$5.95.

Unimix Filter Network-Can combine or separte 7 VHF channels without appreciable loss or interaction. Accommodates 3 low band channels and 4 hi band channels. Also serves to equalize the 7 antenna inputs by the use of plug-in attenuators. Factory aligned to Channels 2, 4, 6, 7, 9, 11, 13. Alignment may be changed in the field to handle any VHF channel. (Channel 6 may be deleted and FM added-order Unimix-FM which will pass all FM stations). Net: \$52.45.

#### ENTRON



**Electronic low band mixer, Model MUE-5.** Mixes 5 low band channels. Nominal gain of 9 db. 75 ohm input and output. Maximum output level of 1.0 v per channel. Fits standard 19" rack. Output test points for FSM and TV monitor. Net: \$262.50.

High-low-FM mixer, Model MUP-41. Passive mixing device, flat response. Will mix up to 4 non-adjacent VHF high band channels with up to 5 VHF low band channels plus the entire FM band. High band insertion loss: 2.5 db. Low band insertion loss: 1 db. 75 ohm input and output impedance. Net: \$172.50.

Electronic high band mixer, Model MUH-4. Mixes low band signals fed into low VHF input from a suitable low band mixer such as the MUE-5 with 2 FM signals coming into FM inputs of the MUH-4. Low band and FM signals are combined passively with the electronically mixed high band in one composite output. Insertion loss: 2.5 db, low band; 15 db, FM band. Gain: 6 db (high band). Output level each high band channel: +57 dbmv. Net: \$210.00.

**Electronic all-band mixer, Model MUE-11**. Mixes 1 FM, 4 high band and 5 low band channels. Gain, low band and high band: 6db (2 db FM). FSM jack and TV monitor test jack. 10,000 hour tubes. Frequency response. ± 0.5 db.

#### JERROLD ELECTRONICS CORP.

Mixing networks, Models AMN-Lo and AMN-Hi. Low loss (less than .5 db) mixing network (AMN-Lo) for low VHF channels. Will combine up to three non-adjacent channels from 75 ohm inputs into a single 75 ohm output. AMN-Hi is designed for mixing high TV channels. Low loss (less than 1.0 db) and will combine up to four-non-adjacent channels from 75 ohm inputs into a single 75 ohm output. PNS.

Wide-band frequency mixer/splitter, Model FCO-47. Low loss unit for mixing or separating frequencies in the 0 to 47 Mc range from those in the 54 to 220 Mc range. Unit features 30 db minimum rejection between these bands with insertion loss of 1 db. 75 ohm impedances. PNS. Cross-over network, LHS-76. Used to split or mix VHF hi-lo bands. Insertion loss less than .6 db. Band pass: 0 to 110 Mc and 170 to 216 Mc. Cut-off: 140 Mc. 75 ohm impedance. PNS.

AM inserter, Model ATS-10. Used for insertion of AM into TV distribution systems or to separate or combine AM-TV bands. 75 ohm impedance. Insertion loss: .2 db (TV) and less than .2 db (AM). Bandpass: 20 to 220 Mc, TV; 0 to 2 Mc, AM. Rejection: 20 db of AM at TV output and 30 db of TV at AM output. PNS.

#### WESTBURY CATV CORP.

HL-1-High band and low band mixer. Net:

HL-2—Sub-channel and low band mixer. Net: \$20.00.

MN-1—Mixing network for 3 low band VHF channels Net: \$17.00.

MN-2---Mixing network for 4 high band VHF channels. Net: \$17.00.

#### AGC UNITS

#### **BLONDER TONGUE - BENCO**

Automatic gain control for use with CATV broadband amplifiers, Model MAC. For use with any broadband VHF amplifier having more than 16 db gain and producing an output between 0.6 volts and 2.5 volts per band. It will maintain the output at a constant level (less than 1 db change in output level for a 10 db change in input). In addition to providing AGC the MAC can deliver up to 10 db additional gain. Net: \$127.00.

#### JERROLD ELECTRONICS CORP.

Automatic overload control, Model OC-238. For use with Model 2880 or Model 2300 amplifiers. Sets amplifier output signal at optimum operational level. Maximum output: 60 dbj. Gain requirement of associated amplifier: 35 to 50 db. Controlled frequencies: 54 to 98 Mc and 174 to 216 Mc. 75 ohm input and output. Separate high and low band gain controls. Self-contained power supply. Relay rack mounting. PNS.

Automatic gain control, Model AGC-213. Designed to operate with Super Cascader, Model SCA-213. Gain control voltage is derived from constant carrier located at the head end site. Unit stabilizes and maintains signal levels throughout the system to correct minor variations in system levels due to tube aging, temperature changes, etc. Provides only 1/2 db variation in output level with input change of 5 db. Has input level control and AGC level control. PNS.

Automatic sound control, Model ASC. Singlechannel unit designed to insure a constant relationship between sound and video carrier levels being fed to a TV distribution system. Used with single-channel video amplifiers which have AGC. Gain: 54 db. Bandwidth: 200 kc minimum, 400 kc maximum at 3 db down. Output: 1.0 volt (maximum). Insertion loss: 1 db maximum outside 1.5 Mc bandwidth of trap.

#### JERROLD ELECTRONICS CORP.

Crystal-controlled carrier generator, Model CCG-73.5. Provides constant-level carrier at the system head end for automatic gain control regulation. Low VSWR. Output constant with + or -1 db for line variations between 90 and 135 volts. Designed for shelf or rack mounting. Plugin attenuation. Manual gain control. Bridging output. Operating frequency: 73.5 Mc. Output: 45 dbj (65 dbj on special order). PNS.

Carrier generator stand-by unit, Model CGS. Designed to provide artificial video and sound carriers for a TV distribution system. Crystalcontrolled carriers. Video carrier modulation control. Accessory function switches. Triggered on and off by horizontal sync pulses only. 30 second, built-in, time delay. Output: above 50 dbj. Available for channels 2, 4, 6 and subchannels. Powered by RPS-150B or 150N; WMC-5; RPS-300B or RPS-300N. PNS.

#### SPENCER-KENNEDY LABORATORIES

Pilot carrier generator, Model 277. Provides constant level RF signal for system ALC action. Frequency stability: .005% for -20 degrees to +120 degrees F. Amplitude stability: within 1% Output: 35 dbmv. Rack mounting or wall mounting. Powered by 282 power supply. Net \$545.00. Pilot carrier generator, Model 448. Used at head end to provide pilot carrier signal for system level control. Fixed frequencies, 31.75 Mc, 34 Mc, 74.25 Mc, 77 Mc, 182.25 Mc. Mounts on model 452 power supply. Variable output from 35 to 40 dbmv. Net: \$145.00 (Add \$200.00 for voltage stabilized power supply).

#### SINGLE CHANNEL

#### VHF

#### **BLONDER TONGUE - BENCO**

Single Channel preamplifier, Model CMA. Lownoise solid-state single channel preamplifier. Available in CMA-FM for all FM channels. Flat bandpass plus low VSWR input. Gain of 22 db minimum, 2 through 13; bandpass 6 mc plus or minus 3/8 db; noise figure (2 through 6) better than 4.0 db, and better than 7.5 db for 7 through 13. Provides both 75 and 300 ohm input connectors plus transistor circuitry which results in low power drain. Also incorporates a special filter circuit to minimize over-load suscentibility. PNA.

AGC controlled amplifier, Model MCSc. For single channel usage except for MCSc-FM which covers the entire FM band. Gain at least 46 db (low band); 38 db (ch. 7-10); 35 db (ch. 11-13). Maximum output; 1.0 volts for less than 1% cross-modulation; 2.0 volts for less than 3% cross-modulation.

Self-contained AGC with separate adustment control. Built-in power supply. Built-in mixing networks so that the output of each MCSc may be plugged into the next MCSc; at the final output all of the channels are fed into one coaxial cable. Net: MCSc-\$90.75; MCSc-FM-\$180.00.

Mast-mounted preamplifier, Model CB. Completely weatherproof, single channel ampliifer. Low noise with a 21 db (minimum) gain on low band and 18 db gain (minimum) on high band (when one output is used). Maximum output is 0.5 volts for less than 1% cross-modulation. 300 ohm input; two 75 ohm mixing outputs. Net: \$38.85. High gain, fast AGC preamplifier, Model PA. Low noise cascode input, together with a high gain AGC circuit. Can be used with inputs as low as 50 microvolts. Provides an output of 50,000 microvolts for input signals of 50 microvolts and over. When the PA amplifier is used alone to feed an apartment system, the output may be turned up to give as high as 1.0 volt output. Net: \$203.40.

**PA-LN**-Very low noise PA with 7077 ceramic triodes. Net: \$394.40.

VHF single channel line amplifier, Model CA. Designed for re-amplification and distribution of VHF and FM signals in community and large apartment systems. Has 60 db gain. Incorporates full AGC circuit for minimum cable losses and steady signal at all times. Minimum input for cascading is 1,000 microvolts; maximum input 30,000 microvolts. With full 6 mc bandwidth, up to 20 units can be cascaded without picture deterioration. Input and output impedances are 75 ohms. Net: \$173.30.

Unistrip TV/FM amplifier, Model UA-1. Efficient 2 tube amplifier for specified channel. Has 35 db gain, 75 ohm single input, dual 75 ohm output. Built-in level control, full 6 Mc bandwidth, maximum 1 volt output. Requires use with single unit Minipak or triple-unit Unipak power supply. Net: \$67.00.

High output amplifiers, Model CAP-2. Used in high level distribution systems. 3 volts maximum output, mixing outputs, 65 db gain builtin RF filter and AGC control. Net \$228.60.

Model HTA-2. Used in high level distribution systems. 10 volts output maximum, mixing outputs and built-in RF filter. Net: \$368.15.

#### CAS MFG. CO.

Stereo FM and Tape/CATV head end system converter. Consists of two basic units, the FM-107 and 107FMC. Will handle up to 4 channels. Rack mounted with self-contained power supply. Single channel FM amplifier, Model FMS-1. Designed for high selectivity with less than 1 Mc bandwidth. Gain of 60 db and limiting stages



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provide good output with relatively low signal inputs. Any number can be paralleled when adding FM signals, on-frequency, to distribution systems. Standard 19" rack mounting and selfcontained power supply.

**Broadband FM amplifier, Model FMA-10**. Covers 88 to 108 Mc. Has traps and tuned stages to vary output level for FM signals which have different input levels. Gain: 40 db.

#### **C-COR ELECTRONICS, INC.\***

Single-channel, VHF preamplifier, Model PRV-A. Cable powered from 24 vac source. Ultra-low noise amplifier with 40 db gain on low band channels and 37 db gain on high band channels. Weatherproof enclosure. Flat response. 3 db noise figure on channels 2-6 and 4.5 db noise figure on channels 2-6 and 4.5 db noise figure on channels 7-13. 75 ohm input and output impedance. UHF connectors. A 117 vac version, Model PRV-B, is available. Same specifications as the PRV-A. A rack and panel mounted version, Model PRV-C, is available for indoor applications. This unit is 117 vac powered and occupies only 31/2" of rack space. Price: PRV-A-\$295.00, PRV-B-\$295.00, PRV-C-\$295.00. (FM model also available).

#### DYNAIR ELECTRONICS, INC.

Modular distribution amplifiers, 1000 series. Four amplifiers in any combination and one power supply mount in one frame.

DA-1060B-Video distribution amplifier module. One looping input, four outputs, 8 db gain. Price: \$175.00.

DA-1062B—High-gain distribution amplifier module. One looping input, four outputs, 20 db gain. Price: \$200.00.

DA-1064A-Video distribution amplifier module with sync mixing. One looping video input, one looping sync input, four outputs, 8 db gain. Price: \$200.00. FR-1000A-Module frame. 19" rack mount accommodates five modules. Price: \$150.00.

**PS-1006A**—Power supply module. Plus 17 v, 50 to 600 ma. Price: \$150.00.

Modular video distribution amplifier equipment, 3000 Series. Twelve amplifiers and one power supply mount in one frame.

DA-3060B-Video distribution amplifier module. Requires one space. One looping input, three outputs, 8 db gain. Price: \$165.00.

FR-3000A—Module frame. 31/2" H, 19" rack mount. Mounting space for twelve 1-space modules and one 3-space power supply module. Price: \$190.00. PS-3015A—Power supply module, plus 17 v, 50 ma to 1.5 amp, requires three spaces. Price: \$150.00.

#### Self-contained distribution amplifiers.

DA-1P-A-Video amplifier, single channel, unity gain. One looping input, one output, 1%" H, 19" rack mount. Self-contained power supply. Price: \$210.00.

DA-3P-A-Video distribution amplifier. One looping input, three outputs, unity gain, 51/4" H, 19" rack mount. Self-contained power supply. Price \$340.00. DA-6P-A-Video distribution amplifier. Two channel, one looping input and three outputs per channel, unity gain, 51/4" H, 19" rack mount. Self-contained power supply. Price: \$450.00.

DA-238—High-gain video distribution amplifier. Solid-state, one looping input, three outputs, 20-db gain, 134" H, 19" rack mount, self-contained power supply. Price: \$375.00.

DA-30P-B-Video distribution amplifier. Solid-state, one looping input, three outputs, 8 db gain, 1%" H, 19" rack mount, self-contained power supply. Price: \$340.00

DA-60P-B-Video distribution amplifier. Solid-state, two channel, one looping input and three outputs per channel 8 db gain, 134" H, 19" rack mount, self-contained power supply. Price: \$450.00.

#### ENTRON

Single channel amplifier, Model SB. Minimum input level: plus 10 dbmv. Output level: (maximum) TV channels plus 60 dbmv. All TV channel



models incorporate ALC. FM model input level (minimum): plus 5 dbmv. Output level: (maximum) plus 45 dbmv. Gain: (all models) 40 db. 1.35 db average output variation with 15 db input variation on all TV channel models. Net: \$85.00.

Single channel preamplifier, Model DRPB. Weatherproof amplifier designed for headend service. Gain: 30 db. Noise figure: 6.5 db, low band; 7.5 db, high band. Maximum output level: plus 54 dbmv. Will operate from 115 vac or can be remote powered by using RPS-B power supply. Net: \$75.00. Single channel headend amplifier, Model APL-D. Low band VHF amplifier with 7 db noise figure. Utilizes ALC circuit to maintain output within 1 db with input variation of 20 db. Gain: 60 db. Maximum output level: plus 54 dbmv. Output level range: plus 40 to plus 54 dbmv (picture carrier). Sound carrier adjustable 0 to 25 db below picture carrier. Net: \$160.00.



Single channel headend amplifier, Model APH-D. High band VHF amplifier utilizing 10,000 hour tubes. Gain 60 db (max.). Noise figure, 7 db. Output level control: manual and ALC switch. External power supply or Entron Model PSR2 or PSR3. Mounts any position. Price: \$175.00.

#### HOLT ELECTRONIC RESEARCH

VHF preamplifier, Model VHF-CI. Designed to amplify weak signals at low noise and high gain. Incorporates B+ standby switch. Gain: 18 db (2-6) and 15 db (7-13). Input and output impedance 75 ohms. Noise figure: 3.5 db.

VHF preamplifier, Model VHF-C2. Same characteristics as VHF-C1 except gain is 40 db (2-6) and 30 db (7-13). Noise figure: 4 db.

Single channel VHF amplifier, Model HES-AGC. Designed for head end service. Has mixer output, AGC and power supply built in. Also includes sound traps and is more than adequate for color. Bandwidth: flat from picture to color. Gain: 60 db (15 db down on sound). Input and output impedance 75 ohms. Output level: 60 db. Available for any of the 12 VHF channels.

Single channel VHF amplifier, Model HES-AGC-Super Deluxe. Designed for head end service. Has standby oscillator, mixer output and power supply built in. It also has sound traps and is designed for color. Excellent for continuous commercial service. Bandwidth flat from picture to color. Gain: 60 db. Sound 15 db down. Input and output impedance 75 ohms. Maximum output level: 60 db.

#### JERROLD ELECTRONICS CORP.

Single-channel amplifier, Model DPM. Designed for head end or trunk line service. Gain: 60 db minimum. Bandwidth: 6 Mc. AGC equipped to hold output within ± 1 db variation for a 10 db input variation. Regulated supply voltages. Non-critical mixing. Manual gain control has 30 db minimum control. Output: 1.5 v rms (63.5 dbj) maximum. Uses either RPS-150N or RPS-300N power supply. Rack mounting. PNS.



Single-channel amplifier, PMA series. Consists of single-channel strips, Models PMA-2 through

PMA-13 inclusive and an FM strip Model PMA-FM. Utilizes "StabiLife" circuit to maintain the gain of the amplifier independent of tube variations. Designed for larger hotel, motel and apartment distribution systems also CATV systems. Gain: 35 db, low band; 30 db, high band; 20 db, FM band. Flat response. 75 ohm input and output impedance. Output: 1 v (60 dbj). Dual outputs. Plug-in pads for gain control. Pads available in 3 db steps from 0 to 21 db of attenuation. Uses RPS-1508 or RPS-300B power supplies. PNS.

Single-channel amplifier, Model HPM. Designed for head-end use in all types of TV-FM distribution systems. Self-contained power supply plus convenience outlet. Relay rack or surface mounting. Gain: 46 db, low band; 46 db, high band; 42 db, FM models. Two 75 ohm outputs and one 75 ohm input. Output: 4.0 v at .5 db sync compression. AGC range of 20 db. FM model has delayed AOC with 10 db gain range. PNS.

Single-channel preamplifier, Model 401A, 406A and 501 A.P. Model 401A is equipped with an iridite finished weatherproof cabinet and is operated from a remote 24 vac power supply (Model 405P). Model 406A is equipped with a light guage, perforated steel housing and is designed for continuous indoor service. 406A also contains its own internal power supply for use at 117 vac. Model 501 A.P. is a package unit containing a Model 401A pre-amp and a Model 405P power supply. Gain: 28 db minimum. Flat response. Noise figure: 5 db, low band; 8 db high band. Output: .6 v rms, low VHF channel: .5 v rms, high VHF channel, 300 or 75 ohm input and 75 ohm output. (Weatherproof housing available for Model 406 complete with hardware for outdoor antenna mounting).PNS (See Power Supplies).

#### SPENCER-KENNEDY LABORATORIES

Single-channel preamplifier, Model 450A. Operates from 105 vac to 125 vac. Frequency range: any standard 6 Mc VHF channel. Gain: 35 db, low band; 35 db, high band. Noise figure: 6 db, low band; 9 db, high band. Rack, cabinet or bench mounting. Gain is controlled automatically when used with 451A control amplifier.

Single-channel amplifier, Model 901. High level amplifier with 35 db minimum gain, low band. Bench or cabinet mounting. 115 vac powered. Has 6360 output stage.



Single-channel preamplifier, Model 271. Gain: 16 db minimum on low or high channels. Cable powered by -28 vdc. Can be mounted in down lead from antenna to head end equipment. Output: 36 dbmv at 1% intermodulation distortion.

Single-channel amplifier, Model 272. Gain control range: from -10 db to + or -30 db. Response: + or -2 db. Output: 36 dbmv for 1% intermodulation distortion. Noise figure: 11 db for 6 Mc bandwidth. Rack or wall mounting. DC powered by 282 power unit.

Single-channel preamplifier, Model AP-1. Designed for antenna or mast mounting. Gain: 40 db (Channels 2-6), 37 db (Channels 7-13). Noise figure: 4.8 db at Channel 6, 7.5 db at Channel 13, 75 ohm input and output. Nonremote powered. Net: \$60.00.

#### WESTBURY CATV CORP.

Single-channel preamplifier, Model AP-2 Extremely low-noise pre-amp utilizing co-planar triode. Weatherproof enclosure for mounting on antenna or pole. Has remote power supply. Tube is forced-air cooled. Gain: 20 db



#### \*TEST REPORT:

"Under A Hydrostatic Pressure In Excess Of 1000 Pounds (Actually Over 2000 Pounds) The Welded Seam And Entire Aluminum Sheath Refused To Split or Burst Open."

PHYSICAL AND ELECTRICAL STANDARDS							
ТҮРЕ	NOM O.D. Conductor	NOM. O.D. Dielectric	NOM. O.D. Unjacketed	NOM. O.D. Jacketed	NOM. Attenuation (db per 100 ft.) Channel #6	NOM. Attenuation (db per 100 ft.) Channel #13)	Shipping Weight Lbs. per M
TA4 TA4J	.0752 .0752	.362 .362	.412 .412	.480	.96	1.60 1.60	66 90
TA5 TA5J	.0980 .0980	.450 .450	. <b>5</b> 00 .500	.580	.78 .78	1.26 1.26	102 132

#### CONTINUOUS LENGTHS 1000 FEET TO 5000 FEET PER REEL

FEWER SPLICES — LESS CHANCE OF MOISTURE PENETRATION
 MINIMUM CABLE FOOTAGE WASTE
 REDUCED CONNECTOR COSTS
 LOWER LABOR COSTS

For Immediate Delivery and Special Pricing – Wire or Write.



at Channel 13. Noise figure: 5 db at 500 Mc. Available for all VHF TV channels and UHF channels up to Channel 40. Net: \$350.00.

Transistorized low-noise preamplifier, Model AP-4. For channels 2-6. Average gain, 20 db. 3.5 db noise figure. Cable powered from AC or battery. Weatherproof, pole mounting. Price: \$70.00.

Transistorized low-noise preamplifier, Model AP-5. For channels 7-13. Same as above except for 26 db average gain. Price: \$74.50.

High level amplifier, Model AHP-3. 35 db average gain. Maximum output 10 v. Designed to provide higher signal level output on any one TV channel than is available from normal strip or broadband amplifier. Permits longer cable span before further amplification is required, especially suitable where cable run is inaccessible. 117 vac powered. Rugoedized tubes. Price: \$170.00

Single channel line amplifier, Models AL & ALA. 56 db average gain. Maximum output, 1.5 volts. Gain control and 10 db AGC. 117 vac powered. Specify AL for low band and ALA for high band. Price: \$135.00.

#### UHF

#### C-COR ELECTRONICS, INC.\*

UHF preamplifier, Model PRU-H. Weatherproof enclosure. Uses single stage 6299 tube. 10 db minimum gain. Low noise figure. 300 ohm input and output. 75 ohm impedances available on special order. Connectors and pilot lights are mounted on the bottom, protected by a drip shield. Recommended for any of the UHF channels from 14 to 83. (Specify channel).

#### HOLT ELECTRONIC RESEARCH

UHF preamplifier, Model UHF-D2. Designed to amplify weak signals at low noise and high gain.

#### **CONVERTERS - VHF FM**

#### **BLONDER TONGUE - BENCO**

VHF to VHF converter, crystal-controlled, Model CO-2. Handles most conversions with few exceptions. Conversion chart available. Provides off-channel conversions such as: lowering Channel 2 by 1 Mc to provide extra guard between Channels 2 and 3. Net: \$290.60.

VHF low to VHF low converter, crystal-controlled, Model MLC. Converts specified low channels (2-6). Gain: 20 to 40 db depending upon conversion. Stability (oscillator( .01%, 0 to 110 degrees F. 75 ohm input, two mixing 75 ohm outputs. Net: \$251.00.

VHF hi to VHF low converter, crystal-controlled, Model MVC. Converts specified VHF hi channel (7-13) to specified VHF low channel (2-6). Oscillator stability .01%, 0 to 110 degrees F. 75 ohm input and two 75 ohm mixing outputs. Net: \$251.00.

Sub-channel converter, crystal-controlled, Model CO-2-SUB. Net: \$290.60.

#### CAS MFG. CO.

UHF to VHF converter, Model UHF-1. Single channel converter, battery powered. Low noise figure with unity gain.

#### ENTRON



High VHF to low VHF converter, Model CHLD. Converts any high band channel to any low band channel. Utilizes ALC system referenced to video carrier and a sound carrier level control. ALC will maintain output within plus 0.5 db for input variations of 10 db. Crystal controlled oscillator. 10,000 hour tubes. Gain: 60 db. Stability: plus or

#### minus .005%. Net: \$295.00. JERROLD ELECTRONICS CORP.

VHF to VHF converter, crystal-controlled, Model WCON. Conversion gain from unity to + 3 db. Stability: .005%. Input and output 75 ohms. Self-contained, regulated power supply. Most conversions available.

Sub-channel to High VHF channel converter, Model CDX-713. Converts signals in the 4 thru 47 Mc range to Channels 7 thru 13. Stabil-Life feature. Bridging input. Plug-in equalization pads. Gain: 15 db. Gain control range: 3 db. Noise figure: 10 db. 75 ohm input and output. Obtains power from BDA-26. Output (operating): 44 dbj. PNS.

#### SPENCER-KENNEDY LABORATORIES



Crystal-controlled VHF to VHF converter, Model 276. Operates from 28 vdc. Matched input and output. Converts any VHF channel to any other VHF channel with single or double conversion. Gain: unity to + or -3 db. Rack or wall mounting. Completely transistorized unit. Net: \$280.00

#### WESTBURY CATV CORP.

**VHF to VHF converter, Model CV-1.** Available for most all conversions. Has output buffer stage. Gain: 6 to 9 db depending upon conversion. 75 ohm input and output. Input: 600 to 10,000 uv. Net: \$142,00.

#### CONVERTERS - UHF BLONDER TONGUE - BENCO

Tuneable UHF to VHF converter, Model BTU-2T. Tunes channels 70 to 83. For fringe and primary areas. Gain 5 to 8 db. Output on Channel 5 or 6. Stripless 300 ohm terminals, speed and fine tuning. Net: \$26.95.

Tuneable UHF to VHF converter, Model 995. Tunes 470 to 890 mc. For primary areas. Converts to VHF Channel 5 or 6. 300 ohm stripless terminals and drift-compensated circuitry. Net: \$19.50.

#### **BLONDER TONGUE - BENCO**

UHF to VHF converter, crystal-controlled, Model MUC. Converts specified UHF channel to specified VHF channel. Gain: 15 to 30 db depending upon conversion. Stability .01% over temperature range of 0 to 110 degrees F. 300 ohm input and two 75 ohm mixing outputs. Net: \$239.00.

UHF to VHF converter, crystal-controled, Model CO-3. Converts specified UHF to VHF. Built-in UHF pre-amp, power supply (regulated), stability 0 to 100 degrees F., .0025%. Frequency accuracy .006%. Net: \$451.20.

UHF to VHF converter, non-crystal-controlled, Model UC-2. Built-in power supply. Two 75 ohm mixing outputs. When one output is used, gain is 6 to 10 db depending on conversion. Output level is 3 db lower when both outputs are used. 300 ohm input. Net: \$111,95.

#### CAS MFG. CO.

**UHF to VHF converter, Model UHF-1**. Single channel converter, battery powered. Low noise figure with unity gain. (New Product.) PNS.

#### ENTRON

UHF to VHF converter, Model CUL. Converts any specified UHF channel to any specified channel from 2 thru 6 depending upon conversion needs. Input RF amplifier is ceramic, coaxial type UHF triode. Incorporates 5 amplifiers in cascade and an ALC stage. Plus or minus 1 db output variation



for 40 db input change. Gain: 94 db. Operates with PSR-2 or PSR-3 power supplies. Net: \$325.00, **UHF to VHF converter, Model SC-U**. Converts any specified UHF channel to any specified channel from 2 thru 6 depending upon conversion needs. Gain: 20 db. 75 ohm input, 75 ohm output. Selfcontained power supply. Net: \$119.75.

#### HOLT ELECTRONIC RESEARCH

UHF to VHF converter, Model UHF-2. Converts UHF channel to either a high or a low VHF channel. Crystal controlled. Unity gain. 75 or 300 ohm input and 75 ohm output impedance. Self-contained power supply.

UHF to VHF converter, Model UHF-3. Converts UHF channel to either a high or a low VHF channel. Crystal controlled. Gain: 12 db. 75 ohm input and output. Low noise. Self-contained power supply. Has built-in UHF pre-amp stage.

UHF to VHF converter, Model UHF-4. Converts UHF channel to either a high or a low VHF channel. Crystal controlled. Gain: 24 db. 75 ohm input and output. Low noise. Self-contained power supply. Has built-in 2 tube UHF preamp.

#### JERROLD ELECTRONICS CORP.

UHF to VHF crystal-controlled converter, Model 503-HX. Designed especially for the MPATI program. Converts Channels 72-76 to any VHF channel (specify). Weatherproof UHF head and remote oscillator-power supply unit. Power supply can be used to energize a Jerrold Mast-mounted preamp. Noise figure: 10 db maximum (2-6) and 14 db maximum (7-13). 75 ohm input and output. PNS.

UHF to VHF crystal-controlled converter, Model 503-HU. Same characteristics as 503-HX except for channels 14-83. PNS.

UHF to VHF converter, Model UVC-7083. Consumer type for MPATI areas. Has RF pre-amp. Diode mixer. Nuvistor oscillator. Complete bandspread tuning. Housed in low-silhouetted, highimpact plastic case. PNS.

### RF TUNERS

#### JERROLD ELECTRONICS CORP.

AM/FM tuner, Model AFT-300. Designed to operate in conjunction with Model AT modulator. FM section has 3.2 uv sensitivity with frequency response of 15-15,000 cps within 1 db. Incorporates gated beam limiter. AM section has 10 kc bandwidth. Self-contained power supply. Several cabinets available for housing one or more AFT-300 tuners and AT modulators. PNS

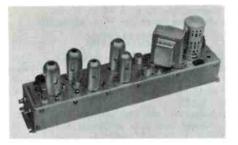
#### MODULATORS

#### ADLER ELECTRONICS, INC.

Modulator, audio and video, Model AVD-1. Produces modulated audio and video carriers on any one of 12 channels from audio and video sources. Crystal controlled. Switch for insertion of 400 cps tone or external audio. Audio carrier level adjustment provided so that the audio carrier may be adjusted for 10 to 90% of the visual carrier. Output level: .1 rms across 75 ohms load. Video input impedance: 75 ohms. Input level: 1.0 v p-p (video), + 10 dbm (audio). 75 usec. pre-emphasis. PNS.

#### **BLONDER TONGUE - BENCO**

TV sound originator, Audio Master. Originates TV signal for any specified VHF channel. Provides crystal-controlled unmodulated video carrier



plus sound carrier which may be modulated by any audio source. Audio carrier is 4.5 mc above video frequency (TV Standards) Output impedance is 75 ohms. Net: \$174.25.

#### CAS MFG. CO.

Video modulator, Model TVM. Input: video and 4.5 Mc audio. Output: Composite TV channel with sound channel (maximum video-55 dbm) (maximum audio-40 dbm). Output impedance: 75 ohms. 4 tubes and self-contained power supply. Vestigal sideband filter and RF amplifiers. Low band RF output.

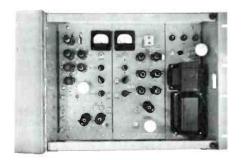
FM modulator, Model M-45. Supplies AFC controlled 4.5 Mc, FM carrier. Audio input: mike, tape, etc. M-45 produces TV sound in conjunction with TVM. 19" rack mounting with self-contained power supply.

FM modulator, Model M-107. Supplies AFC controlled 10.7 Mc FM carrier. Audio input: mike, tape, etc. M-107 produces FM sound in conjunction with FMC-107. Rack mounting, with selfcontained power supply.

#### **ENTRON**

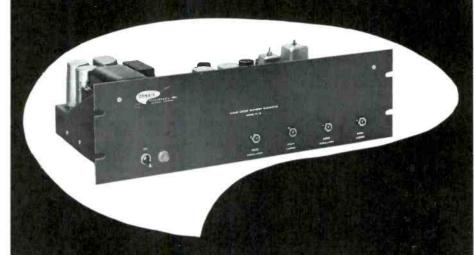


FM transmitter, Model FMT-1100. Accommodates multiplex or monaural audio input. FM RF output. Standard 75 usec. pre-emphasis. Factory aligned to any one of the 26 FM channels. Maximum output level: 0.2 volts. Level control range: 25 db. Stereo channel separation: 35 db. Hum and noise: down 55 db at 75 kc deviation. 10.000 hour tubes.



Television transmitter, Model TVT-5000. For use with microwave systems to provide low band modulated video and audio carriers suitable to feed to a coaxial line. Input to the video section may be from a TV camera or from a broadcast signal which has passed thru a demodulator. Audio input for suitable audio signal. Maximum RF output: 9 volts (video), 6 volts (aural). Output may be fed to a coaxial line for closed-circuit applications also. Ultra-stable RF carriers. Audio input: 600 ohms. Video input: 75 ohms. \$995.00

## THE INCOMPARABLE DYNAIR TX-IB CLOSED-CIRCUIT TV TRANSMITTER!



THE ONLY AUDIO-VIDEO MODULATOR THAT GIVES YOUR VIEWERS BROADCAST TELEVISION STATION PERFORMANCE WITH TOTAL RELIABILITY AT A REASONABLE COST!

#### **FEATURES:**

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NDUSTRY PROVEN	<ul> <li>VESTIGAL-SIDEBAND TRANSMISSION</li> <li>EXCELLENT FOR COLOR OR MONOCHROME</li> <li>VISUAL OUTPUTS OF 500,000 AND 100,000 MICROVOLTS MAXIMUM</li> <li>AURAL OUTPUTS OF 250,000 AND 50,000 MICROVOLTS MAXIMUM</li> <li>SEPARATE VISUAL AND AURAL OUTPUT CONTROLS</li> <li>MODULATION PERCENTAGES AND OUTPUTS FRONT PANEL ADJUST- ABLE WITH LOCKING-TYPE CONTROLLED TO .005%</li> <li>AURAL FREQUENCY CONTROLLED TO ±1 KC</li> <li>AVAILABLE ON ANY CHANNEL OR SPECIAL FREQUENCIES</li> <li>AUDIO OR 4.5-MC AURAL INPUT</li> <li>VISUAL AND AURAL SIGNALS MIXED IN DIRECTIONAL COUPLER</li> <li>HARMONIC FILTER IN R-F OUTPUT CIRCUIT</li> <li>SENDING-END TERMINATION</li> <li>LOOPING VIDEO INPUT</li> <li>TRANSFORMER-REGULATED VOLTAGES</li> <li>ACCESSORIES:</li> <li>CF-1A CHANNEL FILTER — Provides interference-free adjacent channel operation</li> <li>AS-1A AURAL SEPARATOR — Separates multiplexed 4.5-mc aural from video signals to provide inputs for TX-1B</li> <li>RF-2A LINEAR AMPLIFIER — Increases output of TX-1B to 2 watts</li> </ul>
Write or call literature desc complete line o video equipmen	ribing our DYNAIR

#### JERROLD ELECTRONICS CORP.

FM stereo adapter, Model AFM-ST. For use with Model AFM audio-modulator. Adapts existing FM unit (AFM) into stereo receiver. All necessary hardware and template are supplied. PNS.

FM audio modulator, Model AFM. Provides an FM signal in either the 72-76 or 88-108 Mc range. Operates from any suitable audio source. Incorporates AFC system. Crystal-controlled carrier. Output level control. Provisions for mounting VU meter. Dual 75 ohm outputs. Regulated power supply. Output: 1 v (60 dbj) into 75 ohms from dual outputs. High Z input. Rack mounting. PNS. Modulator, Model AT. Designed for hotels, motor courts, hospitals, apartments, schools, etc. Provides an unmodulated crystal-controlled video carrier and an FM sound carrier which is held at 4.5 Mc separation from the video carrier. Output on any VHF TV channel (Specify). Uses any suitable sound source such as AFT-300 tuner, etc. RF output: up to 55 dbj, each carrier, separately controlled, at 75 ohms, at each of two terminals. Spurious signals: down 50 db. Builtin power supply. Standard pre-emphasis. PNS.

Industrial television modulator, Model TM. Provides standard vestigal sideband transmission of any low band VHF channel, 2 through 6. for both black-and-white and NTSC color. Accepts standard 1 v p-p, black negative, video signals from cameras, microwave terminals or demodulator. (See Model TD, demodulator). 75 ohm video and audio input. Visual carrier stability: .005%. Modulation variable from 0 to 100% (visual). Response: 30 cps to 4 Mc, within .5 db. Rack mounting. Regulated power supply. Audio input: 1 v p-p (4.5 Mc). Aural carrier modulation capability is + or - 25 kc when used with the accessory FM modulator, Model TAM. Output level: 57 db above 1 millivolt across 75 ohms (visual) and 51 db above 1 millivolt across 75 ohms (aural). PNS.

FM modulator, Model TAM. Auxiliary unit for the TM unit. Converts any audio source into 4.5 Mc FM signal. Output level:  $3 \vee p \cdot p$  across 75 ohms. High input. 75 usec. pre-emphasis. Deviation: + or -25 kc. PNS.

Video-audio separator, Model TVA. Auxiliary unit for the TM unit. Permits sound diplexing when operating the Model TM with microwave equipment. Unit receives the microwave output signal and separates the video and 4.5 Mc sound components, restores the sound level to equal that of the video, and supplies both signals to the Model TM. Gain: 20 db, PNS.

#### TELESYSTEM SERVICES CORP.

Tuner-Verter Stereo/FM head end unit, Model HEFMT. Custom engineered quality piece at reasonable price. Specifications: 20 mv minimum input sensitivity, 8 db noise figure, 88 to 108 mc frequency range, AFC stability improvement of 40:1, crystal referenced tuning stability, RF output frequencies available: 89 - 95 mc in 1 mc steps-other frequencies available on special request, audio output signal to noise ratio 55 db with 20 mv input. Power requirement, 117 vac. Voltage regulated. Write for full details.

## THIS ORDER SHIPPED SAME DAY RECEIVED

This stamp is your assurance of the fastest, most careful customer service available anywhere in the Community Antenna industry! Don't take a chance-Call us.

#### DAVCO ELECTRONIC CORPORATION P.O. Box 861 - Batesville, Ark.

#### **EQUIPMENT & ACCESSORIES**

#### **ATTENUATORS**

#### AMECO

Precision switch type attenuator, Model AA-2. Used in level measurements. Frequency range, 12-250 mc. VSWR 1.2:1. 75 ohm impedance. "F" or "UHF" type connectors. For bench use. 62 db attenuation in seven steps.

#### **BLONDER TONGUE - BENCO**

Fixed attenuator, Model LAT. Specify 3 db, 6 db, 10 db, 14 db or 20 db. 75 ohm input and output. Benconnectors. Net: \$6,35.

Fixed attenuator, Model FA. Specify 3 db, 6 db, 10 db or 20 db. "QD" connectors. Net: \$2.95. Variable attenuator, Model SA-3. 0 to 38 db. Laboratory accuracy. Steps of 6 db, 12 db, and 20 db. 75 ohm input and output. QD connectors. Net: \$9.45.

Variable attenuator, Model MAT. 0 to 45 db in 3 db steps. 75 ohm input and output. UHF type connectors. Net: \$15.60.

Variable attenuator, Model VAT. Steps of 3, 6, 9, 14, 20 and 23 db. 75 ohm input and output. Benconnectors. Net: \$17.95.

#### CRAFTSMAN ELECTRONICS, INC.

Write manufacturer for data on attenuators and associated equipment and accessories.

#### JERROLD ELECTRONICS CORP.

FA—Fixed attenuator series. Frequency: DC to 1200 Mc. Accuracy: within .3 db on each model. 50 ohm impedance. Available with attenuation values of 1,2,3,6,10 and 20 db. BNC fittings. PNS

**PDL**—Fixed attenuator series. 75 ohm impedance. Available in 3,6,10,20 db values. 0 to 220 Mc. F-61 fittings. PNS

**AV-50** – Variable attenuator for lab use. Has 0 to 62.5 db attenuation in 0.5 db steps. Low insertion loss (.25 db at 250 Mc, .5 db at 500 Mc). Uses shielded, rotary coaxial switches. 50 ohm impedance. 0.5 watts average dissipation. Cast aluminum case for bench use. PNS **AV-50R**—Same as AV-50 except designed for relay rack mounting. PNS

AV-50-2—Same as AV-50 except designed to provide attenuation values from 0 to 82 db in 1 db steps. PNS

AV-50-2R—Same as AV-50-2 except designed for relay rack mounting. PNS

AV-75—Same as AV-50 series except 75 ohm impedance. Models available are AV-75, AV-75R, AV-75-2, or V-752R\_PNS

A-500—Variable attenuator with a range of 0 to 82 db in 1 db steps. Uses 8 slide switches for selection of attenuation values. Housed in slanted front cabinet. Available with "BNC" connectors, "N" connectors (Models A-50B and A-500N respectively). 50 ohms impedance. Frequency: 0 to 250 Mc. PNS

A-750—Same as A-500 except 75 ohm impedance. Connector types: "BNC" (order A-750B), "F" (order A-750F), "N" (order A-750N), and Swiss type (order A-750S). PNS

A-21–Variable attenuator. 75 ohm impedance. 0 to 21 db in 3 db steps. 0 to 250 Mc. Surface mounting. "F" series connectors. PNS

A-72-Variable attenuator. 75 ohm impedance. 0 to 82 db in 1 db steps. 0 to 250 Mc. "F"

#### PLASTOID CORPORATION

**Slope pads**. Available in values of 6 db, 8 db and 10 db. Used to equalize difference in loss in cable between channels 2 to 6 and FM. PNS.

#### SPENCER-KENNEDY LABORATORIES

**493**—Sound attenuator. Available for all VHF channels. Insertion loss: less than 1 db up to .75 Mc below sound carrier. Attenuation of sound carrier: 6, 9, or 12 db selected by switch.

#### WESTBURY CATV CORP.

PD—Fixed attenuator, 75 ohm, supplied with A-102

connectors. Specify 3, 6, 10 or 20 db. **PI**—Attenuator inserts for PT series tapoffs.

### 

#### **BLONDER TONGUE - BENCO**

ME-1-Equalizes all VHF channels for long cable runs. Attenuation ranges from 1 db at Channel 13 to 17 db at Channel 2. 75 ohm UHF conectors. Net: \$10.75.

ME-2-Equalizes low VHF channels only. Attenuation ranges from 1 db at Channel 6 to 9 db at Channel 2. 75 ohm UHF type connectors. Net: \$10.75.

#### **ENTRON**

600 watt load center, Model LPB-5. Four rugged outlets. Excellent power line filtering. Shielded to reduce radiation; fully magnetic circuit breaker. Overload/off indicator light visible from front and sides. Price: \$42.00.

#### JERROLD ELECTRONICS CORP.

Automatic temperature compensator, Model TOM-2. Equalizes for 21 db of cable at Channel 13. Compensates for temperature tilt variations thru 64 db of cable. Messenger mounting. Compensates for solid or foam dielectric cable. Uses two thermistors. Weatherproof. PNS.

**Plug-in variable equalizer, Model PVE-24.** Provides cable equalization between two Model SCA-213 amplifier locations. Two controls permit a + or -11/2 db adjustment from its given attenuation value to compensate for variations in distances between amplifier locations. PVE-24 average attenuation is 24 db. Three other models provide other attenuation values. Attenuators plug into SCA-213. PNS.

#### FILTERS BLONDER TONGUE - BENCO

**BPF-75 ohm band-pass filter.** Includes 2 traps. Traps attenuate undesired frequencies by 80 db. For low VHF channels only. Net: \$137.45.

#### ENTRON



Tuneable filter, Model DBR-26. Provides two 40 db reject bands, 3.5 Mc wide on each side of a channel. Each notch is tuneable over the complete range. As a single notch filter, typical adjustment provides a 25 db, 6 Mc notch; a 75 db, 1 Mc notch; or a 600 kc notch width having 90 db minimum attenuation. Net: \$277.50. Tuneable filter, Model HQ. Provides a means of improving edge-of-band response of broadband filters or amplifiers. Used to eliminate narrow band co-channel interference caused by spurious signals or beats without affecting picture quality. Phase and attenuation characteristics held to close tolerances. Net: \$75.00.

#### JERROLD ELECTRONICS CORP.

High "Q," six stage band pass filter, Model BPF. Uses bridged-T trap networks. Wide TV channel pass band. High adjacent channel rejection. Insertion loss: 7 db maximum (built-in 3 db pad). Brackets for wall or panel mounting. Adjacent channel rejection: 22 db, sound; 24 db, pix. 75 ohm impedance. Specify channel when ordering. PNS.

#### SPENCER-KENNEDY LABORATORIES

**496**—Channel pass filter. Insertion loss: 2.5 db. Rejection of unwanted signals: 40 db. minimum (6 Mc from band edge). Flat within 2 db. Wall or rack mounting.

**492A**—Rejection trap. Over 45 db rejection of unwanted carrier. Both pix and sound traps available for all VHF channels: Insertion loss: less than 1 db.

#### STL, ETV, CATV, CCTV and Data

## COLLINS OFFERS MICROWAVE FOR <u>EVERY</u> VIDEO APPLICATION



What are your requirements? Educational TV systems? Intercity TV relay? Network transmission systems? Whatever they are, you can depend on Collins to meet your specific requirements for microwave video relay systems.

Collins offers you a complete microwave equipment line. You'll find equipment for short haul systems. Long haul systems. Microwave in the 6 kmc and 12 kmc frequency bands. Equipment with power from 50 mw to 5 watts. Receiver IF bandwidth of 15 or 25 mc. Complete ac or dc operation. Remodulating or heterodyne repeaters.

Our complete product line is just one reason why you should call Collins for microwave TV transmission systems. The other is systems engineering experience.

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Call Collins in Dallas for the most complete line of microwave equipment for every video application. Area Code 214, AD 5-2331.

COLLINS RADIO COMPANY, Microwave Systems Division, Dallas, Texas.

SPECIFICATIONS:		
FREQUENCY	POWER	IF BANDWIDTH
5925 to 8400 mc	100 mw	15-25 mc
	1 w	15-25 mc
	5 w	15-25 mc
10,700-13,200 mc	50 mw	15-25 mc
	500 mw	15-25 mc



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microwave

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and carrier Call Collins! COLLINS



#### TRAPS

#### **BLONDER TONGUE - BENCO**

HI-Q-75-75 ohm trap, 60 db attenuation of undesired frequency. Available for each sound and picture carrier. Net: \$33.90.

MWT-2-Low band FM trap. Can be tuned to attenuate any frequency from 54 thru 108 mc. Less than 0.25 db loss. Net: \$37.35.

MWT-3—Hi band trap. Can be tuned to attenuate any frequency from 134 thru 216 mc. Less than 0.25 db loss. Net: \$37.35.

#### JERROLD ELECTRONICS CORP.

High "Q" bridged "T" traps, Models TLLB-05, TLLB-03, TLB-1, TFM-1 and THB-1. Minimum attenuations: 60 db to undesired CW carriers. Insertion loss: 1 db to desired signals. Tuning range: TLLB-05, 24 to 35 Mc; TLLB-03, 35 to 55 Mc; TLB-1, 59.75 to 83.75 Mc; TFM-1, 88 to 108 Mc; THB-1, 197.75 to 211.25 Mc. 75 ohm impedance. F-61 fittings. PNS.

#### WESTBURY CATV CORP.

HQ-1—Low band trap (53-100 Mc) tunable. Attenuation to 40 db. 1

HQ-2—FM trap (80-125 Mc) tunable. Attenuation to 40 db.

HQ-3—High band trap (170-220 Mc) tunable. Attenuation to 40 db.

#### DUPLEXERS

#### BLONDER TONGUE - BENCO

MDX-75-Duplexer for carrying AC to amplifier on same 75 ohm cable used to carry RF. (2 needed) May be used to combine or split frequencies in 0-2 mc band with the 54 216 mc band. Net: \$9.60.

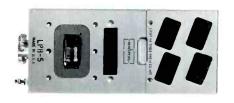
MDX-300-Same as MDX-75 except for 300 ohm line, Net: \$9.60.

#### AC LINE FILTERS

#### AMECO

Hum suppressor, Model HS-1. Removes 60 cycle hum from CATV cable lines. 75 ohm impedance. UHF type connectors. 1/10 db insertion loss. PNS.

#### ENTRON



AC line filter, Model LPB-5. Has 4 ac power outlets. Removes unwanted power line interference and prevents RF feedback from amplifier to power line. Ruggedly constructed. Write for full details. PNS.



a nickel in a postage stamp and write for one of our gigantic CATV equipment catalogs. It will be a wise investment!

DAVCO ELECTRONIC CORPORATION P.O. Box 861 - Batesville, Ark.

#### JERROLD ELECTRONICS CORP.

**RF power line filter, Model ACF-1.** Has 4 ac power outlets. RF attenuation: 60 db minimum, 50 to 250 Mc. Maximum load: 1 kw total on all four outlets. PNS

#### TELESYSTEM SERVICES CORP.

Power line filter, Model PFC-4. Power pack, Model PFC-4. Power line filter with circuit breaker and pilot light. For direct attachment to secondary AC service. No external fuse box. Replacement plugin filter module. 10 to 220 mc application. Price: \$27.50.

#### HOUSINGS

#### **BLONDER TONGUE - BENCO**

**BH-1**—Indoor. Fully ventilated. Perforated mounting surface. Keyed slots for vertical and horizontal mounting. Provision for locking  $20^{\prime\prime} \times 27^{\prime\prime} \times 10^{1}/_{2}^{\prime\prime}$ . Net: \$36.60.

MWH-2-Outdoor housing. Weatherproof. 181/4" x 14" x 6". Net: \$33.70.

MRH-A-Outdoor, radiation proof housing. Provision for locking. Perforated mounting surface. 181/4" x 14" x 6", Heavy duty cadmium plated steel. Net: \$42.20.

H-2-Outdoor housing wired for 2 channel system. Adjustable mounting.  $29'' \times 14'' \times 111_{2}''$ . 6 parallel outlets. Conduit elbow and reducer supplied. Net: \$59.75.

H-4-Outdoor housing wired for 2 channel system. Adjustable mounting.  $29'' \times 22'' \times 101/2''$ , 6 parallel outlets. Conduit elbow and reducer supplied. Net: \$103.00.

H-5—Outdoor housing wired for six channel system. Adjustable mounting 351/2" x 29" x 101/2".
6 parallel outlets. Conduit elbow and reducer supplied. Net: \$131,10.

UNICASE—Outdoor housing for one UPK-1 (Power supply) and associated equipment. Net: \$24.65.

#### DAVCO ELECTRONICS CORP.



Equipment housing assembly, Model EQ-2. Complete, ready to install. Offers these outstanding features: Full 18x28x101/2 inches deep, will accommodate all-band equipment—Heavy 24 gauge galvanized steel—No spot welds, no solder, no rust—Latch, provision for lock—Die-cut louvres for ventilation—Full 1" spun glass insulation between walls of double lid—Substantially cooler operation—Interlocking Pittsburg seams—Bottom & side vents are screened—Rigid, professional construction—Knock-outs and plugs for any combination of trunk & feeders. Reversible layout—No drilling at installation side. Price: F.O.B. Batesville, Ark., \$3975.

#### JERROLD ELECTRONICS CORP.

MR-5—Rail assembly kit that offers sliding chassis facilities to the Tele-Trol units (Models TD and TM) or other relay rack mounted equipment. Finish is cadmium plate. PNS

MP-1—Mounting plates, pre-drilled, for mounting

in EH-40 equipment housings, on the MR-4 mounting rails, or on any relay rack.  $14^{\prime\prime} \times 19^{\prime\prime}$ , PNS

MP-2—Same as MP-1 except measures 3%" x 19". PNS

VF-1—Ventilating fan kit. Handles up to 200 cfm. Designed for quick mounting on existing equipment racks. PNS

EH-40—Deluxe equipment housing. EH-40 is a deluxe 19" relay rack with standard E.I.A. drilling of its mounting centers. Made of heavy-guage steel and has matching perforated cover. Knock-out holes are included for standard BX fittings. Cabinet can be locked with standard padlock. 291/4" x 203/4" x 121/4". Wall or bench mounting.

WC-400—Weatherproof utility cabinet. Heavy guage steel. Heavy galvanized finish. Hardware and cable connector holes are pre-punched. Cabinet can be locked with standard padlock. 10" x 18%" x 241/4". Crossarm or bench mounting. PNS

1683—Weather resistant housing for Model 406A pre-amp. Iridite finish. Supplied with all necessary hardware. PNS

HB-1—Weather protective, umbrella housing for outdoor mounting of 1500 series splitters. Housing can be mounted on messenger, or on antenna masts. PNS

MR-3—Mounting rail set designed to adapt relay rack mounted equipment to bench or cabinet mounting. 5" x 1" x 10". PNS

MR-4—Mounting rail set for wall mounted installations of relay rack mounted equipment. Supplied with lag screws and expansion bolts.  $24\frac{1}{2}$ " x 3" x 6". PNS

#### POWER SUPPLIES

#### CAS MFG. CO.

Power supply, Model PW-300. Produces 24 vdc. Maximum load: 300 ma.

Power supply, Model PW-400. Produces 24 vdc regulated. Maximum load: 400 ma. Power supply, Model PW-50. Supplies 24 vac.

Maximum load: 50 ma.

Power supply, Model PW-600ac. Produces 24 vac. Maximum load: 600 ma.

#### **ENTRON**

**Regulated power supply, Model PSR-2.** Output 160 vdc at 400 ma, maximum regulated. 6.3 vac at 8.5 A. maximum unregulated. Minimum load 100 ma, regulation  $\pm$  1%. Takes 6" of rack space in 19" standard rack. Tubes: (1) OA3, (2) 6AS7GA, (1) 6CB6, (1) 5AU4.



Regulated power supply, Model PSR-3. Output 160 vdc at 800 ma, maximum regulated. 6.3 vac at 20 A. maximum unregulated. Minimum load 0 ma., regulation  $\pm 0.3$ %. Takes 8.3/4" of rack space in 19" standard rack. Tubes: (1) 5651, (4) 6080, (1) 5654.

#### JERROLD ELECTRONICS CORP.

**Power supply, Model CPS-4**. Designed for powering a single HDX-713 unit in each of up to four feeder lines. 24 vac output. PNS.

**Power supply, Model 405P.** Remote 24 vac unit for the Model 401-A preamplifier. Tapped, variable output supplies 24 to 32 vac for compensation of voltage drops in line. Unit has "setcontrolled" — "Continuous" switch making it possible to operate the power supply and preamp from the TV set. PNS.

## FOR YOUR MONEY With CAS Transistorized Equipment

t the most

### TRANSISTORIZED BROADBAND EQUIPMENT

**TRA-220 LINE AMPLIFIER**, all band. Bandwidth 40 to 220 mc. 21 db spacing, 31 db output. Tilt controls and automatic level controls for low and high bands on same chassis. Remote powered, 24 to 30 volts AC or +DC. Regulated power supply. Temperature compensated. Weatherproof aluminum strand mounting enclosure. Special zenor regulated circuits provide constant output with varying temperature and line voltages. Reasonably priced — but the guality and dependability is exceptional!

**TRA-W4 BRIDGING AMPLIFIER, all band.** Bandwidth 40 to 220 mc. 16 db gain, maximum output +40 db. Four outputs. Gain and tilt controls. Remote powered, 24 to 30 volts AC or +DC, regulated. Bridging terminals afford 0 to 1 db loss through input with normal gain settings. Weatherproof aluminum strand mounting enclosure. An economically priced solid state unit that delivers the maximum in trouble-free performance.

**TRA-200ex LINE EXTENDER.** Distribution amplifier providing minimum of 10 db at ch. 13, Single input and output. Only 1" x 3". Remote powered by 20-30 v AC or positive DC.

**TR-95b LINE AMPLIFIER**, low band. Completely transistorized, minimum gain at ch. 6. Gain and tilt are temperature compensated, thus reducing need for AGC. Remote powered by 20-30 v AC or DC positive. Weatherproof aluminum strand mounting enclosure. Two inputs, two outputs—for line bridging or cascaded runs.

**TRA-215 LINE EXTENDER**, all band. Bandwidth 40 to 220 mc. 40 db output. Separate amplifiers, gain controls and tilt adjustments for high and low bands on same chassis. Remote powered with 24 to 30 volts AC or +DC. Regulated power supply. Temperature compensated. Weatherproof aluminum strand mounting. Single input and output. Extremely reliable and maintenance-free!

**TR-4W BRIDGING AMPLIFIER, low band.** 14 db minimum gain across bandwidth on 4 outputs. Completely transistorized. Remote powered by 20-30 v AC or DC positive. Gain control is variable pad on input. Bridging terminals afford 0 to 1 db loss through input with normal gain settings. Weatherproof aluminum strand mounting enclosure.

**TR-100ex DISTRIBUTION AMPLIFIER, low band**. Single transistor, with minimum of 12 db across bandwidth. Single input and output. Remote powered, 20-30 v AC or DC positive. Only 1" x 3".





### **CATV WEATHERBOARD**

Complete direct view system. Local temperature, humidity, barometric pressure, rainfall, wind speed and direction and time all readable at once in large bold print. Revolving band of advertising or other messages gives motion to screen. Complete system is electronic with remote readings on edgewise meters, making possible large print in condensed area.

P.O. Drawer B FA 5-5124 Mineral Wells, Texas

Pioneer Manufacturers of Transistorized CATV Systems

TV & COMMUNICATIONS

## HOW JERROLD SERVES CATV... a growing industry with ever-changing needs

In the decade and a half since its birth, the CATV industry has been growing in size and complexity at a furious pace. As subscribers demand more channels, better pictures, and faultless service, the engineering and equipment requirements have become ever more stringent.

To help you meet these demands, Jerrold has constantly reinvested both knowledge and dollars in the industry's future. As a result, Jerrold's depth of experience and adherence to continuing high standards assure you and your subscribers the ultimate in <u>picture</u> <u>quality</u> and <u>system reliability</u>—two factors indispensable to your future growth and profits. Jerrold's nationwide network of field personnel stand ready to help you in every phase of your system operation. Behind them is the Jerrold organization, as old as CATV itself.





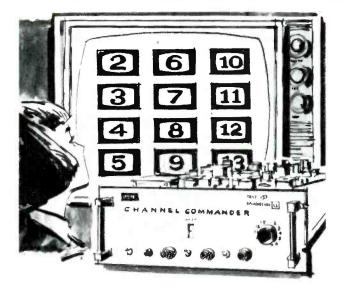
#### ENGINEERING

The largest laboratory and field-engineering group in the industry—the group that pioneered and perfected most of CATV's important technical developments—can provide you now with the reliable tools you need for your big growth era ahead.

#### MICROWAVE

history com

In a few short years, Jerrold has achieved an enviable reputation in microwave equipment among knowledgeable CATV operators. Installation after installation is proving the simplicity, the great ease of maintenance, and the high reliability of Jerrold microwave equipment designed especially for CATV.





#### **TURN-KEY SERVICE**

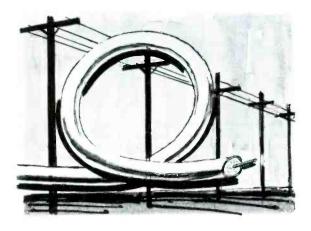
Here is the area where the range of Jerrold services is most welcome to both new and experienced operators. Jerrold can work with you or for you in planning and building your system from original feasibility studies, through selection of antenna sites, utility negotiations, system design, pole-line construction, equipment installation, to pilot operation and financing—or provide any of these services you need.

#### EQUIPMENT

The most reliable and widely used in the industry, Jerrold equipment has a history of proven performance and unquestioned value. From the top of your antenna tower to your individual subscriber's tap, you can rely on Jerrold quality to help you gain and retain customers ... now and in the years ahead.

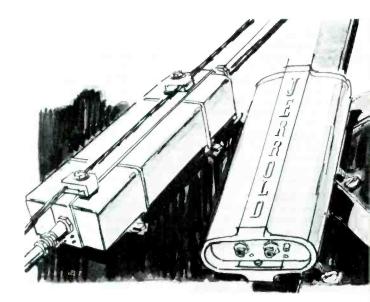
#### **12-CHANNEL CAPABILITY**

The more services you deliver to your subscribers, the more valuable your system becomes. Jerrold's famous Channel Commander provides the key to optimum 12-channel capability without the worry of adjacent-channel interference.



#### CABLE

Of course Jerrold doesn't make the coaxial cable installed in your system; but it's made to Jerrold specifications by Times Wire & Cable Company, the largest and most capable specialists in this highly specialized field.





Community Systems Division

The nation's foremost manufacturer and supplier of television cable systems

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SAN CARLOS, CALIFORNIA 1042 Terminal Way Area Code 415 593-8273 PITTSBURGH, PENNA. 1301 Highland Building 121 S. Highland Avenue Area Code 412 441-3050

COQUILLE, OREGON 88 East First Street Area Code 503 396-3422 DENVER 22, COLORADO 2110 South Ash Street Area Code 303 756-6283

YAKIMA, WASHINGTON Ward Building 1 N. First Street Area Code 509 248-1717

#### DISTRIBUTION EQUIPMENT

#### COUPLERS

AMECO



Directional coupler, Model DT-4. Four taps. For providing matched, isolated taps with directivity in distribution lines, 50 - 220 mc, 75 ohm, More than 30 db isolation. 0.7 db insertion loss. Loss per output 17 plus or minus 1 db. VSWR less than 1.1. Available with most connectors used in CATV. PNS.

#### **BLONDER TONGUE - BENCO**

Hi-Lo antenna coupler, Model A-105. Coupler combines high and low band VHF antennas, or provides separate high and low outputs from a common line or antenna. Features isolation of 21 db minimum and loss of less than 1/2 db. UHF-VHF Antenna coupler, Model A-107. With 15

db minimum isolation and less than  $\frac{1}{2}$  db loss, the A-107 will combine UHF and VHF antennas or provide separate VHF/UHF outputs from a common line.

Set-2, all channel 2-set coupler. Features effective resistive network for full isolation-12 db. Insertion loss is 6 db. Coupler feeds 2 TV/FM sets from single antenna and covers entire frequency range (O-900 mc) of VHF, UHF and FM.

4 set coupler, Model A-104. Directional coupler with flat response from 50 to 220 mc. Feeds 4 receivers from one antenna, or mixes 4 antennas into one line, Isolation: 12 to 20 db, Net: \$3.00. 4 set coupler, Color-4. Deluxe 4 set coupler. Low loss, excellent isolation. No deterioration of color signals. Net: \$6.85.

2 set coupler, Model A-102. Isolation: 10 to 20 db. Net: \$2.00.

TF-731-Matching transformer. Mounts flush in outlet for indoors. Matches 75 ohm input to 300 ohm output.

TS-731-Matching transformer. Surface mounted box for indoor use. Matches 75 ohm and 300 ohm connections.

Cablematch-Matching transformer. For indoor use, Matches 75 ohm to 300 ohm. For VHF and FM.

#### ENTRON

Directional coupler, Model DF-10. Provides excellent isolation, 30 db. 54 - 220 mc. Permits advanced system nstallation techniques through physical and electrical isolation of distribution amplifiers from trunkline. Strand mounting clamp enables easy installation. Waterproof. 75 ohm. VSWR of 1.1. Price: \$12.00.

Matched directional couplers, DMT series. Specify 8, 12 or 16 db isolation.

**TELESYSTEM SERVICES CORP.** 100 (Quantity) 25 \$6.50 \$6.35 (Price) \$6.20

#### **MATCHING TRANSFORMERS**— FLUSH

#### AMECO

MX-3-Matching transformer. Mounts in flush electrical outlet box with ivory cover plate. 75 ohms to 300 ohms. Bandwidth: 5 to 300 Mc. HHS-1652 connector. Connectors and screws induded

MXT-Identical to the MX-3 except designed for multiple unit series connections in motels and hotels. MXT is padded in steps of 3 db to the 300 ohm output. Range: 9 to 40 db. Low insertion loss.

#### JERROLD ELECTRONIC CORP.

T-373—Matching transformer. 75 to 300 ohms. Ivory finish. B-59 connector for cable. 2 screw terminal strip for 300 ohm line. AC isolation.

#### VIKING CABLE COMPANY



913—Matching transformer. 6 db voltage stepup. 75 ohm to 300 ohm. Flush mount, wall type. Bandpass: 2 to 13. Standard RG59 coax connector supplied with unit. Price: \$1.75.

#### **MATCHING TRANSFORMERS**— SURFACE

#### CAS MFG. CO.

CT-8-Matching transformer. 75 to 300 ohm. + 6 db voltage transfer ratio. Complete AC isolation (2000 volts). Response flat from 20 to 250 Mc. Transformer is formed on end of 8' coaxial cable and enclosed in shrink tubing. Other end of cable fitted with phone jack. Mates with WP-75, WB-75 and WBT-4 wall jacks. HK-15-Same characteristics and specifications as CT-8 except has 15' cable.

#### CRAFTSMAN ELECTRONIC **PRODUCTS**, INC.

Matching transformers. Capacitors provide positive line isolation. Complete shielding eliminates stray pickup. 72 - 300 ohms. Bandwidth 4-300 mc. 6 db stepup voltage gain. MF-61 input connector, spade fittings output, plus MF-59 supplied. PNS. ENTRON

WBF—Matching transformer. Surface mounting. Ivory finish. 75 ohm input, 300 ohm output. TV signal transfer +6 db. FM signal attenuated 20 db. Complete AC isolation.

WBC---Matching transformer. Surface mounting. Push-on fitting input and terminal strip on output. Useful for apartment use or other situation wherein different TV receivers might be connected to a permanent installation at different times.

WBL-Matching transformer. Mounts on rear of TV receiver. Equipped with push-on connector with pin vise and twin lead with spade lugs. WBM-Matching transformer. Mounts on rear of TV receiver. Equipped with push-on connector with screw terminal and twin lead with spade luas.



OF-320-FM subscriber connection device. Surface mounting. Ivory finish. FM tapoff attenuated 20 db. Push-on thru line fittings. 75 ohm input (thru line) and 300 ohm output (FM).

#### JERROLD ELECTRONIC CORP.

MTU-372-Matching transformer for indoor service. Surface mounting. Flat response over the entire UHF band. Insertion loss: .6 db at 470 Mc and 1.2 db or less at 890 Mc, F-61 connectors. PNS.

MTUO-374-Matching transformer for outdoor applications. Flat response over the entire UHF band. Insertion loss: .6 db at 470 Mc and 1.2 db or less at 890 Mc. Unit passes ac at 1.0 amp. maximum, F-61 connectors, PNS,

T-375-Matching transformer, 75 to 300 ohms. 5 to 6 db voltage gain. AC isolation. Surface mounting. 6" length of 300 ohm line with lug tips is provided. Ivory finish. PNS.

T-372-Same characteristics as T-375 except has terminal strip for connection of 300 ohm line. Uses C-52 solderless connector for cable connection. PNS.

TO-374—Matching transformer. Mounted in weather resistant, iridite finished case designed for mast or other outdoor mounting. Same features as T-375 except designed to pass ac voltages with minimum loss so unit may be used with Jerrold "DeSnower" pre-amps and their remote power supplies. PNS.

#### PLASTOID CORP.

Matching transformer, Model WT-5. Wall mounted low VSWR unit. 6 db voltage gain. No ghosting. 4-300 mc. Capacitors provide positive isolation. No radiation or stray pickup; metal container. Male fitting and crimping ring included. PNS.

Capacitor type matching transformer, Model T-5. No radiation or stray pickup. Low VSWR. 6 db voltage gain. No ghosting. 4-300 mc. Fitting and ring included. Cylindrical metal container. PNS. Matching transformer Model T-10. Fully symmetrical true transformer circuitry affording complete isolation between input and output. Completely shielded to eliminate stray pickup. 75-300 ohms. 4-300 mc bandwidth.  $5/8^{\prime\prime} \times 2^{\prime\prime}$  cylindrical metal container. MC-61 or MF-61 standard connectors for RG-59/U. PNS.

#### TELCO

Cascade matching transformer, No. AV910. 6 db gain, channels 2-13, 72 - 300 ohm match. Supplied with C52 connector. Price: (1-99) \$1.10, (100over) \$1.05.

#### **TELESYSTEM SERVICES CORP.**

MTC-Matching transformer. 75 ohms to 300 ohms. Surface mounting. Enclosed in metal can. Quick mount "L" bracket and screw, 6" leads with spade lugs. Voltage gain 2:1. Has DC blocking capacitors on input side. Net: \$1.45 (in lots of 25 -\$1.30) (In lots of 100-\$1.10).

MT-Matching transformer. Same characteristics as MTC except does not have blocking capacitors on input but has isolation type transformer for set protection and safety. Net: \$1.25 (In lots of 25 -\$1.15.) (In lots of 100-\$1.00.)

#### VIKING CABLE COMPANY

910-Matching transformer. 6 db voltage stepup. 75 ohm to 300 ohm. Surface mount. High impact case with internal aluminum shielding. Bandpass: Channels 2-13. Standard RG59 coax connector supplied with unit. Can be mounted on back of set. Price: \$1.00. 911-Same as 910 except for baseboard mount-

ing. Price: \$1.00.

Matching transformer 72-300 ohms, No. 971. Indoor metal cases with push on fittings. Bandpass: Channels 2-13. For use with all types of 59U cables. Attenuation values of 10, 16 and 24 db available. Cream color case. Excellent for color. Price: \$2,10 each.

Matching transformer 72-72 ohms, No. 972. Same as above.

Flipswitch, No. 979. Combination switch and matching transformer. Switches from direct feed for home antenna 300 ohms to matching transformer for community system signals. Isolation between CATV and home inputs - 35 db min. Insertion loss less than 1 db. VSWR less than 1.25:1. Full AC-DC isolation on community operation by ferrite transformer. Price: \$2.50 each.

#### SPLITTERS-INDOOR BLONDER TONGUE - BENCO

4-way splitter, Model TSb-774. Indoor, surface mounted. Can split four 75 ohm cables. 61/2 db loss. Net: \$5.00.

2-way hybrid splitter, Model TS-772. Indoor. surface mounted. Can be used to split or combine two 75 ohm cables. 31/2 db loss. Net: \$3.55.

#### JERROLD ELECTRONIC CORP.

1592—2-way splitter. Response flat from 4 to 220 Mc. Surface mounting. Isolation: 20 db, low band; 15 db, high band. 75 ohm impedances. F-61 fittings. 3.5 db maximum insertion loss. PNS.

DC-8—Back-matched, 2-way splitter. Insertion loss: 1.5 db. Tap loss: 9 db. Isolation: 30 db at Channel 6 between line output and tap output. Bandwidth: 7 to 216 Mc. F-59 fittings. PNS. DC-9—Same as DC-8 except has test point. Test point loss: 40 db. PNS.

MTP-20—2-way splitter designed to match the trunk line in and out as well as the tap. Insertion loss: 2 db. Tap loss: 20 db. F-61 fittings. Bandwith: 0 to 216 Mc. PNS.

1502—2-way resistive splitter. Bandwidth: 0 to 220 Mc. 75 ohm impedance. 6 db isolation\_between outputs. 6 db splitting loss, F-61 fittings. PNS.

**1522**—2-way transformer type splitter. 18 db isolation, 8 to 88 Mc and 26 db, 14 to 46 Mc. 75 ohm impedance, F-61 fittings. PNS.

1562—2-way transformer type splitter. 20 db low band and 15 db high band isolation. Fittings come out around edges of "blister-can". B-59 fittings. PNS.

**1582**—2-way transformer type splitter. Same characteristics as 1562 except uses F-61 fittings and fittings are mounted on face of "blister-can." PNS.

G-1518-8-way splitter. Has push-on "Gamma" chassis fittings. 75 ohm impedance. Isolation: 17 db minimum between outputs of opposite end groups; 14 db minimum between outputs of same end group in the low band; 7 db minimum between outputs of same end group in the high band. Splitting loss: 9 db nominal.

Covers 54 to 216 Mc. PNS. 1514-4-way transformer type splitter. 12 db isolation. 6-7 db splitting loss. F-61 fittings.

Covers 24 to 216 Mc. PNS. 1503–3-way resistive splitter 10 db isolation. F-61 fittings. 10 db splitting loss. 75 ohm impedance. PNS.

## CRAFTSMAN ELECTRONIC PRODUCTS, INC.

Two-way splitters. 20 db isolation between outputs. 75 ohm input and output. 3.5 db feedthrough loss. Connectors, MF-61, and three male MF-59's supplied. PNS.

#### ENTRON



Passive line splitter, DL series. For line branching. Excellent frequency response, low loss. Inexpensive, suitable for multiple in-building conections. Choice of threaded or push-on fittings. Choice of 2 or 4 outputs. 50-220 mc. 75 ohm. Prices: from \$4.95 to \$7.25.

#### TELESYSTEM SERVICES CORP.

Four-way 75 ohm splitter, Model 4X75F. With "F" type connectors. Price: \$6,50. Weatherproof model, PNS. Weatherproof housing for splitters, Model DEH/1. Price: \$3.25

#### VIKING CABLE COMPANY

**930**—2-way splitter. All band design. Radiation proof. Low VSWR. Fittings: 59U and 11U type. Price: \$2.50.

931—4-way splitter. All band design. Radiation proof. Low VSWR. Fittings: 59U and 11U types. Price: \$5.00.

Two-way hybrid splitter, No. 936. Indoor type. Frequency range, 50-220 mc. Low VSWR, 1.2:1 in and 1.3:1 out. Through loss maximum 3.5 db with low isolation between outputs of 30 db on high band and 35 db on low band. Equipped with F type fittings. Price: \$3.65.

Four-way hybrid splitter, No. 937. Full frequency range. 1.2:1 max VSWR. 7 db through loss. 30 db minimum isolation between outputs. Equipped with F type fittings. Price: \$6.60.

#### WESTBURY CATV CORP.

LS-21A-2-way line splitter for RG-59/U cable. Crimp type. For indoor use.

LS-1A-2-way line splitter for RG-59/U cable. Supplied with A102 connectors.

LS-2A-4-way line splitter for RG-59/U cable. Supplied with A102 connectors.

#### SPLITTERS-OUTDOOR

#### **BLONDER TONGUE - BENCO**

2-way, hybrid splitter, Model MDC-2b. Can be used to split or combine two 75 ohm cables.  $31/_2$  db loss. Net: \$9.55.

2-way, hybrid splitter, Model 25P-75MP. Can be used to split or combine two 75 ohm cables. Net: \$8.10.

2-way; splitter, Deluxe Cable Master, Model CMS-81. 10 to 216 mc, VSWR less than 1.2. Net: \$20.25. 2-way symmetrical splitter, Model 2ASP-75-MP. Back matched. Available in 8, 10, and 12 db atternuation. Net: \$9.65.

#### CAS MFG. CO.

CAS-2W-2-way splitter. UHF fitting. Maximum 3.2 db loss with 14 db isolation. Switch controls line powered voltage to both outputs. Strand mounting.

CAS-3-6-3-way splitter. UHF tittings. Line powered voltage passes to 3.2 db leg and switch controls voltage to 6.2 db leg. Strand mounting. CAS-4W-4-way splitter. UHF fittings. 6.2 db loss and 20 db isolation across 4 legs. Switch controls line powered voltage to two legs. Strand mounting.

### CRAFTSMAN ELECTRONIC PRODUCTS, INC.

Two-way line splitters. 20 db isolation between outputs. 75 ohms in and out. 3.5 db throughline loss. Connectors supplied. PNS.

Four-way line divider. 20 db isolation between outlets. Complete shielding. Matched 75 ohm input and four 75 ohm outputs. 6 db loss per output, 7 db throughline loss. Connectors supplied. PNS.

#### ENTRON



Two-way line splitter, Model LS-21.1. Divides one incoming signal into two outgoing signals of equal amplitude-or two signals may be combined to make both available on one common terminal. Wide band design, excellent VSWR of 1.2:1, in and out. Flat frequency response, minimum insertion loss. Fully weatherproof and easily installed. PNS.

#### JERROLD ELECTRONIC CORP.

1593–2-way splitter. Splits one 75 ohm line into two 75 ohm lines with only 3 db loss in each leg. Passes 24 vac for line extenders. Mounts on messenger cable. 26 db minimum isolation. F-61 fittings. PNS.

#### PLASTOID CORP.

Two-way splitter, Model 2WD1. All band hybrid type for RG59/U. Completely waterproof unit for feeding two sets from one drop line. Matched 75 ohm input to two matched 75 ohm outputs. 3.5 db through loss, Isolation 20 db between outputs. Three connectors supplied with unit. PNS. Two-way splitter for trunk or feedline, Model 2WD3. All-band type. For splitting trunk or feeder lines. Mounts to strand with bracket. 3.5 db through loss. 20 db isolation between outputs. Uses "UHF" type fittings. PNS.

Three-way splitter, Model 3WD3. Similar to above. One output with 3.5 db through loss; two outputs with 7 db through loss. "UHF" type fittings. PNS. Four-way line divider, Model 4WD3. For trunk or feeder line. All band type. Similar to above. Strand mounting. PNS.

Four-way line divider, Model 4WD-59. All band hybrid type for RG-59/U. Surface mounting. Provides isolation of at least 15 db between outputs when fed from a 75 ohm source. 7 db through loss.

#### TELCO

Cascade two-way hybrid splitter, Model 2F. 4-216 mc. 3.5 db loss, matched input and output. 20 db isolation and flat response. "F" connectors. Requires DEH-1 or HB-1 housing for outdoor use. Price: \$3.40 including connectors but less housing. (100-over) \$3.20.

**Cascade four-way hybrid splitter, Model 4F.** Similar to 2F. 6.5 db loss. VSWR is 1.22:1. 4-216 mc. Provides 20 db isolation; 75 ohms. Price: \$5.95, including connectors but less weatherproof housing. (100-over) \$5.75.

Cascade two-way resistive splitter, Model W-124. Ideal for taking signal from trunkline to feed distributor amplifier. May be used to divide signals or as a test point. 1.25 db through loss. 1.1:1 VSWR. 4-220 mc. 24 db isolation. Price: \$4.50, including connectors but less weatherproof housing. (100-over) \$4.25.

#### TELESYSTEM SERVICES CORP.

Two-way and four-way splitters. Same as indoor models except weatherproofed. 2X75W: \$6.00. 4X75W: PNS.

#### VIKING CABLE COMPANY

Two-way hybrid splitter, No. 932. Use for either pole or mast mount. Weatherproof zinc case. VSWR of 1.2:1 in and 1.3:1 out. 25 db minimum isolation between all outputs for 174-216 mc and 35 db minimum for 54-88 mc. "F" type fittings included. Price: \$4.00.

Four-way hybrid coupler, No. 933. Similar to above. VSWR of 1.2:1. Isolation between all outputs is 30 db minimum for 54-216 mc. Complete with "F" type fittings. Price: \$7.00. (See also Models 930 and 931 under Splitters-Indoor.)

#### WESTBURY CATV CORP.

LS-3A--Weatherproofed 2-way line splitter. For RG-11/U cable. Less cable connectors. LS-4A--Weatherproofed 4-way line splitter. For RG-11/U cable. Less cable connectors.

#### TAPOFFS-INDOOR (FLUSH) BLONDER TONGUE - BENCO

TF-771B—Flush mounted plate. Single 75 ohm output from 75 ohm thru line. 17 db isolation. 0.7 db thru loss. Net: \$2.55.

TF-77185—Same as TF-771B except with stainless steel plate. Net: \$2.95.

TF-771BL—Same as TF-771B except only 0.4 db thru loss. Net: \$3.45.

TF-771BLM—Same as TF-771BL except with auto type plug. Net: \$3.25.

TF-771A-Flush mounted plate. Single 75 ohm output from 75 ohm thru line. 12 db isolation. 0.7 db thru loss. Net: \$3.40.

**TF-771AS**—Same as TF-771A except with stainless steel plate. Net: \$3.75.

TF-731B—Flush mounted plate. Single 300 ohm output from 75 ohm thru line. 17 db isolation. 0.7 db thru loss. Net: \$2.00.

TO1-75—Flush mounted plate. Single 75 ohm output from 75 ohm thru line. Jack for auto-type plug. 17 db isolation. 0.7 db thru loss. Net: \$2.70.

ISO\_1S-Same as TO1-75 except without plate. Net' \$2.40.

TF-772B—Flush mounted plate. Two 75 ohm outputs from 75 ohm thru line. 17 db isolation. 0.35 db thru line loss per output used. Net: \$3.75.

TF-772A-Same as TF-772B except 12 db isolation and 0.7 db thru loss per output used. Net: \$3.75. TFP-731A-Flush mounted plate. Single 300 ohm stripless plug output from 75 ohm thru line. 12 db isolation. 0.6 db thru loss. Net: \$3.75.

TFP-731BL-Flush mounted plate. Single 300 ohm stripless plug output from 75 ohm thru line. 17 db isolation. 0.4 db thru loss. Net: \$3.90.

LJ-1—Tumbler lock cover that fits over any Lock-Jax unit or standard single wall plate. Net: \$6.00. LJ-2—Blank wall plate with direct connection for thru line. Net: \$4.05.

LJ-6-Video thru unit for video camera, amplifier or monitor, with shorting switch. Net: \$9.30.

LJ-11—Single 17 db tapoff with torroidal ferrite transformer, Net: \$7.45.

LJ-12—Double 17 db tapoff similar to U-11. Net: 10.45.

TF-771-Flush mounted wallplate. 75 ohm input. One 75 ohm output. No isolation. Net: \$1.95. TF-331-Flush mounted wall plate. 300 ohm input. One 300 ohm output. No isolation. Net: \$1.30.

#### CAS MFG. CO.

WP-75-Flush mounted. Plastic telephone cover with phone jack, mates CAS-CT-8 transformer cable. 75 ohm resistor terminates line when phone plug on CT-8 is disconnected.

**WBT-4**—Choice of 4 taps (10, 15, 20 and 25 db) by removing parallel capacitors. Mounted on telephone wall plate. 59/U solderless feed-thrus.  $11/2'' \times 11/2''$  metal box with phone jack outlet which mates CAS CT-8 transformer cable. (New Product)

#### **C-COR ELECTRONICS, INC.\***

**TWP-P\***—AMP-LOK receptacle with plug for 300 ohm twin lead.

TWP-S\*—Screw terminals for 300 ohm twin lead. \* Specify finish: CH, BW, IW also specify attenuation (0, 15, 20, 25 or 30 db)

 $\mbox{WP-SL}^{\star}\mbox{-Solderless}$  connector receptacle for RG-59/U coax. Flush mounting.

WP-UHF\*-UHF SO-239 receptacle. Flush mounting.

WP-BNC\*—BNC UG-220/U receptacle. Flush mounting.

\* Specify finish: CH, BW, or IW.

#### JERROLD ELECTRONICS CORP.

1477-Flush mounting. 75 ohm output from 75 ohm line. Choice of isolation. PNS.

1478—Flush mounting, 75 ohm output from 75 ohm line also output for AM radio. Choice of isolation. PNS.

1431—Flush mounting. 300 ohm output from 75 ohm line. Choice of isolation. PNS.

#### TELESYSTEM SERVICES CORP.

Write for specific information and price list,

#### VIKING CABLE COMPANY

914—Flush-mounted wall plate. 75 ohm, 17 db

isolated outlet from 75 ohm cable. "C" type connections. Price: \$1.80.

Tapoff, Model 912. Comes with attenuation values of 10 db, 16 db and 24 db. Equipped with pushon fittings. Easily mounted into standard wall box. Price: \$1.45. Wall plate, \$0.20.

#### WESTBURY CATV CORP.

**OP-75**—Flush mounting 75 ohm to 75 ohm. Specify 0, 15, 25 or 30 db isolation. Net: **\$2.35**. **OP-75T**—Flush mounting 75 ohm to 75 ohm, 15 db isolation. Includes termination.

**OP-300**—Flush mounting 75 ohm to 300 ohm. Specify 0, 15, 25 or 30 db isolation.

**OP-300T**—Flush mounting 75 ohm to 300 ohm. Includes termination. Specify 0 or 15 db isola-

#### **TAPOFFS-INDOOR (SURFACE)**

#### **BLONDER TONGUE - BENCO**

tion.

TSP-331-Surface mounted box 300 ohm input. One 300 ohm stripless plug output. No isolation. Net: \$2.35.

T02-75-Surface mounted box. Two 75 ohm outputs from 75 ohm thru line. Jacks for auto-type plugs. 17 db isolation. 0.35 db thru loss per output. Net: \$4.80.

TO-774A-Surfacemountedbox.Four75ohmoutputsfrom75ohmthruline.12dbisolation.0.6dbthrulossperoutputused.Net:\$8.65.

TSP-731A-Surface mounted box. Single 300 ohm stripless plug output from 75 ohm thru line. 12 db isolation. 0.7 db thru loss. Net: \$3.75.

**TO-2-300**—Surface mounted box. Two 300 ohm outputs from 75 ohm thru line. Stripless terminals. 17 db isolation. 0.35 db thru loss per output used. Net: \$4.80.

T5-731B-Surface mounted box. Single 300 ohm output from 75 ohm thru line. 17 db isolation. 0.7 db thru loss. Net: \$2.75.

TSP-731BL—Surface mounted box. Single 300 ohm stripless plug output from 75 ohm thru line. 17 db isolation. 0.4 db thru loss. Net: \$4.20.

**T5-771B**—Surface mounted box. Single 75 ohm output from 75 ohm thru line. 17 db isolation. 0.7 db thru loss. Net: **\$2**,70.

TS-771BL—Same as TS-771B except only 0.4 db thru loss. Net: \$3.55.

T\$-771A—Surface mounted box. Single 75 ohm output from 75 ohm thru line. 12 db isolation. 0.7 db thru loss. Net: \$3.55.

#### CAS MFG. CO.

WB-75—Surface mounted.  $11/2'' \times 11/2''$  metal box for wall mounting with phone jack. Mates with CAS-CT-8 transformer cable. 75 ohm resistor terminates line when plug on CT-8 is disconnected.

## CRAFTSMAN ELECTRONIC PRODUCTS, INC.

FM tap. Model 1WD-1. Non resistive attenuator network for use in tapping off from feeder line to subscriber. Complete AC isolation. Only 0.5 db throughline attenuation. 88 to 108 mc. PNS.

#### JERROLD ELECTRONICS CORP.

J-501-6—''J'' Jack basic receptacle for RG-6/U type cables. Passes frequencies from 0 to 220 Mc. PNS,

 $\mbox{J-501-11-Similar}$  to J-501-6 but for RG-11/U cables. PNS.

J-503—Plug-in feed-thru unit for use with any J-501-6 or J-501-11 receptacle. PNS.

J-504-U—Receiver isolation plug-in unit for use with J-501-6 or J-501-11 receptacle. Provides connections for 1 or 2 TV receivers. or 1 TV receiver and 1 TV modulator. PNS.

**J-505-U**—Similar to J-504-U but provides connections for 1 TV receiver and 1 RF control function. PNS.

J-506-U—Similar to J-504-U but provides connections for equipment (amplifiers, traps, filters, etc.). PNS.

J-507-U—Combination video-RF plug-in unit for use with either J-501-6 or J-501-11. Provides

connections for 2 video and 1 RF to the receptacle. PNS.

JP-520—Standard 2-gang stainless cover plate for use with either J-501-6 or J-501-11 receptacle. PNS.

JP-530—Standard 3-gang stainless cover plate for use with either J-501-6 or J-501-11 receptacle and a separate audio outlet. Complete with 3-pin audio connector, cap and chain. PNS.

JP-550-5-gang stainless cover plate for use with either 2 J-501-6 or 2 J-501-11 receptacles and separate dual audio outlet. Complete with 4-pin audio connector, cap and chain. PNS.

FMT-2—Provides for connection of one FM set to line. Surface mounting. Isolation: 8 db minimum, 17 db maximum. Less than 1 db insertion loss. 75 ohm impedances. PNS.

UT-22—Tap-off unit, Ultra-Tap series. Choice of three isolation and feed-thru values. For TV or FM. Can be flush mounted by using 2" x 4" wall box. Accepts 75 or 300 ohm push-on plugs (G-59 or G-300). PNS.

**UT-33**—Tap-off unit, Ultra-Tap series. Available in the same isolation and feed-thru values as Model UT-22. Additional isolation to separate TV and FM signals for simultaneous connection of a TV receiver and FM receiver. Flush mounts in same manner as UT-22. Accepts G-59 or K-300 plugs. PNS.

UT-12—Special wall terminal unit. Without isolation or feed-thru. Size and shape is same as UT-22 or UT-33. Accepts G-59 or G-300 plugs. PNS.

**UT-SH**—Surface housing for UT-22, UT-12. Single outlet, ivory surface mounting box. PNS.

**UT-PI**—Flush cover plate. Single outlet ivory cover plate. PNS.

**UT-PS**—Flush cover plate. Single outlet cover plate, brushed stainless steel. Other finishes and double-sized cover plates are available on special order. PNS.

#### PLASTOID CORP.

Line tap, Model 1401. Surface mounting for MATV applications. Color coded attenuation values permit use with highest gain amplifiers. Complete with mounting bracket. 72 ohm. PNS.

FM subscriber connection, Model 1WDIF. Non resistive attenuator network for tapping off from feeder to indvidual subscribers. Provides complete AC isolation. Throughline attenuation of 0.5 db. FM tapoff attenuated 20 db. A capacitive balun network matches 75 ohm unbalanced impedance to 300 ohm balanced output. 10-216 mc bandwidth. PNS.

#### TELESYSTEM SERVICES CORP.

Write manufacturer for detailed information and prices.

#### VIKING CABLE COMPANY

Tapoff, No. 971. 72 - 300 ohm. Features push-on fittings. Attenuation values of 10, 16 and 24 db. For use with all types of 59U cable. Bandpass ch. 2-13. PNS.

Tapoff, No. 972. Same as above except 72 - 72 ohm. PNS.

FM tapoff, Model No. 977. Passes all frequencies from 0 to 220 mc but taps off FM only. 11 db isolation at 88-108 mc, TV band: 20 db low and 24 db high. 1.15 max. VSWR. Push-on fittings. PNS.

#### WESTBURY CATV CORP.

Capacitive feeder line tapoff, Model TO-1. Available in 14, 19, 25, 31 or 41 db attenuation values —at channel 6. PNS.



**OS-75**—Surface mounting **7**5 ohm to **7**5 ohm. Specify 0, 15, or 30 db isolation. SHARP, CLEAR PICTURES WITHOUT INTERFERENCE

## With SUPERIOR'S Cell-O-Air Coaxial Cable with 'COPPERGARD'

Cell-O-Air Coaxial Cable, with Coppergard, provides up to 20% lower attenuation; far better long-term transmission stability, and far greater radiation protection. Solid tubular Coppergard shield also eliminates the radiation leakage apertures present in all braided coaxial types. Corrugation permits hand bending to acceptable limit of 20 times diameter.

"Coppergard"	Attenuation (Nor Ch. 6	Nom. Overall O.D.	
Shield	CII. 0	Ch. 13	
4920	0.88	1.50	.480″
4930	0.65	1.05	.652″

ALSO AVAILABLE: Self-supporting IM "Fig. 8" type and Double COPPERGARD shielded types for direct-burial use.

. SHIPPED IN 3M' REELS

EVERY REEL SWEEP-TESTED OVER ITS FULL LENGTH

Both cable and connectors have been designed exclusively by SUPERIOR for the CATV Industry. ELIMINATE "PULLOUTS" THAT CAUSE BLANK SCREENS





Superior's Captive Contact Connectors eliminate the "pullouts" that cause blank screens by making positive never-fail contact between lengths of coaxial cable to maintain service. Designed to mate electrically and mechanically with #4920 and #4930 "Cell-O-Air" coaxial cable with "Coppergard" shield, Superior's captive contact connectors assure full-system compatibility.



OS-75T—Surface mounting 75 ohm to 75 ohm. Includes termination. 15 db isolation.

OS-300-Surface mounting 75 ohm to 300 ohm. Specify 0, 15, 25 or 30 db isolation.

OS-300T-Surface mounting 75 ohm to 300 ohm. Includes termination, 15 db isolation.

#### TAPOFFS-OUTDOOR (SINGLE) **BLONDER TONGUE - BENCO**

MTO-11-Single 75 ohm output from RG-11/U cable, Presure tap. 17 db isolation. Net: \$5.70. MT-11-Single 75 ohm output from 75 ohm thru line. Choice of 12 db, 17 db, or 23 db isolation. Net: \$4.50.

ST4-75-MP-Back matched solderless tap-off. Available in 13, 16, 20, 25, 30, 35, 40, 45 and 60 db attenuation. Net: \$6.30

#### ENTRON



FTB-405-For use with single shield cables. 75 ohm output from 75 ohm thru line. Choice of attenuators (capacitive FTC series or resistive FTR series). Net: \$2.03.

FTB-460-For use with double shield cables. 75 ohm output from 75 ohm thru line. Choice of attenuators (capacitive FTC series or resistive FTR series). Net: \$2.03.

#### **TELCO**

Cascade all-weather pressure tap. For .460-.480 OD cables. Heavy protective plating. Stainless steel grounding pins. Available with capacitor, resistor or transformer type interchangeable units.

PT/11D-Tap body (block). Price: \$1.15. PTI/(C)-Capacitive insert (color). Price: \$1.15. PTI/R-Resistive insert. 30, 35, 40. Price: \$1.80. PTI/T-Transformer insert. 12, 16, 20, 24. Price: \$1.80.

#### TELESYSTEM SERVICES CORP.

TTPR-Outdoor tapoff. Resistive type. Neoprene sleeve available for use or single shield cable. Uses F-59 connector (included). Button type hook for housedrop support. Isolation unit can be installed in inverted position. Choice of attenuators. Net: \$2.50 (in lots of 25-\$2.35) (in lots of 100-\$2.10.)

TTPI-Outdoor tapoff, Same as TTPR except inductive type, Choice of attenuators, Net; \$3.20 (In lots of 25-\$3.00) (In lots of 100-\$2.68).

TTPC-Outdoor tapoff. Same as TTPR except capacitive type. Choice of attenuators. Net: \$2,50 (In lots of 25-\$2,35) (In lots of 100-2.10).

#### VIKING CABLE COMPANY

900-Pressure tap for .410 cable (11U, VK11, & VKD11). Hook type. 75 ohm output from 75 ohm thru line. Choice of capacitive taps. Add 25c per unit for resistive taps. Price: \$2.25. 901-Same as 900 except for .465 cable (strip braid single-double VK108-VKD108, and double

shielded and double jacketed 11U types.) Price \$2.25. 902—Pressure tap for .410 cable (11U, VK11,

& VKD11). Button-hook type. 75 ohm output from 75 ohm thru line. Choice of capacitive taps. Add 25c per unit for resistive taps. Price: \$2.25.

903—Same as 902 except for .465 cable (strip braid single-double VK108-VKD108, and double shielded and double jacketed 11U types.) Price: \$2.25

915-Underground pressure tap for .410 cable (11U, VK11, & VKD11). 75 ohm output from 75 ohm thru line. Choice of capacitive taps. Add 25c per unit for resistive taps. Price: \$2.25. 916-Same as 915 except for .465 cable (strip braid single-double VK108-VKD108, and double shielded and double jacketed 11U types.) Price: \$2.25.

T12-12 db transformer insert. .25 db insertion loss. Frequency response: 8-220 Mc. PNS. T16-16 db transformer insert. .1 db insertion

loss. Frequency response: 8-220 Mc. PNS. T20-20 db transformer insert. .1 db insertion loss. Frequency response: 8-220 Mc. PNS.

T24-24 db transformer insert. 1 db insertion loss. Frequency response: 8-220 Mc. PNS.



T30-30 db transformer insert. 1 db insertion loss. Frequency response 8-220 mc. PNS.

1952-1950-1955-Pressure tap for .500 OD cables (Viking aluminum 1500). Hook, button and underground types. Available with capacitive insert. Price: \$2.75

1902-1900-1915-Pressure tap for .412 OD cables (Viking aluminum 1412). Hook, button and underground types. Available with capacitive inserts. Price: \$2.75.

## **TAPOFFS-OUTDOOR (MULTIPLE)**

MIT-4-Four 75 ohm outputs from 75 ohm thru line. 17 db isolation. 0.35 db thru loss per out-

#### CAS MFG. CO.

CAS-T-Four taps available in 15, 22, 25 and 32 db versions. UHF fittings on feed-thru and F fittings on four taps. Strand mounting, weatherproof aluminum housing. Net: \$8.50.

#### **ENTRON**



Multee tapoffs, MT series. Combines extremely flat frequency response with low VSWR for VHF high and low band operation. Adapts to any type 75 ohm coaxial cable up to .560" OD. Four tapoff outlets. Tapoff attenuation, for various models, 16, 20, 24, 28, 32 and 36 db. Throughline losses vary from 0.1 to 3.5 db. Write to manufacturer for full particulars and prices.

#### VIKING CABLE COMPANY

Directional line tap, No. 935. Specifications: VSWR 1.15:1 input, 1.31:1 output and tap. Insertion loss: 10 db tap - 0.7 db max.; 17 db tap - 0.3 db max.; 24 db tap - 0.25 db max. Frequency response: 54-220 mc. Isolation: 30 db min. Fittings included. Mounts to messenger or pole. Price: \$4.50.

935/308-Fittings for .480 OD corrugated cables. Price: \$4.50.

935/412-Fittings for .412 OD aluminum cables. Price: \$7.50.

935/500-Fittings for .500 aluminum cable. \$8.50.

#### WESTBURY CATV CORP.

Tapoff, outdoor type, Model PT. Will accommodate two tap-offs from single block. Choice of capacitive or resistive inserts. Available for 4 different cable types. 1- for RG-11/U, single shield; 2- for RG-11/U double shield and jacket; 3- for 1/2" Foam or Solid dielectric; 4for 3/8" Foamflex. PNS.

Polethylene plug, type BP. For plugging unused tap connection of PT tapoff.

#### **TRANSMISSION LINES**

### **COAXIAL CABLE**

#### ANDREW CORPORATION

Foam Heliax coaxial cable. Available with or without jacket. Outer conductor corrugated for greater flexibility. Inner and outer conductors of solid copper.

FH4-1/2" with foam polyethylene dielectric; 50 ohm impedance; 1.0 attenuation (db/100 ft.) at 150 mc. \$500.00/M.

FHJ4-Same as FH4 with jacket. \$700.00/.



FH5-7/8" with foam poly dielectric; characteristic impedance is 50 ohms; 0.6 attenuation at 150 mc. \$1,250/M.

FHJ5-Same as FH5 with jacket. \$1,550.00/M.

#### BRAND REX

Copperfoam coaxial cables. Foamed polyethylene dielectric; corrugated copper shield longitudinally applied with overlap. Cables are available with 1/4" or .109" integrated messenger,

T-179-Coax with bare solid copper center conductor. Foam dielectric; non-contaminating poly jacket, 1.05 db/100 ft. nom.

T-180-Foam poly dielectric, poly jacket. Corrugated copper shield; 1.05 db/100 ft. nom.

#### CAS MFG. CO.

Coaxial cables.

Description Туре 59/ES-.246 O.D.-HMW-House drop

59/FSM\*-.246 O.D.HMW-House drop

S11/FS-Strip braid-HMW-polyfoam-1.32 db loss at channel 6

40/FS-(408 type) strip braid-HMW-polyfoam 1.6 db loss at channel 13

40/FD-Same as above except double shield



S11/FSM\*-Strip braid-HMW-polyfoam-1.32 db loss at channel 6, \$76.60/m.

- 40/FSM\*-Same as above except low loss at channel 13.
- 35/FS-Very low loss (RG-35 type) HMW-polyfoamstrip braid, 1.3 db loss at channel 13 -.632 O.D.
- 35/FD-Same as above except double shield.

\*(Indicates messenger support extruded into jacket).

DAVCO ELECTRONICS CORP. Distributor of Plastoid coaxial cables.

#### REPTRONICS

Independent manufacturer's representative handling Plastoid coaxial cables and accessories.

#### TELCO

Distributor of Brand Rex copperfoam coaxial cables. PHELPS DODGE ELECTRONICS

FX-12-75-Trunk/feeder coaxial transmission line

1/2" with foam dielectirc, poly jacket and solid aluminum tube shield. 75 ohm impedance; 1.3 db attenuation at 200 mc. Also available in 50 and 100 ohm.



ST-12-75-Air dielectric coax transmission line, 1/2" and 75 ohm. Use as trunk or feeder for 1.0 db loss at 200 mc. olid aluminum tube shield; poly jacket. Also comes in 50, 70 and 100 ohm. CF-12-75-Flexible foam coax with poly jacket; 75 ohm impedance for trunk and feeder use.

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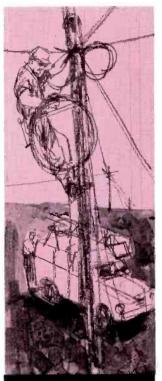
**BLONDER TONGUE - BENCO** put used. Net: \$18.60.



FIELD ENGINEERING



Jim Stilwell Engineering, System Planning, Equipment Evaluation and Design.



CATV CONSTRUCTION



Joe Dickson "On Time" Construction, Efficient Manpower Utilization, Experienced Knowhow.



J. Fred Weber System Promotion & Advertising Programs, "AIDA" Promotion, Proven Subscriber Builders.



Charles Wigutow System Management, Operating Techniques & Procedures, Personnel Training

## What's So Good About TSC?

**Good People**...and TSC is staffed with the finest technical and management talent in the CATV industry. Each of us has grown up with every phase of the CATV business and in turn we have contributed engineering techniques, equipment, and advanced management programs that have helped the CATV Industry grow.

This creative approach to CATV has enabled TSC to build over 3,000,000 feet of plant this year ... manage and operate 31 CATV towns ... and sell over 13,000 connections for other systems through our Community System Advertising Department.

**For You**—we can evaluate a potential CATV community, plan and build the system, staff and train personnel for the system, sign up subscribers, and even operate your system for you!

Want more facts about the fastest growing team in the CATV business? Call TSC!



#### TELESYSTEMS CORPORATION

113 South Easton Road, Glenside, Pennsylvania • 215 TU4-6635

Corrugated aluminum tape shield. Loss per 100 ft. at 200 mc is 1.25. Cable also available in 50 and 70 ohm.

#### PLASTOID CORPORATION

Broadband and Allband cables for CATV. Swept and thoroughly tested at factory. Cable available with or without poly outer jacket and inner iacket of either solid aluminum sheath or flat/ wire braid and copper or copperweld conductor. CT-48-Corrugated coaxial cable. Shield is longi tudinally applied 5 MIL corrugated copper. Foam poly dielectric with poly jacketing. Nominal db per 100 ft, at channel 13 is 1.40.

TA4-Solid aluminum sheath coax with foam dielectric. Semi-flexible for easy handling. 1.60 nominal attenuation on chanel 13.

TA4J-Same as TA4 with overall poly jacket.

TA5-Foam poly dielectric; solid aluminum sheath for trunk line use. 1.26 db/100 ft. at channel 13. TA5J—Solid sheath, foam poly dielectric with outer jacket of black poly. 1.26 db/100 ft. at channel 13

PP 20420-Trunk line with flat braid shield, black poly jacket, foam dielectric and copper conductor. Db per 100 feet at channel 13 is 1.3.

PP 20421-Double shielded with flat broad, black poly jacket and copper conductor. 1.3 db - channel 13: .77 db - channel 6.

PP 15075-Black poly outer jacket on trunk line with bare copper (solid) conductor; wire braid shield, foam dielectric. Channel 13 - 1.49 db.

PP 15075-Double shield/double jacket trunk; foam dielectric, outer and inner jacket of black poly; outer and inner shield of wire braid. 1.49 db/100 ft., channel 13.

PP 20423-Trunk or feeder line with flat braid shield, foam dielectric, solid copper conductor. 1.01 db at channel 6.

PP 20395-Double shielded trunk or feeder. Black poly jacket; inner/outer shield flat braid. 1.6 db/channel 13. Foam poly dielectric and solid copper conductor.

PP 21429-Trunk or feeder with messenger of 2M Ib. breaking point steel. Foam dielectric, black poly jacket, flat braid shield. Db/100 ft. at channel 13 is 1.6.

PP 21493-Integrated messenger on double shielded trunk or feeder. Shields of flat braid, foam dielectric, poly jacket. Channel 13 - 1,6 db,

PP 20351-Single shielded/jacketed feeder with foam dielectric, copper conductor. Shield is flat braid; jacket black poly. Channel 6, 1.18 db.

PP 20422-Double shielded feeder line, oth shields of flat braid: jacket of black poly, 2.08 db at chanel 13.

PP 14145-11/U feeder. Poly jacket; foam dielectric; wire braid; copper conductor. 1.36 db at channel 6.

PP 15077-Double shielded/jacketed 11/U. Jackets of black poly; shields are wire braid. 2.3 db at channel 13.

PP 15259-59/U house drop with .025" copperweld (solid) conductor; foam dielectric, wire braid shield and black PVC jacket. Channel 13 - 3.93 db/100 ft.

PP 15080-House drop 59/U, .032" bare copperweld conductor: 3.64 at channel 13.

PP 15079—Double shielded/jacketed 59/U house drop. Outer/inner jacket black poly; outer /inner shield wire braid. Foam dielectric; copperweld conductor, 1,92 db at channel 6,

PP 16387-59/U house drop with integrated messenger of steel with 350 lb. breaking point, 3.64 db at channel 13. Jacket of black PVC; wire braid shield; copperweld conductor, foam poly dielectric.

PP 423-59/U house drop, .025 soli dcopperweld conductor; solid poly dielectric; wire braid shield; black PVC jacket. 5.58 db at channel 13.

PP 15091—Same as PP 423 except black poly iacket.

PP 16334-House drop 59/U with integrated messenger. Black PVC jacket, wire braid shield, solid poly dielectric, solid bare copperweld conductor, 350 lb, steel messenger. 5.58 db at channel 13.

#### PRODELIN

Low attenuation, Spir-O-Foam coaxial cable. Designed for CATV applications. Spir-O-Foam consists of a high conductivity copper inner conductor encircled by a cellular polyethylene dielectric foam. This core is contained by a commercially pure high strength aluminum sheath. This part construction possesses inherent three strength that is highly crush resistant and ensures accurate centering of the copper inner conductor throughout the cable length. Available in continuous lengths up to 1000'. Optional polyethylene jacket is available for direct burial, operation in corrosive atmospheres, or submarine applications. Lengths of 500' and longer are shipped on non-returnable reels at no extra charge. 75 ohm impedance.

Spir-O-Line coaxial cable. Excellent for feeding 6 kMc antenna systems. Several sizes available with either plain aluminum sheath or polyethylene jacketed. Spir-O-Line was designed and developed to replace sectional air or solid dielectric transmission line. The outer conductor is commercially pure aluminum sheath. In addition to the natural strength of the sheath, additional crush resistance is obtained through the support of six polyethylene tubes which are in tangenital contact with the high conductivity copper inner conductor. Contact Prodelin for further information.

#### SUPERIOR CABLE CORPORATION

Coaxial cables available in single and double shields and standard or messenger types.

4920-Feeder with polyethylene jacket. 12AWG bare solid copper conductor; .005" corrugated copper shield, 1.50 db at channel 13 nom, attenuation: "Cell-O-Air" dielectric.

4920T—Same as 4920 except with jacket marked by monofiliament poly for trunk line use.

5020-12AWG copper conductor; .005 corrugated copper shield; poly jacket "Cell-O-Air" dielectric plus 1/4" 7-wire steel figure 8 messenger.

5120—Same as 5020 except ,134" steel messenger.

5420-Double shielded 12AGW solid copper conductor; corrugated copper shield over jacket plus outer jacket of polyethylene. Designed for direct burial use.

4930-Trunk cable with 9AWG bare solid copper conductor; "Cell-O-Air" dielectric; corrugated copper shield; poly jacket. Nominal attenuation 1.05 at channel 13.

5030-9AWG solid copper conductor; copper shield plus 1/4" 7-wire steel figure 8 messenger.

5430-Poly jacket, 9AWG copper conductor, copper shield plus additional .005 corrugated copper shield and poly outer jacket extruded overall.

JT-1412-Feeder coax semi-flexible with 412" seamless aluminum sheath, Impedance uniformity (average VSWR) 1.05 on channels 2 through 13; maximum attenuation (db/100 ft.) 1.05 at channel 6.

JT-1412J—Same as 1412 except jacketed with Xelon,

JT-1500–1/2" seamless aluminum tube sheath for feeder/trunk use. 1.40 attenuation on channel 13. JT-1500J-Same as 1500 except Xelon jacket.

JT-1750-3/4" seamless aluminum sheath cable provides low loss trunk line use. Maximum attenuation on channel 13 is 1.03; channel 6 .60.

#### TIMES WIRE AND CABLE



Standard and special purpose coaxial cable. Complete cable assemblies. Transmission system design and engineering. Times' CATV cables are available for immediate delivery.

Coaxial Cable for Drop Line Service

JEL-105-Solid polyethylene dielectric. Long life Xelon jacket. Copper braid.

JEL-105-MS-Messengered cable. Solid polyethylene dielectric. Long life Xelon jacket.

JT-205—Foamed polyethylene dielectric. Long life Xelon jacket. Copper braid.

JT-205-MS-Messengered cable. Foamed polyethylene dielectric, Long life Xelon jacket.

RG-59/U-Solid polyethylene, dielectric. PVC jacket. Color-black, Copper braid,

RG-59/U-MS-Messengered cable. Solid polyethylene dielectric. Copper braid.

Coaxial Cable for Feeder Line Service

JT-400D—Transportation trunk and feeder line. Cable sweeps flat within .5 db in 40 db of cable. Strip copper braid. Long life Xelon jacket. Foamed



P.O.BOX 35606 DALLAS 35. TEXAS

# The **NEW** Coaxial Cable With The **MODERN** Design -CT-48 CORRUGATED COPPER SHIELDED

Longitudinally Applied 5 MIL Corrugated Copper Shield

- Much LOWER ATTENUATION Than Conventional Braided Shielding
- Greater Resistance To Crushing
- Protection Against Radiation Leakage Vastly Improved
- · More Corrugations Per Foot Provides Improved Cable Flexibility
- Longer Cable Life Through Tubular Shielding
- Impedance Uniformity
- Low Loss Foam Polyethylene Dielectric
- Put Up Approximately 3000 Feet Per Reel



		РНҮ	SICAL AND	ELECTRICAL	STANDARDS		
TYPE	NOM. O.D. Conductor	NOM. O.D. Dielectric	NDM. O.D. Shielding	NOM. O.D. Jacketing	NOM. db per 100 ft. Channel #6	NOM. db per 100 ft. Channel #13	Shipping Wt. Ibs. per M ft.
CT-48	.080″	.360″	.400″	.480″	.855	1.40	85

For Immediate Delivery and Special Pricing — Wire or Write.



42-61 24TH STREET / LONG ISLAND CITY 1, N. Y. / ST 6-6200

poly dielectric. Loss/100', .3 db at 100 mc.

JT-400S—Transportation trunk and feeder line. Cable sweeps flat within .5 db in 40 db of cable. Loss/100', 1.3 db at channel 13. Strip copper braid. Long life Xelon jacket. Foamed poly dielectric.

JT-404D-Trunk and feeder line cable. Cable sweeps flat within .5 db of 40 db of cable. Long life Xelon jacket. Foamed poly dielectric. Strip copper braid. Loss/100', 2.2 db at channel 13.

JT-404S-Trunk and feeder line cable. Cable sweeps flat within .5 db in 40 db of cable. Long life Xelon jacket. Strip copper braid. Foamed poly dielectric. Loss/100', 2.2 db at channel 13.

JT-408D-Truck and feeder line cable. Cable sweeps flat within .5 db in 40 db of cable. Strip copper braid. Long life Xelon jacket. Foamed poly dielectric. Loss/100', 1.6 db at channel 13.

JT-408S-Trunk and feeder line cable. Cable sweeps flat within .5 db in 40 db of cable. Long life Xelon jacket. Strip copper braid. Foamed poly dielectric. Loss/100', 1.6 db at channel 13. Coaxial Cable for Trunk Line Service

(See Feeder Line cables also)

JT-408SR-Trunk and feeder line cable. Cable sweeps flat within .5 db in 40 db of cable. Long life Xelon jacket. Strip copper braid. Foamed poly dielectric. Ridge extruded into jacket for permanent identification as trunk line. Loss/100', 1.6 db at channel 13.

JT-408DR—Trunk and feeder line cable. Cable sweeps flat within .5 db for 40 db of cable. Long life Xelon jacket. Strip copper braid. Foamed poly dielectric. Ridge extruded into jacket for permanent identification as trunk line. Loss/100', 1.6 db at channel 13.

JT-404DR-Specially coded trunkline. Cable sweeps flat within .5 db in 40 db of cable. Cable has ridge extruded into jacket for easy identification of trunk versus feeder. Loss/100', 2.2 db at channel 13. Long life Xelon jacket. Foamed poly dielectric. Strip coper braid, (Range of all the listed cables is 20-220 mc.)

#### VIKING CABLE COMPANY

Swept and thoroughly tested coaxial cables. Available in standard and messenger types and in single and double shields.

59U-Available in single and double shielded types for house drops.

RG-59U-Single shield. Non-contaminating poly jacket. Loss: 5.6 db at channel 13. Price: \$27.00/M. 59UDS-Double shield. Non-contaminating double poly jacket. Loss: 5.6 db at channel 13. Price: \$50.00/M.

F59-Single shield. Foam dielectric. Low loss. Price: \$26.50/M.

FD-59-Double shield. Foam dielectric. Low loss. Price: \$50.00/M.

11U-Available in single and double shielded types for main line distribution cable, foam and strip braid types.

RG-11U-Single shield. Non-contaminating jacket. Price: \$80.00/M,

RG-11UD-Double shield. Non-contaminating jacket. Price: \$110.00/M.

F11-Single shield. Foam dielectric. Non-contami-

## WAIT

until you receive your gigantic Davco Catalog before placing another order for CATV equipment & supplies

DAVCO **ELECTRONIC CORPORATION** P.O. Box 861 - Batesville, Ark. nating jacket. Loss: 2.35 db at channel 13. Price: \$63.00/M.

FD11-Double shield. Foam dielectric. Non-contaminating jacket. Loss: 2.35 db at channel 13. Price: \$105.00/M.

VK11-Single strip braid shield. Foam dielectric. Non-contaminating jacket. Loss: 2.2 db at channel 13. Price: \$65.00/M.

VKD11-Double strip braid shield. Foam dielectric. Non-contaminating jacket. Loss: 2.2 db at channel 13. Price: \$85.00/M.

VK300-Single strip braid shield. Low loss foam cable. (Lowest loss of the series.) Price: \$175.00/M. VKD300-Double strip braid shield. Low loss foam cable. (Lowest loss of the series.) Price: \$205.00/M. VK308-Single strip braid shield. Foam dielectric. Non-contaminating jacket. Loss: 1.65 db at channel 13. Price: \$85.00/M.



VKD308-Double strip braid shield. Foam dielectric. Non-contaminating jacket. Loss: 1.65 db at channel 13. Price: \$105.00/M.

Coaxial Cables with built-in Messenger Cable 59UM-59U cable with built-in messenger. Price:

\$36.00/M.

F59UM-Foam 59U cable with built-in messenger. Price: \$36.00/M.

F11M-Foam 11U with built-in messenger. Single shield. Price: \$83.00/M.

FD11M-Foam 11U with built-in messenger, Double shield, Price: \$103.00/M.

VK308M—Same as VK308 shown above, with built-in messenger. Price: \$105.00/M.

VKD308M-Same as VKD308 shown above, with built-in messenger. Price: \$125.00/M.

VK1500-Solid sheath seamless aluminum cable. Low loss foam center with attenuation characteristics of .84 on channel 6 and 1.40 on channel 13. Price: \$161.00/M.

VK1500J—Same as above with long life noncontaminating polyethylene jacket. Price: \$203.00/M. VK1412-Solid sheath seamless aluminum cable with foam center dielectric. Low loss on channel 6 of 1.05 and channel 13 of 1.65. Price: \$116.00/M.

VK1412J-Same as above with long life noncontaminating polyethylene jacket. Price: \$153.00/M. CF480—"Coppa flex" copper corrugated cable. 480 O.D. with low loss foam center dielectric. Attenuation characteristics of 1.01 on channel 6 and 1.65 on channel 13. Price: \$105.00/M.

#### WAVEGUIDE ANDREW CORPORATION

Complete selection of waveguide bends, twists, gas barriers, for WR 137 size. Write for infor-

**RF SYSTEMS, INC.** 

Write for complete specifications and price infor-

mation on waveguide.

#### FITTINGS

AMECO

mation.

Cable connectors for all applications.

#### ANDREW CORPORATION

44P-UHF plug for 1/2" cable; female. Net: \$3.00. 44U-UHF jack, male for 1/2". Net: \$4.00. 44W-1/2" N plug, female. Net: \$5.50. 44N-Type N jack, male for 1/2" cable. Net: \$3.10. 44T-End terminal (1/2"). Net: \$7.50. 45P-Female UHF plug for 7/8" cable. Net: \$7.50. 45U-Jack, UHF, male fitting for 7/8". Net: \$8.00. 45W-N plug for 7/8" cable; female. Net: \$6.50. 45N-N jack for 7/8"; male. Net: \$6.10. 45T-7/8" end terminal. Net: \$10.50.

#### **BLONDER TONGUE - BENCO**

CL-5959-Couples 2 RG-59/U cables. Net: \$1.85. CL-1111-Couples 2 RG-11/U cables. Net: \$1.85. CL-1159-Couples RG-11/U cable to RG-59/U cable Net: \$1.85.

MC-Couples 2 UHF type male plugs. Also may be used as a feed thru bushing. Net: \$1.75.

P-115-RG-11/U UHF type male plug. Solderless. Net: \$1.00.

P-59S-RG-59/U UHF type male plug. Solderless. Net: \$1.00.

M71-Male plug for RG-11/U cable. Mates with M64. Net: \$2.30.

M72-Male plug for RG-11/U cable. Mates with M64. Net: \$2.30.

M73—Male plug for RG-59/U cable. Mates with M64. Net: \$.45.

M74—Male plug for BAL-11F cable. Mates with M64. Net: \$3.20.

POU-59-Push-on UHF type male plug. PNS.

POB-59-Push-on Benconnector plug. PNS.

MTP-75-For UHF type SO-239 connectors, 75 ohm 1/2 watt. Net: \$1.75.

M-65-Mates with M60 Benconnector. 75 ohm 1/2 watt. Net: \$1.55.

M-66-Mates with M60 Benconnector. 75 ohm 2 watt. Net: \$3.75.

TC-5975-For QD connectors. 75 ohm 1/4 watt. Net: \$ 90

M-67-Female terminator. Mates with M63, M71, M73 Benconnectors. 75 ohm 1/2 watt. Net: \$2.95.

#### **DAVCO ELECTRONICS**

Independent distributor of adapters, splices, fittings and "F" "C" UHF connectors. Write for prices and complete information.

#### JERROLD ELECTRONICS CORP.

Aluminum quick-mount connectors, Models F-412, F-500, F-750. No loss, quick-mount connectors for aluminum sheath cables. Permit introducing cable directly into weatherproof housings. Have excellent electrical match characteristics and exhibit VSWR of 1.04L1 or better at 200 mc.

Splice connectors. Models SC-412, SC-500, SC-750. Physically similar to cable connectors,

C-52—Fits RG-59 type cables. Male plug. Fits C-61, C-62 or C-81 fittings. PNS

C-56—Fits RG-6/U cable. Male plug. Fits C-61, C-62 or C-81 fittings. PNS

F-59—Fits RG-59 type cables. Male plug. Fits F-61 or F-81 fittings. PNS

F-56—Fits RG-6/U cable. Male plug. Fits F-61 or F-81 fittings. PNS

AF-101-Fits RG-11 type cables. Male plug. Fits F-61 or F-81 fittings. PNS.

AF-201-Fits JT-201, 204, 301, 304 cables. Male plug. Fits F-61 or F-81 fittings. PNS

AF-404-Fits JT-201, 204, 301, 304, 404 cables. Male plug, Fits F-61 or F-81 fittings, PNS

AF-408-Fits JT-408 cable. Male plug. Fits F-61 or F-81 fittings. PNS

F-101-59—Fits RG-11 type cables. Female plug. Mates with F-56, F-59 or any AF-series connectors. PNS

F-201-59-Fits JT-201, 204, 301, 304 cables. Female plug. Mates with F-56, F-59 or an AFseries connectors. PNS

F-404-59-Fits JT-201, 204, 301, 304, 404 cables. Female plug. Mates with F-56, F-59 or any AFseries connectors, PNS

F-408-59—Fits JT-408 cable. Female plug. Mates with F-56, F-59 and any AF-series connectors. PNS

F-200—Fits JT-200 cable. Female plug. Mates with F-56, F-59 and any AF-series connectors. PLASTOID

Write for complete listings of adaptors, splices and conectors for use with "Synkote" cables.

SUPERIOR CABLE CORP. SCC492A\*-"N" plug; 75 ohm. Price: \$2.50. SCC492UF\*-"UF" plug; 75 ohm. Price: \$2.50. SCC4925A-"N" plug; 50 ohm. Price: \$2.50. SCC493A\*-"N" plug; 75 ohm. Price: \$6.00 SCC493UF\*-"UF" plug; 75 ohm. Price: \$6.00

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SCC4935A-"N" plug; 50 ohm. Price: \$6.00. \*Captive contacts available for these plugs. SCC4921A-"N" jack; 75 ohm. Price: \$3.10. SCC492JA-"N" jack; 50 ohm. Price: \$3.10. SCC493JA-"N" jack; 75 ohm. Price: \$6.00. SCC493JA-"N" jack; 50 ohm. Price: \$6.00. SCC493JA-"N" adapter for UHF; 75 ohm. Price:

SCC4925U—"N" adapter for UHF; 50 ohm. Price: \$2.00.

#### PRODELIN

\$2.00

Spir-O-Line to waveguide adaptor. Used with RG-106/U waveguide. Adapts  $\frac{1}{2}$ " Spir-O-Line coaxial cable to RG-106/U waveguide (C-band). All aluminum construction. Available in either plain or choke joint flange. Also available with gas barrier when ordering choke joint flange (standard). Several models to cover the frequency range of 5925 to 7425 kMc. Price dependent upon model.

Coaxial fittings for Spiro-O-foam series, 1/2'' cable. Aluminum irridite finish, easy to assemble, positive mechanical and electrical connection, low cost.

#### **TELCO**

CF490FM—F Male Connector for .490" Cable \$4.35 CF-490FF—F Female Connector for .490" Cable 4.50 CF-490S— Splice Connector for .490" Cable 5.90 CF-650FM—F Male Connector for .650" Cable 6.95 CF-650FF—F Female Connector for .650" Cable 6.25 CF-650S— Splice Connector for .650" Cable 6.55

#### TELESYSTEM SERVICES CORP.

Complete line of connectors, bushings, splices, terminators and ferrules.

#### VIKING CABLE COMPANY

918—Termination plug for 75 ohm cable and equipment, Type "F". Price: \$1.10.

919—Termination plug for 75 ohm cable and equipment, Type "C". Price: \$1.00.

923—Adapts VK108 single & double to an chassis (female) fitting. Price: \$1.00.

**924**—Adapts VK108 single and double to an "F" type male fitting. (Viking No. 906) Price: \$1.00.

**906**—Male cable connector for standard RG59/U type cables "F" type. Price: \$ .40.

909-Male cable connector for standard RG59/U type cables "C" type. Price: \$ .40.

500SP-Inline splice complete for .500 O.D. aluminum cables \$4.25.

**500FF**—End fitting for .500 O.D. aluminum cables to adapt cable to F type female fitting, \$4.25.

500FM—End fitting for .500 O.D. aluminum cables to adapt cable to F type male fitting. \$4.25. 412SP—Inline splice complete for .412 O.D. alumi-

num cables \$2.65. 412FF—End fitting for O.D. aluminum cables to

adapt cable to F type female fitting, \$2.65. 412FM—End fitting for .412 O.D. aluminum cables to adapt cable to F type male fitting, \$2.65.

#### WESTBURY CATV CORP.\* Coaxial fittings.

Type Description

A101-RG6/U cable connector, w/ferrule.

FE-1—Ferrules for A101 (100)

A102-RG-59/U cable connector, w/ferrule.

FE-2-Ferrules for A102 (100)

A103-RG-59/U to RG-59/U female adapter.

(Supplied with mounting nut & washer.) A106—Chassis connector for use w/A101 or A102. A108A—Die cast connector for 1/2" to 1/2" Foamflex. A108B—Die cast connector for 3/8" to 3/8" Foamflex.

A108C--Cabinet entrance conector for 1/2" Foamflex to double shielded RG-59/U.

A108D-Cabinet entrance connector for 3/8" Foamflex to double shielded RG-59/U.

A107-75 ohm terminating plug for RG-59/U. A109-RG-11/U crimp type terminating plug.

A111-RG-11/U feedthru.

PL-259-RG-11/U cable connector

UG173/U-Reducing bushing for PL-259 for use with RG-59/U.



#### MESSENGER STRAND & GUY WIRE DAVCO ELECTRONICS CORP.

Line materials of all kinds carried in warehouse stock.

## INTERNATIONAL WIRE & CABLE COMPANY

**Plastigard guy wire.** Steel stranded plasticoated guy wire. Guards against corrosion, wind, snow, changes in temperature.

#### JACK PRUZAN COMPANY

**Galvanized steel guy strand.** Short lengths available in all sizes and grades. All strand in stock on 5000' reels except as noted.

- Size Description
- 1/16"-Gal, TV guy strand
- 4 x 20-1000' spools

6 x 20-1000' spools

- 3/16"-Galv. common strand; Utilities 2.4M
- in 5000' reels and 250' coils. 1/4''-Common strand, 2500' reels; Siemens Martin
- strand, 2500' reels; High strength 4.7M. 9/32''-Utilities 4.6M.
- 5/16"-Common; Siemens Martin, 1000' reels and
- 500' coils; Utilities 6M; High strength. 3/8"-Common; Siemens Martin, 500' coils; High
- strength; Utilities 10M.
- 7/16''-Common; Siemens Martin; High strength; Utilities 16M.
- 1/2"-Siemens Martin; High strength 25M.
- 1/4"-Copperweld 7 strand.

## POLE LINE HARDWARE

Complete stocks of galvanized bolts, anchors, pole bands, braces, brackets, bushings, caps, clamps, clips, connectors, crossarms, dampers, eyelets, eyes, grips, guards, guy attachments, hangers, hooks and the many-many other supplies necessary for pole line construction or attachment. New 1964 comprehensive catalog available.

#### TOOLS & SAFETY EQUIPMENT

#### **BLONDER TONGUE - BENCO**

CR-1-QD crimping tool and cutting pliers. S-1-Rotary cutter and stripper.

#### DAVCO ELECTRONICS CORP.

Large stock of construction and line tools maintained in Batesville warehouse. Portable AC generators, portable power drill (pays for itself in the first few hours use), nut drivers, pliers, wrenches and Weller soldering irons. Write for catalog.

#### JACK PRUZAN COMPANY

All tools available to outfit any lineman from belts to buckets. General tools such as snatch blocks, block and tackle, drawbars, cable grlps, and all forms of hand tools. Bashlin line of safety equipment available including climber pads and aluminum adjustable climbers. Complete, comprehensive catalog available.

#### JERROLD/TACO

PL-601-Used to crimp C-52 or F-59 ferrules. PL-602-Used to crimp ferrules on C-52, C-56, F-56, F-59, AF-101, AF-201, F-101-59, F-201-59,

F-30, F-39, AF-101, AF-201, F-101-39, F-201-39,
 AF-404 or F-404-59 connectors.
 PL-603-Used to crimp ferrules on AF-408, F-408-

59, C-52, F-59, F-408-59 or AF-408 connectors. VIKING CABLE CO.

E-Z Spread Tool 90718. Spreads all 59U type cables for easy application of "C" and "F" type

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#### fittings. Price \$4.00. WESTBURY CATV CORP.

CT-1—Coring tool set for PT-1 (RG-11/U single shield) and PT-2 (RG-11/U double shield and jacket). Net: \$5.00.

CT-4-Crimping tool for PT tapoffs. Net: \$5.00.

#### CABLE LASHING WIRE & ACCESSORIES

#### ABERDEEN COMPANY

Stainless steel, 0.045 diameter - type 430. Wax coated finish. 6 coils per carton. Competitively priced, with freight paid on orders of 18 or more coils. Prompt delivery from either coast.

#### JACK PRUZAN COMPANY

Cable lashing wire in stainless steel and galvanized. Also associated accessories such as cable lashers, bonding, slack pullers, rubber blankets, cable blocks, lashing wire grips, aerial cable guides, cable blocks, etc.

In stock cable lashing wire-stainless steel:

- .045 Straight hub
- .045 Cone hub
- .065 Straight hub
- .065 Cone hub
- In stock cable lashing wire—galvanized: .061 Cone hub
- .091 Straight hub

#### VIKING CABLE CO.

926-Stainless steel, 0.045 diameter - type 430. Wax coated finish, straight core. 1200 ft. rools packed 6 to ctn. cost / unit \$5.95.

#### TAPES & SPLICING

#### MATERIALS

#### DAVCO ELECTRONICS CORP.

Waterproofing materials: Dow Corning DC-4; SYNCO; black poly Devoseal tape; Blue Cross black cloth tape; Bishop Bi-Seal and assorted plastic tapes.

#### JACK PRUZAN COMPANY

All forms of tapes available from bi-seal to electrical filler, electrical vinyl, high voltage, friction, neoprene, splicing, rubber, paper and aluminum. Solders, sleeves and Scotchcast splicing kits plus other splicing accessories to fill all needs and requirements for splicing materials.

#### GROUND MATERIALS

#### & WIRES

#### JACK PRUZAN COMPANY

Complete stock of materials for proper grounding of wires, lines, cable, etc.

#### INTERNATIONAL WIRE & CABLE COMPANY\*

Ground rods. Made of heavy gauge steel-copper plated to prevent corrosion. Has permanently attached captive ground clamp.

925—All weather grip-tite, with extra grit for

tight adhesion. Made of strong hot dipped gal-

vanized steel to insure longer life and extra

CABLE HOUSINGS

"Cascade" Weatherproof cable splice housing.

For use with all conventional type splice connec-

tors. Special flexible washers are squeezed by

the threaded nuts on each end of the tube to

form pressure seals to keep out water and

Cable O.D.

.375-.500"

.500-.625"

100 or

more

\$3.50

6.25

41

1-99

\$3.75

6.75

durability. Welded joints. Cost / unit 19c.

#### VIKING CABLE COMPANY 920-Grounding block. Stainless steel pins. Simple, protected instalation for RG59 co-ax. No

coring or splicing required. Price: \$.45.

TELCO

moisture.

Cat. No.

442099

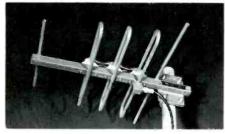
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#### **ANTENNAS**

#### **BROADBAND ANTENNAS CUSH CRAFT**

All Channel broadband Proline. Ruggedized 7element yagi for MATV and CATV systems. Elements are 1/2" and booms 11/4" round heavy wall seamless hard-drawn aluminum tubing. No holes in either booms or elements. Internal vibration dampers with element and boom ends sealed. Stainless steel fasteners. 300 ohm impedance. Gain: 4.5 db at ch. 2; 9.6 db at ch. 6; 10 db at ch. 13.

#### JERROLD/TACO

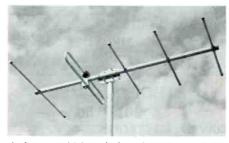


Multi-channel 5-element yagis, Y-53 series. 50 to 500 mc with models broad-banded to cover wide ranges within TV and communications spectrum. Especially applicable for multi-channel use for either high or low TV channels. Construction features include 11/2" square heliarc welded crossarm with 1/2" diameter elements reinforced with 5/8" sleeves. Gain at channel 2 is 7 db; at channel 6, 7 db and 7.5 db at channel 13. Three driven eements. Hermetically sealed terminal boxes. 50 ohm impedance.

Broadband VHF TV antennas, J-Series. True logperiodic design assuring extremely flat response and matched output over the entire band. Frontto-back ratio of 22 db. High gain of 81/2 db on high band and 8 db on the low band. 75 ohm impedance. Specify J55-LO for low band model; J105-HI for high band.

#### SINGLE CHANNEL ANTENNAS ALL PRODUCTS CO.

Ruggedized yagi, model YG-1000. Designed for



single or multiple-stacked vagi antenna systems. Unique attachment method of elements allows use of tubular boom for rigidity with minimum wind resistance. Withstands winds in excess of 100 knots in temperatures of minus 50 to plus 130o F. Folded dipole employs integrated balun inside the element. Antenna can be supplied as complete kit or in separate parts for installing basic antenna into present installation. 50-250 mc frequency range (specify). 50 or 70 ohm impedance. 10 db gain. 1.5:1 VSWR. Type "N" or "UHF" connectors. Available in both 4 or 8 yagi arrays.

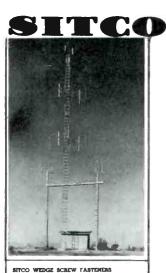
#### CATV EQUIPMENT CO.

Distributor of full line of SITCO antennas for community television systems.

**CUSH CRAFT** 



Ruggedized Proline. Machined all-aluminum ruggedized construction for MATV and CATV applications. Elements are 1/2", booms 11/4" round, heavy wall seamless hard-drawn aluminum tubing. No holes in booms or elements. Direct 52 or 72 ohm coaxial feed, available with all type con-



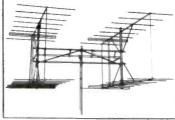
Write for Free SITCO Catalog

Heavy Duty Quads and Yagis

Designed by SITCO for Translator off-the-air pickup, Community TV and extreme fringe area requirements.

The SITCO Models 94 and 102 Quad Mount Antenna Arrays are designed to produce high gain, high front-to-back ratio and large aperture to weak signals. A completely balanced system which reduces noise pick-up and greatly improves the signal-to-noise ratio.

NOW, all SITCO element ends are machined to reduce static leakage. The signal-to-noise ratio is increased at sites where signal levels are low.



Model No. 94-HD 32-element Quad Channels 5 or 6



Mode No. 102-HD 48-element Quad For all hi-band channels

nectors. Internal vibration dampers. Element and boom ends sealed; stainless steel fasteners. Lochannel model has 5 elements; Hi-channel models with 5 or 10 elements. Supplied for entire VHF-UHF spectrum, Gain: 9.6 db at ch. 2; 9.6 db at ch. 6; 12.5 db at ch. 13.

Heavy Duty Proline. Same as above except that elements are 3/4" and booms 15/8" round, heavy wall seamless hard-drawn aluminum tubing. Designed for CATV high tower installations.

#### DAVCO ELECTRONICS CORP.

Distributor of full line of SITCO antennas and mounting hardware for CATV.

#### JERROLD/TACO

Cut-to-Channel and FM yagis, J-Series. Ruggedized single-channel models precisely cut for channels 2-5 and 7-13. Have high gains of 10.5 db over reference dipoles on the high channels and 8 db on low channels 2-6. 75 ohm impedance. Order by channel.

Screen reflector yagis, SY-41 and SY-42 series. For single-channel, high band, applications. Screen type yagis have high front-to-back ratios and high gain. All models feature heavy-duty welded construction. Will mount easily to tower mounts. SY-41 models consist of a single 4-element yagi on a screen reflector. Yagi elements are 1/2' aluminum alloy with  $5\!\%''$  reinforcing sleeves. Reflector is made with  $11\!4''$  aluminum frame and 3/8" reflecting rods. SY-42 models have two 4element yagis on a screen reflector and are supplied with combining lines providing a single coaxial input. (Specify high band channel.) 50 ohm impedance.

5-element multi-driven yagis, Y-51 series. Selection of two or three driven elements enables the design engineer to select narrow or broad band response with impedance, pattern and gain characteristics to obtain highest possible efficiency. 50 to 112 mc. Features narrow bandwidths and sharp patterns. Relatively flat response over the frequency range and sharp drop-off outside the desired band. Standard models to cover each VHF TV channel and the FM band. 8 db gain. Constructed with 11/4" square crossarm and elements of 5%" diameter with 34" reinforcing sleeves. Hermetically sealed terminal boxes. 50 ohm impedance.

5-element multi-driven ruggedized, yagis, Y-54 series. 30 to 88 mc. This series is more ruggedly constructed than Y-51, to provide additional strength required in areas subject to exceptionally high winds and very heavy ice loading. Crossarms are 2" square and elements are 3/4" diameter with 7⁄8" reinforcing sleeves. Hermetically sealed terminal boxes. 8 db gain, 50 ohm impedance.

8-element multi-driven yagis, Y-81 series. 50-66 mc. Two models available with standard ruggedized yagi construction. Three driven elements, 10 db gain at channel 2. Heliarc welded crossarm is 11/4" in diameter. 5%" elements are reinforced with 7/8" sleeves. Hermetically sealed terminal boxes. 50 ohm impedance.

Triple-driven dipoles Y-101 series. 8 and 10 element low-band yagis. Three driven elements. Same construction features as Y-81 series. 11.2 db gain at channel 6. Available for 66-88 mc. 50 ohm impedance

10-element high-band yagis, Y-102 series. Utilizes two or three driven elements. Same ruggedized construction as above. 112-163 mc. 50 ohm impedance

10-element high-band yagis, Y-103 series. Two driven elements. For television channels 7-13. Provides 12 db gain at channel 13. Construction same as preceding listings. 50 ohm impedance. **RF SYSTEMS, INC.** 

Ruggedized yagis. Circular cross section, full retention of vibration dampeners; full feedpoint protection. Constant impedance type "N" connectors. Specially designed support systems. Write for spec sheets and prices.

TOOL COMPANY

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## **PROLINE** Master and Community TELEVISION ANTENNAS



The achievement of five years of research and development. Professional line means quality through precision machined-all aluminum construction, performance through tested electrical design and value through moderate pricing. Leading equipment manufacturers specify Proline for more solid value and performance.

## PROLINE MATV ANTENNAS

CHANNELS	NO. ELEMENTS	MODEL NO.	NET PRICE
2	5	PL-25	\$52.50
3	5	PL-35	52.50
4	5	PL-45	41.70
5	5	PL-55	41.70
6	5	PL-65	41.70
7 thru 13	5	PL-Chn/l -5	28.40
7 thru 13	10	PL-Chn'l -10	46.50

#### PROLINE CATV ANTENNAS

CHANNELS	NO. ELEMENTS	MODEL NO.	NET PRICE
2	5	PLH-25	\$72.75
3	5	PLH-35	72.75
4	5	PLH-45	64.50
5	5	PLH-55	64.50
6	5	PLH-65	64.50
7 thru 13	5	PLH-Chn'l -5	49.60
7 thru 13	10	PLH-Chn'l -10	77.50

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discusses the CATV System and construction utilizing CUSHCRAFT Proline Antennas and equipment of other leading manufacturers.

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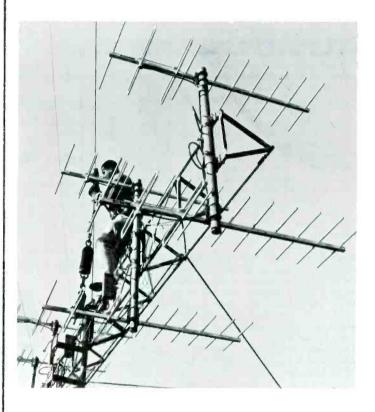
TV & COMMUNICATIONS

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P.O. Box 8597 - Fort Worth, Texas - (817) GL 1-1281

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#### SIMPLICITY TOOL COMPANY\*

Low band, quad yagi array, Model 94. Designed for off-air pickup in extreme fringe areas. Available for all of the low band channels. Quad array has a total of 32 elements. Boom length varies from 157" (Channel 6) to 230" (Channel 2). 8 elements per single yagi, 4 yagis per configuration. Forward gain: 20 db as measured in reference to a single dipole in free space. Frontto-back ratio: 12.7 to 1 as measured on relative field strength basis. 300 ohm feed impedance. Net: Varies from \$408.00 each at Channel 2 to \$282.00 each at Channel 6.

High band, quad yagi array, Model 102. Complete 48 element array. Used for off-the-air pickup in extreme fringe areas. Available for all high band channels. Boom length varies from 97" (Channel 13) to 116" (Channel 7). Forward Gain: 20 db, as measured in respect to a single dipole in free space. 17 to 1 front-to-back ratio. 300 ohm feed impedance. Net: Varies from \$141.20 each for Channel 7 to \$124.80 each at Channel 13.

Single-channel high band yagi, Model 9312-HD. Designed for extreme fringe areas. Ruggedized heavy-duty construction. Antenna has 12 elements. Boom lengths vary from 97" (Channel 13) to 116" (Channel 7). Forward gain: 15 db. Front-to-back ratio: 15.7 to 1. 300 ohm feed impedance. Net: Varies from \$23.80 each for Channel 7 to \$20.85 each for Channel 13.

Single-channel, high band yagi, Model 718-HD. High band, cut-to-channel yagi designed for offthe-air pickup in extreme fringe areas. 8 element antenna with a forward gain of 13 db. Boom length varies from 64" (Channel 13) to 76" (Channel 7). Ruggedized, heavy-duty construction. Front-to-back ratio: 12.3 to 1. 300 ohm feed impedance. Net: \$18.95 for all models.

Low band, single-channel yagi, Model 848-HD. Ruggedized heavy-duty construction. Forward gain: 14 db. 8-element antenna with boom length that varies from 157" (Channel 6) to 230" (Channel 2). 9.2 to 1 front-to-back ratio. 300 ohm feed impedance. Net: varies from \$54.75 (Channel 2) to \$35.80 (Channel 6).

ANTENNAS FM B & K MFG. CO., Division of Dynascan Corporation\* MARK Stereo 7 FM Antenna. Horizontally polarized, omnidirectional 7-element array for FM. 30" wide, 22" high, 5½" deep. Antenna is supplied complete with all hardware for easy mast mounting.

#### JERROLD/TACO

Ruggedized yagi for FM. Model Y104 series. 10element low-band multi-driven yagi also used for communications and special purposes. Ruggedized design features heliarc welding, square crossarms, hermetically sealed terminal boxes. Available for frequencies from 43-88 mc. 50 ohm impedance. J-Series broadband and cut-to-channel antennas. (See Broadband and Single Channel listings.) Highly directional ruggedized units. Model J55-FM. Provides high gain, flat response. 75 ohm impedance.

#### ANTENNAS UHF

#### DAVCO ELECTRONICS CORP.

Distributor of full line of SITCO antennas and mounting hardware for CATV.

#### SIMPLICITY TOOL COMPANY

Single-channel, UHF yagi quad-array, Model 106. Ruggedized array, designed for minimum torque twist and built to withstand heavy icing or winds. Has a forward gain of 20 db and a front-to-back ratio of 14 to 1. Beamwidth at half-power points (horizontal plane) is 18 degrees. Ultimate in extreme fringe area usage. Features a total of 48 elements (12 elements per yagi).

#### JERROLD/TACO



UHF screen antennas, SB-series. Designed to withstand the most adverse weather conditions. Used for off-air reception for community or MATV systems. In MATV not incorporating electronic amplification, the very high gain of these antennas makes possible signal distribution through dividing networks with satisfactory results. Units are ruggedly constructed, factory assembled, ready-to-install. When 75 ohm coaxial input is desired, order SB-3048 tapered line balun. Model SB-16 consists of 16 bow-tie elements on  $39'' \times$ 66'' screen. SB-32 has 32 bow-tie elements on 78'' x 66'' screen. SB-64 has 64 bow-tie elements on 78'' x 132 screen. SB-16 series provides gain of 17 db, SB-32 gain is 20 db, and SB-64 provides gain of 23 db. All three series are for television channels 14-83 (specify channel when ordering). 300 ohm impedance.

Heavy-duty UHF parabolic, J3065 series. Designed to meet the need for highly directional rugged antenna for fringe and super-fringe reception of UHF stations, channels 14 to 83, including MPATI channels 72 and 76. 75 or 300 ohm models.

#### MICROWAVE ANTENNAS

#### ADLER ELECTRONICS, INC.\*

Microwave antenna, Model JF2KM. Light weight corner reflector type for use in the 2000 Mc range. Gain: 9 db over isotropic, 60 degree horizontal angle at half-power point.

#### ANDREW CORPORATION

**Dual polarized parabolic sereis.** Models PX4-59, PX6-59, PX8-59 and PX10-59, 4 to 10 ft. diameters. Designed for propagating orthogonal signals in relay or stl. applications. 5.9 - 6.4 Gc. Utilizes horn feed. Welded and riveted aluminum construction; pipe or roof mounts optional. Connector type UG343A/U. VSWR of 1.1:1 or less. 4' dia., \$475; 6' dia., \$560; 8' dia., \$870; 10' dia., \$1,125. **Plane polarized parabolic series.** Models P4-59, P6-59, P8-59 and P10-59. Used as radiators for relay and stl. specifications same as PX series. 4' dia., \$230; 6' dia., \$315; 8' dia., \$625; 10' dia., \$975.

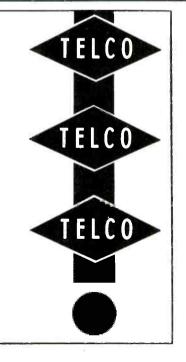
#### **JERROLD/TACO**

**2500-2700 mc ITV Antenna**. New lightweight microwave antenna for educational television in Instructional Television Fixed Service. Available in 4 and 6 ft. diameters parabolic antenna design produces gain, relative to linear isotropic radiator, of 27 and 30 db respectively. Total weight, including mount, is less than 50 lbs. Withstands winds to 100 m.p.h. Cast dipole element requires no guying. Provisions are made for installing the

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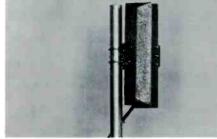
CARTERFONE is being successfully used in all types of 2-way radio systems throughout the world.

CARTER ELECTRONICS CORP. 6762 Greenville Ave. Dallas 31, Texas feed for either vertical or horizontal linear polarization. Models EPA-4 and EPA-6.

#### MARK PRODUCTS DIVISION of the Dynascan Corporation\*

Aluminum parabolas for 1700 to 2200 mcs; 5800 to 7750 mcs; 12,200 to 12,700 mcs. Grid parabolas for 1700 to 2200 mcs. Parabolas for the 5800 to 7750 mcs range except for the 2 ft. dish, utilize circular wavequide feed, driven from a transition which converts the rectangular waveguide to circular feed. Specially designed transition section allows fast polarization change. Termination is UG-343A/U broadband choke flange. Aluminum parabola for the 1700 to 2200 mcs range and grid parabolas for this range utilize a 7/8" E.I.A. swivel flange as the termination. Mounts are available for all antennas except for the 5800 to 7750 mcs 2' dish which comes complete with a ball and socket swive! mounting.

#### MICROLINK CORPORATION



2500-2700 mc ITV Antenna. New microwave receiving antenna for Instructional Television Fixed Service. Compact, mast-mounted unit is supplied with receiving converter and power amplifier. Write for complete details.

Passive reflectors and microwave antennas. Current data not supplied; write manufacturer for information.

#### **PRODELIN\***



Spun aluminum parabolic antennas for the range of 400 to 7425 kmc. Antennas are supplied with the hardware for mounting to a Prodelin pipe mount and provide azimuth and elevation adjustment of plus or minus 7 degrees. Antennas are adapted to four point mounting as indicated in the installation drawings which are furnished with all antennas. All parts made of steel are hot-dipped galvanized after fabrication. All aluminum parts are painted and brass parts are plated. Write for complete information on microwave dishes and reflectors.

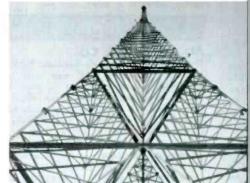
#### **ROHN MANUFACTURING CO.**

Microwave passive reflectors. Made of Reynolds aluminum interlocking extrusions. Three standard sizes;  $6 \times 8'$ ,  $8 \times 12'$  and  $10 \times 15'$ . Weight of reflectors is 140, 280 and 438 pounds respectively. Easy field assembly.

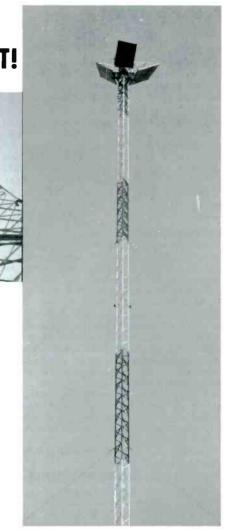
#### UTILITY TOWER CO.

"Microflector" passive microwave reflectors. Newly designed for ruggedness, maximum versatility and ease of installation and shipping. Wind loading of psf with 1/2" ice loading is carried without complicated and costly network of back-up bracing. Available in one piece or completely knocked down. Constructed of 12" wide 6063-T6 aluminum alloy. Hot-dip galvanized steel support structure. Adjustable curved face attachment can be left in neutral position for flat face. "Quality









- Full line of proved communication towers to fit every need ... includes heavy duty broadcast, CATV, and microwave.
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- Complete installation service available to take care of the entire job—professionally and to save you money.
- Complete line of microwave reflectors and tower lighting equipment available.
- Deal with one of the oldest and largest tower manufacturers in the U. S.—representatives world-wide.

Write -Call - Wire for Immediate Service

## **ROHN Manufacturing Co.**

P. O. Box 2000, Peoria, Illinois

Phone AC 309-637-8416

Certified" 5-year guarantee. All sizes available from stock. For installation in corrosive atmosphere, aluminum parts anodized at slight additional cost.

#### ANTENNA ACCESSORIES

#### AMECO

Balun transformer, Model TB02-A\*. 75 ohm to 300 ohm. Bandwidth: 2 to 300 mc. Open wire line to cable. Weatherproof box. SO-239 connectors.

#### CUSH CRAFT

"Blitz Bug" lightning arrestor. Inserts in coaxial cable to eliminate static buildup. Discharges through sealed air chamber with machined discharge points. 52 or 72 ohm. UHF or "N" type connectors. LAC-1, type 83 connectors, 1 male; 1 female for direct to equipment installation. \$3.95. LAC-2, type 83 connectors, 2 female for insertion in cable, \$4.45. LAC-2N, "N" connectors, 2 female for insertion in cable, \$5.95.

#### JERROLD/TACO

Antenna mounts. A series of antenna mounts for all types of Taco spun and mesh reflectors is available. The series includes: pipe mounts for standard service; heavy-duty pipe mounts for areas with severe wind loading; roof mounts of the three point type with adjustment of plus or minus 5 degrees; tilt mounts for sloping roofs or where an antenna cannot be located directly below a passive reflector; special mounts for specific requirements. Write for additional details. Anti-icing equipment. Radomes for all size dishes. Are available for applications where antenna must perform under adverse conditions. Heater units are available to prevent the accumulation of ice and snow on the radome-dish assembly. Individual heaters are available also to heat the dish and feed units where the use of a radome is not desired.

Ruggedized yagi antenna accessories. Write for complete catalog.

#### MARK PRODUCTS DIVISION of the Dynascan Corporation

Radomes for spun parabolas available in sizes from 2 ft. to 10 ft. to exactly fit the full line of MARK antennas. Radomes are obtainable in either heated or unheated models. Heated units use a spiral wound heating element molded into the radome and an air sensing thermostat for actuation of the heater.

Solid parabola mounts for various sizes and configurations are available including special mounts for peculiar installations. Also, two standard kits are available for mounting grid parabolas. All components are fabricated of steel, hot-dipped galvanized, and are shipped with detailed mounting instructions. Consult manufacturer for kind and type of kit necessary.

#### **MICRO-LINK CORPORATION**

Antenna mounts. Current data not supplied.

PRODELIN

Parabolic antenna radomes. Molded fiberglas reinforced resins provide inexpensive protection against adverse climatic conditions, ice and snow accumulation. No signal attenuation through the 10,000 Mc/S signal range. Features simple high strength aluminum clamp assembly. Also available in heated models. Heated radomes include thermostat, relay and junction box. Write for prices on heated models.

#### VIKING CABLE COMPANY

Outdoor 72.300 ohm balun, Model 934/F. Mast or wall mount. Provides excellent match and signal transfer. Waterproof zinc case. Full 6 db step up. True symmetrical transformer circuit. Bandpass 2-13. "F" connectors. Unit price: \$1.85. Hi-Low coupler, Model HLB. For high band antenna and low band antenna to set. Unit price: \$1.35. Two antenna coupler for same band, Model TAC3. For either two high band VHF antennas to set. Unit price: \$1.35.

#### WESTBURY CATV CORP.

MT-1—Weatherproof balun, 300 ohm to 75 ohm for RG-59/U cable. Outdoor.

MT-2-Weatherproof balun, 300 ohm to 75 ohm for RG/U cable.

WB-1-75 to 300 ohm balun with A102 connectors. Connects drop-line into set. Surface mounted. WB-3-75 to 300 ohm balun with crimp-type connectors. Connects drop-line into set.

TOWERS

#### TOWERS

#### ALL PRODUCTS CO.

Steel Towers, 2410 mdoel. Triangular bolted construction with special "X" type cross bracing with braces welded together at the cross. Bolting permits completely knocked down shipping at reduced cost, All tubular steel, all parts hot dip galvanized. 10 ft. sections, jam-fit joints; steps provided. 290' tower, \$1823.23.

Steel towers, 1810 model. Triangular bolted construction as above. Designed for tower heights to 300 ft. 10 ft. sections, jam-fit joints; steps provided for climbing. 250' tower \$917.24. Contact manufacturer for particulars.

#### DAVCO ELECTRONICS CORP.

Supplier of Utility Tower Co. towers. Also, Utility towers used in systems constructed by Davco. Special antenna arrays, brackets, and photo cell lighting to rigid specifications.

#### **ENGINEERED PRODUCTS CO.\***

Towers, free-standing and guyer models. For support of antennas, line amplifiers and platforms, including associated hardware and side-mount accessories. All-steel, diagonal bracing, -arch welded and site assembled models, hot-dip galvanized and special configurations to customer's specifications. For application in CATV installations, including line towers, as well as the general fields of radio, television, microwave, military, commercial, and public safety. Towers engineerapproved for weather and load requirements.

#### FORT WORTH TOWER CO.

Triangular and square towers. Built for CATV, microwave, MATV, ETV, CCTV and broadcast applications. Complete engineering and fabrication services anywhere in the Western Hemisphere. Special services include building construction, financing and lease programs. Complete quotations supplied upon receipt of your requirements. Write for further information.

#### REPTRONICS

Independent manufacturer's representative. Complete line of Wolfe Towers by Modern Electronics.

#### **ROHN MANUFACTURING CO.**

**Communications towers** for all uses such as supporting passive reflectors, large arrays of yagi's, etc. All Rohn towers are hot-dip galvanized after fabrication-coating all surfaces thoroughly, including the inside of the tubular tower legs with a minimum of 2 ounces of zinc per square foot of surface. Tower models are available in a variety of sizes to fit the antenna and wind loading requirements. Rohn towers are precision built through mass production for accuracy, sturdiness and dependability. They are carefully machined, assembled in special jigs and then welded. Lighting kits also available. Write for details and prices.

#### UTILITY TOWER COMPANY

Manufacturers and installers of microwave, TV, FM and broadcast towers (AM). All towers are designed for 120 mile winds with no ice and 95 mile winds with 1/2" radial ice load. Welds are all arc-type and consist of 1/4" fillet, continuous, all around each joint. All welding is done by registered welders, in strict accordance with the American Welding Society's requirements. Each weld is factory inspected. Towers are available in either galvanized or non-galvanized forms and with or without lighting kits. Microwave towers are designed to support three  $8' \times 12'$  reflectors weighing 250 lb. each with a wind pressure of 30 lbs. per square foot and will not twist more than 1 degree (horizontal angular displacement) for the lower edge of any microwave reflector from its unstressed position when all parts of the tower, antenna, reflectors, and accessories are covered with a  $V_2''$  radial thickness of ice. Utility Towers are backed up by a 5-year written guarantee. Write for further details.

#### WOLFE TOWERS BY MODERN ELECTRONICS

**Steel triangular towers.** All welded construction. Unique "Z" bracing, with climbing steps. Elevator available for installation and maintenance. 300, 400H and 400M series. Write for details.

insert in Pole line hardware section-under VI mat'ls

#### TEST EQUIPMENT

#### **BLONDER TONGUE - BENCO**

Field strength meter, Model FSP-3b. Portable,, rechargable, battery powered for field or lab use. Frequency range: 52-220 mc in one range. Sensitivity: 5 uv. minimum readable signal and 60 uv. full scale. Percentage Modulation Ranges: 0 to 5% and 0 to 50%. Measurement Range: 0 microvolts to 3 volts in 18 ranges, also micromicrovatts to 10 watts in 10 ranges. Input impedance 75 ohm unbalanced and 300 ohm balanced. Net: \$440.75.

High speed solid state switcher, Model 4102. Can be used to compare any two signals from 0 to 900 mc. Switch rate: 30 cps. VSWR: 1.08 max. 0-216 mc; 1.15 max. 216 to 900 mc. Isolation: 0 to 216 mc - 40 db min.; 216 to 900 mc - 27 db minimum. Net: \$215.00.

Transformer, Model 4103. Transformer is 50-75 ohm (10 to 216 mc). It features toroidal circuitry. VSWR is 1.14 maximum. Comes with 75 ohm coax push-on connector, POB-59; 50 ohm coax B.N.C. connector, Type UG-88/U. Net: \$32.00. 75 ohm detector, Model 4104. Features voltage doubler circuit with frequency range of 10-900 mc, maximum VSWR 1.1 and impedance of 75 ohms. Sensitivity of approximately 0.1 vdc out for 100 mv input (CW); plus or minus 1 db over frequency range. Band pass is 3 db down at 100 kc with 100 mmf. Total capacitance connected to output. Net: \$40,00.

**75/300 ohm balun, Model 4105.** "Lab-Line" series features toroidal circuitry and frequency range of 10-216 mc. 1.14 is maximum VSWR. Comes with 75 ohm coax push-on connector, POB-59. Net: \$28.00.

Two-way hybrid splitter/mixer, Model 4106. 75 ohm (10-216 mc f.equency range) with toroidal circuitry. VSWR is 1.14 maximum at all terminals. Directivity is not less than 28 db. 3 (75 ohm) coax push-on connectors, POB-59, are supplied. Net: \$31.00.

Fixed attenuators, Model 411. Features optimum match in both directions. Less than plus or minus 10% accuracy with maximum power input of  $1/_2$  watt. Impedance is 75 ohms; frequency range is DC-900 mc. Net: \$20,00.

UHF balun, Model 4112 is also available. 50-75 ohm pad, Model 4113 is available.

#### DAVCO ELECTRONICS CORP.

Complete selection of test equipment for CATV installation and maintenance work. Simpson Electric, Entron and other well known lines carried in stock. Write for complete catalog and price Information.

#### ENTRON

Line tester, Model LT-1. Provides a simple means of isolating common trunk and distribution line troubles with a direct reading, portable meter. Battery operated. Tests for: line termination, line splitter termination, open line and shorted line. Price: \$40.00.

#### JERROLD ELECTRONICS CORP.

Field strength meter, Model 704B. Portable unit covering the range of 54 to 220 Mc. Range of the instrument is 5 uv to 3 volts in eight ranges. Six of the ranges are fundamental and two are selected by accurate RF attenuators, built into the circuit. Accuracy: + or -3 db. Phone and video jacks are provided on the front panel. Sensitivity: 5 uv. 75 ohm input impedance (300/75 ohm matching transformer provided. Adjacent channel rejection: 45 db down from received signal. Aluminum cabinet with carrying handle and shoulder strap. PNS

Sweep generator, Models 601 and 602. Designed for test and alignment of RF circuits. Each generator has 11 overlapping ranges. Sweepwidth in any range is continuously variable from a minimum of + or  $-\frac{1}{2}\%$  of center frequency, to a maximum of approximately + or - 60% of center frequency. Means are provided for complete phasing of horizontal output through 360 degrees. Switch control of return trace blanking is provided. Incorporates a detector tilt control for matching external detectors to the frequency characteristics of the internal AGC detector for accurate oscilloscope presentations. Model 601 covers 12 to 225 Mc and Model 602 covers 4 to 112 Mc. RF output response (601) is 1.0 volts rms, within .5 db and 2.5 volts rms (602), within .5 db. Portable, rugged case PNS

#### SADELCO

Field strength meter, Model FS-1. Portable, transistorized, battery operated unit. Covers VHF spectrum in two expanding ranges. Utilizes 8 transistors. Separate picture and sound. Peak carrier reading. 20 uv to 1 volt range. Temperature compensated for continued accuracy and AGC system for long term stability. Jacks on front panel allow the use of phones, oscilloscope or connection to recording devices. UHF coverage possible with the addition of the Sadelco UA-1, UHF adaptor. Cast aluminum housing. Accuracy: + 1.5 db. Net: \$295.00 (Complete with carrying case less batteries).

#### SIMPSON ELECTRIC COMPANY

AC/DC Volt-Ohm-Milliammeter, Model 260. Has polarity reversing switch; 50 microampere-250 Millivolt range; easy to read black and red scales; 5,000 ohms-per-volt AC sensitivity; frequency response is 5, to 500,000 cycles per second.

Calibrated field strength meter, Model 498A. Power line or battery operated ...... self-charging. Internal storage battery can be recharged by self-contained charger or from automobile battery while traveling between jobs. Covers all channels, UHF and VHF. Measures field strength from approximately 20 microvolts to .05 volts with an accuracy of plus or minus 6 db on VHF signals and plus or minus 8 db on UHF signals. Continuously variable sensitivity. Size: 93%" x 113%" x 91/2". Weight: 141/2 lbs.,

less battery; Shpg. Wt. 18 lbs.

Model 2610, wide band oscilloscope. High gain scope for the 1001 jobs where an expensive spec ialized scope is not needed. Vertical sensitivity, 6 mv rms. Vertical calibration accuracy, plus or minus 3%. Response (linear position): DC to 5.0 Mc/sec, plus or minus 0.5 db; DC to 8.0 Mc/sec, plus or minus 1.5 db. Response (transient position): DC to 3.5 Mc/sec, minus 3 db, and minus 6 db at 5.0 Mc/sec. Triggered and recurrent sweeps. Precalibrated sweep positions of 5/50/500/5000 microseconds.

Accessories: A 10:1 probe, green filter, graticle, detachable line cord, and instruction manual are provided as standard accessories and shipped with each unit.

#### TELCO

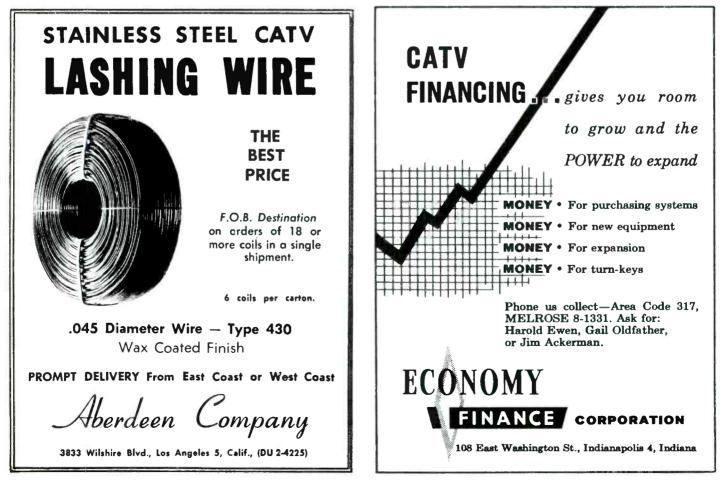
Sadelco VHF field strength meter, Model FS-2. Fully transistorized, battery operated. (See Sadelco listing above.) Price: \$295.00.

#### TRIPLETT ELECTRICAL INSTRUMENT CO.

Tube analyzer, Model 3444. Dynamic mutual conductance analyzer. Plots tube characteristic curves, measures grid current at known potentials, compares cut-off characteristics of dual tubes, and reads directly in micromhos with a self-checking Gm circuit. Checks plate current cutoff, gas under actual operating conditions, checks rectifiers under load, checks thyratron firing voltage and grid current. CG adapter for Model 3444 enables the testing of low power transmitting, industrial, and special purpose tubes, including subminiature. Has sockets for septar, lighthouse, acorn, and pencil triode tubes. Also available is the Model 3490 Transistor Analyzer for complete transistor checking.

Vacuum tube volt meter, Model 850. High impedance (11 megs.), wide frequency range tester. High stability meter readily usable on most circuits including transistor uses. The 850 has superior voltage measuring capabilities, plus resistance ranges to 1000 megohms. Accurate within plus or minus 3% on AC, DC and Ohms. Operational at frequencies up to 250 Mc with auxiliary probe. Uses unlimited for all types of TV and microwave applications. Also included is a long line of Triplett V-O-M's covering almost every electronic need including a portable selfcontained VTVM. Write for complete catalog of details

Getains. Ranges DC: 0-.5, 1.5, 5, 15, 50, 150, 500, 1500 AC: 0-1.5, 5, 15, 50, 150, 500, 1500 P-P: 0-4, 14, 40, 140, 400, 1400, 4000 OHMS: 0-1000, 10,000, 100,000, 1 Meg., 10 Meg., 100 Meg., 1000 Meg. Frequency Range: 15 cps to 3 Mc. (Up to 250 Mc with accessory diode probe available extra.)



#### MICROWAVE EQUIPMENT

#### DEMODULATORS & AMPLIFIERS

#### CAS MFG. CO.

**Demodulator, Model 58-FMC.** Converts 5.8 Mc signal from microwave equipment to standard FM signal. 19" rack mounting and self-contained power supply. Net: \$160.00.

Demodulator. Modified Conrac AV-12E. Converts complete TV channel to video and 4.5 Mc sound. With all-channel tuner. Net: \$320.00. CONRAC



**Demodulator, AV12E.** Designed for monitoring, video recording or rebroadcasting applications. Supplies composite video and separate audio from "off-the-air" signals. Uses high-gain keyed AGC system to hold the video output constant within plus or minus 1 db over a 60 db change in input signal. Especially suited for reception of NTSC color signals. Video bandwidth is flat within plus or minus 1 db to 4.1 Mc. Bi-filar T traps are employed to reduce phase distortion. A combination of split-off sound and intercarrier sound is employed. Output capable of over 3.5 volts of video (75 ohm load) with low distortion. Unit can be furnished with provisions for mixing a 4.5 Mc signal (sound sub-carrier) with the video output. This feature available at no extra cost if specified at time of ordering.

#### JERROLD ELECTRONICS CORP.

Demodulator, Model 1D. Designed for CATV head ends; demodulator for TV microwave; offthe-air reception of TV broadcasts. Has allchannel tuner with lock-in oscillator feature (optional). Unit has high-Q co-channel traps. High rejection to adjacent carriers. Automatic or manual gain controls. Noise suppression circuit. Video attenuator in output allows maximum of 21 db of attenuation in 3 db steps. Has station outage squelch circuit. Video out-put: 1.5 v p-p (75 ohm load), negative sync. Frequency response: 30 cps to 4 Mc within 1 db. Audio output: 10 v rms across 600 ohms. 4.5 Mc intercarrier sound output: .5 v rms into 75 ohms. Regulated power supply. Rack mounting. See Model TM, Industrial Television Modulator. PNS. Single channel preamplifier, Model TPR. Engineered for 12-channel system.

Remote transistorized power supply, Model PPS-8. Off-trunk amplifier, Model TOT-1. High output, all band.

Remote transistorized power supply, Model OPS-416.

#### MICRO-LINK CORP.

Traveling tube amplifier, Model WA-5. 10 watt portable unit. 5.9 - 7.1 Gc. Gain (small input) 35 db. Input level 0.1 to 1.0 watt. RG-50 waveguide. Regulated power supply, 105-125 vac. Helix overload protection, time delay circuitry and power supply all solid state for reliability and long life. Weight, 55 lbs. Price: \$4,750.00.

#### TRANSMITTERS & RECEIVERS ADLER ELECTRONICS, INC.

Microwave system, RT-3A. Operates in the 2 kMc range. Useful for educational television relay or remote pickups. Can receive local station or camera video and audio. 10 watts output. Meets FCC, NTSC and proposed EIA color standards. Vestigal sideband transmission and crystal controlled stability. PNS.

#### **COLLINS RADIO COMPANY**



Microwave video relay system, Models MWV-108 & MWV-109. Transistorized 6 kmc and 12 kmc equipment utilizing standard, plug-in etched circuit modules. Aperiodic tuned IF strips (15 mc or 25 mc). Temperature stabilized (Ebuliator) and linearized 1 watt klystron. Integral vertical metering, ample test point facilities. Ratio-squared combiners. Complete sensing alarms. Low power consumption. This equipment especially suited to CATV application. Receivers and transmitters are designed as compact modular units. Channels may be added as desired. Operating in the 5925-6425 mc common carrier band, the 1 watt MWV-108 can be readily arranged for frequency diversity, space diversity, hot standby, or nonstandby operation. The MWV-109 5 watt unit may be used in the same system with the MWV-108 to achieve specific requirements. Powering is normally reom 24 vdc float charged batteries, 24/130 vdc, 48 vdc, 48/130 vdc or 115 vac. Prices on request.

#### LENKURT ELECTRIC CO., INC.

Microwave transmitting/receiving equipment, Model 76TV. Completely transistorized, except for single klystrons in transmitter and receiver. Plug-in modular construction. Convenient push button test facilities. Frequencies include 6 and 12 kmc. Excellent equipment for CATV microwave relay systems. Economical, and highly dependable, this new equipment is designed for transmitting color or monochrome television signals over great distances. Both demodulating (baseband) and nonmodulating (heterodyne) repeaters can be provided for optimum performance and flexbility in meeting individual system requirements. The audio portion may be carried with the video signal by means of an optional program channel operating at a baseband of 7.5 mc. An optional clamper circuit is available. Specially designed temperature compensated reference cavity and sensitive waveguide discriminator keep transmitter frequency within plus or minus 0.01% without requiring heaters, thermostats or blowers. Compact design requires only 41 inches of standard 19 inch rack for one-way repeater including power supply. 24 or 48 vdc; 115 or 230 vac. Price: from \$5000.00.

#### MICRO-LINK CORPORATION



Fixed Microwave link, Model 600. A complete 0.1 watt system operating between 12.0 to 13.6 kmc for point-to-point FM transmission of sound, data, black-white or color TV signals in the new FCC business operational fixed and STL frequency allocations. Designed for the utmost in reliability and versatility, the 600 series is a two-way communication link but readily converted to one-way or multi-channel operation with frequency diversity or stand-by options. Video bandpass is flat within .5 db to 7 Mc and down 3 db at 8 Mc with excellent phase and gain characteristics for color and high resolution video transmission. Price dependent upon requirements—\$6000

**Portable microwave link, Model 420A.** Designed to operate in the new FCC business microwave and STL bands, the 420A is a 100 mw, 10.5 to 10.7 kmc portable microwave relay link. The transmitter and receiver are each self-contained in their own weatherproof case requiring no additional cumbersome control units. Full 7 Mc video bandwidth for high resolution black-white or color TV transmission. The small size, ease of portability and low cost permits its use to link scattered locations economically, permitting the transmission of data, remote control functions, sound and television picture data between them. Net: \$5000.00.

#### **MICROMEGA CORPORATION**

**UHF-SHF preamplifiers.** Several models covering the range of 500 to 7000 Mc. Preamplifiers are parametric devices utilizing "varactor" diode and klystron pump source. Exceptionally low noise figure is characteristic of units. Permits cost saving by permitting greater spacing of microwave repeater stations without deterioration of signal to noise ratio. PNS.

#### RADIO CORPORATION OF AMERICA

TV microwave relay system, Type TVM-1B. High power (1-watt) conduction cooled transmitter klystron. Frequency range: 5925 to 7425 Mc. Video frequency response flat within 0 to 0.5 db from 60 cycles to 7 Mc. Less than 0.3 degree differential phase and 0.1 db differential gain using 12 db pre-emphasis. Wide IF bandwidth provides ultra-stable system-minimizes effects of tube aging. Removable sub-chassis construction and numerous circuit test points for easy maintenance. Provision for multi-plexing high quality sound channels. Video input: 0.75 to 4.0 v p-p composite (adjustable by modulation level control). PNS.

#### VIDEO EQUIPMENT

#### TELEMATION, INC.

Complete line of video equipment including preprogrammed switchers for non-duplication, Ampex video tape recorders, complete studio systems, film cameras, modulators, clampers and video and RF distribution equipment.

#### AMPLIFIERS C-COR ELECTRONICS, INC.\* FAIRCHILD-DU MONT

Complete line of amplifying equipment for Closed circuit television including Type CCD-200 deflection amplifier and Type CCV-200 Video amplifier.

#### CAMERAS AMPEREX ELECTRONIC CORP.

8483—Vidicon camera tube for use in most CCTV cameras. Price: \$150.00.

#### **BLONDER TONGUE - BENCO**

Vidicon camera, Model TC-1. Completely selfcontained camera. Camera adjusts automatically to meet changing light conditions. Lens opening and focus are the only controls that the operator normally adjusts. There are two basic versions, the TC-1V which provides a video output, factory set at 1.25 volts peak to peak and the TC-1RF which provides a double sideband RF output of at least 100,000 microvolts across 75 ohms. The TC-1RF can be tuned (by the user) to any TV channel from 2 thru 6. Net; \$855.00.

Automatic transistorized camera, Model TTVC-1-1. Self-contained, rugged, portable (15 lbs.), this camera transmits high definition (650 line resolution, 2 to 1 interlace) pictures. Has built-in automatic light compensator that adjusts for continuously changing light over a 2000 to 1 range. Video output 1.25 volts. Usable picture may be

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#### EQUIPMENT COMPANY

144 Lakeside Ave. EAst 9-1798 Seattle, Washington 98122 obtained with as little as  $\frac{1}{2}$  foot candle of scene illumination with the standard F/1.9 lens supplied. Net: \$1950.00.

Model TTVC-1(2-6). RF version of the TTVC-1-1. Output 50 millivolts, channels 2 thru 6 available. Net: \$2010.00.

Model TTVC-1R. Same as TTVC-1 but equipped for remote control of electrical focus, beam, target, video gain and power. Net: \$2520.00.

Model TTVC-1SN. Same as TTVC-1 but accepts studio net pulses. Use with WFM-5 waveform monitor. Allows common synchronization for multi-camera operation. Net: \$2125.00.

Model TTVC-ISNR. Same as TTVC-ISN but equipped for remote control. Net: \$2735.00.

Viewfinder camera, Model EV-1-1. Compact, portable camera/viewfinder combination. Can be mounted on heavy-duty tripod and friction head. Camera is built together with an 8" electronic viewfinder. HT-10 turret for up to 4 C-Mount lens. 1" F/1.9 lens supplied. Provision for optional intercom and remote control. PNS Model EV-1(2-6). Same as EV-1 except has RF output. Channels 2 through 6 available. Net: \$3440.00.

Model EV-1-SNR. Same as EV-1 but accepts studio net pulses and is remote controlled. Net: \$4160.00.

#### **COHU ELECTRONICS**

1995 Series Television cameras. Compact series designed to operate from -20 degrees Centigrade to plus 70 degrees Centigrade. All solid state circuits except vidicon pickup tube. Operates n 10 mc bandwidth. Offers full 700-line horizontal resolution.



1995-11—External mounted standard lomm lens; 9.98" housing.

1995-12—Enclosed, sealed lens mounting; 14.19" housing.

**1995-13**—Enclosed, sealed lens mounting; 15.99" housing.

1995-14—18.69" housing with sealed lens mounting and with extender.

1995-15—Enclosed, sealed lens mounting in 12.99" housing.

**2000 Series cameras.** Miniaturized TV cameras designed for televising from fixed or moving camera positions. 3" outside diameter with 4:1 zoom; solid state circuits; 9 mc bandwidth; vidicon protective circuit.

2000-11-Exposed lens; 8.:87" housing.

2000-12-Internally Mounted lens; 11,875 housing.

2000-13-12.950 housing with internal lens. 2000-14-13.900 housing with internally mounted

lens.

2000-15-internal lens; 14.850 housing.

2000-16-14" housing with internal lens.

2000-17—16.75" housing with internal lens. Cameras also come complete (without vidicon) in

2001 series and with vidicon in 2011 Series. 3000 Series COHU TV cameras. Rugged, solid state circuitry to protect vidicon in case of sweep or cable failure. Available with 4 combinations of vertical/horizontal resolution: 375X800 lines:

vertical/horizontal resolution: 375X800 l 500X500 lines; 600X850 lines; 700X800 lines.

3000-011—External mounted lens in 9.98" housing. 3000-012—Sealed 14.19" housing.

3000-013-15.99 sealed housing.

**3000-014**—Enclosed 15.99" housing with extender. **3000-015**—Sealed 12.99" housing.

Model 20/20-Complete self-contained TV camera operates on 8 mc bandwidth to provide standard 650 horizontal sweep/scan pattern. Includes manual 4-lens turret. All transistorized except vidicon and one preamp tube.

#### CONTINENTAL ELECTRONICS PRODUCTS CORP.\*

Vidicon TV camera, Model V-1051CC. Ideal for use in closed-circuit and CATV systems. Completely self-contained. Crystal controlled horizontal oscillator. Bandwidth: 5 Mc. Resolution: 400 lines. 1 volt composite video output (75 ohm). Can be remote controlled. Net: \$495.00. Vidicon TV camera, Model V-1080RCC. Rugged industrial or closed-circuit camera. Remote power supply. Resolution: in excess of 500 lines. Bandwidth: 7 Mc. Uses any 16 mm "C" mount lenses. Output: 1 volt composite negative video (75 ohms). Crystal controlled horizontal frequency.

#### DAGE TELEVISION COMPANY

91—Fully self-contained transistorized television camera designed for remote control or film chain use. Features 700 line horizontal resolution nuvistor\* first video preamplifier, plus automatic sweep failure protection.

**420**—Series TV cameras. Transistorized monochromatic vidicon; 525 scanning with full EIA driven interlace.

**421**—Same as 420 except incorporates 2:1 interlace, industrial sync generator.

**422**—Identical to 421 except internal generator is random interlace.

#### FAIRCHILD-DU MONT LABS

Complete line of television cameras designed for closed circuit use. Available with or without viewfinder; single or turret lens.

TC-200-RM—Transistorized miniature camera head. TC-200-RS—Ruggedized camera with subminiature tubes.

TC-200-RT—Transistor camera (ruggedized). TC-110 and TC-110-V/A—Remote vision camera;

transistorized with random interlace. **TC-350**—775 lines resolution; transistorized, self-

contained unit for 10 mc bandwidth. TC-605—3 lens turret; transistorized circuitry; port-

able vidicon with 600 lines horizontal resolution.



 ${\rm T}\dot{V}$  600–Self-contained broadcast style camera with with 3 lens turret; 600 random interlace resolution (horizontal); with electronic viewfinder.

#### FINCH LIMITED

FLIC CCTV camera is fully transistorized. Housed in aluminum case-modular construction-fan cooled. Horizontal resolution is 800 lines; 2:1 interlace. GENERAL PRECISION (GPL)

# Contractor of the second secon

Precision 800 series. Studio type camera chain for open or closed circuit use. System includes viewfinder and portable or rack-mounted camera control unit (CCU). Designed to accept external EIA pulses or operate independently from its internal sync generator. 525 line system interlaced 2:1. CAM-880-1-Camera with portable 12 mc CCU. CAM-880-2-Camera with rack-mounting 12 mc CCU. CAM-880-2-Portable 12 mc CCU for external EIA pulses.

CAM-880-4-Rack-mounting 12 mc CCU for external EIA pulses.

#### MOTOROLA



Complete line of closed circuit television cameras including transistorized indoor camera in aluminum case with 650 lines horizontal resolution. Motorola also has all-weather cameras with low height and sloping sides to minimize wind vibration.

#### PACKARD BELL ELECTRONICS

Series 900 Telecaster TV camera system. Complete with 25mm lens; vidicon; fully transistorized. Featores full 8 mc bandwidth, automatic light control, 640 lines maximum resolution.

Series 910—same as 900 except self-contained video output only.

#### RADIO CORPORATION OF AMERICA \*

Vidicon camera, TK-202. Consists of two basic units: a small, portable camera and a control unit. Both units can serve as foundation "building blocks" of a multiple camera chain system which may incorporate other cameras and control units, monitors, sync generators, pulse amplifiers for use with external drive signals and various accessories such as remote or automatic iris control, remote lens turret, pan and tilt mechanism, video line amps, automatic sensitivity control, and automatic light control equipment. Resolution: 550-600 lines. Bandwidth: Uniform to 8 Mc. Choice of 525 line interlaced 2 to 1 or 525 random interlace. Output: 1.0 v p-p across 75 ohms. Negative sync. PNS (Write for additional details)

TV eye closed-circuit camera equipment. Video System ES-36298 and RF System ES-36299. Designed as an inexpensive means for the remote viewing of processes, locations and operations, where direct observation is too dangerous, too hot, too cold, too inconvenient, too confining, or too costly. Has single lens although a manual 3 lens turret may be attached. Horizontal resolution: 350 lines maximum. Output: 1 v p-p (composite video). Output impedance is 75 ohms (300 ohms for RF model). Write for additional details. PNS.

#### SYLVANIA ELECTRIC PRODUCTS, INC.\*

#### VIDEO SYSTEMS OF AMERICA

Model V500-A closed circuit TV camera with vidicon tube with plug-in solid state circuitry. Offering video resolution of 500 lines, the V500 measures 9 x 6 x 3 inches and weighs less than 6 pounds. Completely self-contained camera features random interlace and automatic light control.

#### CONSOLES

#### **COHU ELECTRONICS**

Model SG-7 Sync Generator .- Single or dual generator provides complete timing pulses for single or multi-channel CCTV systems. Furnishes horizontal and vertical drive pulses, sync pulses, mixed blanking pulses-all negative, all 4 volts peak-topeak.

Model 1995CU Camera Control. Provides power and control signals for 1995 or 2000 series KIN TEL camera systems. Dual compartment rackmount chassis is equipped with either one or two complete sets of plug-in circuit assemblies. (solid state).

Model 3900 Series Camera Control. Dual compartment rackmount equipped with either one or two complete sets of solid state plug-in circuits. Automatic light level compensation; Scanning from 525 through 945 line.

#### CONTINENTAL ELECTRONICS **PRODUCTS CORP. \***

Television control console. Typical console consists of; electrical camera control units, audio switcher, video switcher, remote control panel for film and slide projectors, network or utility preview monitor, film and slide preview monitor, live preview monitor and a master monitor. Prices quoted on request.

#### DAGE TELEVISION COMPANY

Consoles to house camera control, video monitor and waveform monitor equipment available including 204298 for 420 series.

#### FAIRCHILD-DU MONT

CS-2 Camera Stand. Stand houses TC-100 television camera and suitable lighting for transmission of television pictures. Unit designed specifically for banking institutions.

#### **FILM CHAINS BLONDER TONGUE - BENCO**

16mm film chain, Model FC-1. Converts 16mm film into video signals. Includes 16mm projector, TTVC-1 camera and all necessary lenses, mountings, controls, etc. Net: \$6750.00.

Model FC-1R. Same as FC-1 but equipped for remote control (TTVC-1R camera). Net: \$7475.00. Model FC-1SN. Same as FC-1 but accepts studio net pulses (TTVC-1SN camera). Can be used with WFM-5 waveform monitor and video monitor. Net: 6885.00.

Model FC-1SNR2. Same as FC-1SN but equipped for remote control. (TTVC-1SNR camera). Net: \$8720.00.

Model FC-2. 16mm film chain console remote controlled. Complete 16mm film chain for studio net use. Includes FC-ISNR, WFM-5, 17" studio net monitor and all remote control panels in compact console. Video polarity reversal switch for film negatives. Net: \$11,825.00.

#### CONTINENTAL ELECTRONICS **PRODUCTS CORP.** \*

Film chain, Model FP-87. Includes 16mm Bell & Howell projectors, vidicon camera, slide mechanism and multiplexer. The complete film, slide TV system has been designed to satisfy the requirements of Vidicon Film Chains. Complete assembly is pedestal mounted, ready for installation. Uses easy-to-obtain component parts. Provisions for installation of remote control panel for the film-slide projectors. 35 mm slide projector holds 16 slides. 16 mm projectors hold 2000' of film. Vidicon camera is V-108ORB. Prices quoted on resuest.

#### **GENERAL PRECISION (GPL)**

Model PA-580-Precision 800 vidicon film chain provides reproduction of 16mm and 35mm film and 2" x 2" slides and film strip. Features 800 line resolution; auto exposure control; positive tha negative film capability; nuvistor preamp; automatic black level compensation, and field lens, 3-input multiplexer and equipment rack included.

#### MODULATORS

#### **BLONDER TONGUE - BENCO**

Audio Adder, Model 2303. For addition of sound to any RF camera. Generates sound carrier located 4.5 mc above any picture carrier (VHF channels 2-13). Sound carrier may be modulated by microphone, tuner, or other audio source. Output of the Audio Adder is a complete TV channel, sound and picture. Unit incorporates built-in audio pre-amp that may be switched in and out. Net: \$138.00.

#### CAS MFG. CO.

Sound modulator, Model M-58. Produces 5.8 Mc, AFC controlled, FM carrier from various audio sources such as tape, tuner, mike, etc. 19" rack mounting and self-contained power supply. Useful for feeding microwave system.

#### **COHU ELECTRONICS**

Listing of modulators and related equipment available by writing. List includes Model 2362 RF Modulator that provides carrier signal for modulation by 20/20 camera. Available for channels 2, 3, 4, 5, or 6.

#### SYLVANIA ELECTRIC PRODUCTS, INC.\*

#### MONITORS **COHU ELECTRONICS**

KIN TEL monitors feature precision deflection systems and video responses up to 10 mc. Accepts composite video-sync signals; operates from video line with a separate sync line furnishing either industrial or EIA pulses. Locked interlace circut. Available in picture tube sizes from 14 to 27 inches. MODEL GRM-14, -14R, -17, -17R, -21, -24, -27 designed to exceed stadards of 700 lines H, 350 lines V resolution. Models FRM-14, -14R, -17, -17R, -21 have square resolution of 500 lines vertically and horizontally with "Fineline" sweep/scan. **CONRAC \*** 

Video monitor, 23", Model EMA23/Y. Designed to give optimum pictures in high ambient light areas. Created for instructional television field where broadcast signals are interchanged with locally originated higher resolution signals. Video response to 10 Mc. All operating controls, adjustments and fuses are accessible through a locking trap door. Video signal: 0.25 v p-p. 4.0 maximum. Sync negative at monitor input. Video

input impedance: Hi bridging can be terminated by an internal 75 ohm load through a switch located on rear lapron.

General purpose video monitor, Model CLB. Designed for continuous duty operation. Video" response flat to 10 Mc for maximum resolution of 800 lines. Horizontal and vertical linearity within 2% of picture heighth. Taps available on horizontal output transformer so unit can be operated full scan or reduced scan. Built-in switch allows selection of either composite video or separate video and composite sync. Parallel jacks for loop-thru operation.

Video monitor, Model CNA8/C. Designed for broadcast quality video presentation. Video response flat to 8 Mc for resolution in excess of 600 lines. Taps available on horizontal output transformer so unit can be operated full scan or reduced scan. Horizontal and vertical linearity within 2% of picture heighth. Parallel jacks for loop-thru operation. Mounted in portable case 91/4" x 111/8" x 18".

Video monitor, Model CNA8/2R. Same specifications and characteristics as CNA8/C except dual unit requiring only 101/2" of vertical rack space for two independent pictures.



Rack mount 14" monitor, Model CLD14. Featuring both high and low voltage regulation, the CLD14 provides stability as AC line voltage varies from 105 to 130 volts. Designed for continuous duty, video response is flat to 10 mc assuring center resolution of 800 lines.

CNB8 Series-A full scale broadcast quality video monitor. Video response is flat to 10 mc allowing resolution of 700 lines. Switch provided to permit selecton of 100% or zero DC restoration.

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CNB8/C-Portable monitor with carrying handle. CNB8/2R is two monitors mounted side by side in standard 19" relay rack.

#### CONTINENTAL ELECTRONICS PRODUCTS CORP.

Video switcher, Model V-2012. Features 5 video inputs that may be switched from preview to air Each channel, numbered consecutively from 1 through 5, contains video gain control. External sync is mixed in the video switcher. Unique features consist of provisions for lap, fade, dissolve and super-imposition of any combination of 5 video channels. Provision is also made for remote controlling projectors by push-button. Input and output impedances: 75 ohms. Net: \$575.00.

#### DAGE TELEVISION COMPANY

#### Listing of monitors available on request. FAIRCHILD-DU MONT LABS

Video monitors for continuous operation.

#### FINCH LIMITED

FLS CCTV Monitors. Available in sizes from 8" to 27". Horizontal resolution is 800 lines. Write for complete specifications.

#### **GENERAL PRECISION (GPL)**

Write for complete details on 3" and 5" waveform monitors 8" to 27" display monitors.

#### PACKARD BELL ELECTRONICS

Complement of video monitors featuring high voltage of 16 kv; video bandwidth-rising response to 8 mc; greater than 600 TV lines horizontal resolution. Available in walnut finished hardwood cabinets (24TM-1) or utility metal cabinets 8"-Model 8UM-3; 14"-Model 14UM-3; 17"-17UM-3.

#### **RADIO CORPORATION OF AMERICA**

Video monitors, 24 and 27 inch, MI-36120 series. General purpose picture presentation units for use in broadcast and CCTV applications. Video amplifier has a frequency response flat to 8 Mc, plus or minus 2 db which provides for a horizontal resolution in excess of 600 lines. Video and external sync inputs are of the bridging type so that the signals can be looped past the monitor or terminated in 75 ohms. PNS.

#### SYLVANIA ELECTRIC PRODUCTS, INC. Monitor receiver, Model 23E01 (VHF) and Model Model 23EO1U (UHF). 23" television receiver pri-

arily for educational uses - Has - built-in tomer with balun for 75 ohm cable feed.

#### VIDEO SYSTEMS OF AMERICA

VSA monitors are specifically designed for use with closed circuit television cameras.

Model VM108-8-inch monitor. Model VM114-14" screen; minimum resolution 500

lines center. Model VM117-17-inch picture screen.

Model VM121-21" screen.

Model VM124-Monitor screen is 24 inches. Model VM127-27 in. picture screen.

#### ACCESSORIES

COHU ELECTRONICS

Remote control iris and focus unit, Model 2411. Permits remote control operation of standard fixed focal length lenses used on .1995 series cameras. Used with Model 2375 remote lens control. Drive kits available are 2411-K1A, K2A, K4A, K5A and K8 for use with various COHU lenses.

Model 2359 Synchronizing Generator. 2:1 interlaced scan with 525 lines per frame.

Model 2360 Sync Generator. 2:1 interlaced with 729 lines per frame.

Model 2361 Auto Target. Auto adjustment of vidicon target voltage. Plug-in assembly can be switched out for special light conditions.

Model 2363 Light Filter-Remote Control. Provides selection of neutral filters with 0.0, 0.7 and 2.0 densities.

Optical Focus Remote Control, Model 2364. Remote control operation of optical focus on 20/20 cameras.

Lens Turret, Model 2365. Permits remote control of lens turret

Model 2370 Rain Hood, Corrosive resistant metal housing with plate glass viewing port; optional wiper and defroster available.

#### DAGE TELEVISION COMPANY

101372-Remote camera control kit. 101391-Remote optical focus kit. 101364-5-6-Weatherproof housing. 104017-Tripod-Dolly (104018). 104019-Cradle head-Friction head (104020). Camera control cable, connectors and test cables available. 100410-Synchronizing Generator, Tube. 101310-Sync Generator, Transistor or dual (101308). 100202-Audio-Video Mixer, RF output.

Video Switcher, 101453.

switcher/Fader, 101454. 101455-Audio Mixer.

#### DYNAIR ELECTRONICS, INC.

Video switchers. An extensive line of video switching equipment available. Write to manufacturer for full details.

#### FAIRCHILD-DU MONT LABS

Complete complement of TV cables and connectors for interconnection of Du Mont industrial television systems.

#### **GENERAL PRECISION (GPL)**

Offers complete line of GPL equipment and accessories including four-lens turret, remote focus kit, rack slides for CCU, control panel kit, special housings and pan-and-tilt units.

Items also include EIA sync generators, switcher/faders and flexible hood.

#### **RADIO CORPORATION OF AMERICA** SYLVANIA ELECTRIC PRODUCTS, INC. VISUAL ELECTRONICS CORP.



Video switcher, Model LS-2. All solid-state. Modular plug-in construction. High input impedance, identical multiple outputs. Maximum output isolation; simple stable circuitry. Reliable, low cost per output. 10 inputs, 2 outputs. 75 watts power requirement. Unit is portable. Price: FOB New York, \$3200.00.

#### **VIDEO TAPE** DAGE TELEVISION COMPANY

DV-200 VTR includes facilities for slow motion, stop frame, convenient editing, two inputs, solid state reliability, separate audio, video record. Builtin monitor is optional. Price \$12,450.00.

#### MINNESOTA MINING AND MANUFACTURING CO.

Video tape, 379. Designed to serve commercial telecast video equipment where head travel is nearly perpendicular to tape travel. Oxide coating is transversely orientated to match the recording "path" of the vertically moving heads. Price dependent upon needs.

Video tape, 377. Designed for use on video recorders for closed-circuit, industrial and educational applications. Longitudinally orientated. This provides optimum output for the long sweep of record and playback heads on this equipment. It otherwise possesses the same qualities of dependability and consistency found in 379 tape. Price dependent upon needs.

#### **RADIO CORPORATION** OF AMERICA

Type TRT-1B—Television type recorder features 4track range phase adjustment, 55 db limiting demodulator, foot release-brake control, solid state DC power supplies, built-in monitor and oscilloscope.

www.americanradiohistory.com

#### LENSES

#### COHU ELECTRONICS

Lenses for KIN TEL Closed Circuit television cameras are standard with 16mm "C" mountings. Model AL-1-13mm; f/1.5. Model AL-1A-12.5mm; f/1.4. Model AL-2-25.4mm; F/1.5. Model AL-2A-25mm; f/1.4. Model AL-4-50mm; f/1.5. Model AL-4A-50mm; f/1.4. Model AL-5A-75mm; f/1.4. Model AL-7-101.6mm; f/4.5. Model AL-7A-101.6mm; f/2.7. Model AL-8-152.4mm; f/4.5. Model AL-8A-152.4mm; f/2.8. Model AL-12-304.8mm; f/5.6. Model AL-13-5.7mm; f/1.8. Model AL-14-10mm; f/1.6. Model AL-15-25.4mm; f/0.95

COHU Also has complete line of zoom lenses available.

#### DAGE TELEVISION COMPANY

Zoom lens kit, focal range 60 to 300mm—101393. Zoom lens kit, focal range 30 to 150mm-101392. FAIRCHILD-DU MONT

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#### **GENERAL PRECISION (GPL)**

GPL has lenses of all types including zoom models -listing available on request.

#### VIDEO SYSTEMS OF AMERICA

VSA Lens data include Model V-1001, 25mm; V-1005, 25mm; V-1008, 12.5mm; Model V-1010, 12.5mm; V-1015, 15.8mm; V-1018, 50mm; V-1020, 50mm; V-1025, 75mm; V-1028, 75 mm; V-1030, 75mm; V-1035, 150mm, V-1050, variable zoom; Model V-1075, electric zoom.

#### SYLVANIA ELECTRIC PRODUCTS, INC. **RADIO CORPORATION OF AMERICA**

#### **CATV SERVICES**

#### CATV BROKERAGE DANIELS & ASSOCIATES, INC.

Negotiators, consultants and appraisers and brokers for the CATV industry. Offering a wide range of interested buyers for CATV properties, this firm is normally retained by a CATV owner desiring to sell his property or commissioned by a buyer to purchase CATV properties. Appraises CATV properties for banks, other lending institutions, estates and owners. Offers a consulting service on any facet of the CATV industry. On sales of property, the firm works on a straight 5% commission, payable by seller. On appraisals, works on a flat fee basis, depending on size of system. Consulting fees are negotiated. More than 80% of all CATV systems sold have been handled by this firm. Principals include Mr. Bill Daniels, president, and Mr. Alan Harmon, vice-president. Established in 1958.

#### CATV ENGINEERING & CONSTRUCTION

#### AMECO

Constructs CATV systems, providing thorough survey, engineering and planning and installation. Specializing in complete "turnkey" completions, Ameco also assists with financing and leasing programs.

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Complete engineering facilities available to handle all types of jobs. Experienced system planners to aid in layout of large and small installations. Special equipment design and manufacturing facilities. Several years experience in system oper-

#### ation and component manufacturing

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#### COLLINS RADIO CO.

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#### TELESYSTEM SERVICES CORP.

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#### DAVCO ELECTRONICS CORP.

Distributor for TeleMation TMW-2 "Weather Channel" unit and associated equipment Tape-Athon "Librarian" background music system.



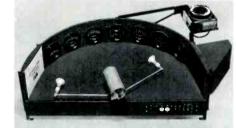
MC-1100 Music Channel. Complete music channel head-end unit, Rack mounted and ready to plug into any CATV system. No other equipment needed to add music channel. Completely wired, includes tape deck with 10" reel capacity, preamplifier and Entron FMT FM transmitter-as completely integrated unit. Overall dimensions, 21"x32". FOB Batesville, Ark., \$849.50.

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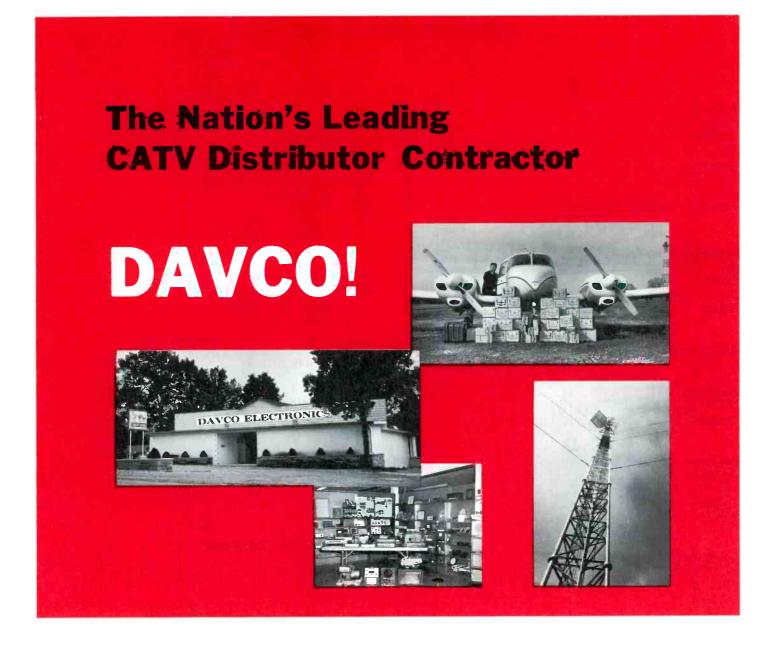
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TV & COMMUNICATIONS



As the community antenna television industry has prospered and grown, there has developed a very real need for improved lines of supply. The efficient distribution of CATV components and supplies is vital to system owners and construction companies with completion dates to meet. And replacement parts and equipment needed to put a system back into operation are mighty expensive if the operator must remain "off the air" for precious days while his order is filled!

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## **Experience Means Satisfaction** To **SKL** System Operators

Rochester Video Dial AT 9-1611 ROCHESTER, MINNESOTA May 17, 1963

Mr. Donald Spencer, President Mr. Donald Spencer, President Spencer-Kennedy Laboratories, Inc. 1320 Soldiers Field Road Boston, Massachusetts

activities.

All too often, we only write to our suppliers when we have a complaint. This letter, Don, is quite different in that Dear Don:

We are approaching the end of our seventh year in the cable business and our seventh year in the operation of SKL systems. I want you to know that at this stage we can really appreciate the dependability of your equipment. I can honestly state that our Brainerd and Rochester systems have been practically trouble free all these years. You and your staff must enjoy a real pride in your accomplishments and in the contributions you have made to the Community Antenna Industry. respect.

you have made to the Community Antenna Industry, I'll look forward to being one of your many satisfied customers in the many great years ahead of us in our CATV and associated

Yours very truly,

THE BEST IN TELEVISION RECEPTION

SPENCER-KENNEDY

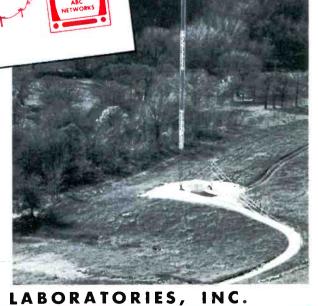
ROCHESTER VIDEO Frank P. Thompson Executive Vice President

Frank Thompson has 7 years' experience in the highly successful operation of SKL systems, serving many thousands of subscribers. He has long been a member of the National Community Television Association's board of directors and has taken an active interest and leading part in CATV industry affairs.

Abel Cable

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Like many other SKL system operators, Frank Thompson knows that the fine quality, low maintenance cost and continuing dependability of his SKL equipment, year after year, have made a real contribution to the outstanding operating record he has achieved.



FRANK

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