

**Description  
and  
technical  
specifications  
of**



**equipment**

## WARRANTY

Entron, Incorporated equipment is guaranteed to be free from any defects in workmanship and material.

This warranty shall hold for one year from the date of shipment. Any equipment that fails in service during this period should be returned to the factory, transportation charges prepaid, for repair or replacement.

Our liability under this warranty is limited to servicing or adjusting any instrument returned to the factory for that purpose, and to replace any defective parts thereof (except tubes, fuses, and batteries).

If the fault has been caused by misuse or abnormal conditions of operation, repairs will be billed at cost. In this case, an estimate will be submitted before work is started.

This warranty shall not apply if equipment is not paid for in full, specific financial arrangements notwithstanding, or if the Entron equipment has been repaired or in any way altered outside our factory, or if it has been subject to misuse, negligence or accident, or if the serial number has been altered, defaced or removed.



## METHOD ORDERING SHEET

To expedite shipment and to insure that you receive the correct equipment for your installation, please include the following information (where applicable) in your purchase orders.

1. Please specify:
  - (a) Method of shipment
  - (b) Desired delivery date
  - (c) Any special methods of handling
  
2. Please be sure that the items ordered are fully described either by part number or other description. Since some of our items (such as the Acrasplit) use many different types of coaxial connectors, please specify either the connector desired or the type of coaxial cable you wish to connect to the units.
  
3. In ordering Antenna Site Equipment for New Installations, please specify the following:
  - (a) What channels are being received?
  - (b) Signal strength of each channel?
    - (1) Maximum and minimum (fluctuations)
    - (2) Special conditions of extraneous interference
  - (c) What cables are to be used for antenna down leads?
  - (d) What conversions will be made?
  - (e) Are plans made to include any additional channels; please specify?
  - (f) What cable will be used for trunk line and what is distance to first re-amplifier?
  - (g) Specify line voltage maximum and minimum.
  
4. In ordering Antenna Site Equipment for existing installations, please specify the following:
  - (a) Show block diagram of present antenna site installation specifying channels received, conversions, etc.
  - (b) Indicate signal strength of each channel being received.
    - (1) Maximum and minimum fluctuations.
    - (2) Extraneous interference.
  - (c) What cables are being used for antenna down leads?
  - (d) What cables are used to inter-connect pieces of equipment?
  - (e) What is condition of signal entering present equipment
    - (1) signal strength
    - (2) quality
    - (3) signal variations
    - (4) Is signal being controlled by AGC?
  - (f) What are line voltage fluctuations?
  - (g) Specify type of cable and length to first re-amplifier.

Attention paid to these details at time of ordering will facilitate delivery. It will also insure that Entron equipment will be used within its limits so that long trouble free service will be obtained.

### ENTRON MODEL DRP PREAMPLIFIER

Bandwidth		6 mc (one VHF TV channel)
Gain - fixed - min.		30 db
Max. input		13000 $\mu$ v (+22 dbmv)
Frequency response		$\pm$ 0.5 db (over one channel)
Tubes	Low Band	1 6BK7A
		1 6CB6
	High Band	1 6BK7A
		1 6AK5
Impedance		75 $\Omega$ in and out
Connectors RF in		ER-400 (for RG-59/U)
	RF out-Power in	ER-300 (for RG-11 or RG-59 with Entron CP-59 plug)
Power requirements		115 v AC 12 watts or . . . when powered remotely by Entron RPS Power Supply
Fusing		19 v AC 12 watts
Dimensions		3 AG 1/2 amp
Weight	net	6-1/8" x 4-3/4" x 3-7/8"
	shipping	3 lb. 2 oz.
		4 lb.

### ENTRON MODEL RPS REMOTE POWER SUPPLY

Output		19 v AC to 28 v AC in 8 steps 1 amp max.
Power requirements		115 v AC 30 watts max.
Connectors RF in-Power out		ER-300 (for RG-11 or RG-59 with Entron CP-59 plug)
	RF out	ER-400 (for RG-59/U)
Fusing		3 AG 1/2 amp
Dimensions		4" x 3-3/16" x 5-1/2"
Mounting		Rubber feet, which can be removed for rack mounting when desired
Mounting centers		1-1/2" x 2-5/16"
Weight	net	3 lb. 8 oz.
	shipping	4 lb.

### ENTRON MODEL QAB QUICK ATTACH BRACKET

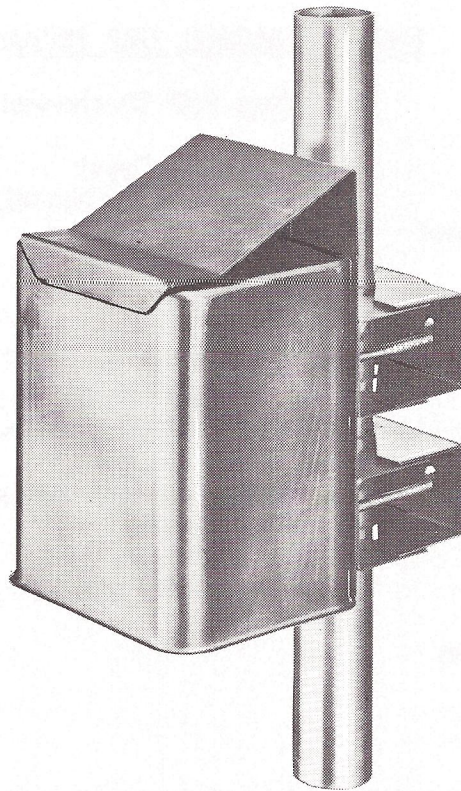
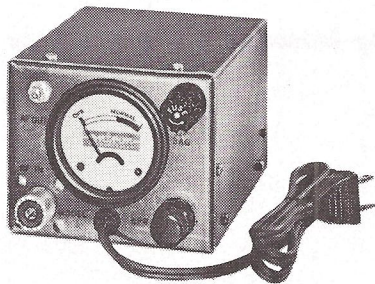
Overall Dimensions		7" x 5-1/2" x 3-3/4"
Mounting centers		2-1/4" x 2-1/2"
Max. mast diameter		1-1/2"
Weight	net	1 lb. 5 oz.
	shipping	2 lb.

### ENTRON MODEL PRR RACK PANEL

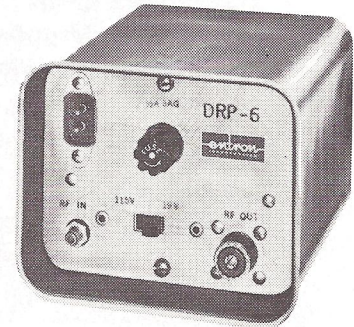
3-1/2" wide standard 19" Rack Panel pre-drilled for 4 RPS Power Supplies.



RPS Remote Power Supply



DRP Preamplifier Mast Mounted using QAB Bracket



DRP Preamplifier

The ENTRON DRP is a low noise, color compatible, preamplifier that may be either directly or remotely powered. It is designed so that selection of the power source is fool-proof. No plugs or jumpers are required. Switching to one source disconnects the other, eliminating shock hazards and possibility of damaging equipment. This unit has a minimum gain of 30 db and underrated components result in exceptionally long life. When used with an ENTRON QAB quick attach bracket, the DRP preamplifier is quickly dismantled without the use of tools. The QAB bracket is designed to mount on towers, masts, telephone poles or crossarms. When the DRP is directly powered, 115 volts is supplied by a power line. It is remotely powered by 19 volts fed over the RF transmission line from an ENTRON RPS power supply. The RPS is a completely remote supply which combines RF signals and AC power on a coaxial transmission line. Fuses are located in the power supply instead of the preamplifier. A power adjustment compensates for variations in power line voltage and transmission line length, and a built-in meter indicates proper operating voltage. All units have a corrosion resistant (Federal Spec. QQ-P-416(1)) finish and the DRP is completely weatherproof, requiring no additional protection.

**COLOR COMPATIBLE**

## GENERAL TERMS AND CONDITIONS OF SALES

**PRICES:** Prices subject to change without notice.

**ERRORS:** We reserve the right to correct clerical or stenographic errors or omissions on purchase orders forwarded us.

**TERMS:** Subject to approval by Credit Department. Terms are 1% ten days, net 30 days.

**PARTIAL SHIPMENT:** Partial shipments will be invoiced as shipped. Payments are due as invoiced.

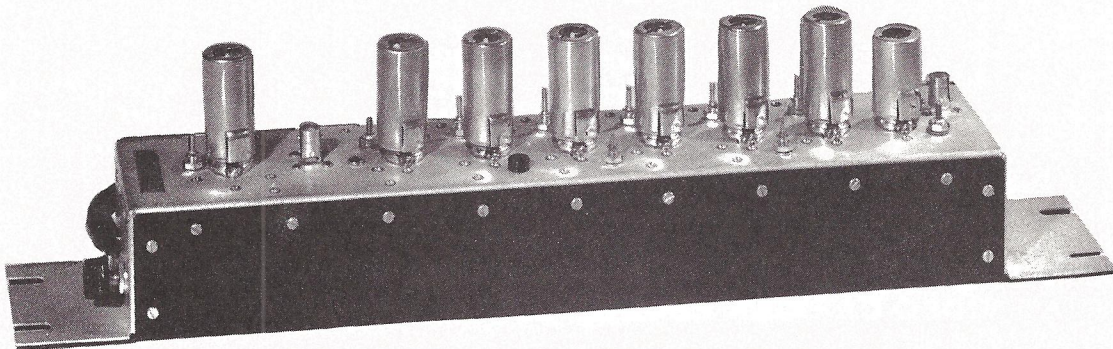
**SHIPMENT:** Shipments will be normally made by Railway Express, although customer may select air deliveries at his own expense. Small packages will be shipped by parcel post. All shipments are F.O.B. plant, Bladensburg, Maryland.

**SHIPPING EXPENSE:** All shipments will be insured for full value at customer's expense.

**DELIVERY:** Delivery dates are given to the best of our knowledge based on conditions existing at time of quotation. We will make every effort to ship within time estimated, but cannot guarantee to do so. Failure to make shipment as scheduled does not constitute a cause for cancellation and/or for damages of any character. The execution of this order is contingent upon strikes, delays of carriers, fires, and other delays or causes either unavoidable or beyond our control.

**CANCELLATION:** Cancellation of orders will be accepted only on terms that guarantee us against any loss.

**SPECIAL CHANGES:** The manufacturer reserves the right to discontinue and/or change specifications of any equipment without notice, and to change specifications without responsibility for incorporating changes in equipment already sold.



APL - LOW BAND PREAMPLIFIER

## Features

- High gain AGC circuit...for absolutely stable pictures
- Cascode low noise input...makes weak signals usable
- Extreme stability...long term unattended service
- Matched 75 ohms fittings...to assure low VSWR
- Virtually no radiation...no equipment cross modulation
- High overall gain...eliminates antenna top boosters
- Full 6 mc bandwidth...no distortion of color signals
- Wide dynamic range...will handle large input signals
- Full range gain control...wide output voltage limits
- Relay rack mounting...ENTRON's flexible installation

## Technical Specifications

BANDWIDTH	6 Megacycles
MAXIMUM GAIN IN db AT VIDEO CARRIER FREQUENCY	
APL-2	100 db
APL-3	95 db
APL-4	90 db
APL-5	87 db
APL-6	85 db
FREQUENCY RESPONSE OVER VIDEO RANGE	± 1.5 db
MAX. OUTPUT LEVEL IN db ABOVE 1 MILLIVOLT (AT VIDEO CARRIER LEVEL)	52 db (0.4 Volt)
MIN. INPUT FOR MAX. OUTPUT (1 MILLIVOLT REFERENCE LEVEL)	-26 db (50 uv)
INPUT IMPEDANCE (UNBALANCED)	75 ohms
OUTPUT IMPEDANCE (UNBALANCED)	75 ohms
AGC: MAX. OUTPUT VARIATION FOR 60 db INPUT VARIATION	2 db
TUBE COMPLEMENT	(1) 5654 (1) 6J6 (6) 6CB6
NET WEIGHT	5 Lbs.
SHIPPING WEIGHT	6 Lbs.
DIMENSIONS	Width        3" Length       19" Depth        4 1/2"
MOUNTING	Rack 19"
FINISH	Black Wrinkle over Silver Plate
POWER REQUIREMENTS	225 Volts at 50 ma. D.C. Max. 150 Volts at 12 ma. D.C. Max. 6.3 Volts at 2.5 Amps. A.C.

USE ENTRON PSR-1 POWER SUPPLY WITH MAX. 4 APL UNITS.





CHL VHF Converter

## FEATURES

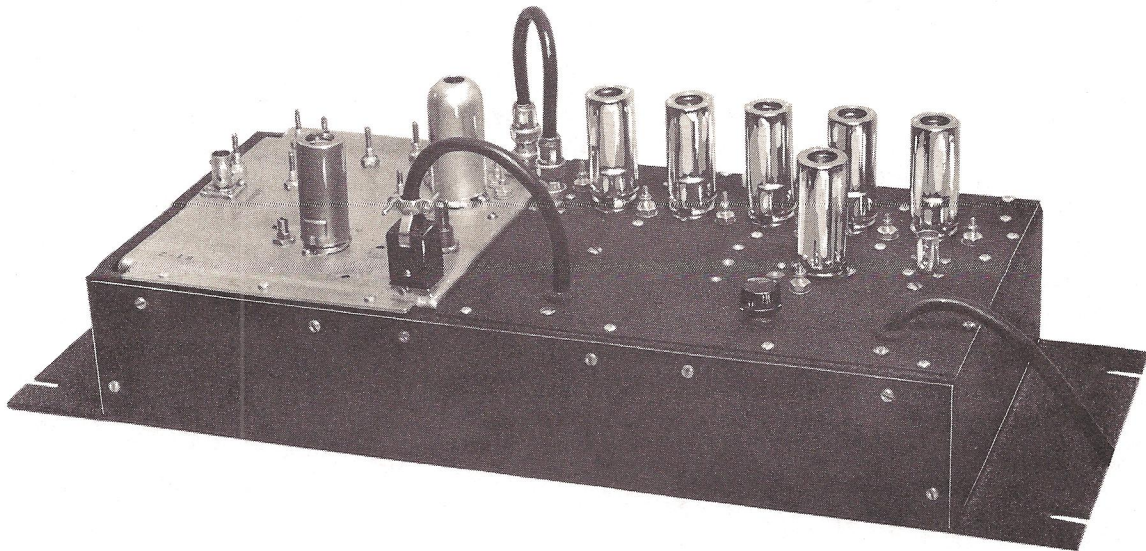
- Neutralized Cascode Input... assures lowest overall noise figure
- Ultra Stable Tunable Oscillator... minimizes frequency shift without crystals
- Hi Gain AGC... assures maximum stability of output signal
- Wide Dynamic Range... handles large input signals without clipping
- Standard Mounting... 19" Relay Rack construction
- Self Contained... all RF circuits on one chassis exclusive of regulated power supply
- Color Compatible... full bandwidth passes all picture details and important color sync signals
- High Conversion Gain... nearly always eliminates need for antenna preamps
- \* ■ Center Band Design... can be realigned to cover other channels if desired

\* When ordering specify input VHF channel and desired low band VHF output channel.

## CHL SPECIFICATIONS

Bandwidth	6 mc
Conversion Gain	80 to 100 db (varies with frequency)
Conversion Noise Figure Overall	9 db Maximum
AGC Range	$\pm 1$ db for 40 db Input Variation
Maximum Output Level	+ 52 db mv (0.4 volt)
Frequency Response	$\pm 0.25$ db over Video Spectrum
* Power Requirements	120 ma at 160V DC Regulated Max. 3 amp at 6.3V AC Unregulated Max.
Impedance	75 ohms Unbalanced Input and Output
Connectors	BNC Input and Output
Tube Complement	2-6AM4 Cascode RF Amplifier 3-5654 RF Amplifier 1-6U8 Oscillator Mixer 4-6CB6 IF Amplifier & AGC
Fusing	None. Fusing Incorporated in Model PSR-2 Power Supply
Mounting	19" Relay Rack
Dimensions	Width 3" Length 19" Depth 4 1/2"
Weight	Net 5 lbs Shipping 6 1/2 lbs
Finish	Black Crackle over Copper plate

\* Power Requirements for a Maximum of 3 CHL Converters are met by Entron Model PSR-2 Regulated Power Supply



CUL UHF Converter

- FEATURES**
- Compensated Tunable Oscillator...virtually no frequency shift without crystals
  - Low Noise Figure...uses new 6BC4 triode RF amplifier
  - High Conversion Gain...requires no preamplifier
  - Stable, High Gain AGC...maintains constant output level
  - Color Compatible...full bandwidth does not distort color signals
  - Standard Mounting...19" Relay Rack construction
  - Coaxial Terminals...BNC input & output connectors assure constant impedance, quick disconnect
  - \* ■ Unique Center Band Design...can be realigned to cover other channels if desired
  - Filtered output...eliminates unwanted spurious signals

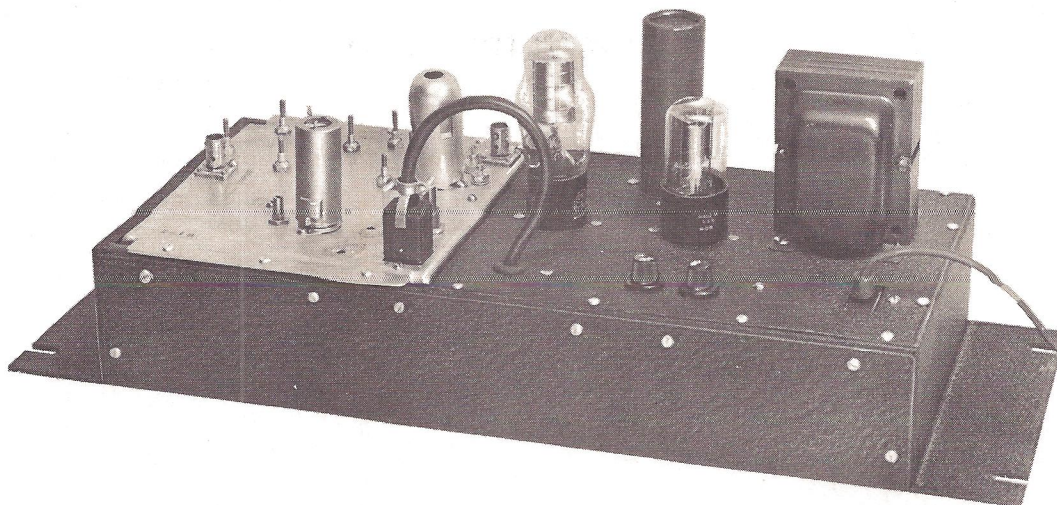
\* When ordering specify input UHF channel and desired low band VHF output channel.

## CUL SPECIFICATIONS

Bandwidth	6 mc
Conversion Gain UHF Head	Minimum 14 db
Overall	Minimum 94 db
Conversion Noise Figure UHF Head	10 db at 890 mc
Overall	12 db at 890 mc
AGC Range	+ 1 db for 40 db Input Variation
Maximum Output Level	+ 54 db mv (0.5 volt)
Frequency Response	+ 1.5 db over Video Spectrum
Maximum Input Signal	1300 microvolts
▲ Power Requirements	70 ma at 160V DC Regulated Max. 2.7 amp at 6.3V AC Unregulated Max.
Impedance	75 ohms Unbalanced Input and Output
Connectors	BNC Input and Output
Tube Complement	1-6299 UHF RF Amplifier * 1-6AF4 Oscillator 1-6AM4 UHF Mixer * 5-6DC6 IF Amplifier 1-6CB6 AGC Amplifier
Fusing	None. Fusing Incorporated in Model PSR-2 Power Supply
Mounting	19" Relay Rack
Dimensions	Width 7" Length 19" Depth 5"
Weight	Net 15 lbs Shipping 17 lbs
Finish	Black Crackle over Silver plate

\* Type 6BC4 used on some Production Models with no change in performance.

▲ Power Requirements for a Maximum of 3 CUL Converters are met by Entron Model PSR-2 Regulated Power Supply



## CUL-P UHF Converter

### FEATURES

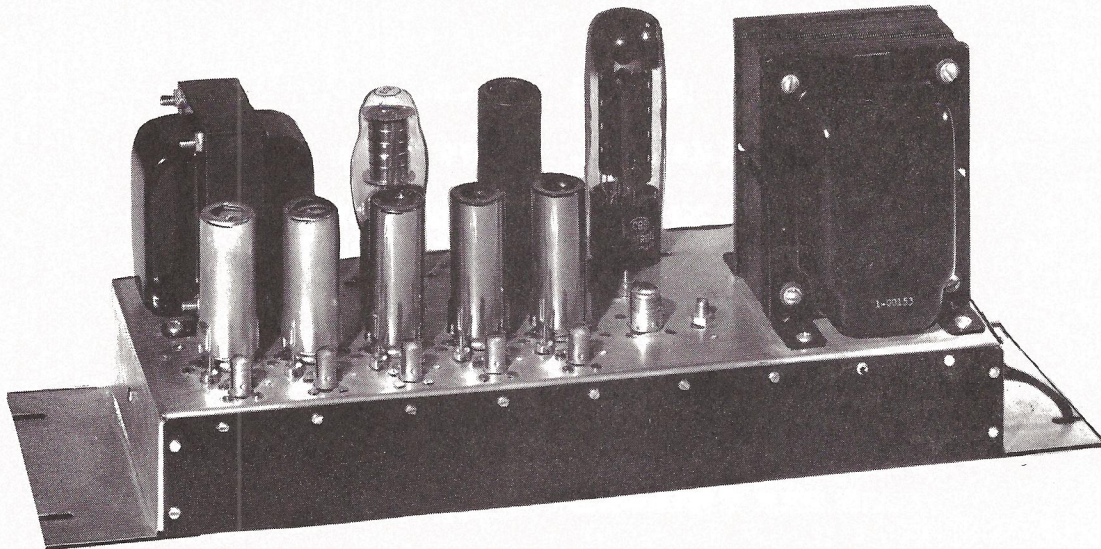
- Self-contained construction... includes regulated power supply
  - \* ■ Center Band Design... allows easy shift to other channels if desired
  - Low Noise Figure... extends UHF reception well beyond normal fringe area
  - High Conversion Gain... requires no external preamplifiers
  - Ultra Stable Tuneable Oscillator... Crystal stability without crystals
  - Standard Rack Mounting... assures "custom look" when used with other Entron equipment
  - 75  $\Omega$  Input and Output Impedances... compatible with other Entron antenna site preamplifiers. Designed for "Add-A-Channel" Operation.
- \* When ordering specify input UHF channel and desired low band VHF output channel.

Note: The superb RF converter head incorporated in the CUL-P is a part of the ENTRON CUL. The reason for eliminating the Post amplifier and AGC is to encourage the addition of UHF channels at extremely low costs to existing systems.

## CUL-P SPECIFICATION

Bandwidth	6 mc
Conversion Gain	14 db
Conversion Noise Figure	10 db at 890 mc
AGC	None
Maximum Output Level	+29 db mv (25000uv)
Frequency Response	+ 1.5 db over Video Spectrum
Maximum Input Signal	+15 db uv (5600 uv)
Power Requirements	115V AC 60 cps 35 watts maximum
Impedance	75 ohms Unbalanced Input and Output
Connectors	BNC Input and Output
Tube Complement	1-6299 UHF RF Amplifier* 1-6AF4 Oscillator 1-6AM4 UHF Mixer* 1-6X5 Fullwave Rectifier 1-OD3 Gaseous Regulator
Fusing	Primary 0.75 Amp. 3AG B+ .4 Amp. 3AG-SloBlo
Mounting	19" Relay Rack
Dimensions	Width 7" Length 19" Depth 6 1/2"
Weight	Net 12 lbs. Shipping 14 lbs.
Finish	Black Crackle over Copper Plate

\* Type 6BC4 used on some production models with no change in performance.



MUE-5 ELECTRONIC MIXER

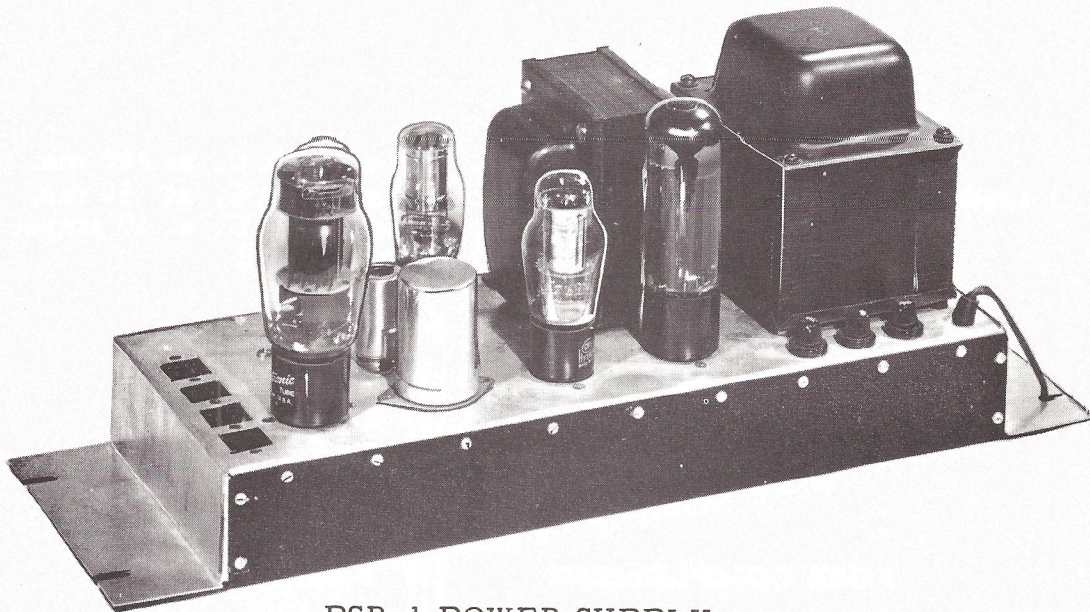
## Features

- DESIGNED FOR FIVE ADJACENT CHANNELS
- 9 db GAIN PER CHANNEL. . . 1 volt output signal per channel
- FLAT FREQUENCY RESPONSE. . . color compatible
- EXCELLENT GAIN STABILITY. . . minimizes effect of line voltage variation
- SELF CONTAINED POWER SUPPLY. . . universal application
- DESIGNED FOR HIGH INPUT SIGNALS. . . handles full output of ENTRON preamplifiers or converters
- LONG TERM STABILITY. . . conservative design ratings and preaged tubes
- MATCHED CONNECTORS. . . designed for low VSWR
- RF LINE FILTER. . . self contained filter assures no radiation
- RELAY RACK MOUNTING. . . ENTRON'S flexible installation

## Technical Specifications

INPUTS	Channels 2, 3, 4, 5, 6
INPUT IMPEDANCE OF EACH CHANNEL	75 Ohms
OUTPUT	Composite of Inputs, Channels 2, 3, 4, 5, 6
OUTPUT IMPEDANCE	75 Ohms
MAX. INPUT VOLTAGE EACH CHANNEL	0.4 volt rms
MAX. OUTPUT VOLTAGE EACH CHANNEL	1.0 volt rms
GAIN PER CHANNEL	9 db
FREQUENCY RESPONSE	50-90 mc. $\pm$ 1 db
GAIN STABILITY (FOR $\pm$ 10 VOLT LINE CHANGE)	$\pm$ 0.4 db
TUBE COMPLEMENT	(5) 12BY7 (1) OD3 (1) 5AW4
NET WEIGHT	18.5 Lbs.
SHIPPING WEIGHT	21 Lbs.
DIMENSIONS	Width        6" Length      19" Depth       7"
MOUNTING	Rack 19"
FINISH	Black Wrinkle over Silver Plate
POWER REQUIREMENTS	100 Watts (115 Volts, 60 cps)
FUSING	Primary    3AG - 3 AMP B Minus    3AG - .25 AMP





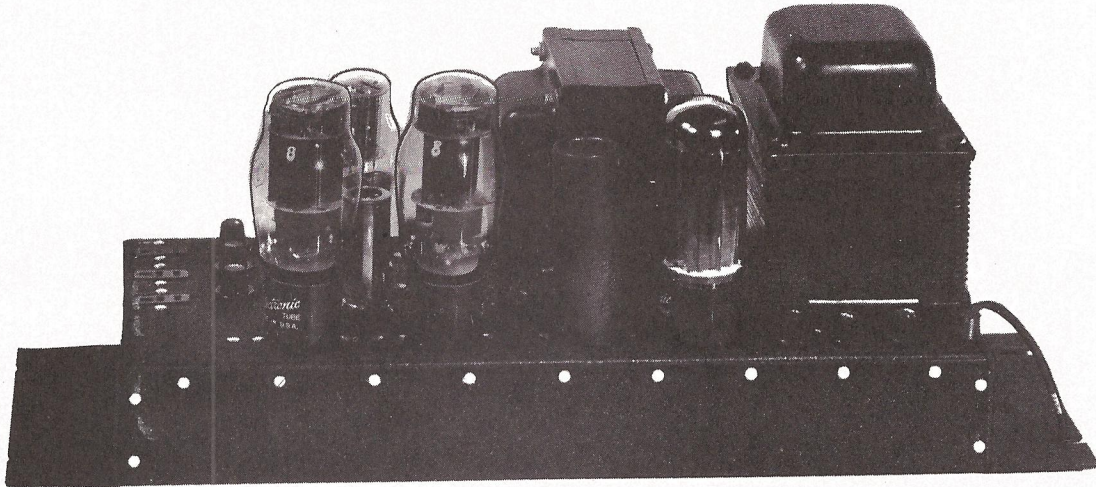
PSR-1 POWER SUPPLY

## Features

- EXTREME STABILITY...electronic series tube regulation
- ADJUSTABLE OUTPUT VOLTAGES...for any preamplifier
- BUILT IN LINE FILTERS...prevents power line radiation
- FULL FUSE PROTECTION...costly repairs prevented
- DESIGNED FOR USE WITH A MAXIMUM OF 4 (four)  
ENTRON PREAMPLIFIERS

## Technical Specifications

OUTPUTS (Will supply all power requirements for 4 APL units)	225 volts D.C. at 200 ma. 150 volts D.C. at 50 ma. 6.3 volts A.C. at 10 amps. (unregulated)
REGULATION	± 1%
TUBE COMPLEMENT	(1) 5AU4 (5AW4) (1) OD3 (2) OA3 (1) 5654 (1) 6AS7-G
FUSE COMPLEMENT	(1) 3-amp. (1) 0.5 amp. (1) 0.1 amp. (Slo-Blo)
NET WEIGHT	24 Lbs.
SHIPPING WEIGHT	26 Lbs.
DIMENSIONS	Width 6" Length 19" Depth 7"
MOUNTING	19" Rack
FINISH	Black Wrinkle
POWER REQUIREMENTS	140 Watts (Max.) (100-130 Volts, 60 cps)



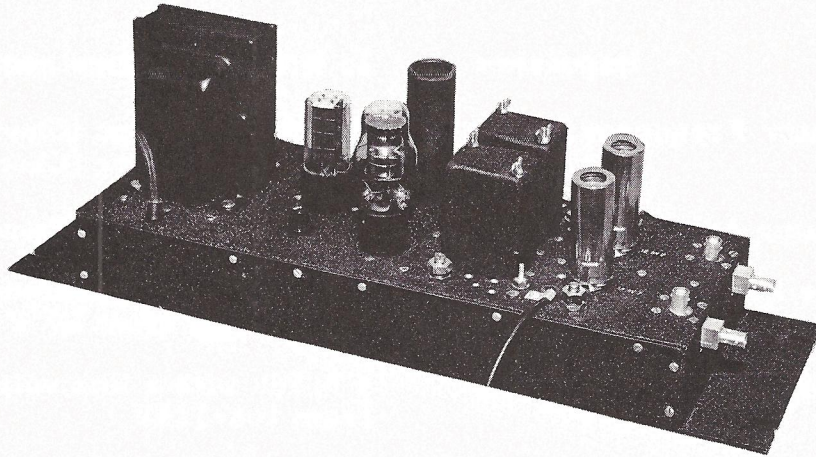
PSR-2 POWER SUPPLY

## Features

- EXTREME STABILITY...electronic series tube regulation
- ADJUSTABLE OUTPUT VOLTAGES...for any converter
- BUILT IN LINE FILTERS...prevents power line radiation
- FULL FUSE PROTECTION...costly repairs prevented
- SUPPLIES FULL POWER FOR A MAXIMUM OF 3 (three)  
ENTRON CONVERTERS

## Technical Specifications

OUTPUTS (Supplies 3 CUL or 3 CHL or any combination of three converter units)	160V 400 MA D.C. (regulated) 6.3V 8.5 Amps. A.C. (unregulated)
REGULATION	± .5%
TUBE COMPLEMENT	(1) 5AU4 (2) 6AS7G (1) 6CB6 (1) OA3-VR-75
FUSE COMPLEMENT	(1) 3-amp. primary (1) 0.6 amp. B minus (Slo-Blo) (1) 0.1 amp. Bias (Slo-Blo) (3) 1/4 amp. -individual converter protection
WEIGHT	Net 25 Lbs. Shipping 28 Lbs.
DIMENSIONS	Width 6" Length 19" Depth 7"
MOUNTING	19" Relay Rack
FINISH	Black Wrinkle
POWER REQUIREMENTS	185 Watts (Max.) 105-130 Volts, 60 cps



SSO-L Gated Control Oscillator

## FEATURES

- Automatically substitutes two ultra stable carriers for "off the air" signals to control systems gain and noise
- Supplies control information for the Equatrol system
- Adjustable gate level assures operation at any signal level
- Can be used with ANY antenna site equipment
- Completely self contained design...automatic level control and regulated power supply
- Stable oscillators can be easily tuned for offset operation
- Long term reliability guarantees foolproof operation

## SSO-L SPECIFICATIONS

Impedance	In & Out	75 ohms nominal
Oscillator Frequency Range	No. 1	54-68 mc (Channels 2-3-4)
	No. 2	68-88 mc (Channels 5-6)
Oscillator Amplitude Range	No. 1 & 2	34-54 dbmv (.05-.5V)
Oscillator Frequency Stability		$\pm 0.1$ mc drift maximum with temperature change from 60 <sup>o</sup> F-120 <sup>o</sup> F
Oscillator Amplitude Stability		$\pm 0.5$ db with a line voltage variation from 105-125V
Control Range of Gated Control Tube		"Pull-in Drop-out" differential voltage is approximately 1V. Range can be field adjusted between 1-5V DC
Radiation in uv/m		Less than 10 microvolts/meter at one wave length
Tubes		2-12BY7 2-6AN8 1-OD3 1-5Y3
Fuses	Primary	1.0 Amp 3AG
	B Minus	0.2 Amp 3AG SLO BLO
Power Requirements		115V 60 cps 70 VA
Connectors	In & Out	BNC RF
	Control Voltage	DJ-61
Dimensions	Width	19"
	Length	6"
	Height	6"
Weight.	Net	16 lbs.
	Shipping	18 lbs.
Mounting		Rack
Finish		Black Wrinkle



EQUATROL LINE AMPLIFIER Model VEC-L

## FEATURES

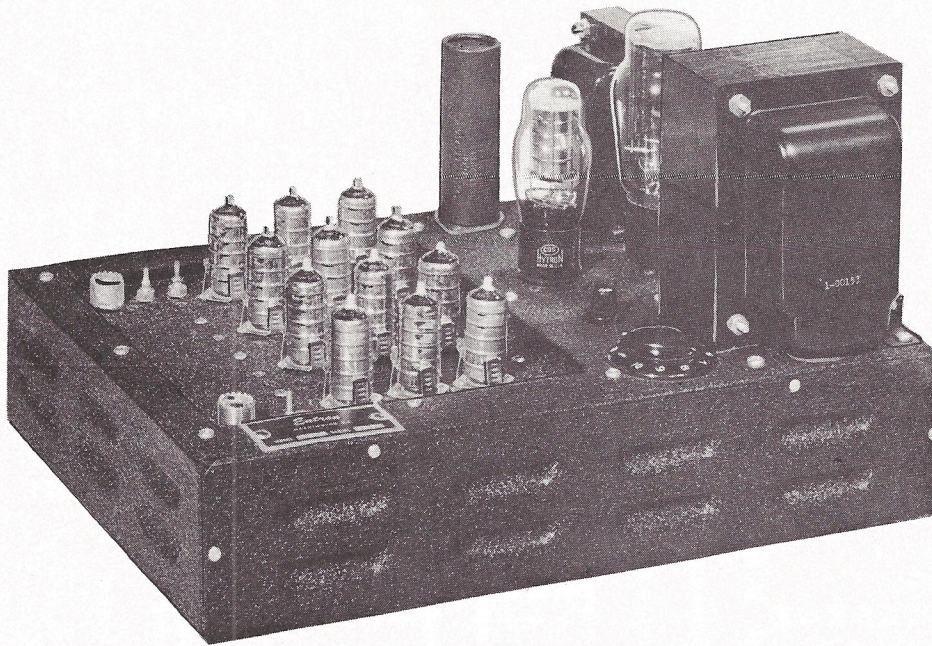
- Tilt controlled automatically...low signals balanced to high
- True peak AGC...for positive level control
- Reserve gain exceeds 20db...allows more tube "fall-off"
- Superior voltage regulation...controls for abnormal line changes
- Excellent linearity...no inter-modulation at any level
- Wide dynamic range...corrects for extreme temperature changes
- Simple field adjustment...minimum controls for ease of maintenance

## Technical Specifications

Impedance In & Out	75 ohms nominal	
* Frequency Response	54 to 90 mc $\pm$ 1/2db	
Maximum Gain	55db	
Normal Operating Gain	40db	
Maximum Output Level	3 channels - 52dbmv (.4 volt per channel) 5 channels - 46dbmv (.2 volt per channel)	
AGC Range	Maximum output variation 2db for 20db input variation	
Maximum Equalization	$\pm$ 1/2db for a $\pm$ 3db input tilt	
Gain Stability	$\pm$ 1/2db...at any output setting with a line voltage variation from 105-125 volts	
Tube Complement	2 6BK7A	1 6AS7G
	4 12BY7	1 5AW4
	7 6CB6	1 6X4
	2 6AL5	1 OD3
	1 12AT7	
Fuses	Primary 3 amp. 3AG SLO BLO B Minus 1/4 amp. 3AG SLO BLO	
Connectors	Input - UHF (Amphenol 83 series) Output - Amplifier N Equalizer UHF (Amphenol 83 series)	
Dimensions	Width	17"
	Length	10 3/8"
	Height	8 1/4"
Weight	Net	33 lbs.
	Shipping	40 lbs.
Power Requirements	150 V. A.	115 Volts 60 cps.

\* The output of the amplifier is flat. In order to equalize the amplifier for the next succeeding line section it is necessary to use a fixed equalizer (Entron part ECE), which is designed to plug into the output terminal of the amplifier. One (1) 8db equalizer (ECE-8) is normally supplied with each amplifier. Equalizers with 4db and 6db ranges are available instead of the equalizer normally supplied if so desired.



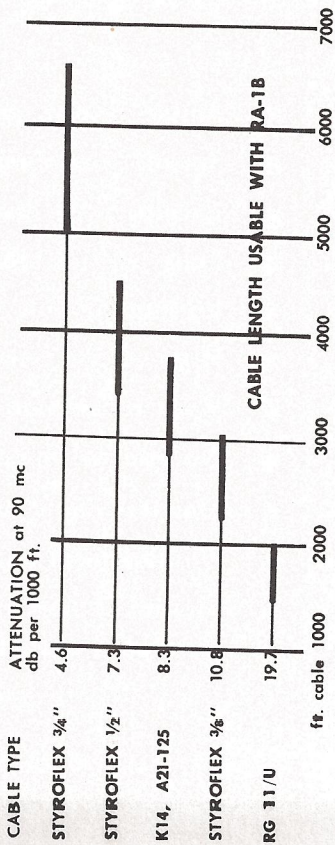
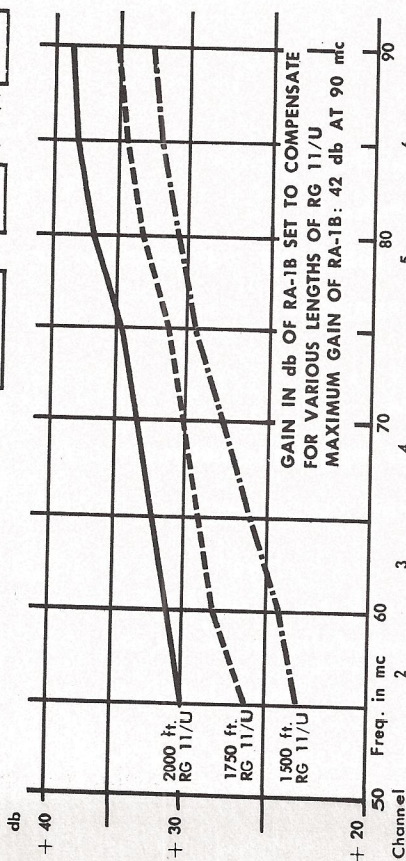
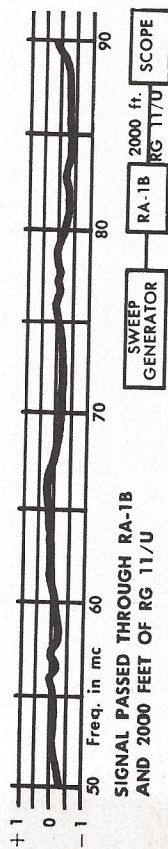


## Repeater Amplifier **EQUALINE RA-1B**

### Features

- Ample reserve gain
- Smooth continuous frequency response
- Excellent AC line regulation
- Long term stability and reliability with minimum maintenance
- Built-in RF line filter, eliminates radiation
- High output voltage
- Wide range gain control
- No external matching or equalizing networks required
- Standard input and output connectors
- No alignment necessary
- Minimum bandwidth shrinkage (Over 40 Equaline RA-1B amplifiers have been cascaded successfully on one trunk line.)
- The only self-equalizing broad band distributed amplifier available for community systems use
- Accurate match input and output to all 72 ohm cables

# Technical Specifications • EQUALINE RA-1B Repeater Amplifier



0 db = 1 millivolt RMS reference

Impedance output -- 72 ohms nominal  
input -- 72 ohms nominal

Frequency response (usable bandwidth) 45-105 mc

Rated maximum gain at midband of

channel 2	31 db
3	33
4	36
5	39
6	41
FM 50	

Gain control 18 db range rated

Maximum output single channel in pass band 63 db

Maximum input to achieve maximum output 32 db

Maximum output 3 channels in pass band

channel 2	+40 db
4	+46
6	+49

Maximum input 3 channels +10 db per channel

Maximum output 5 channels in pass band

channel 2	+38 db
3	+40
4	+42
5	+43
6	+46

Maximum input 5 channels +6 db per channel

Fusing primary — 3 amp

B minus — 1/4 amp

screen — 1/10 amp slow blow

Tube complement 1 5U4G 1 OD-3/VR-150 12 6AH6V

Maximum noise level 80 db below maximum — output single channel

65 db below maximum — output 5 channel in pass band

Gain stability ±1 db at any gain setting with a line variation from 105-125 volts

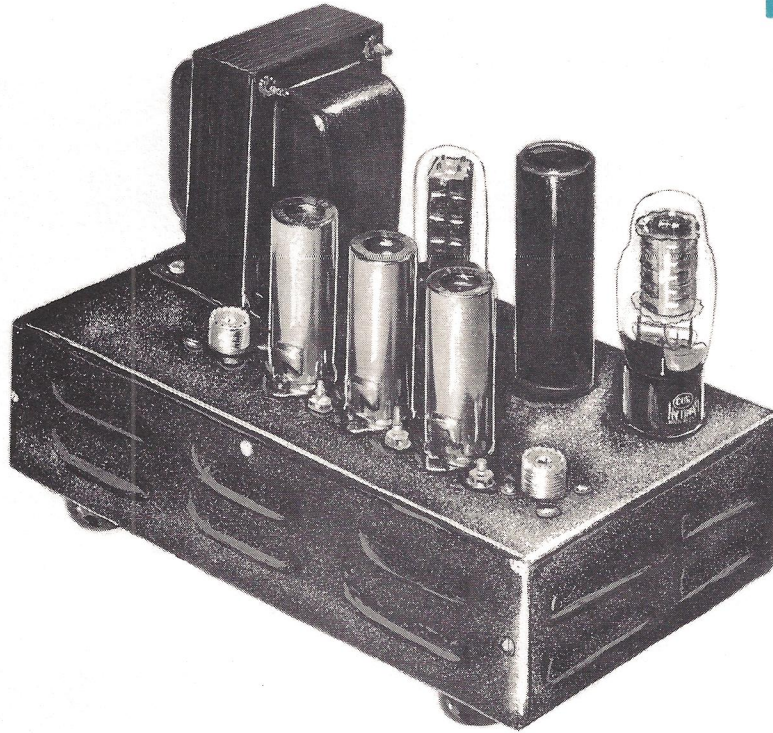
Power requirements 120 watts 115 volts 60 cps

Connectors standard UHF (Amphenol 83 series)

Recommended mounting horizontal

Dimensions overall height 8 1/2" height 10" width 14"

Net weight 23 lb Shipping weight 26 lb



Repeater Amplifier EquaLine RA-3

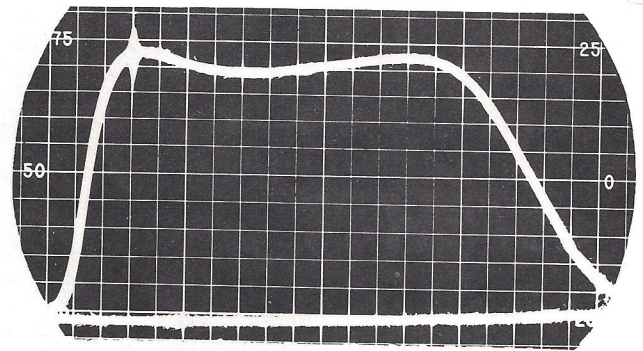
#### FEATURES

- Standard input and output connectors
- No external matching or equalizing networks required
- Accurate match input and output to all 72 ohm cables
- Ample reserve gain
- Excellent AC line regulation
- Smooth continuous frequency response
- Built-in RF line filter, eliminates radiation
- Long term stability and reliability with minimum maintenance
- Field adjustable equalization simplifies system set-up
- Low cost
- Fixed gain
- Broadband - all channels 2 thru 6
- Color Compatible - no distortion of any color signal in  
pass band

## SPECIFICATIONS

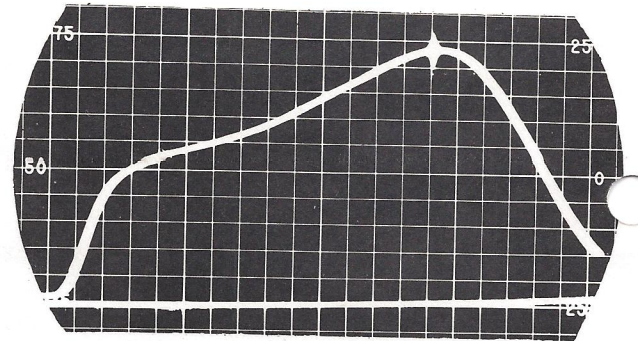
**0 db = 1 Millivolt RMS (reference)**

Impedance input	75 ohms nominal
output	75 ohms nominal
Frequency response	50-90 mc
Gain	25 db nominal
Gain Stability for 10% line voltage variation	$\pm .5$ db
Maximum output single channel	+ 62 db (per channel)
Maximum input single channel	+ 37 db " "
Maximum output two channel	+ 52 db " "
Maximum input two channel	+ 27 db " "
Maximum output five channel	+ 42 db " "
Maximum input five channel	+ 17 db " "
Fusing	Primary 3AG - 1 AMP SLO BLO B Minus 3AG - .25 AMP
Connectors	Standard UHF (Amphenol 83 Series)
Recommended Mounting	Horizontal
Dimensions	Height - 7" Depth - 6" Length - 10"
Weight	Net - 8 1/4 lbs. Shipping - 11 1/2 lbs.



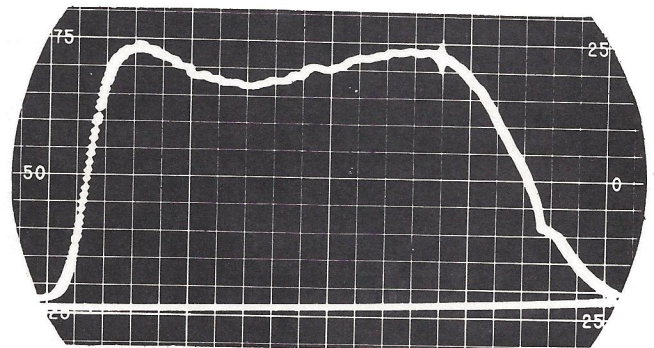
**1**

Production amplifier aligned for flat response. Marker at channel 2 pix.



**2**

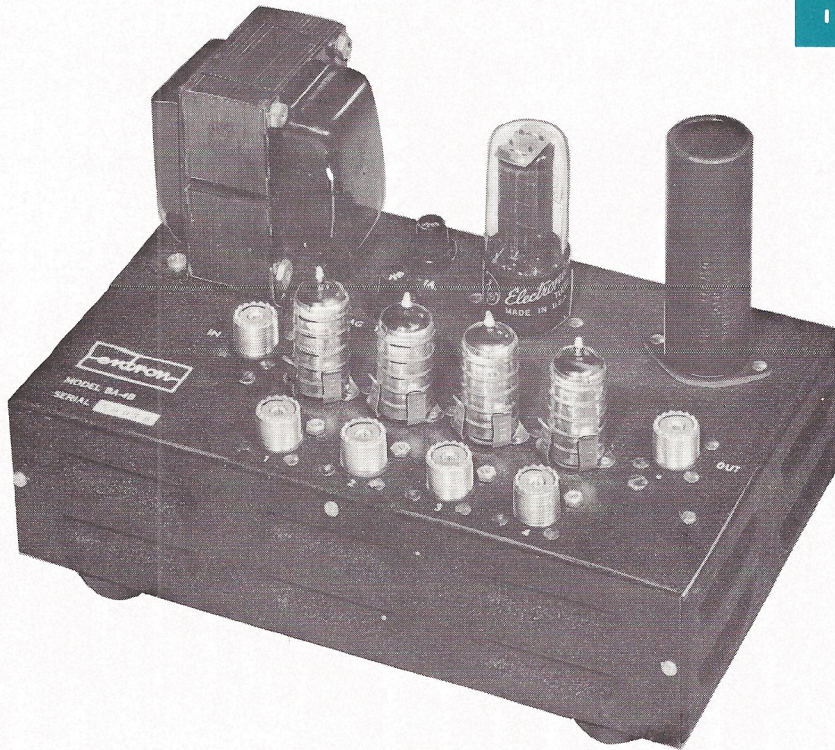
Same amplifier aligned to compensate for 1000 feet of RG 11/U. Marker at channel 6 pix.



**3**

Signal passed through RA-3 and 1000 feet of RG 11/U. Marker at channel 6 pix.

UNRETOUCHED PHOTOS

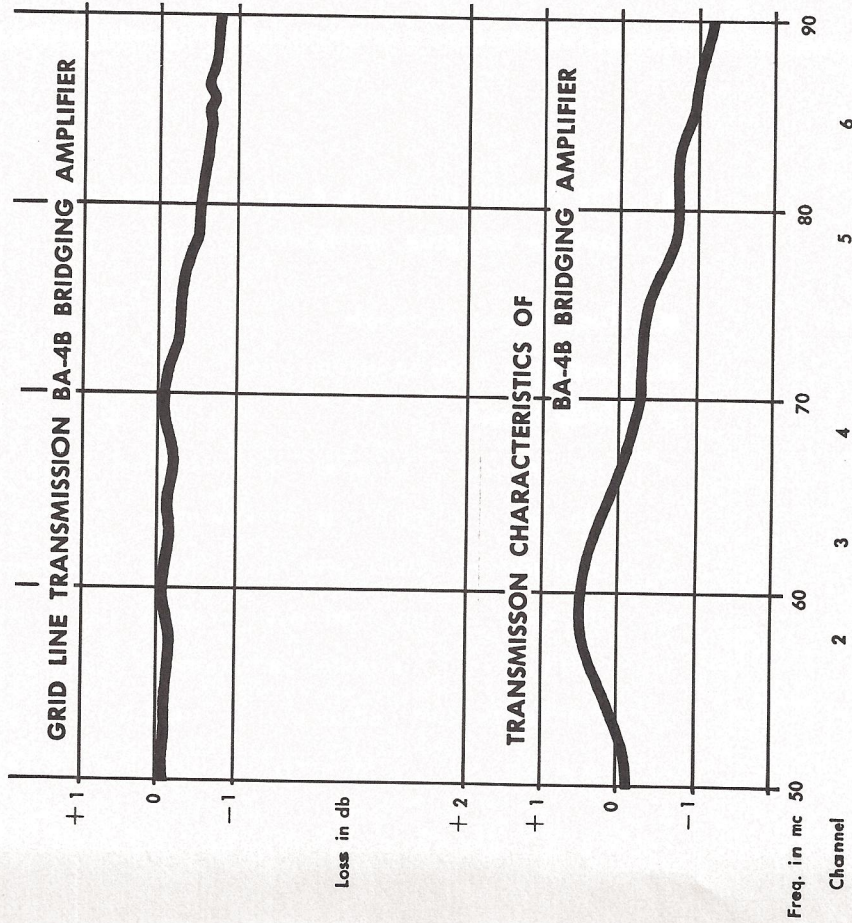


## Bridging Amplifier **BA-4B**

### Features

- The Entron BA-4B is a stable, trouble-free, low-loss bridging amplifier.
- Four output terminals
- Less than 1 db insertion loss
- Unity transfer
- Flat frequency response, channels 2 to 6
- Less than 1 db differential between outputs
- Excellent regulation with line voltage variations
- Full wave vacuum tube power supply
- Built-in filter, eliminates radiation
- Will handle full output of line amplifier
- Excellent isolation between outputs
- Nominal 72 ohm terminal impedance

# Technical Specifications • BA-4B Bridging Amplifier



0 db = 1 millivolt RMS reference

*Input and output impedance* 72 ohms nominal

*Frequency response (bandwidth)* 45 to 105 mc

*Feedthrough (grid line) insertion loss* 0.3 to 0.6 db

*Maximum bridging loss* 1 db nominal

*Maximum single channel input voltage* +59 db

*Maximum 3 channel input voltage per channel* +50 db (0.3 volt)

*Maximum output plate signal* +58 db (0.75 volt)

*Gain stability* ±1 db gain variation with line variation of 105-125 volts  
4 output terminals

*Tube complement* 1 5Y3GT 4 6CB6

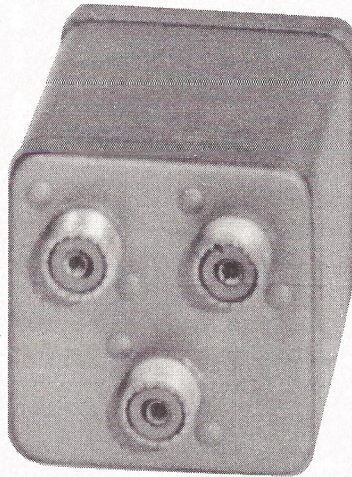
*Fusing* primary — 1 amp  
B minus — 1/10 amp slow blow

*Power requirements* 40 watts 115 volts 60 cps

*Connectors* standard UHF (Amphenol 83 series)

*Dimensions* height 6" depth 6" length 10"

*Net weight* 6 lb 6 oz *Shipping weight* 8 lb 2 oz



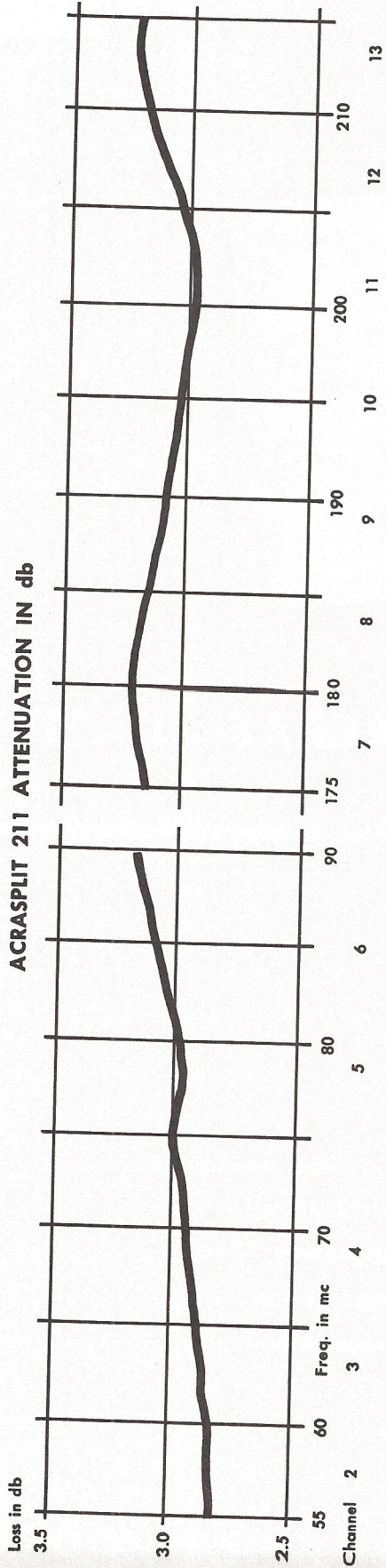
## Passive Divider Network **ACRASPLIT 211 & 259**

---

### **Features**

- Two outlet passive divider network with nominal 3 db loss
- Broadband, channels 2 through 13, flat within 1 db
- Input and output impedance 72 ohms
- RG 11 or 59 fittings, as specified
- Eliminates interference between sets
- Completely waterproof • Insert anywhere in line

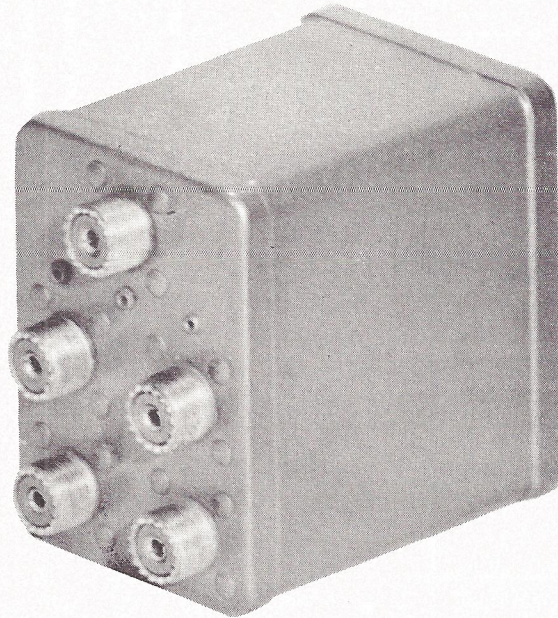
# Technical Specifications • ACRASPLIT 211 & 259 Passive Divider Network



**Also available on special orders**  
**AcraSplit 21159**  
 with 2 Entron CC 59 output connectors  
 and Amphenol 83-IR input connector  
**AcraSplit 25911**  
 with Entron CC 59 input connector  
 and 2 Amphenol 83-IR output connectors

**Number of output terminals** 2  
**Input and output impedance** 72 ohms nominal  
**Pass band** 50-220 mc  
**Attenuation between input and any output terminal** 3.5 db ±.5 db  
**Isolation attenuation (attenuation between outputs)** 20 db minimum  
**Input and output connectors 211** Amphenol 83-IR (standard UHF)  
**Input and output connectors 259** fits Entron CC 59  
**Overall dimensions** height 2 1/2" width 2 1/2" length 3 3/4"





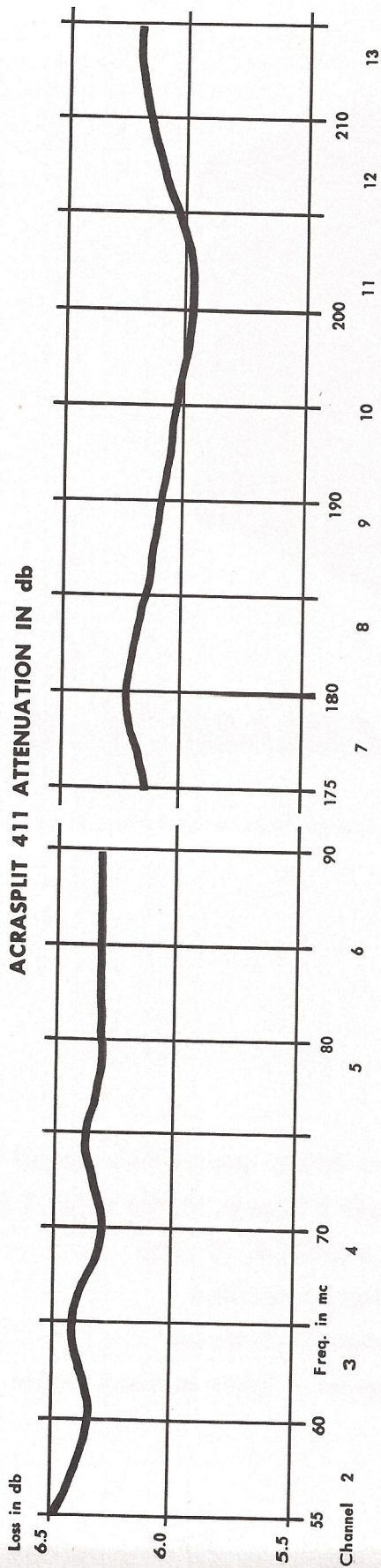
## Passive Divider Network **ACRASPLIT 411 & 459**

---

### **Features**

- Four outlet passive divider network with nominal 6 db loss
- Broadband, channels 2 through 13, flat within 1 db
- Input and output impedance, 72 ohms
- RG 11 or 59 fittings, as specified
- Eliminates interference between sets
- Completely waterproof • Insert anywhere in line

# Technical Specifications • ACRASPLIT 411 & 459 Passive Divider Network

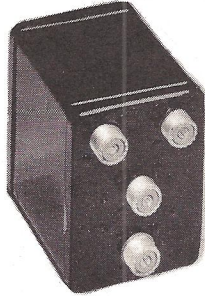


- Number of output terminals* 4
- Input and output impedance* 72 ohms nominal
- Pass band* 50-220 mc
- Attenuation between input and any output terminal* 6.0 ±1.0 db
- Isolation attenuation (attenuation between outputs)* 20 db minimum
- Input and output connectors 411* Amphenol 83-1R (standard UHF)
- Input and output connectors 459* fits Entron CC 59
- Overall dimensions* height 3<sup>3</sup>/<sub>4</sub>" width 2<sup>3</sup>/<sub>4</sub>" length 4<sup>3</sup>/<sub>8</sub>"

**Also available on special orders**

**AcraSplit 41159**  
and Entron CC 59 output connectors  
with Amphenol 83-1R input connector

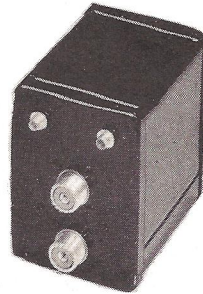
**AcraSplit 45911**  
with Entron CC 59 input connector  
and Amphenol 83-1R output connectors



HYT 311



HYT 359



HYT 31159

LINE BRIDGING TRANSFORMERS

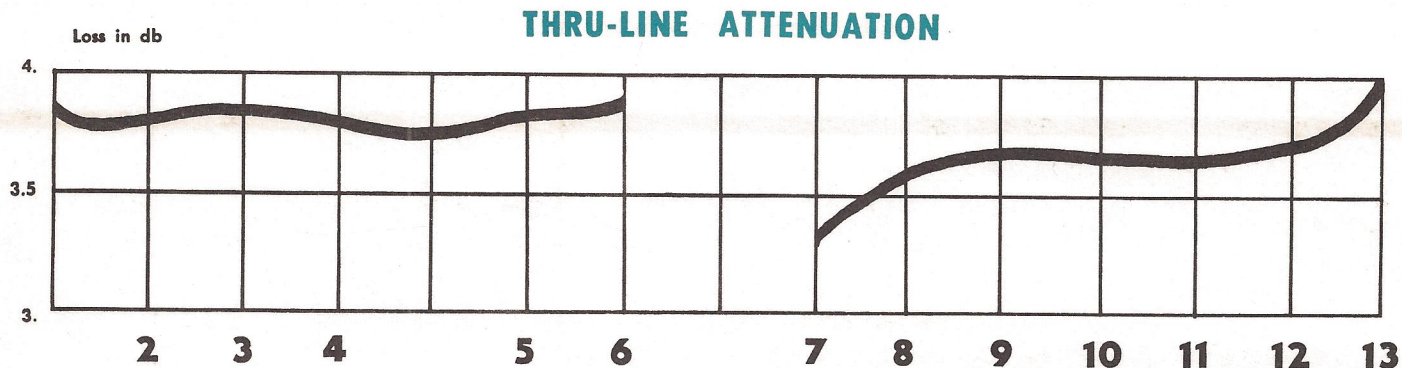
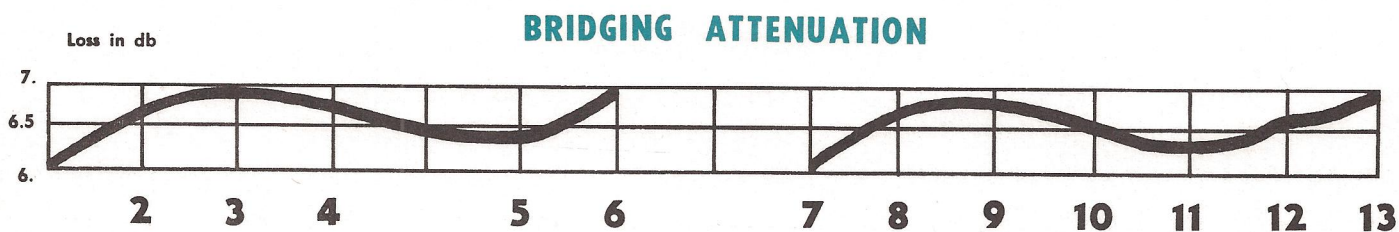
HYT 3 Series

FEATURES

- Low Trunk Line Attenuation
- Completely Weatherproof
- Minimum VSWR
- Broadband... covers entire VHF Spectrum 2-13
- Supplied with any combination of connectors
- Replaces bridging amplifiers on high level strip systems
- Universal mounting... requires no protective enclosure
- Ample isolation attenuation between outputs

## SPECIFICATIONS

Bridging terminals	2
Input and output impedance	75 ohms unbalanced
Pass band	50-220 mc
Thru line attenuation	3.5 db $\pm$ .5 db
Bridging attenuation	6.5 db $\pm$ .5 db (per terminal)
Isolation attenuation (between output terminals)	20 db minimum

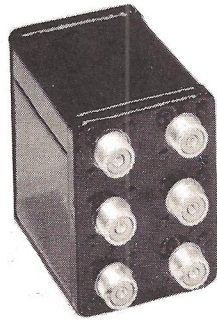


### CHANNELS

### Connectors

<u>Model</u>	<u>Thru line</u>	<u>Output</u>
HYT 311	Amphenol 83-1R	Amphenol 83-1R
HYT 359	ENTRON CC-59	ENTRON CC-59
HYT 31159	Amphenol 83-1R	ENTRON CC-59
(not shown) HYT 35911	ENTRON CC-59	Amphenol 83-1R

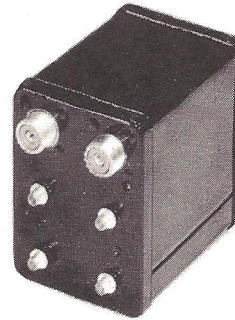
Overall dimensions - Height 3 3/4" Width 2 3/4" Length 4 3/8"



HYT 511



HYT 559



HYT 51159

LINE BRIDGING TRANSFORMERS

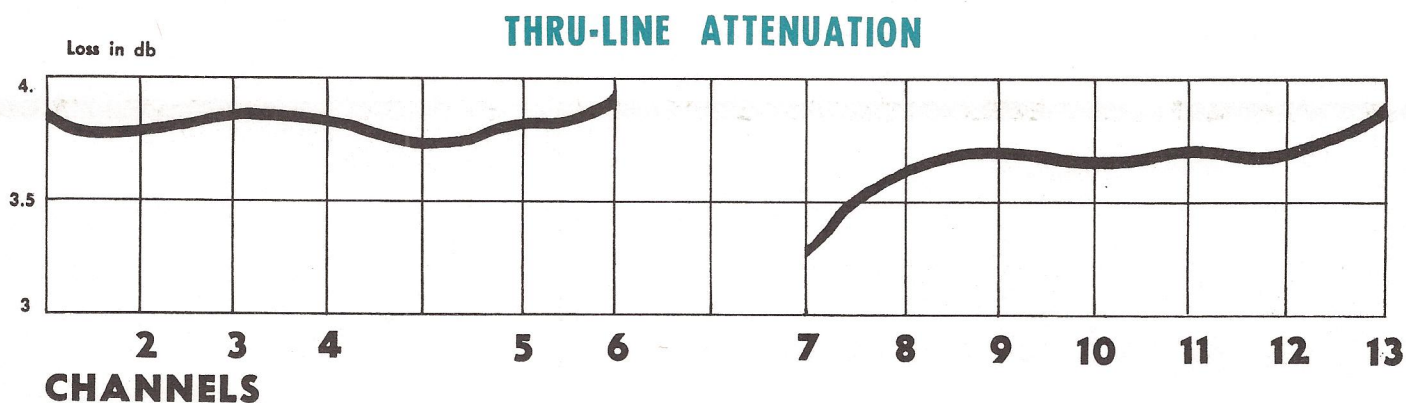
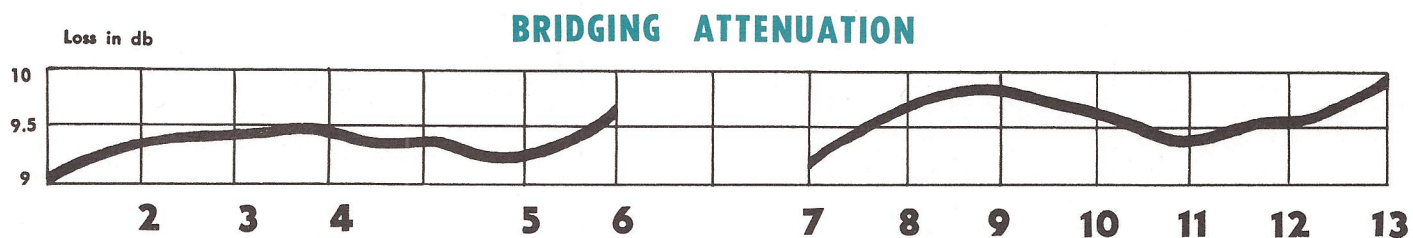
HYT 5 Series

FEATURES

- Low Trunk Line Attenuation
- Completely Weatherproof
- Minimum VSWR
- Broadband... covers entire VHF Spectrum 2-13
- Supplied with any combination of connectors
- Replaces bridging amplifiers on high level strip systems
- Universal mounting... requires no protective enclosure
- Ample isolation attenuation between outputs

## SPECIFICATIONS

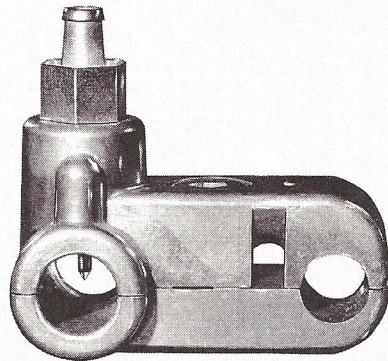
Bridging terminals	4
Input and output impedance	75 ohms unbalanced
Pass band	50-220 mc
Thru line attenuation	3.5 db $\pm$ .5 db
Bridging attenuation	9.5 db $\pm$ .5 db (per terminal)
Isolation attenuation	20 db minimum



### Connectors

<u>Model</u>	<u>Thru line</u>	<u>Output</u>
HYT 511	Amphenol 83-1R	Amphenol 83-1R
HYT 559	ENTRON CC-59	ENTRON CC-59
HYT 51159	Amphenol 83-1R	ENTRON CC-59
(not shown) HYT 55911	ENTRON CC-59	Amphenol 83-1R

Overall dimensions - Height 3 3/4" Width 2 3/4" Length 4 3/8"



## **FASTEE 11S & 11D for RG 11/U Coaxial Service Lines**

---

### **Features**

- Hybrid coaxial "T" network with attenuation in one leg
- ONE minute installation time
- Installation does not interrupt service to existing consumers
- Completely solderless • Installed with only a crimping tool
- No cutting or predrilling
- Waterproof • No protective tape or solder needed
- Clamps directly to messenger wire • Relieves suspension strain
- Extremely low insertion loss allows more taps and longer transmission lines
- Very low VSWR minimizes line reflection and ghosting

## Technical Specifications • FASTEE 11S & 11D for RG 11/U Coaxial Cable

### ATTENUATION CHARACTERISTICS IN DECIBELS

Channel	FASTEE 11-S2 & 11-D2 formerly red		FASTEE 11-S4 & 11-D4 formerly orange		FASTEE 11-S6 & 11-D6 formerly green		FASTEE 11-S8 & 11-D8 formerly blue		FASTEE 11-S10 & 11-D10 formerly black	
	Attenuation	Insertion Loss	Atten.	I. L.	Atten.	I. L.	Atten.	I. L.	Atten.	I. L.
2	27.5	less than .05	23.5	.07	20.5	.17	16.5	.25	11.5	.50
3	27.0	" "	23.0	.10	20.5	.18	15.5	.30	11.0	.60
4	26.0	" "	22.0	.14	19.0	.18	14.0	.35	10.0	.80
5	25.0	" "	19.0	.17	17.0	.20	13.0	.40	9.0	.85
6	24.5	" "	18.0	.18	16.0	.23	12.5	.42	8.5	.93

NOTE. A field strength meter should be used for continuity checks of a system using FASTEES. The attenuator is a capacitor which cannot be checked with an ohmmeter. The new coding system is designed to simplify purchase procedures and minimize confusion in the choice or the proper tap for a particular installation.



4902 Lawrence Street  
Bladensburg Maryland  
Appleton 7-9585



## FASTEE 11

### INSTALLATION PROCEDURE

1. Separate block by removing single bolt.
2. Align both sides of block on messenger wire and RG-11/U Cable. Press together firmly by hand.
3. Insert single bolt and close block firmly.
4. Insert impedance element into threaded opening. Rotate until hex shoulder makes positive contact with block.
5. Strip RG-59/U cable. See figures 1 and 2. Place crimping ring on cable and insert cable into impedance element fitting.
6. Slide ring as close to impedance element as possible and crimp ring with standard crimping tool. (Entron part No. CT-59)
7. Place 1/8" messenger wire through slot. Serve and use as strain relief for house drop.

NOTE: Although the FasTee 11 is waterproof, we recommend Entron part No. E-2000 Silicone grease as positive protection against moisture seepage.

Positive connection is made without cutting the jacket or scraping the shield of the RG-11/U cable. The piercing pin in the impedance element is insulated to prevent shorting to the shield.

The FasTee 11 can be installed without interrupting service to existing customers.

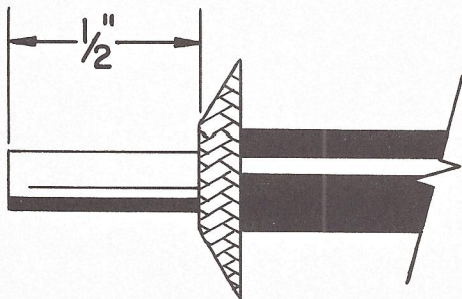


Fig. 1

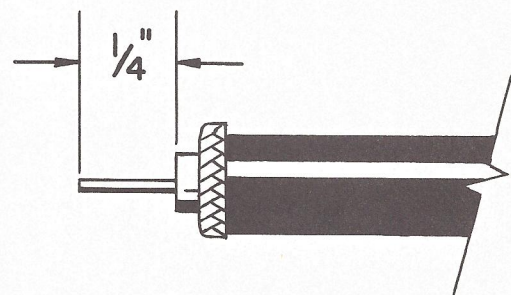


Fig. 2

Cut off 1/2" of outer jacket. Roll back braid. Trim even with outer jacket, using shears. 1/16" braid is now showing.

Let 1/16" of dielectric protrude. Trim center conductor to 1/4" length.

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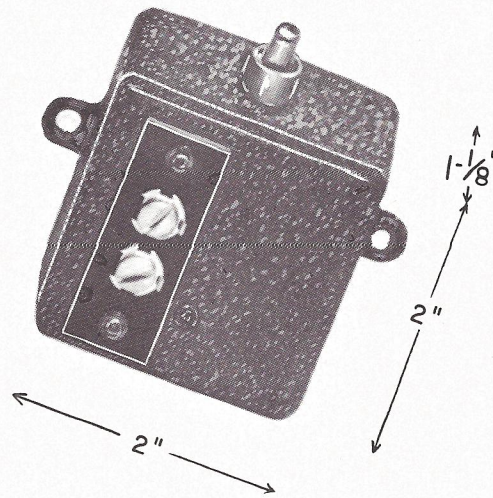
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WBC

Shielded Matching Transformer

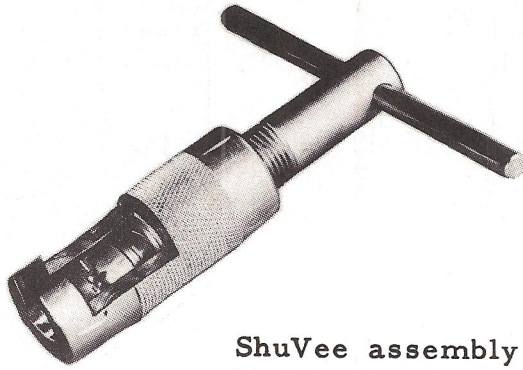
75 to 300 ohms

## FEATURES

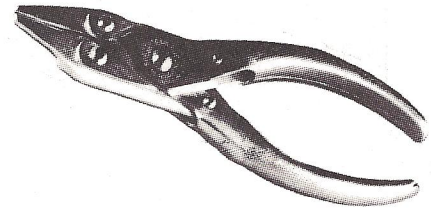
- Greatly improves picture quality
- Eliminates interference between sets
- Reduces radiation from house drops and TV receivers... (very important because of FCC proposed rules on radiation in community systems)
- Isolates system ground from receiver and power line ground
- Assures proper impedance matching and efficient signal transfer
- Average 5 db gain permits lower trunk line signals (more taps per distribution line)
- Easy convenient installation
- Effective shielded construction
- Equalized for use with FASTEE\*

\* The ENTRON solderless tap-off connector for community systems cables. (Patent numbers 2, 694, 182 and 2, 694, 183)

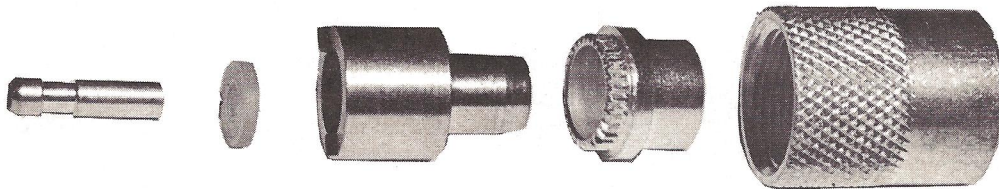




ShuVee assembly tool  
Model SAT-11



ShuVee crimp tool  
Model SCT-11



ShuVee  
Coaxial connector  
Type SC-8

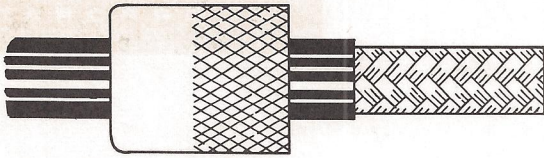
## FEATURES

- Completely solderless
- Quickly and easily installed
- Electrically reliable
- High mechanical strength
- Weatherproof

## SPECIFICATIONS

- Designed for RG-8/U cable
- Precision machined brass
- Heavy silver plate withstands standard salt spray test
- Mates with UHF series connectors
- Useable on most 50 ohm .405" O.D. cables with stranded center conductor
- Metal to metal interference fit locks shield braid to ShuVee

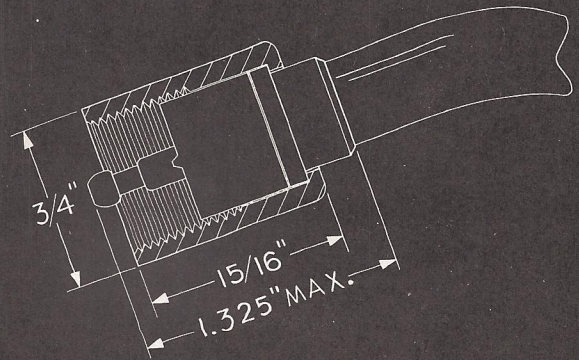
1



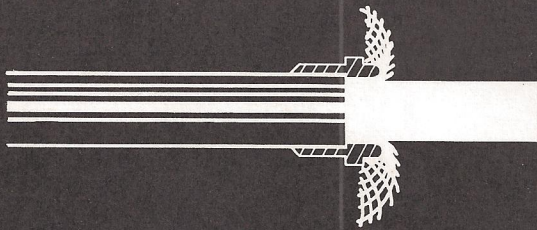
SHUVEE nut is slipped back along coaxial cable.

Vinyl jacket is cut approximately 1-1/8" from cable end and stripped off.

## ASSEMBLY PROCEDURE



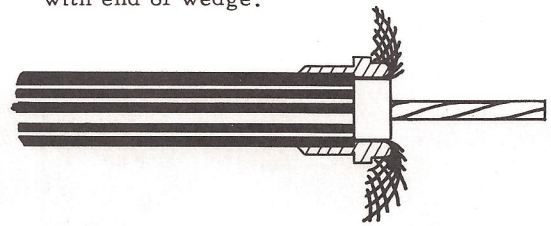
2



SHUVEE wedge is slipped over braid and pushed against vinyl jacket. Exposed braid is folded back over wedge.

3

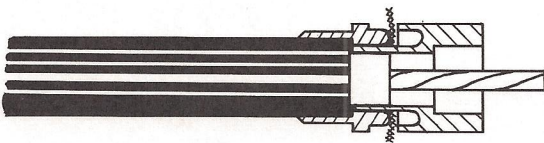
Inner insulator is cut away flush with end of wedge.



Care is taken that center conductor is not damaged. When removing insulator from center conductor twist in one direction only.

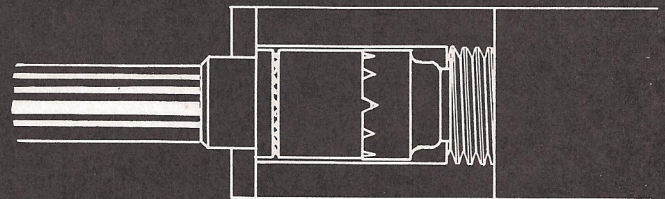
4

With twisting motion, SHUVEE housing is inserted as far as possible



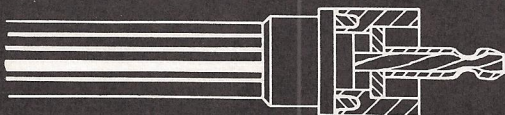
Tapered flange fits around inner insulator and under braid. Excess braid is then cut off flush with exterior assembly.

5



Assembly is drawn tightly together with SHUVEE wrench (Cat. No. SAT-11).

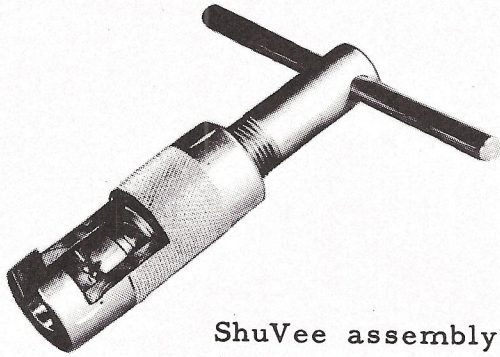
6



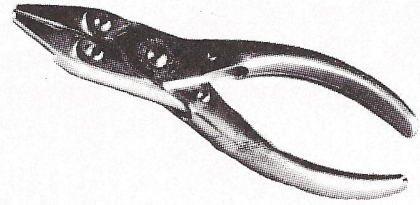
Slide plastic spacer over center conductor and into housing.

Place center pin over center conductor, and while pushing tightly against plastic spacer, crimp with crimping tool (Cat. No. SCT-11).

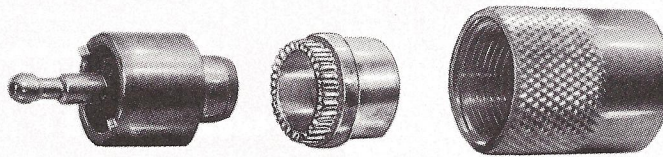
Cut off excess center conductor and braid. SHUVEE is now ready for use.



ShuVee assembly tool  
Model SAT-11



ShuVee crimp tool  
Model SCT-11



ShuVee  
Coaxial connector  
Type SC-11

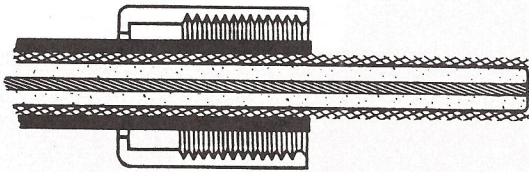
#### FEATURES

- Completely solderless
- Quickly and easily installed
- Electrically reliable
- High mechanical strength
- Weatherproof

#### SPECIFICATIONS

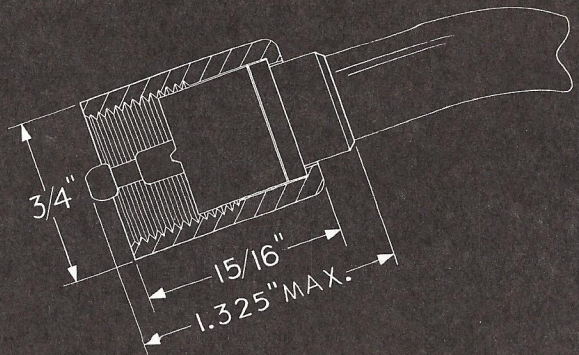
- Designed for RG-11/U cable
- Precision machined brass
- Heavy silver plate withstands standard salt spray test
- Molded polystyrene dielectric
- Mates with UHF series connectors
- Useable on most 75ohm .405" O.D. cables with stranded center conductor
- Metal to metal interference fit locks shield braid to ShuVee

1

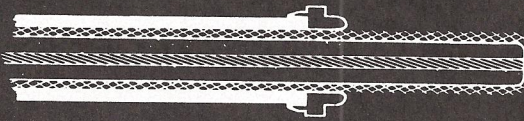


SHUVEE nut is slipped back along coaxial cable. Vinyl jacket is cut approximately  $1\frac{1}{8}$ " from cable end and stripped off.

## ASSEMBLY PROCEDURE

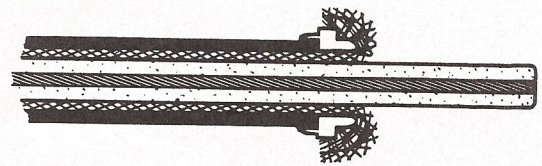


2



SHUVEE wedge is slipped over braid and pushed against vinyl jacket.

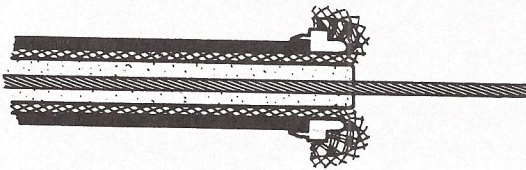
3



Exposed braid is folded back over wedge.

4

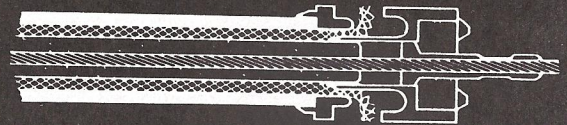
Inner insulator is cut away. Care is taken that central conductor is not damaged.



When removing insulator from central conductor twist in one direction only.

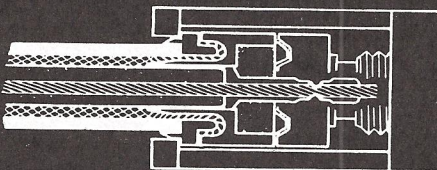
5

With twisting motion, central barrel is inserted. Tapered flange fits around



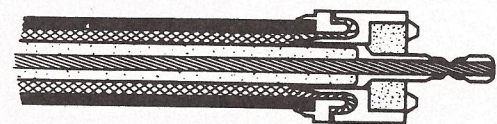
inner insulation and under braid. Excess braid is then cut off flush with exterior of assembly.

6



Assembly is drawn with SHUVEE wrench. Crimp central conductor in the axial barrel with crimping tool.

7



Cut off excess braid and central conductor. SHUVEE is ready for use.



## COAXIAL CONNECTORS



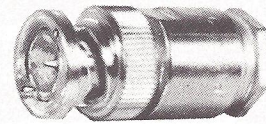
**ShuVee SC-11** Solderless male plug for RG-11/U cable



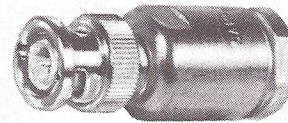
**ShuVee SC-8** Solderless male plug for RG-8/U cable



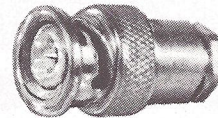
**CP-59** Solderless male plug for RG-59/U cable



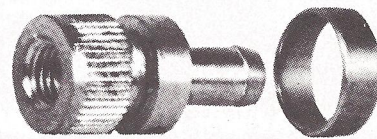
**CWB-6** BNC male plug for RG-6/U cable



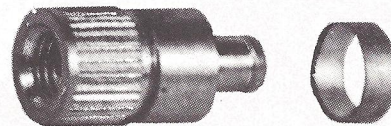
**CWB-11** BNC male plug for RG-11/U cable



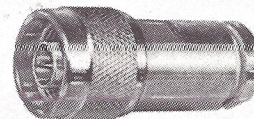
**CWB-59** BNC male plug for RG-59/U cable



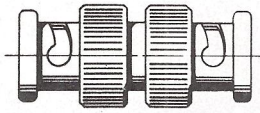
**CW-6** Solderless male plug for RG-6/U cable



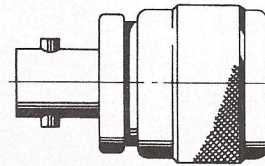
**CW-59** Solderless male plug for RG-59/U cable



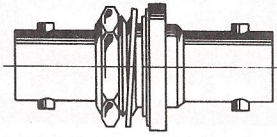
**CWN-11** Type N male plug for RG-11/U cable



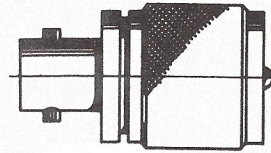
**EA-100 Double male coupler—BNC**



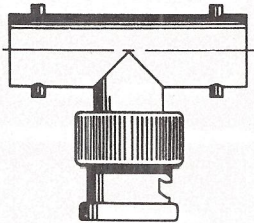
**EA-500 Adapter N male—BNC female**



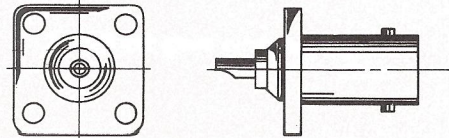
**EA-200 Double female coupler—BNC can be panel mounted**



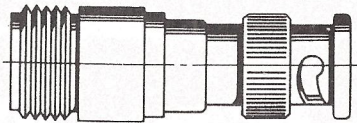
**EA-600 Adapter UHF male—BNC female**



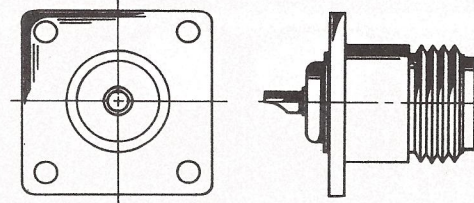
**EA-300 BNC-TEE**



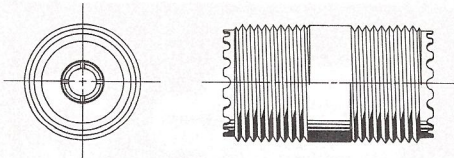
**ER-100 Panel mounted BNC socket**



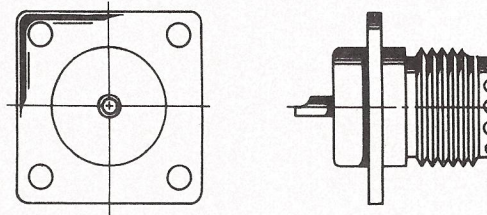
**EA-400 Adapter BNC male—UHF female**



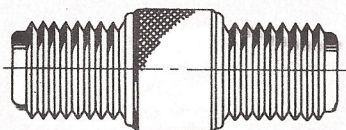
**ER-200 Panel mounted Type N socket**



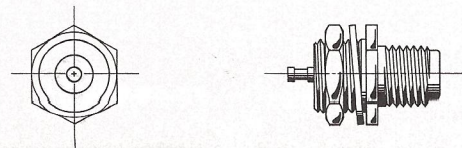
**EA-700 Double female coupler—UHF**



**ER-300 Panel mounted type UHF socket**

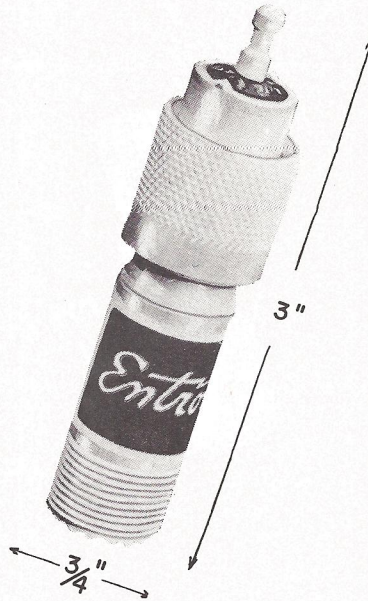


**EA-800 Double female coupler for CW-59 plug**



**ER-400 Panel mounted socket for CW-59 plug**

Formerly DJ-61



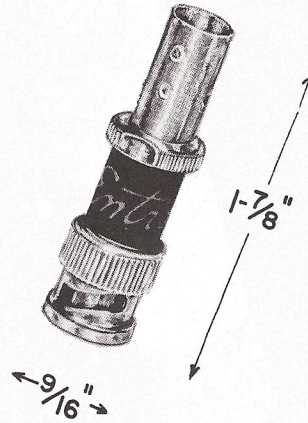
FIXED ATTENUATOR

ADAPAD A

## FEATURES

- Convenient "in line" construction...connects directly to equipment...no cable jumpers required
- Accurate...  $\pm .15$  db per db
- Four attenuation values available...3, 6, 10 and 20 db
- Any attenuation easily obtained...ADAPADS can be stacked to obtain any combination of values desired
- Connects with standard UHF socket and plug...also SHUVEE\*
- Low cost
- Low VSWR
- Weatherproof...plastic embedded

\* The new ENTRON solderless cable connector for RG 11/U coaxial cable

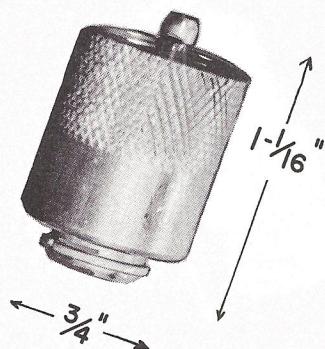


PRECISION ATTENUATOR

ADAPAD B (HFA)

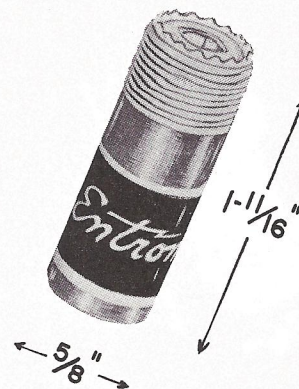
## FEATURES

- Designed for ENTRON antenna site equipment and other precision applications
- "In line" construction
- VSWR less than 1.1 at 1000 mc
- Laboratory accuracy... better than  $\pm .1$  db per db
- Four attenuation values available... 3, 6, 10 and 20 db
- Connects to standard BNC connectors
- 75 ohm impedance



RTP-11

Equipment termination  
Connects to standard UHF socket



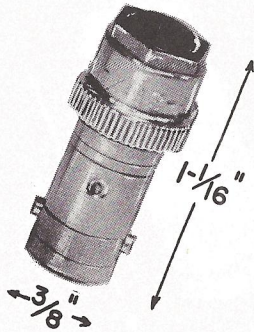
RTW-11

Line termination  
For all community antenna systems  
Connects with SHUVEE\* or standard  
UHF plug

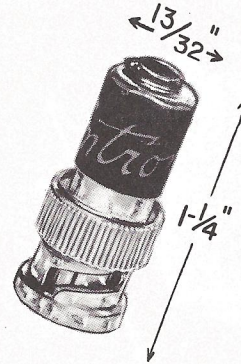
FEATURES

- Completely shielded...eliminates radiation
- 75 ohm impedance
- Excellently matched...low VSWR
- Simple, rugged construction
- Easily installed
- Small size
- Weatherproof...embedded in plastic
- Low cost

\* The new ENTRON solderless cable connector RG 11/U coaxial cable



RTW-B

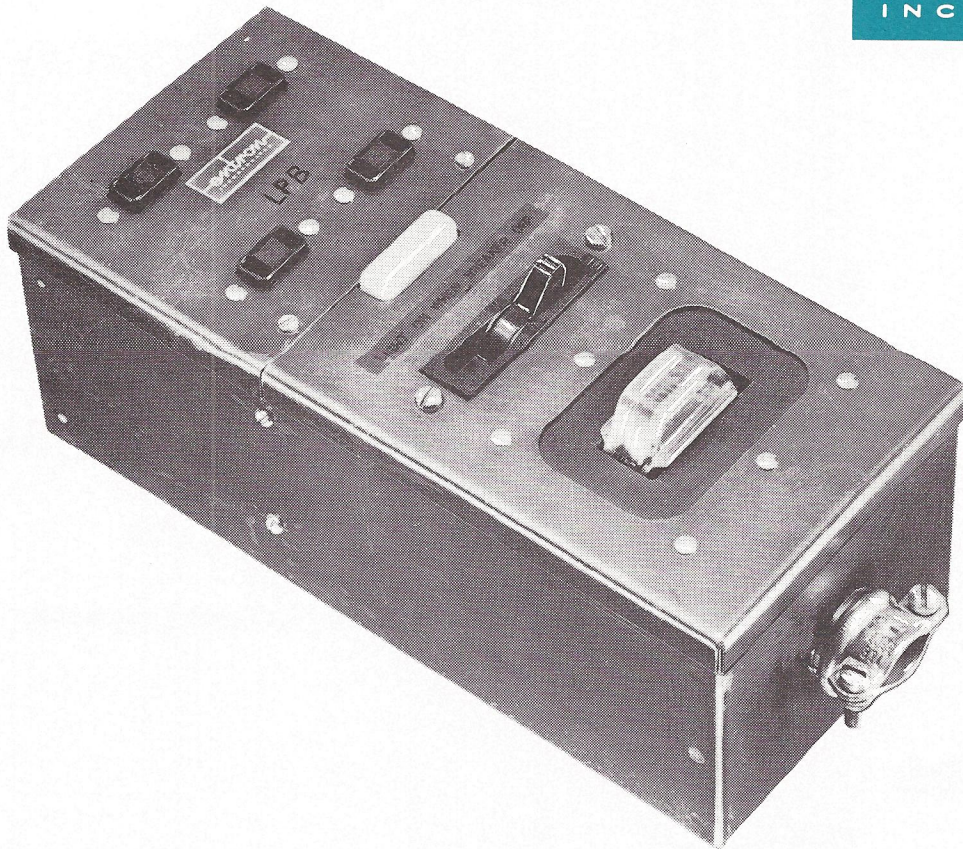


RTP-B

Precision terminating resistors for ENTRON antenna site equipment and other precision applications.

## FEATURES

- 75 ohm impedance
- Excellently matched... VSWR less than 1.1 at 1000 mc
- Rugged construction
- Small size
- Simple installation
- Moderate cost
- Weatherproof



LPB LOAD CENTER

The ENTRON LPB is a 115 volt power line filter featuring a circuit breaker and lightning arrester which is accessible without opening the unit. Four convenience outlets provide up to 600 watts of power. Internal shielding and filter arrangement provide excellent RF filtering for any application. A fully magnetic breaker protects equipment from line surges and overloads. Fast operation (100 milliseconds) for line surges gives instantaneous protection and a slow trip feature (3 seconds for 125% overload) make this unit ideal for protecting electronic equipment. A pilot light, visible from the front or sides, indicates when the breaker is off . . . allowing for rapid location of tripped breakers. Lightning protection is provided by a thyrte element. The arrester snaps out of the front of the unit permitting rapid checks for high resistance leaks or partial damage. This unit is built in a corrosion resistant case finished to Federal spec. QQ-P-416(1).

LPB

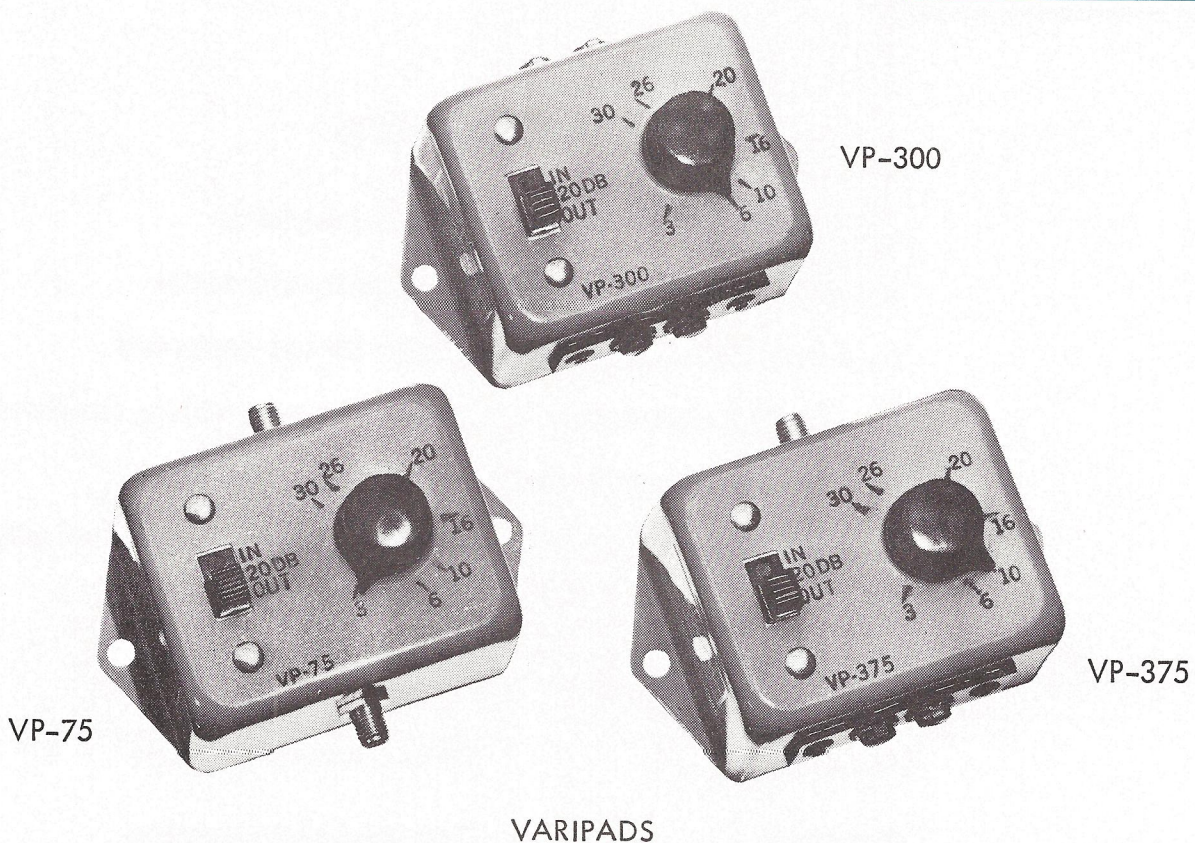
FEATURES:

- FULLY MAGNETIC CIRCUIT BREAKER . . . no fuses to replace
- INDICATOR LIGHT . . . locate tripped circuit breakers rapidly
- SNAP IN LIGHTNING ARRESTOR . . . facilitates protector testing
- POWER LINE FILTER . . . eliminates RF interference
- CORROSION RESISTANT FINISH . . . for lasting protection

SPECIFICATIONS:

Power outlets	4
Load Rating	5 amps continuous at 115 V
Load Protection	Fully magnetic circuit breaker (non thermal)
Overload rating	100 millisecond tripout on short circuit
Surge protection	Clip in thyrite arrestor
Surge rating	1500 V AC
RF Attenuation	Better than 40 db at 200 mc
Input connection	3/4" knockout - BX connector supplied
Finish	Corrosion Resistant (Federal spec QQ-P-416(1))
Dimensions	9-3/8" x 3-3/4" x 4-1/4"
Mounting	Four #10 screws through back
Mounting Centers	2-3/16" x 2-15/16"
Weight	Net 3 lbs. 12 oz. Shipping 5 lbs.





#### VARIPADS

**DESCRIPTION:** The ENTRON VARIPADS are low cost, 3 to 50 db variable attenuators. These rugged units provide smooth, stable control of signal level in the 50 to 250 mc band. Flat frequency response allows them to be used in wide band applications. A 3 to 30 db variable attenuator in conjunction with a switchable 20 db pad provides a continuously variable output in two ranges. Shielded construction eliminates stray pickup and unwanted radiation. These units are small, light weight and easily installed and adjusted. They have been designed for maximum reliability and stability and can be used wherever a wide range attenuator is required.

## APPLICATIONS

- . . . For use with fixed gain broad band amplifiers
- . . . Best method of checking TV receiver AGC action
- . . . Auxiliary low leakage attenuator for test equipment
- . . . Variable attenuation broad band antenna matching transformer
- . . . Use where non-standard attenuations are desired
- . . . Easiest way to set individual channel levels before combining for broad band amplification.

SPECIFICATIONS: Attenuation range in two steps 3 to 30 db and 23 to 50 db

Frequency range                      50-250 mc for all models

Mounting                                      Tabs for surface mounting

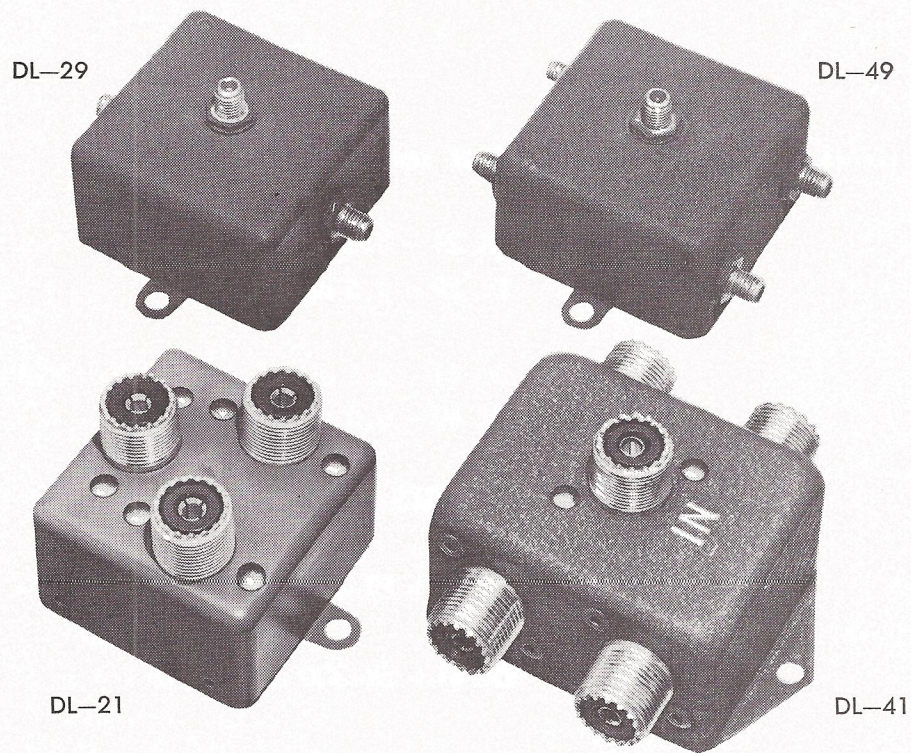
	<u>Model VP-75</u>	<u>Model VP-300</u>	<u>Model VP-375</u>
Impedance	75 $\Omega$ unbalanced	300 $\Omega$ balanced	75 $\Omega$ unbalanced to 300 $\Omega$ balanced

Connectors	ER-400 (RG-59/U)	Screw type Terminal strips	ER-400 (RG-59/U) Screw terminal strip
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**MODEL VP-75**                      The VP-75 is equipped with Entron ER-400 (RG-59/U) connectors to permit quick insertion into coaxial or shielded lines to maintain a radiation free and interference free system.

**MODEL VP-300**                      The VP-300 has balanced 300  $\Omega$  input and output. Connections are made to terminal strips. This unit has been designed as a wide range attenuator for use in twin-lead transmission lines.

**MODEL VP-375**                      The VP-375 has been designed to perform the dual function of a shielded, variable attenuator and a 75  $\Omega$  to 300  $\Omega$  transformer, eliminating costly multiple units. Excellent match.



DIVALINE LINE SPLITTERS

Divaline splitters are low cost minimum loss devices especially designed for feeder line branching. Newly developed ferrite material used in an efficient transformer design results in a wide bandwidth covering all VHF TV channels. The input impedance matches all  $75\Omega$  cables, preventing ghosting and signal power loss. Isolation between outputs is sufficient to suppress coupling between branch lines in most applications. Their small size makes them extremely desirable in crowded line equipment enclosures where space is at a premium. These units are intended for indoor use without additional protection or mounting hardware. Where requirements demand precision trunk line directional couplers . . . especially in exposed locations . . . the ENTRON Acrasplits, series AS, HYT or ASN are recommended.

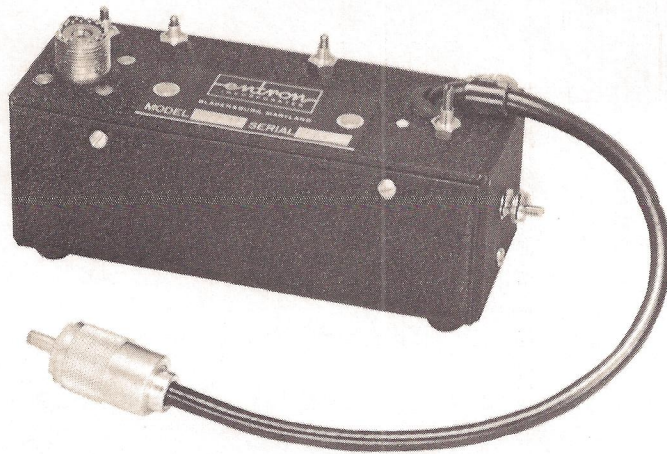
COLOR COMPATIBLE

SPECIFICATIONS:	Input Impedance	75 $\Omega$ unbalanced
	Power Loss	DL 21 - 3.5 db nominal DL 29 - 3.5 db nominal  DL 41 - 6.5 db nominal DL 49 - 6.5 db nominal
	Bandwidth	50 - 225 mc (Channel 2-13)
	Connectors	DL 21 - ER-300 mates with Entron SC-11 plug + for use with RG-11/U DL 41 - ER-300 mates with Entron SC-11 plug + for use with RG-11/U  DL 29 - ER-400 mates with Entron CW-59 plug + for use with RG-59/U DL 49 - ER-400 mates with Entron CW-59 plug + for use with RG-59/U
	Dimensions	DL 21 2-3/4" x 2" x 1-5/8" DL 41 3" x 3-1/4" x 2" DL 29 2-3/4" x 2-3/4" x 1-1/2" DL 49 2-3/4" x 2-3/4" x 1-1/2"
	Weight, net	3 oz.

INSTALLATION: Divaline splitters are surface mounted by means of tabs on each end of the case.

+ Not supplied . . . see price list for plugs and installation tools.

FILTERS and TRAPS



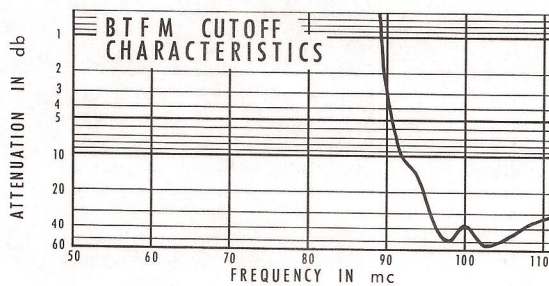
BTFM

FM Rejection Filter

FEATURES

- Rejects unwanted FM on Trunk Lines
- Matches all broadband line amplifiers
- Tuneable filter elements for low insertion loss
- Does not affect trunk line equalization
- Not affected by temperature variation

SPECIFICATIONS



Impedance 75 ohms in and out

Connector In - Female UHF socket  
Out - Male UHF plug

Insertion loss Less than .5 db in passband

Dimensions 2 1/8" x 2 3/4" x 5 1/2"

Weight Net 3/4 lb.  
Shipping 1 lb.

4902 Lawrence Street Bladensburg Maryland Appleton 7-9585

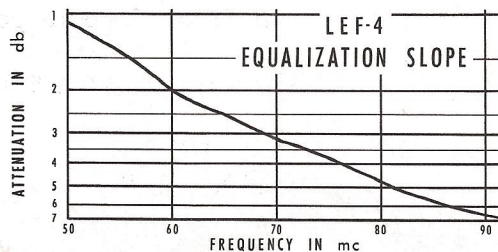
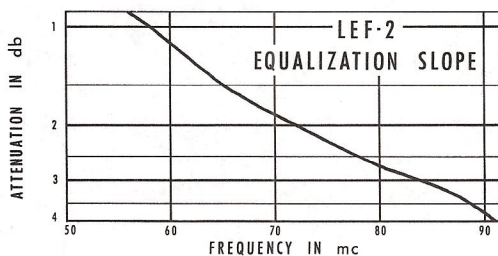


LEF- Line Equalizers

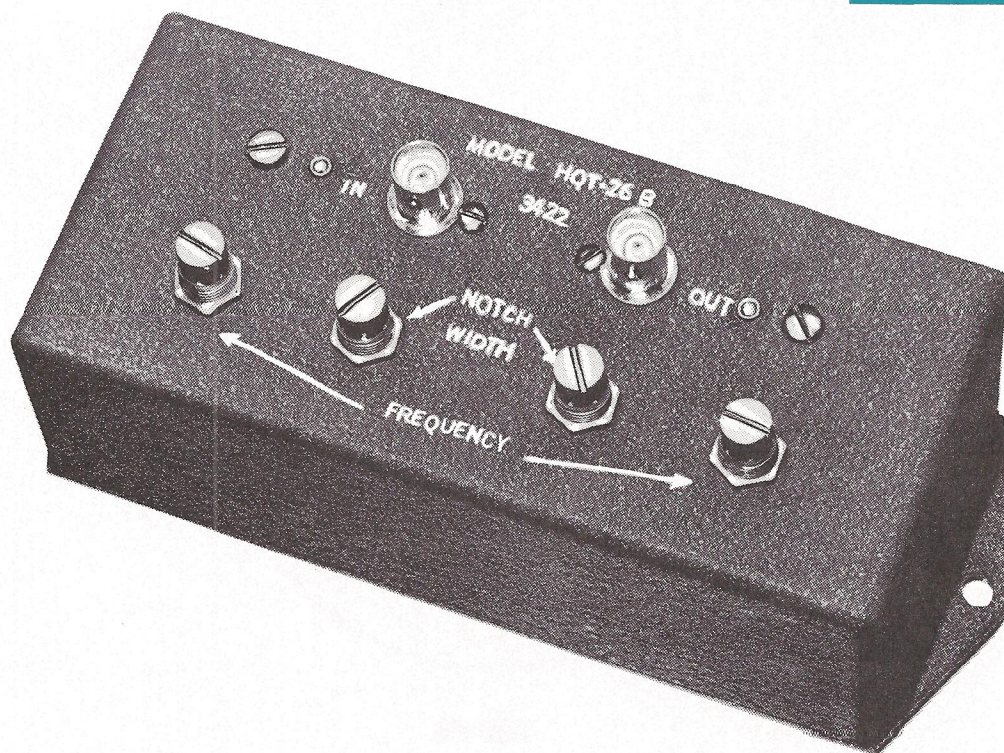
## FEATURES

- Increases equalization range of EquaLine Amplifiers
- Small size for any line enclosure
- No mounting required... plugs into amplifier
- Standard RG11 connectors
- Insensitive to temperature variation
- Fixed tuning for stability

## SPECIFICATIONS



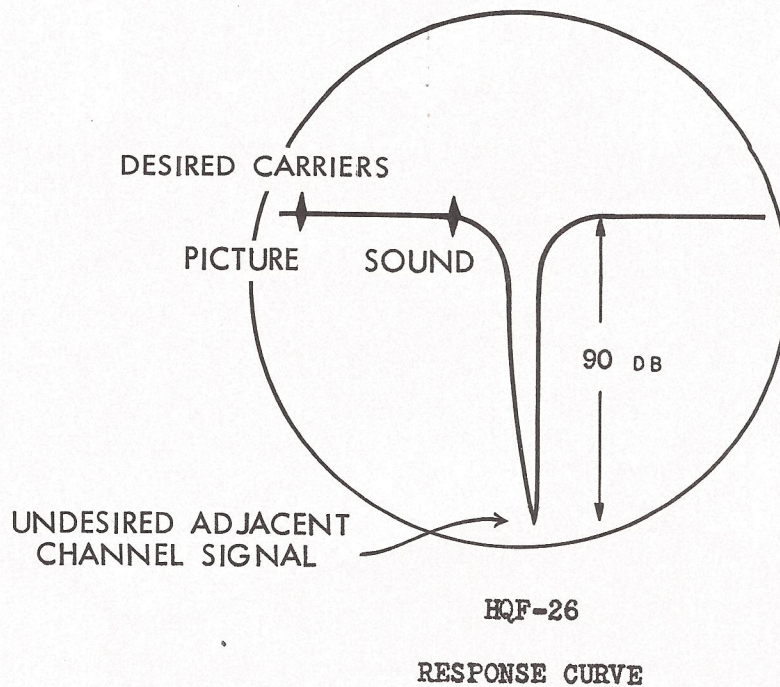
Impedance	75 ohms in and out
Equalization	LEF-2 2db slope LEF-4 4db slope
Connectors	In - Female UHF socket Out - Male UHF plug
Dimensions	1 1/2" x 2 1/4" x 3"
Weight	Net 3 oz. Shipping 3 1/2 oz.
Frequency range	Channels 2 through 6



### ENTRON HQ SERIES NOTCH FILTERS

**DESCRIPTION:** The HQ series notch filters or traps are sharp cutoff, high attenuation units. They have a wide tuning range and a bandwidth that remains constant when tuned to any frequency. These units afford an easy means of improving band edge response of broad-band filters or amplifiers. Their narrow bandwidth allows them to be used to eliminate narrow band co-channel interference, caused by spurious signals or beats, without noticeably affecting picture quality. Phase and attenuation characteristics are held to close tolerances and have been especially selected to be color compatible. ENTRON High Q traps are strongly recommended for use in removing adjacent channel interference to color signals. HQ series units are built in two bandwidth ranges. The HQT is a narrow trap (200 kc wide) and the HQF has a 400 kc bandwidth. They are easily installed, extremely stable and can be adjusted using only a field strength meter. They are available with various types of connectors, matched to maintain minimum VSWR and low insertion loss.

**COLOR COMPATIBLE**

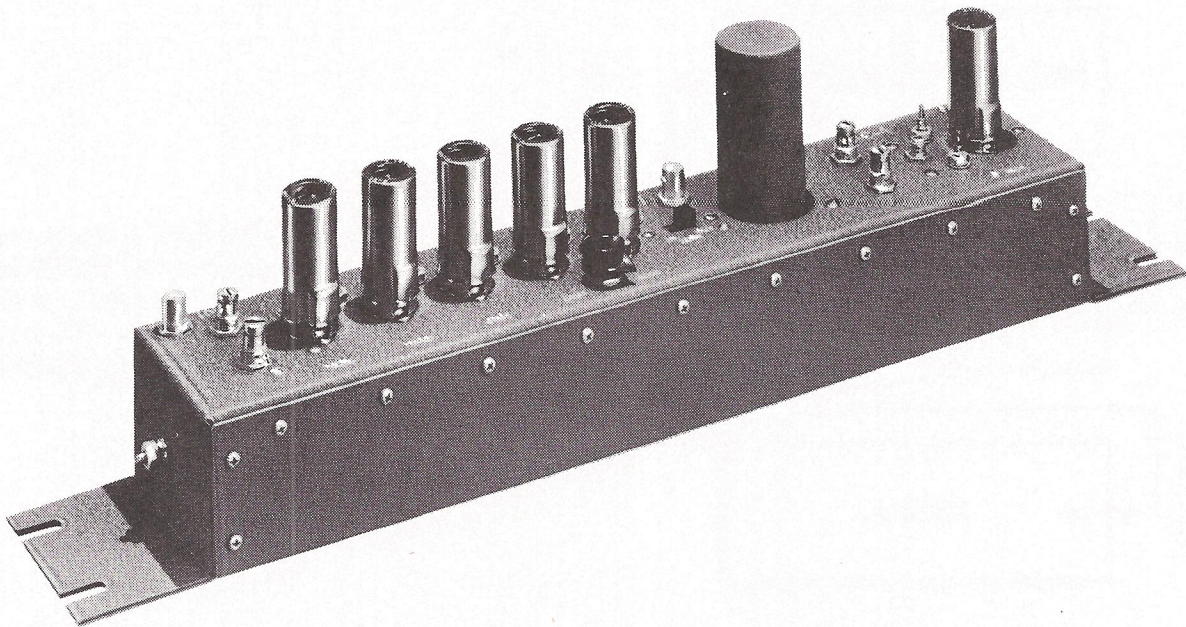


<b>SPECIFICATIONS:</b> Impedance Insertion loss Peak attenuation  30 db bandwidth	75 $\Omega$ unbalanced - in and out less than .7 db HQT - greater than 70 db HQF - greater than 90 db HQT - 200 kc HQF - 400 kc
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Bandwidth	For Channels		Connectors
	2 - 6	7 - 13	
Narrow (200kc)	HQT-26X HQT-26 HQT-26B HQT-26N	HQT-73X HQT-73 HQT-73B HQT-73N	ER-300 (RG-11/U) ER-400 (RG-59/U) ER-100 (type BNC) ER-200 (type N)
Wide (400kc)	HQF-26X HQF-26 HQF-26B HQF-26N	HQF-73X HQF-73 HQF-73B HQF-73N	ER-300 (RG-11/U) ER-400 (RG-59/U) ER-100 (type BNC) ER-200 (type N)

Dimensions Mounting Mounting centers Weight net shipping Finish	7" x 2-3/4" x 3" by means of tabs on case 6-1/2" 1 lb. 9 oz. 2 lb. grey wrinkle
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### ENTRON SOUND CONTROL AMPLIFIER - MODEL SAC\*

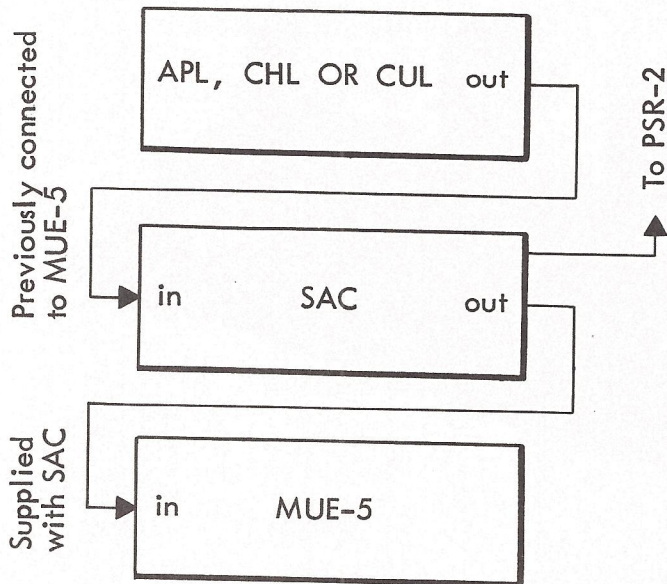
The Model SAC is a sound limiting amplifier especially designed to eliminate adjacent channel interference caused by excessively high sound carrier levels. It stabilizes and provides positive control of the sound carrier level at all times. Exceptional reserve gain eliminates loss of sound even when signals drop to  $10\mu\text{v}$  at the antenna due to selective fading. Sound carrier amplitude can be easily set to any desired output level up to + 46 dbmv (0.2 volts).

The Model SAC is an ultra stable, reliable amplifier requiring a minimum of maintenance. It is factory adjusted to the desired channel and does not normally require field realignment. Power is obtained from a Model PSR-2 power supply. When used with Entron APL pre-amplifiers or CHL or CUL converters, the SAC control amplifier provides complete, independent level control of both picture and sound carriers. The units are designed for standard 19" rack installation and are supplied with a radiation proof interconnecting jumper cable.

This amplifier was especially designed for use with color signals. Novel ultra high Q circuits permit effective control of the sound carrier without affecting picture color information.

\*Specify channel number when ordering.

**COLOR COMPATIBLE**



The model SAC is designed to complement other ENTRON head end equipment. It is quickly installed. No modification of existing equipment is necessary.

## SPECIFICATIONS

### ENTRON MODEL SAC CONTROL AMPLIFIER

SPECIFICATIONS:	Bandwidth	5 mc (video) 200 kc (sound limiter)
	Gain	0 db (video) 45 db max. (sound limiter)
	AGC range	±1 db for 26 db input variation
	Input signal range	Minimum 0 dbmv (1 mv) Maximum + 46 dbmv (0.2 v)
	Output range	0 db to -20 db (0 db = picture carrier level)
	Power requirements	150 v DC 35 ma (obtained from PSR-2) 6.3 v AC 1.8 amp ( power supply )
	Impedance	75 Ω in and out
	Connectors	BNC in and out
	Tubes	4 6DC6 2 6AU6
	Fusing	None - fuses in PSR-2 power supply
	Mounting	19" relay rack
	Dimensions	length 19" width 3" height 4-1/2"
	Weight	net 4-1/2 lb. shipping 6 lb.

ENTRON "EQUALINE" PRICE LIST EFFECTIVE 1 MAY 56

<u>MODEL</u>	<u>PRICE</u>	<u>MODEL</u>	<u>PRICE</u>
AD-A 3,6,10,20	4.95	EA-800	.55
AD-B 3,6,10,20	14.75	EA-900	3.55
ANS-L	81.00	EA-1000	6.15
ANS-H	81.00	ECE-4,6,8,10	8.50
APH 7,8,9,10,11,12,13	245.00	ECE-N 4,6,8,10	10.00
APL 2,3,4,5,6	219.50	ER-100	.80
AS-211,259,21159,25911	11.95	ER-200	2.15
AS-411,459,41159,45911	16.95	ER-300	.90
ASN-211	14.00	ER-400	.45
ASN-411	25.00	FT 11-S, 11-D	4.75
AT-753	17.50	FT-59	3.25
AT-753N	20.00	HPF-170	22.50
BA-4B	67.50	HQF	54.00
BT-1	12.50	HQT	54.00
BT-11	2.25	HYT-311,359,31159,35911	18.75
BTFM	26.00	HYT-511,559,51159,55911	27.75
CA-1000	13.20	HYT-311N	23.50
CA-1001	12.90	HYT-511N	36.50
CCB	On Request	IEF-2,4	8.50
CG	On Request	LF	3.25
CHL	390.00	LPB	33.50
CP-59	.75	MUE-5	240.00
CR-100	1.25	MUP-2	30.00
CSB-59	2.50	PEH	41.50
CSB-59R	3.00	PSR-1,2	240.00
CT-59	3.25	RA-1B	359.50
CUL	410.00	RA-3	104.50
CUL-P	355.00	RB-1P	35.00
CVP-500	148.00	RPA-36	89.00
CW-6	.30	RPA-42	99.00
CW-59C	.30	RPA-61	139.00
CWB-6	2.75	RPA-77	149.00
CWB-11	5.60	RTP-11	1.50
CWB-59	2.60	RTP-59	.90
CWN-11	2.35	RTP-B	3.10
DL-21,29	4.45	RTW-11	1.50
DL-41,49	6.45	RTW-B	3.50
E-1000	4.50	SAC	225.00
E-2000	2.50	SAT-11	5.00
EA-100	4.15	SC-8,11	.75
EA-200	4.00	SCT-11	2.50
EA-300	3.75	SSO-L	295.00
EA-400	2.55	VEC-L	595.00
EA-500	2.50	VHFD-M	25.00
EA-600	2.10	WBC	2.95
EA-700	.95	WBC-T	3.25
		WBS	3.95



BLADENSBURG  
MARYLAND

ENTRON "EQUALINE" PRICE LIST EFFECTIVE 1 MAY 56

<u>M O D E L</u>	<u>D E S C R I P T I O N</u>	<u>P R I C E</u>
<u>ANTENNA SITE EQUIPMENT</u>		
<u>Pre-Amplifiers</u>		
APL	Low Band Pre-Amplifier with AGC - Specify Channel	219.50
APH	High Band Pre-Amplifier with AGC - Specify Channel	245.00
<u>Automatic Sound Control</u>		
SAC	Sound AGC used with APL - APH - CHL - CUL - Specify Channel	225.00
<u>UHF and VHF Converters</u>		
* CHL	Stabilized High Band VHF to Low Band VHF	390.00
* CUL	Stabilized UHF to Low Band VHF	410.00
* CUL-P	UHF Conversion Head ONLY with self-contained Power Supply	355.00
* SPECIFY FREQUENCY DESIRED ON ALL CONVERTER ORDERS		
<u>Automatic Noise Suppressor</u>		
ANS-L	Automatic Noise Suppressor for APL Pre-Amplifier	81.00
ANS-H	Automatic Noise Suppressor for all Entron Converters	81.00
<u>Mixer Units</u>		
MUE-5	Electronic Mixer for five (5) Channels	240.00
MUP-2	Passive Mixer for two (2) Channels	30.00
<u>Regulated Power Supplies</u>		
PSR-1	For use with a maximum of four (4) APL Pre-Amplifiers	240.00
PSR-2	For use with a maximum of three (3) CHL and/or CUL Converters	240.00
<u>Constant Voltage Transformers</u>		
CVP-500	Constant Voltage Isolating Transformer 0.5 KVA (Panel Mounted)	148.00
<u>Antenna Filters and Transformers</u>		
AT-753	Waterproof - precision broadband balun for antenna matching	17.50
AT-753N	Same as above with N Connectors	20.00
HQT	Notch Filters - Narrow Notch - See catalog sheet for connector types	54.00
HQF	Notch Filters - Wide Notch - See catalog sheet for connector types	54.00
HPF-170	Hi Pass Filter - use with CHL	22.50
<u>Enclosed Relay Racks</u>		
All Racks Include Factory Mounted Exhaust Blowers and Thermostats		
RPA-36	36 inches Panel Mounting Space	89.00
RPA-42	42 " " " "	99.00
RPA-61	61 " " " "	139.00
RPA-77	77 " " " "	149.00

MODELDESCRIPTIONPRICEBlower Kit for Non-equipped Relay Racks

RB-1B	Blower for all Enclosed Relay Racks - Rack Panel Mounted	35.00
BT-1	Adjustable Plug-in Thermostat	12.50

Antenna Site Cable Accessories

CCB	Jumper Cables (Prices quoted on request)
CG	Ground Cable Straps (Prices quoted on request)

Line Amplifiers and Distribution Equipment

RA-1B	Equaline Repeater Amplifier	359.50
RA-3	Equaline Distribution Line Amplifier	104.50
BA-4B	Equaline Bridging Amplifier	67.50
VEC-L	Equaline Line AGC Amplifier	595.00
SSO-L	Automatic Signal Substitution Oscillator	295.00

AcraSplit Line DividersPrecision Directional Couplers - Waterproof

AS-211	Two-Way Splitter for RG-11/U	11.95
AS-259	Two-Way Splitter for RG-59/U	11.95
AS-411	Four-Way Splitter for RG-11/U	16.95
AS-459	Four-Way Splitter for RG-59/U	16.95
AS-21159	Two-Way Splitter - RG-11/U in - RG-59/U out	11.95
AS-25911	Two-Way Splitter - RG-59/U in - RG-11/U out	11.95
AS-41159	Four-Way Splitter - RG-11/U in - RG-59/U out	16.95
AS-45911	Four-Way Splitter - RG-59/U in - RG-11/U out	16.95
ASN-211	Two-Way Splitter - RG-11/U in - RG-11/U out - Type N Fittings	14.00
ASN-411	Four-Way Splitter - RG-11/U in - RG-11/U out - Type N Fittings	25.00

DivAline Line DividersLow Cost Line Dividers - Not Waterproof

DL-21	Two-Way Splitter for RG-11/U	4.45
DL-29	Two-Way Splitter for RG-59/U	4.45
DL-41	Four-Way Splitter for RG-11/U	6.45
DL-49	Four-Way Splitter for RG-59/U	6.45

Bridging TransformersHybrid Bridging Transformer (Weatherproof) 3 db Insertion Loss

HYT-311	For RG-11/U Trunk and Feeder Lines	18.75
HYT-31159	For RG-11/U Trunk Line and RG-59/U Feeder Lines	18.75
HYT-359	For RG-59/U Trunk and Feeder Lines	18.75
HYT-35911	For RG-59/U Trunk Line and RG-11/U Feeder Line	18.75
HYT-511	For RG-11/U Trunk and Feeder Lines	27.75
HYT-51159	For RG-11/U Trunk Line and RG-59/U Feeder Lines	27.75
HYT-559	For RG-59/U Trunk and Feeder Lines	27.75
HYT-55911	For RG-59/U Trunk Line and RG-11/U Feeder Lines	27.75
HYT-311N	For RG-11/U Trunk and Feeder Lines - Type N Fittings	23.50
HYT-511N	For RG-11/U Trunk and Feeder Lines - Type N Fittings	36.50

<u>MODEL</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
<u>Matching Transformers</u>		
WBC	75-300 ohm Shielded Transformer	2.95
WBC-T	Same as above, with threaded coaxial fitting and plug	3.25
WBS	Switch type Matching Transformer	3.95
<u>Coaxial Tap-Off Units</u>		
* FT 11-S	FasTee 11 for use on Single Shielded RG-11/U	4.75
* FT 11-D	FasTee 11 for use on Double Shielded RG-11/U	4.75
* FT-59	FasTee 59 for use on RG-59/U supplied with CW-59 Connectors	3.25
* Specify Attenuation - See Catalog Sheet		
<u>FasTee Accessories</u>		
BT-11	Boring Tool used with FT-11	2.25
CT-59	FasTee Crimp Tool	3.25
CSB-59	Solderless Cable Splice Block for grounding tap lines	2.50
CSB-59R	Solderless grounding and terminating block for tap lines	3.00
CR-100	Crimp Rings (Bag of 100)	1.25
<u>Line Filters and Equalizers</u>		
LFB	Circuit Breaker with Line Filter and Lightning Protector	33.50
LF	Line Filter - Equipment Replacement	3.25
LEF-2	Trunk Line Equalizer - 2 db slope	8.50
LEF-4	Trunk Line Equalizer - 4 db slope	8.50
BTFM	Low Pass Filter to eliminate FM on trunk line	26.00
ECE-4	4 db slope - used when line attenuation is 10 to 20 db - for VEC-L	8.50
ECE-6	6 db slope - used when line attenuation is 20 to 30 db - for VEC-L	8.50
ECE-8	8 db slope - used when line attenuation is 30 to 40 db - for VEC-L	8.50
ECE-10	10 db slope - used when line attenuation is 40 to 50 db - for VEC-L	8.50
ECE-N	Same as ECE above, except with type N socket	10.00
<u>Power Line Filters and Weatherproof Cabinets</u>		
LFB	Circuit Breaker with Line Filter and Lightning Protector	33.50
PEH	Weatherproof Enclosure Suitable for Pole Mounting - Horizontal	41.50
<u>Attenuators</u>		
AD-A	ADA-PAD - available in 3 - 6 - 10 - 20 db attenuation - UHF Connectors	4.95
AD-B	Precision Attenuator with BNC Connectors - available in 3 - 6 - 10 - 20 db attenuation	14.75

MODELDESCRIPTIONPRICETerminating Resistors

RTP-11	Terminating Resistor for equipment with RG-11/U fittings - male	1.50
RTW-11	Terminating Resistor for cable with RG-11/U fittings - female	1.50
RTW-B	Terminating Resistor for cable with BNC fittings - female	3.50
RTP-B	Terminating Resistor for antenna site equipment BNC - male	3.10
RTP-59	Terminating Resistor for equipment with RG-59/U fittings - male	.90
CSB-59R	Solderless Tap Line grounding and terminating block	3.00

Line Accessories

E-1000	Weatherproof compound (Synco) 1/2 pt. with brush	4.50
E-2000	DC-4 (Dow Corning) Weatherproof compound	2.50

Test Equipment

VHFD-M	Broadband 75 ohm RF detector - BNC connectors with marker injection jack	25.00
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Specialized Line Accessories

CA-1000	Flexible Radiation Proof Cable Harness - N Connectors	13.20
CA-1001	Flexible Radiation Proof Cable Harness - UHF Connectors	12.90





**entron**  
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