# Electro Voice

## SOLID STATE FM STEREO RECEIVERS



## features at-a-glance

All-transistor (solid state) electronics with military-type etched circuits
Direct-coupled output eliminates coupling capacitors and output transformers
Excellent FM sensitivity and selectivity
Free from microphonics; exceptionally low distortion, hum, noise
Automatic switching from mono to stereo without mechanical noise or change in tone
Wideband ratio detector improves tuning ease and stereo quality
Faithful reproduction of musical transients
Cool operation extends component life, reduces ventilation requirements
Attractive midnight black and satin aluminum panels
Tuner dial is illuminated for full visibility.

## description

Electro-Voice engineers, using their comprehensive experience in electro-acoustics and transistor circuitry research for space projects, have taken advantage of the latest "state of the art" and created the new E-V 88 and E-V 77 Stereo Receivers.

E-V 88 and E-V 77 Tuner Section—The highly-advanced FM stereo tuner circuit used in the E-V 88 and E-V 77 provides exceptional sensitivity and selectivity. Its fully automatic mono/stereo switching is achieved without noisy mechanical relays or audible tone variation. Four IF/limiter stages employ dual special purpose transistors to provide balanced symmetrical limiting at each stage. Positive stereo signal identification is provided by an automatic stereo indicator light which, through use of a special inhibitor circuit, cannot be triggered by random inter-station noise. Precise tuning is effected by an accurate zero-center tuning meter. A time-switching multiplex circuit provides inherent SCA rejection, assuring minimum sensitivity to noise on weak stereo signals.

E-V 88 Amplifier Section—The output of the E-V 88 is conservatively rated at 80 watts, IHF music power (40 watts per channel) with almost complete absence of hum, noise, or distortion. Of the forty-three transistors used in the unit, seventeen are incorporated in the tuner, twenty-six in the amplifier; in addition, four silicon diodes are used in the power supply. Stable performance and long component life are achieved by the unit's extremely cool operation. Even the small amount of heat generated by the output transistors

is rapidly and effectively dissipated through conduction to a heavy base plate.

Feedback is incorporated around all stages — even the magnetic phono input where it provides highly accurate equalization. The equipment's wide frequency response, unusually low distortion, and exceptional square-wave response exhibit little or no deterioration throughout the entire power output range.

Automatic Contour Regulation, provided by a unique tone control circuit (patent pending) linked to the volume control, provides infinitely variable loudness compensation. Any amount of boost selected on bass and treble controls is regulated by the volume control to reduce the amount of compensation as volume is increased. The flat tone control settings are not affected by volume control adjustments. Bass boost is exceptionally clean — even at maximum setting, where conventional tone controls often sound unpleasantly "boomy."

Provisions are made for the direct connection of extension stereo speakers to the E-V 88, and front panel controls permit independent on-off switching of the two sets of speakers.

The unit is supplied complete with a black perforated metal wrap-around cover. An optional oiled walnut wood case, Model CW2, is also available for either the E-V 77 or E-V 88.

E-V 77—Similar to E-V 88, except 40-watt IHF power output, standard tone control circuit, twenty-nine transistors. Additional specifications listed on reverse side of this sheet.

## specifications E-V 88

TUNER SECTION (excluding Multiplex)

Better than 3 uv, usable IHF; better Sensitivity:

than 2 uv for 20 db quieting.

Selectivity: Alternate channel down 60 db. Frequency Response:  $\pm$  1 db, 10 to 75,000 cps.

3 db

Hum and Noise: Better than 60 db below 100% modu-

lation at full quieting.

Tuning Range: 87.5 to 108.5 megacycles Less than .02%

Harmonic Distortion: Less than 0.5% Image Rejection: 40 db

Capture Ratio: Spurious Response

75 db Rejection:

Ratio Detector Bandwidth: 1 megacycle IF Bandwidth: 250 kc 50 db AM Suppression: IF Frequency: 10.7 mc

Dial Calibration

Accuracy: 1%

#### MULTIPLEX SECTION

Channel Separation: Better than 30 db Frequency Response: ± 1 db, 30 to 15,000 cps\*

SCA Rejection: Better than 40 db

Subcarrier

Suppression:

Stereo-Mono

Switching: All-electronic and automatic in pres-

ence of noise-free subcarrier.

\*Limit of IHF specifications. Actual response exceeds these figures.

#### AMPLIFIER SECTION

Power Output: 80 watts IHF music power (40 watts

per channel); 160 watts instantaneous

peak power.

± 1.5 db, 8 to 50,000 cps at rated power Frequency Response:

Channel Separation: 40 db minimum at 1000 cps Harmonic Distortion: Less than 0.5% at rated output IM Distortion: Less than 0.5% at rated output

Hum and Noise: High level inputs - better than 80 db

down at rated output

Magnetic phono input-better than 70 db down (reference 10 mv input)

Input Sensitivity: Magnetic phono, 3 mv

Ceramic phono, tuner, auxiliary, and

tape monitor, 100 mv Selector (Phono-Tuner-Aux)

Volume Balance

Bass  $(+20 \text{ db}, -20 \text{ db at } 50 \text{ cps})^{**}$ Treble (+15 db, -15 db at 10 kc)\*\*

Speakers 1 On-Off Speakers 2 On-Off

Tape Monitor (Source-Tape) Mode (Stereo-Mono)

AC Power (Off-On) Speakers 1 (4-8-16 ohms each chan-Outputs:

nel); Speakers 2 (4-8-16 ohms each channel); stereo tape recorder; stereo

headphone.

**Output Damping** 

Controls:

50 at 8 ohms Factor:

Auxiliary AC Outlets: 2; one switched, one unswitched

\*\*Figures represent maximum boost at low volume settings. (See text for explanation of Automatic Contour Regulation circuit.)

#### GENERAL SPECIFICATIONS

Power Requirements: 110-120 volts, 50-60 cycle AC 71/8" H. x 133/4" W. x 93/4" D. Dimensions:

171/2 lbs. Weight: Price: \$397.00

### specifications E-V 77

All specifications same as E-V 88, except:

Power Output: 40 watts IHF music power (20 watts

per channel); 80 watts instantaneous

peak power.

 $\pm$  1.5 db, 10 to 40,000 cps at rated Frequency Response:

power.

Harmonic Distortion: Less than 0.5% at rated output

IM Distortion: Less than 1% at rated output Hum and Noise:

High level inputs - better than 70 db

down at rated output

Magnetic phono input-better than 60 db down (reference, 10 mv input)

Bass Control: +12 db, -16 db at 50 cps

Treble Control: +12 db, -16 db at 10,000 cps Price: \$299.00

## Electro Voics WARRANTY

THE E-V 88 AND E-V 77 ARE UNCONDITIONALLY GUARANTEED FOR TWO FULL YEARS AGAINST DE-FECTIVE WORKMANSHIP AND MATERIALS.