

SPECIFICATIONS

PE15,

Frequency Response:

20 Hz - 20 kHz ±.25 dB

Gain:

-1.5 dB

Impedance:

150 ohm nominal

Distortion:

Less than 1% THD @1.5 V RMS output

Self Noise:

Terminated w/25 pf 1.4 uV "A" weighted

Operating Voltage:

8 to 50 VDC (standard 48 V remote power accepted)

Current Required:

3 to 12 mA (depending upon supply voltage)

Dimensions:

153.9 mm (6.06") long, 26.8 mm (1.06") dia., 19 mm (.75") shank dia.

Weight:

172 g (6 oz)

Finish:

Fawn beige micomatte

Case Material:

Steel

Accessories Furnished:

312 stand clamp Metal storage case 4.6 m (15 ft) cable SE15A,

Frequency Response:

-6 dB @ 60 Hz,

-2 dB @ 100 Hz

200 Hz - 20 kHz, ±.25 dB

Gain:

-2 dB

Impedance:

250 ohm nominal

Distortion: (at 1 kHz)

Less than 1% THD

@2.0 V RMS AB mode (12 VDC)

@3.0 V RMS Phantom mode

Self Noise:

Terminated w/25 pf 1.5 uV "A" weighted

Operating Voltage:

7.5 to 16 VDC AB mode 7.5 to 50 VDC Phantom mode

Current Required:

5 mA

Dimensions:

80.7 mm (3.18") long, 25.4 mm (1") dia.

Weight:

119 grams (4.2 oz)

Finish:

Fawn beige micomatte

Case Material:

Steel and aluminum

Accessories Furnished: Metal storage case

Integral coiled cable

Cable banding clamp and

Flex relief insert

DESCRIPTION AND APPLICATIONS MODEL PE15

The Electro-Voice Model PE15 is a remotely powerable electronic preamplifier designed to work with the following E-V professional condenser heads: CO15E, CS15E, CH15E, and CL42E. The conventional styling of the PE15 is equally at home in the recording studio, on camera or in handheld professional entertainer applications. The 3/4-inch diameter allows the PE15 to be used with standard accessories such as shock mounts, stand clamps and security stud mounts. The electronics are designed for low noise and maximum stability over a wide range of temperature extremes. Unlike the delicate construction of many imported condenser microphones, the PE15 uses a machined steel case to assure the professional that it will endure even the most strenuous field conditions

The PE15 is designed to be remotely powered, using the phantom method. The PE15 will operate with any voltage between 8 and 50 volts dc. The PE15 may be remotely powered from either an in-line power supply such as the E-V Models BS9 or AC24M or directly from any console that has this method of remote powering incorporated into its microphone inputs.

OPERATING INSTRUCTION FOR THE PE15

To assemble the PE15 and the condenser head of your choice, (1) place the probe extending from the back of the condenser head into the receptacle in the center of the PE15, push the head on the PE15 just enough to seat it, (3) thread the two units together until they are snug. The microphone head and electronics are now properly connected.

The microphone should now be properly assembled and is ready for connection to your microphone input.

POWERING THE PE15

The PE15 will work with remote power supplies utilizing the phantom mode of powering and capable of providing 8 to 50 volts dc at the connector insert in the PE15. This method of powering may be achieved by several methods.

DESCRIPTION AND APPLICATIONS MODEL SE15A

The Electro-Voice Model SE15A is an electronic preamplifier designed to work with the following Electro-Voice professional condenser heads: CO15E, CS15E, CH15E, and CL42E. The SE15A is capable of being remotely powered by either the phantom method or the A-B method (modulation lead powering or Sennheiser powering). The SE15A senses the method of power applied and switches automatically to the proper mode of operation. This dual

powering option allows the use of existing power supplies already in common use, such as the AC24M. The SE15A may also be powered by the E-V Model BS9 Battery Power Supply.

The small size of the SE15A is ideal for boom, fishpole, or ENG applications. The SE15A has a shock mount specifically designed for use with it, this is the Model 304.

The SE15A, 304 Shock Mount, and CH15E Head weigh less than 119 g (4.2 oz) and its overall length (with CH15E head) is only 80.7 mm (3.18"). The weight has been kept to a minimum by using aluminum wherever possible, but using steel in all critical areas. The Model 309 Shock Mount may be used with the SE15A when a head of larger mass than normal such as the CL42E is to be used.

The SE15A is supplied with a coiled (shock isolating) cable terminating in a Switchcraft A3M connector. When used with either the 304 or 309 shock mount, the A3M may be clamped to the shock mount bale, using the supplied clamp with the shock mount.

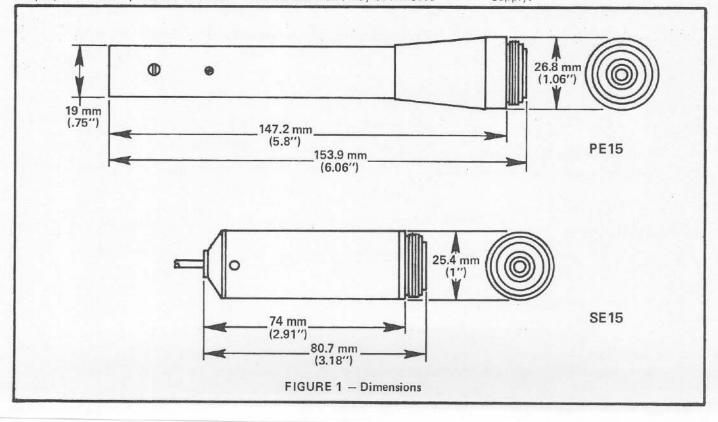
If a different cable of larger diameter is desired for use with the SE15A, the coiled cable assembly may be replaced with a cable of your choosing. A spare insert with a larger inside diameter is provided specifically for this purpose. If a connector interface is desired, then the molded insert may be removed

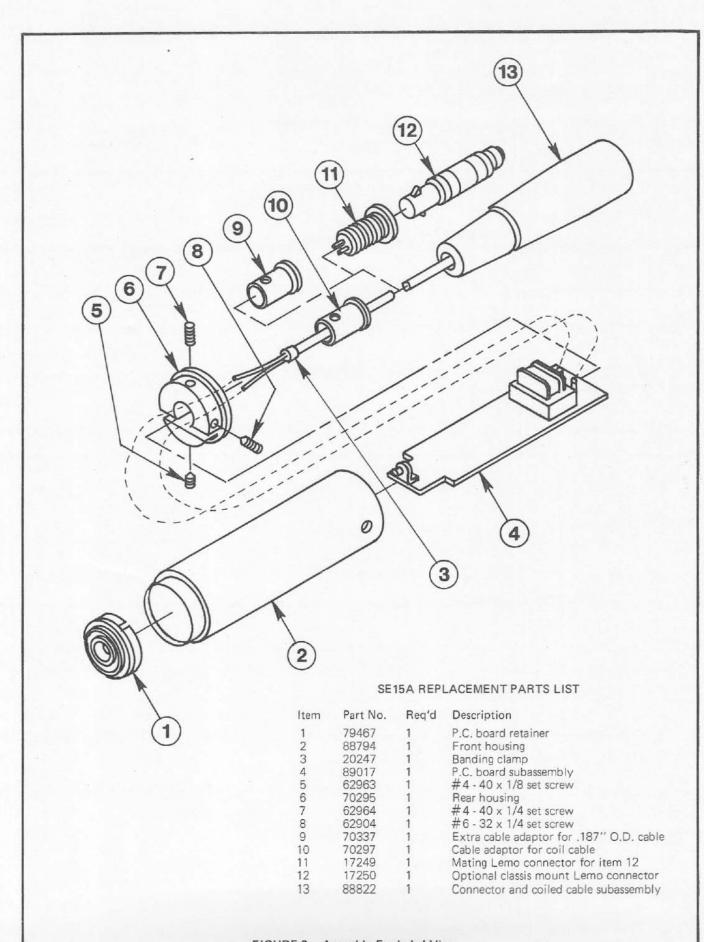
completely and a user supplied miniature connector may be used in its place. The SE15A is specifically designed to accept the miniature Lemo connector of the RAO and FO series. These connectors are available from Electro-Voice (see Parts List).

OPERATING INSTRUCTIONS FOR THE SE15A

To assemble the SE15A and the condenser head of your choice (1) place the probe extending from the back of the condenser head into the receptacle in the center of the SE15A, (2) push the head onto the SE15A just enough to seat it, (3) thread the two units together until they are snug. The microphone head and electronics are now properly connected.

The SE15A will operate plugged into a microphone line carrying phantom or A-B power systems. With A-B power, the SE15A will handle from 7.5 to 16 volts dc with 16 volts providing the highest dynamic range. As with the PE15, the SE15A may also be powered from any phantom power supply and will operate with any voltage between 7.5 and 50 volts dc. Switching between the two types of sources is completely automatic, with no internal switching or wiring changes required. The PE15 and SE15A are compatible with the Electro-Voice Model AC24M Phantom Power Supply. The PE15 may also be used with the BS9 Battery Power Supply.





Two types of A-B supplies are found in the field. On one type Pin 2 carries the positive voltage and Pin 3 carries the negative voltage. The other method has the polarity at Pins 2 and 3 reversed. The SE 15A will operate into either one without the use of polarity reversing cables. It is very important that the A-B power source be as noise free as possible to ensure the maximum signal-to-noise ratio.

PE15/SE15A AND DISTORTION

Many times, microphones are unjustly accused of causing distortion. More often than not, the mixer preamp is the problem. Mixer or console preamps are designed to operate with a nominal input level of several millivolts. When this nominal input level is exceeded, the preamp quickly goes into clipping, thus causing distortion. Both dynamic and condenser microphones are capable of delivering over one volt to the mixer input at less than .15 percent total harmonic distortion. Preamps, over the years, traditionally have been designed with dynamic microphones in mind. With condenser microphones having output levels 10 to 20 dB greater than dynamics, caution should be exercised so as not to overload the mixer preamp.

After reducing the gain of the input mixer stage by the use of pads or other means it is determined that distortion at high sound pressure levels is occuring in the PE15 or SE15A preamp—then the use of a pad between the mike capsule and PE15/SE15A is indicated. Electro-Voice manufactures the CA10 10 dB attenuator specifically for this purpose. See the CA10 Engineering Data Sheet for more detailed information.

High gain preamplifiers in mixers or tape recorders often have insufficient head room to handle the relatively high sub-audible signals resulting from wind and shock energies. Since the SE15A is mainly designed for use with the CH15E and CL42E microphone capsules that are often used outside in the wind, a sub-audible filter has been included to roll the bass frequencies off below 100 Hz. This filter prevents blocking of the input preamplifier with sub-audible noise created from the wind. The sub-audible filter compliments a good shock mount and windscreen to eliminate the undesirable noises from wind and shock.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

PE15 — The preamplifier shall have a frequency response of 20 Hz to 20 kHz ± .25 dB. It shall operate from any remote power source capable of delivering 8 to 50 VDC via the phantom method. It shall be housed in a turned steel case and have a shank diameter of 19 mm (.75") and a length of 153.9 mm (6.06") It shall have an output impedance of 150 ohms and its self noise shall be equal to or less than 1.4 uV "A" weighted when terminated in a capacitance of 25 pf. The Electro-Voice Model PE15 preamplifier is specified.

SE15A - The preamplifier shall have a frequency response of 200 Hz to 20 kHz ± .25 dB and be 6 dB down at 60 Hz. It shall operate from any remote power source capable of delivering 7.5 to 50 VDC via the phantom method or 7.5 to 16 VDC via the AB method. The preamplifier shall be housed in a combination aluminum and steel case. It shall be 80.7 mm (3.18") long by 25.4 mm (1") in diameter. It shall have an output impedance of 250 ohms and its self noise shall be equal to or less than 1.5 uV "A" weighted when terminated in a capacitance of 25 pf. The Electro-Voice Model SE15A is specified.

WARRANTY (Limited) -

Electro-Voice Professional Broadcast, Recording, and Sound Reinforcement Microphones are guaranteed unconditionally against malfunction from any cause for a period of two years from date of original purchase. Also, these microphones are guaranteed without time limit against malfunction in the acoustic system due to defects in workmanship and materials. (Any active electronics incorporated in a microphone is guaranteed for three years from date of original purchase against such malfunction.) If such malfunction occurs, microphone will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not cover finish, appearance items, cables, cable connectors, or switches. Defect guarantee does not cover malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

For repair information and service locations, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (Phone 616/695-6831) or 7473 Avenue 304, Visalia, CA 93277 (209/625-1330,-1).

Electro-Voice maintains complete facilities for non-warranty service of E-V products.

Specifications subject to change without notice.