# Electro-Voice°

**Commercial Microphones** 



## US621L US622L Dynamic desktop Microphones

- Touch to talk
- 7-foot, 5-conductor cable with bare-wire termination
- US621L: Omnidirectional US622L: Cardioid, noise-cancelling

## Description

These microphones were designed for communications and paging applications. Both models are also useful in amateur radio, CB, aeronautical and commercial base station installations.

The US621L is an omnidirectional dynamic microphone with wide-range frequency response making it an excellent choice for general-purpose and office paging applications. The US622L is a noise-cancelling dynamic microphone designed for paging, dispatching and call systems in which background noise is high or for reduction of feedback under difficult acoustical conditions. The US622L allows the user to speak closely into the microphone in a normal voice, while background noise is greatly attenuated. The frequency response was designed to ensure excellent intelligibility.

The rugged, diecast stand is carefully balanced for handheld use as a "grip to talk" microphone, yet will remain firmly positioned for "touch to talk" use. The switch assembly will survive many hundreds of thousands of use cycles—assuring the ultimate in reliability. The switch assembly may be changed from "touch to talk" to "grip to talk." The switch may be locked in the "on" position for "hands free" operation. There is an adjustment screw that permits the locking feature to be defeated. This control is accessible only when the switch is located in the "touch to talk" position.

## **Locking Feature**

In the "touch to talk" position, the switch is locked in the "on" position by depressing the switch bar and sliding it to the right. If the switch assembly is mounted in the "grip to talk" position, the switch bar should be depressed and slid upwards to lock. To unlock the switch bar, reverse the procedure.

## **Defeating the Locking Feature**

With the switch in the "touch to talk" configuration, the locking feature may be defeated by an adjustment screw located through the access hole in the bottom plate (see Figure 5). Rotating the screw fully clockwise defeats the locking feature. To defeat the switch locking feature in the "grip to talk" configuration, the adjustment must be made prior to moving the switch assembly to the neck location. To restore the locking feature, turn the adjustment screw counterclockwise until locking is now possible.

#### **Changing Switch Connections**

The US621L and US622L are shipped with switch connections as shown in Figure 6. The microphones have shorted outputs in the "off" position. See Figure 6 for complete instructions.

The switch assembly is easily accessible for wiring revisions. First, remove the bottom cover plate, then remove the two switch assembly screws to release the assembly for easy access to switch terminals.

## **Parallel Operation**

If the US621L and US622L are to be used in applications such as multiple microphone paging installations (where several units are connected in parallel to a single microphone input), changes must be made as shown in Figure 6. Cutting the short wire "opens" the microphone output when the switch is in the "off" position; this will allow multiple microphone applications.

#### **Relocating Switch**

The microphones are designed for "touch to talk" or "grip to talk" operation. When received from the factory, the switch is mounted on the base for "touch to talk" use.

## US621L and US622L Dynamic Microphones

If desired, the switch may be relocated without wiring changes to the neck of the microphone for "grip to talk" operation.

To relocate the switch, proceed as follows:

- Remove the black plastic cover from the neck of the microphone by gently lifting one end with a flat blade. This will expose the "grip to talk" switch opening. Save the cover, as it will be needed for the opening on the base of the microphone.
- 2. Remove two screws and the cover plate from the bottom of the microphone.
- 3. Slip the strain-relief spring from slot.
- Remove the two screws located in the neck of the microphone.
- Gently lift switch assembly away from microphone housing.
- 6. Turn the entire switch assembly so the top surface of the switch bar faces the front of the microphone with wires protruding from the bottom of the switch.
- 7. Secure switch assembly in the neck with the two screws.
- Check the action of the switch to ensure that all wires are properly seated and have not become entangled in the switch assembly.
- Loop the cable around the bass located in the housing base and seat the strain-relief spring at the rear of the microphone base. Secure the bottom plate with two screws.
- 10. Place the black plastic cover into the opening on the base (from which the red switch bar was previously removed) by inserting the two tabs into the opening and snapping cover into position.

### **Architects' and Engineers' Specifications**

The model US621L microphone shall be an omnidirectional, dynamic type with uniform frequency response from 100-9,000 Hz. The model US622L microphone shall be a noise-cancelling dynamic type with uniform frequency response from 125-5,000 Hz. The microphone output impedance shall be specified 150 ohms. The output level shall be -57 dB (0 dB=1mW/10 dynes/cm<sup>2</sup>). The microphone case shall be of Cycolac and diecast zinc, and shall include a diecast zinc table stand inte-

gral with the microphone case. The assembly shall be 246.1 mm (9.69 in.) high x 114.3 mm (4.5 in.) wide x 122.2 mm (4.81 in.) deep.

A DPDT switch shall be provided, one section of which shall normally short circuit the transducer when switch is in "off" position. (Provisions shall be made for connecting the normally open mode in "off" position and closing the microphone circuit for "on" position for multiple microphone paging installations.) A second switch section shall be provided with the capability to function either in an electronic switching mode or for operation of external relay. A locking feature shall be provided by means of which switch may be locked in "on" position. A 2.13 m (7 ft) black plasticjacketed, five-conductor, two-shielded cable shall be furnished. The finish of the integral stand and microphone shall be nonreflecting blue-black. Net weight shall be 822 g (1 lb, 13 oz).

The Electro-Voice commercial microphones US621L and US622L are specified.

### **Uniform Limited Warranty Statement**

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. Exclusions and Limitations: The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than EVI Audio Service or any of its authorized service representatives. Obtaining Warranty

Service: To obtain warranty service, a customer must deliver the product, prepaid, to EVI Audio Service or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from EVI Audio Service at 600 Cecil Street, Buchanan, MI 49107 (800/234-6831 or FAX 616/695-4743). Incidental and Consequential Damages Excluded: Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. Other Rights: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Electro-Voice Wired Microphones are guaranteed against malfunction from any cause for two (2) years from the date of original purchase. In addition, the Limited Warranty for the acoustic system contained in these microphones shall apply for the life of the product, defined as a period of ten (10) years from the date that the manufacture of the specific microphone has been discontinued. Any and all active electronics incorporated in these microphones are guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. The Limited Warranty does not extend to cables, cable connectors, or switches. Additional details are included in the Uniform Limited Warranty statement.

For warranty repair, service information, or a listing of the repair facilities nearest you, contact the service repair department at: 616/695-6831 or 800/685-2606.

For technical assistance, contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. Eastern Standard time.

Specifications subject to change without notice.

## US621L and US622L Dynamic Microphones

## Figure 1—US621L Frequency Response







Figure 4—US622L Polar Response







## US621L and US622L Dynamic Microphones

FIGURE 5—US621L/US622L Bottom View FIGURE 6—US621L/US622L Wiring Diagram





#### **SPECIFICATIONS**

US621L/US622L: Dynamic Frequency Response, US621L (see Figure 1): 100-9,000 Hz US622L (see Figure 2): 125-5,000 Hz Polar Pattern, US621L (see Figure 3): Omnidirectional US622L (see Figure 4): Cardioid, noise-cancelling Impedance, US621L/US622L: 150 ohms Output Level, US621L/US622L: -57 dB (0 dB = 1 mW/10 dynes/cm<sup>2</sup>) Case Material, US621L/US622L: Pressure-cast zinc and Cycolac Finish, US621L/US622L: Blue/black Dimensions, US621L/US622L, Height: 246.1 mm (9.69 in.) Width: 114.3 mm (4.5 in.) Depth: 122.2 mm (4.81 in.) Net Weight, US621L/US622L: 822 g (1 lb, 13 oz) Switch, US621L/US622L: Leaf, DPDT, switches external circuit and shorts or opens mike in "off" position Cable, US621L/US622L: 2.13 m (7 ft) long, 5-conductor, 2-shielded, vinyl jacket, black

## Electro-Voice®

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