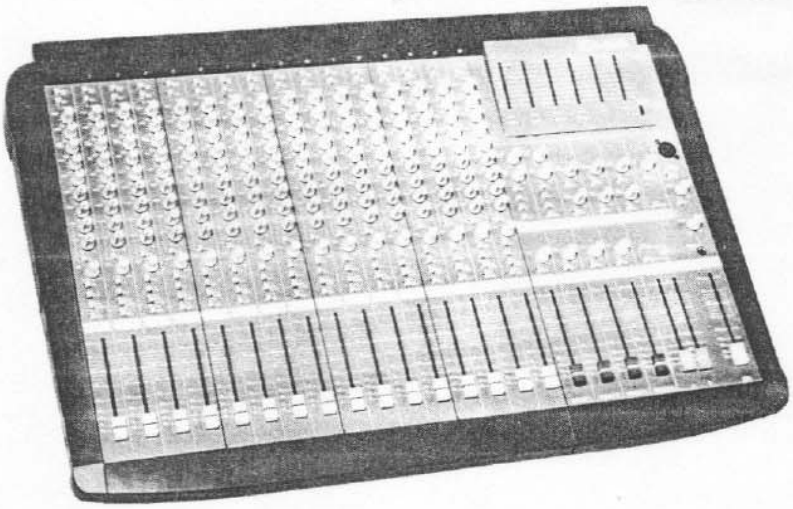
Electro-Voice®

LX4 Series

High-Performance, Professional Mixers



- High-end console performance: –128 dBV EIN (equivalent input noise) and –90 dBV A-weighted output noise
- Active balance, fader-controlled XLR outputs for subgroups, left, right, and mix
- Logical grouping of controls for simple operation
- Six aux sends and insert jacks on each channel allow excellent signal routing
- 10-segment LED ladders for easy signal monitoring
- Three-year parts-and-labor warranty

SPECIFICATIONS

Conditions:
1. 0 dBu = 0.775 V rms.
2. 0 dBV = 1.0 V rms.
3. Measurements are referred to a 1-kHz, 0-dB sine-wave input unless noted.
4. 120-V, 60-Hz ac line voltage.

Frequency Response, Mic Input to Master Output (EQ flat):
20-20,000 Hz (+1/–3 dB)

Total Harmonic Distortion, 20-20,000 Hz at +4 dBu Output into 600 Ohms:
<0.1%

Equivalent Input Noise (150-ohm termination):
–128 dBV, microphone input

Output Noise at Balanced Outputs (A weighted):
–90 dBV residual at master outputs (all faders down)

Maximum Voltage Gain (±3 dB),
Channel Input to Subgroups 1-4, Aux's 1-6 and ALT 8/9 Output:
84 dB

Channel Input to Left and Right Output:
88 dB

Channel Input to Channel Insert Send:
34 dB

Channel Input to Aux 1 Output (pre-fader mode):
74 dB

Aux Return 1 and 2 to Subgroup Output:
20 dB

Sub Input to Left, Right and Subgroup Output:
10 dB

Crosstalk, Adjacent Inputs:
–60 dB, typical at 1,000 Hz

Level Displays,
Outputs:
LED segment ladder
Range:
–20 dB to +3 dB
Reference:
0 VU = +4 dBu
Channels:
Peak LED illuminates 3 dB before clipping.

INPUT SPECIFICATIONS

Input Pad:
–20 dB of pad on the MIC/LINE inputs

Input Channel Equalization:
±15-dB low cut/boost centered at 100 Hz;
±15-dB mid cut/boost sweepable from 350-5,000 Hz;
±15-dB high cut/boost centered at 10,000 Hz

Input Channel Gain Control Range:
44 dB (–60 dB to –16 dB)

Microphone Inputs,
Number:
16 or 24
Type/Connector:
Low impedance, balanced, 3-pin XLR type
Polarity:
Pin 2 positive
Maximum Input Level:
+8 dBu with gain control at minimum
Input Impedance:
4.0 kilohms at 1,000 Hz
Phantom Power:
+48 volts

Line Inputs,
Number:
16 or 24
Type/Connector:
High impedance, unbalanced, ¼-inch phone jack
Polarity:
Tip positive
Maximum Input Level:
+20 dBu with gain control at minimum
Input Impedance:
10 kilohms

Aux Inputs,
Number:
Two
Type/Connector:
High impedance, unbalanced, ¼-inch phone jack
Polarity:
Tip positive
Nominal Input Level:
+4 dBu (1.23 volts)
Maximum Input Level:
+20 dBu
Input Impedance:
10 kilohms

Tape Inputs,
Number:
Two Stereo
Type/Connector:
RCA
Polarity:
Tip positive
Nominal Input Level:
+4 dBu (1.23 volts)
Maximum Input Level:
+20 dBu
Input Impedance:
10 kilohms

Sub Group Inputs:
Number:
1 thru 4
Type/Connector:
High impedance, unbalanced, ¼-inch phone jack
Polarity:
Tip positive

LX4 SERIES MIXERS SPECIFICATION GRAPHICS

FIGURE 1 — LX4 Series Overall Dimensions

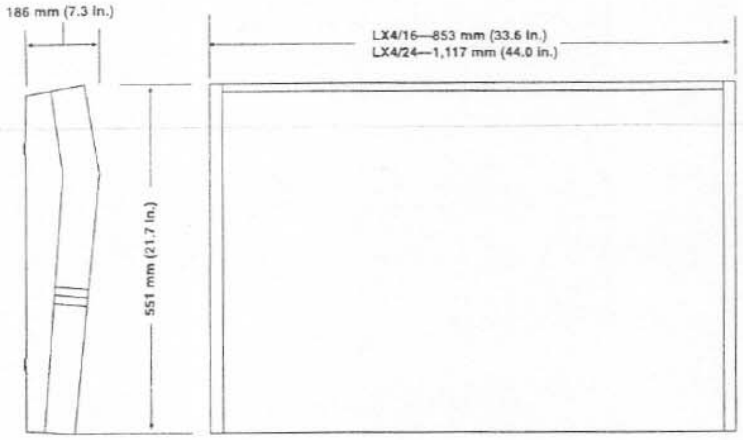


FIGURE 2 — LX4 Series Input Channel Controls

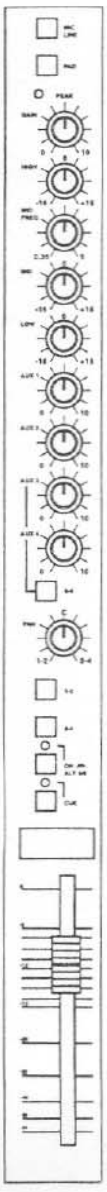
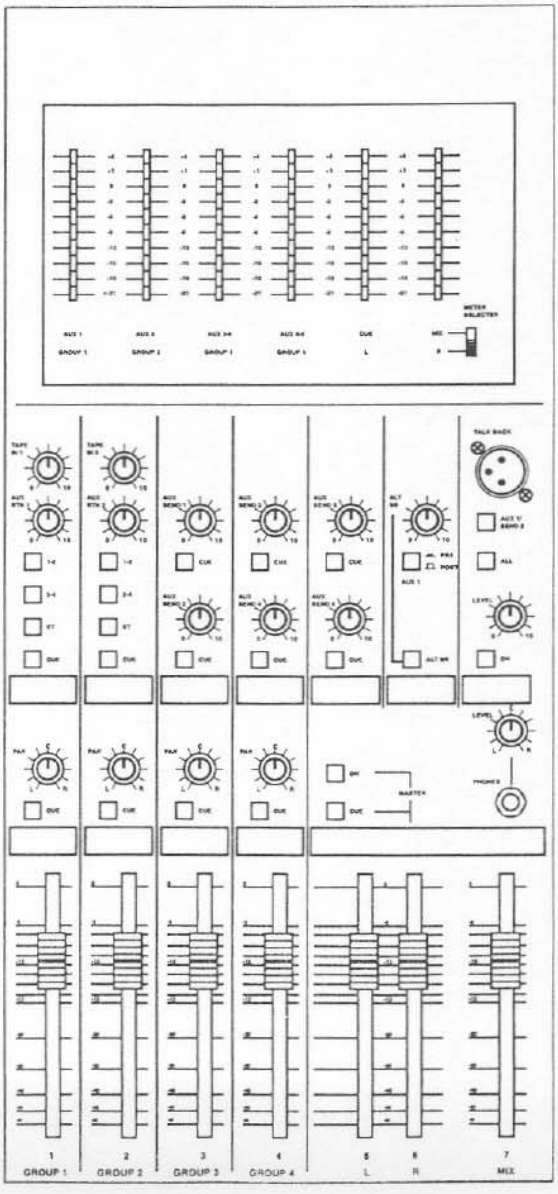


FIGURE 3 — LX4 Series Output Section Controls



Nominal Input Level:
+4 dBu (1.23 volts)
Maximum Input Level:
+20 dBu
Input Impedance:
10 kilohms
Stereo L/R Sub Inputs:
Number:
two/left and right
Type/Connector:
High impedance, unbalanced, 1/4-inch phone jack
Polarity:
Tip positive
Nominal Input Level:
+4 dBu (1.23 volts)
Maximum Input Level:
+20 dBu
Input Impedance:
10 kilohms

OUTPUT SPECIFICATIONS

Output Impedance,
Balanced Low-Impedance Outputs:
150 ohms
Headphones:
100 ohms
Insert Sends:
600 ohms
Aux Sends:
600 ohms
Subgroup Inserts:
600 ohms
Monitor Outputs:
600 ohms
Maximum Output Level;
Groups, Stereo, and Mix Outputs:
+24 dBu (12.3 volts)
Headphones:
20 mW
Channel Insert Sends:
+20 dBu (7.75 volts)
Monitor Outputs:
+24 dBu (12.3 volts)
Subgroup Inserts:
+20 dBu (7.75 volts)
Power Requirements:
115 or 230 volts, 50 or 60 Hz, LX4/16 75 watts, LX4/24 85 watts
Dimensions (see Figure 1),
Height, LX4/16 and LX4/24:
551 mm (21.7 in.)
Width,
LX4/16:
853 mm (33.6 in.)
LX4/24:
111.7 cm (44.0 in.)
Depth, LX4/16 and LX4/24:
186 mm (7.3 in.)
Weight,
LX4/16:
110 kg (50 lb)
LX4/24:
134.5 kg (61 lb)
Shipping Weight,
LX4/16:
125.7 kg (57 lb)
LX4/24:
158.7 kg (72 lb)

LX4 SERIES MIXERS SPECIFICATION GRAPHICS (cont.)

FIGURE4 — LX4 Series Rear-Panel Switches

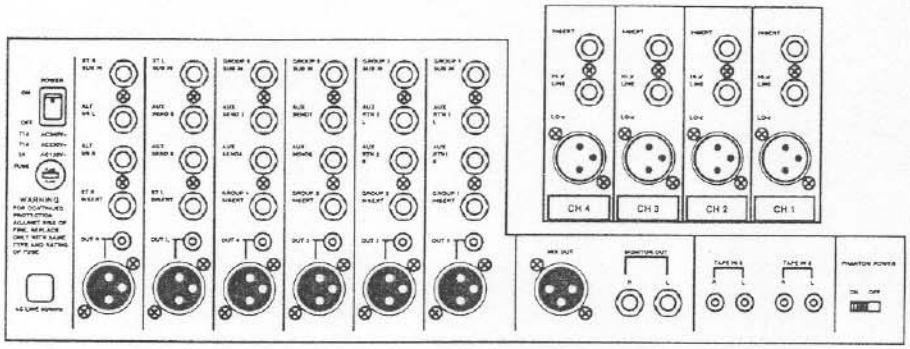
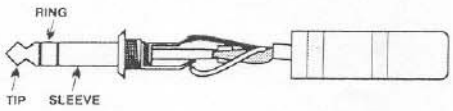


FIGURE 5 — LX4 Series Typical Insert Connections
(mono and stereo 1/4-inch phone plug connectors)



TIP = SEND
RING = RETURN
SLEEVE = GROUND

DESCRIPTION

The Electro-Voice LX4 Series four subgroup mixers are high-performance, professional consoles. Their wide range of features, excellent performance and signal-routing capabilities make them ideal for many audio applications requiring high-quality audio for sound reinforcement. The controls and functions are clearly labeled and logically grouped for easy operation.

Figures 2, 3 and 4 are, respectively, detailed views of an input channel, the output section and the rear panel. Figure 5 illustrates typical insert connections.

INPUT SECTION FEATURES

- The input channels have 3-pin XLR-type microphone inputs and 1/4-inch unbalanced line inputs with a true MIC/LINE switch that selects between the XLR microphone input and line 1/4-inch unbalanced input.
- Each input channel has gain control with a peak LED to accommodate a wide range of sources. All input channel utilize a 20 dB pad switch on the MIC/LINE inputs.
- All input channels have three-band EQ and semiparametric mids. Each input channel also has insert jacks which are useful for looping processors.
- All channels have six aux sends. The aux 1 send has the option of being configured pre fader for use as a monitor send activated by a push button switch in the output section. Aux's 2-6 are post fader for reverbs, delays, etc. Aux's 5 and 6 share aux controls 3 and 4, activated via a push-button switch. All aux sends can be internally configured for pre or post operation.
- All input channels are equipped with a mute/alt 8/9. This feature is used to activate a full mute (off) to the channel or as a record playback feed to alt 8/9 outputs.
- All input channels have a pre-fader-listen (cue) switch. When the cue switch is engaged, the signal from that channel is routed to the headphone jack and the left channel LED ladder meter for monitoring. The LED next to each cue switch will illuminate when the mixer is in this function.
- All input channels on the LX4 Series are equipped with 100-mm, high-quality faders.
- All input channels have universal phantom power activated for all channels from output rear panel (refer to Figure 4 for location).
- Two stereo inputs for a stereo tape deck, CD player or other high-level source. Each stereo input has a separate volume control with two RCA-type phono connectors. The signal is routed to the sub left and sub right outputs.
- Two aux inputs for effects processors or other high-level source. Each aux input has a separate volume control with 1/4-inch unbalanced phono connectors. The signal from each input can be routed to all subgroups 1 thru 4 or to the Left and Right outputs using the assignment switches.

OUTPUT SECTION FEATURES

- XLR-type 3-pin active-balanced low-impedance outputs for subgroups 1-4, left, right and mix. These outputs are each controlled by their own 100 mm faders.

There are also insert jacks on subgroups 1-4 and stereo to allow connection of equalizers or other universal signal processors.

- A headphone amplifier with level control and three-conductor, 1/4-inch phone jack mounted on the front panel.
- Separate send and return and aux-to-monitor controls for aux 1 and 2.
- Monitor output via two 1/4-inch phone jack connectors fixed at +4 dBu level used as a record monitor or to feed a professional tape machine.

GENERAL FEATURES

- High-quality components used throughout. Each input channel is a separate printed circuit board for low crosstalk and easier servicing, if required.
- Integral power supply with excellent current capacity and very low noise.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The mixer shall have 16 or 24 input channels with rear-mounted input and output connectors.

The input channels shall have 3-pin XLR-type microphone inputs and 1/4-inch unbalanced line inputs with a MIC/LINE switch that selects between the XLR microphone input and line 1/4-inch input. Each input channel will have a gain control with a peak LED. All input channels will have a 20 dB pad switch on the MIC/LINE inputs. All input channels shall have three-band EQ and semiparametric mids. Each input channel will have insert 1/4-inch phone jacks. All channels shall have six aux sends. The aux 1 send will have the option of being configured pre fader activated by a push button switch in the output section. Aux's 2-6 will be post fader. Aux's 5 and 6 shall share aux controls 3 and 4, activated with a push-button switch. All aux sends can be internally configured for pre or post operation.

All input channels will be equipped with a mute/alt 8/9. This shall be used to activate a full mute (off) to the channel or as a signal route to alt 8/9 outputs. All input channels shall have a pre-fader-listen (cue) switch. When the cue switch is engaged, the signal from that channel will be routed to the headphone jack and the left channel LED ladder meter for monitoring. The LED next to each cue switch will illuminate when the mixer is in this function. All input channels shall have 100-mm, high-quality faders. All input channels will have universal phantom power activated for all channels from output rear panel.

There shall be two stereo inputs. Each stereo input will have a separate volume control with two RCA-type phono connectors. The signal shall be routed to the sub left and sub right outputs. The mixer shall have two aux inputs. Each aux input will have a separate volume control with a 1/4-inch unbalanced phono connectors. The signal from each input shall be routed to subgroups 1 thru 4 or to the left and right outputs using the assignment switches.

The mixers output section shall have XLR-type 3-pin active-balanced low-impedance outputs for subgroups 1-4, left, right and mix. These outputs are each controlled by their own 100 mm faders. There will be insert jacks on subgroups 1-4 and stereo L/R. There will be a headphone amplifier with level control and three-conductor 1/4-inch phone jack mounted on the front panel. There shall be separate send and return and aux-to-monitor controls for aux 1 and 2. Monitor output will have two 1/4-inch phone jack connectors fixed at +4 dBu. This mixer shall have high-quality components used throughout. Each input channel will have a separate printed circuit board. There will be a integral power supply with excellent current capacity and very low noise. Dimensions shall be 551 mm x 853 mm x 186 mm (21.7 in. x 33.6 in. x 7.3 in.) for the LX4/16; 551 mm x 1,117 mm x 186 mm (21.7 in. x 44.0 in. x 7.3 in.) for the LX4/24. Net weight shall be 110 kg (50 lb) for the LX4/16 and 134.5 kg (61 lb) for the LX4/24.

The mixer shall be the Electro-Voice LX4/16 and LX4/24.

UNIFORM LIMITED WARRANTY

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 Electro-Voice or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice 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 Electro-Voice at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831 or 800/234-6831). **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 Electronics are guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (616/695-6831 or 800/234-6831).

Specifications subject to change without notice.