

1700C

Six Channel Mainframe Mixer/Preamplifier



General Product Description

The **Electro-Voice® 1700C** Mixer/Preamplifier is a six channel user-configurable mainframe preamplifier. By selecting from the large array of system component options, the **1700C** can become a six-in/one-out microphone mixer or a one-in/six-out distribution preamplifier.

The basic mainframe has six ports which can be input or output. When configuring with **Electro-Voice's 1781A** or **1781AT** Programmable Input modules, the mainframe becomes a powerful six channel mixer. Multiple **1700C** mainframes can be linked together for situations where more than six input/output ports are required.

Built-in features include a top panel trap-door for easy access into the unit, compressor/limiter, low and high frequency shelving equalizers, muting, remote volume control capability, and a tone generator which produces four different sounds.

Input Modules: The **Electro-Voice 1781A/1781AT** Programmable Input module accepts either mic or line level signals through a wide variety of connector interfaces. Further detail on these modules is given later in this document.

Output Modules: The **Electro-Voice 1783** Line Output module allows the user to interface with other professional equipment. Further detail on this module is given later in this document.

The **Electro-Voice** model **1700C** mixer/preamplifier systems respond to most design tasks with the ease and versatility of systems costing much more. As a result, it *is the choice* for use in professional installations requiring high quality, flexibility in design, and low cost.

Architects' and Engineers' Specifications

The mixer/preamplifier shall have six configurable ports and be capable of operating from 100, 120, 200, 220, or 240 Vac, 50/60 Hz line, or from ± 48 VDC. Each port shall be usable with a microphone or other high level device. The mixer/preamplifier mainframe shall include a compressor/

limiter, low and high frequency shelving equalizers, and a tone generator capable of producing general purpose and emergency warning signals.

The preamplifier shall meet the following performance criteria: Frequency Response: 30 Hz to 20 kHz, ± 1 dB (main output). Source Impedance: 150 ohms to 250 ohms nominal with a microphone preamplifier, 600 ohms with a bridging transformer, 150 ohms to 600 ohms with a line matching transformer, and greater than 30 kohms with a tape preamplifier. Equivalent Input Noise: < -120 dBm with a low impedance microphone preamplifier. Output Noise: < -85 dBm (with all controls off).

The mixer/preamplifier shall be rack mountable and finished in black. The amplifier's dimensions shall be 5 1/4" (H) x 19" (W) x 12 1/4" (D) and its net weight shall be 24.2 lbs.

The plug-in accessory modules shall be the **1781A** or **1781AT** Input modules and the **1783** Line Output module (the **1786** Output Isolation transformer is used with the **1783** Line Output module). The accessory transformer usable with the modules shall be the **1786** Output Isolation transformer. The connector subassemblies shall be the **1791** female XLR, **1792** male XLR, **1793** dual phono, and the **1794** 5-lug screw terminal connector.

The mixer/preamplifier shall be the Electro-Voice Model 1700C.

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For customer orders, contact the Customer Service department at
800/392-3497 Fax: 800/955-6831

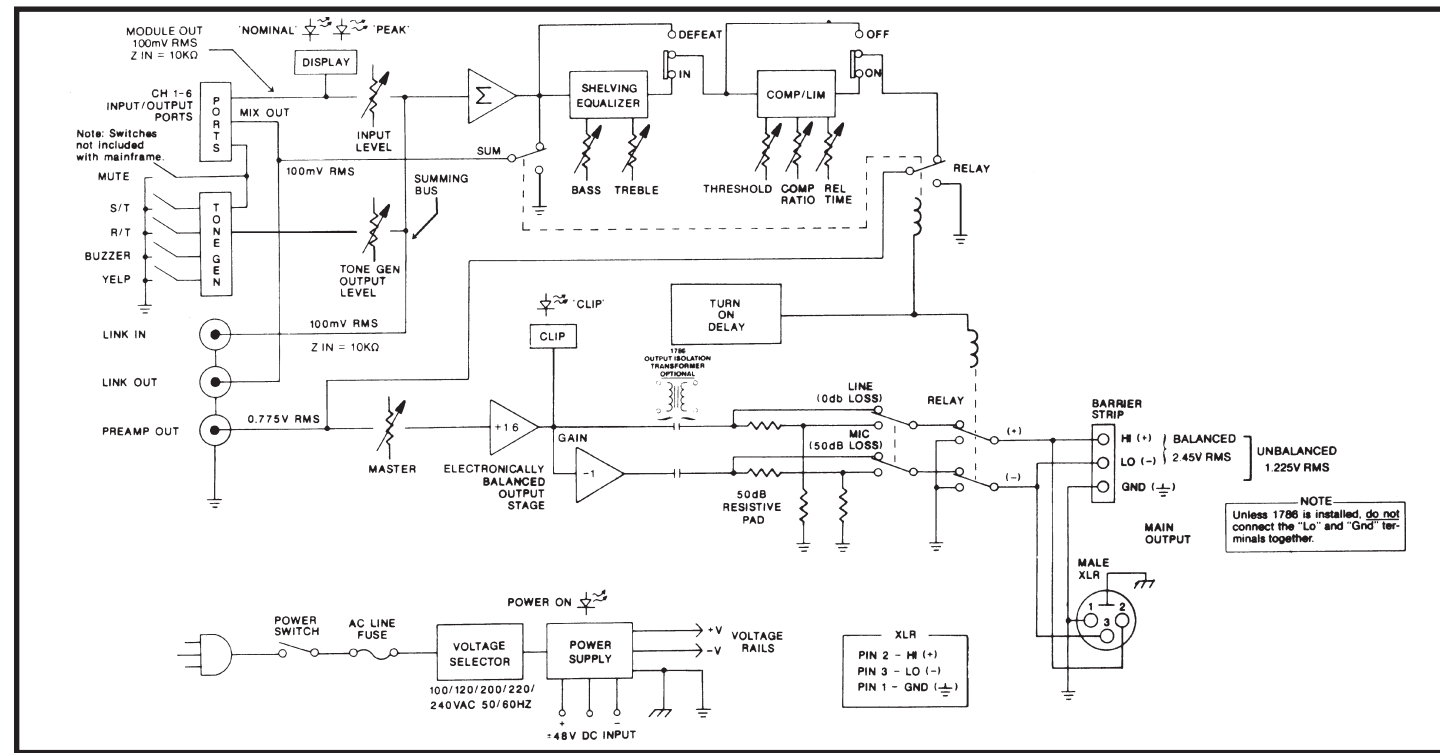
For warranty repair or service information, contact the Service
Repair department at 800/685-2606

For technical assistance, contact Technical Support at 866/78 AUDIO

Please refer to the Engineering Data Sheet for warranty information.

Specifications subject to change without notice.

Electro-Voice®



1700C Block Diagram

Specifications:

- Rated Output Level:** (Ref. 1 kHz)
Main Output: (balanced, LINE position) + 10 dBm
 (balanced, MIC position) -40 dBm
Preamp Output: (unbalanced) 0 dBm
Link Output: (unbalanced) 100 mVrms (-18 dBu), 10 kohm load
- Signal-to-Noise Ratio:**
Main Output: >85dB
 (rated output, A-weighted, EQ defeated, compressor/limiter off)
Preamp Output: >75 dB
 (rated output, A-weighted, EQ defeated, compressor/limiter off)
Link Output: >75 dB
 (rated output, A-weighted)
- Minimum Load Impedance:**
Main Output: Line Level balanced: 600 ohm minimum
 Mic Level balanced: 600 ohm minimum
Preamp Output: unbalanced: 600 ohm minimum
Link Output: unbalanced: 2 kohm minimum
Equalization: (Shelving type) Bass: ± 12 dB at 100 Hz
 Treble: ± 12 dB at 10 kHz
- Compressor/Limiter:** Feedforward Topology
 Threshold: -20 dB to +20 dB
 Continuously variable (Ref. 100 mVrms on Link input)
 Compression Ratio: 1:1 to ∞:1, Continuously variable
 Release Time: 50 msec to 5 sec., Continuously variable
- Tone Generator:** Electronically produced
 Tones: Buzzer, siren, single-tone chime, & repeating tone chime
 Control: . All tones are initiated by external switch closures
 Level Adjustment: Rear panel
- Front Panel Controls:**
 Input: 6 - Input Level adjust
 EQ Controls: 1 - Bass adjust, 1 - Treble adjust,
 1 - EQ In/Defeat switch
 Output: 1 - Master Level adjust
 Compressor/Limiter: 1 - Release Time adjust
 (screwdriver slotted)
 1 - Threshold adjust (screwdriver slotted)
 1 - Compression Ratio adjust (screwdriver slotted)
 1 - On/Off switch
 Miscellaneous: 1 - AC Power switch

Rear Panel Controls:

- Tone Generator: 1 - Output Level adjust
 (screwdriver slotted)
 Output: 1 - Output level select switch (MIC or LINE)

Indicators:

- Front Panel: .. 6 - Green LED's (Nominal Input level), 6 - Red LED's (Peak Input level), 1 - Red LED (Main Output clip), 1 - AC Power ON

Connectors:

- Inputs:
 Link Input: 1 - RCA phono receptacle
 Battery: 1 - 3-terminal barrier strip

Outputs:

- Main Output: 1 - Male XLR connector
 1 - 3-terminal barrier strip
 Preamp Output: 1 - RCA phono receptacle
 Control:
 Mute and Tone Generator: Screw terminals (7)

Power Requirements:

- (Ref. 1 kHz, rated output with no modules installed)
 AC Mains: 100, 120, 200, 220 or 240 VAC, 50/60 Hz
 Battery: ±48 VDC bipolar, 0.5 amps maximum

Power Consumption and Heat Produced:

- 17 watts consumed, 57.5 BTU/hour

Operating Temperature Range: Up to 50°C (122°F)

Dimensions:

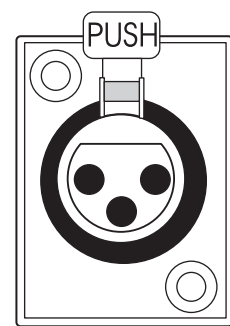
- Width: 19 inches (48.3 cm)
 Height: 5¼" inches (13.3 cm) (3 standard rack units)
 Depth: 13 inches (33.0 cm)

Net Weight: 15 lbs (6.8 kg)

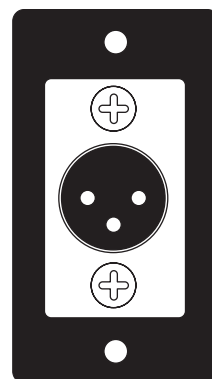
Finish Color: Black

Accessories included with Mainframe:

- Operating/Service Instructions, 1780A/AT, 1781A/AT and 1783
 4 - Rubber Feet (installed)
 1 - System Configuration Label installed on top cover
 1 - International 220/240 VAC voltage decal
 1 - International Fuse decal
 1 - Fuse for International use
 1 - Rack mount hardware kit



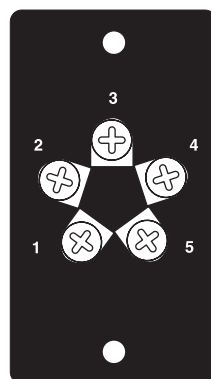
1791



1792



1793



1794

Connectors for use with 1783