

1781A/AT

Mic/Line Input Module



COMMERCIAL

General Product Description

The Electro-Voice® **1781A** programmable input module accepts either mic or line level signals through a wide variety of connector interfaces. Standard features include an electronically balanced input stage with adjustable gain, continuously variable high and low pass filters, RFI protection, 48 volt phantom powering, two levels of muting, and remote control capability. Programming is accomplished with plug-in jumpers which may select phantom power (on or off) and mute priority or slave. Electro-Voice® also offers the **1781AT**, a programmable input module with a **1785A** input isolation transformer installed, which provides an additional 10 dB of gain for improved sensitivity.

The **1781A/AT** is designed for use with the Electro-Voice® **1700C** Mixer/Preamplifier, and **1707C/ 1715C** Mixer/Amplifiers. Four different input connectors are available: the **1791** Female XLR, **1792** Male XLR, **1793** Dual Phono, and **1794** 5-Lug Terminal Connector.

Architects' and Engineers' Specifications

The input preamplifier modules shall have phantom power capability, continuously variable high and low pass filters, adjustable gain, and L + R stereo summing. A second model shall also feature a 600 ohm input transformer. In addition, the modules shall be fully compatible with the 1700-series mixer/preamplifier and mixer/amplifier mainframes, and accept any one of the 1790-series input connectors.

The input preamplifier modules shall meet the following performance criteria: Gain: 50 dB (60 dB w/1785A Input Transformer), continuously variable. Frequency Response: 50 Hz to 20 kHz, ± 1 dB. Equivalent Input Noise: <120 dB below rated output voltage with a 200 ohm input termination.

Specifications:

Gain: 0 dB to 50 dB, continuously variable
..... 10 dB to 60 dB w/1785A

Input Sensitivity:

(Ref. 1 kHz, 0 dB = 100 mVrms output, 10 kohm load)

Without 1785A: 0.3 mVrms to 100 mVrms (-50 dB to 0 dB)

With 1785A: 0.1 mVrms to 30 mVrms (-60 dB or -10 dB)

Input Impedance: (Ref. 1 kHz)

Electronically balanced: 8 kohm

Transformer balanced: 600 ohm

With **1793** installed: 39 kohm

Frequency Response:

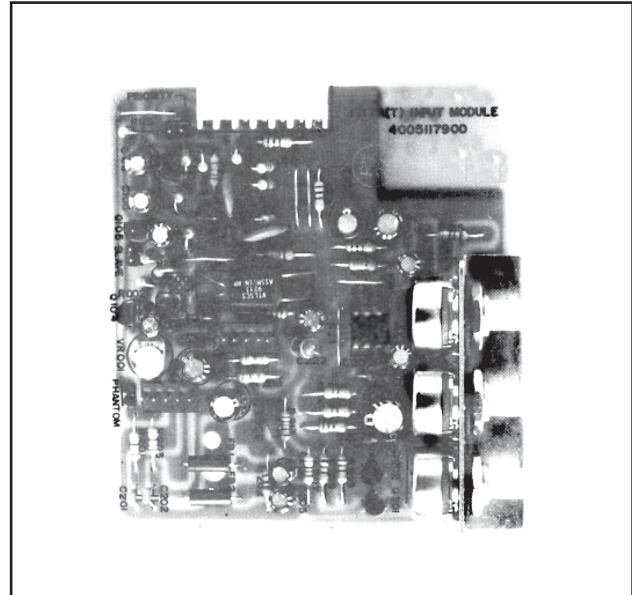
(Ref. 1 kHz, 100 mVrms output, 10 kohm load)

Without **1785A**: ± 1 dB (Minimum gain): 20 Hz to 20 kHz

..... ± 1 dB (Maximum gain): 50 Hz to 20 kHz

With **1785A**: ± 1 dB (Minimum gain): 20 Hz to 20 kHz

..... ± 1 dB (Maximum gain): 50 Hz to 15 kHz



Total Harmonic Distortion (THD): <0.05%, 20 Hz to 20 kHz (1781A) or <0.2%, 50 Hz to 15 kHz (1781AT) at minimum gain. High Pass Filter Corner Frequency: 320 Hz. Low Pass Filter Corner Frequency: 5 kHz. High and Low Pass Filter Slope: 6 dB per octave.

The input preamplifier shall be the Electro-Voice® model 1781A or 1781AT.

To minimize risk of distortion resulting from transformer saturation use the 1781A to accept strong line levels from cassette decks and CD players.

Total Harmonic Distortion (THD):

(Ref. 1 kHz, 100 mVrms output, minimum gain, 10 kohm load, 30 kHz low pass filter)

20 Hz to 20 kHz: <0.05%

Equivalent Input Noise: <-120 dB

(Ref. 0 dB = 100 mVrms output, 10 kohm load, 200 ohm input termination maximum gain, A-weighted)

High Pass Filter (Low Cut):

(Ref., 100 mVrms output, minimum gain, 10 kohm load)

F_L: 320 Hz (>10 dB at 100 Hz)

Slope: 6 dB/oct (20 dB/dec)

Low Pass Filter (High Cut):

(Ref. 100 mVrms output, minimum gain, 10 kohm load)

F_H: 5 kHz (>6 dB at 10 kHz)

Slope: 6 dB/oct (20 dB/dec)

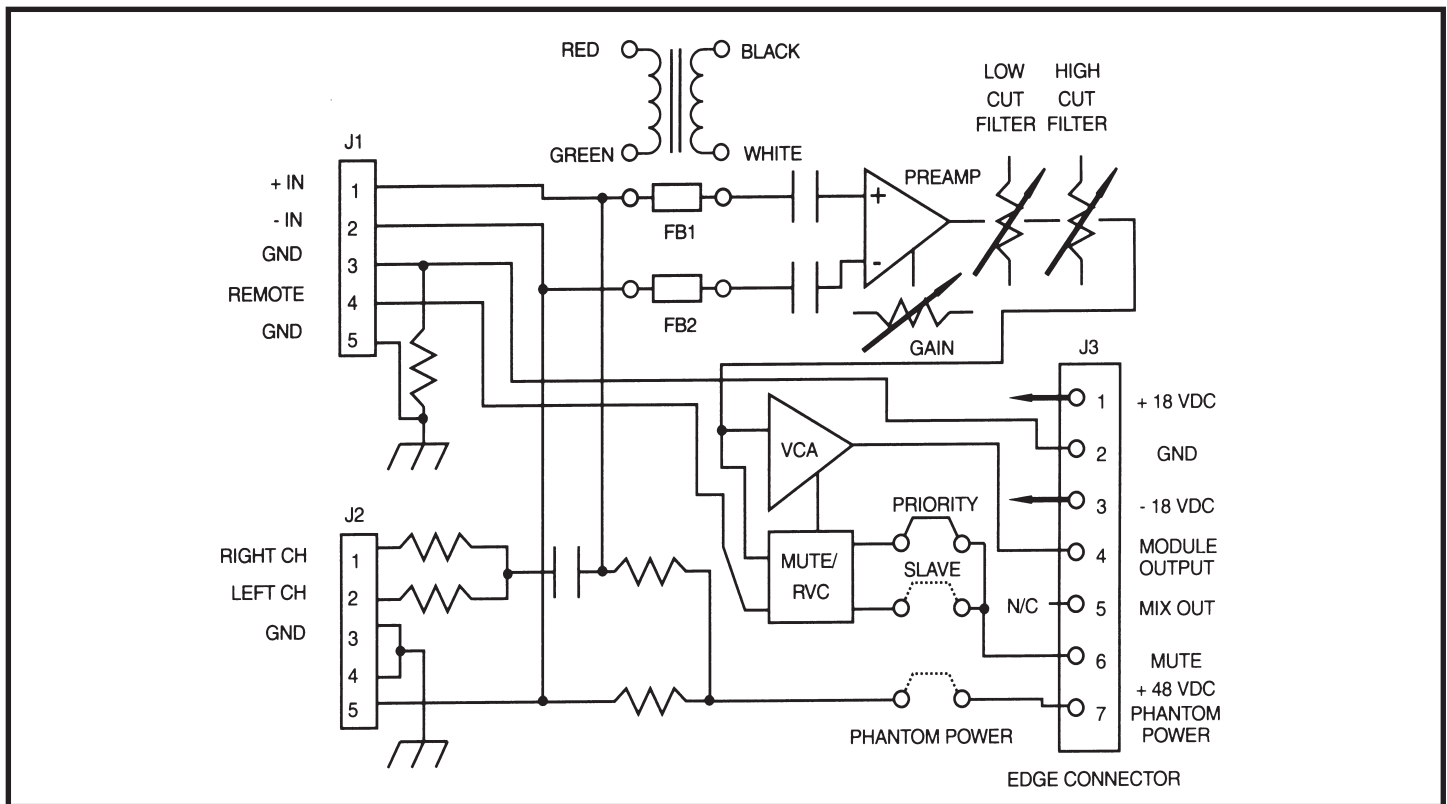
Attenuation:

(Ref. 1 kHz, 100 mVrms output, 10 kohm load)

Mute: >60 dB.

..... 10 kohm remote

Electro-Voice®



1785A Transformer Block Diagram
(Not sold separately - Available only on the 1781AT)

1785A Specifications:

Voltage Gain: 10 dB
Impedance Ratio: 600 ohm : 10 kohm (Primary: Secondary)
Frequency Response: (Ref. 1 kHz, 100 mVrms output)
 ±1 dB: 50 Hz to 15 kHz

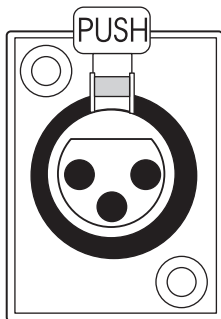
Total Harmonic Distortion (THD):

(Ref. 1 kHz, 100 mVrms output)

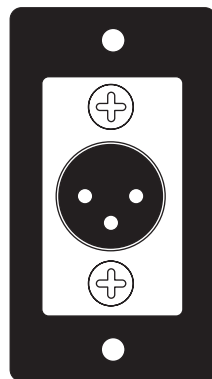
50 Hz to 20 kHz: <0.2%

Insertion loss:

(Ref. 1 kHz, 100 mVrms output)



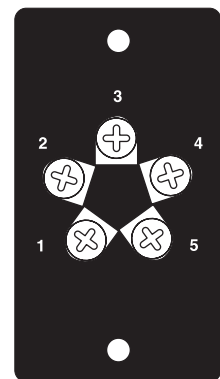
1791



1792



1793



1794

Connectors for use with 1783

USA 12000 Portland Ave South, Burnsville, MN 55337, Phone: 952-884-4051, FAX: 952-884-0043
Canada 705 Progress Avenue, Unit 46, Scarborough, Ontario, Canada, M1H2X1, Phone: 416-431-4975, 800-881-1685, FAX: 416-431-4588
Switzerland Keltensstrasse 11, CH-2563 IPSACH, Switzerland, Phone: 41/32-331-6833, FAX: 41/32-331-1221
Germany Hirschberger Ring 45, D94315, Straubing, Germany, Phone: 49 9421-706 392, FAX: 49 9421-706 287
France Parc de Courcerin, Alle Lech Walesa, Lognes, 77185 Marne La Vallée, France, Phone: 33/1-6480-0090, FAX: 33/1-6480-4538
Australia Unit 23, Block C, Slough Business Park, Slough Avenue, Silverwater, N.S.W. 2128, Australia, Phone: 61/2-9648-3455, FAX: 61/2-9648-5585
Hong Kong Unit E & F, 21/F, Luk Hop Industrial Bldg., 8 Luk Hop St., San PO Kong, Kowloon, Hong Kong, Phone: 852-2351-3628, FAX: 852-2351-3329
Japan 2-5-60 Izumi, Suginami-ku, Tokyo, Japan 168, Phone: 81-3-3325-7900, FAX: 81-3-3325-7789
Singapore 3015A Ubi Rd 1, 05-10, Kampong Ubi Industrial Estate, Singapore 408705, Phone: 65-746-8760, FAX: 65-746-1206
Mexico Av. Parque Chapultepec #66-201, Col. El Parque Edo. Mex. 53390, Phone: (52) 5358-5434, FAX: (52) 5358-5588
UK 4, The Willows Centre, Willow Lane, Mitcham, Surrey CR4 4NX, UK, Phone: 44 181 640 9600, FAX: 44 181 646 7084
Africa, Mid-East 12000 Portland Ave South, Burnsville, MN 55337, Phone: 952-887-7424, FAX: 952-887-9212
Latin America 12000 Portland Ave South, Burnsville, MN 55337, Phone: 952-887-7491, FAX: 952-887-9212

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Electro-Voice®

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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.