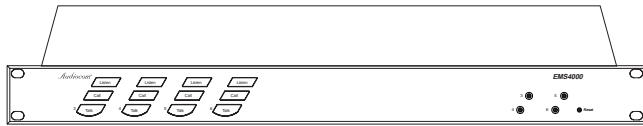


# TELEX TECHNICAL DATA

*Audiocom*<sup>®</sup>

## EMS4000 Four-channel Expansion Master Station and Power Supply



### General Description

The EMS4000 adds four powered intercom channels to an MS2000 or US2000A Master Station. It connects to the master station with a supplied patch cord. Then, you simply plug it into any AC power outlet from 100 to 240 volts, connect intercom stations to the back panel, and you're ready to communicate on four more channels using the master station microphone and speaker (or headset). The EMS4000 fits in a standard 19-inch equipment rack and is 1 rack unit high.

### Features

- **Simplified Expansion.** The EMS4000 integrates four powered channels with talk, listen, and call controls in a single rack mount unit. Saves on rack mount hardware and eliminates power supply to expansion station interconnect cables.
- **Compatibility and Flexibility:** Connects directly to an MS2000 or US2000A Master Station to add 4 complete powered channels. Or connects to a previous EMS4000 or ES4000A Expansion Station to add another 4 powered channels (up to 18 channels total).
- **Overload/Short-circuit Protection:** Provides automatic current limiting during short circuits or overloads. Front panel fault indicator provided for each channel. Reset button included to restore normal operation when the fault has been corrected.
- **Mic Kill:** Turn off all microphones on a selected expansion channel, or all channels, using the master station's Mic Kill key.
- **Dedicated Program Inputs:** Each expansion channel has its own program input. Connect any line-level audio source for monitoring in the master station's speaker or headset and for routing to the expansion channel if desired. When program audio is routed to the channel it can be set to interrupt while the master station operator is talking on the channel.
- **Binaural (Stereo) Listening:** If the master station is equipped with external powered speakers you can assign the EMS4000 channels to either right or left speaker.
- **Clear-Com\* Compatible.**

### Specifications

#### General

##### Power Requirements:

AC Input: 100-240 VAC, 50/60 Hz

Channel Power: 24 VDC nominal (12 to 30 VDC), 65 to 150 mA

Dimensions: 1.75" (44.5 mm) high x 19" (483 mm) wide x 10.31" (261.9 mm) deep

Weight: approximately 4.5lb (2 kg)

##### Environmental Requirements:

Storage: -20°C to 80°C; 0% to 95% humidity, non-condensing

Operating: -15°C to 60°C; 0% to 95% humidity, non-condensing

#### Program Inputs

Input Level: 100mV maximum

Voltage Gain: 25 ±3 dB

Output Level (to intercom channel) :1.0 Vrms nominal, 2.3 Vrms max.

Input Impedance: 75 kohm

Common Mode Rejection: Greater than 50 dB

Connector Type: DB9F Female, 9-pin D-subminiature

Pin 1: Common

Pin 2: Channel 3 program in low

Pin 3: Channel 4 program in low

Pin 4: Channel 5 program in low

Pin 5: Channel 6 program in low

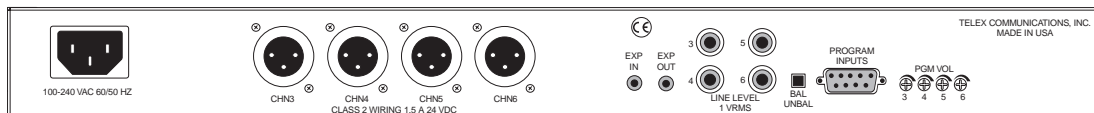
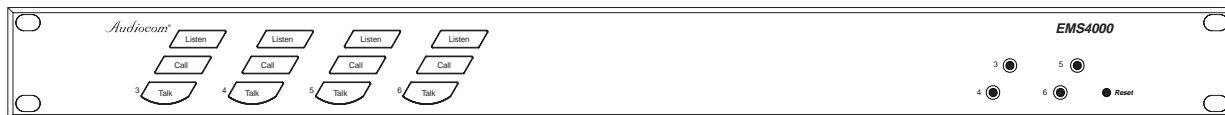
Pin 6: Channel 3 program in high

Pin 7: Channel 4 program in high

Pin 8: Channel 5 program in high

Pin 9: Channel 6 program in high

\* Brand names mentioned are the property of their respective companies.



### Intercom Channels, Balanced Mode (Back panel switch set to BAL)

Output Level: 1 Vrms nominal

Input Impedance: 300 ohms

Bridging Impedance: greater than 10,000 ohms

Sidetone: -40 dB, 35 dB adjustable range

Call Signaling:

Send: 20 kHz  $\pm 100$  Hz, 0.5 Vrms  $\pm 10\%$

Receive: 20 kHz  $\pm 800$  Hz, 100 mVrms

Mic-Kill Frequency:

Send: 24 kHz  $\pm 300$  Hz, 0.5 Vrms  $\pm 10\%$

Detect: 24 kHz  $\pm 800$  Hz, 100 mVrms

Noise Contribution: less than -70 dB

Common Mode Rejection Ratio: greater than 50 dB

Connector Type: One XLR-3M for each channel.

Balanced Configuration Pinout

Pin 1: Common

Pin 2: Intercom audio low and +24 VDC input

Pin 3: Intercom audio high and +24 VDC input

### Intercom Channel, Unbalanced Mode (UNBAL position)

Output Level: 1 Vrms  $\pm 10\%$

Input Impedance: 150 ohms

Bridging Impedance: greater than 10,000 ohms

Call Signaling:

Send: 11  $\pm 3$  VDC

Receive: 4 VDC minimum

Connector Type: Uses same connectors as for balanced mode, above, but with pinout modified by BAL/UNBAL switch on back panel as follows:

XLR-3 Unbalanced Configuration Pinout

Pin 1: Common

Pin 2: +24 VDC input

Pin 3: Intercom audio high

### PA Output

Output Level: 235 mVrms nominal

Connector Type: 1/8-inch Stereo Phone Jack

Tip: PA output high

Ring: Not used

Sleeve: Common

### Expansion Input /Output

Type: 2.0 mm stereo phone jack

Tip: Talk output

Ring: Listen input

Sleeve: Common