

EMS-4001

Expansion Master Station

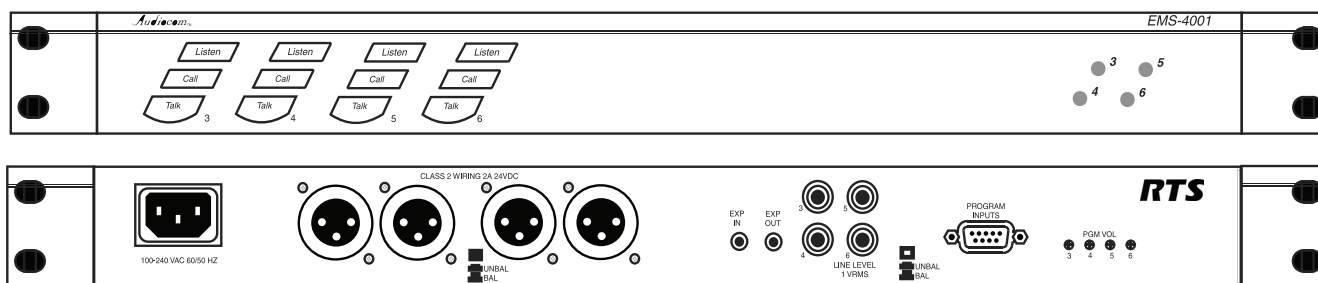


The EMS-4001 adds four (4) powered intercom channels to an MS-2002 or MS-4002 Master Station, and it provides talk, listen and call buttons for the added channels. Up to four (4) EMS-4001 Expansion Master Stations may be connected to the MS-2002 or MS-4002 to can add up to 16 channels (20 channels total). The MS-2002 or MS-4002 microphone is used to talk back to the EMS-4001 channels, and the MS-4002 speaker is typically used for listening. However, there are also separate speaker jacks on the back panel of the EMS-4001 for independent monitor speakers, if desired. There are also four (4) additional program inputs on the back of the EMS-4001, one for each added channel.

Features

- **Simplified Expansion**—The EMS-4001 integrates four (4) 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 MS-2002, MS-4002 or US-2002 Master Station to add four (4) complete powered channels. Or connects to a previous EMS-4001 or ES-4000A Expansion Station to add another four (4) powered channels (up to 20 channels total).
- **Overload/Short-Circuit Protection**—Provides automatic current limiting during short circuits or overloads. Front panel fault indicator provided for each channel.
- **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 masterstation operator is talking on the channel.
- **Binaural (Stereo) Listening**—If the master station is equipped with external powered speakers you can assign the EMS-4001 channels to either right or left speaker.
- **Instantaneous Auto-Reset**—Instantaneous Auto Reset (IAR), the newest technology in performance and safety, which uses a revolutionary new circuitry that dynamically monitors line fault conditions. Then, when the fault is removed, automatically brings individual power supply channels up.
- **Clear-Com Compatible**

Line Drawings



Specifications

General

Input and Output Power:

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

Channel Power (each channel): 24 \pm 1 VDC, 800mA

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

Weight: approximately 4.5lbs (2kg)

Environmental Requirements:

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

Operating: 0°C to 50°C; 0% to 95% humidity, noncondensing

Program Input Connectors

Input Level: 100mV maximum

Voltage Gain: 25 \pm 3 dB

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

Input Impedance: 75k Ω

Common Mode Rejection: Greater than 50 dB

Connector type: DB9F female, 9-pin D-Sub

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

Intercom Channels, Balanced Mode (BAL/UNBAL switch set to BAL)

Output Level: 1 Vrms nominal

Input Impedance: 300 Ω \pm 10%

Bridging Impedance: >10k Ω

Sidetone: -40 dB, 35 dB adjustable range

Call Signaling:

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

Receive: 20 kHz \pm 800Hz, 100 mVrms

Mic-Kill Frequency:

Send: 24 kHz \pm 100 Hz, 0.5 Vrms \pm 10%

Receive: 24 kHz \pm 800 Hz, 100 mVrms

Noise Contribution: < -70 dB

Common Mode Rejection Ratio: > 50 dB

Connector type: One XLR-3M for each channel

Balanced Configuration Pinouts

Pin 1: DC/audio Common

Pin 2: Intercom audio low and +24 VDC output

Pin 3: Intercom audio high and +24 VDC output

Intercom Channel, Unbalanced Mode

(BALUNBAL switch set to UNBAL)

Output Level: 2 Vp-p (750 mVrms)

Input Impedance: 200 Ω \pm 10%

Bridging Impedance: >10k Ω \pm 5%

Call Signaling:

Send: 11 \pm 3 VDC

Receive: 4 VDC minimum

Connector Type: One XLR-3M for each channel

Pin 1: Common

Pin 2: +30 \pm 1 VDC output

Pin 3: Intercom audio high

Expansion Input/Output

Connector Type: 1/8" Stereo phone jack

Tip: Talk output

Ring: Listen input

Sleeve: Common

Order Information

- EMS-4001 • 4 channel expansion station with 3.6 Amp power supply with instantaneous auto reset in a single unit.

For ordering information, contact your regional sales representative at:

<http://rtsintercoms.com/us/intercom/contact>

The specification information is preliminary and is subject to change without notification.
Brand names mentioned are the property of their respective companies.