

TELEX TECHNICAL DATA

Audiocom[®]

MS2000 Master Station and Power Supply



General Description

The MS2000 is a complete 2-channel master station and system power supply in a single unit. You simply plug it into any AC power outlet from 100 to 240 volts, add a microphone or headset, connect intercom stations to the back panel, and you're ready to communicate. It even has both 1-channel and 2-channel connectors, so you don't have to add a separate breakout box if you want to mix 1-channel and 2-channel intercom stations. The MS2000 fits in a standard 19-inch equipment rack and is 1 rack unit high.

Features

- ☐ Speaker Station or Headset Station. Use the built-in speaker for listening and then add an optional Telex EGM Panel Microphone for talkback. Or, turn off the speaker volume, and plug in any of a variety of Telex headsets for more private communication.
- ☐ Voice Activated Microphone (VOX). Separate controls adjust the voice activation level for the headset microphone and panel microphone inputs.
- ☐ Public Address (PA) Output, with PA key. Use your intercom microphone to talk over a PA system.
- ☐ Back-lit Keys: Improves visibility in low-light.
- ☐ Incoming Call Indications: Red flashing call light, with beep tone if desired.
- ☐ Mic Kill Key: You can turn off all microphones on a channel to quickly clear the channel.
- ☐ Program Input for Each Channel. Connect any line-level audio source for monitoring in the speaker or headset, or for routing to the intercom channel. The program audio to the channel can be set to interrupt while the MS2000 operator is talking on the channel.
- ☐ Binaural (Stereo) Listening with External Powered Speakers. You can connect external powered speakers and then monitor channel 1 and 2 as separate right and left audio.
- ☐ Expandable. Add more channels by connecting optional ES4000A Expansion Stations. Each ES4000A adds four additional channels (up to eighteen channels).
- ☐ Clear-Com* Compatible.

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

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

Dynamic-mic Headset

Microphone: 50 to 200 ohm, dynamic (balanced or unbalanced)

Headphones: 150 to 600 ohm, monaural

Connector Type: XLR-4M

| | |
|-------|-----------------|
| Pin 1 | Microphone low |
| Pin 2 | Microphone high |
| Pin 3 | Headphone high |
| Pin 4 | Headphone low |

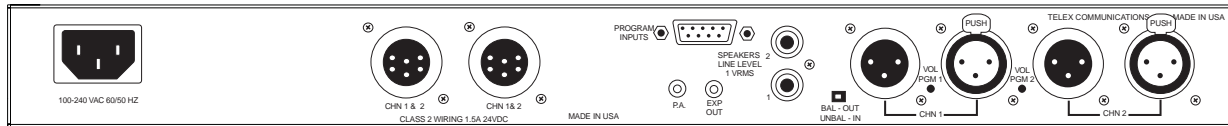
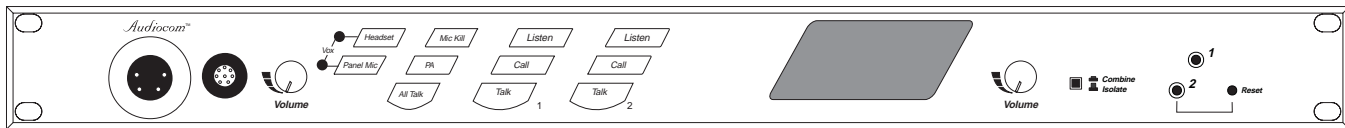
Panel Microphone or Electret-mic Headset

Microphone: 5 kohm, electret (-57 dB)

Headphones: 150 to 600 ohm, monaural

Connector Type: NTRK-8F

| | |
|-------|-------------------------|
| Pin 1 | Microphone low |
| Pin 2 | Panel microphone high |
| Pin 3 | +5 VDC microphone bias |
| Pin 4 | Headset microphone high |
| Pin 5 | Headphone high |
| Pin 6 | Headphone low |
| Pin 7 | No connection |
| Pin 8 | No connection |



Program Input

Input Level: 100mV maximum

Voltage Gain: 25 \pm 3 dB

Output Level :1.0 Vrms nominal, 2.3 Vrms maximum

Input Impedance: 75 kohm

Common Mode Rejection: Greater than 50 dB

Connector Type: DB9F

| | |
|-------|----------------------|
| Pin 1 | Ground |
| Pin 2 | Program 1 input low |
| Pin 3 | Program 2 input low |
| Pin 4 | NC |
| Pin 5 | NC |
| Pin 6 | Program 1 input high |
| Pin 7 | Program 2 input high |
| Pin 8 | NC |
| Pin 9 | NC |

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 and XLR-3F pair, wired in parallel, for each channel

| | |
|-------|---------------------------------------|
| 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: One XLR-3M and XLR-3F pair, wired in parallel, for each channel

| | |
|-------|---------------------|
| 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

Speaker Output

Output Level: 0 dB nominal (1.0 Vrms)

Output Impedance: 1000 ohms nominal

Frequency Response: 200 Hz to 8 kHz +1/-3dB

Connector Type: RCA Phono Jack

Tip: Speaker output high

Sleeve: Common

Expansion Input /Output

Type: 2.0 mm stereo phone jack

Tip: Talk output

Ring: Listen input

Sleeve: Common

Headphone Amplifier

Voltage Gain: 30 \pm 3 dB

Maximum Output: 250 mW \pm 10% into 150 ohms, 65 mW \pm 10% into 600 ohms

Frequency Response: 200 Hz to 8 kHz +1/-3db

Incoming Call Beep Tone: 2 kHz, at the headphones

Total Harmonic Distortion: Less than 0.2% at 200 mW

Sidetone: 18 \pm 2 dB, adjustable

Panel Microphone Amplifier

Voltage Gains:

Mic to CHN; 25 \pm 3 dB, before limiting

Mic to Headphone; adjustable, 45 dB \pm 10% maximum, into 150 ohms

Mic to PA; 15 \pm 3 dB, 235 mVrms \pm 10%

Frequency Response: 200 Hz to 8 kHz +1/-3dB

Total Harmonic Distortion: Less than 0.2% at CHN output

VOX Range: -75 to -30 dB, -60 dB factory set

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