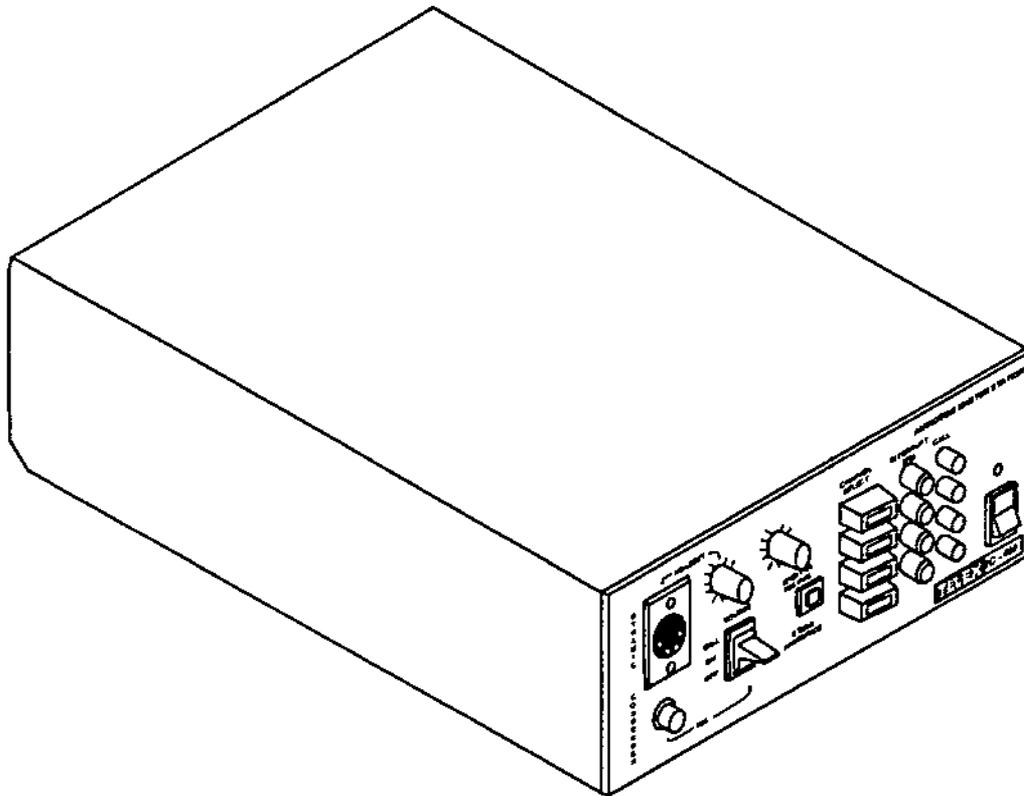


# Telex

## User Instructions



### AUDIOCOM® MODEL IC-4M MASTER STATION

**TELEX®**

TELEX COMMUNICATIONS, INC. • 9600 Aldrich Ave. So., Minneapolis, MN 55420 U.S.A.

# GENERAL INFORMATION

## GENERAL DESCRIPTION

The Telex Audiocom™ Model IC-4M is a four-channel master intercom station designed for balanced-line operation. It features light signaling, stage announce (public address) output, auxiliary program input, and IFB operation. It is also compatible with the Telex Model IC-4SX System Expander.

The IC-4M is equipped with an internal power supply capable of powering up to 150 remote stations. It is rack-mountable in single or dual configurations.

## OPERATING FEATURES

### FRONT PANEL

The front panel has a 4-pin XLR connector for a dynamic-microphone headset. A 3-pin connector is also provided for a condenser-type gooseneck microphone which can be used with an external speaker connected at the rear panel. Separate volume controls are provided for headset and speaker. A three-position rocker switch is used for microphone on/off switching and for call light signaling. A momentary-type stage announce push-button switch allows the station operator to page or make public address announcements through an external PA system.

Channel select on/off push-button switches, momentary-type push-button IFB switches, and call indicator lights are provided for each channel. The channel-select switches indicate the "on" state by displaying a color bar. A rocker-type power off/on switch is provided along with an LED to indicate "power on".

### REAR PANEL

A 1/4-inch (6.35 mm) phone receptacle connector accepts an external speaker (8 ohms minimum). A 3-pin XLR connector and a receptacle connector for each intercom channel permit loop-through connection of intercom channels.

A 3-pin XLR receptacle connector accepts either balanced or unbalanced, line-level auxiliary program input. A rotary switch assigns the auxiliary program to one or all intercom channels and also has an "off" position. An auxiliary

volume control adjusts the auxiliary input level. A 3-pin XLR receptacle connector provides a balanced, transformer-coupled stage announce output. A 9-pin D-type connector provides system buss connection for an IC-4SX System Expander.

The IC-4M has an integral power cord for ac operation, and the main power fuse is accessible on the rear panel.

## SPECIFICATIONS

### Interface Requirements:

- Dynamic Headset: 50-600 ohm microphone; 150-600 ohm headphones
- Condenser Microphone: 6.8K ohm, -55 dB sensitivity (typical)
- Speaker: 8-ohm, 5W
- Auxiliary Program Source: 100 mV-10 Vrms
- Channel Level: 1 Vrms (0 dB) nominal
- Impedance: Supplies 300 ohms termination to channel

### Power Supply:

- Output Voltage: 25V regulated
- Output Current: 500 mA maximum continuous per channel; 2 amp maximum continuous total

**Power Requirements:** 120V, 50-60 Hz, 90W maximum (may be modified for 220V or 240V operation)

### Headphone Amplifier:

- Maximum Output: 12V p-p into 150 ohms (120 mW); 21V p-p into 600 ohms (90 mW)
- Frequency Response (Channel to Phones): 200 Hz-7 kHz
- Voltage Gain (Channel to Phones): Adjustable from 0-26 dB
- Sidetone: Adjustable from 25 dB null to full-on

### Speaker Amplifier:

- Maximum Output: 3W into 8 ohms at 1% THD
- Voltage Gain (Channel to Speaker): Adjustable from 0-34 dB

### Auxiliary Amplifier:

- Input Impedance: 50K ohms balanced; 25K ohms unbalanced
- Frequency Response (Auxiliary to Channel): 150 Hz-10 kHz
- Voltage Gain (Auxiliary to Channel): Adjustable from 0-30 dB (measured before onset of AGC limiting)
- Common Mode Rejection: 40 dB

## SPECIFICATIONS (CONT)

### Connectors:

- Headset Input: One XLR-4M
- Condenser Mic: One 3-pin male
- Auxiliary Input: One XLR-3F
- Stage Announce (PA Output): One XLR-3F
- Intercom Channels: One XLR-3M and one XLR-3F wired in parallel for each channel
- Speaker: One 1/4-inch (6.35 mm) phone jack
- Ac Power: One 6-foot (1.8 m) line cord with 3-pin U.S. grounding plug

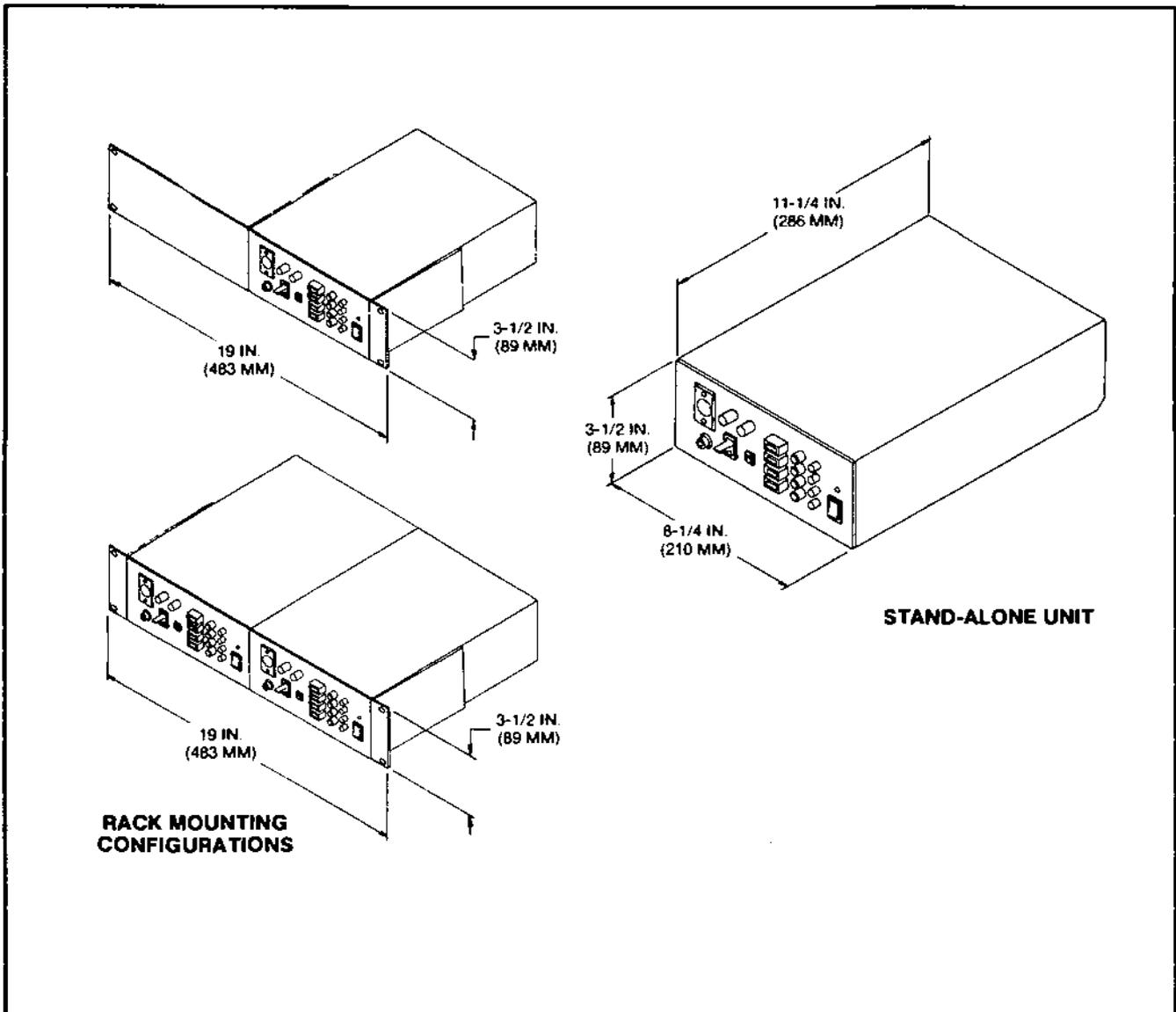
**Ambient Temperature Range:** 32°-122° F  
(0°-50° C)

**Weight:** 10 lbs 2 oz (4.6 kg)

**Dimensions:** 3-1/2 inches (89 mm) high x  
8-1/4 inches (210 mm) wide x 11-1/4 inches  
(286 mm) deep

**Safety Approval:** UL and CSA listed

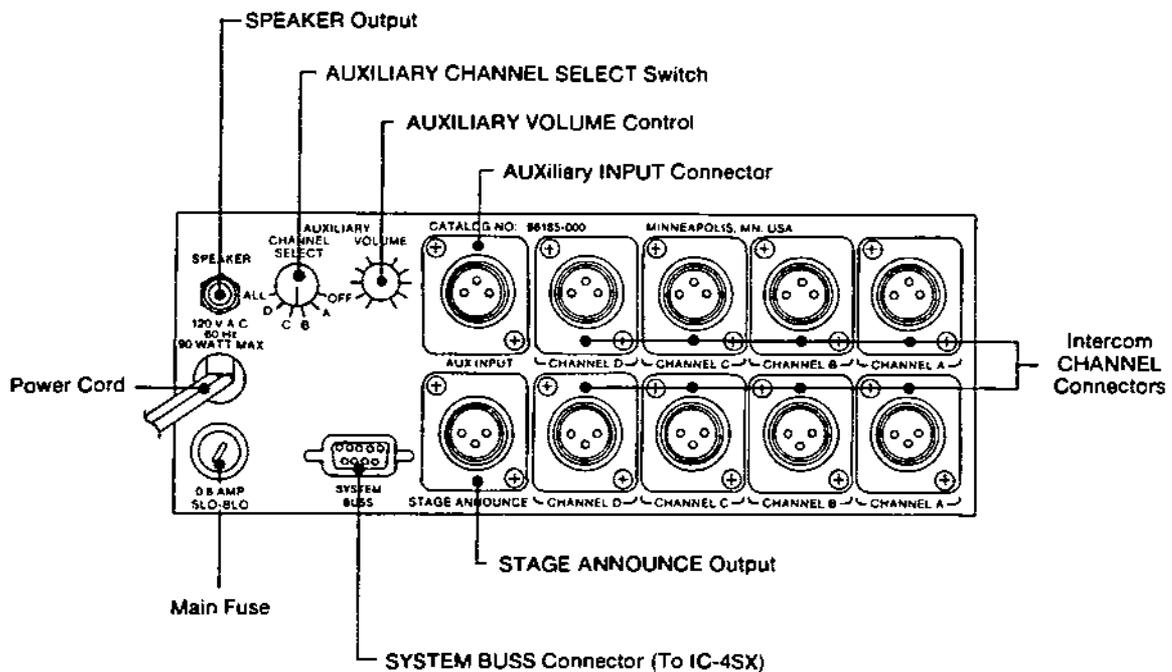
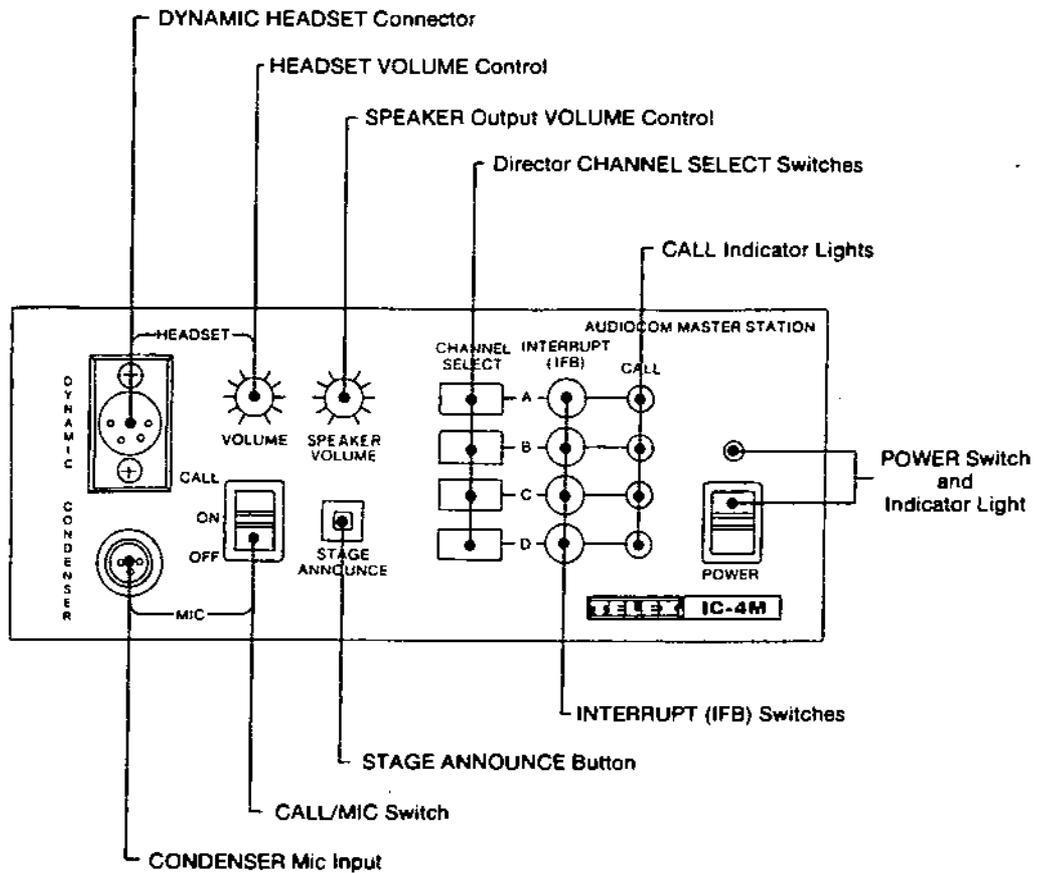
## DIMENSIONS



# STANDARD CONNECTOR USAGE

Connector Function	Connector Type	Standard Usage	Comments
Monaural dynamic headset or mic	<p style="text-align: center;">XLR-4 or equivalent</p> <p style="text-align: center;">XLR-4M      XLR-4F</p>	<p>1 - Mic shield 2 - Mic hot 3 - Headphone hot 4 - Headphone shield</p>	Do not connect the mic shield and headphone shield together.
Condenser microphone	<p style="text-align: center;">3-pin male</p>	<p>1 - Bias/Audio 2 - Ground 3 - No connection</p>	
External power source	<p style="text-align: center;">Jones P-302-AB or equivalent</p>	<p>Wide contact - Negative Narrow contact - Positive</p>	<p>24 Vdc nominal 12 Vdc minimum 30 Vdc maximum</p>
Single intercom channel	<p style="text-align: center;">XLR-3 or equivalent</p> <p style="text-align: center;">XLR-3M      XLR-3F</p>	<p>1 - Dc return (Ground) 2 - intercom channel 3 - Intercom channel</p>	Either intercom channel wire may be connected to either connector contact 2 or 3.
Auxiliary input	<p style="text-align: center;">XLR-3 or equivalent</p> <p style="text-align: center;">XLR-3F</p>	<p>1 - Ground 2 - Balanced input 3 - Balanced input</p>	<p>Balanced plug wiring</p> <p>Unbalanced plug wiring</p>
Stage announce	<p style="text-align: center;">XLR-3 or equivalent</p> <p style="text-align: center;">XLR-3F</p>	<p>1 - Ground 2 - Balanced output 3 - Balanced output</p>	<p>Balanced plug wiring</p> <p>Unbalanced plug wiring</p>
System buss	<p style="text-align: center;">9-pin D connector</p>	<p>1 - Ground 2 - Ground 3 - 25 Vdc 4 - 25 Vdc 5 - Current sense 6 - Channel A 7 - Channel B 8 - Channel C 9 - Channel D</p>	

# REFERENCE GUIDE



# OPERATION

## SUPPLYING POWER

1. Plug the power cord into a wall outlet.
2. Turn the front panel main POWER switch on. The yellow power indicator light above the switch should illuminate.

## USING THE AUXILIARY INPUT

1. Plug the auxiliary program source into the AUX INPUT connector.
2. Assign the auxiliary program source to the desired channel(s) with the AUXILIARY CHANNEL SELECT rotary switch.
3. Adjust the AUXILIARY VOLUME control for a comfortable listening level at intercom stations on the selected channel(s).

## VOICE COMMUNICATION

To communicate with remote intercom stations on one or more channels:

1. Set the desired front panel director CHANNEL SELECT push-button switch(es) to the "on" position.
2. Set the CALL/MIC switch to the ON position. (To listen only, set this switch to OFF.)
- 3a. If using a headset, plug the headset into the DYNAMIC HEADSET connector, and adjust the HEADSET VOLUME control for a comfortable listening level. (See Sidetone Adjustment.)
- 3b. If using a condenser microphone together with an external speaker, plug the microphone into the CONDENSER connector, plug the speaker into the rear panel SPEAKER jack, and adjust the SPEAKER VOLUME control for a comfortable listening level.

## USING THE CALL FEATURE

### CALLING REMOTE STATIONS

1. Select the channel(s) to be called by setting the appropriate director CHANNEL SELECT switch(es) to the "on" position.
2. Press and hold the CALL/MIC switch in the CALL position. The call indicator light for each selected channel should illuminate. Also, an inaudible 20 kHz signal is sent on each selected channel to activate the call indicator lights on any connected remote stations.
3. When a station responds verbally, release the call mic switch, and it will automatically return to the ON position for normal two-way communication.

### RECEIVING CALL SIGNALS

When a remote station calls the IC-4M, the appropriate call indicator light will illuminate. To respond, set the appropriate director CHANNEL SELECT switch to the "on" position, and then proceed with normal two-way communication.

## USING THE INTERRUPT (IFB) FEATURE

The INTERRUPT fold-back (IFB) switches are used primarily for momentary-type communications such as cueing on-the-air talent, or for providing brief responses to received call signals. During interrupt, the auxiliary program source is disconnected from all channels, and the director is connected to the interrupted channel. To use this feature:

1. Set the CALL/MIC switch to ON.
2. Press and hold the desired channel IFB button while communicating.
3. Release the IFB button when finished to restore the auxiliary program and break the momentary communication link.

# OPERATION (CONT)

## USING THE STAGE ANNOUNCE FEATURE

1. Connect the rear panel STAGE ANNOUNCE output to the PA system.
2. Set the CALL/MIC switch to ON.
3. Press and hold the STAGE ANNOUNCE button while speaking into the microphone.

## SIDETONE ADJUSTMENT

Sidetone refers to that portion of the director's own voice signal which is heard in the director's headset. The amount of sidetone is adjustable for each channel through small openings in the top cover (labeled SIDETONE A through SIDETONE D). Adjustment may be made using a small, flat-blade screwdriver.

# SERVICE INFORMATION

## FACTORY SERVICE

All Audiocom equipment returns must be sent prepaid. Telex will not accept collect shipments.

The following information must accompany all equipment returned for repair:

### IN-WARRANTY RETURNS:

1. Your name, address and telephone number.
2. Purchaser's name and address (if different from above).
3. Copy of proof of purchase (keep your original).
4. Model and serial numbers (or date codes).
5. A complete description of the problem.

### NON-WARRANTY RETURNS:

1. Your name, address and telephone number.
2. Model and serial numbers (or date codes).
3. A complete description of the problem.

All equipment repaired in-warranty by Telex will be returned prepaid by Telex.

If requested, an estimate will be sent before repairing non-warranty equipment. This is a guaranteed estimate — final charges will not exceed what is quoted. If payment is sent along with your estimate approval, COD charges will be avoided; otherwise, equipment will be returned to you COD.

### FACTORY SERVICE ADDRESS:

Service Department  
Telex Communications, Inc.  
1720 East 14th Street  
Glencoe, Minnesota 55336 U.S.A.

## CUSTOMER ASSISTANCE

Customer Service Department  
Telex Communications, Inc.  
9600 Aldrich Avenue South  
Minneapolis, Minnesota 55420 U.S.A.  
Telephone: (612) 884-4051  
(Collect calls not accepted)