

*User Manual*  
*LMS-325*  
*Line Monitor Speaker*



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 THE LIGHTNING FLASH AND ARROWHEAD WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF "DANGEROUS VOLTAGE" INSIDE THE PRODUCT.	 <b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	 THE EXCLAMATION POINT WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF IMPORTANT INSTRUCTIONS ACCOMPANYING THE PRODUCT
SEE MARKING ON BOTTOM/BACK OF PRODUCT		


**WARNING:** APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

**WARNING:** THE MAIN POWER PLUG MUST REMAIN READILY OPERABLE

**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, GROUNDING OF THE CENTER PIN OF THIS PLUG MUST BE MAINTAINED.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPRATUS TO RAIN OR MOISTURE.

**WARNING:** TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY ATTACHED TO THE FLOOR/WALL/RACK IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS.

	This product is AC only.
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## *Important Safety Instructions*

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



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# *Description and Specifications*

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## *General Description*

The LMS-325 is a modular amplified speaker that can be used to monitor one or two intercom or program channels. The LMS-325 is an amplified, five-watt, 8-Ohm, modular speaker for use with RTS rack or console-mounted intercom systems.

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## *Features*

Features of the LMS-325 include:

- Two (2) monaural phone jacks for two (2) separate audio inputs.
- One 3-pin XLR connector for RTS intercom channels one and two.
- Control to adjust volume of speaker output.
- Control that balances the speaker's audio level between input one (1) and input two (2).
- Power externally from a Bosch Wall Pack.

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## *Controls*

The LMS-325 has the following controls:

- Detented volume control to simultaneously adjust the speaker level for both input lines.
- Control to balance the relative level of the input line one (1) and input line two (2).

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## *Specifications*

### **General**

#### **Speaker Impedence**

8 ohms

#### **Power Rating**

>5 watts

#### **Sensitivity**

90dB  $\pm$  2dB/2.83V/meter on axis averaged over one octave bands centered at 250 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz and 8 kHz when enclosed in a sealed box with a volume of 1.3 liters.

#### **Frequency Response**

200 Hz to 10 kHz  $\pm$  1.5dB

#### **Free Air Resonance**

200 Hz to 250 Hz

#### **Mechanical Noise**

Free of buzzes and rattles with 5W sinewave input from 100 Hz to 10 kHz

#### **Environmental Requirements**

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

*Operating:* 0°C to 50°C; 0% to 95% humidity, non-condensing.

#### **Dimensions**

1.72" (44mm)H x 8.2"(208mm)W x 8" (203")D

#### **Weight**

2 lbs. 12 oz. (1.25kg)

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## *Connector Pin Configurations*

### **Speaker Inputs**

Type: RCA Phone Jacks

Tip: Audio

Sleeve: Common

Type: XLR-3F

Pin 1 Common

Pin 2 RTS Channel 1 audio

Pin 3 RTS Channel 2 audio

### **External Power**

Type: 2.0 mm jack

Internal pin: positive (+)

External shell: negative (-)



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## *Speaker Amplifier*

**NOTE:** Specifications are for *INPUT 1* with the balance control set for minimum attenuation. Specifications for *INPUT 2* are identical.

### **Input Impedance**

10 k $\Omega$   $\pm$ 10%

### **Nominal Input Level**

0.770 Vrms

### **Output Amplifier Power**

>5 W, 4 W continuous into 8  $\Omega$

### **Signal to Noise Ratio**

75 dB, reference 2 W into 8  $\Omega$

### **Total Harmonic Distortion**

Less than 0.4% at 2 W nominal.

### **Balance Control**

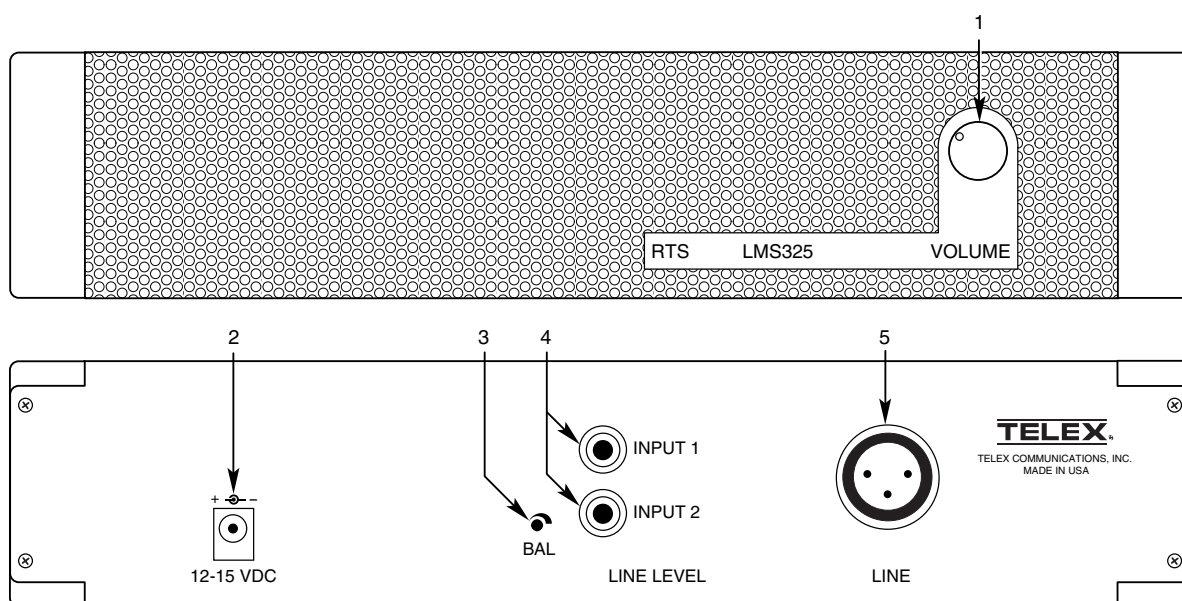
12 dB maximum relative attenuation.



*External Connections & Controls*

**NOTE:** The numbers refer to the callouts in Figure 1.

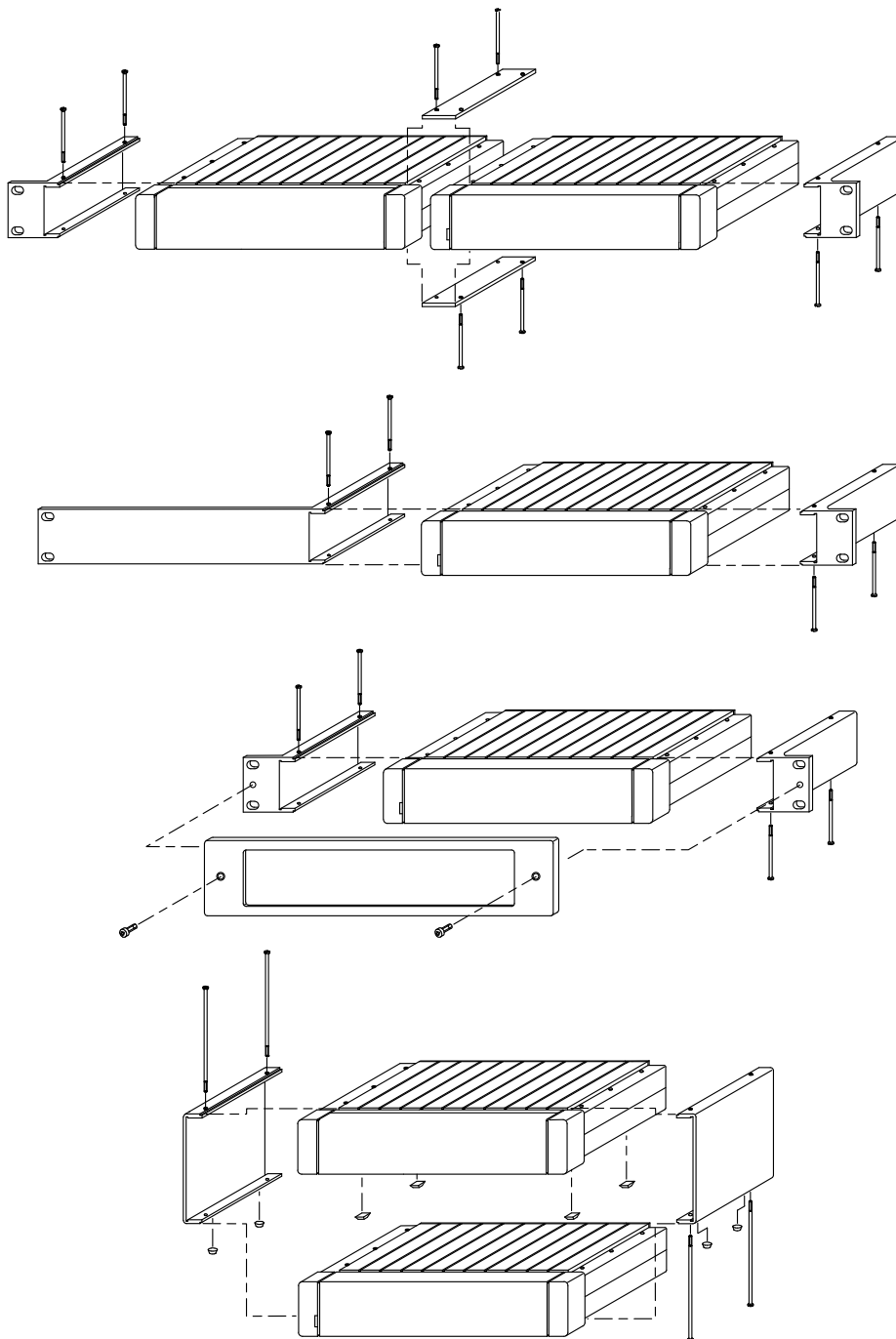
1. **Volume Control** - Use this control to simultaneously adjust the speaker level for both speaker input lines.
2. **15 VDC Input Jack** - The LMS-325 is powered from a Bosch Wall Pack (part number 532006-000). Plug the Wall Pack into the 15 VDC jack and into an AC outlet.
3. **Balance Control** - This control adjusts the relative level of the Input 1 and Input 2 (Channel 1 and Channel 2, respectively). Use a small flat-blade screwdriver to adjust the control.
4. **Audio Input Jacks** - These monaural RCA phone jacks can be used to connect audio inputs from some other line-level program sources (an auxiliary output from a radio or tape player for example).
5. **XLR Line Input Connector** - This 3-pin female XLR jack can be connected directly to an RTS intercom line. The RTS intercom line may carry Channel 1, Channel 2, or both channels.



**FIGURE 1.** LMS-325 Connections and Controls

## Mounting Configurations

Optional mounting configurations for modular RTS™ intercom stations are shown in Figure 2 and include rack-mount, console-mount, desktop, and portable stations.



**FIGURE 2.** Optional Mounting Configurations

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*Notes*

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