IED · LANcom
SCHOOL COMMUNICATION SYSTEMS

LC372AI
AUDIO INPUT PLATE
Installation Instructions

INTRODUCTION

The LC372AI audio input plate is an optional component of the IED LANcom SCS for use with the LC372SR communications module. This unit is for convenient connection to local audio sources for remote use in classrooms. This versatile wall plate includes one balanced XLR mic/line switchable input, one unbalanced stereo, mono summing 3.5mm TRS jack, and one unbalanced RCA stereo, mono summing input. Connection to the LANcom SCS system is through CAT5 or better structured cabling terminated with RJ-45 connectors.
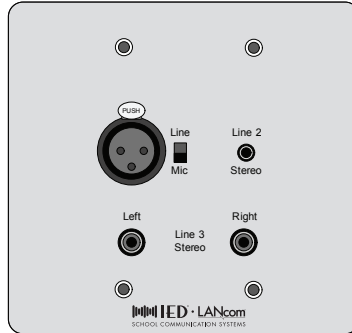

Figure 1 - LC372AI Front View

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. 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. Only use attachments/accessories specified by the manufacturer.
10. 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.

SAFETY SYMBOLS

Labeling on products and the *Installation Instructions & User Manual* may use safety related graphical symbols as shown below to note safety requirements.

Lightning Bolt: The lightning flash with arrowhead symbol, within an equilateral triangle, WARNING symbol, is intended to alert the user to the presence of un-insulated *dangerous voltage* within the product's enclosure that may be sufficient in magnitude to constitute a risk of electric shock to persons or domestic animals.

Exclamation Point: The exclamation point within an equilateral triangle, CAUTION symbol, is in-tended to alert the user to the presence of important operating and maintenance (servicing) instructions, or a hazard that can damage equipment.

Do not proceed beyond a WARNING or CAUTION notice until you have understood the hazardous condition and have taken appropriate steps.
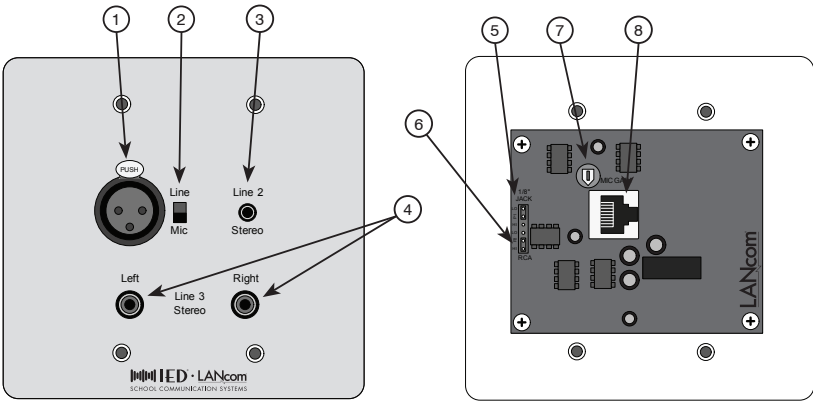
CONNECTIONS

Figure 2 - LC372AI Front and Rear View

1. **Input 1 – XLR Mic/Line Input**
   This input is intended to provide a balanced microphone input for local room sound reinforcement. A balanced line-level source can also be used by setting the Input Gain Selector to the line setting. The XLR connector is wired so pin 2 is the + signal.

2. **Input 1 Input Gain Selector**
   This selector switch is recessed to prevent accidental movement. It is used to select between a microphone and line-level input signal type. Refere to Table 1 for the gain settings associated with each position.

Position	Gain
Mic	40 – 54 dB Adjustable
Line	6 dB

Table 1 - Input 1 Gain Settings

3. **Input 2 – 1/8" Stereo mini input**
   This input provides an input for a line-level stereo source such as a laptop computer or media player. The stereo inputs are summed together at the plate location and sent to the LC372SR as a mono mix. The gain applied to the input signal is determined by the setting of the P1 jumper on the back of the device.

4. **Input 3 – RCA Stereo Input**
   This input provides an input for a line-level stereo source such as a CD/DVD player. The stereo inputs are summed together at the plate location and sent to the LC372SR as a mono mix. A mono source can be used by connecting the output of the device to either of the two inputs. The gain applied to the input signal is determined by the setting of the P2 jumper on the back of the device.

5. **1/8" Stereo Input Gain Selection Jumper (P1)**
   This jumper is used to determine the amount of gain applied to the input signal on the 1/8" stereo input jack.

Position	Gain	Input Type
Hi	14 dB	−10 dBu Nominal Source
Lo	0 dB	+4 dBu Nominal Source

Table 2 - 1/8" Input Gain Jumper Settings

6. **RCA Stereo Input Gain Selection Jumper (P2)**
   This jumper is used to determine the amount of gain applied to the input signal at the RCA input jacks.

Position	Gain	Input Type
Hi	14 dB	−10 dBu Nominal Source
Lo	0 dB	+4 dBu Nominal Source

Table 3 - RCA Input Gain Jumper Settings

7. **Input 1 Mic Gain Adjustment**
    This potentiometer is used to adjust the microhpone input gain when the selector switch is set to the Mic level setting.
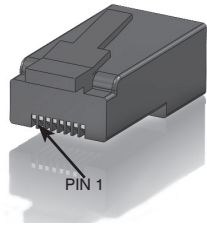
8. **Output RJ45 Connector**
    This connector is used to send the audio from the plate inputs to the LC372SR. See Table 4 for the connector wiring details.

RJ45 Connector Wiring

The LC372AI connects to an LC372SR Sound Reinforcement Module using CAT5 or better structured cable. Each connector should be wired as shown in Table 4.

Pin	Function	Cat5 Color Code
1	RCA Audio +	Orange /W
2	RCA Audio −	Orange
3	1/8" Jack Audio +	Green /W
4	XLR Mic/Line Audio +	Blue
5	XLR Mic/Line Audio −	Blue/W
6	1/8" Jack Audio −	Green
7	+48 VDC	Brown /W
8	Ground	Brown

Table 4 - RJ45 Connector Wiring

PIN 1

Specifications

Electrical
Power ....48VDC, 23.6mA (*Supplied by LC372SR*)
Max. Audio Output.. +27dBu
THD   .... <= 0.0013%
Frequency Response...20Hz to 20kHz (±1dB)

Input #1
Input Level (Mic) ....-50dBu Nominal (*Adjustable 40dB – 54dB*)
Input Level (Line) ....0dBu Nominal (Gain 6.6dB)
S/N (Mic) .... > 80dB @ -50dBu input
S/N (Line) .... > 90dB @ +4dBu output

Input #2
Input Level..-10dBu Nominal. (*Gain Selectable 0dB or +14dB*)
S/N @ 0dB gain (+4dBu output) .... > 95dB
S/N @ +14dB gain (+4dBu output) .... >85dB

Input #3
Input Level..-10dBu Nominal (*Gain Selectable 0dB or +14dB*)
S/N @ 0dB gain (+4dBu output) .... > 95dB
S/N @ +14dB gain (+4dBu output) .... >85dB

Connectors
Power and Audio Out (*Connects to LC372SR using CAT5 or better cable*) RJ45
Input #1 ....Balanced XLR female
Input #2 .... Uunbalanced 1/8" (3.5mm) Mini TRS Jack
Input #3 ....Unbalanced Dual RCA Jacks

Mechanical
Dimensions ....4.50" W x 4.50" H x 1.06" D (114.3mm W x 114.3mm H x 27.0mm D)
Projection in Front of Plate .... 0.013" (32mm)
Mounting Depth .... 1.50" (38.1mm)
Mounting Box..2-Gang Deep Box
Recommended Electrical Box .... Steel City 52151-1/2-3/4 (4" x 4" Box) with 53151-1/2 Extension

CONNECTION DIAGRAM

LC372SR

Category 5
Cable

LC372AI Back

LC372AI Front