

GENERAL

The Shure Model LMP1A is a multi-purpose level-matching preamplifier designed for two-way radio communication applications. The LMP1A allows Shure dynamic communication microphones to be used with many popular two-way radios and remote control devices.

The LMP1A can operate on biased audio supplied by the radio or 12 Vdc provided by an external power supply. Its output can be adjusted to match the inputs of many two-way radios.

FEATURES:

- Compact design
- Input and output terminals for easy connection to microphones and radios
- Adjustable gain
- Uses either biased audio or external 12 Vdc power
- Heavy duty die cast aluminum case

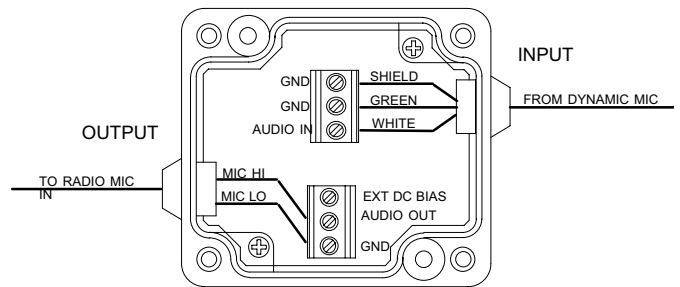
INSTALLATION

CONNECTING THE LMP1A TO BIASED AUDIO RADIOS

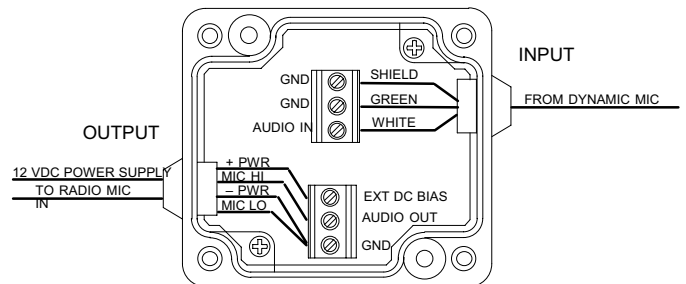
1. Remove the screws that secure the LMP1A cover to the chassis and lift the cover away.
2. Refer to Figure 1 and connect a dynamic microphone, such as a Shure Model 515, to LMP1A input terminals as follows:
 - White mic lead to LMP1A Audio In
 - Green mic Lead to LMP1A Ground
 - Shield to LMP1A Ground
3. Connect LMP1A output terminals to the radio input as follows:
 - LMP1A Audio Out to Radio Mic High Input
 - LMP1A Ground to Radio Microphone Low Input or Ground.
4. Reinstall the LMP1A top cover.

CONNECTING THE LMP1A TO NON-BIASED AUDIO RADIOS

1. Remove the screws that secure the LMP1A cover to the chassis and lift the cover away.
2. Refer to Figure 2 and connect a dynamic microphone, such as a Shure Model 515, to the LMP1A input terminal as follows:
 - White mic lead to LMP1A Audio In
 - Green mic lead to LMP1A Ground
 - Shield to LMP1A Ground
3. Connect the LMP1A output terminal to the radio input as follows:
 - LMP1A Audio Out to Radio Microphone High Input
 - LMP1A Ground to Radio Microphone Low Input or Ground
4. Connect the LMP1A external dc bias terminal to the positive terminal of the radio power supply.
5. Connect the LMP1A ground terminal to the negative terminal of the radio power supply.
6. Reinstall the LMP1A top cover.



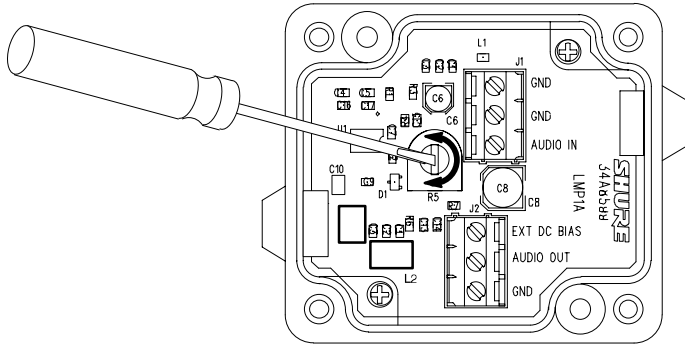
LMP1A CONNECTIONS FOR BIASED AUDIO RADIOS
FIGURE 1



LMP1A CONNECTIONS FOR NON-BIASED AUDIO RADIOS
FIGURE 2

LMP1A GAIN ADJUSTMENT

1. Remove the screws that secure the LMP1A cover to the chassis and lift the cover away.
2. Refer to Figure 3. Using a screwdriver, rotate potentiometer R5 clockwise to increase gain. The LMP1A provides 20 dB of gain when potentiometer R5 is in the maximum (full clockwise) position. To decrease gain, rotate potentiometer R5 counter-clockwise.



ADJUSTING LMP1A GAIN
FIGURE 3

SPECIFICATIONS

Open Circuitry Gain

20 dB at 1 kHz, with potentiometer R5 set to maximum

Power Requirements

3.5 to 20 Vdc (Bias voltage supplied by radio);
12 Vdc provided by external power supply

Current Drain

0.7 mA at 12 Vdc

Case

Die-cast aluminum construction

Dimensions

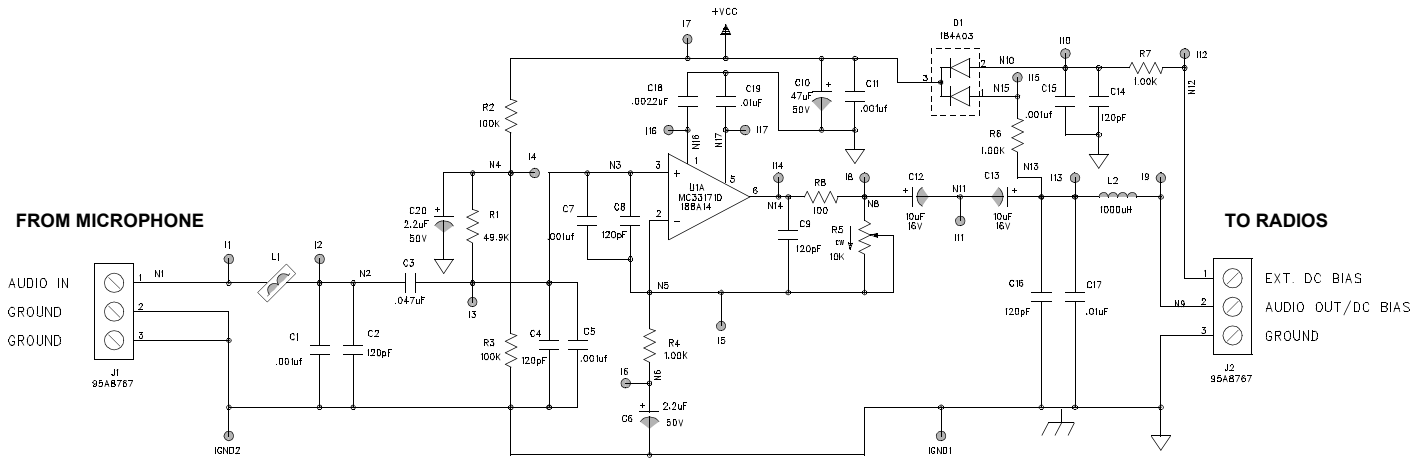
63.75 mm x 57.66 mm x 35.05 mm (2.51 in. x 2.27 in. x 1.38 in.)

Net Weight

146 grams (5.15 oz)

Certification

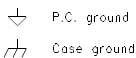
Eligible to bear CE Marking. Conforms to European EMC Directive 89/336/EEC. Meets applicable tests and performance criteria in European Standard EN55103 (1996) parts 1 and 2, for residential (E1) and light industrial (E2) environments.



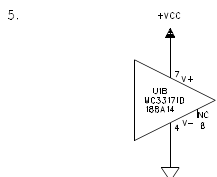
LMP1A SCHEMATIC DIAGRAM
FIGURE 4

NOTES:

1. All resistors 1/10 Watt, 1%, 0805 unless otherwise specified.
2. Electrolytic capacitors shown in μF x Volts. All non-polar capacitors in μF , tolerance 10% and 50V or more unless otherwise specified.
3. The following symbols denote:



4. R5 GAIN ADJUSTMENT FROM COMPONENT SIDE



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