

GENERAL

The ILP-1 is a high-clipping level, low-noise preamplifier designed exclusively for use with Shure Models SM90A, SM91A, SM98A, SM102B and SM102W, or for use as a replacement preamplifier for older Models SM90, SM91, and SM98. The ILP-1 connects to balanced microphone inputs providing 11 to 52 Vdc phantom power. Two switches on the ILP-1 allow you to set low-frequency response (flat or rolloff at 12 dB/octave) and gain (0 or +10 dB). The low cut switch minimizes ambient low-frequency noise from sources such as heating or air conditioner fans.

The supplied mounting clamps hold the preamplifier in place for permanent installations. Use either one or two clamps depending on location and application.

SPECIFICATIONS

Frequency Response

Switch Setting		Gain (dB)
Flat	—	30 Hz to 20 kHz (6 dB/octave rolloff below 30 Hz)
Rolloff	↙	80 Hz to 20 kHz (12 dB/octave rolloff below 80 Hz)

Gain (at 1 kHz, no load)

Switch Setting	Gain (dB)
0	-6.0 (±0.5 dB)
+10	+4.0 (+1.0, -1.5 dB)

Output Impedance

Rated at 150 Ω (90 Ω actual)

Output Noise (V_{in} , grounded, no load)

-123 dBV rms typical, A-weighted

Output Clipping Level

LOAD	GAIN SWITCH	
	0	+10
150 Ω	0.0 dBV	-7.0 dBV
800 Ω	-13.0 dBV	-21.0 dBV

Electromagnetic Hum Sensitivity

-146 dBV equivalent in 1 millioersted field

Electrostatic Hum Pickup

-97 dBV typical, measured in 12 kV field

Polarity

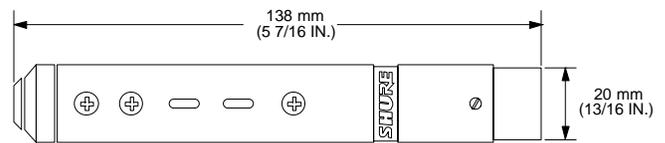
Positive voltage on pin 3 relative to pin 1 of the input connector produces positive voltage on pin 2 relative to pin 3 of the output connector

Power Requirement

Phantom power: 11 to 52 Vdc at pins 2 and 3 relative to pin 1

Dimensions

See Figure 1.



DIMENSIONS

FIGURE 1

Weight

170 grams (6.0 ounces)

Connectors

Input: mini 3-pin male (TB3M)

Output: 3-pin (male) XLR-type

Switches

Two recessed slide switches
(low frequency rolloff and 0/+10 gain)

Case

Steel, matte black enamel finished

Environmental Conditions

Operating Temperature: -19 to 57° C (-20 to 13° F)

Storage Temperature: -29 to 74° C (-20 to 168° F)

Relative Humidity: 0 to 95%

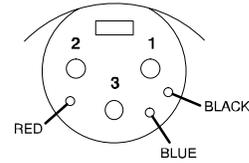
DISASSEMBLY

1. At the XLR-3 end of the preamplifier, turn the slotted-head setscrew fully inward (counterclockwise), and use a long-nose pliers to withdraw the connector from the case.
2. Unsolder the three lead wires from the XLR-3 board.
3. Remove all four Phillips-head screws from the ILP-1 case (three on the switch side, one on the back).
4. Grasp the end cap and withdraw the cap assembly, pc board assembly, and connecting wires and jacks from the case.

REASSEMBLY

1. Make sure the pc board is seated in the slot of the end cap and that no wires are pinched.
2. With the XLR-3 connecting wires foremost, feed the end-cap-board assembly into the case. Take care not to pinch the wires connecting the board to the end cap.
3. Rotate the assembly until the four holes for the Phillips screws line up with the holes in the case.

4. Re-install the four Phillips screws.
5. Resolder the three lead wires to the back of the XLR-3 board as shown in Figure 2.

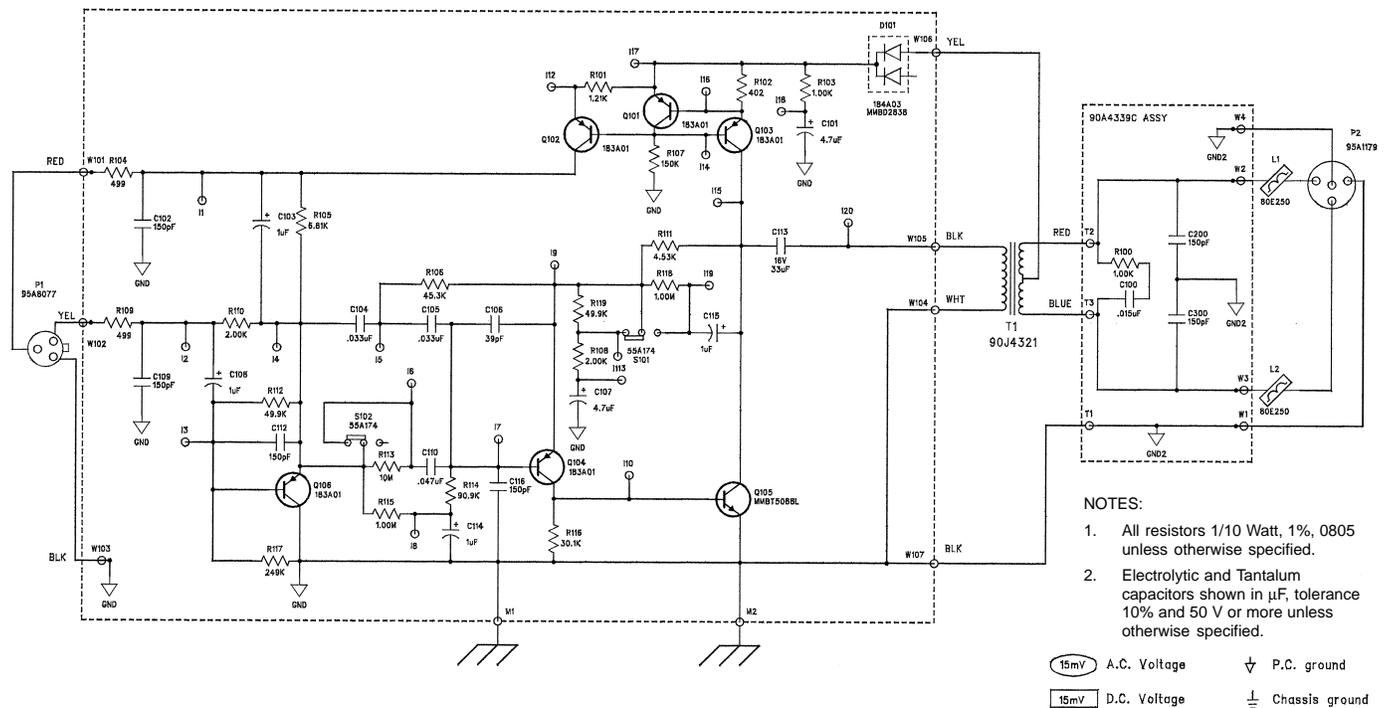


XLR-3 PC BOARD TERMINAL WIRING

FIGURE 2

6. Replace the XLR-3 board-connector assembly in the case, lining up the key in the connector with the slot in the case. Take care not to engage the butterfly-shaped ground contact in the key slot, as this prevents the connector from seating properly.
7. Insert the connector into the case until the slotted setscrew can be seen through the case hole; then tighten the setscrew by turning it clockwise.

Reference	Part Number	Description	Commercial Alternate
A1	90B4220	ILP-1 Preamplifier Assembly	None
A2	90HZ2600	PC Board Assembly	None
MP1	66A264	Preamp Switch Cover	None
MP2	80A476	Mounting Clamp	All States 3/4-HNB
P1	95A8077	Plug Assembly, Male, Mini	TB3M
P2	90HV2600	XLR-3M Connector and PC Board Assembly	None



SHURE

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