



FIGURE 2

### CARTRIDGE REPLACEMENT

The Shure Model R174 is a direct replacement cartridge for Shure Models BETA 56 and BETA 57A supercardioid dynamic microphones. The R174 offers the same high-quality performance as the original cartridge.

### SHURE MODEL BETA 57A

To install the R174 replacement cartridge in the BETA 57A, proceed as follows:

1. Using a small flathead screwdriver, turn the XLR setscrew counterclockwise and remove the XLR connector.
2. Unsolder the BLUE and RED lead wires of the old cartridge from pins 2 and 3 of the XLR connector.
3. Unscrew and remove the screen and grille assembly, see Figure 1.
4. Remove the cartridge retaining ring using a set of snap-ring pliers. Insert both needles of the pliers into each of the holes on the ring. Close the pliers so that the ring compresses slightly, then remove the ring.

**NOTE:** The recommended snap-ring pliers are approximately 7-3/4" in length, with a 90° angle tip, 1"-2" ring range, and a .070" tip diameter (McMaster-Carr #5415A33 or equivalent).

5. Remove the cartridge and attached leads from the case.
6. Run the leads from the new cartridge through the handle, so the leads come out on the XLR end.
7. Insert the new cartridge in the case, making sure it is properly seated in the notches provided. Also make sure that the wire leads are aligned with the nameplate and that they are not pinched between the cartridge and case.
8. Using snap-ring pliers, insert the retaining ring into the groove inside the handle, securing the cartridge in place.
9. Reattach the screen and grille assembly.
10. Solder the leads of the new cartridge to the XLR connector: the BLUE wire goes to pin 2, and the RED wire goes to pin 3 (see Figure 2).
11. Insert the XLR connector in the bottom of the handle, again making sure that the wires are not pinched between the connector and the case.
12. Using a small flathead screwdriver, turn the XLR setscrew clockwise to secure the connector to the case.



## SHURE MODEL BETA 56

To install the R174 replacement cartridge in the BETA 56, proceed as follows:

### Removing the Stand Adapter

1. Using a small flathead screwdriver, turn the XLR setscrew counterclockwise and remove the XLR connector with a pair of pliers.
2. Unsolder the BLUE, RED, and GREEN lead wires of the old cartridge from pins 2, 3, and 1 of the XLR connector.
3. Unscrew the knob screw, metal washer, rubber washer, and compression spring which hold the stand adapter and the case together, then partially separate the two parts.
4. On the stand adapter, use a 1/16" Allen wrench to loosen the setscrew which locks the extension spring to the stand adapter.
5. Remove the stand adapter.

### Removing the Old Cartridge

1. Unscrew and remove the screen and grille assembly, see Figure 1.
2. Remove the cartridge retaining ring using a set of snap-ring pliers. Insert both needles of the pliers into each of the holes on the ring. Close the pliers so that the ring compresses slightly, then remove the ring.

**NOTE:** The recommended snap-ring pliers are approximately 7-3/4" in length, with a 90° angle tip, 1"-2" ring range, and a .070" tip diameter (McMaster-Carr #5415A33 or equivalent).

3. Partially remove the old cartridge from the case, so the inside can be seen.
4. Using a small Phillips head screwdriver, unscrew the terminal end of the GREEN lead wire from the back of the inside of the case.
5. Remove the old cartridge and attached leads from the case, pulling the BLUE, RED, and GREEN lead wires with it.
6. Remove the extension spring.
7. Remove the GREEN lead wire from the RED and BLUE wires and discard the old cartridge. Be sure to save the GREEN lead wire.

### Installing the New Cartridge

1. Take the new cartridge and the GREEN lead wire. Hold the stripped end of the GREEN lead wire next to the stripped ends of the BLUE and RED lead wires. The terminal end of the GREEN wire should be towards the cartridge.
2. Gently twist the BLUE, RED, and GREEN cable leads at the stripped ends so they are twisted together for about one (1) inch.

3. Put the twisted ends of the lead wires through the larger end of the extension spring so the twisted ends stick through.
4. Put the twisted ends of the lead wires inside the case, pushing them through the hole in the bottom with the edge of the extension spring fitted just inside the hole. The wire leads should appear through the hole on the outside.
5. Untwist the BLUE, RED, and GREEN lead wires.
6. Pull the GREEN wire all the way through. The terminal end of the wire should pull the extension spring through in front of it. The extension spring should now be sticking out of the case.
7. Using a Phillips head screwdriver, secure the terminal end of the GREEN lead wire to the screw hole in the back of the inside of the case.
8. Place the new cartridge inside the case, making sure the yellow tape strip is facing up, aligned with the logo on top of the case. This ensures that the cartridge wires will slip into the intended groove. Gently pull the wires while inserting the cartridge to prevent pinching the wires between the cartridge and case.
9. Reattach the screen and grille assembly.

### Replacing the Stand Adapter

1. Insert the BLUE, RED, and GREEN lead wires into the through-hole on the front of the stand adapter. They should come out through the XLR connector chamber.
2. Insert the extension spring into the opening of the through-hole. Make sure the spring is pushed in until it bottoms out.
3. Using a 1/16" Allen wrench, secure the setscrew on the stand adapter to lock the extension spring in place.
4. Place the compression spring and metal washer over the threaded end of the knob screw. Place the rubber washer between the stand adapter and the inside of the flange. Make sure the rubber washer is on the groove side of the stand adapter. Secure the stand adapter to the case with the knob screw.
5. Solder the BLUE, RED, and GREEN lead wires to pins 2, 3, and 1 respectively (see Figure 2).
6. Insert the XLR connector in the XLR connector chamber so the notch on the connector fits into the groove inside the chamber. Be careful not to pinch the lead wires.
7. Using a small flathead screwdriver, turn the XLR setscrew clockwise to secure the connector to the stand adapter.

**NOTE:** As a time-saving alternative to the preceding procedure, it is also possible to install the cartridge by carefully splicing and soldering the three leads between the cartridge and the case. If this option is chosen, be sure to trim unnecessary lead lengths and wrap the soldered connections carefully with tape to prevent shorts.

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