



Model 890TT Replacement Parts

This instruction sheet provides information on the proper installation of replacement parts and assemblies in the Shure Model 890TT Hand-Held Transistorized Condenser Microphone. The replacement kits covered in this instruction sheet are:

- RK266 Battery-LED PC Assembly (Front)
- RK267 Digital PC Assembly (Middle)
- RK268 Cartridge-Amplifier PC Assembly (Back)
- RK269 Keypad
- RK270 Membrane Switch Assembly
- RK271S Leaf Switch Assembly

Other replacement parts for the 890TT are the Switch Push-button (65A1648) and Cable and Modular Plug assemblies (ALM Series). Accessories furnished with the 890TT are the Screwdriver (65A1587) and Programming Tool (90A4074). Mounting Brackets are available as RK6MB (three brackets in kit).

Modification and repair of the 890TT should be performed by qualified service personnel only.

CAUTION

This microphone contains static-sensitive semiconductor devices. All work must be performed at a static-free work station using properly grounded equipment. Soldering operations must be performed using a fine-pointed low-wattage soldering iron.

DISASSEMBLY

To replace parts or assemblies in the 890TT, disassemble the unit as follows.

1. Disconnect the 890TT from the radio equipment.
2. Remove the microphone cable by inserting the small screwdriver supplied with the 890TT in rear case hole "D" just above the cable jack (see Figure 1) to unlock the plug, and withdrawing the plug from the jack.

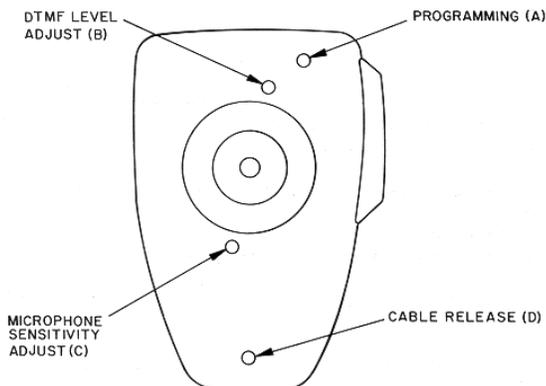


FIGURE 1

3. Remove the four screws from the rear of the 890TT case (see Figure 2).
4. Holding the 890TT with the rear toward you and the cable connector downward, carefully remove the case

rear from the front. Note that the rear printed-circuit board will either be retained in the case front when the case rear is removed, or it may become disconnected from these boards and remain attached to the case rear. If the rear board is disconnected from the other boards, *all memory programming* will be erased.

CAUTION: The *middle* board contains static-sensitive semiconductor devices that can be functionally damaged by handling. Make certain proper procedures are followed when working with this board.

5. Carefully pivot the case rear to the right. Five wires remain attached between the rear printed-circuit board, the leaf switch, and the solder lug attached to the case rear. When the rear board is disconnected from the middle board (J301 removed from P101), replacement of the rear board and leaf switch will be simplified.

The following replacement instructions appear in the order that each part or assembly is accessed.

RK268 CARTRIDGE-AMPLIFIER PC ASSEMBLY

To replace the cartridge-amplifier PC assembly (rear board), follow these steps.

1. Remove the case rear as described above.
2. Carefully unsolder the four leads attached to the leaf switch and the single lead attached to the case rear solder lug. Observe the lead color connections for proper terminal replacement.
3. Solder the leads of the replacement board to the switch and case lug.
4. Make certain the microphone cartridge rubber resonator is properly aligned (rectangular section toward top of microphone), and carefully guide the rear board into its connection to the middle board (J301 into J201 and P101).
5. Carefully reassemble the case rear to the case front, guiding the front pin of the push-to-talk button into the round pivot recess of the case front. Reposition wires as necessary to make certain none are pinched between the case halves. **IMPORTANT:** Make sure the insulator linking the programming terminals on the middle and rear boards (see Figure 2) is in place and covering the terminal on both boards.
6. Replace the four screws and reinstall the 890TT.

RK271S LEAF SWITCH ASSEMBLY

To replace the leaf switch assembly, follow these steps.

1. Disassemble the case rear as described above.
2. Remove the push-to-talk button from the case rear.
3. Carefully unsolder the four leads from the leaf switch assembly, noting the colors and terminals for proper reattachment.
4. Unscrew the two No. 4-40 screws holding the switch assembly to the case rear.

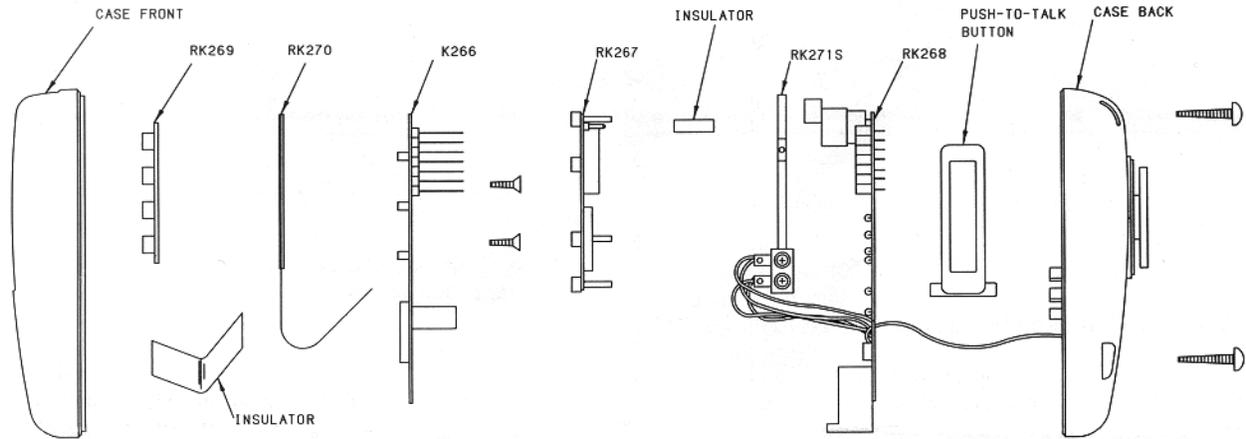


FIGURE 2

5. Carefully solder the four leads to the replacement switch assembly.
6. Secure the replacement switch assembly with the two screws previously removed.
7. Reassemble the microphone as described above.

RK267 DIGITAL PC ASSEMBLY

To replace the Digital PC Assembly (middle board), follow these steps.

1. Remove the case rear and rear board as described above.
2. Remove the ribbon cable by unlocking (sliding the top cover approximately 1/16" downward) the ribbon cable connector and gently withdrawing the cable. Remove and retain the amber-colored ribbon cable insulator.
3. Grasping two of the plastic standoffs, gently raise the board upward, detaching it from the front board (J201 from P101).
4. Using proper static-sensitive device handling techniques, align connector J201 with P101 and press downward on two of the standoffs to secure the board.
5. Insert the ribbon cable in ribbon cable connector J203 and slide the cover upward to lock the cable in. Replace the ribbon cable insulator.
6. Reassemble the microphone as described above.

RK266 BATTERY-LED PC ASSEMBLY

To replace the Battery-LED PC Assembly (front board), follow these steps.

1. Disassemble the microphone case and rear board as described above.
2. Remove the middle board as described above.
3. Unscrew the two No. 4 screws holding the front board to the case front.
4. Lift the front board up and out of the case front. The membrane switch assembly may remain attached to the front board or it may remain in the case front.

5. Remove the membrane switch assembly from the front board if it is still attached, and seat the switch assembly over the keypad.
6. Place the replacement front board over the membrane switch assembly, thread the ribbon cable through the slot in the board, and seat the board in the case front.
7. Secure the front board with the two screws previously removed.
8. Reassemble the microphone as described above.

RK270 MEMBRANE SWITCH ASSEMBLY

To replace the membrane switch assembly, follow these steps.

1. Disassemble the microphone case rear and board assemblies as described above.
2. Separate the membrane switch assembly from the front board if it is still attached.
3. Place the replacement membrane switch assembly in the case front over the keypad.
4. Reassemble the microphone as described above.

RK269 KEYPAD

To replace the keypad, follow these steps.

1. Disassemble the microphone and board assemblies as described above.
2. Remove the membrane switch assembly and keypad from the case front.
3. Insert the replacement keypad in the case front.
4. Reassemble the microphone as described above.



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