Kenwood 90 Series Mobile Radios
TK-690 • TK-790 • TK-890

Customers using the Kenwood 90 series mobile radios need to be aware that several modifications must be made to the radio when used in vehicle intercom or police motorcycle applications.

1. The hand microphone supplied with the radio (KMC-27) does not have the audio switched off when not in use. This is referred to as a “hot-mic.” Appendix A of the service manual (reproduced below) describes a modification to remedy this problem. The modification requires adding a transistor and other components to the circuit board inside the microphone case.

2. To use the accessory connector on the back of the transceiver to accept mic audio (Setcom KN interface), it is also necessary to reconfigure jumpers on the radio circuit board. The details of this modification are on page 18 of the service manual. Selection of Mic Audio or Data Input is by the position of R640 and R641. The radio is configured for Data Input (not Mic Audio) as shipped from the factory. Unsoldering and resoldering of surface mount resistors is required using appropriate equipment and technique (any authorized Kenwood Service shop can make the above modifications).

3. The radio must be programmed for Auxiliary Input 1 (AI1) to be configured as Push-To-Talk (PTT). Programming software from Kenwood is required along with a suitable interconnecting cable.

4. Motorcycle Kits require that jumper “SB” on the circuit board be shorted in order to provide B+ on pin 14 of the accessory connector.

5. The accessory connector on the back of the remote control head does not need to be modified to accept mic audio from the Setcom KO interface. Since PTT is programmable to one accessory port only, radio must be programmed to bring PTT to pin 6 of the remote control head accessory port.

The following hand mic modification is taken from Appendix A of the service manual.

When installing an external headset or other type of external microphone, it may be necessary to shut off the audio in the KMC-27 local microphone. This can be done easily by using a typical PNP transistor, a 4.7kOhm resistor and three jumper wires. Using the existing holes left open for the KMC-28’s DTMF circuit, the transistor can be securely mounted in the KMC-27. R14 must be removed to open the power supply circuit to the Mic element. The signal through the resistor to the base will cause the transistor to complete the power path upon PTT.