MOTOROLA

Introduction

The MCS 2000 Mobile Radio has an accessory connector, which is located on the bottom side of the radio. Unless an emergency switch accessory is connected to the radio via the accessory connector and plug, an accessory plug, which has an internal jumper wire connected between locations 4 and 9, must always be plugged into the accessory connector. Otherwise, the radio will not operate correctly.

Every MCS 2000 Radio is supplied with an accessory plug, Motorola Kit Number HLN6412. This accessory plug is supplied loose in a plastic bag packed with the radio. The accessory plug contains jumper wires connected between locations 1 and 2, and between locations 4 and 9. The jumper wire between locations 1 and 2 routes the audio signal from the output of the audio amplifier in the radio to a 4-Watt loudspeaker built into the control head of the MCS 2000 Model I Radio. The jumper wire between locations 4 and 9 closes the emergency circuit if an emergency switch accessory *is not* used.

WARNING

The radio may switch into transmit mode, immediately upon being connected to power, if an open circuit exists between pins 4 and 9 of the accessory connector. To avoid personal injury and/or damage to the radio, ensure that a jumper wire or an emergency switch that has normally closed contacts is connected between pins 4 and 9 of the accessory connector before the radio is connected to vehicle battery power or any other power supply.

Accessory Plug Connection of External Loudspeakers

MCS 2000 Model II and Model III Radios do not have a loudspeaker built into their control heads. Therefore, an external loudspeaker is supplied with each of these radios. A Motorola Kit Number HSN4024 (7.5 Watt), Motorola Kit Number HSN4025 (13 Watt), Motorola Kit Number HSN4031 (7.5 Watt), or Motorola Kit Number HSN4032 (13 Watt) external loudspeaker is supplied with each Model II and Model III Radio. The HSN4024 and HSN4025 external loudspeakers connect to the accessory connector on the bottom of the radio.

For MCS Model II and Model III Radios, the jumper wire must be omitted from locations 1 and 2 in the accessory plug and the external loudspeaker connected to locations 1 and 3. The accessory plug also includes the necessary jumper wire between locations 4 and 9.
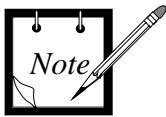
Installation Instructions

68P81109C97-O

When the external loudspeaker is supplied just with pins crimped to the wires of its cable, the accessory plug must have the jumper wire between locations 1 and 2 removed and the pins on the wires of the loudspeaker cable inserted into locations 1 and 3. This requires that the accessory plug be disassembled, the jumper removed from locations 1 and 2, the loudspeaker pins inserted into locations 1 and 3, and the plug reassembled.

Disassembling and Reassembling Accessory Plug

Note — Numbers for pin locations in the pin housing of the accessory plug are visible only when the pin housing is removed from the shell and its wings are fully open.

Disassembly

Note — When the external loudspeaker included with the Model II and Model III Radios is supplied with an accessory plug already attached to its cable, a strain relief clip for a low power radio is threaded over the cable between the loudspeaker and accessory plug.

1. Squeeze tabs together (see Figure 1), and remove the cover from the accessory plug (see Figure 2).

2. Remove the strain relief clip stored inside the plug. If radio is a **low power model**, save the clip for use in next procedure. If the radio is a **mid power or high power model**, discard the clip.
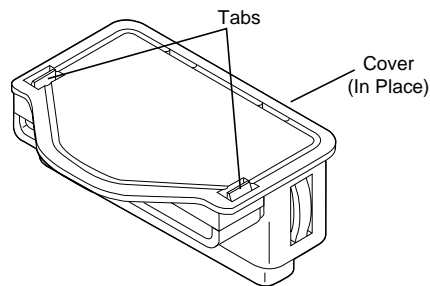

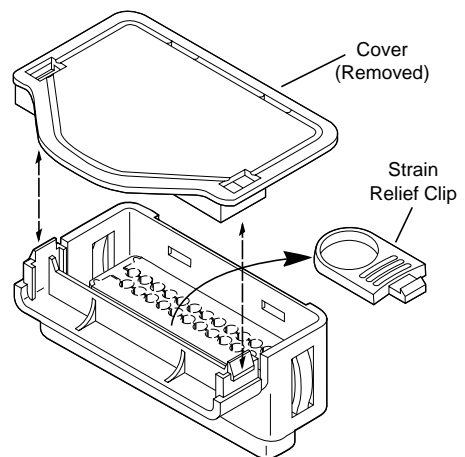
Figure 1.   *Figure 2.*

3. Using thumb pressure from the bottom of the shell, push the pin housing up and out of the shell (see Figure 3).

4. Open out both wings of the pin housing (see Figure 4).

5. Connect any other accessory wires to the accessory plug as described in Section 4 of the Mobile Radio Installation Instructions Manual, Motorola Publication 68P02058U20 (see footnote at end of this publication). Then reassemble the accessory plug as described in the paragraph below *unless* one of the accessories is an emergency switch. In that case, ensure that the jumper is in place between pins 4 and 9 (see Figure 6).
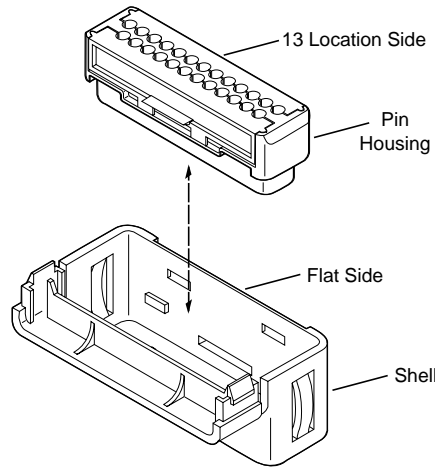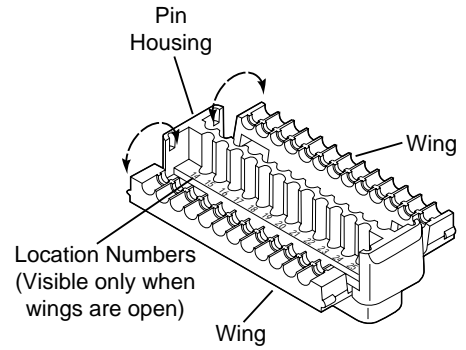
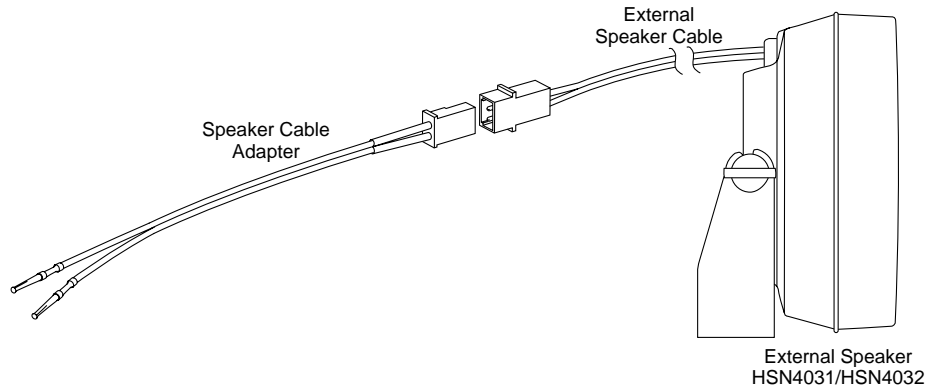*Figure 3.*   *Figure 4.*

Reassembly

1. Insert the pin housing back into the shell in the opposite way it was removed. Be certain that the 13-location side of the pin housing is facing the flat side of the shell. Also be sure that the pin housing snaps securely into the shell and is not cocked in the shell.

2. Install the cover back onto the accessory plug by snapping the cover over the tabs and pressing down.

Connecting External Loudspeaker to Accessory Plug

This procedure is to be used only if an external loudspeaker is to be used with the radio and the cable of the external loudspeaker is not already equipped with an accessory plug.

1. Disassemble the accessory plug using the instructions provided on the previous pages.

2. For speaker kits HSN4031 and HSN4032, connect speaker cable adapter to external speaker cable (see Figure 5).

3. Remove the jumper wires from locations 1 and 2 in the pin housing. Leave the jumper wires between locations 4 and 9 in place (see Figure 6).

4. For **low power radios**, pass the free end of the external loudspeaker cable or adapter cable through the eye of the strain relief clip removed earlier from inside the accessory plug. For **mid and high power radios**, discard the strain relief clip removed earlier from inside the accessory plug.

External
Speaker Cable

Speaker Cable
Adapter

External Speaker
HSN4031/HSN4032

MAEPF-25762-O

Figure 5.

5. Insert pins on the wires in the external loudspeaker cable or adapter
    cable into locations 1 and 3 of the pin housing (see Figure 7).

6. If any other accessories (e.g., an ignition sense cable) are to be connected
    to the radio, connect them now by following instructions in Section 4 of
    the Mobile Radio Installation Instructions Manual, Motorola Publication
    68P02058U20 (see footnote at end of this publication). Otherwise,
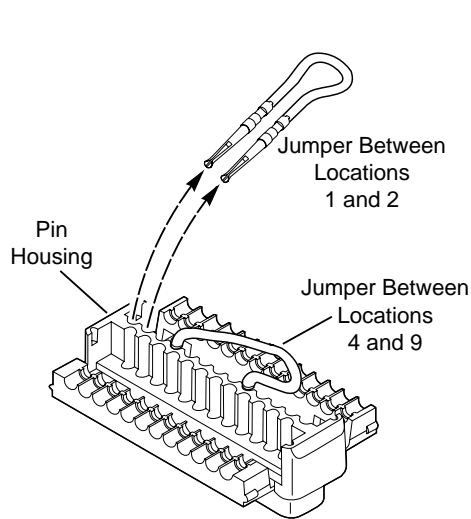   reassemble the accessory plug using the instructions provided on the
    previous pages.

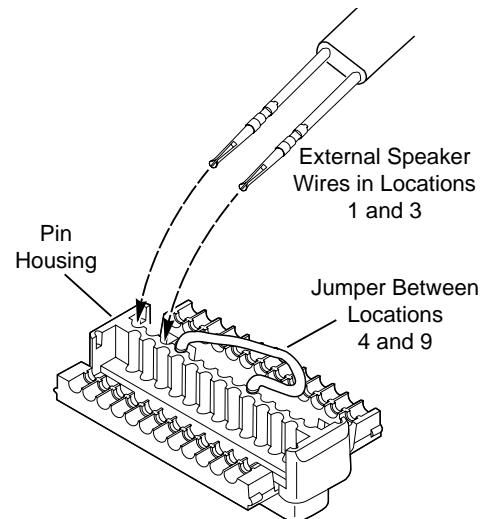
Jumper Between
Locations
1 and 2

Pin
Housing

Jumper Between
Locations
4 and 9

External Speaker
Wires in Locations
1 and 3

Pin
Housing

Jumper Between
Locations
4 and 9

Figure 6.   *Figure 7.*

<u>Footnote</u>

Motorola publications can be obtained from:

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Americas Parts Division

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or

Motorola GMBH

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D-65232 Taunusstein 4

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