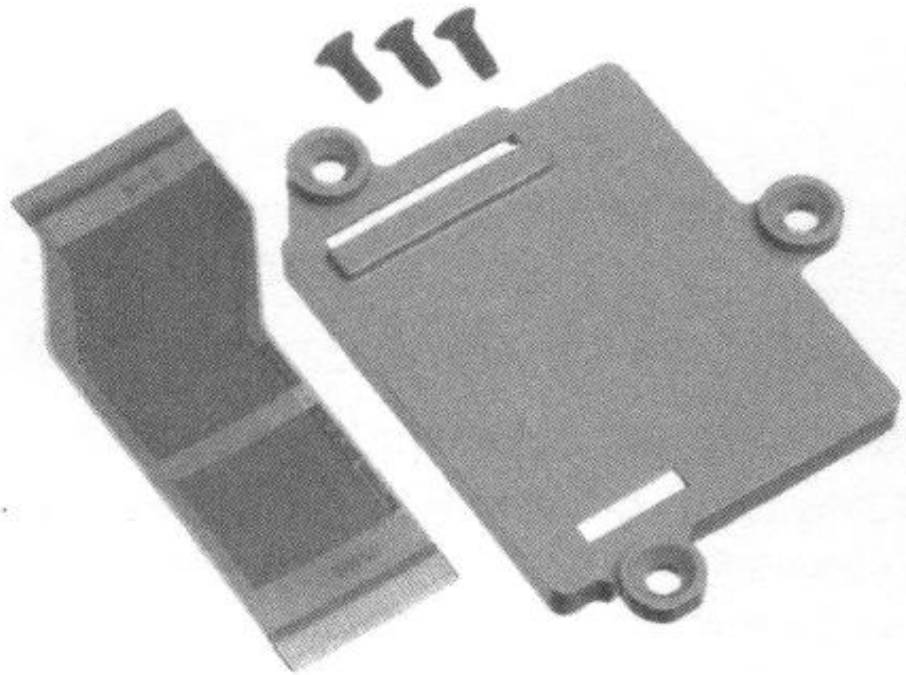
MOTOROLA

Option Board Installation Kit

RLN4823



Professional Radio

Accessories

INTRODUCTION

The RLN4823 Option Board Installation Kit provides the hardware and instructions to install an option board in the Motorola Professional Series Mobile Radio. The kit includes a mounting frame, a flexible circuit, three mounting screws, a label, and this instruction sheet. Refer to the Replacement Parts section of this instruction sheet for part descriptions and replacement part numbers.

INSTALLATION

Tools

Tools required to perform the option board installation are:

- T10 TORX driver
- T20 TORX driver
- Dismantling Tool (Motorola part number 6686119B01)

Mobile Radio Preparation

1. Disconnect power to the mobile radio.
2. If installed, remove the radio unit from the automobile, and perform the option board installation on a table or work bench.

Mobile Radio Disassembly

Remove the Radio's Top Cover. (See Figure 1)

1. Insert the dismantling tool in the middle of the radio assembly side groove.
2. Wedge the dismantling tool between the edge of the plastic top cover and the cast chassis.
3. Push and twist the dismantling tool until the top cover releases from the cast chassis.
4. Lift the top cover from the chassis

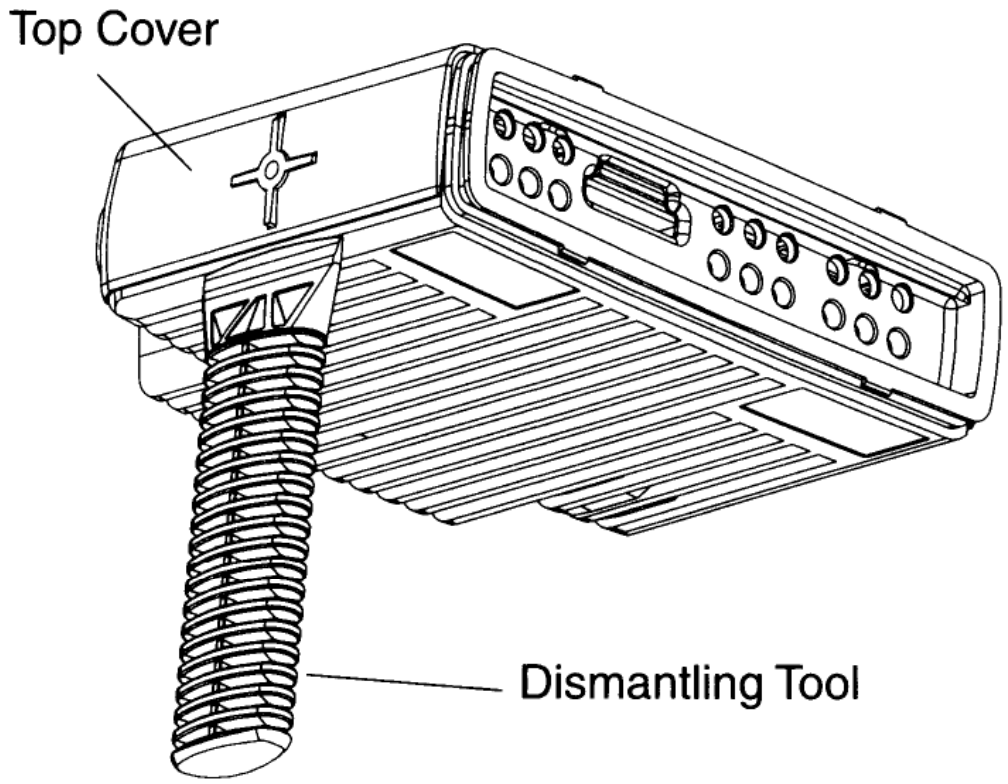


Figure 1. Top Cover Removal

NOTE: Although the illustration in Figure 1 shows the control head removed from the radio, the control head need not be removed to install an option board.

Remove the Radio's Diecast Cover. (See Figure 2)

1. Remove the six screws from the diecast cover using a T20 TORX driver.
2. Lift the diecast cover from the chassis.

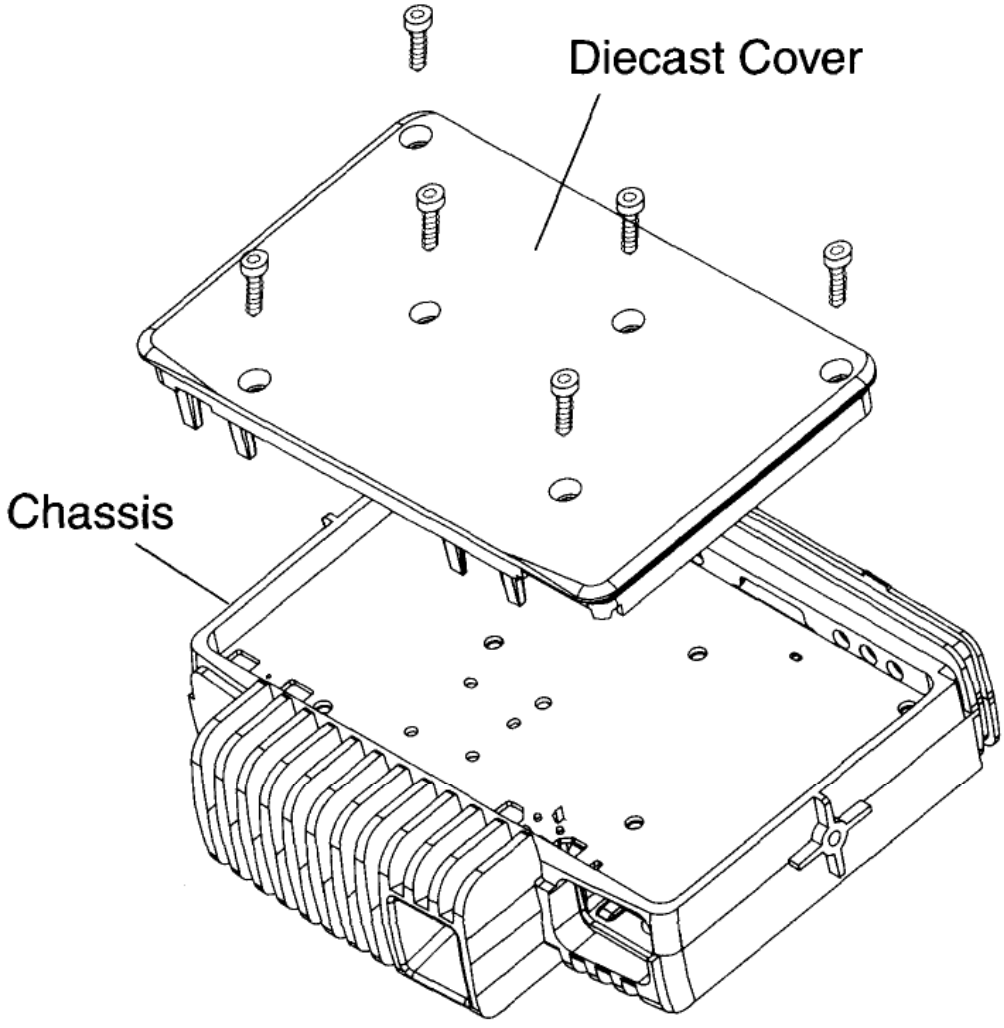


Figure 2. Diecast Cover Removal

Installing the Option Board

Attach the Flex Circuit to the Option Board. (See Figures 3 and 4)

NOTE: The flex circuit includes a part number (8485615Z02) and direction arrows that identify where each end of the flex is attached:

- (<-TO KP) to option board connector
- (TO CTRL ->) to radio board connector

IMPORTANT Option Board Kits include a flex circuit designed for use with portable radios. Remove and discard that flex circuit. If the option board flex circuit (for portable radios) is used in a mobile, the flex will bend in the wrong areas, and after extended use, the flex may break.

1. Place the (<-TO KP) end of the new flex circuit in the option board connector as illustrated in Figures 3 and 4.
2. Lock the connector.

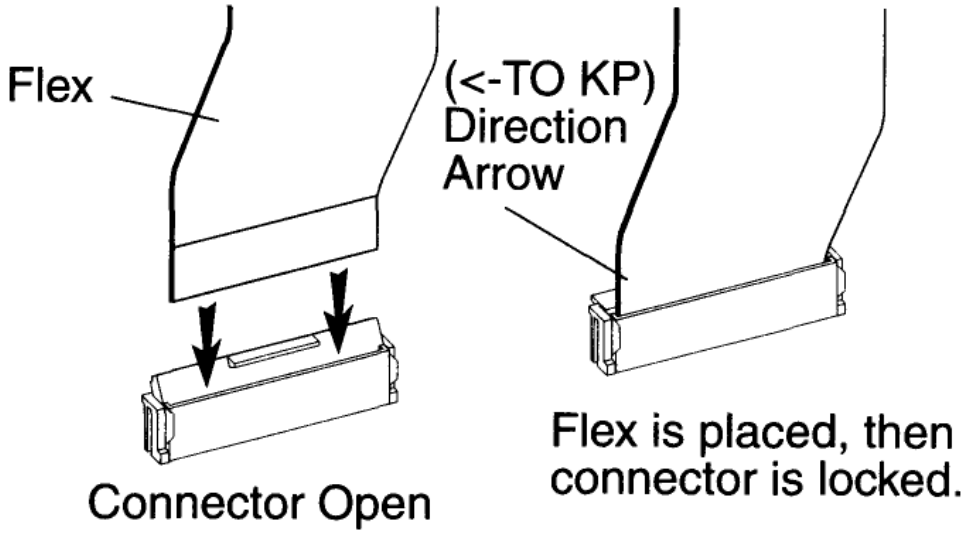


Figure 3. Option Board Connector

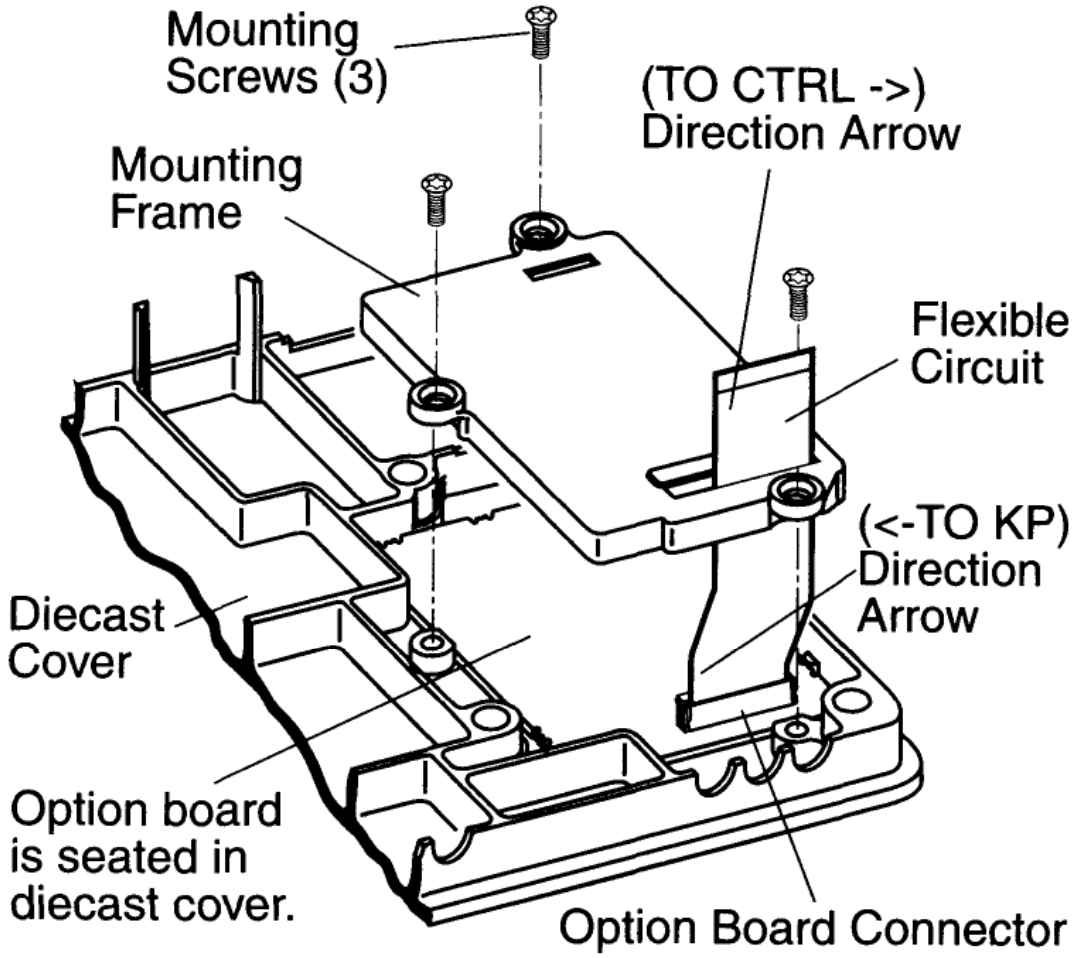


Figure 4. Option Board Installed in Diecast Cover

Attach the Option Board to the Diecast Cover. (See Figure 4)

NOTE: If the option board has a circuit board tab (end of board opposite 40-pin connector), break it off so that the board will fit in the diecast cover.

1. Place the option board in the diecast cover. Make sure that the option board is seated properly, flush with the floor of the diecast cover.
2. Position the option board mounting frame over the option board and diecast cover.
3. With the flex circuit going through the large slot in the mounting frame, lower the mounting frame onto the diecast cover.
4. Secure the mounting frame and option board to the diecast cover using the three self-tapping mounting screws. Tighten the screws to 0.6 NM (6 in. lbs.) using the T10 TORX driver.

Attach the Flex Circuit to the Radio Board

1. Orient the diecast cover over the radio (inside of diecast cover faces the inside of radio, and the four large guide posts of the diecast cover are toward the rear of the radio).
2. Place the (TO CNTL ->) end of the flex circuit in the 40-pin connector on the radio circuit board (Figure 5).

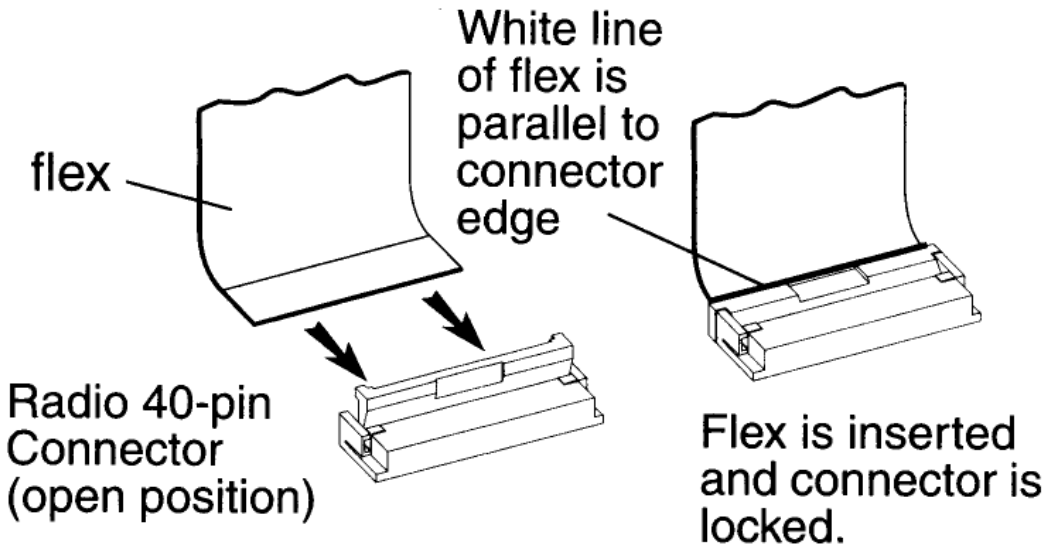


Figure 5. Radio Circuit Board 40-Pin Connector

3. Lock the connector.

NOTE: If the flex circuit is installed properly in the radio connector, the white line on the flex circuit will be parallel to the edge of the radio connector.

4. Bend the middle of the flex circuit (bendable area) toward the center line of the radio (not toward the outside edge) and set the diecast cover down onto the cast chassis.

Reassembling the Radio

1. Make sure that the diecast cover's o-ring gasket is seated properly.
2. Secure the diecast cover to the cast chassis with the six screws previously removed.
3. Torque the six screws to 1.9 NM (17 in. lbs.) using the T20 TORX driver. Begin

with the two screws located in the middle of the chassis followed by the four outer screws. Since the screws usually take a set, torque the screws a second time (1.9 NM, 17 in. lbs.) in the same order.

4. Peel the adhesive liner from the label (supplied with the installation kit) and attach the label to the diecast cover.
5. Refit the plastic top cover over the assembled radio chassis. Press the top cover onto the radio chassis until it snaps into place.

PROGRAMMING

Refer to the applicable radio user guide and specific option board accessory user guide for programming information and operation.

REPLACEMENT PARTS

Parts included (and available separately) in the RLN4823 Option Board Installation Kit are:

• Mounting Frame	1ea	0786183B01
• Flexible Circuit	1ea	8485615Z02
• Label	1ea	5485909Z01
• Mounting Screws (type TT thread rolling, Star (TORX), Flathead, (8mm x 3mm with 0.5 pitch	20/bag	0310943R55
• Installation Instructions	1ea	6881093C76

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