MOTOROLA
intelligence everywhere™

RLN5381 Option Board

with *Bluetooth*™ Wireless Technology

for the Professional Portable Radio Series

6880309L69-O

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SAFETY AND GENERAL INFORMATION

IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION.

READ THIS INFORMATION BEFORE USING YOUR MOTOROLA OPTION BOARD WITH *BLUETOOTH* WIRELESS TECHNOLOGY.

Guidelines on Interference and Lost Links

This device operates in the unlicensed ISM frequency band (2.402-2.480 GHz). Devices operating in an unlicensed frequency band are subject to interference from other devices. Interference effects range in severity from poor or garbled audio to a complete loss of communication between a Motorola two-way radio with *Bluetooth* wireless technology and a corresponding Motorola accessory with *Bluetooth* wireless technology. The latter effect is referred to as a "lost link" and results in the inability to use the accessory with *Bluetooth* wireless technology.

ALWAYS KEEP YOUR TWO-WAY RADIO READILY AVAILABLE FOR USE IN THE EVENT THE *BLUETOOTH* WIRELESS LINK IS LOST.

Examples of potential interference sources operating in the ISM band include 802.11b wireless local area networks (LANs), Home RF residential wireless LANs, microwave ovens, computers, and 2.4 GHz wireless phones.

Regulatory

Users are not permitted to make changes or modify the device in any way. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device. See 47 CFR Sec. 15.21.

This device complies with Part 15 of the U.S. FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. See 47 CFR Sec. 15.19(3).

This device operates in the 2.402 - 2.480 GHz frequency range. Some countries have restrictions against using devices in this range. Please check your local regulations.

Range

This *Bluetooth* wireless device has a Class 2 transmitter operating at a nominal 0 dBm (1 mW) power level. In ideal line-of-sight conditions, the range between a Motorola two-way radio with *Bluetooth* wireless technology and a corresponding accessory with *Bluetooth* wireless technology is up to 10 meters (approximately 30 feet). Actual range varies depending on environmental conditions and position of the portable radio with respect to the accessory.

ELECTROMAGNETIC INTERFERENCE/COMPATIBILITY

2.4 GHz Equipment Compatibility

Bluetooth wireless devices may cause disruption in operation of other 2.4 GHz equipment, especially wireless LANs.

Facilities

To avoid electromagnetic interference and/or compatibility conflicts, turn off your device in any facility where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.

Aircraft

When instructed to do so, turn off your device when on board an aircraft. Any use of your device must be in accordance with applicable regulations per airline crew instructions.

Medical Devices

Pacemakers

The Health Industry Manufacturers Association recommends that a minimum separation of 6 inches (15 centimeters) be maintained between a wireless device and a pacemaker. These recommendations are consistent with the recommendations of the Food and Drug Administration.

Persons with pacemakers should:

- ALWAYS keep the wireless device more than 6 inches (15 centimeters) from their pacemaker when the device is turned ON.
- NOT carry the device in the breast pocket.
- Use the ear opposite the pacemaker to minimize the potential for interference.
- Turn the device OFF immediately if there is any reason to suspect that interference is taking place.

Hearing Aids

Some digital wireless radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

INSTALLATION AND PROGRAMMING

With the option board installed, your portable Professional Series Radio is enabled with *Bluetooth* technology. See your local Motorola representative for installation and programming.

> ⚠️ **WARNING** **If installed in any FM Professional Series Radio, FM Approval of that radio is negated. If installed in any *mobile* Professional Series Radio, the option board will be damaged. For portable use only.**
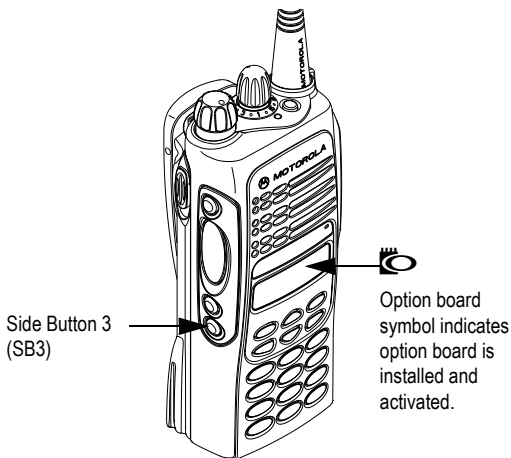
Note to installer:

Refer to the portable Professional Series Radio service manual for option board installation procedures. In addition, you must replace the radio's existing retainer with a modified version (as indicated below) for proper *Bluetooth* antenna operation. The modified retainers and associated pads are included with the option board. If your current retainer has pads attached, duplicate the pad layout of your current retainer on your modified retainer using the enclosed pads.

Replace Current Retainer	With Modified Retainer
42D80498Z01	01D85596E01
42D86266Z01	01D85596E02

A separate identification label is also enclosed. Please apply this to the back of the radio, under the battery.

BLUETOOTH RADIO OVERVIEW

Portable Radio: Button and Symbol Locations
(Display Model shown)

Your *Bluetooth* radio will connect and operate with a *Bluetooth* two-way radio audio device from Motorola. A Push-To-Talk device with *Bluetooth* Wireless Technology from Motorola can also be used along with the *Bluetooth* audio device. *Bluetooth* audio and Push-To-Talk devices are sold separately.

Connecting for the First Time

1. Turn *Bluetooth* radio on.

   Double SCAN tone sounds every two seconds.

Note: To stop scan, press **SB3** twice (short presses). You should press **SB3** only briefly before releasing it; do not hold down **SB3**.

2. Turn *Bluetooth* device(s) on.
3. Place *Bluetooth* device(s) within 3 in. (7 cm.) of the front of the radio. *This must be done within a few seconds of turning on the radio.*

   Connection occurs with first Bluetooth device. CONNECT tone sounds and tracking number appears on display radio model.

Note: Each *Bluetooth* device has a unique 10-digit tracking number (e.g., DA0FBL0000) for device identification.

If you are not connecting to a second device, short-press **SB3** twice.

If you are connecting to a second device, keep all devices within 3 in. (7 cm.) of each other until CONNECT tone sounds again. Tracking number appears on display radio models.

4. Operate devices.

   You can now move devices outside the 3-in. (7-cm.) connection range once connected.

Note: If connection occurs with only a *Bluetooth* Push-To-Talk device, the connection will be dropped because this device will not operate by itself.

Note: If connection does not occur, restart connection (start at Step 2 in "Connecting to Different Device(s)" on page 11) and make sure you are on an option board–enabled channel (see "Channel Change" on page 10).

Verifying Connection

You can verify the connection between the *Bluetooth* radio and *Bluetooth* device after a connection is made.

1. Short-press **SB3** on radio.
2. Within two seconds of **SB3** press, press and hold **PTT** button on *Bluetooth* device.

You are connected if:

- VERIFY tone sounds on the radio.
- Tracking number appears on display.

3. Release **PTT** on *Bluetooth* device to exit verification.

Note: If this does not occur, try again, making sure to short-press **SB3** on radio first, before pressing **PTT** on *Bluetooth* device, and making sure to press **PTT** within two seconds of **SB3** press. If there is still no VERIFY tone or tracking number, the radio is not connected with the *Bluetooth* device. See "Connecting to Different Device(s)" on page 11 to restart connection.

Receiving a Call

When a call is received, you hear receive audio on *Bluetooth* audio device.

Note: Use volume control on *Bluetooth* device to adjust volume. You cannot adjust with **Volume/On/Off** knob on *Bluetooth* radio.

Sending a Call

To activate microphone on *Bluetooth* audio device, press **PTT** button on *Bluetooth* audio device or **PTT** button on *Bluetooth* Push-To-Talk device.

Pressing the radio's **PTT** button activates only the microphone on the radio.

Note: Before transmitting, monitor frequency via your radio.

Resolving a Lost Link

Note: ALWAYS KEEP YOUR TWO-WAY RADIO READILY AVAILABLE FOR USE IN THE EVENT THE CONNECTION IS LOST.

When connection is lost:

- ALERT tone sounds on radio once for each lost device.
- Tracking number of each lost device appears on display radio models.
- *Bluetooth* radio automatically tries to reconnect for 30 seconds.
- CONNECT tone sounds once for each device reconnected.

If you think you have moved out of range, move devices closer together to restore lost link.

You will be able to send and receive calls from your radio until connection is established again. See "Guidelines on Interference and Lost Links" on page 1.

Channel Change

The option board can be enabled or disabled per channel. See your local Motorola representative for programming information.

If the option board is enabled on every channel, there is no interruption in *Bluetooth* connection when channel is changed.

If the option board is disabled on some channels and you switch to a disabled channel, you will hear a CHANNEL CHANGED ALERT tone one second after switching. *Bluetooth* devices become inoperable, though still connected. Switch back to enabled channel within three seconds to prevent dropped connection.

Ending a Connection

If you do not want to operate with *Bluetooth* device(s), you need to end the current connection:

• Short-press **SB3** twice.

  You hear one ALERT tone for each Bluetooth device disconnected.

Note: You can also turn radio off for a few seconds, then back on. This disconnects and turns off *Bluetooth* device(s).

Connecting to Last Device(s)

You can quickly reconnect to the last device(s) that linked to your *Bluetooth* radio.

1. Turn *Bluetooth* radio on.

Single SCAN tone sounds every two seconds.

Note: To stop scan, short-press **SB3** twice, and then short-press **SB3** twice again.

2. Turn *Bluetooth* device(s) on.
3. Place *Bluetooth* device(s) within 3 ft. (1 m.) of the front of the radio. *This must be done within a few seconds of turning on the radio.*

   Connection occurs with Bluetooth audio device. CONNECT tone sounds and tracking number appears on display radio model.

If you were not previously connected to a *Bluetooth* Push-To-Talk device, go to Step 4.

If you were previously connected to a *Bluetooth* Push-To-Talk device, connection occurs. CONNECT tone sounds again and tracking number appears on display radio model.

4. Operate devices.

Note: If reconnection does not occur, turn radio off and return to Step 1. If you are attempting to connect to a different device, start at Step 2 in "Connecting to Different Device(s)", below.

Connecting to Different Device(s)

You can connect your *Bluetooth* radio to a different *Bluetooth* device(s).

1. If you are in a connection, short-press **SB3** twice to disconnect. If not in a connection, go to Step 2.
   ALERT tone sounds for each device disconnected.

2. Short-press **SB3** twice to begin to scan for device(s).
   Double SCAN tone sounds every two seconds.

Note: To stop scan, short-press **SB3** twice.

3. Turn *Bluetooth* device(s) on.
4. Place *Bluetooth* device(s) within 3 in. (7 cm.) of the front of the radio. ***This must be done within a few seconds of pressing SB3 twice.***
   Connection occurs with first Bluetooth device. CONNECT tone sounds and tracking number appears on display radio model.

If you are not connecting to a second device, short-press **SB3** twice to stop scan.

If you are connecting to a second device, keep all devices within 3 in. (7 cm.) of each other until CONNECT tone sounds again. Tracking number appears on display radio models.

5. Operate devices.
   You can now move devices outside the 3-in. (7-cm.) connection range once connected.

Note: If connection occurs with only a *Bluetooth* Push-To-Talk device, the connection will be dropped because this device will not operate by itself.

Note: If connection does not occur, restart connection (start at Step 2, above).

Turning Radio Off

Turn the radio's **Volume/On/Off** knob until it clicks.

Note: Any *Bluetooth*-connected device(s) is powered down.

Tone Description

Tone	Description
CONNECT	Three rapid high tones
ALERT	Single half-second low tone
CHANNEL CHANGED ALERT	Continuous low tone
VERIFY	Continuous high tone
SCAN	Single or double low tone repeated every two seconds

Troubleshooting

If at any time you cannot reestablish the *Bluetooth* connection or a device is operating incorrectly, turn the radio and *Bluetooth* device(s) off and try to reconnect.

Service

The RLN5381 option board with *Bluetooth* Wireless Technology is not serviceable. Order replacement kit as necessary.

Warranty

The RLN5381 option board with *Bluetooth* Wireless Technology is covered under the standard Motorola one (1) year limited warranty. See your local Motorola representative for more information.

Replacement Parts

Part	Motorola Part No.
Retainer/pad kit	RLN5389
Modified retainer replacement for: 42D80498Z01 42D86266Z01	01D85596E01 01D85596E02
Small rectangular pad	7586000Z01
Larger rectangular pad	7580671Z01
V-shaped pad	7585943Z01

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