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# Service Bulletin

BKSB-1010A  
Issue Date 1-4-02

**Issue:** Insufficient audio output of GPH.

**Affected Models:** All Pre-Flash BK Radio G-Series portables.

To determine if t your radio has a Flash processor, press and hold the 1 key. Flash units will display the Firmware revision number. Non-Flash units will not.

**Recommended Action:** To increase the audio output of your GPH Portable, install the necessary modifications listed below.

**NOTE:** If Step Two or Three is installed Step One MUST be performed.

Step One can be performed on all GPH portables.

Step Two can be performed on all GPH portables with R61 as a 2.2 Ohm resistor.

Step three can only be performed on radios with Rx/Tx board 602-765 Rev. C.

## Step #1

### Speaker Replacement

#### Parts and Equipment Requirements:

1- JEMA Speaker; P/N 1301-20034-702.

(JEMA speakers will be marked "JNR-04506N-A1521")

1 - Low wattage soldering iron suitable for surface mount repair.

1 - Phillips head screwdriver; #0 tip.

#### Procedure:

1. Turn off radio and remove battery.
2. Disassemble radio.
  - a) Remove 4 screws from rear cover of radio. (Fig. 1)
  - b) Pull front radio assembly straight out.
  - c) Check marking on speaker. (JEMA speakers will be marked "JNR-04506N-A1521". If the speaker has this marking modification is not necessary.)
  - d) Remove the five screws holding in the Options board and gently disconnect from keyboard. (Fig. 2)
  - e) Remove screws holding white speaker clip and remove speaker. (Fig. 3)
  - f) Unsolder the wires connected to the speaker.
  - g) Install and solder new speaker. (P/N 1301-20034-702) NOTE: Be sure to re-insulate the connection.)
  - h) Reinstall speaker clip and Options Board.

**Step #2****Options Board Resistor Replacement**

NOTE: New Speaker (P/N 1301-20034-702) MUST be installed before performing this step.

**Parts and Equipment Requirements:**

- 1- 0 Ohm surface mount resistor; P/N 4718-50317-140.
- 1 - Low wattage soldering iron suitable for surface mount repair.

**Procedure:**

1. Verify value of R61. (Fig. 4)
2. If R61 value is 000 continue to the next step.
3. If R61 value is 2.2 Ohm, replace with 0 Ohm resistor (P/N 4718-50317-140).

**Step #3****Rx/Tx Board Resistor Replacement**

NOTE: New Speaker (P/N 1301-20034-702) MUST be installed before performing this step.

**Parts and Equipment Requirements:**

- 1- 3.3K Ohm surface mount resistor; P/N 4724-00332-233.
- 1 - Low wattage soldering iron suitable for surface mount repair.

**Procedure:**

1. Verify value of Revision of Rx/Tx board. (Fig. 5)  
(This step is only valid for 602-765 Rev. C circuit boards.)
2. If R104 value is 3.3K Ohm continue to the next step.
3. If R104 value is 1.8K Ohm, replace with 3.3K Ohm resistor (P/N 4724-00332-233).

**Step #4****Reassemble Unit****Parts and Equipment Requirements:**

- 1 - Phillips head screwdriver; #0 tip.

**Procedure:**

1. Re-install back cover.

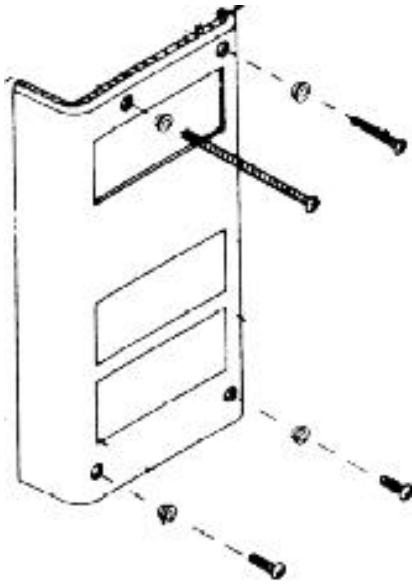


Figure 1

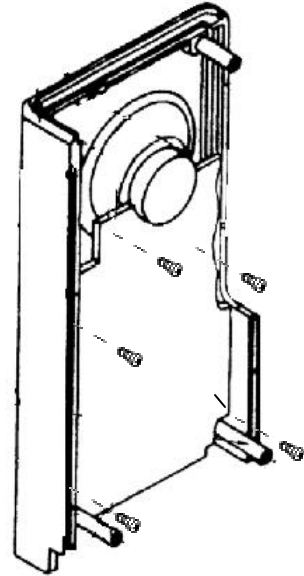


Figure 2

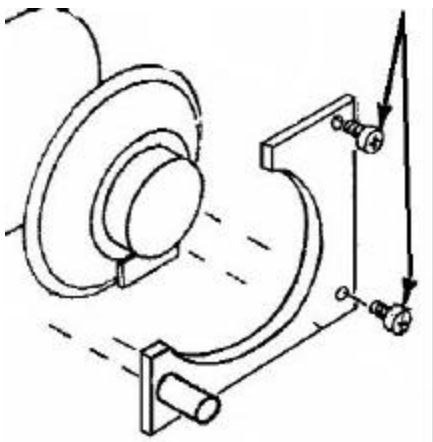


Figure 3

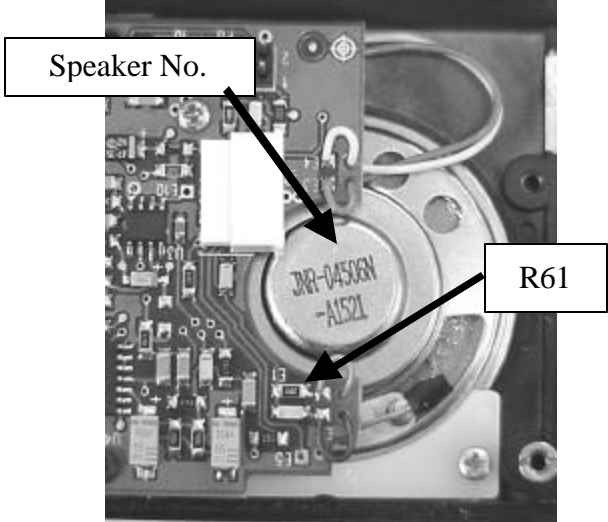
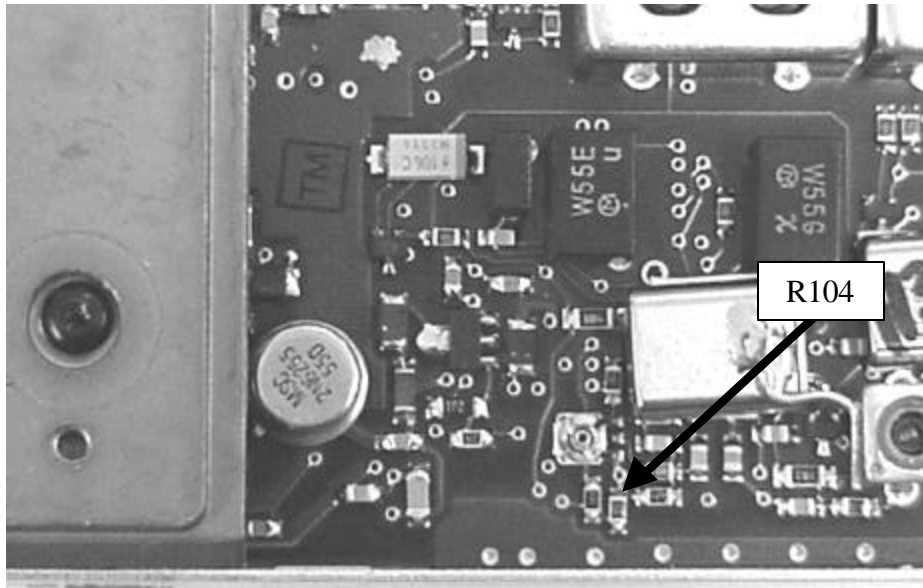


Figure 4



**NOTE: If R104 is not present where shown this step cannot be performed.**

Figure 5