



**Consumer Response Group**

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# TECHNICAL SERVICE BULLETIN

## 10041

**MODEL(S):** 200 GTL DX

**DESCRIPTION:** How to add talkback.

**ACTION:** The following instructions provide two options: adjustable-volume talkback and fixed-volume talkback. Adjustable-volume talkback is more complicated to install but allows easily changing the talkback volume.

See page 2 for fixed-volume talkback.

See page 5 for adjustable-volume talkback.

**ADJUSTMENTS:** None.

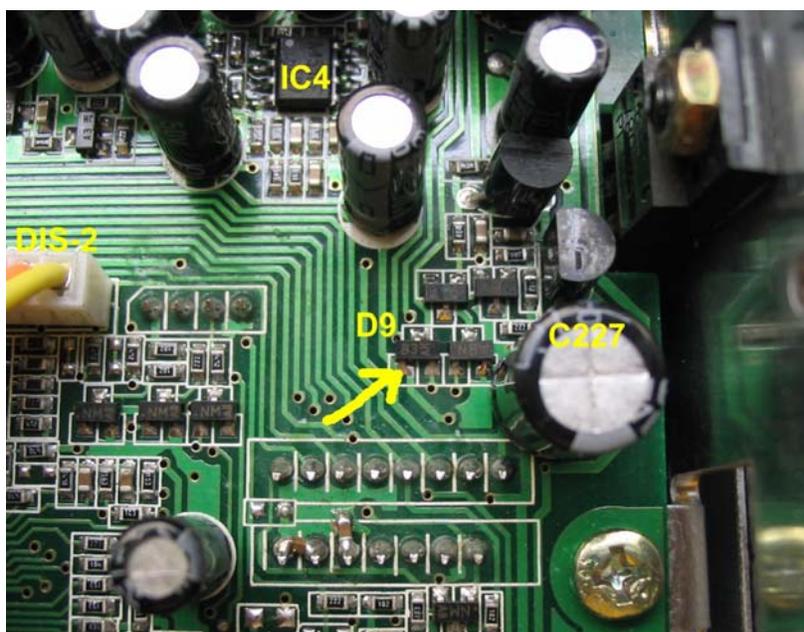
**NOTES:**

- \* Talkback will work only when echo is turned on.
- \* Talkback will be available through the built-in speaker or through an extension speaker.

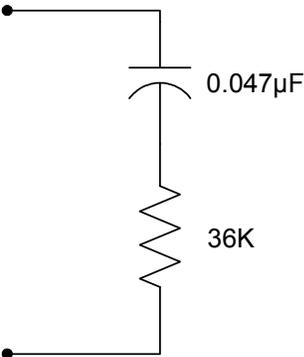
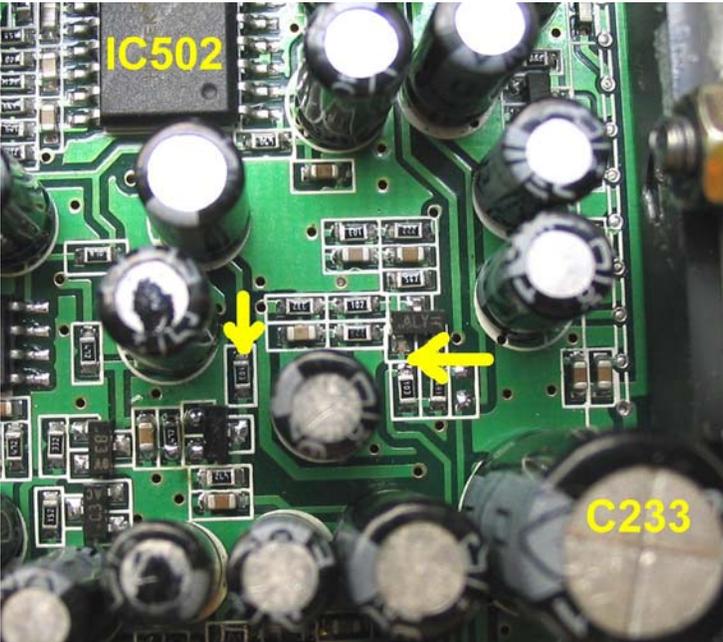
### **Fixed-Volume Talkback**

#### Parts Required

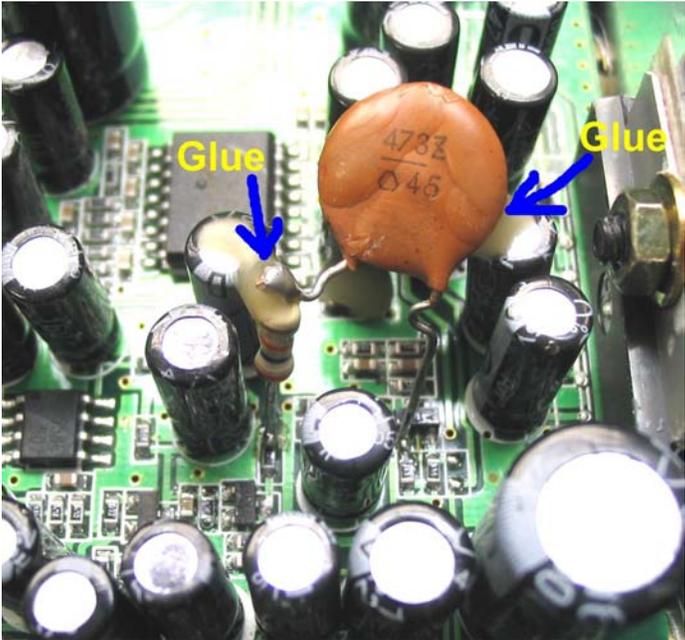
- (1) 0.047 $\mu$ F ceramic disk capacitor
- (1) 36K $\Omega$  1/4 watt resistor



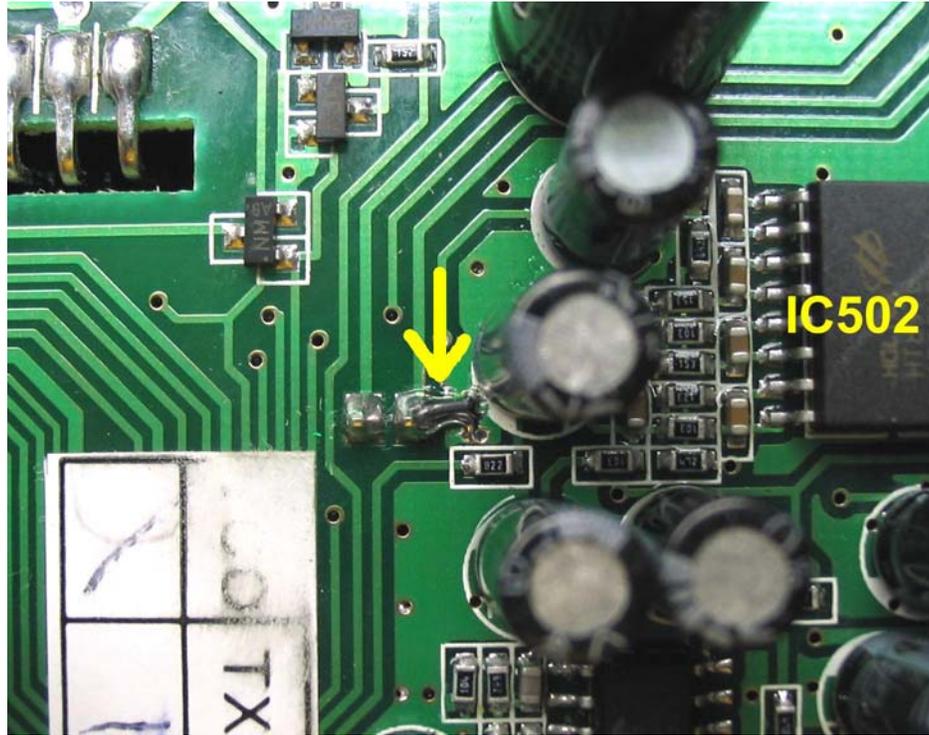
Step 1: Disconnect the indicated lead of D9. Do not cut the trace, you must carefully unsolder the lead and disconnect it.



Step 2: Connect the capacitor-resistor assembly to the indicated points.



Step 3: Use glue to secure the parts, otherwise they will vibrate and eventually break the solder joints.



Step 4: Scratch the ground plane next to the speaker connector to expose the copper foil. Solder from the speaker connector to ground as shown.

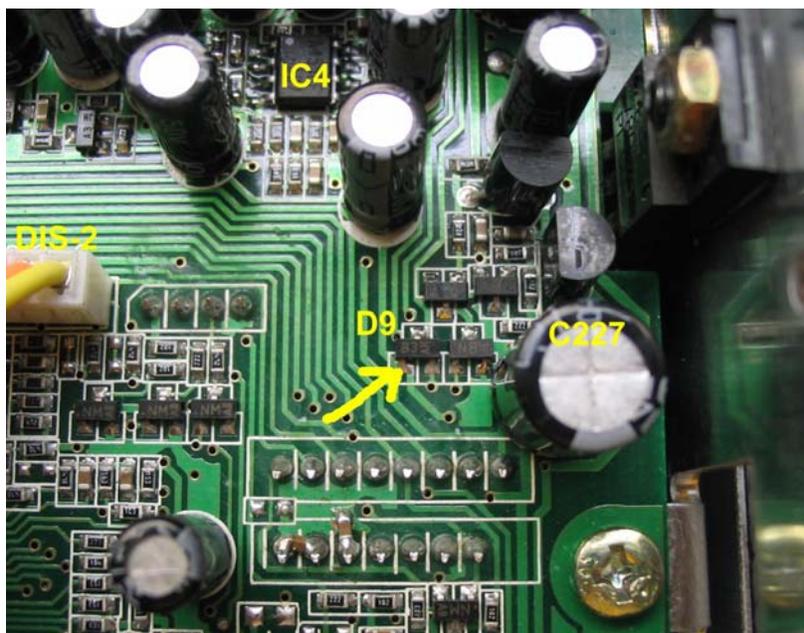
This completes the modification.

NOTE: The value of the resistor can be changed to adjust the talkback volume. A smaller resistor will provide more volume.

### **Adjustable-volume talkback**

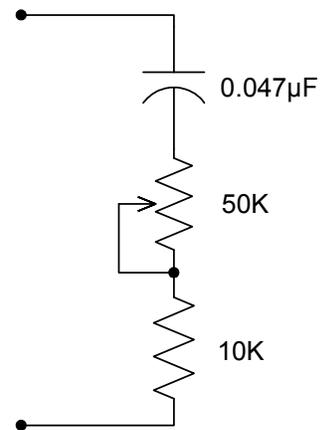
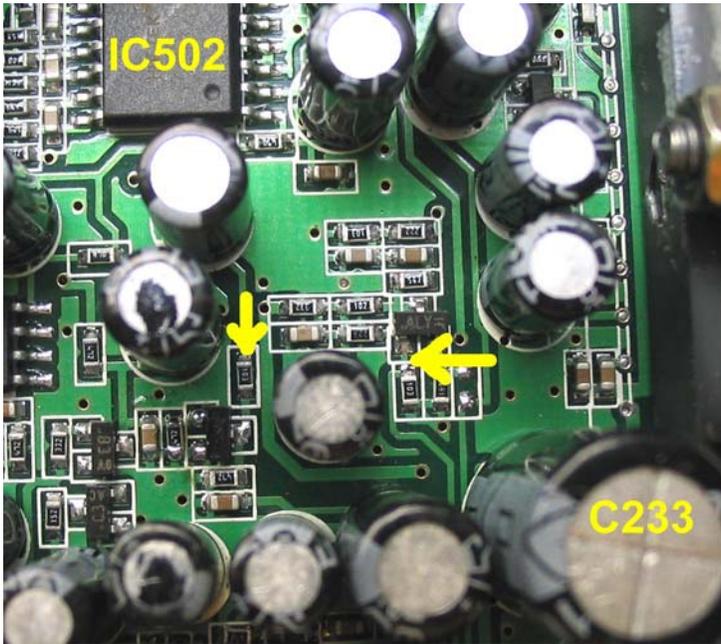
#### **Parts Required**

- (1) 0.047 $\mu$ F ceramic disk capacitor
- (1) 10K $\Omega$  1/4 watt resistor
- (1) 50K $\Omega$  panel-mount potentiometer



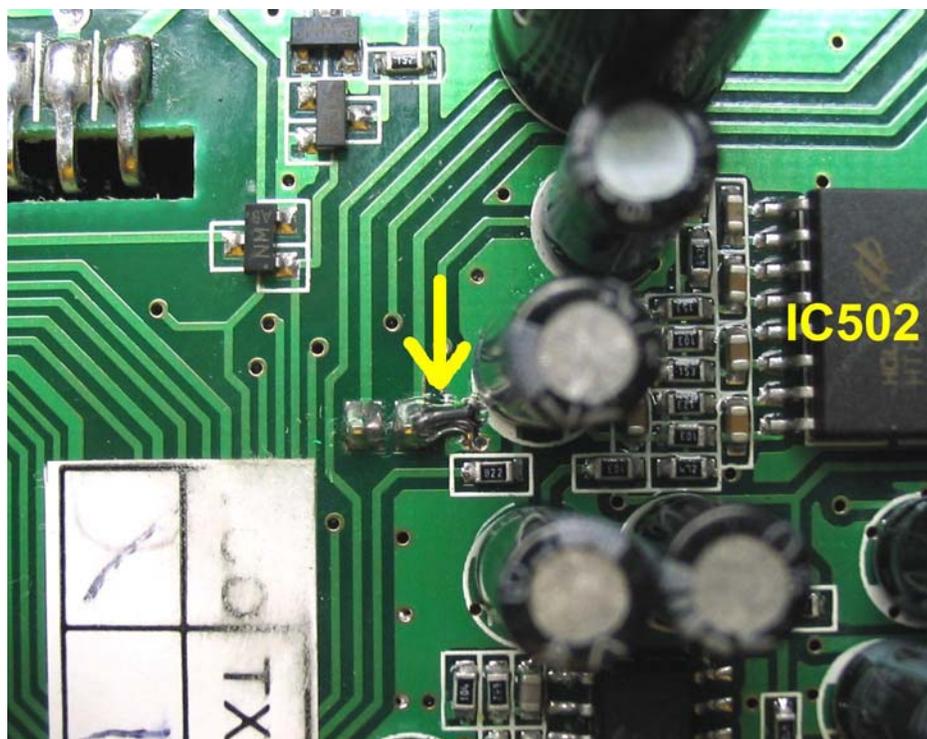
Step 1: Disconnect the indicated lead of D9. Do not cut the trace, you must carefully unsolder the lead and disconnect it.

Step 2: Pick a mounting location for the potentiometer. Try to pick a location so that the wires can be kept short. Drill a hole and mount the potentiometer.



Step 3: Connect the capacitor-potentiometer-resistor assembly to the indicated points.

Step 4: Use glue to secure the parts and wiring, otherwise they will vibrate and eventually break the solder joints.



Step 5: Scratch the ground plane next to the speaker connector to expose the copper foil. Solder from the speaker connector to ground as shown.

This completes the modification.