

Replacing Gun PCB in Aliens™ Extermination & Paradise Lost

Document Part #: 040-0219-01 Rev. B

Some minor wiring changes are required when replacing the original Gun PCB with the version now being used as a replacement part.

Refer to your System Manual for detailed instructions on opening and servicing the gun.



CAUTION

This procedure should be performed only by an experienced technician.

To prevent electrostatic discharge (ESD) damage, handle PCBs by the edges only and use a grounding wrist strap or similar precaution.

Determine if you Need to Change the Wiring

Look at the gun pots. If each pot has three (3) wires connected, no modifications are needed. If each pot has only two (2) wires connected, your gun is wired for the old gun PCB version and you will need to make the wiring changes.

Tools and Supplies needed

- Soldering iron and solder
- Wire snips
- Wire strippers
- Thin tool such as Scribe or Exacto® Knife
- Two lengths of 22 AWG wire about 10" long (Two different colors recommended.)

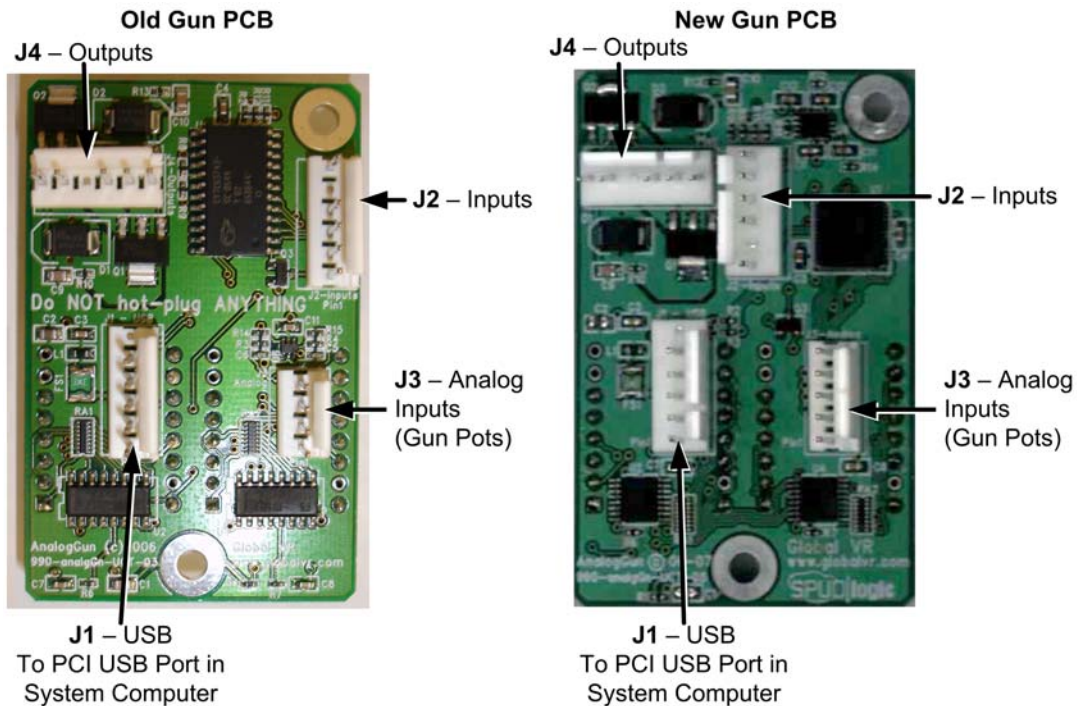


Figure 1. Old and New Gun PCBs

Adapt the Connectors

1. If the gun is still installed on the cabinet, disconnect the cabinet AC power cord. Open the gun case as described in your System Manual.
2. Slide the Gun PCB out of the case and remove the four connectors, making sure they are labeled for easy reconnection.
3. Note that some of the connectors are keyed. The keys are not used with the new PCB and must be removed to connect to the PCB. Remove the key from each connector.
4. The Gun Pot Connector, **J3** on the Gun PCB, is changed from 4-pins to 5-pins on the new PCB. You will need to remove the wires from the 4-pin connector and install them on the new 5-pin connector included with the PCB.

Remove each wire by gently pressing downward on the pin with a thin tool such as a scribe or Exacto knife, while pushing it out of the connector, as shown in Figure 2 below.

5. Insert each pin in its new location; make sure the loop is as shown below. Wire placement is as follows (see also Figure 4):
 - Green wire — Pin 1
 - Blue wire — Pin 4
 - Black wire — Pin 2
 - Violet wire — Pin 5

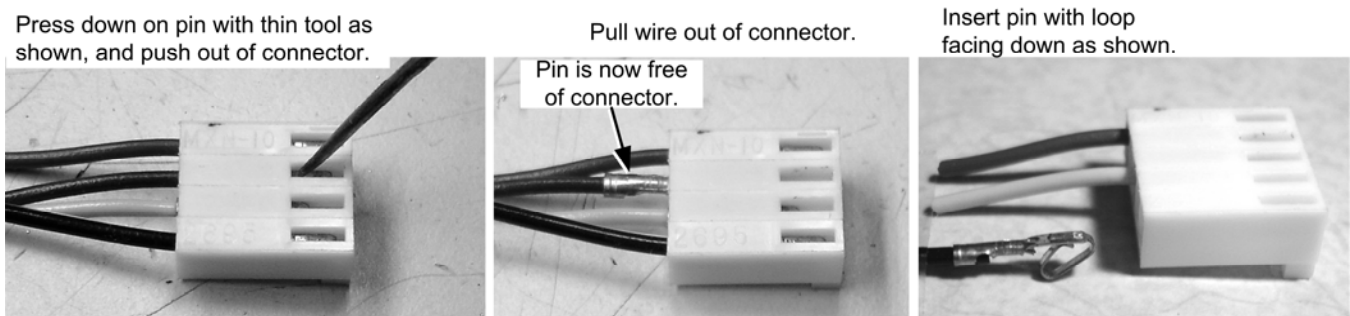


Figure 2. Removing Wires from Connector

6. Once the connectors are adapted, connect them to the new PCB and slide the PCB into the gun case in the same orientation as the PCB you removed.

Re-wire the Pots

The steps below describe how to change the Gun Pot wiring to work with the new PCB.

You will need two lengths of 22 AWG wire, about 10" long, to daisy-chain the gun pots. Using two different colors is recommended so you can easily tell the wires apart.

1. De-solder or carefully snip the **Black** wire from **Pin1** of the Y-Axis pot at the front of the gun assembly.
2. Solder the **Black** wire to **Pin 3** of the Y-Axis pot along with one of the additional lengths of 22 AWG wire.
3. Solder the other length of 22 AWG wire to **Pin 1** of the Y-Axis pot.
4. Run the two lengths of wire through the sleeve shown in Figure 5 to reach the X-Axis pot. Trim excess length but make sure there is still some slack in the wires.
5. Solder the wire from **Pin 1** of the Y-Axis pot to **Pin 1** of the X-Axis pot.
6. Solder the wire from **Pin 3** of the Y-Axis pot to **Pin 3** of the X-Axis pot.

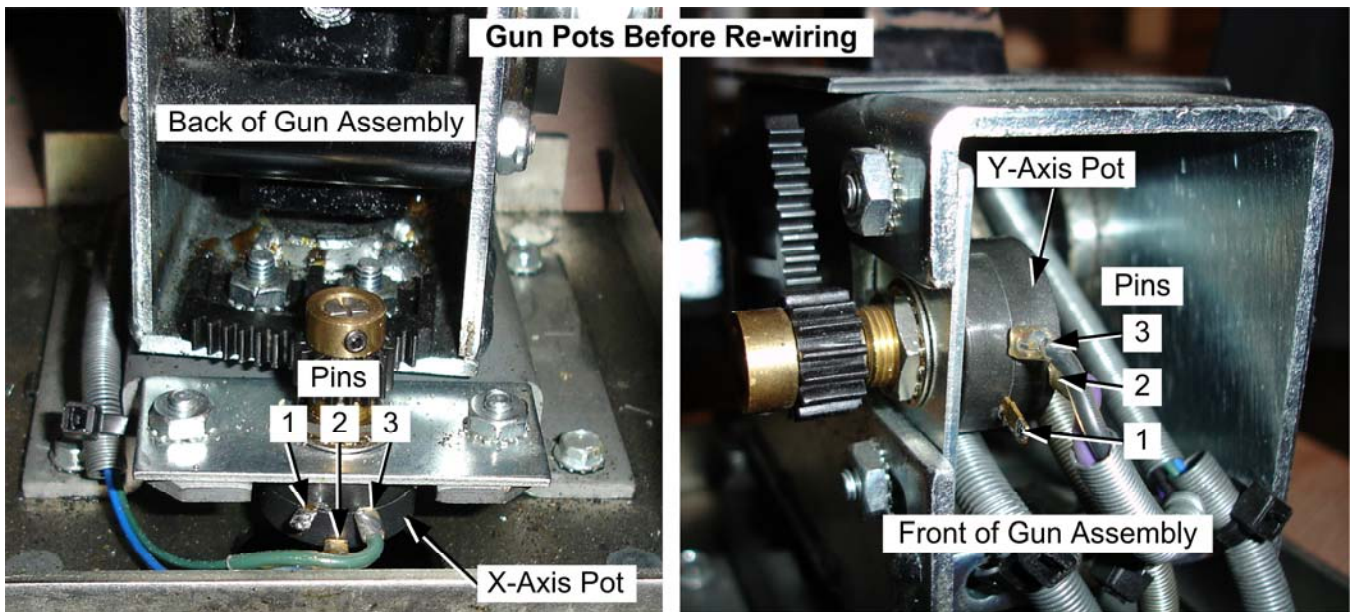


Figure 3. Gun Pots and Pins

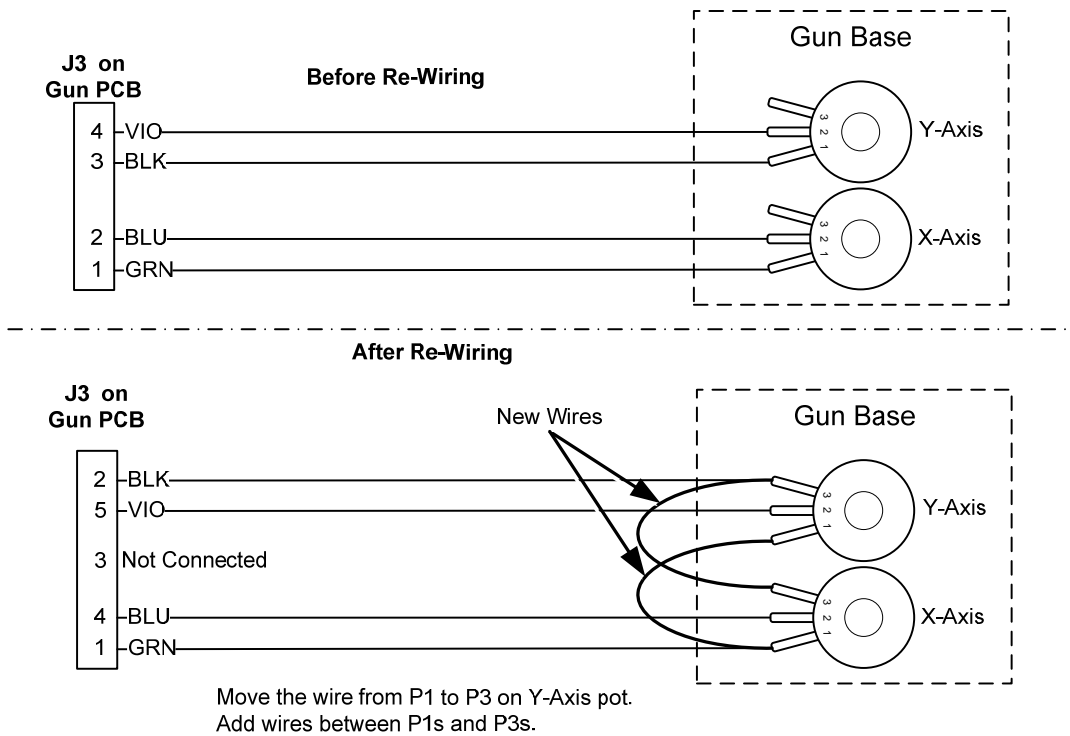


Figure 4. Pot Wiring Before & After Modifications

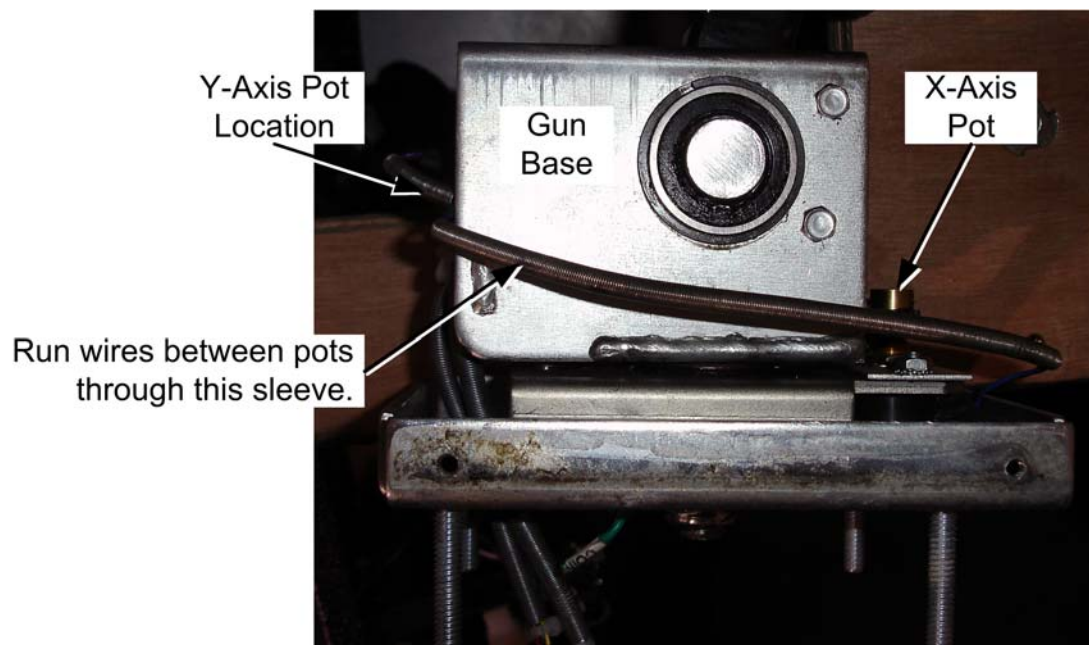


Figure 5. Route New Wires through Sleeving