



Priority Level: Medium — Recommended Action		
Attention:	All Service Personnel	Bulletin: SB-026 Date: 11/22/2006
Products:	Aliens™ Extermination	
Issue:	Gun Pot Wires can break if they do not have enough slack.	

Symptom: On some guns, the wires from the X-axis (side to side) pot on the base of the gun do not have enough slack. When the gun moves, the wires can be pulled and break, causing erratic response in side-to-side motion, or the gun sight to disappear from the screen.

If your gun shows the symptom described above, see *Testing for Broken Pot Wires* on page 3.

Solution: Perform the steps in this document to add slack to the pot wires.

Step 1: Snip Tie Wraps in Gun Base

1. Remove the six (6) Torx security screws that secure the front and rear covers over the gun base, and remove the covers.
2. Locate the pot wires and spring sleeve, shown in the figure below. Snip the four (4) tie wraps as shown, so the pot wires can slide freely in the spring sleeve, and the spring sleeve can move freely inside the housing.

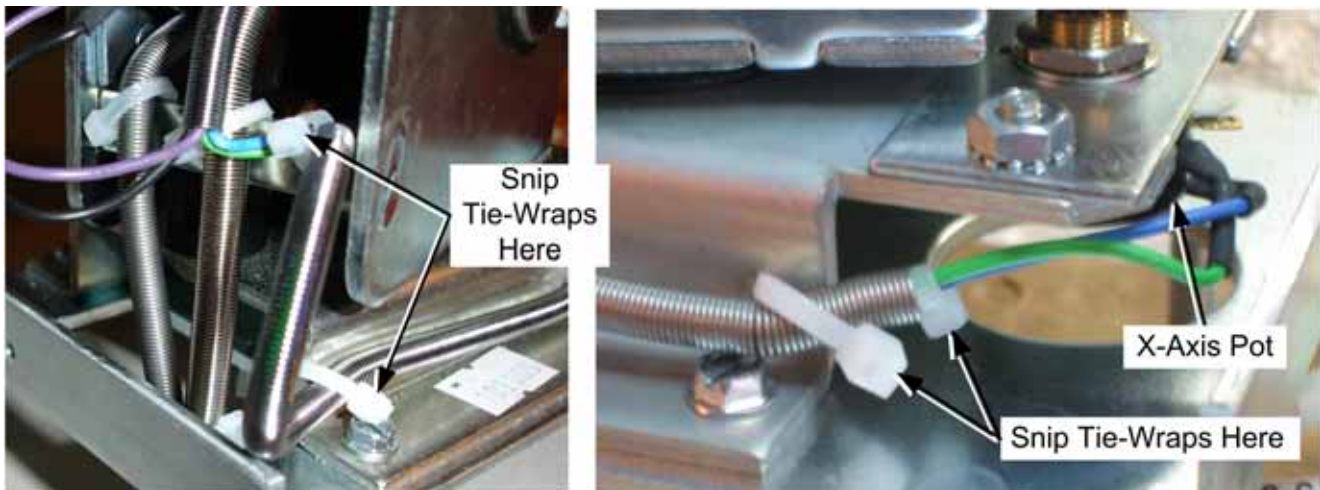


Figure 1. Snipping the Lower Tie Wraps

3. Look at the wires and the spring sleeve. If there appears to be adequate slack in the wires, reassemble the gun base.

If the wires look like they may still be pulled during gun movement, continue with Step 2 on the next page.

Step 2: If Needed, Cut Tie Wrap Inside Gun Case

1. Remove the 12 Torx security screws shown by the single arrows in the picture below, and remove the corresponding nuts from the other side of the gun.
2. Remove the four screws shown by the double arrows in the picture below. These screw into the frame, so there are no nuts to remove.
3. Carefully remove the left side cover from the gun, being careful not to pull the wires from the grenade button on the cover. The wires are long enough that you can set the cover on the control panel near the gun without disconnecting the wires.



Figure 2. Opening the Gun Case

4. Snip the tie wrap from the pot wires where they come out of the spring sleeve near the top of the gun frame. The wires in this bundle are black, green, purple, and blue.

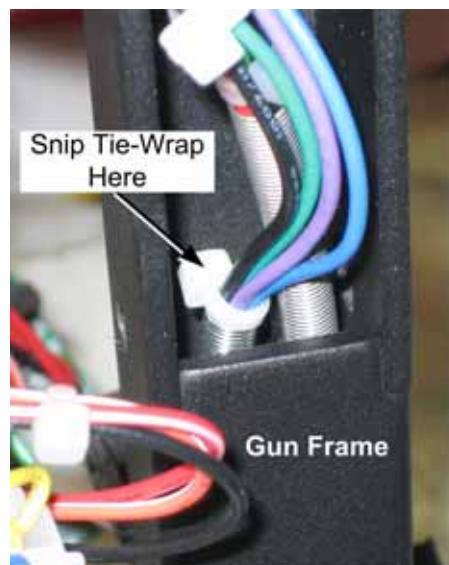


Figure 3. Snipping the Upper Tie Wrap

5. Carefully work the slack from the wires down into the spring sleeve, and gently pull the wires at the bottom of the spring sleeve to increase the slack near the pot.
6. To replace the left side cover on the gun, first align the slots that fit around the gun PCB (with the LED display), and then carefully position the cover. Make sure no wires or components get caught or pinched. Pay special attention to the area around the trigger and spring, the wires coming out of the frame shaft, and the wires attached to the coil and barrel light.
7. Insert the four (4) 3/8" x 10-32 screws shown with the double arrows in Figure 2. Partially tighten all four screws, verify the case is mating properly, and then tighten the screws snugly.
8. Check the trigger to make sure it works properly. The trigger or spring could shift while you are assembling the case.
9. Replace the remaining 8-32 screws and nuts, shown by the single arrows in Figure 2, and tighten snugly. The screw at the top of the muzzle end is 3/4" long, and the two screws in the handle are 1" long, as shown above. All of the other screws are 1 1/4" long.

Testing for Broken Pot Wires

1. Remove the six (6) Torx security screws that secure the front and rear covers over the gun base, and remove the covers.
2. With the gun calibration screen of the Operator menu displayed, put a short piece of wire between the two pot terminals that have wires connected. You will need to get this wire under the shrink tube and make contact with metal at both terminals (a small, bare metal paper clip works well).
3. If the gun sight jumps all the way to one side of the screen, this indicates a pot wire is broken. Trace the wires and splice as necessary.
4. If the gun sight stays in the same position, this indicates a possible problem with the Gun PCB. Contact Technical Support (408.597.3435 or techsupport@globalvr.com) for more information.