Removal and Re-Assembly Procedure for the Bubble Gun Receiver PCB

3/18/2019

This procedure will provide the step by step instructions to swap out the Bubble Gun Receiver PCB from the front panel of the Bubble Gun transceiver. The tools required for this effort are a phillips screwdriver and small adjustable wrench. A 1/16” allen key hex tool is also required and has been provided by FSI. It was placed in the same bag as the receiver board and is in a small static bag.

To begin, you have to remove the Bubble Gun transceiver from the shipping case. There are (4) screws holding the front panel into the case. There are also (4) screws holding the rear of the transceiver to the case. Put the hardware in a safeplace until the re-assembly. Remove the transceiver from the protective case by sliding it out from the front panel side. Place the transceiver on a table and remove the (9) phillips screws holding the top cover to the chassis. Again, put the hardware in a safeplace until the re-assembly.

The receiver board is mounted to the back of the front panel of the transceiver. There are (4) GreyHill rotary switches that mount to both the front panel AND to electrical sockets that are mounted on the receiver board. Each switch knob has to be removed using the 1/16” hex key tool that I have provided with the replacement board, Each knob has (2) screws for tightening. Note that the screw in the knob tightens to the FLAT on the switch post.

Switch Knob Removal

2 screws per knob

Note, and mark the top of each switch at the #10 reference to assure that the switch is re-installed properly with the #10 reference pointing up. In this procedure you WILL NOT be removing the switches from the receiver pcb. This reference can be used if the switch somehow is removed from it's socket so you have the correct orientation. (See images Below)

Top view looking down between outside AND inside of front panel (topcover off)

Note the marking of switch position 10 facing TOP for re-assembly

Remove the nuts and lockwashers from the (4) rotary switches and put the hardware in a safe place for re-assembly.

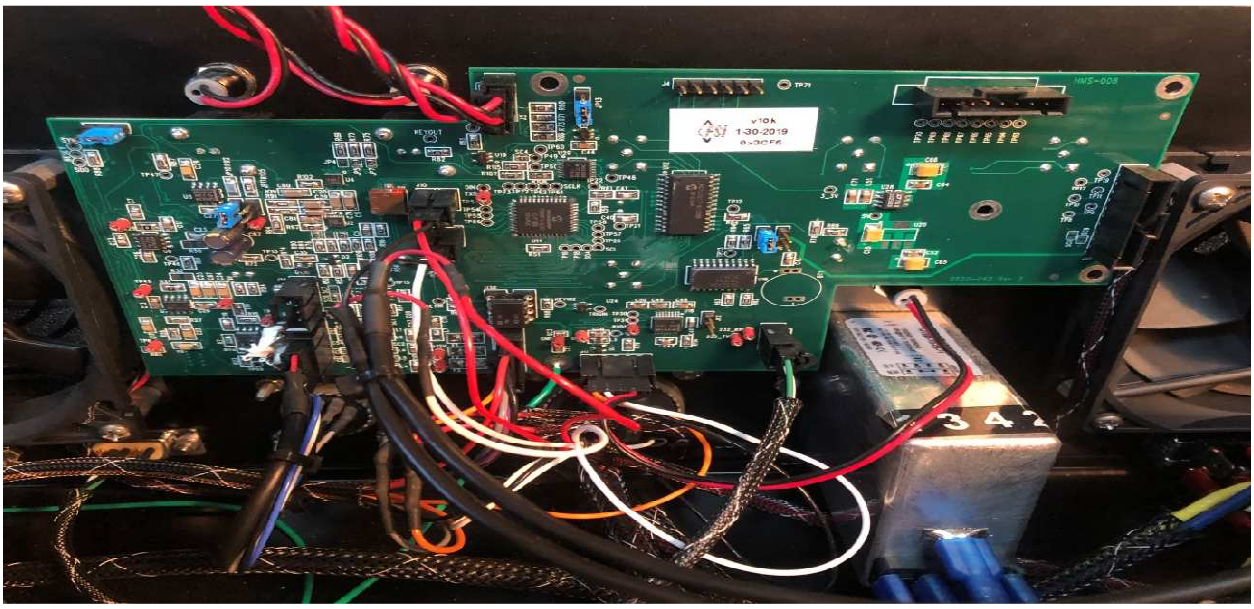
There are (4) BNC connectors that are soldered to the receiver PCB and mounted to the front panel with lockwashers and hardware nuts. There is also a black push button switch labeled Manual Trigger. This switch is held onto the front panel with another lockwash and nut and is also soldered to the receiver board. Remove all hardware and put it in a safe place for re-assembly.

Your front panel should look like this with all closure hardware removed.

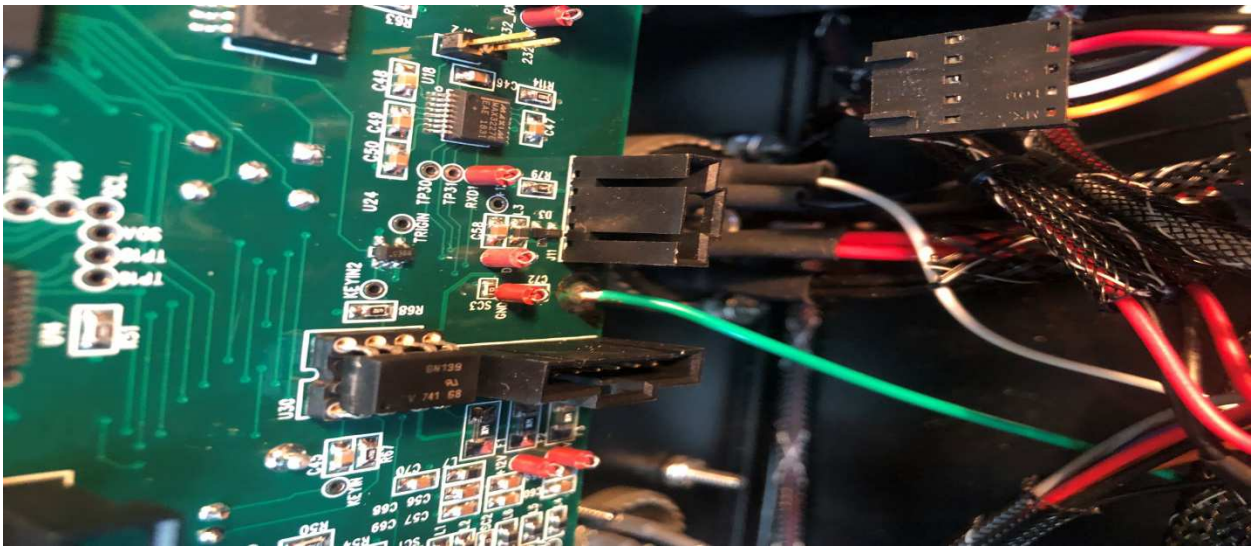
Front Panel Closure Hardware Removed From

Switches/BNC's/Manual Trigger

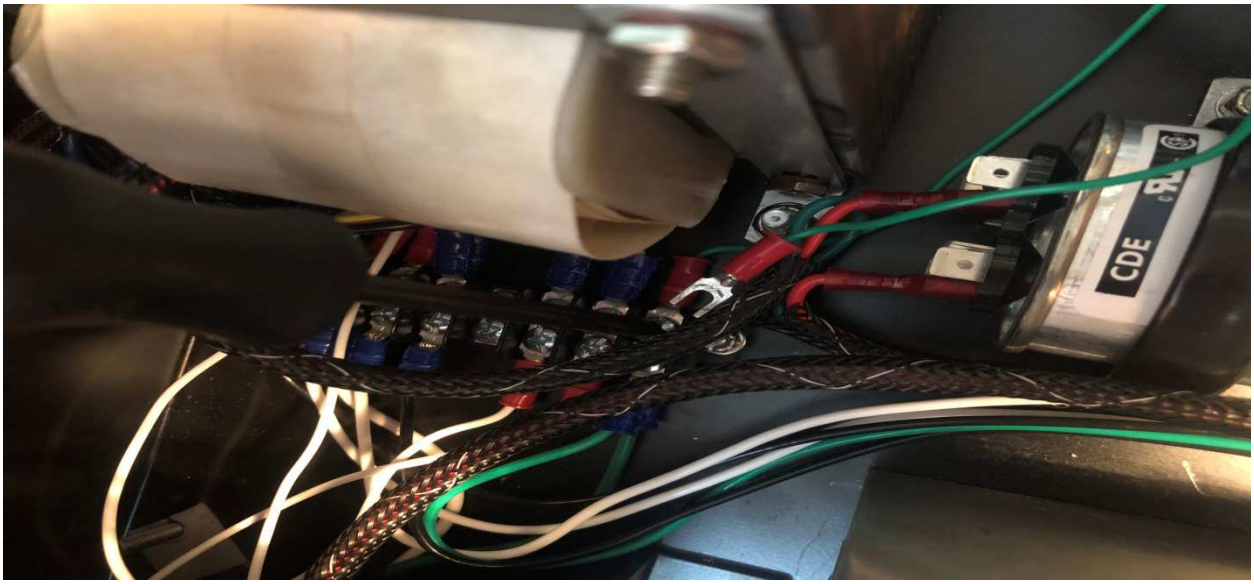
After the closure hardware has been removed from the front panel switches and BNC's, go inside the transceiver and carefully mark, and/or take pictures of the existing cables to assure proper connections upon re-assembly.



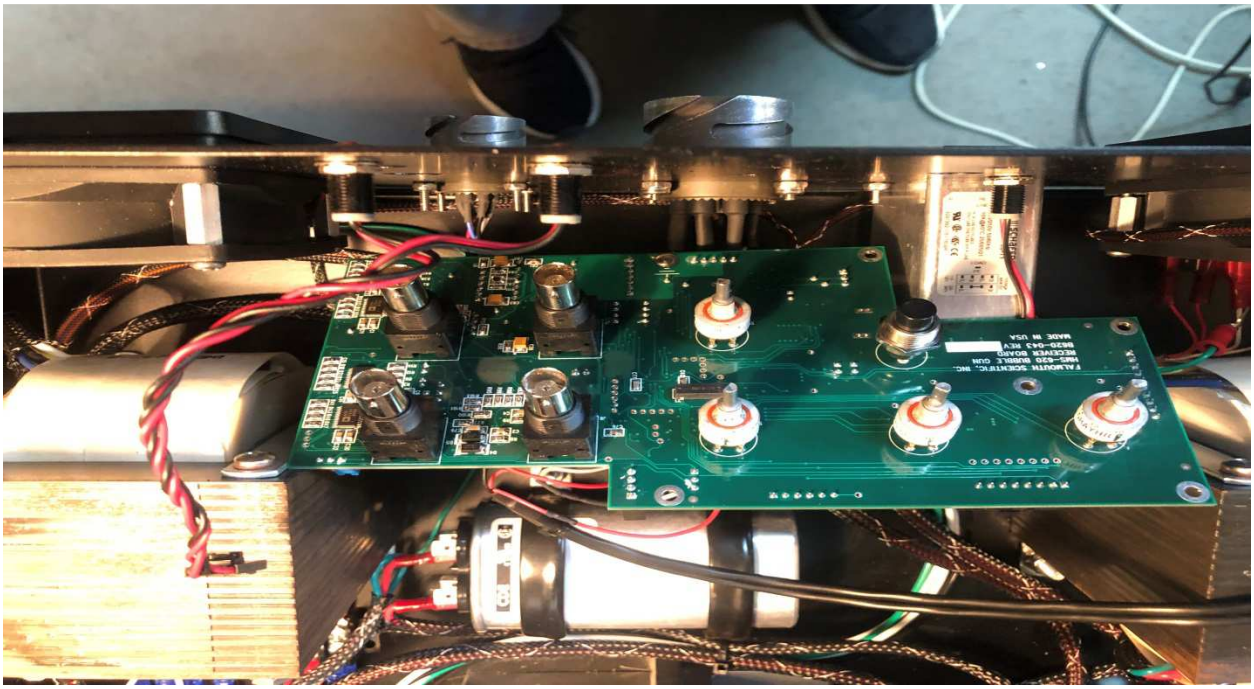
Disconnect the single green ground wire from the receiver board at the terminal lug behind the transformer. Make sure to note this location correctly for re-assembly.



Ground wire to terminal lug



Remove terminal from lug and note location for re-assembly.



Top View looking down into Transceiver after removal

Very carefully remove the receiver board with green ground wire attached by slowly moving it back from the rear of the front panel and place it on a flat surface.

<u>DO NOT let the orange o-rings move from the switch face. There are very small setting lugs that may fall out of the switch if the o-rings are removed</u>

Replace all hardware back onto the switches on the removed board. Install the replacement pcb in the reverse order of this procedure.