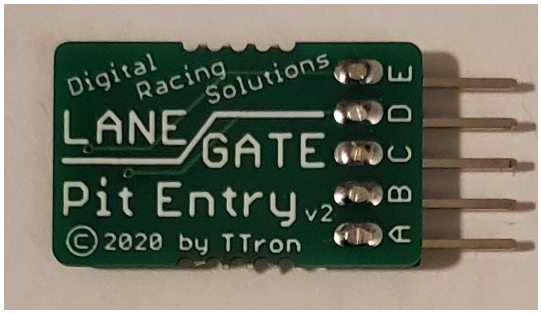
Installation of Lane Gate Pit Entry (PEN)

These instructions are for the Lane Gate Pit Entry v2 board only. If you have a different product please get the correct instructions from the Support page at digitalracingsolutions.com.

The DRS Lane Gate Pit Entry (PEN) is designed to fit the Carrera Pit Lane #30356 entrance section shown herein and protects a right hand pit lane. Left hand pit lanes are not compatible with this device. Please contact info@digitalracingsolutions.com if you need pit entrance protection for a left side pit scenario.

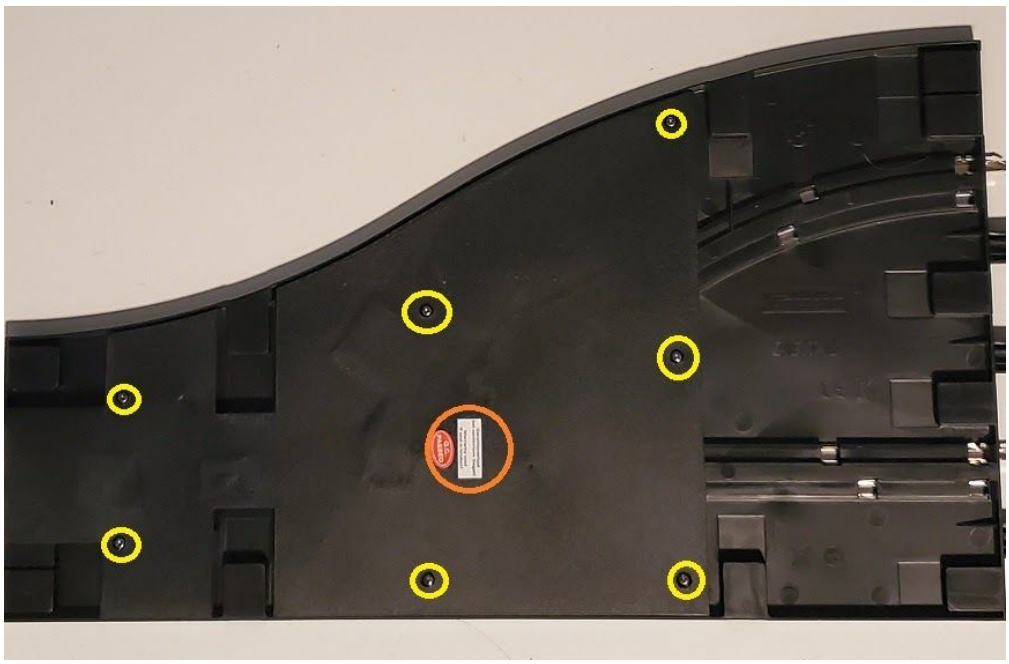


Tools required: #0 Philips screwdriver
T9 Torx driver for security screw (or small flat blade)
Wire cutter/stripper
Masking tape
Low-temp hot glue gun or clear tape
Tools optional: Drill and drill bit (2mm or 1/16”)

Warning!

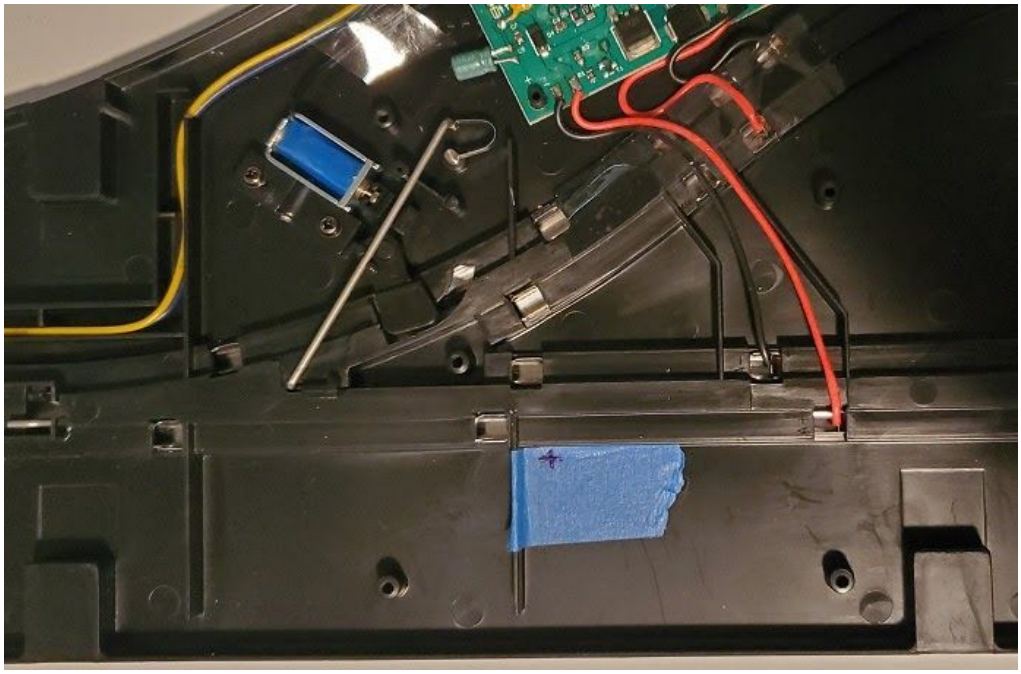
Disassembling your pit lane will void its warranty. Test all new pit lane pieces first, while still under warranty.

1. Take the Pit Entry track section and place it upside down with the straight side closest to you. Remove the rear cover by taking out all (7) of the visible philips head screws and one security torx screw under white label.



2. Optional: to see the status LED, a small hole will need to be made. Visibility of the LED is not necessary. If you don't care to see the LED or don't want to drill a hole, go ahead and skip ahead to step 4.

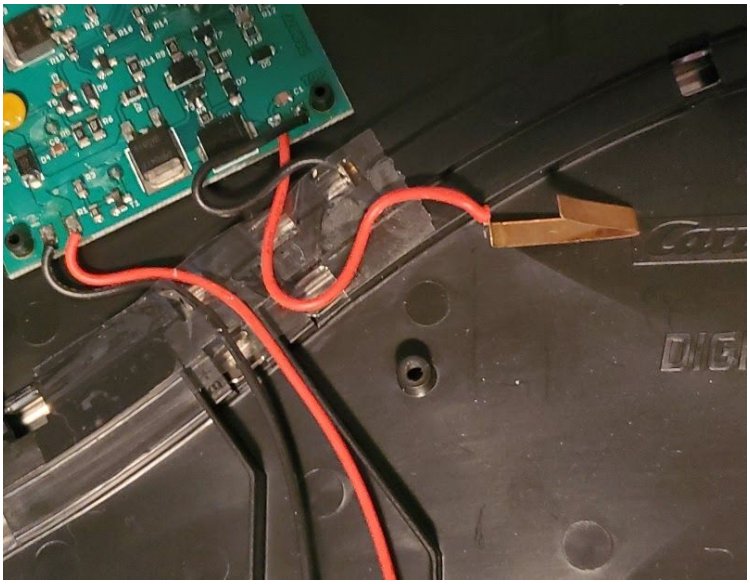
Place a piece of masking tape in the corner of the cavity shown below. Mark a point 2mm down and 4mm to the right of the top left corner. Measurements can be a little more than 2mm & 4mm, but not less.

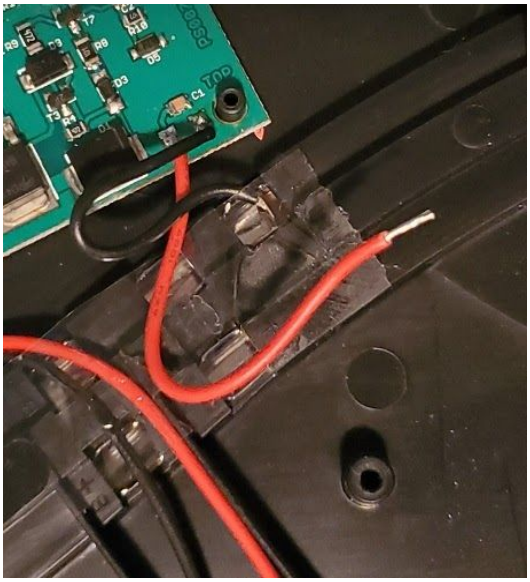


3. Using a 2mm or 1/16" bit, drill a hole on the mark you made. Remove the masking tape after drilling.

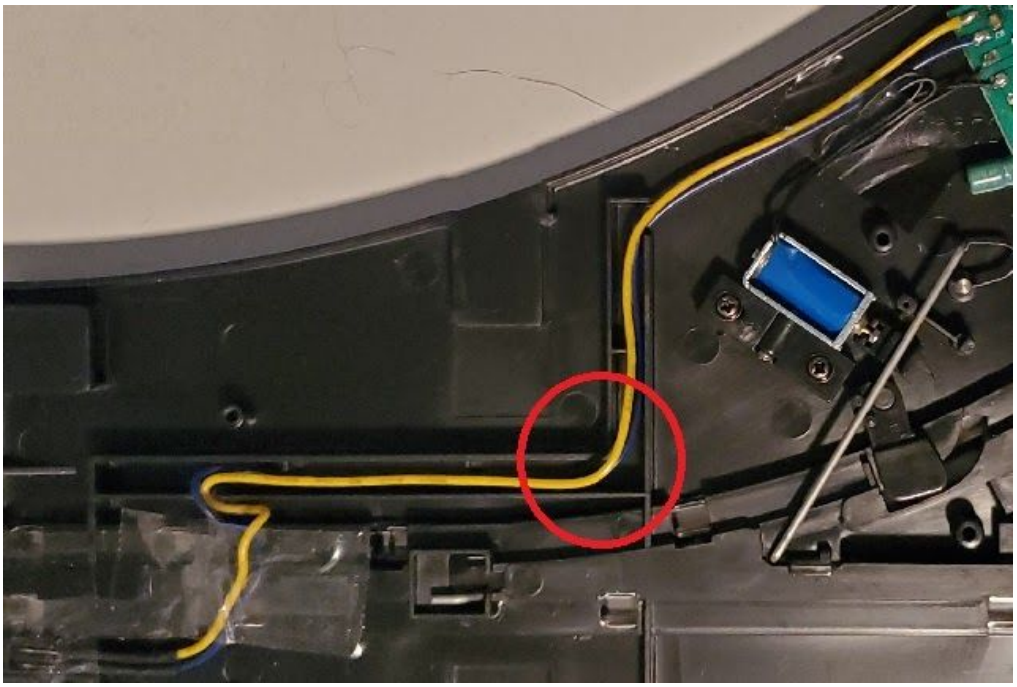
4. Low-temp hot glue is the preferred method of mounting the PEN board. Be sure to put a dab over the hole to act as a lens and keep debris out. Go easy with the glue at first. Once you are sure the LED is aligned with the hole, you can add more glue later.

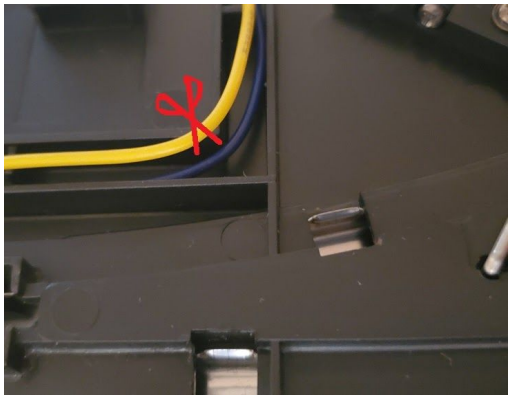
5. Locate the red wire shown below and gently pull its spring clip out of the track rail. Cut off the clip, then use wire strippers to remove 4mm of insulation from the end of the wire.





6. Locate the factory wires (typically yellow and blue) going to the IR sensor.

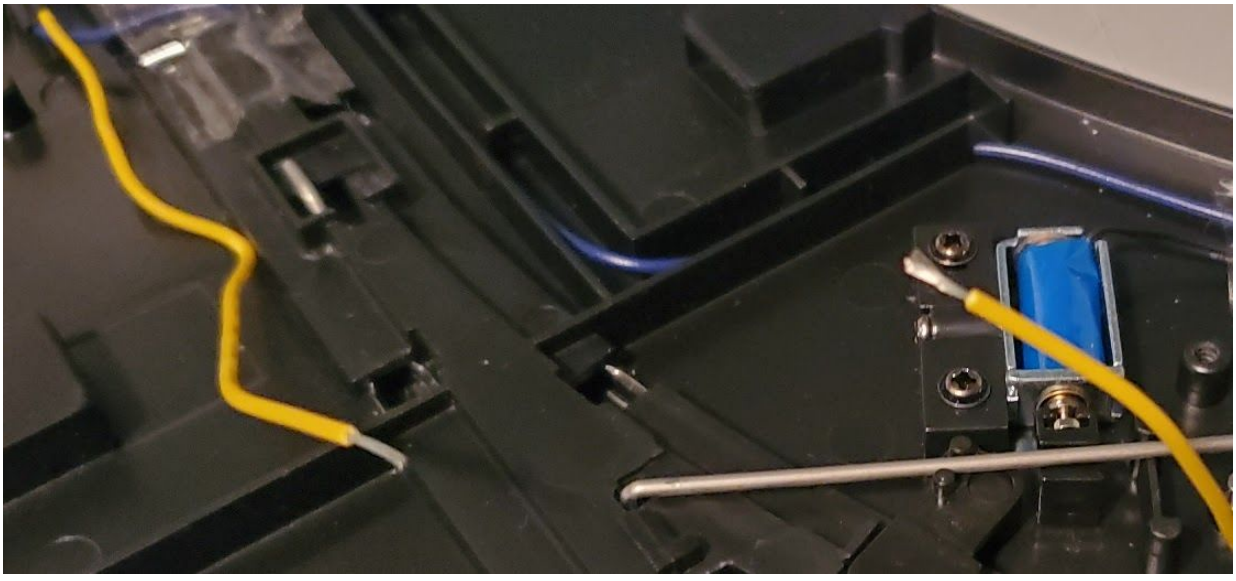




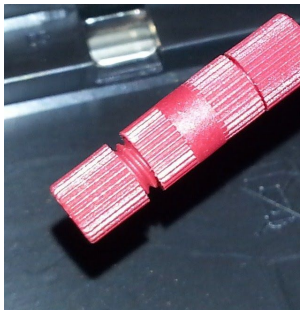
Separate the wires so you don’t accidentally cut them both.

Cut only the yellow wire at the point shown.

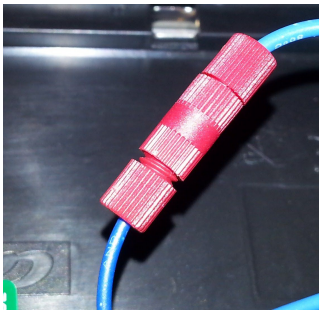
Strip about 4mm insulation from each cut end.



7a. A quick “How-To” on Posi-Lock splices.

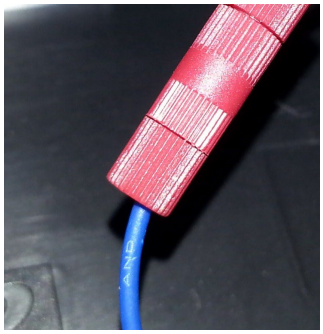


Unscrew the open end of the splice about 2 turns.

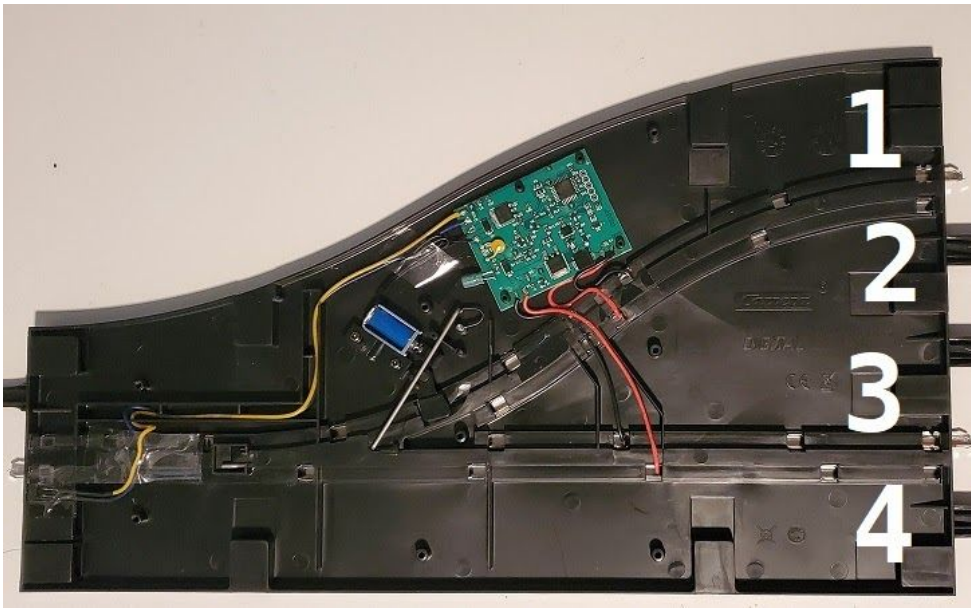


Push the bare wire into the end until it stops.

Tighten the end and pull gently on the wire to verify it is secure.



7b. Subsequent instructions refer to individual rails of the track piece, identified using numbers 1 through 4.

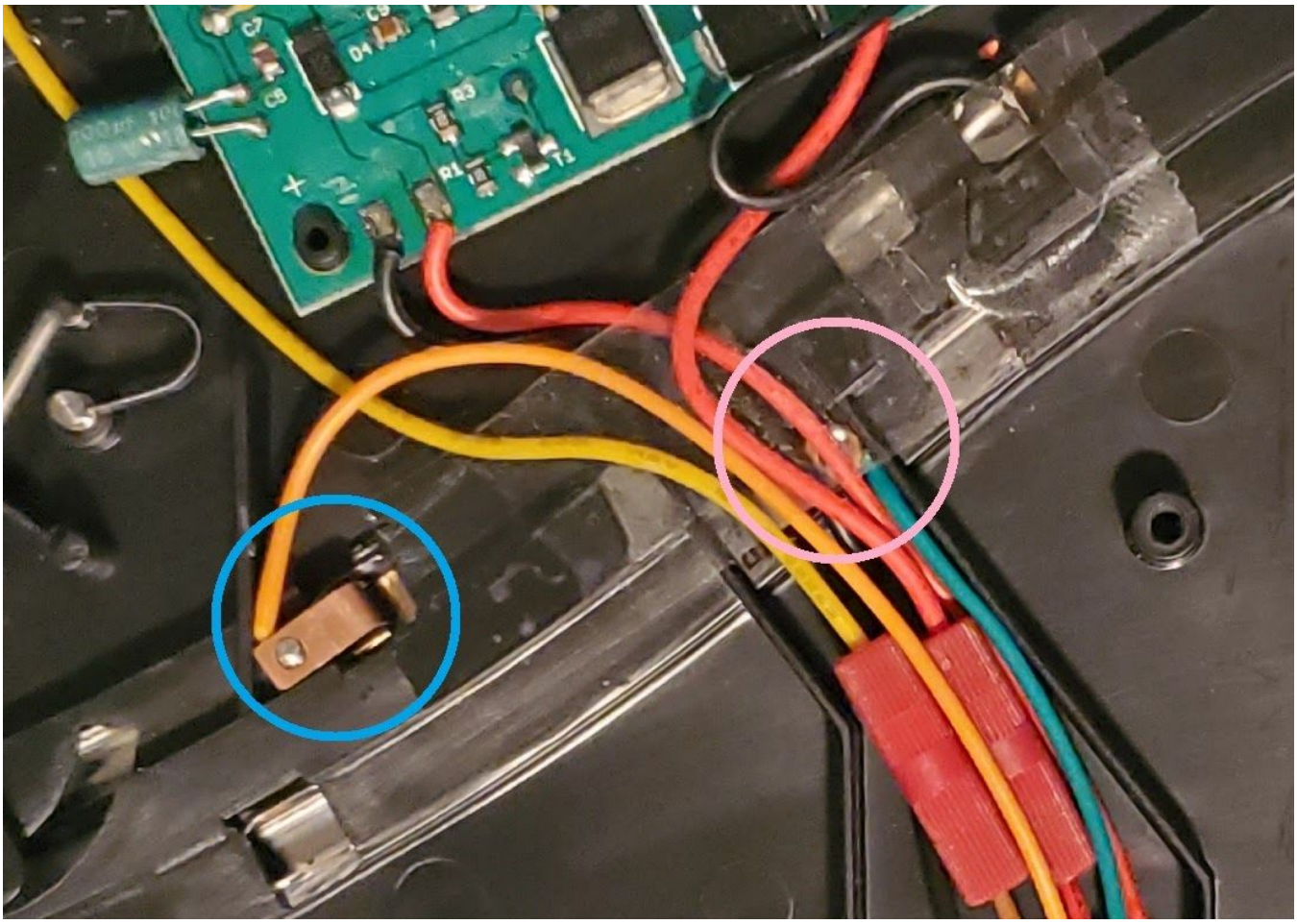


8. The color of the wires in the 5-wire pigtail of the Lane Gate Pit Entry is random. The important detail of each wire is its position/letter (A-E), which is printed on the edge of the Lane Gate board.

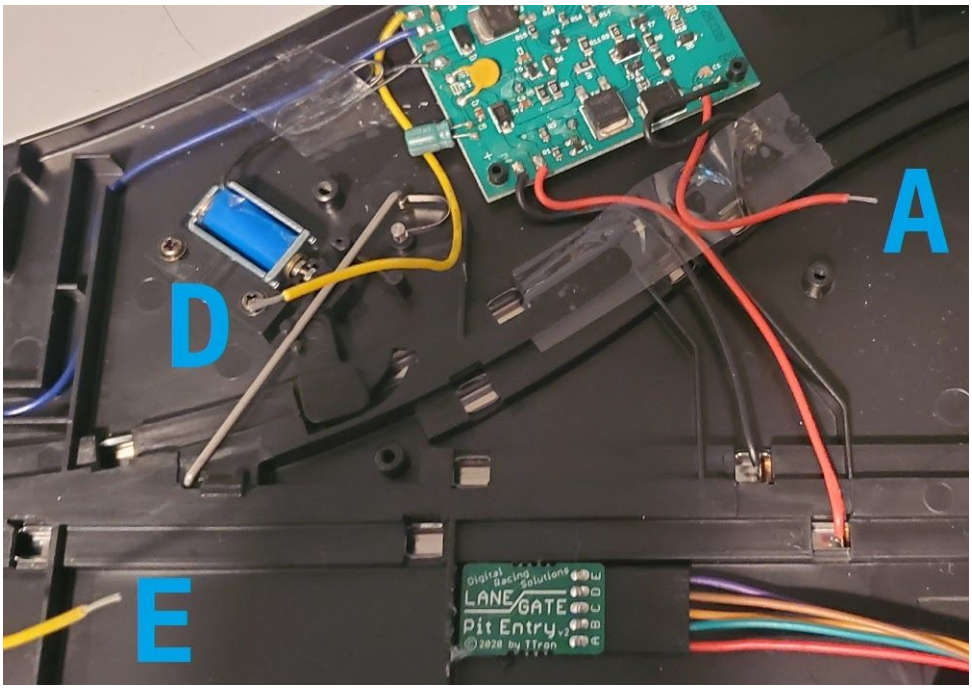
Take a moment to note the colors of the pigtail provided and fill in the left side of the chart below.

	Color	Connects to
A		Red wire from Carrera circuit board
B		Rail #2 (hiding under wires in pink circle, below)
C		Rail #1 (shown in blue circle, below)
D		Yellow wire from Carrera circuit board
E		Yellow wire from IR sensor

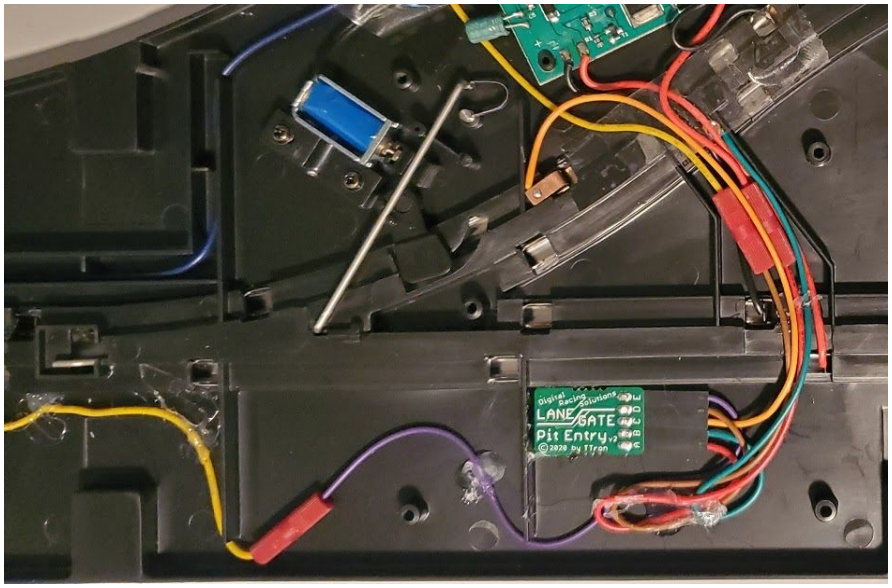
9. Insert rail clips for wires “B” and “C” as shown.

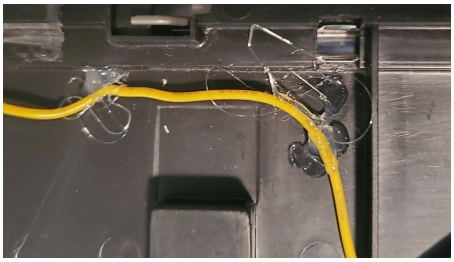


10. Make connections for “A”, “D”, and “E” using Posi-lock splices.



11. Secure wiring with tape or hot glue. Leave a gap between the yellow wire and rail #4.





12. Install the rear cover. You’re all done modifying the Pit Entry section. If you have a Control Unit and Fuel Track, the Fuel Track needs to be modified or it will interfere with the Lane Gate Pit Entry protection. Remove the back cover of the Fuel Track. Remove the red wire from the track rail. You’ll need to splice in a short length of wire so the clip/contact can be placed in the adjacent lane.

13. Make sure there is no power tap going to the pit lane. If there is one, it will defeat the Lane Gate.