

Wizard of Oz (WOZ) Pinball Cliffy Protector **Installation Instructions**

These instructions are provided for the installation of the 10 piece WOZ Cliffy protector set.



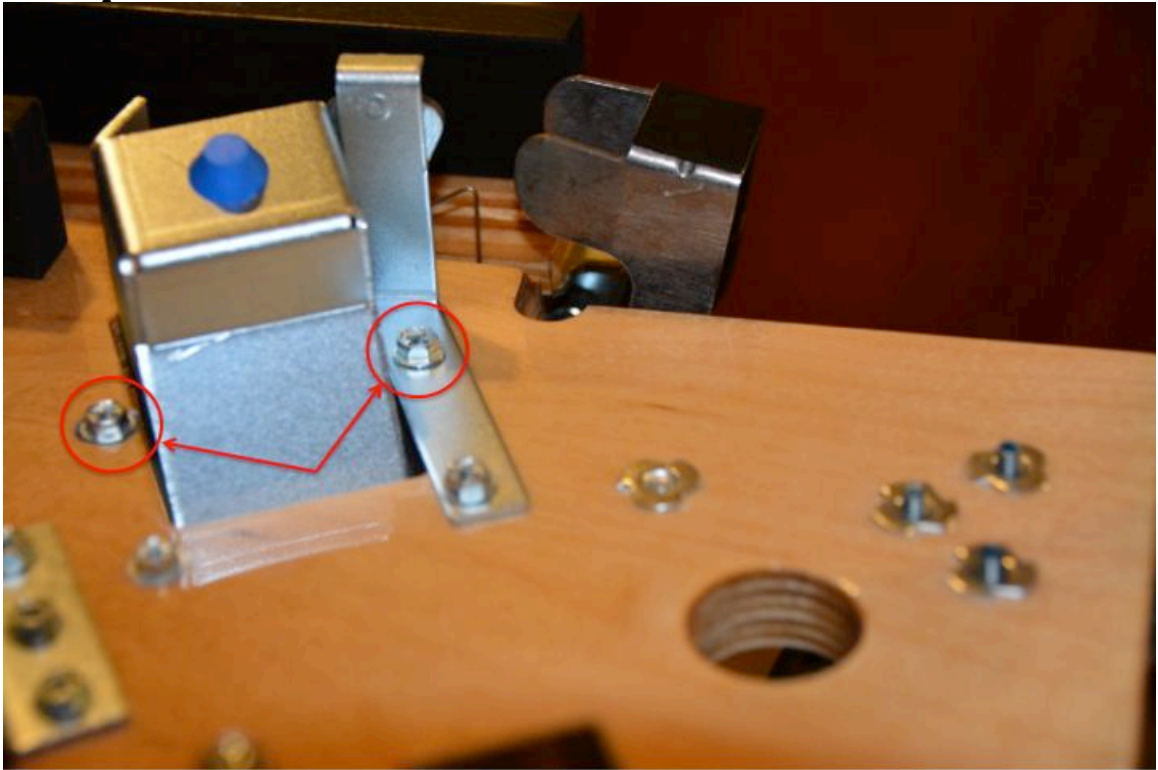
Before starting, remove the lockdown bar and the glass and place aside until complete. Additionally, lift up on the apron and pull the playfield forward until the SECOND set of rubber feet on the rails rest on the lockdown receiver.

1. Shooter Lane Protector. This is one of the easier ones to install so I started with this one.

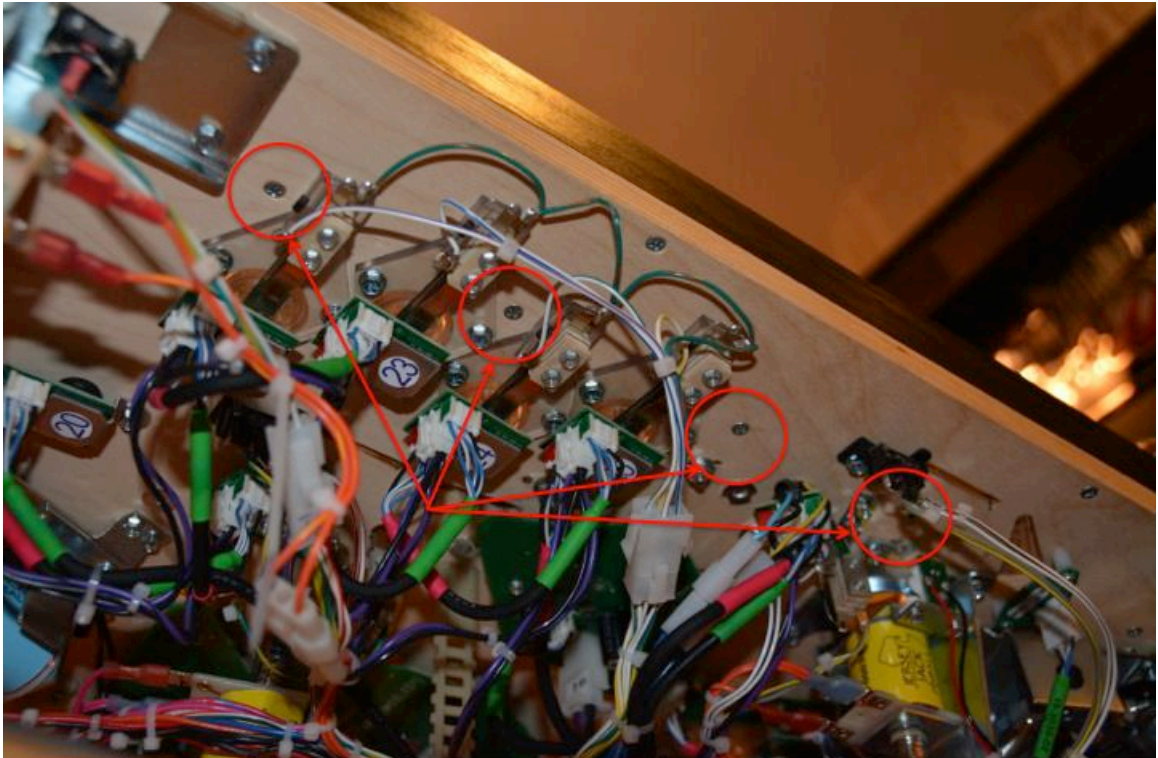
- Remove the apron by removing two 1/4" screws and then sliding forward off of the two playfield mounts



- Remove the two ¼" screws that attach to the ball trough and ball retainer



- Loosen, but do not remove four Phillips screws under the playfield that attach to the inner black rail. Remove fully the screw at the farthest left circled in the pic below. This will allow the Cliffy to slide around and in place. If you do not remove this screw, the Cliffy will hit the screw and will not go through.

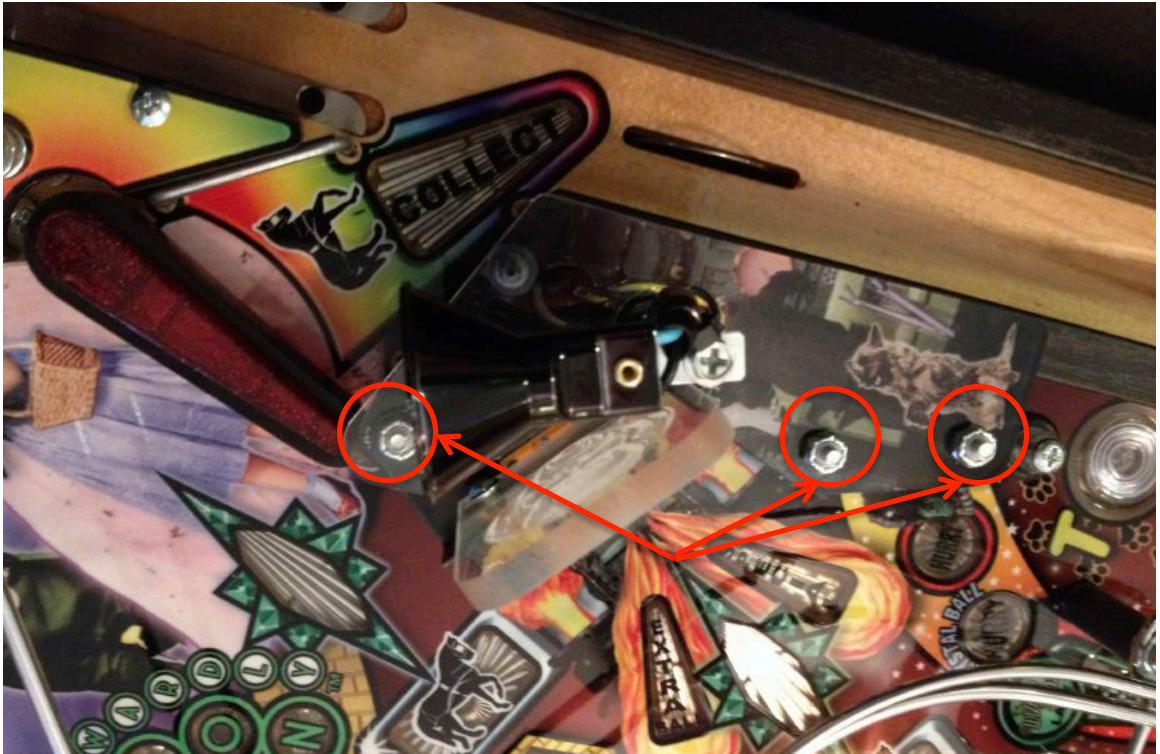


- Lift up slightly on the inner black rail you just loosened and then slide the Cliffy protector under it and then into place. Reinstall screws to ball trough and retainer and then replace screw under PF and tighten the others as well. Congratulations, this one is now done and should like the pic below



2. Wizard Protector.

- Begin by removing the four 11/32 nuts that hold the plastic on. You will notice that one of them is under a clear plastic protector, just push the protector aside to get to that nut. You do not have to remove the plastic protector to get to the nut.



- Cut the wire tie wrapping the spotlight cord and remove the screw and then post as in the pic below. Lay the Wizard to the side and then remove the plastic.

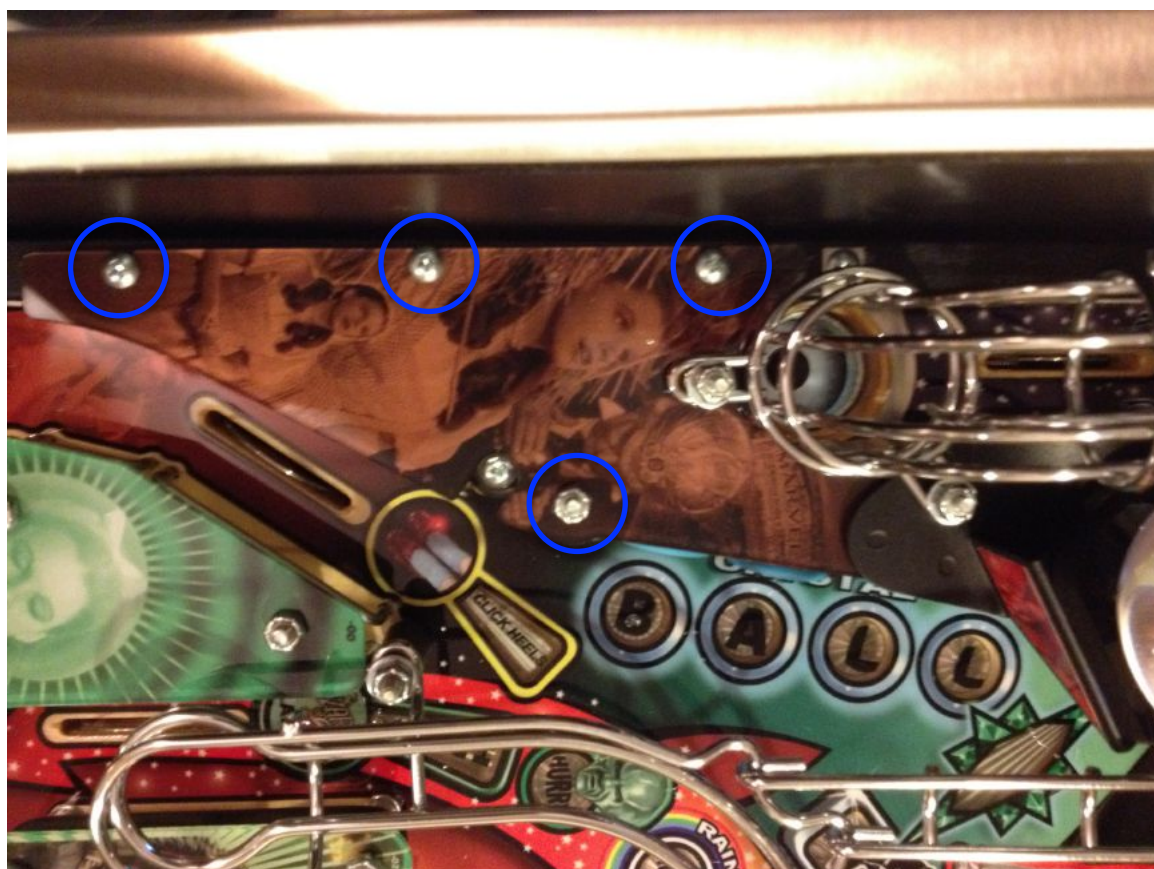
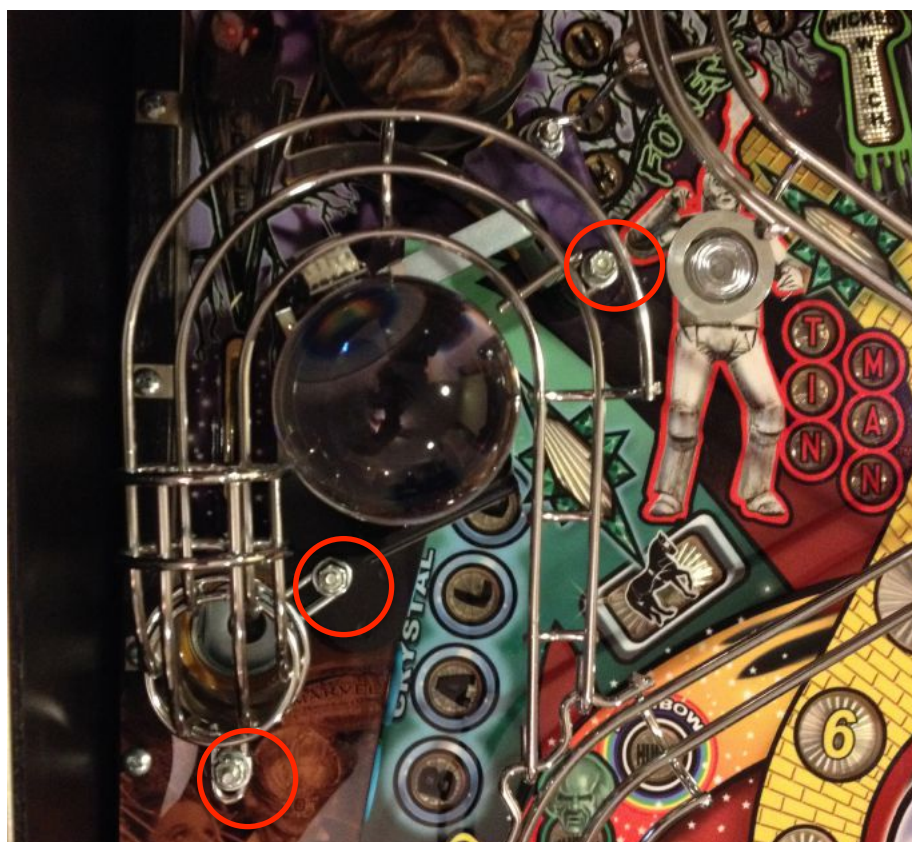


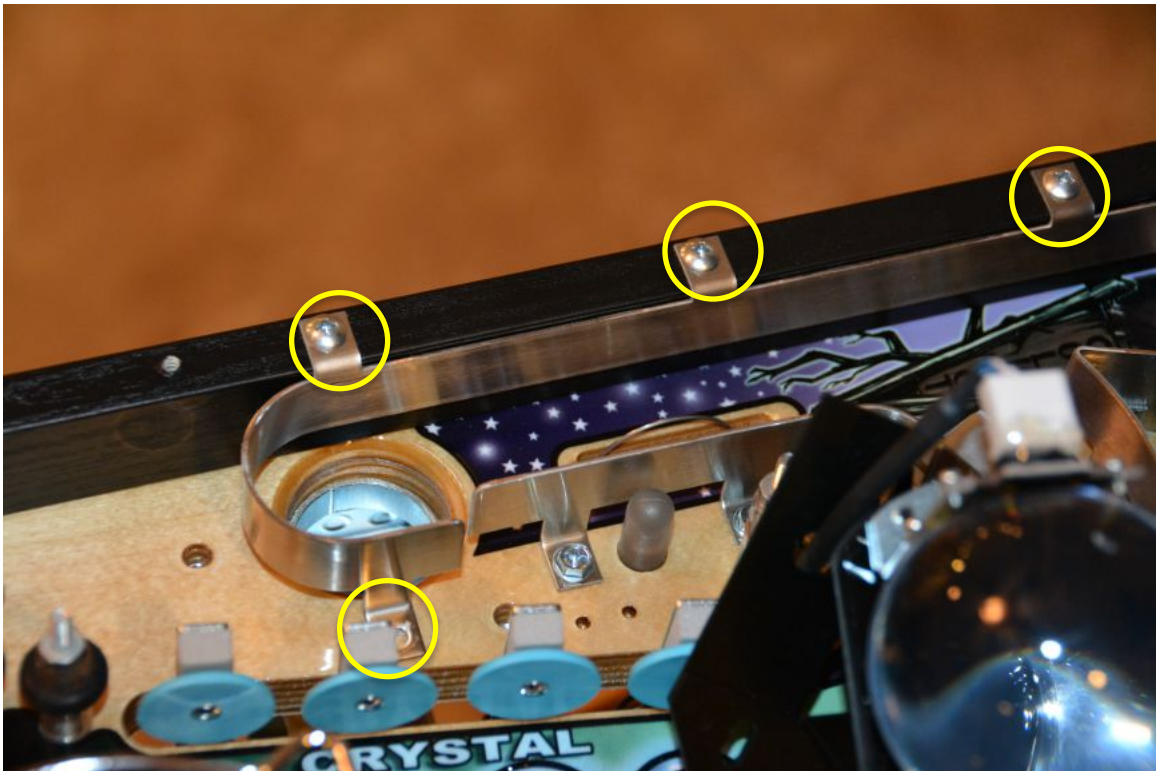
- Next remove the rubber and then two posts. Finally, remove the two screws that hold the scoop down. Use the included alcohol pad to wipe the area where the Cliffy will be installed. Remove the adhesive, place in position and then press down. Reverse process to re-install everything you removed.

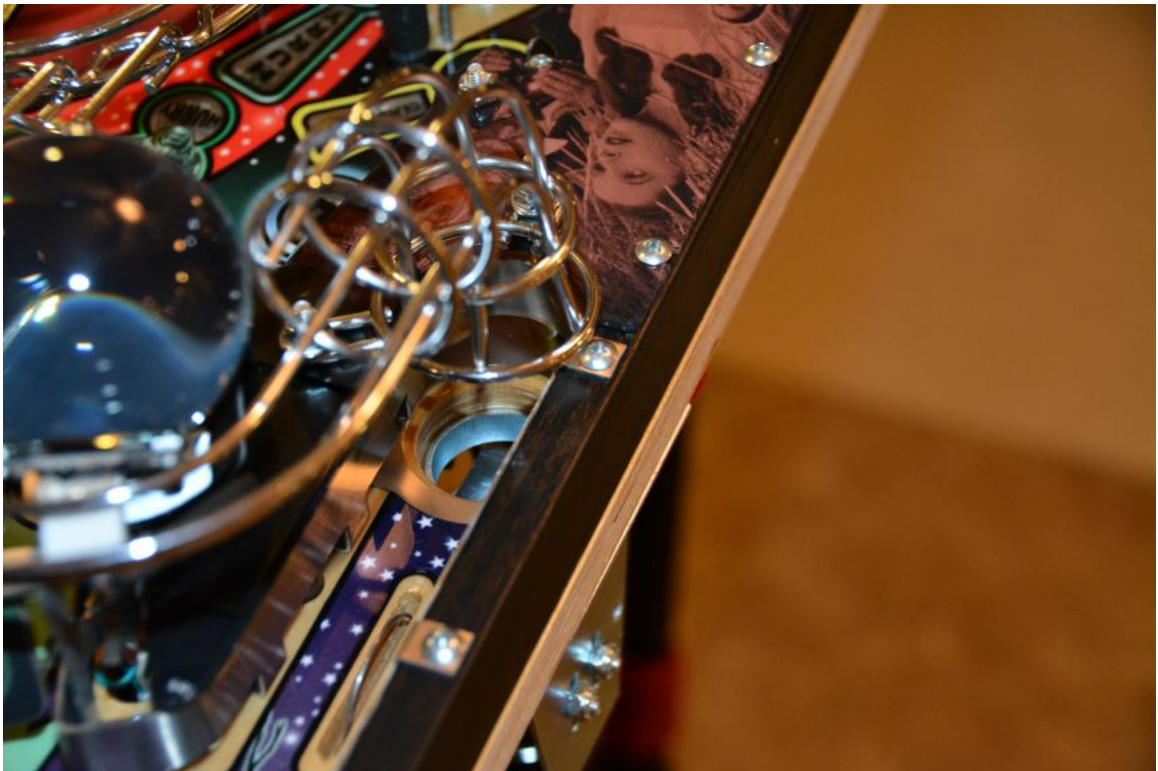


3. Crystal Ball VUK.

- Begin by removing the VUK rail (11/32 nuts in red). Be careful as the crystal ball is only held in place by one nut and will fall off once removed. Lay it to the side.
- Next remove the screws for the plastic (in blue)
- As you did with the protector for the shooter lane, loosen the rail screws from underneath the PF. The Cliffy must slide under this rail.
- Remove the two posts (in green)
- Remove rail protector (screws in yellow)
- Wipe area with included alcohol swab. Remove paper from adhesive and install protector. Reverse process for reinstallation.

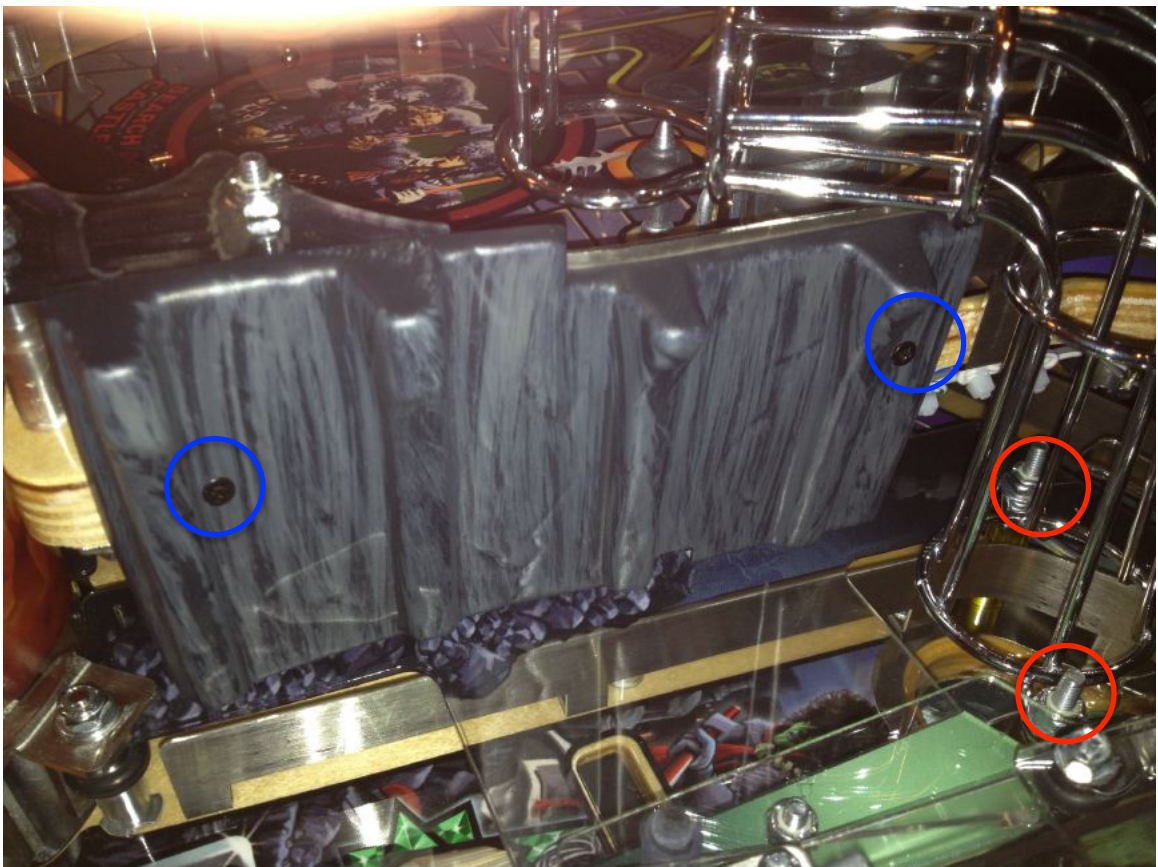




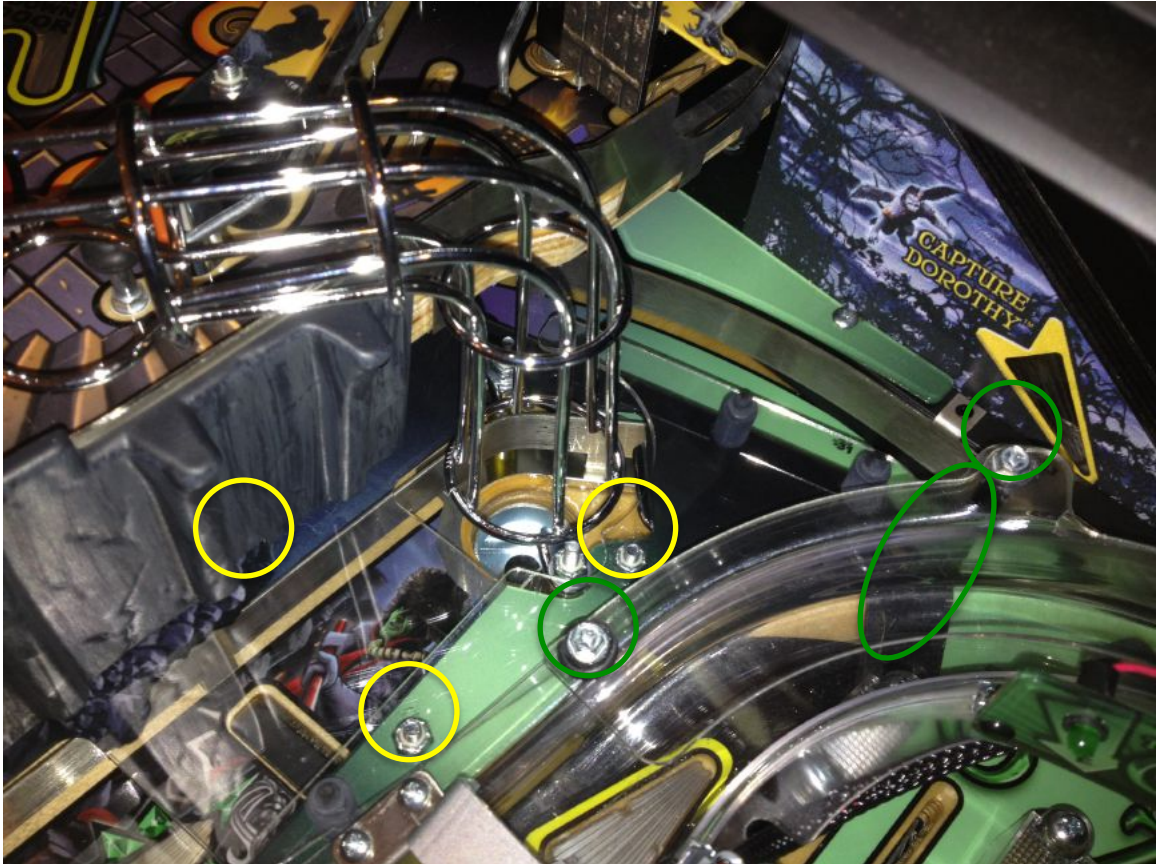


4. Castle VUK. Warning, this was one of the hardest ones to install.

- Remove two 11/32 nuts to castle VUK (in red) and then remove castle VUK wire ramp
- Remove two Phillips screws (blue) to remove castle wall



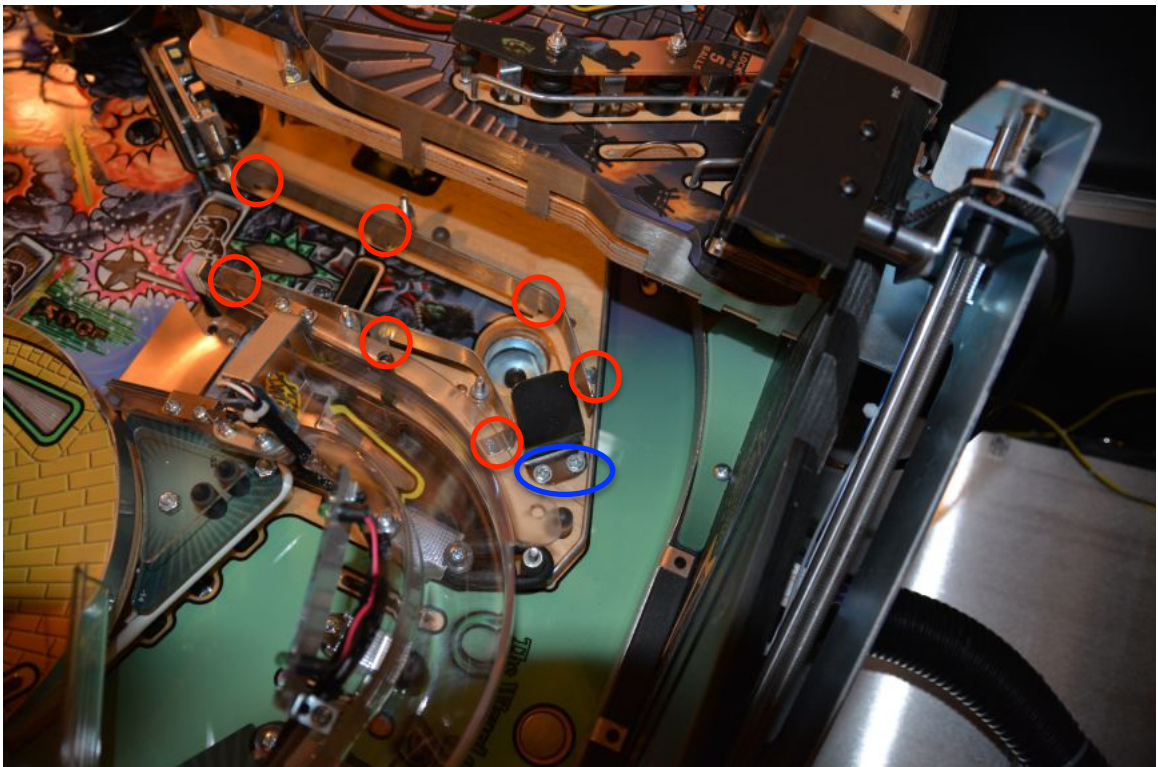
- Remove two screws on Munchkin ramp (in green), followed by the spacer/stand-off (also in green). Hint: you will have to lift up on the rear of the ramp with good force to unscrew and remove that spacer
- Remove three 11/32 holding plastic down (in yellow). Note: one of the screws is behind the castle wall. There is a clear plastic protector above the plastic that may either be flexed to get to these nuts or removed. If you remove it, be warned that putting the rubber nubs back through the plastic protector to reinstall is not the easiest thing to do



- Remove 11/32 nuts from witch and then remove metal plate and plastic witch window/protector (in pink). It simple slides right up and off. Be careful to weave it around her hat.
- Next pry up the plastic and remove it. This will take some effort as it is on there snug. Work all the way around at each mount, do not pull too hard in one spot or you will break the plastic. Once it is off the posts, pull it towards the backbox and slide it out. Lift slightly as you pull it out to prevent the posts from scratching the plastic.
- Remove the two screws for the scoop (in blue)



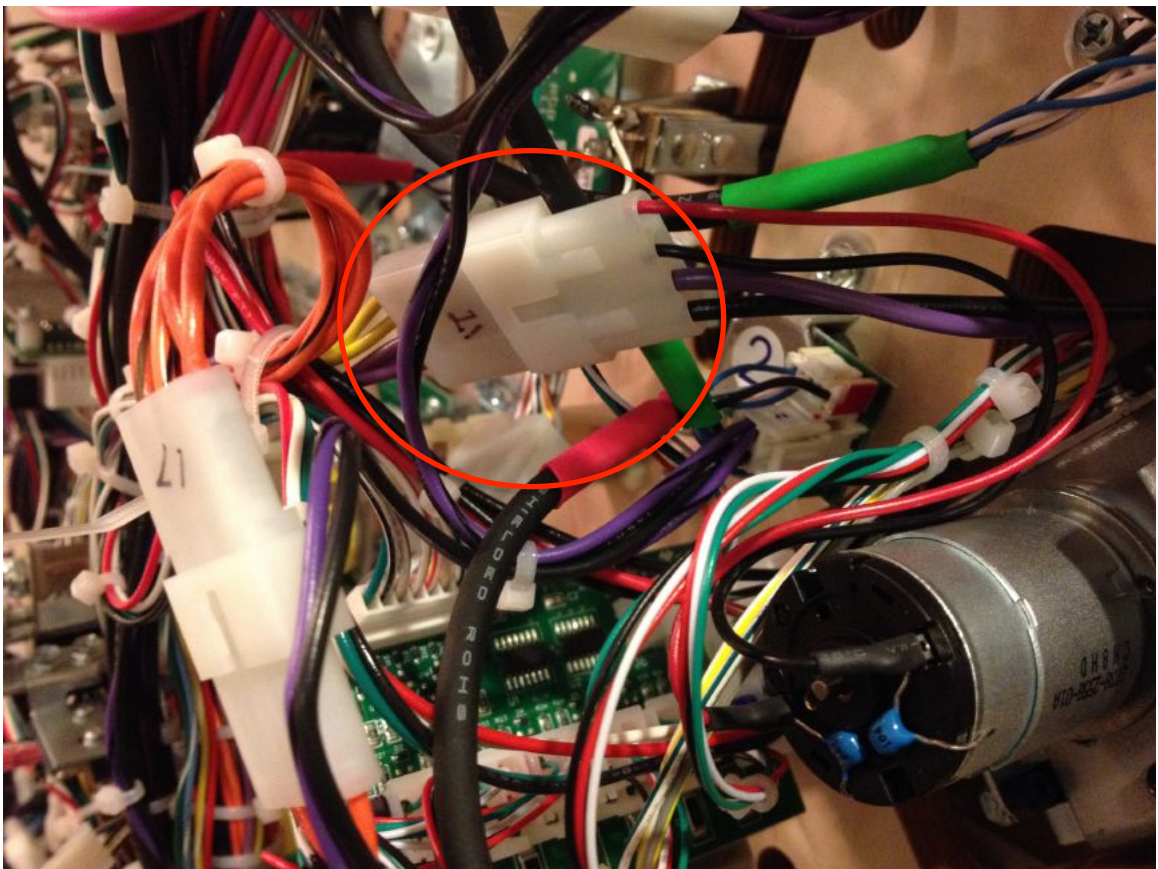
- Remove the ¼ screws for each of the left and right metal guides (red)
- Use alcohol swap on area for protector, remove paper from adhesive, install protector, and reverse to reinstall.

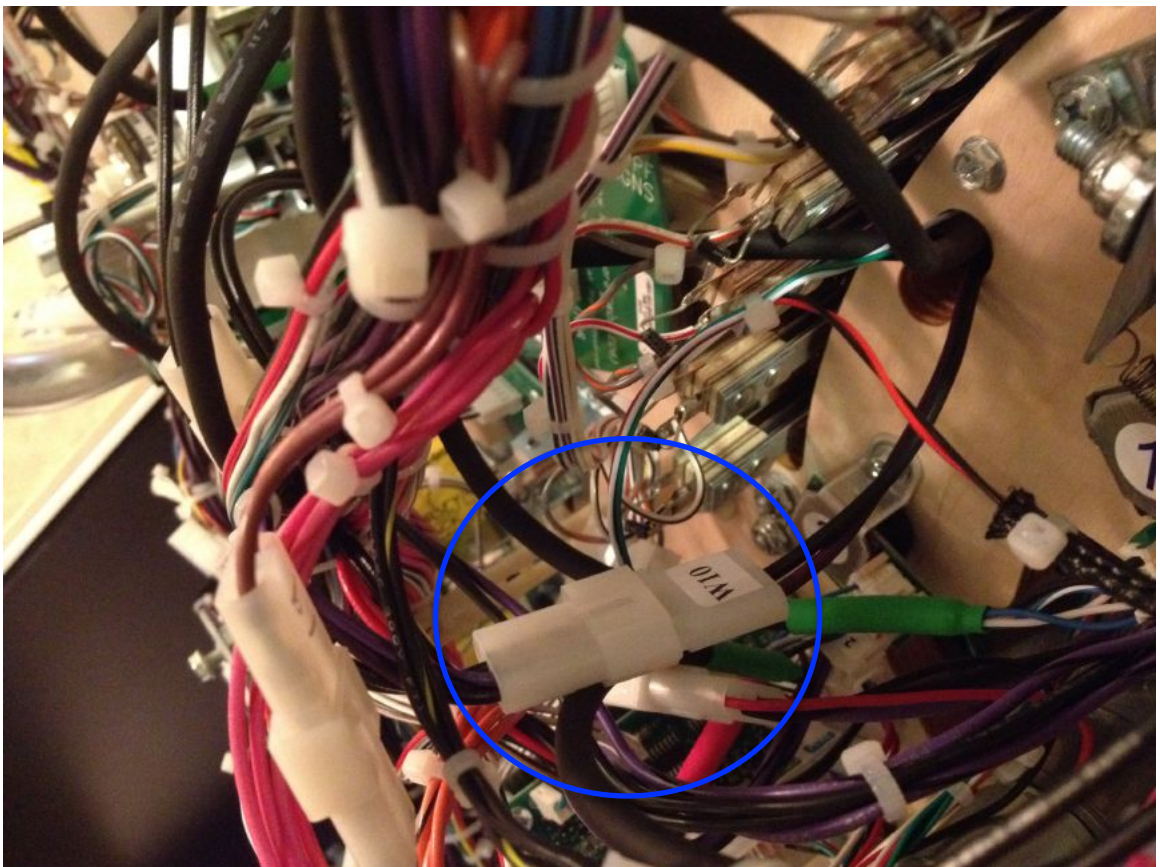
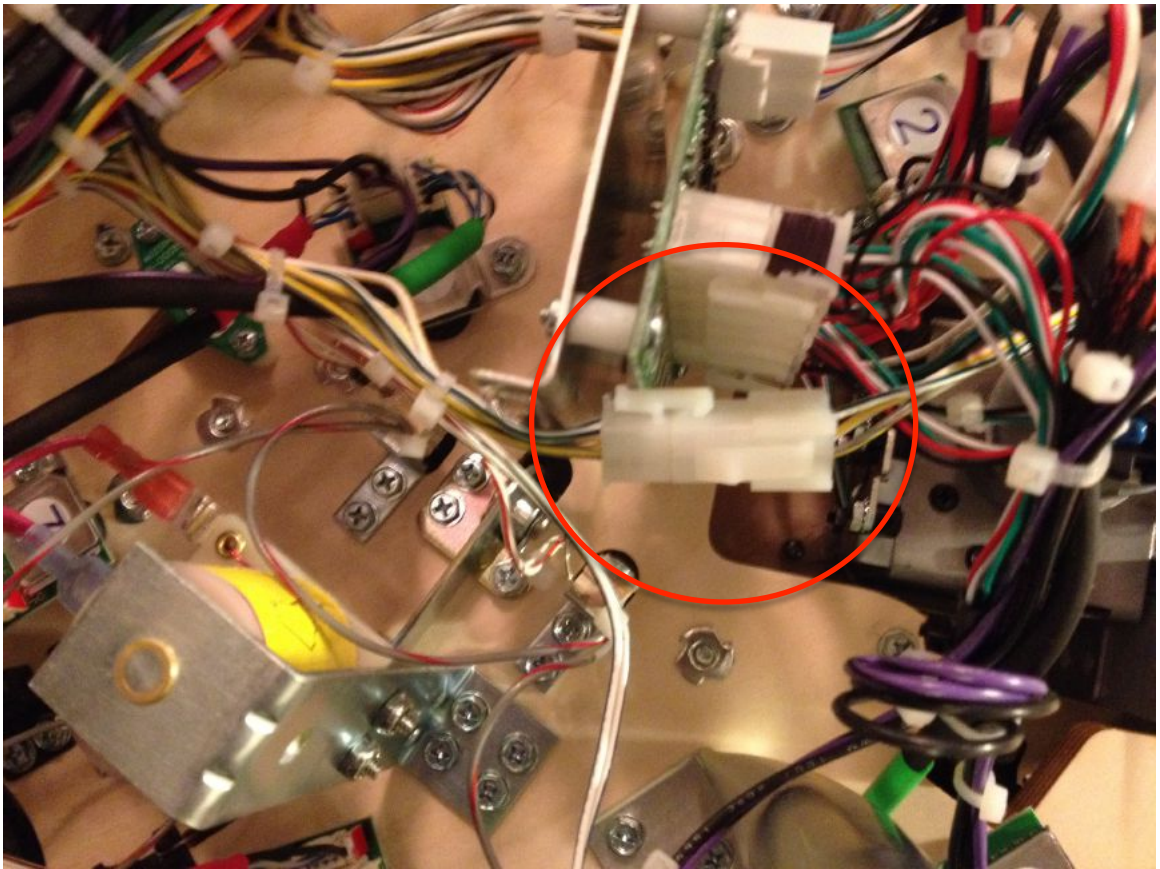


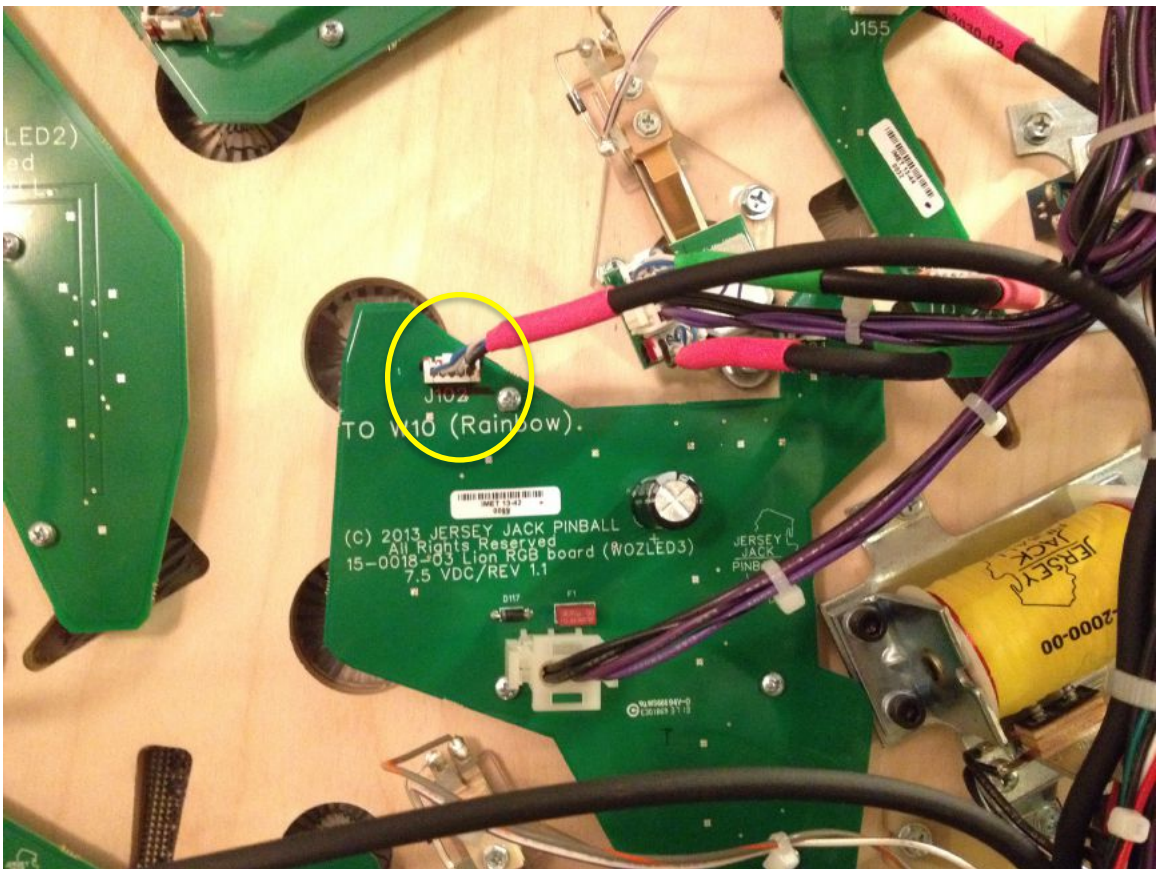
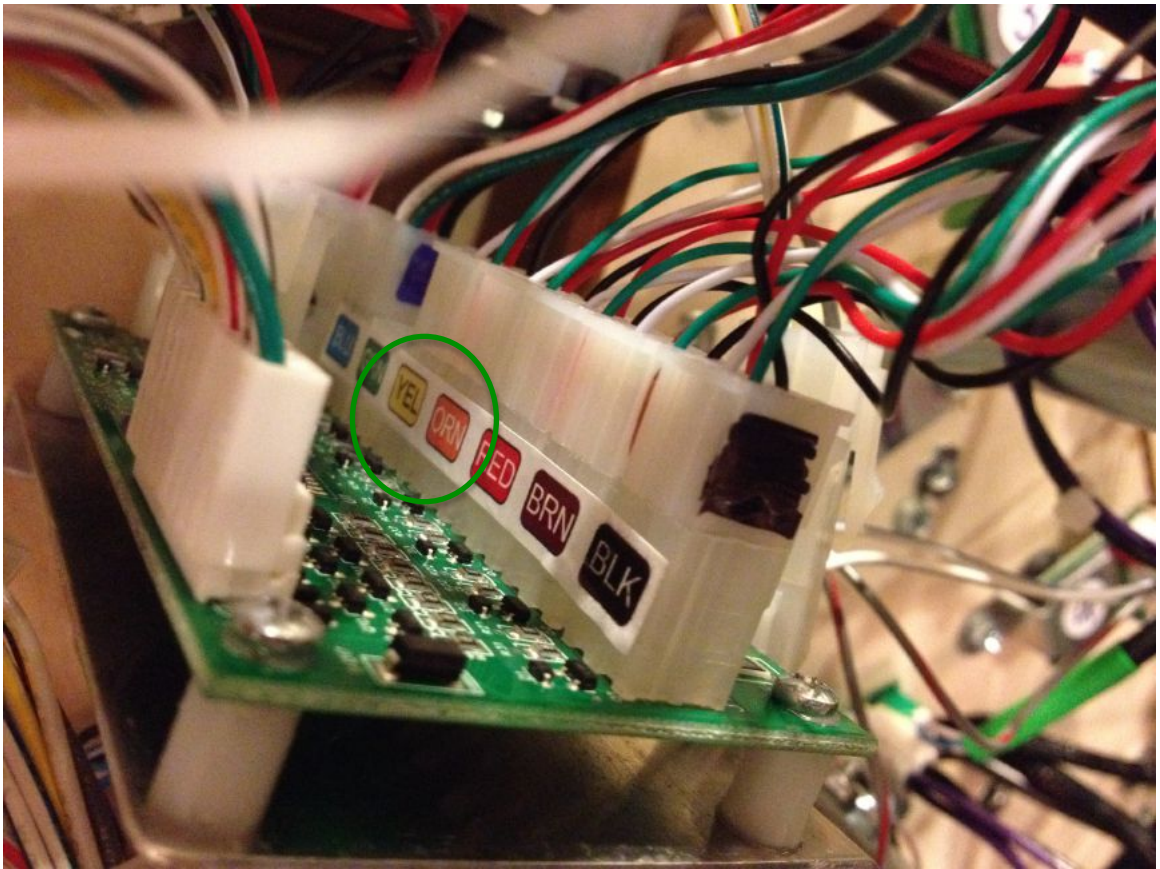
5. Munchkin Land Mini-PF. This was actually not that difficult with the exception of actually maneuvering the playfield out and over the upper flipper.

- Remove mini-pf as indicated in section E-2 (page E-4) of the WOZ manual. There are a couple of clarifications. In step 1 it says to remove the 4 pin (vio/yel/blk/red) from the larger hole. My 4 pin connector was (vio/blk/red/blk). This confused me for some time because the colors did not match up. Additionally, you will have to cut about 4 wire ties to remove the data connector from step 3.

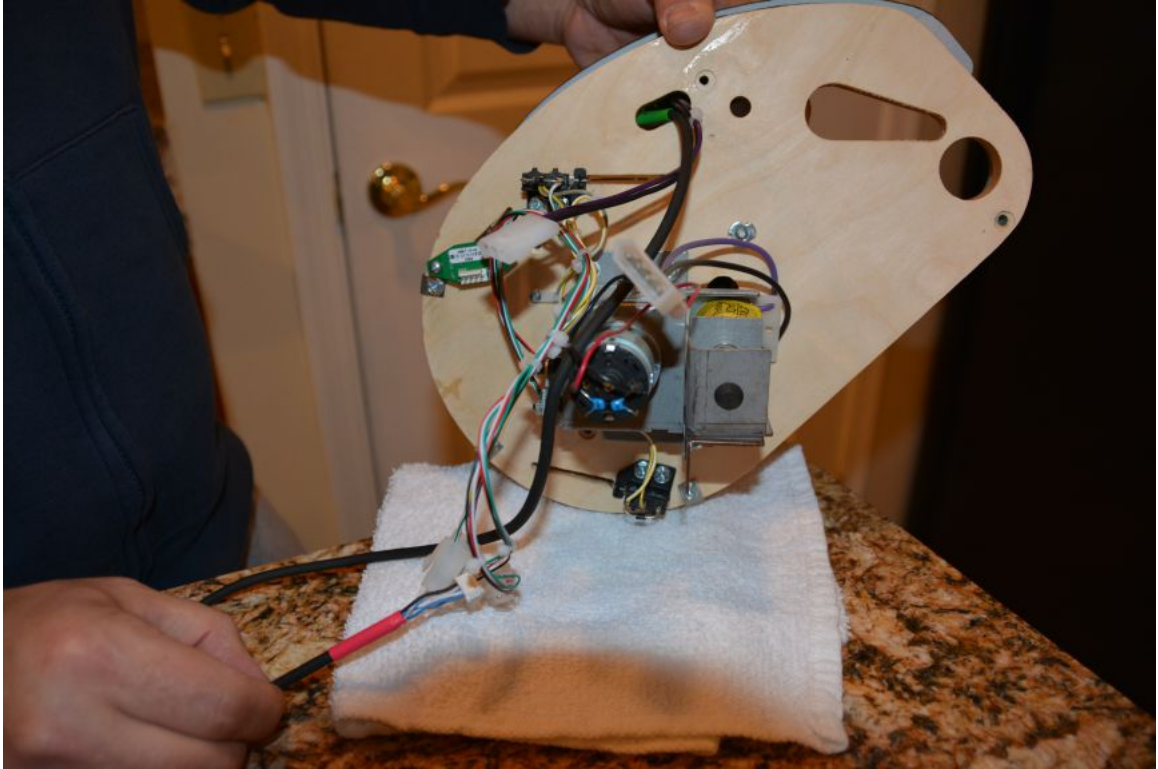
- Per step 1 of the manual - 4 pin connectors shown in pic below (red), 2 pin connector shown below (in blue)
- Per step 2, J4 and J5 circled (in green)
- Per step 3, data cable (in yellow)



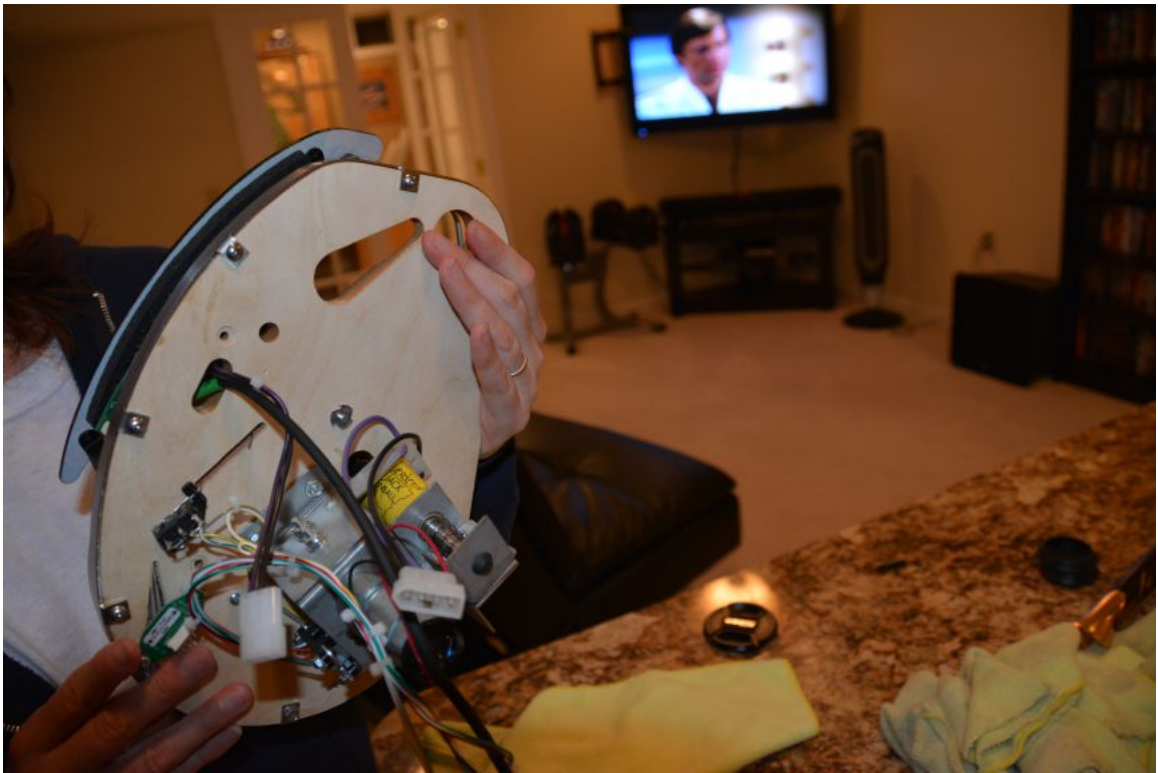




- It's OK to pull the ramp outward slightly, while lifting the mini-pf at an angle to get it out. If it feels stuck, make sure it is not caught on the flipper bat.



- Once the mini-pf is out, place on a soft towel and use one of the screws you removed in step 5 of the PF removal to hold the Cliffy protector in place. Pre-drill using a small drill bit – making sure you put a piece of tape on the bit to gauge depth so you don't drill all the way through the PF. Also, be sure to push the protector tight against the playfield so you drill the holes in the correct locations.
- Once you have predrilled all holes, screw the protector into the mini-pf using the supplied screws and then reinstall – being careful to put the wires back in the holes they came out of. Additionally, make sure that the light board plug you removed in step 9 is reinstalled. It should look like this before you reinstall it.



6-10. Rollover and magnet protectors.

- These were of course the easiest so I left them for last. They are pretty obvious. Use alcohol swab on area, remove adhesive paper, and stick in place. That said, a few tips.
 - If you use two collapsible magnetic pick ups, it allows you to place it much more precisely. This is particularly true of the monkey magnetic, which is very hard to reach to get it lined up well. Using the magnetic pick ups worked well.
 - Push down hard and rub your finger around them to ensure they are down.
 - You will also need to make sure to place them precisely over the opening or they could interfere with the rollovers.
 - Finally, you will likely need to adjust the rollover switches to compensate for the protector. I have not yet done that so it is not included in this tutorial.

More pics of final installation below:

