updated: 05/16/2022

Installing Your New
Indiana Jones – Light The Jackpot DMD Panel MOD

A few things before we start:

The wooden speaker panel provided in this MOD was manufactured using a Precision CNC machine and is meant to be a replacement for your original wooden speaker panel. Included in this MOD is the new wooden speaker panel, pre-wired IJ light the jackpot LED printed circuit board, nylon stand-offs, screws, and other hardware dedicated to the MOD. All the hardware from your original wooden speaker panel will need to be transferred to the new wooden speaker panel. This includes the speakers, DMD display, speaker panel mounting hooks, etc… Information to aid in the transfer of these items is detailed below.

Tools you will need:

Phillips Head Screw Driver
Small Flat Head Screw Driver
5/16” Nutdriver or Socket
Needle nose Pliers

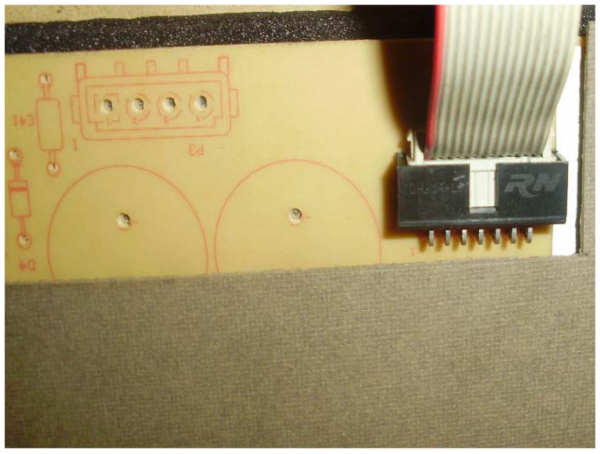
Installation Procedures

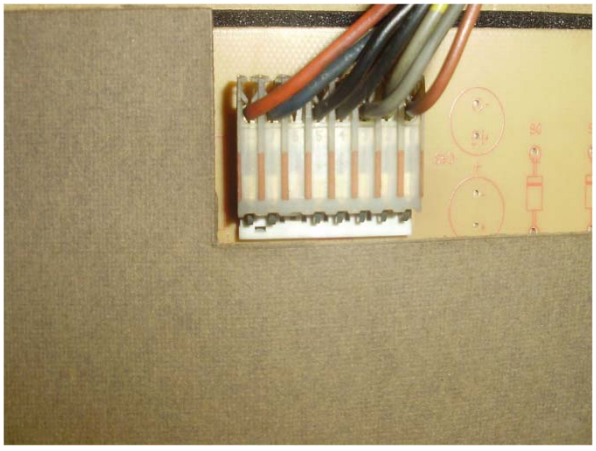
Make sure your pinball machine is turned off and unplugged before doing the below steps.

Removing the original speaker panel from your machine:

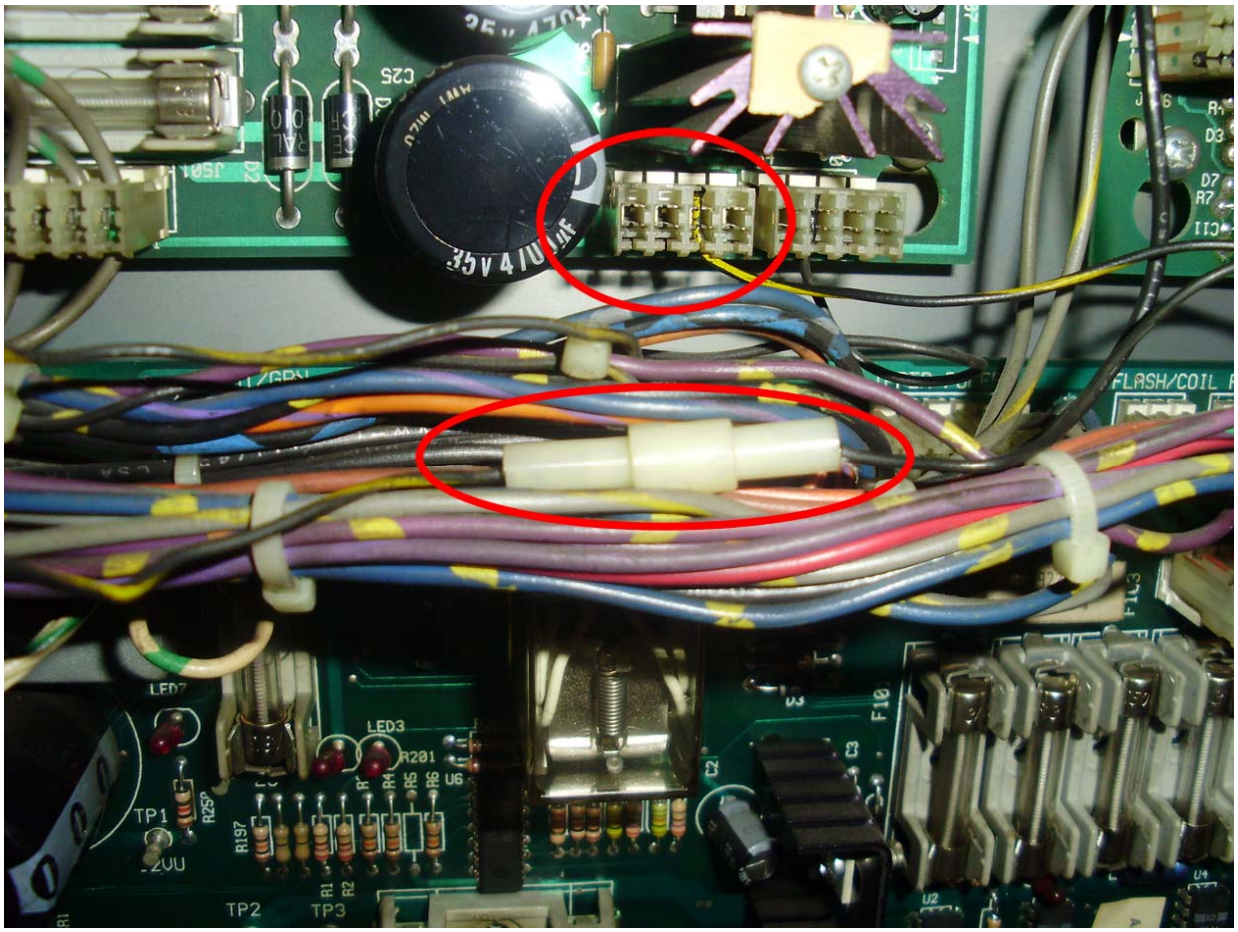
The first thing we want to do is remove the entire speaker panel from your game. To do this you'll need to remove all the wires from the back of the speaker panel and disconnect a couple from the Sound Board.

1) Remove the ribbon cable from the DMD Display on the back of the speaker panel.
2) Remove the power cable from the DMD Display on the back of the speaker panel.





3) Disconnect J505 from the Sound Board, see picture below.
4) Disconnect the in-line connection you see circled below. You might have to dig around that bundle of wires a bit to locate it.



5) Once you have the above wires disconnected you'll want to remove them from the bundle of wires in the back box. The other ends of these wires are connected to the speakers on the speaker panel. In order to remove the panel from the game, so you can work with it easier, these wires will have to be removed from the wire bundles.

NOTE: Now that we have the speaker panel removed from the game we can sit down at a table and work on it.

Remoing the hardware from the back of the panel:

1) Lay the speaker panel face down on the table so you can remove the speakers and DMD Display from the panel.

2) The speakers can be easily removed from the panel using a Phillips Screw Driver. Each speaker has 4 screws. When you take them out simply put them on the magnet on the back of the speaker they belong to so you don't lose them.

3) The DMD display is held on with 4 small nuts. They can be removed using the 5/16" nutdriver or socket. I suggest after removing the DMD display that you lay it on a soft cloth glass down, and put it aside so it doesn't get scratched or broken. Don't lose the 4 plastic stand offs that hold up the DMD display.

4) Remove the black plastic channel from the top of the panel, again using your Phillips Screw Driver. It is held on with 4 screws. Be sure and put the screws aside with it so you won't lose them, or mix them up with others.

5) Now remove the two metal brackets that hold the panel in place when it's in the machine. These are located on either side of the panel near the top edge just under the black channel. Use your Phillips Screw Driver for this as well, removing 2 screws per bracket.

   You have now removed all the hardware from the back of the speaker panel. It's now time to move on to the front.

Removing the art plastic from the front of the panel:

This task is one to be gentile with. This plastic isn't easily broken, but you don't want to take chances by forcing anything. The plastic is held on with a thick black adhesive tape that covers most of the back of the plastic. On some machines the plastic comes off very easily and on others it may take a little more work for it to come lose.

Simple get a hold of one of the corners of the plastic by pulling up on it with your fingers. If you can't get it lift using your fingers you can use your flat head screw driver, very gently, to get under it and get it started so you can use your hands to lift it. Be careful if you use the screw driver not to crack the plastic or gouge it. Once you have a corner lifted up, gently continue to lift from that corner as the adhesive continues to let go of the wood panel. Once you get started it generally lifts off pretty easily. Just take your time and don't overly force it. That's why I like using my hands for this and not tools. It's much easier to feel what the plastic and adhesive are doing and you can adjust your pressure.

Removing the metal speaker panel grilles from the panel:

Removing these is pretty simple. You will either find they have been stapled on or nailed on with small tack nails. Either way the easiest way to remove it is to take your small flat head screw driver and gently push it between the metal mesh and the wood panel near the locations of the staple or nail. Gently pry it up being careful not to bend the metal mesh. Once you get the staple or nail to lift out just a little take a pair of needle nose pliers and get a hold of the top of it and pull it out. Do this for each of the 4 staples or nails used on each grille.

Assembling the new Panel (MOD Panel)

Make sure your pinball machine is turned off and unplugged before doing the below steps.

You're now ready to start putting together the new panel. To do this you'll simply do everything in the reverse order that we took apart the old panel. Here I will just give a quick list of the order you should put it together. I'll make notes on anything that will be different or out of order.

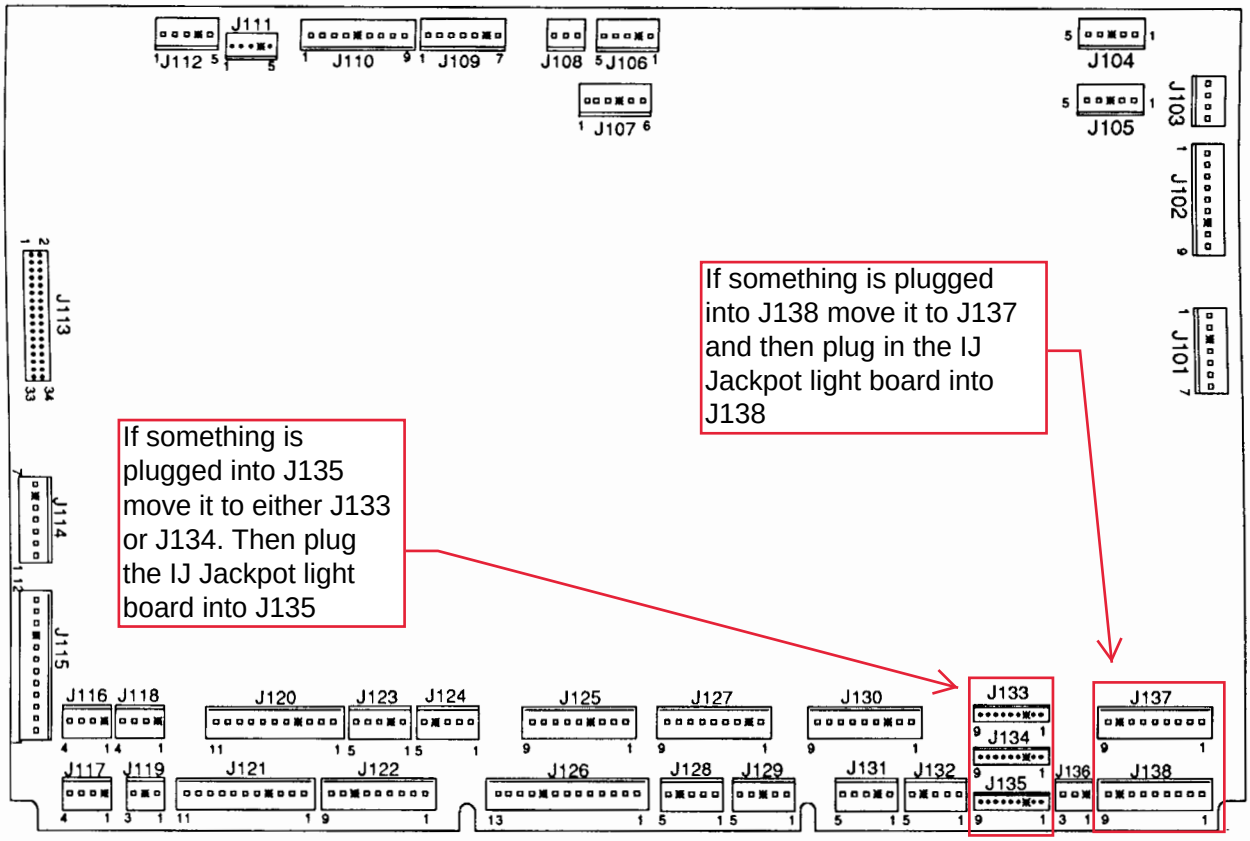
1) Attach Metal Mesh Grilles (using an industrial staple gun, or small tack nails)
2) Install the two metal brackets that hold the panel in place on the back of the panel
3) Install the black plastic channel on the top of the panel
4) Install the four screws supplied in the plastic bag. These screws are screwed into the DMD mounting holes from the front of the panel.
5) Install the DMD display. Make sure and use the plastic stand-offs you removed from the old panel. If installing a ColorDMD LCD, take special care not to over tighten it down. The LCD must float over the long LED PCB at the bottom of the panel without touching it. You can short the PCB by the LCD screen touching it and you run the risk of cracking your LCD.
6) Install the speakers using the original screws.
7) Re-connect the speaker and DMD panel wires to the pinball machine.
8) Now it's time to connect the IJ Light The Jackpot LED PCB wires to the pinball machines Power Driver Board. The two connectors we will be connecting to are J135 and J138. Both are located on the bottom right corner of the pinball machines Power Driver Board (largest board in the backbox)

   The connectors from the PCB are labeled J135 and J138. If you find that you have other wiring in these locations then you should move it to the correct locations before continuing. *The last two pages of this document include pages from the manual where I have notated where things should be.* There are several connections on the Power Driver Board in your pinball machine that are interconnected and do the exact same thing. However it's best to get everything connected to the proper place so that when you are troubleshooting issues later using your manual, it isn't confusing.
9) The art plastic should be installed only after completing all previous steps and just before putting the panel into your machine

You're Done. Now all that is left is to plug your pinball machine back in and turn it on and play a few games just because you can.

Thanks again for purchasing this MOD and your continued support of pinball.

A-12697-3
Power Driver Board



J101-1 Red, 9VAC, from xformer secondary
J101-2 Red, 9VAC, from xformer secondary
J101-3 N/C
J101-4 Blue-White, 13VAC, from xformer secondary
J101-5 Blue-White, 13VAC, loop from J101-4
J101-6 Blue-White, 13VAC, from xformer secondary
J101-7 Blue-White, 13VAC, loop from J101-6

J102-1 White-Red, 16VAC, loop from J102-2
J102-2 White-Red, 16VAC, from xformer secondary
J102-3 White-Red, 16VAC, loop from J102-4
J102-4 White-Red, 16VAC, from xformer secondary
J102-5 Black-Yellow, 16VAC, loop from J102-6
J102-6 Black-Yellow, 16VAC, from xformer secondary
J102-7 N/C
J102-8 Black-Yellow, 16VAC, loop from J102-9
J102-9 Black-Yellow, 16VAC, from xformer secondary

J103-1 Black, ground, to 8-Driver Brd J2-4
J103-2 Black, ground, to 8-Driver Brd J2-5
J103-3 N/C
J103-4 N/C

J104-1 White-Blue, 50VAC, to Fliptronic II Board J901-3
J104-2 White-Blue, 50VAC, to Fliptronic II Board J901-1
J104-3 N/C
J104-4 N/C
J104-5 N/C

J105-1 N/C
J105-2 N/C
J105-3 N/C
J105-4 N/C
J105-5 N/C

J106-1 N/C
J106-2 N/C
J106-3 N/C
J106-4 N/C
J106-5 Red-White, +20V, to backbox flashlamps

J107-1 Violet-Green, +50V, to coils
J107-2 Violet-Orange, +50V, to coils
J107-3 Violet-Yellow, +50V, to coils
J107-4 N/C
J107-5 N/C
J107-6 Red-White, +20V, to playfield

J108-1 N/C
J108-2 N/C
J108-3 N/C

J109-1 N/C
J109-2 N/C
J109-3 N/C
J109-4 N/C
J109-5 N/C
J109-6 N/C
J109-7 N/C

Power Driver Board Continued...

J133, J134, J135 all do the same thing. I like to connect the connectors as listed in the manual as it makes for easier diagnosis later. The wiring colors used by me will not match the colors listed in the manual.

flashlamps
ashlamps
d flashlamps
l flashlamps
flashlamps
ver assy J1-1

J126-7 Blue-Violet, sol. 23 drive, to Bridge Driver assy J1-2
J126-8 Blue-Gray, sol. 24 drive, to playfield flashlamps
J126-9 N/C
J126-10 N/C
J126-11 N/C
J126-12 N/C
J126-13 N/C

J127-1 Brown-Black, sol. 9 drive, to playfield coil
J127-2 N/C
J127-3 Brown-Red, sol. 10 drive, to playfield coil
J127-4 Brown-Orange, sol. 11 drive, to playfield coil
J127-5 Brown-Yellow, sol. 12 drive, to playfield coil
J127-6 Brown-Green, sol. 13 drive, to playfield coil
J127-7 Brown-Blue, sol. 14 drive, to playfield coil
J127-8 Brown-Violet, sol. 15 drive, to playfield coil
J127-9 Brown-Gray, sol.16 drive, to playfield coil

J128-1 N/C
J128-2 N/C
J128-3 N/C

J137 and J138 do the same thing. Here again I like to connect the connectors to the header its listed as in the manual for easier diagnosis later if problems arise. The wiring colors used by me will not match the colors listed in the manual. Also note that the manual has an error. The wire at J138-1 should actually be at J138-2. Your mod wiring connector has the wire in it's correct location.

J130-4 Violet-Orange, sol. 3 drive, to playfield coil
J130-5 Violet-Yellow, sol.4 drive, to playfield coil
J130-6 Violet-Green, sol. 5 drive, to playfield coil
J130-7 Violet-Blue, sol. 6 drive, to playfield coil
J130-8 Violet-Black, sol.7 drive, to playfield coil
J130-9 Violet-Gray, sol. 8 drive, to playfield coil

J131-1 N/C
J131-2 N/C
J131-3 N/C
J131-4 N/C
J131-5 N/C

J132-1 N/C
J132-2 N/C
J132-3 N/C
J132-4 N/C
J132-5 N/C

J133-1 Red-Brown, lamp row 1, to playfield lamps
J133-2 Red-Black, lamp row 2, to playfield lamps
J133-3 N/C
J133-4 Red-Orange, lamp row 3, to playfield lamps
J133-5 Red-Yellow, lamp row 4, to playfield lamps
J133-6 Red-Green, lamp row 5, to playfield lamps
J133-7 Red-Blue, lamp row 6, to playfield lamps
J133-8 Red-Violet, lamp row 7, to playfield lamps
J133-9 Red-Gray, lamp row 8, to playfield lamps

J134-1 N/C
J134-2 N/C
J134-3 N/C
J134-4 N/C
J134-5 N/C
J134-6 N/C
J134-7 N/C
J134-8 N/C
J134-9 Red-Gray, lamp row 8, to coin door

J135-1 N/C
J135-2 Red-Black, lamp row 2, to speaker panel J1-1
J135-3 N/C
J135-4 N/C
J135-5 N/C
J135-6 N/C
J135-7 Red-Blue, lamp row 6, to speaker panel, J1-6
J135-8 N/C
J135-9 Red-Gray, lamp row 8, to speaker panel, J1-5

J136-1 N/C
J136-2 N/C
J136-3 Yellow-Gray, lamp column 8, to coin door

J137-1 Yellow-Brown, lamp column 1, to playfield lamps
J137-2 Yellow-Red, lamp column 2, to playfield lamps
J137-3 Yellow-Orange, lamp column 3, to playfield lamps
J137-4 Yellow-Black, lamp column 4, to playfield lamps
J137-5 Yellow-Green, lamp column 5, to playfield lamps
J137-6 Yellow-Blue, lamp column 6, to playfield lamps
J137-7 Yellow-Violet, lamp column 7, to playfield lamps
J137-8 N/C
J137-9 Yellow-Gray, lamp column 8, to playfield lamps

J138-1 Yellow-Red, lamp column 2, to speaker panel J1-3
J138-2 N/C
J138-3 N/C
J138-4 Yellow-Black, lamp column 4, to speaker panel J1-5
J138-5 N/C
J138-6 N/C
J138-7 N/C
J138-8 N/C
J138-9 N/C