

STERN
Ghostbusters (GB) 2016

“Proton Gun” Mod - Button Upgrade (2025)

The Ghostbuster “Proton Gun” mod is hand crafted in Australia by a GB owner for all the other GB owners around the world that love their game and want to finally complete the game - with the mod released late 2021 and finished early 2022.

Now in early 2025 here is a DIY Upgrade to this mod. Previously a foot pedal activated outline proton guns to save ball drains it is now a Lockdown Bar Action Button outline save.

**Thank you for your
support and I hope you
will enjoy this mod and
upgrade for many years
to come**



Proudly Designed and Manufactured by



www.swinks.com.au

Manual Rev-1 (12-4-25)

1 of 18

Page 3	1. IMPORTANT NOTES - PLEASE READ
Page 4	2. What is this Upgrade
Page 5 - 6	3. Mod Upgrade Shopping List
Page 7 - 8	4. Remove the Foot Pedal
Page 9	5. Lift the Playfield Up
Page 10 - 11	6. Remove the Lockdown Bar Receiver
Page 12 - 14	7. Prepare the new Lockdown Bar Receiver
Page 15	8. Test Out the Lockdown Bar
Page 15	9. Route the Action Bar Switch Cable and Connect
Page 16	10. Connect the LED PDB Lighting Board
Page 17	11. Lower the Playfield
Page 17	12. Test the Proton Gun Mod
Page 18	13. Add Additional Feature - Mod Timer

1. IMPORTANT NOTES

- The Proton Gun Mod is no longer being made but we still have 2 kits in stock if anyone wants to grab a kit while still available.
- If you happened to have a kit but have not installed yet or purchased 2nd hand from someone the install installation manual can be found here:
<https://swinks.com.au/manuals>
- If the mod's servos have died due to incorrect installation, misaligned plugs or standing on the foot switch for too long, there is a manual for setting your new Servo Trigger Boards and Servo's here:
<https://swinks.com.au/manuals>

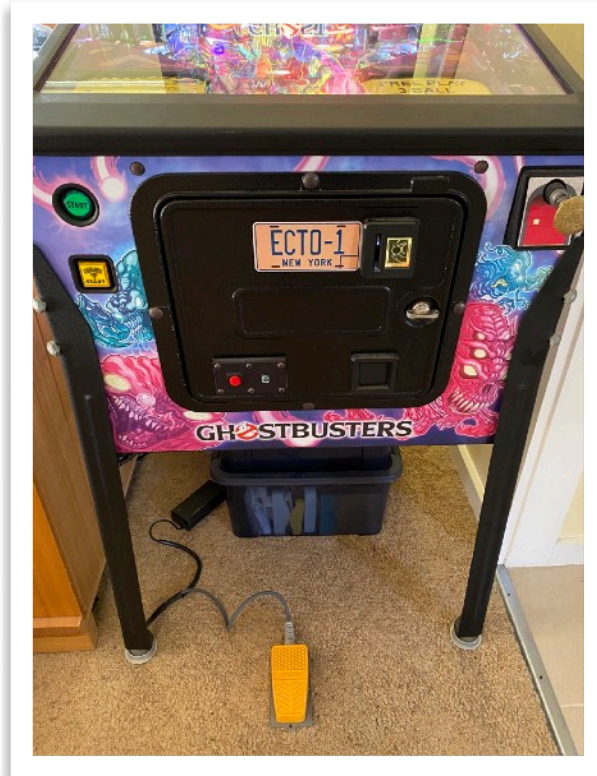
This manual is for those that want to convert your Proton Gun Mod from being activated with a **Foot Switch to now being activated with an **Action Button** on the Lock Down Bar.**

This removes the temptation to stand on a foot switch for long periods of time in which is considered cheating by many while playing the game. This upgrade still allows you to use the Proton Gun Mod but you need to need to be quick as you still need your hands to control the flippers. It is no longer too easy.

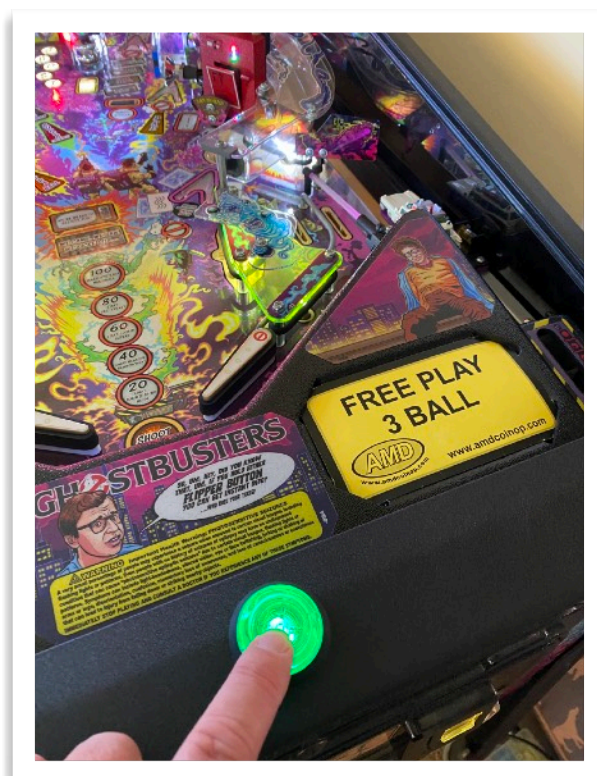
2. What is this Upgrade

This mod is not an item you can purchase from Swinks, rather this is a free guide showing you how to do it yourself, but you need to have the Swinks Proton Gun Mod.

Currently the Proton Gun Mod is activated with a foot switch:








And when finished you activate the Proton Gun Mod with a now common Action Button on the Lockdown Bar like this, but Ghostbusters never came with a Action Button on the Lockdown Bar:



3. Mod Upgrade Shopping List




While you can modify your existing parts I chose to purchase new parts so I can always restore the game back to original if desired.

I found Pinball Life to be the best to deal with as had all the parts in one place, I did get the Switch Harness Kit (which I recommend do not get as does not suit the receiver) This is what I purchased from Pinball Life, which cost \$147.75 USD + shipping (as of March 2025):

PRODUCT	QUANTITY	PRICE
 Stern Dual Latch Lockdown Bar With Action Button SKU: 500-2440-00 Location: A2 : SAVE TO WISH LIST	<div><div>-</div><div>1</div><div>+</div></div>	\$99.95
 Stern & Spooky Lockdown Receiver Bar For Dual Latch Lockdown Bars with Action Button SKU: 515-7792-00 Location: B2 : SAVE TO WISH LIST	<div><div>-</div><div>1</div><div>+</div></div>	\$24.95
 Leaf Switch For Action/Fire Button Located On Stern Lockdown Bars SKU: 180-5218-00 Location: B2 : SAVE TO WISH LIST	<div><div>-</div><div>1</div><div>+</div></div>	\$10.95
 Mounting Bracket For Action/Fire Button Leaf Switch Located On Stern Lockdown Bars SKU: 535-0559-00 Location: B2 : SAVE TO WISH LIST	<div><div>-</div><div>1</div><div>+</div></div>	\$6.95
 Stern Action/Fire Button LED Bracket SKU: 535-0368-00 Location: B2 : SAVE TO WISH LIST	<div><div>-</div><div>1</div><div>+</div></div>	\$4.95

For those that want to use metric or want to 3d print the brackets can so you can drop off the last 2 items at Pinball Life and print your own brackets.

You will also need the following from Comet Pinball, but please note order the desired colour SMD PCB, I just happened to have white and green ones so used a green one. So all up \$4.17 USD + postage (as of March 2025)

	Matrix SMD PCB Matrix / Green	1 x	\$0.99	×
	Matrix Extension Wires 36 inch	1 x	\$1.99	×
	Matrix Extension Wires 12 inch	1 x	\$1.19	×

NUTS - You will need 4 x imperial nuts - though not sure what size they are as I am a metric person but I had some of those coloured replacement nuts used to hold plastics down.

BOLTS - For those getting the Pinball Life - Switch and LED board Brackets you will need the particular bolts (recommended in the bracket details on their site) and some fish paper. And for those printing your own brackets you will need to cut a 3mm thread or an equivalent imperial thread and for me I needed 3 x 3mm DIA x 12mm long bolts to hold the switch and LED Board down.

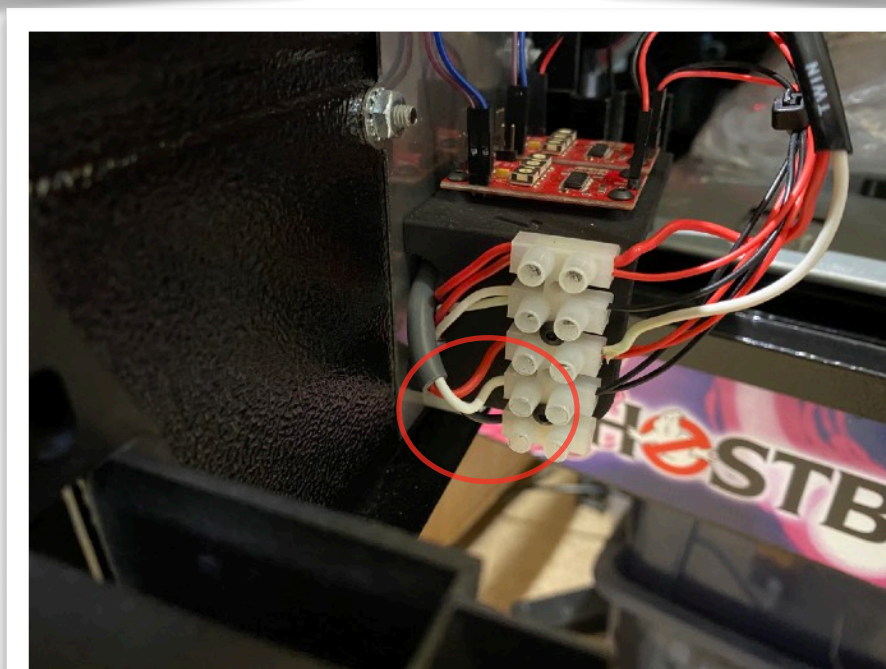
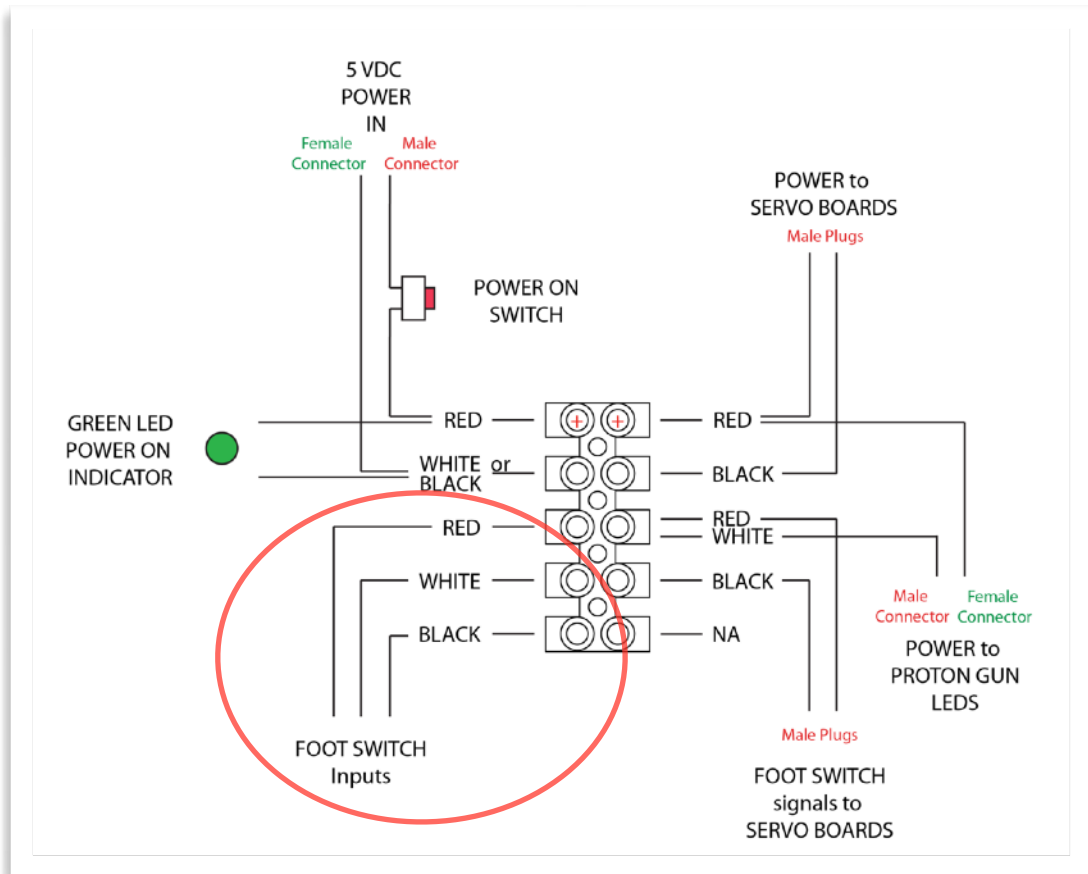
ELECTRICAL CONNECTION - I used 2 of those T connectors to tap into a local light source - more on that later in the manual.

ELECTRICAL CABLE - you will need a 900mm / 36inch length of 2 core cable for the Action Button.

4. Remove the Foot Pedal

Firstly ensure the game is turned off and power disconnected as well last the separate power pack for the Proton Gun Mod.

The foot pedal and it's wiring firstly needs to be disconnected at the terminal strip (wires in the red circled area:



Then track the cable and remove from the hole where it exits the cabinet - either in the base of the cabinet or via the front coin door plate.

Below is through front right corner of the cabinet.



Or through the custom mod's coin door plate. Though in doing this the power cable will be rather loose so possibly wrap some Black Electrical tape around the cable until the cable can not slide in or out when the plate is tightened back up.

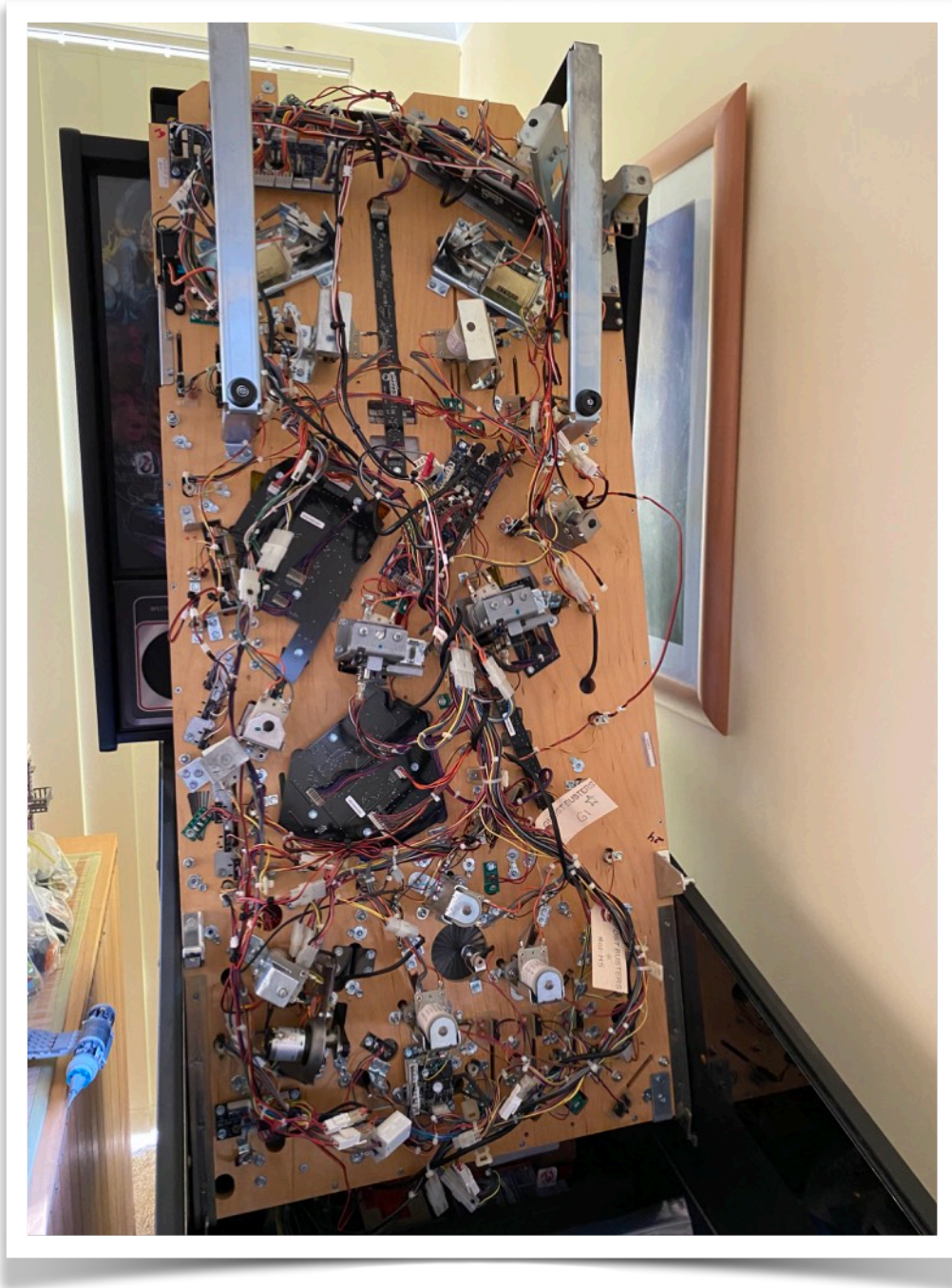


5. Lift the Playfield Up

Remove the balls from the ball trough before lifting the playfield vertical.

Then ensure the servo cables are disconnected from the servo boards to avoid cables being ripped out and damaged.

Lastly lift the playfield into it's vertical position giving you good access to the lockdown bar receiver.

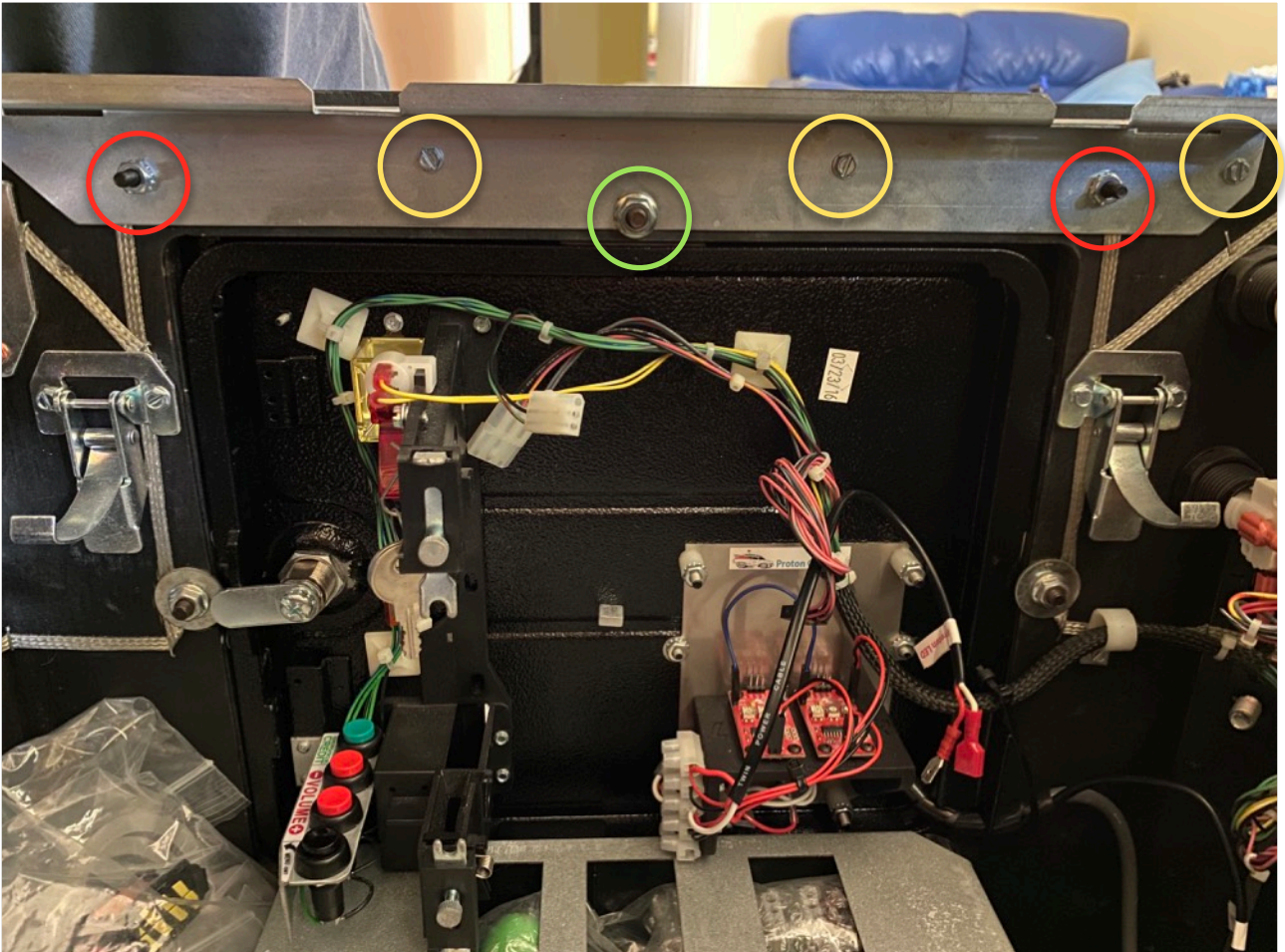


6. Remove the Lockdown Bar Receiver

Remove the 3 x self tapping screws (yellow circles) - will need a 1/4" driver

Remove the 1 x coin door nut (green circle) - will need a 3/8" driver

Remove the 2 x dedicated cabinet / lockdown bar receiver nuts (red circles) - will need a 7/16" driver



When comparing the 2 receivers there is a little difference (top being the new receiver):

- obvious is the 4 threaded posts (that Pinball Life do not supply nuts with)
- the hole for the action button to pass through
- one hole close to the centre is moved to allow for the threaded post assembly
- and has one extra hole for an extra 1/4 self tapping screw.

That said is a great replacement and fits nicely.



7. Prepare the new Lockdown Bar Receiver

As noted in the previous section the receiver is different but the holes for the 2 x dedicated cabinet / receiver bolts do need to be opened up to suit the GB cabinet bolts marked with a + on the previous photo.

So open up the holes to 5mm or the equivalent imperial size as come with 4.75mm holes.

Unfortunately I learnt the hard way as purchased the pre-wired bracket with switch and led from Pinball Life - Product ID: 511-2014-00 but the holes in the bracket do not line up with this version of receiver purchased - it must be more for recent games - DO NOT BUY. And I did not realise that they had the correct brackets so had to 3D design and print my own brackets.

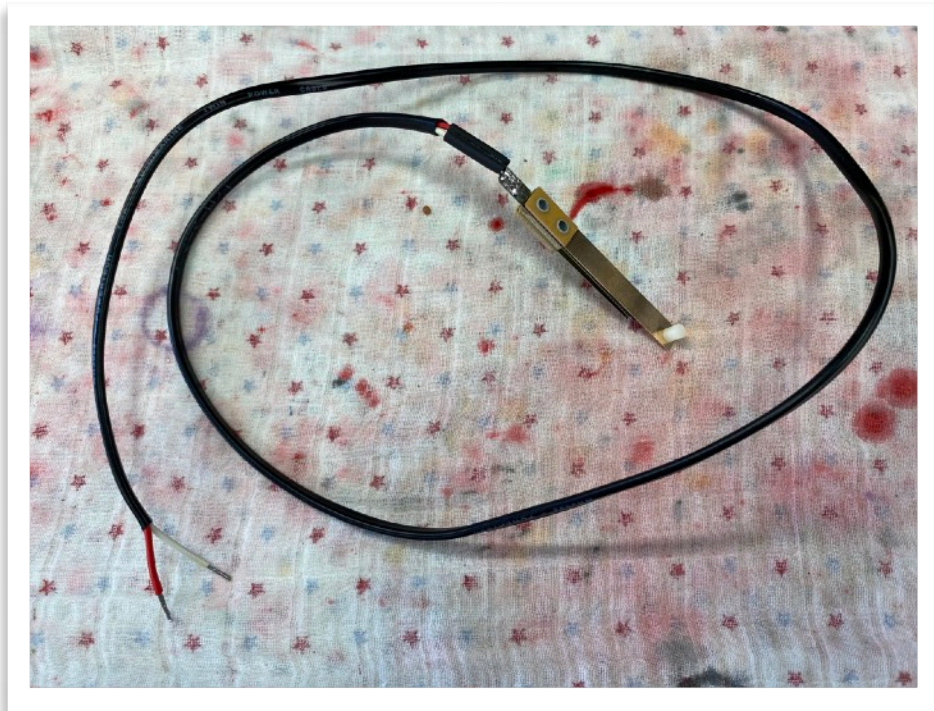
I will provide 2 x 3d printed brackets for the Action Button Switch and a Comet Lighting Board but Pinball Life does provide these brackets as well - see the purchase list.

For my 3D printed brackets they can be downloaded here from Makerworld for free:
<https://makerworld.com/en/models/1310600-gb-action-button-switch-and-led-mounts#profileId-1344776>

You will just need to tap the 3D printed brackets 3 x holes with a M3 thread or an equivalent imperial bolt thread size.



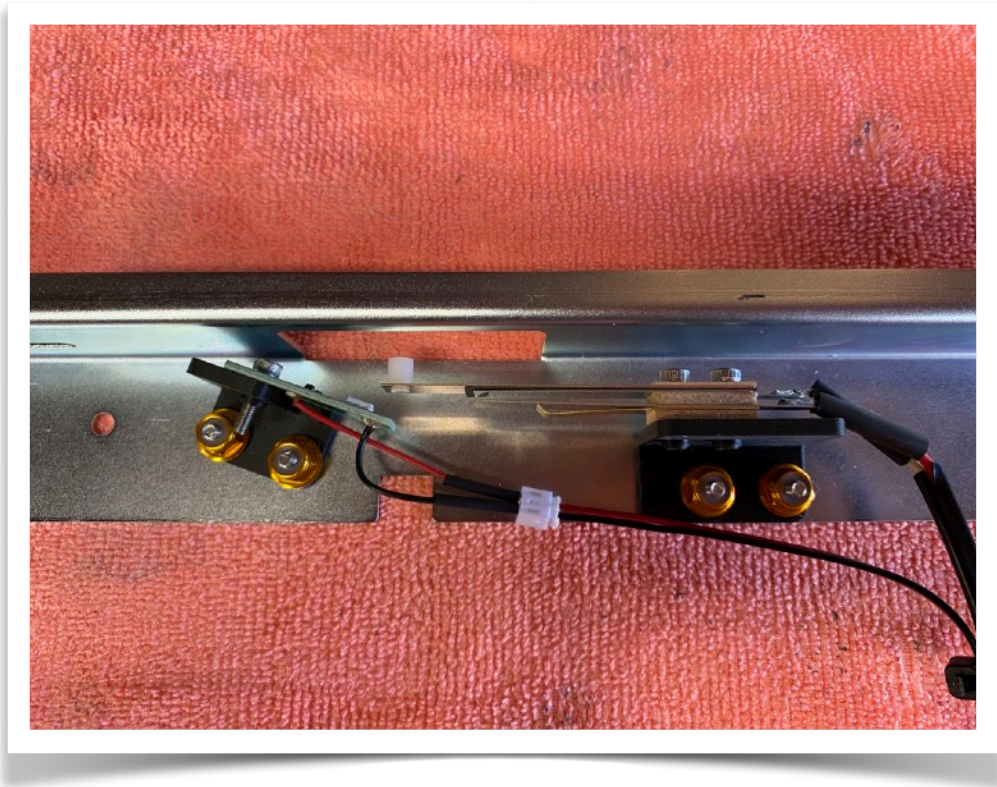
Then you will need a length of 2 core wire / cable for the switch. You will need a 900mm / 36 inch cable and bear back both ends and treat with solder and then solder one end to your purchased leaf switch.



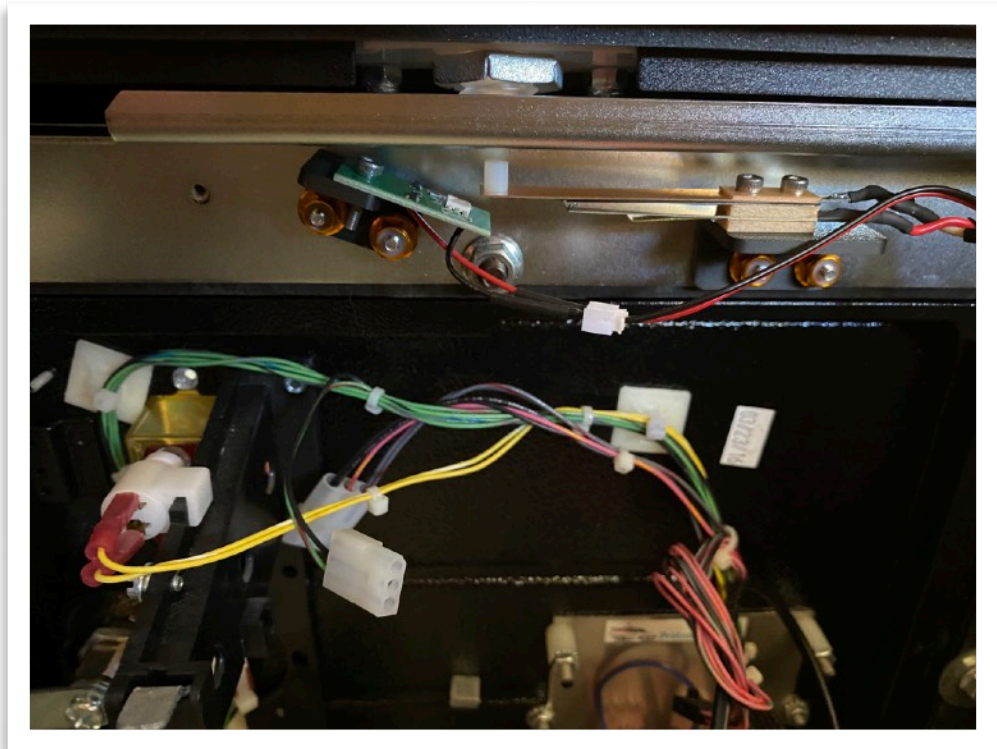
Install the leaf switch to the switch bracket (I am using the 3D printed version) and also the Comet / Stern LED PCB (I am using a Green LED Comet Board) to the LED Bracket (I am using the 3D printed bracket).



Install the brackets with their components to the new Lockdown Bar Receiver and note you will also need the imperial nuts - I think 1/8" (I just used what I had and that fit but am a metric user) - though please let me know and then can adjust the manual details.



Then install the Lockdown Bar Receiver to the cabinet with the same bolts from when you removed the old one. For one self tapping screw you will need to cut a new thread.



8. Test Out the Lockdown Bar

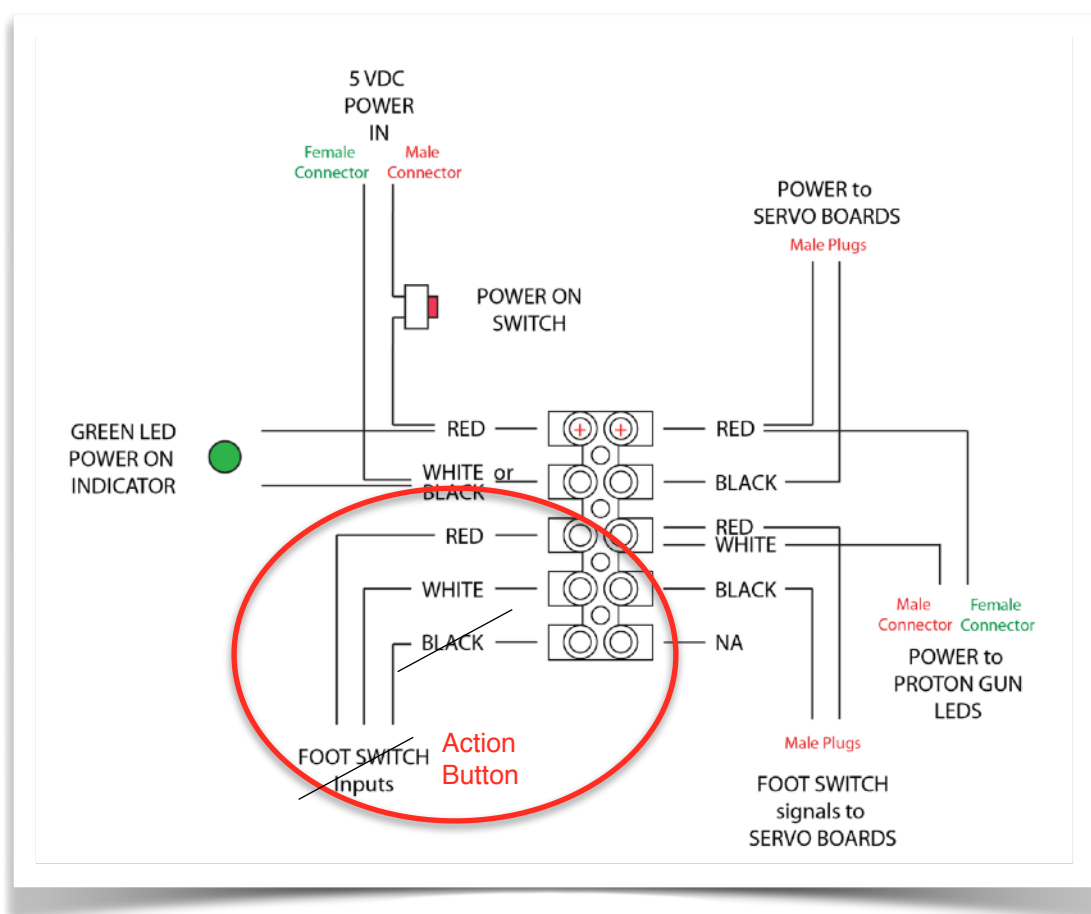
Before connecting the Action Bar Switch Wire, install the lockdown bar even though the playfield is up and glass is not in.

Install the Lockdown Bar on to the new Lockdown Bar Receiver and lock down.

If you are familiar with using a multimeter set it to continuity testing and touch both wires of the switch (loose cable end) and the meter should not beep and then push the action button and the multimeter should not beep. If it does beep with the switch not pushed, loosen the switch bracket and see if you can lower a bit more - if not reach out to me to possibly create another bracket.

9. Route the Action Bar Switch Cable and Connect

I ran the switch cable to the left behind the Start button, down and then to the mods terminal panel - you might have to disassemble this mod bracket from the face plate to route the cables cleanly. Then install the 2 switch wires into the old location of the Red and White Wires for the Foot Switch.



10. Connect the LED PDB Lighting Board

The Comet LED Board was connected to the 12" wire and then the 36" wire (to give some range to what ever local bulb to connect to). For the moment I connected to the coin reject bulb as is 5 VDC, in which I used the T-connectors and then crimped fittings to the end of the Comet Wiring. It is on all the time BUT I hope to do another upgrade in the future with a timer for mod use and lighting to show when it is on and ready.



11. Lower the Playfield

No lower the playfield and it should nice into the new receiver - for me the fit was actually better than my original receiver.

12. Test the Proton Gun Mod

Power up your game and also power up your Proton Gun Mod and everything should just work if it was working before, though tweak the proton guns if something changed.

Install all the game balls and re-installation the glass and you are good to know.

Enjoy



13. Add Additional Feature - Mod Timer

I intend to add a mod timer in the future when I have some spare time but hope to add a timer device where once triggered you can not use the proton guns for 10 seconds in which the button light will go out for those 10 seconds.

Something for later.

RETURN POLICY:

There is no return policy as this is a help guide on a no longer available mod that has expired it's warranty period but as seen in this document is a help guide to get your mod back up and running.

PRODUCT DISCLAIMER:

As this is a guide to modifying your game you are taking the risk in doing so but Swinks did perform the upgrade on their game to determine if any risks and document to help others do the same. Nothing was sold and just recommendation of items to purchase.

PRODUCT QUALITY DISCLAIMER:

As this is a guide to modifying your game you are taking the risk in doing so but Swinks did perform the upgrade on their game to determine if any risks and document to help others do the same. I recommend buying the suggested parts from Pinball Life as they are ready to use. There are a few hidden parts to be made on a regular home printer and then the quality is up to you and dependent on settings and material used.