# Stern Pinball

# **Ghostbusters (GB)**

# **Containment Mod**

for Pro Level Machines

Thank you for your support and I hope you will enjoy this mod for many years to come. This is a KIT manual as you basically purchase the parts and assembly yourself - which is very easy to do. Please note that this manual is based off the v1 of the mod and the Shapeways parts are actually v2 in which the face of the cabinet was improved as well as the lighting mounting improved so the manual will be a combination of photos and 3d models. Also ignore the colours of the domes as in real life the colours are not as washed out as per the photos shown.



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## **1. Purchase your Parts**

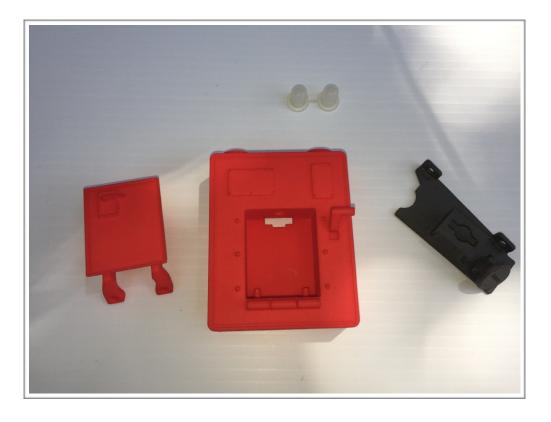
All parts are purchased directly from Shapeways who are in the USA or The Netherlands, please use the link below or search **swinkscontainment** at Shapeways.

https://www.shapeways.com/marketplace?q=swinkscontainment&sort=

Note 1: I will have a ghost trap coming soon which will slide into the door compartment.

Note 2: prices shown below are in USD on the 25-4-21 - these may increase or decrease - depending of Shapeways pricing system.

# Relevance •**Instruction ConstitutionInstruction ConstitutionInstruct**



# 2. Part Preparation

No parts need to be painted if you don't want to, though you can enhance features with a little bit of paint if desired and if you have the skills to do so.

2 parts are made up of a few parts in one print:

- The black containment base also has a pin built in which is a separate part

- The containment bulb set

Use a pair of side cutters or a sharp hobby knife to separate and then trim the small joining branch off the parts so it is ready to be used.





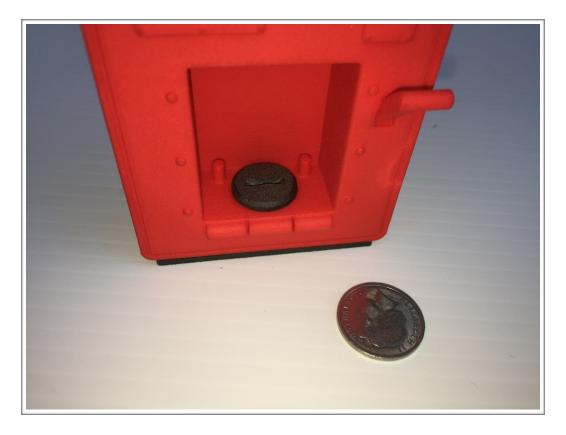
Now before installing the mod please practice assembling the mod so you understand the locking pin. Align these parts to practise the fitting together.



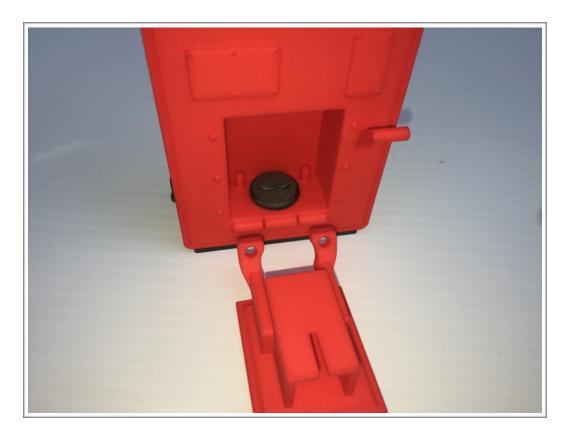
Slide the top over the base and then drop the pin into the hole.



Then use a coin in the pin slot and turn the pin 90 degrees which will then lock the containment unit to the base.



Now get the front containment door which will have 2 holes in it.



Then install the door with the 2 brackets with holes onto the pins inside of the cabinet and push down - do not force it - if tight STOP and remove and take a small drill and drill through the holes to make it fractionally larger so just a nice fit.



Note 3: I will soon provide an option for a ghost trap to fit into the door.

Now disassemble the mod parts so you can install your mod into your game.

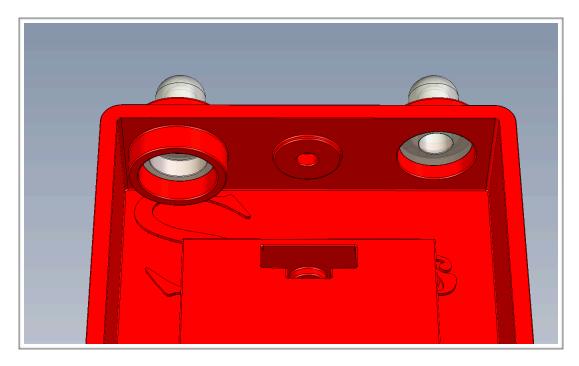
Now back to preparing the parts for finally assembly. Take the individual bulb domes and install in the top of the containment unit and drop a dab of superglue or hot glue to ensure they stay in place.

Note 4: v2 of the mod will not have a pin there it will have a hole where a screw is installed to hold all the parts (Stern's LED Boards).

Note 5: v2 bulbs are different in the way that the bases have 2 different thicknesses - use the thicker base into the higher rimmed hole on the LHS.



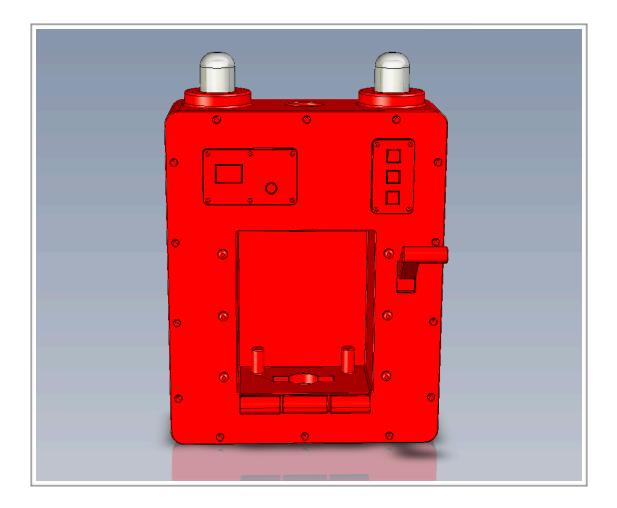
Here is a 3D model view of how the v2 will look in which you can see the differences in the bulb domes the remaining recess is filled in with the coloured inserts.



It will look like this from the front once the bulb domes are installed.



Here is the view of the v2 as per 3D Model image. You will notice the slight differences in the 2 panels with some button markings now as well as bolts around the outer side of the cabinet. Also the handle does not move.



## 3. Remove Parts from your Game

You need to first power off your game and then remove the Spot Light Post as well as the Storage Facility Plastic which has the LED panels as part of the plastic - this will be re-used in your new mod.



Remove the spotlight from it's post as this gives you better access to the screw for the plastic removal and new mod installation.



Remove the spotlight post.

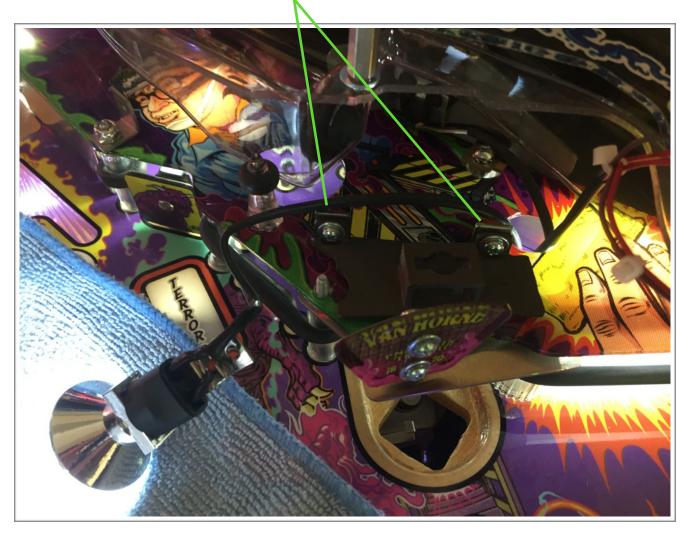


Now remove the Storage Facility Plastic from 2 small 90 degree metal brackets.



# 4. Install the Mod Base and Spotlight

Now re-use the screws that fastened the plastic to now fasten the base to the same brackets that supported the plastic.

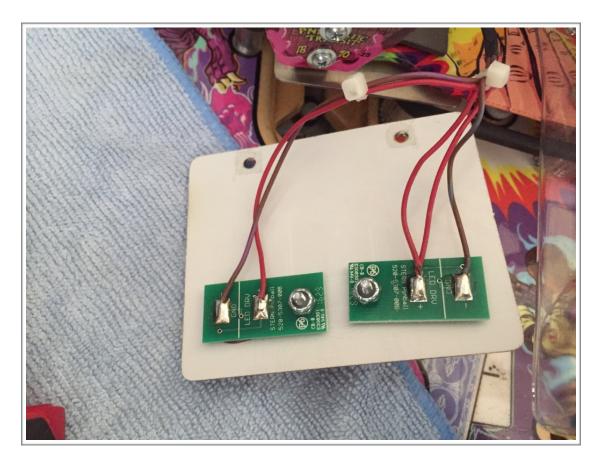


Now re-install the spotlight post and spotlight as per originally mounted.



# 5. Fitting the Lighting & Bulb Set

Remove the LED boards and green and red caps from the original plastic.

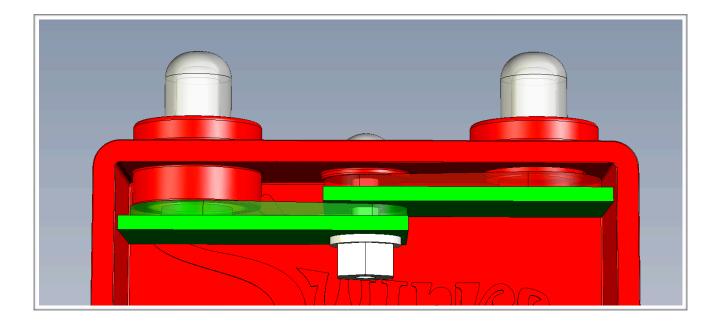


Put a little bit of tape on each LED board so you know which is the green and red LED boards.

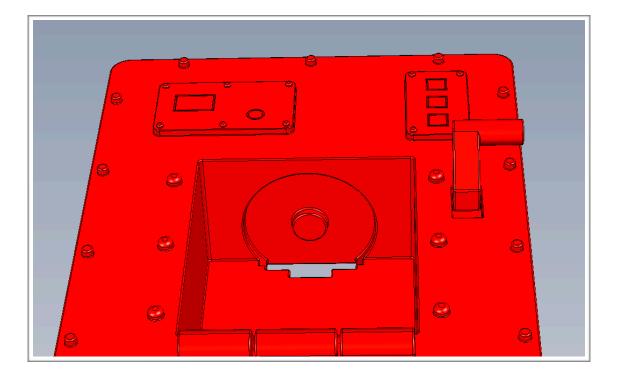
Note 7: Ensure to keep the bolts that hold the LED boards in place as well as the plastic incase you want to return the game back to it's original state. Also we re-purpose: 1 x screw 2 x washers 1 x nut to hold the light lens and boards into the mod. Now to install the LED lens and LED Boards into the Containment Mod as per the below 3D Model image as this will be your version of mod which is different to my original v1 design in which that design had a slight issue to installing these parts over a pin.

In the v2 the lens and boards are locked into place with the components from the original plastic. Green LED Board and lens to the LHS and Red LED Board and Lens to the RHS.

Unfortunately the original screw is not quite long enough for thread to pop out so either install as shown or locate a longer screw and install.



You will notice a recess for an extra LED board that you can install a small Comet Star Post LED board to add extra lighting if desired and connect to a feature globe for extra effect. Use a dab of hot glue to hold the board in place. Using this feature is up to you in what to link it to.



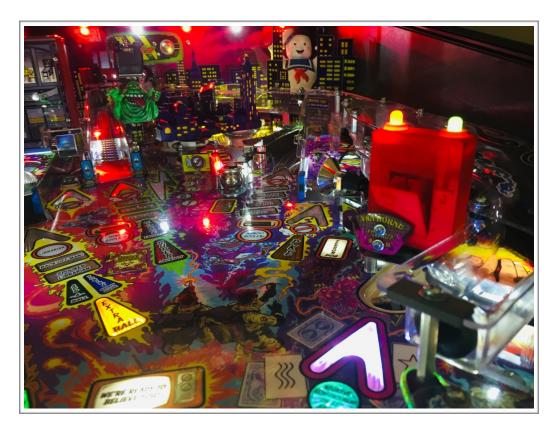


# 6. Installing the Containment Unit to the Mod Base

Connect your wiring of the 2 x LED boards and then locate your containment mod over the bracket. Then take the pin and drop it through the hole and twist 90 degrees to lock the mod into place.



Lastly drop the containment door onto the pins and your mod is ready to enjoy.



The last part is the Ghost Trap. My unit has one from an action figure set but I will soon recreate it so it can complete the look as well.



### RETURN POLICY:

Please contact us as we will be proactive to try and quickly resolve any problems from abroad reducing the need to send your purchased parts. Approval from Swinks Pinball must be received before any items can be returned for repair or replacement. All materials, boards, cables, etc. must be included when the product is returned. We will repair or replace/exchange components based on our analysis of the problem. Swinks Pinball reserves the right to deny any return to us or exchange. Refunds are not given. Freight will be covered by Swinks Pinball on the return trip back to you **only** and will not cover the postage to us.

#### PRODUCT DISCLAIMER:

Please remember that this is a "MOD." We took great effort in designing and testing our system in order to produce a high quality product, but it is not a factory original nor an approved part for your pinball machine. There is the risk of unwanted side effects with any modification to a factory game and there are many factors that can cause undesirable side effects after installation of such a modification. As such, we cannot assume responsibility for game malfunction, damage to the game or surroundings, unwanted electrical emissions, personal injury, or other adverse effects caused by the installation of our MOD.

### PRODUCT QUALITY DISCLAIMER:

All parts are made to the highest quality possible. All the parts are professionally 3D printed by Shapeways and iMaterialise using SLS nylon / MJF nylon & Resin processes with some minor print lines or clouding (on the resin parts) which is part of the process. You may notice some minor print lines when handling but once the mod is installed they will not be clearly visible from the players perspective and give your machine that cool retro look.