

Centre Cabinet Jack Kit - v7

Some clever person dreamed a very compact and portable Jack for lifting the pinball legs up to adjust the leg levellers removing the need of a trolley to lift the game or avoid getting a mate to help you lift the game.

I developed a single **Centre Cabinet Jack Kit** to lift up the cabinet at the centre of the front or back of the cabinet allowing easier finger access to adjust the leg levellers ONLY and allows you to adjust either both the front legs or both the back legs.



Proudly Designed by



www.swinks.com.au

- The advertised lifting capacity of jack that you purchase is approximately - 120kg / 260 pounds
- Centre Cabinet Jack Kit lifting range, which is the distance between the bottom of the cabinet to the floor:
 - Lowest with no base plate - 482.5 mm / 19 inches
 - Lowest with the small base plate - 490 mm / 19.3 inches
 - Highest with the large base plate - 660 mm / 26 inches
- Example 1 - Stern Spike 1 and 2 games lowest point between the front bottom of the cabinet with the leg levellers wound all the way up with no pin footies is **492mm**. The lowest point between the back of the cabinet with the leg levellers wound all the way up with no pin footies is **599mm**.
- Example 2 - Stern Spike 1 and 2 games highest point between the rear bottom of the cabinet with the leg levellers wound all the way out with an allowance of another 20mm - for a pin footie with 6mm thick base pin footie clearance is **660 mm**.

Note 1: The lowest dimensions does not factor the leg levellers wound out rather fully compressed = absolute lowest the game can go.

Note 2: The highest dimension is for a modern stern cabinet with the leg levellers wound out to the max with another 20mm added to allow for a pin footie to be slid under the wound out leg leveller = absolute highest the game can go.

Important Note 1: never jack the front and the back of the pinball machine at the same time as the machine will be very unstable.

Important Note 2: never jack one end of the cabinet (front or back) and push on the side of the cabinet to side shift the game or pull your self up or hang on in getting down - it might damage the jack and rock the game off the jack.

1 - Print your Centre Jack Parts

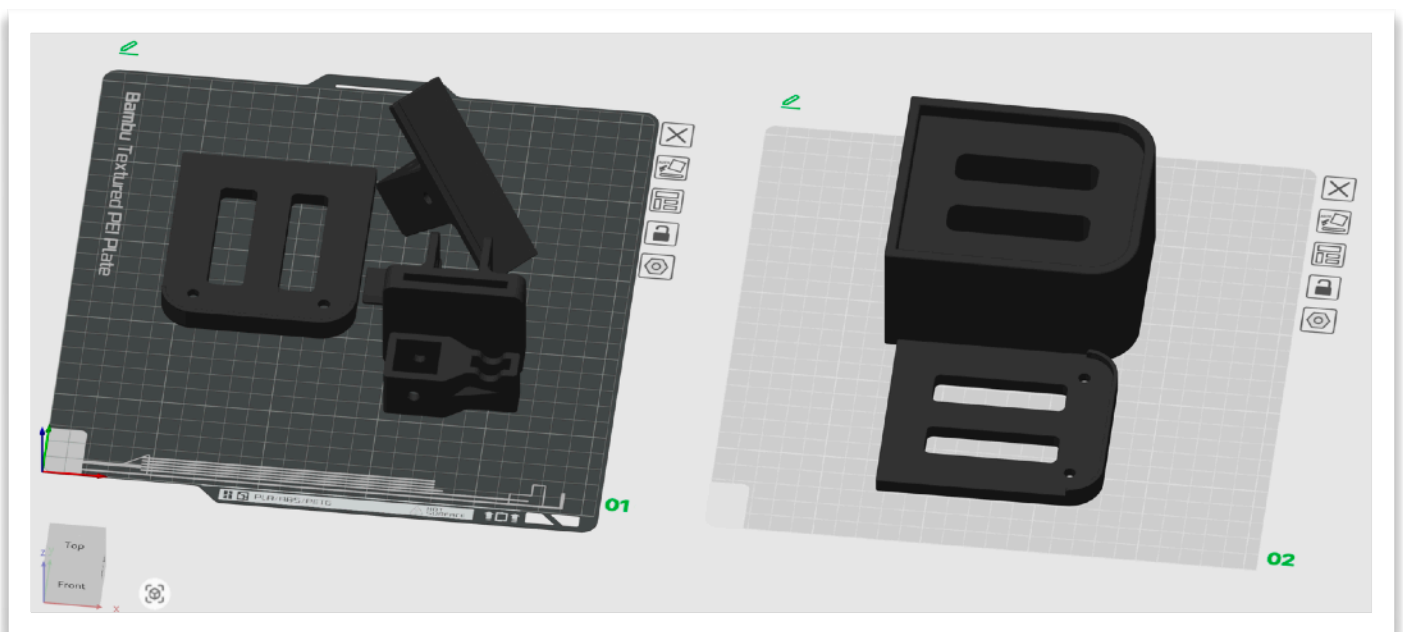
Maker world hosts the design for making your own Centre Jack, strictly no permission is granted to make and sell unless we have an agreement.

The Files can be found here:

<https://makerworld.com/en/models/1311245-pinball-centre-cabinet-jack-kit#profileId-1345562>

The files are supplied on 2 different plates and is a long print in total (approx 9 hours).

Important Note: do not reduce the wall amount or the fill percentage as it is critical to be semi solid and not cheap out at 15% - part collage will occur at 15%.

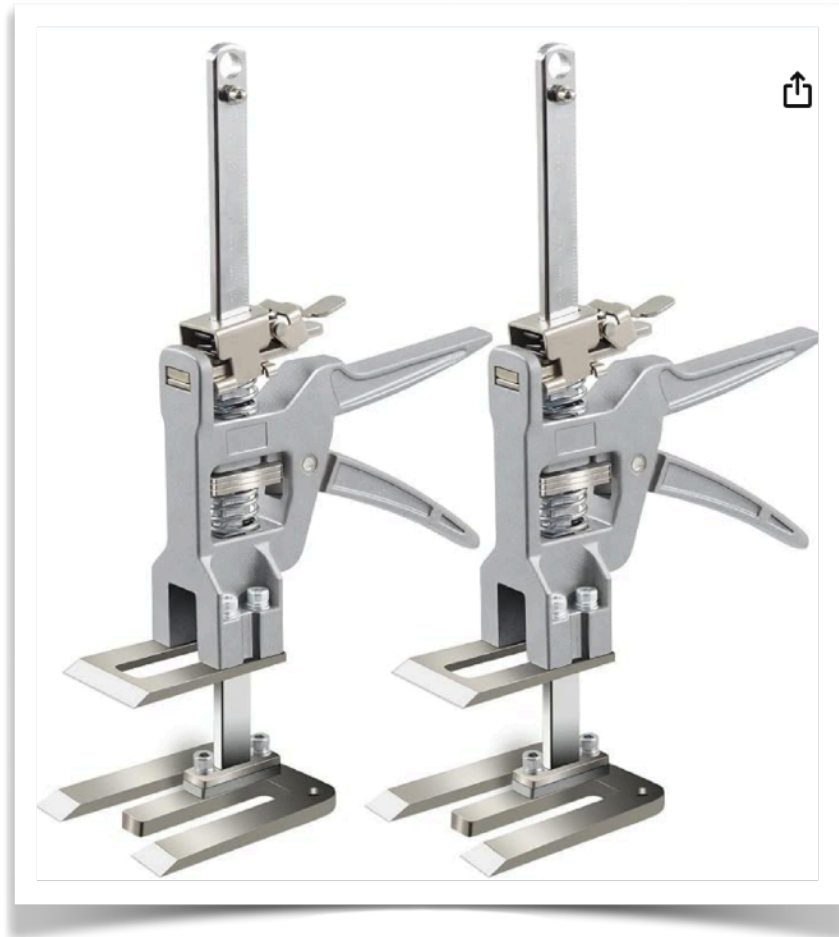


On both plates is a thin base plate in which you only need one but one is for low profile bolts and the other is for countersunk bolts - simply delete the one you do not need.

2 - Purchasing the Jacks Separately

We trialled a few different Jack Clamp brands and some have smaller lifting capacity, or a high number of parts being plastic and a single release button.

The ones Swinks Pinball has chosen to design the Centre Cabinet Jack for are these (colours may vary):



Because, they are:

- all metal
- have 2 different release buttons, one for full release and other for 5-10mm lowering increments at a time
- Clamps do not need any modification at all

They will come in pairs but you only need one so the other is a spare or if you want 2 x Centre Cabinet Jack Kits then you can make 2.

The following are just guides for this particular jack and if checking out the links from another country you might need to find the similar jack in your country like - Amazon US.

When you print a kit it will come with 2 different height base plates allowing the use of the jack at the front and back with the same setup.

There is some confusion of the jack heights as some sellers list the jack as 7" which is the lifting height capacity and some list it as a 12" is presumably the lifting height capacity but often is the total jack length and I am yet to find a 12" lifting height capacity jack available.

The below are links to the 170mm / 7" jacks.

Amazon Australia

\$89.99 AUD with possible free delivery - within 24hrs

<https://www.amazon.com.au/dp/B0BJCZ1W9X>

\$74.99 AUD with possible free delivery - within 24hrs

<https://www.amazon.com.au/dp/B0CPDZ6TJX>

Amazon USA

7 inch:

<https://a.co/d/2jpy48b>

12 inch:

<https://a.co/d/027mSs9>

Once you have the Lifting Jacks as per recommended, they will arrive packaged similar to this:



3 - Centre Cabinet Jack Kit Components

The Centre Cabinet Jack Kit looks like this (pictured below) and there are a number of parts (25) making up 1 x kit:


- 1 x 3mm Allen Key (to adjust all / all the bolts of the kit)
- 9 x M5 x 10 Low Profile Bolts
- 8 x M5 T-nuts
- 1 x 20mm V Roller Aluminium Extrusion - long - 440mm
- 1 x 20mm V Roller Aluminium Extrusion - short - 86mm
- 6 x 3D Printed Components (shown below from top to bottom):
 1. Centre Jack Cabinet Support
 2. Centre Jack End Cover
 3. Centre Jack Lift Arm Slide Guide
 4. Centre Jack Lift Bracket
 5. Centre Jack Base 7.5mm high (use on the front of the cabinet) - 2 designs are supplied 1 for countersunk bolts and the other for low profile flat bolt heads = print the one that is your preference.
 6. Centre Jack Base 52.5mm high (use on the back of the cabinet)

The printed parts are detailed as shown below:



4. Maker Store Parts


You will need to find a Maker Store or equivalent and order the following parts:



V-Slot 20 x 20mm – 20 Series

\$7.82 – \$48.68 Inc. GST

All of our 20-Series extrusions conveniently come standard with an M5x0.8mm 10mm deep tap!




M5 Low Profile Screws – 10 Pack

\$1.63 – \$2.94 Inc. GST

The Low Profile Screws are a great choice for any project! Compared to most screws, they are ultra low profile. This means plenty of clearance. The low profile head will not get in the way when building.

LPSCREW-LENGTH
10mm/10 Pcs [Clear](#)



Tee Nuts (25 Pack)

\$5.20 Inc. GST

These T-Nuts fit V-Slot and most aluminium T-Slot extrusion that has at least a 10mm wide tee nut slot.

5. Assembling the Jack Post

Assemble the printed parts as shown in these photos. Slide the t-nuts into the grooves of the v-slot and align your printed parts and insert the low profile bolt.

Note: the top short aluminium 2 slot rests on top of the long aluminium bar.



6. Installing Your Jack Post to your Jack

1. Align the Jack Post next to the Jack ready to slide the Centre Jack Lift Bracket onto the jacking lift prong and remove the small limit screw on the top of the vertical jacking arm.



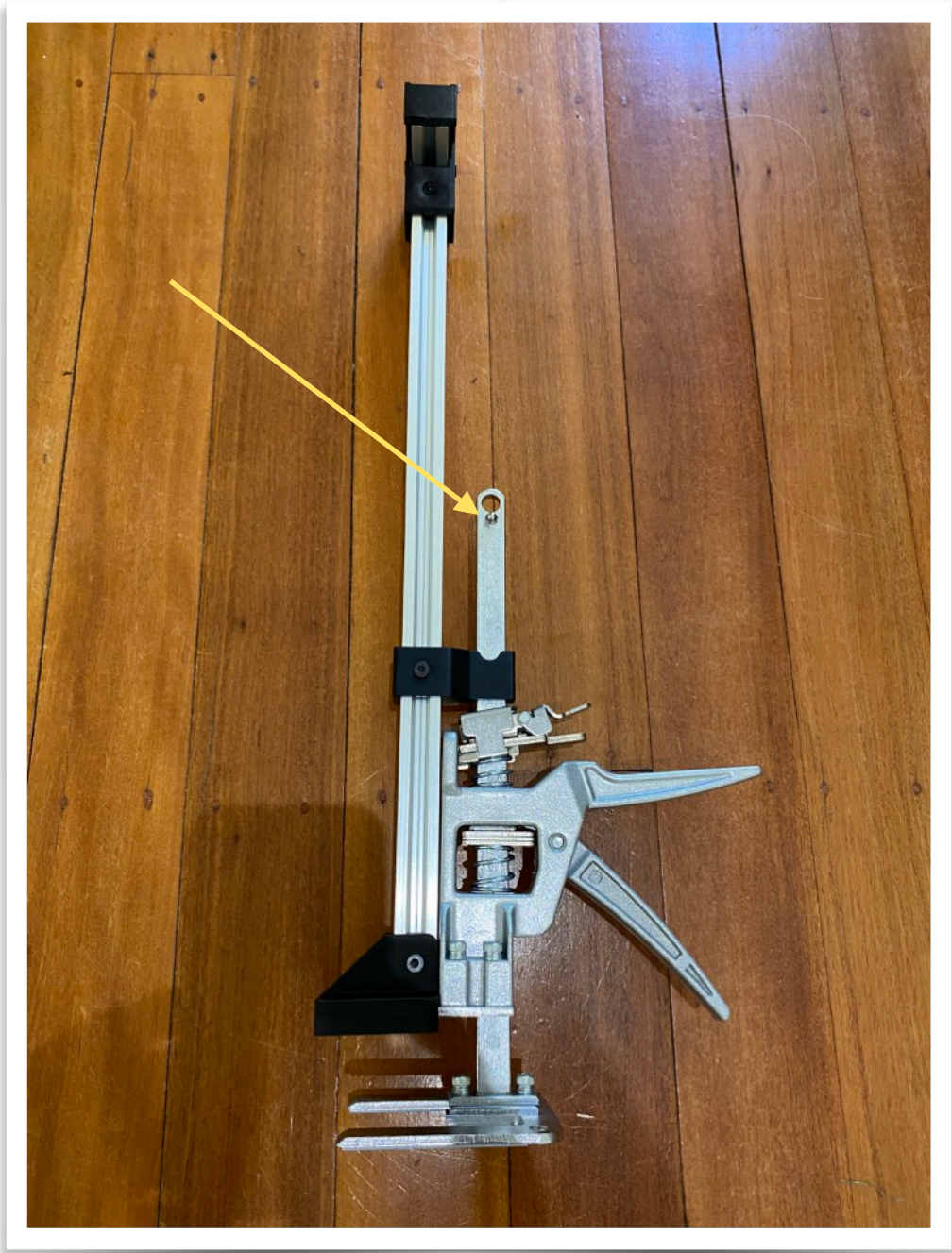
2. Slide the Centre Cabinet Jack Kit onto the jacking lift prong.



3. Loosen the 2 bolts on the Centre Jack Lift Arm Slide Guide and slide down the vertical jacking arm and lock in place **5-10mm above the release brackets - do not get too close as the Jack can Auto Release which can be risky / dangerous**. The Centre Jack Lift Arm Slide Guide purpose is ensure when you jack up your pinball the Centre Cabinet Jack Cabinet and Jack do NOT swing away from each other. Do not place too high as it will limit how high you can jack the cabinet up **BUT also do not go too close to the release clamps as it will not raise and stay jacked and will release back to the ground - needs to be a minimum of 5mm gap**.



4. Lastly re-install the limit screw at the top of the vertical jacking arm as this limits how high the Centre Jack Lift Arm Slide Guide can go.



5. You can either double side tape the thin base to the bottom of the jack, or bolt on with any bolts you have on hand - approx 20mm long.



5. Now your Centre Cabinet Jack is ready to use. The thin base is secured to the jack for use at



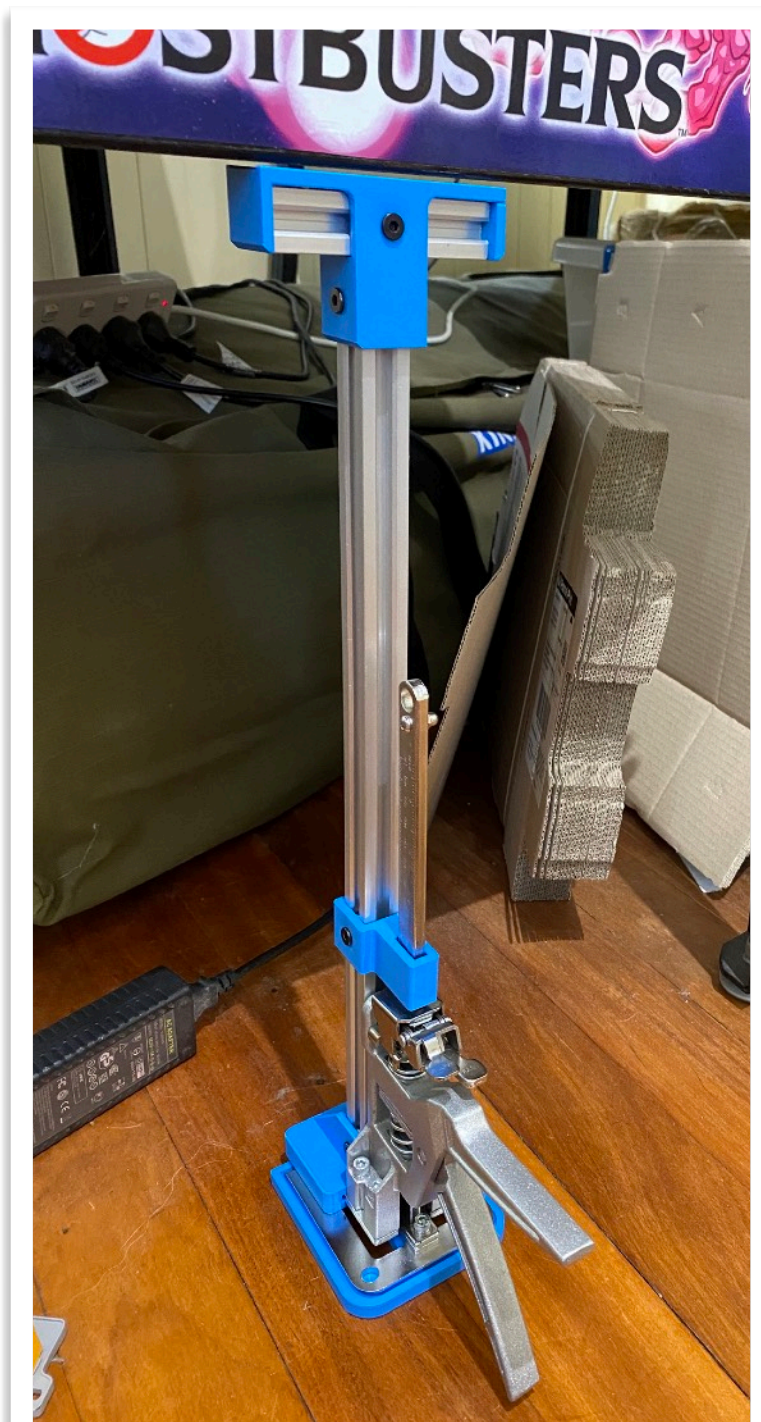
the front of the cabinet and the larger booster base is for use at the back of the cabinet. Simply drop the jack and it's thin base into the booster base and slide into position.



7 - How to Use The Centre Cabinet Jack

Simply take your new Jack Stand and line up in the middle of your cabinet either at the front or the back - **Never jack up both ends of the game at the same time as the game will be unstable.**

Place the Centre Jack Base under the Jack - this aids in spreading the load a little more - protecting your floor and stabilise the jack better. But if height is an issue - simply remove this base to gain some more clearance but the jack and base is designed for the game (Stern) set at it's absolute lowest with no pin footies. Worst case if you have a cabinet that is lower - you can remove the base for another 7.5mm clearance and if you need even more you can trim the main aluminium upright a little to reduce the height of the Jack Kit but this will affect the lift capacity at the back of the cabinet in it's absolute highest - 20mm pin footie clearance and leg levellers would out a maximum of 40mm.



Sorry for the use of various images (of different colours).

Now line up the Centre Jack Cabinet Support to the bottom of the cabinet. Notice it has an ever so small step at the front and back so the cabinet can not slip off the jack cabinet support once jacked up. And then hand jack so the Centre Jack Cabinet Support is just against the the pinball cabinet.



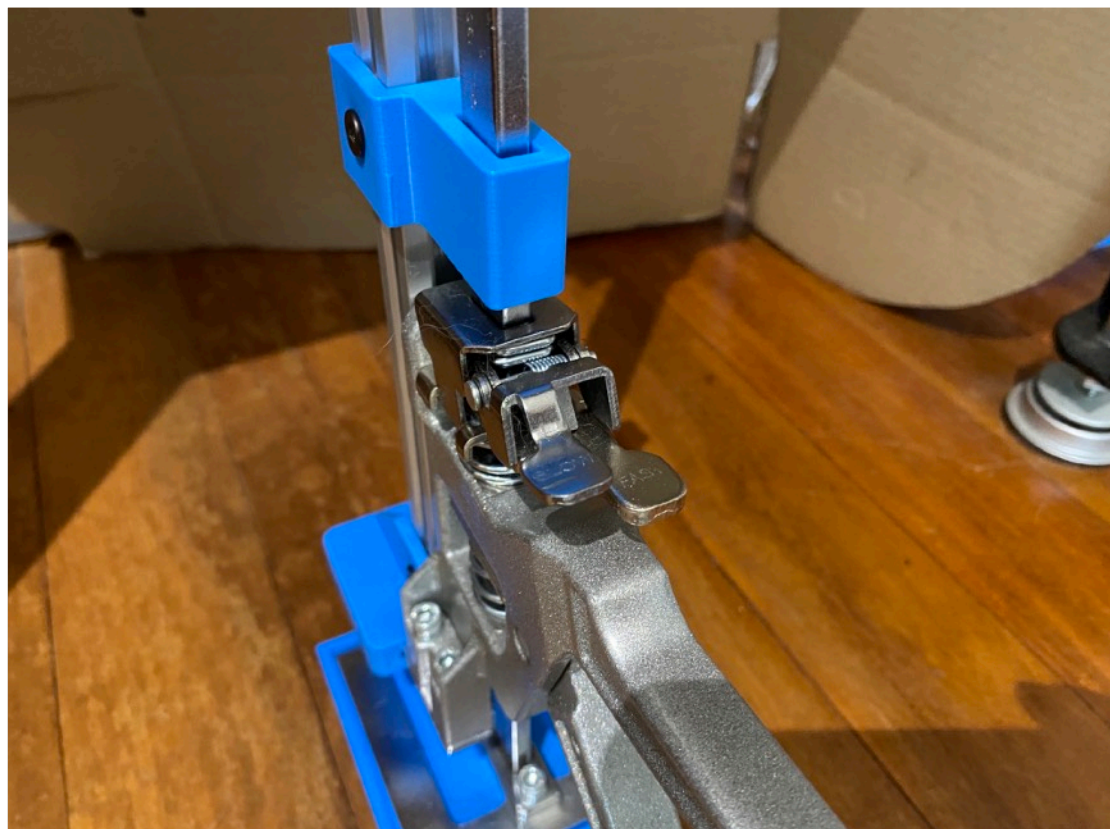
Now you are ready to jack up the cabinet, BUT do not go too high - the higher you go the more the pinball is unstable if pushed or pulled. Once jacked up say 25mm / 1 inch - slide the pin-footie or furniture slider out of the way and adjust your leg leveller up or down and lastly place the pin footie back under the leg leveller and now you are ready to lower your game back to the ground - see next page.



You are almost done and just need to lower your game down, BUT there are 2 buttons on your jack.

- Left (SLOW) - is 5-10mm increments with each push
- Right (FAST) - is all the way down fast with one push

Our recommendation is use the Left Button only for increment lowering - as less potential damage to your pinball and the floor.



When jacking the back of the cabinet it is a similar process for the back except cabinets generally are higher at the back of the cabinet so you will need the booster base. Simply place the jack with it's thin base into the recess of the booster base and jack up to the cabinet - ensure to set the jack up vertical and not at an angle and starting to take the load.



Once your game is jacked up, adjust your leg levellers and then lower. Once the game is lowered check your levels and lock the leveller nut if your playfield is level and your game is good to play, or lift your game again to make minor adjustments and follow the previous steps over again.

Enjoy

RETURN POLICY:

This is a print your own mod / tool so no returns with this item.

We want everyone to love and enjoy their Centre Cabinet Jacks - so if you have any issues at all please, please reach out via the well known Pinside forum - my handle is Swinks or via email and we will promptly help you out.

Email: swinks.pinball@gmail.com

PRODUCT DISCLAIMER:

Please remember that this is a custom pinball "Tool". We took great effort in designing and testing our product in order to produce a high quality product, but it is not a factory original dedicated to do this work nor an approved part for your pinball machine. Please still take care of your back and hands. As such, we cannot assume responsibility for game malfunction, damage to the game or surroundings, unwanted personal injury, or other adverse effects caused by the use of this tool - practise common sense when using as we can not control how it is used - that is up to you.

PRODUCT QUALITY DISCLAIMER:

All parts are made to the highest quality possible. The Tool's Jack Stands are made with PLA Tough filament and will show some minor print lines but is strong and function. Like all tools respect them and they will last for a very long time, so if thrown around they may chip and affect the integrity which is on you.