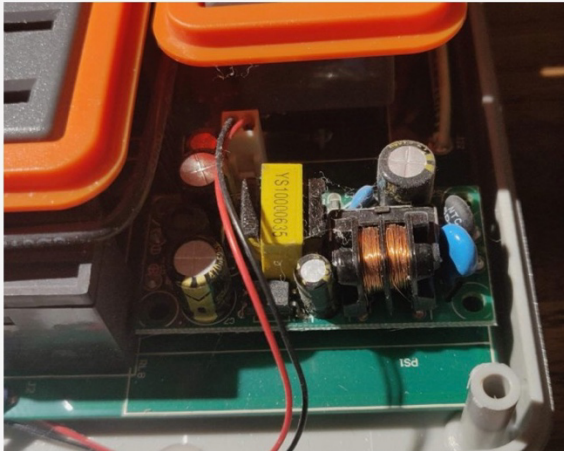
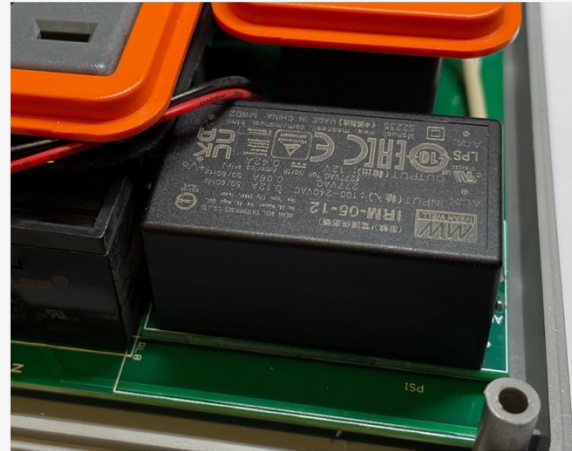


Neptune Apex EB832 12v MeanWell Upgrade/Repair

Before:



After:



PLEASE NOTE:

1. This repair should only be attempted by someone experienced with soldering and electronics, such as a licensed electrician. This document is meant to demonstrate how I conducted the repair on my personal equipment.
2. I am not liable for any damages to your person or property based on any attempt of replicating this repair. This PCB component is designed as a potential DIY solution to repairing a damaged item, and as such, the installer accepts all responsibility for risks or damages to their or other's person or property.
3. This is a DIY kit, and as such, it includes no warranty, guarantees, or bears any responsibility for your installation. Take precautions when working with electrical components including (but not limited to) ensuring they are unplugged when opened.
4. I have no responsibility for the user-installed modification of their EB832s.

This repair applies to older Neptune Apex EB832's with Step Down 500ma DC Modules and ALL the following symptoms:

- Outlets do not output 120v power to devices.
- LED outlet indicator's function and change correctly when plugged into Apex.
- There are no audible "Clicks" when EB832 is plugged in, or outlet changed in Fusion.

This Guide is **NOT for:**

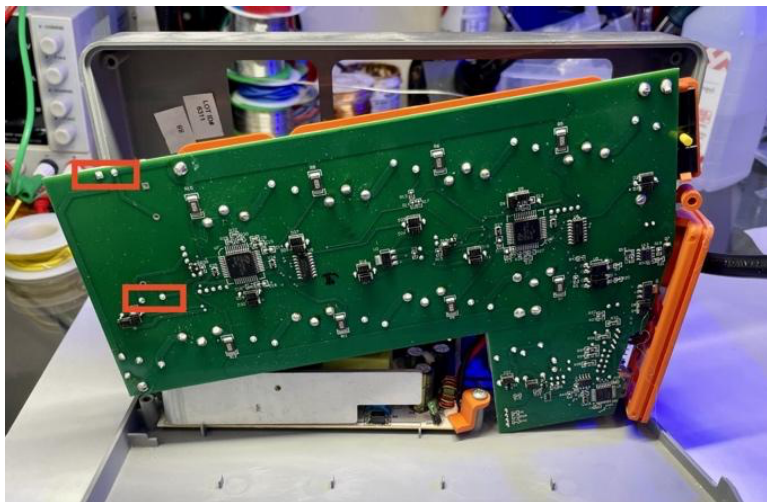
- Newer EB832 design with black Meanwell PSU (Intertek sticker on back).
- EB832s with rapidly flickering Neptune Logo.
- EB832s with specific (not all) outlets failing to output power.
- EB832s with other symptoms not mentioned here.

Neptune Apex EB832 12v MeanWell Upgrade/Repair.

1. Ensure EB832 is unplugged for at least 5 minutes. Remove 3 Phillips screws from the back of EB832, then flip over and fold open EB832 as shown. **Be careful to not damage the LED indicator ribbon cable. You can leave it attached during this repair.**

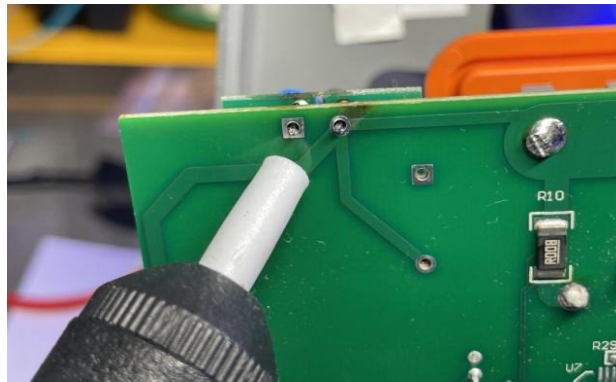


2. Fold up the main PCB to access the back, while being careful to not damage the LED indicator ribbon cable. There is one orange PCB hold-downs that may require loosening and rotating to release the PCB. Highlighted are 4 pins that require desoldering.

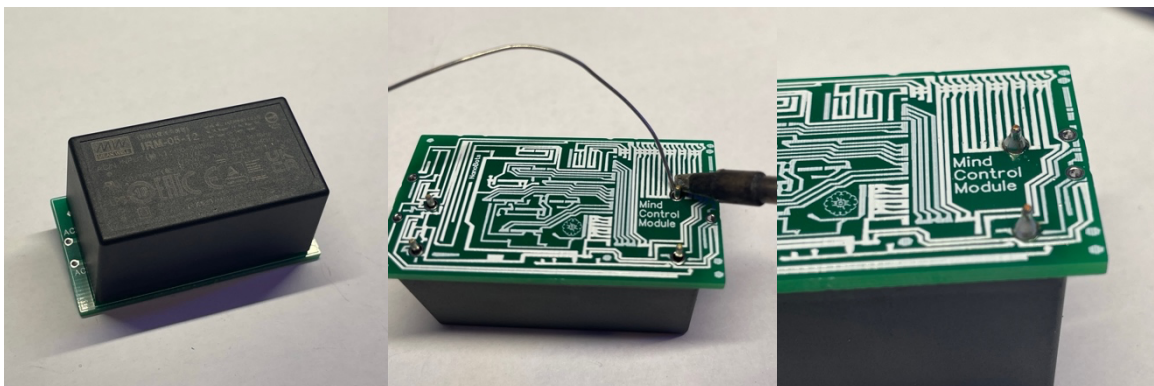


3. Desolder the 4 pins, and then pull off 12v power supply. Below image is after using [solder sucker tool \(Amazon, \\$6.99\)](#), which makes the job easier. All solder MUST be removed to fit new MeanWell PSU. If you are having trouble desoldering the pins, watch [youtube videos about desoldering](#). Essentially, use flux and apply some fresh solder if you have any trouble.

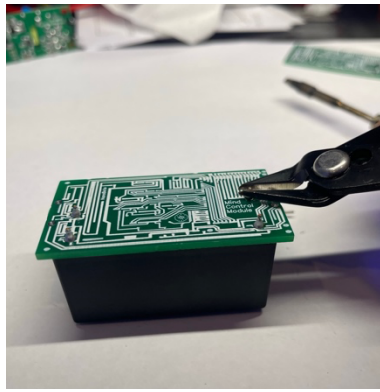
After the PSU is removed, verify hole is clean of solder and the new header pins will be able to slide in easily. If you leave solder in the holes and cannot fully insert the new header pins, it is a **FIRE HAZARD** (Example on last page).



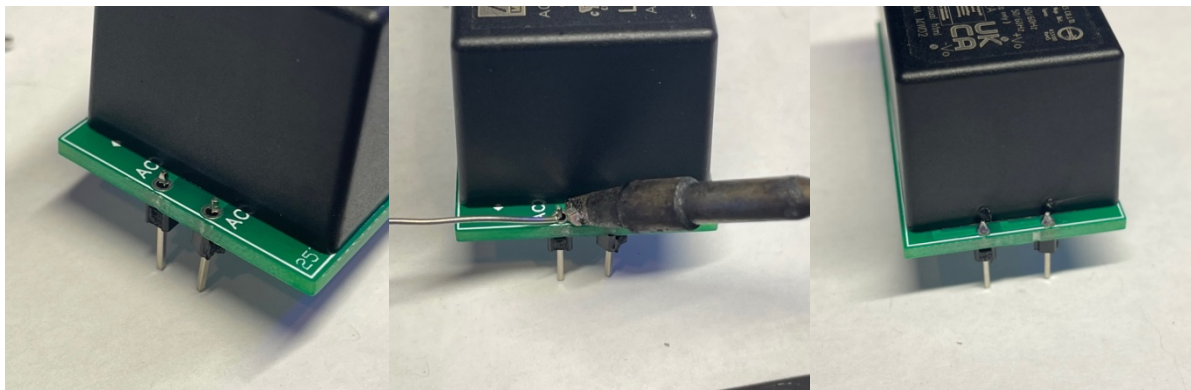
4. If you have “Meanwell Upgrade KIT”, preassemble the PSU as follows. If you have the “Meanwell Upgrade Assembled” skip to step #5 .
 - 4.1. Place Meanwell PSU onto PCB. Flip over and solder all 4 pins. Make sure solder joint looks nice and round, fully covering the pin and pad.



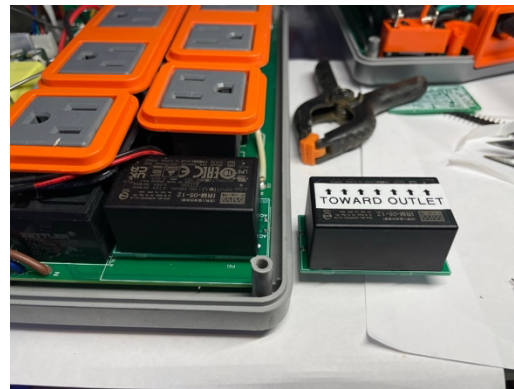
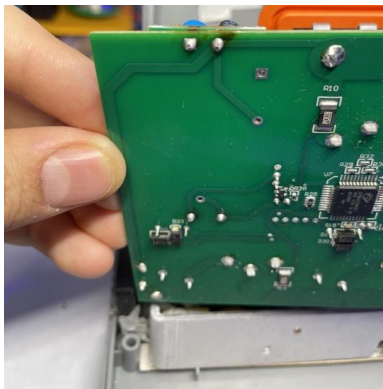
- 4.2. Cut off tip of pin to shorten it slightly and prevent it from contacting the EB832 main PCB. Do NOT cut it flush to the PCB; just cut off the top 1mm of pin.



- 4.3.** Break apart your 4 headers and place them underneath the PCB as shown. The short end will be facing up. Try to get these as straight as possible so they go into the EB832 easily later. Solder the joints and ensure the joint covers the pin and pad.

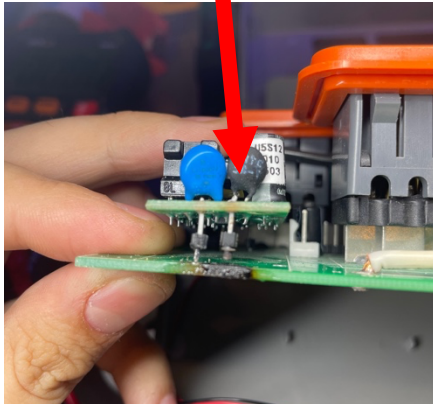


5. Put replacement Meanwell PSU in place with the “AC” labels facing on the outside edge of the EB832. Solder the pins in place. If the pins are not fitting in well, double check you have the correct side facing inward (shown below) and pins are not bent. Ensure the pins come fully through the board and you have a nice bead of solder.



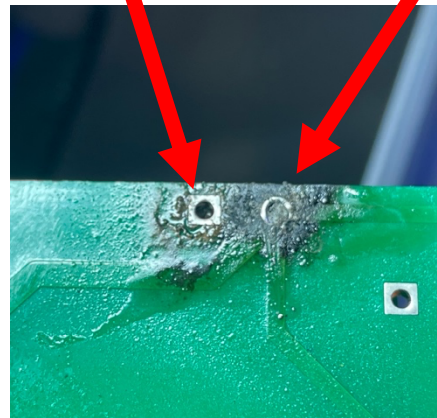
WARNING: IF THE PINS ARE NOT FULLY INSERTED THROUGH THE BOARD AND A NICE SOLDER BEAD PRESENT, IT CAN PRESENT A FIRE HAZARD. HERE IS AN EXAMPLE OF SOMEONES POOR SOLDERING ATTEMPT THAT LED TO BURNING:

Pin was not through board during soldering.

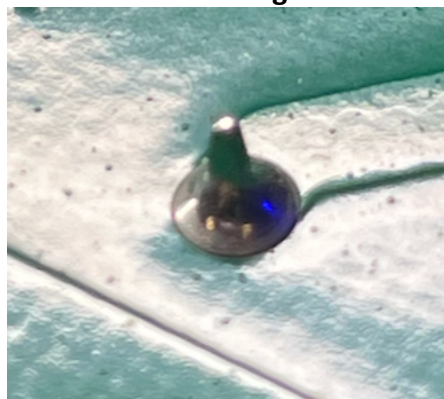


This pin did not go fully through the board during soldering, and barely made contact. Fire risk.

Solder did not reach this pin, which arced out, smoked, and came close to a fire.



Good soldering:



Enjoy your repaired PSU!

