

Nintendo 64 Power Supply Power Cord Replacement Guide

Thank you for your purchase of a Nintendo 64 power supply replacement power cord from Nintendo Repair Hut. We appreciate your patronage and look forward to serving you again in the future. If you have any questions please don't hesitate to contact us at Starwander@Comcast.net. This guide is intended to help you through the steps involved in installing your replacement part.

Items Needed to Start

- Nintendo 64 power supply power cable
- 4.5mm security screw kit
- Soldering iron
- Soldering braid or solder sucker
- Solder
- Wire cutters
- Safety goggle
- Gas respiratory or fume hood

Personal Protective Equipment

During the process of removing the power cable from the power adapter and installing the replacement one you will be vaporizing the solder and other materials on the circuit board. This will release toxic fumes into the air that will be inhaled if you are not using respiratory protection. We recommend that you use at the very least a gas respiratory to protect yourself and goggles to protect your eyes. The best solution is to use a fume hood if you have access to one.

Soldering Skills Needed

This repair requires extensive soldering skills and should not be attempted by a novice. You are more likely to damage the system if you don't have the proper skills. We recommend that if you are not completely comfortable with your soldering skills you return this repair kit for a full refund at this time.

Patience

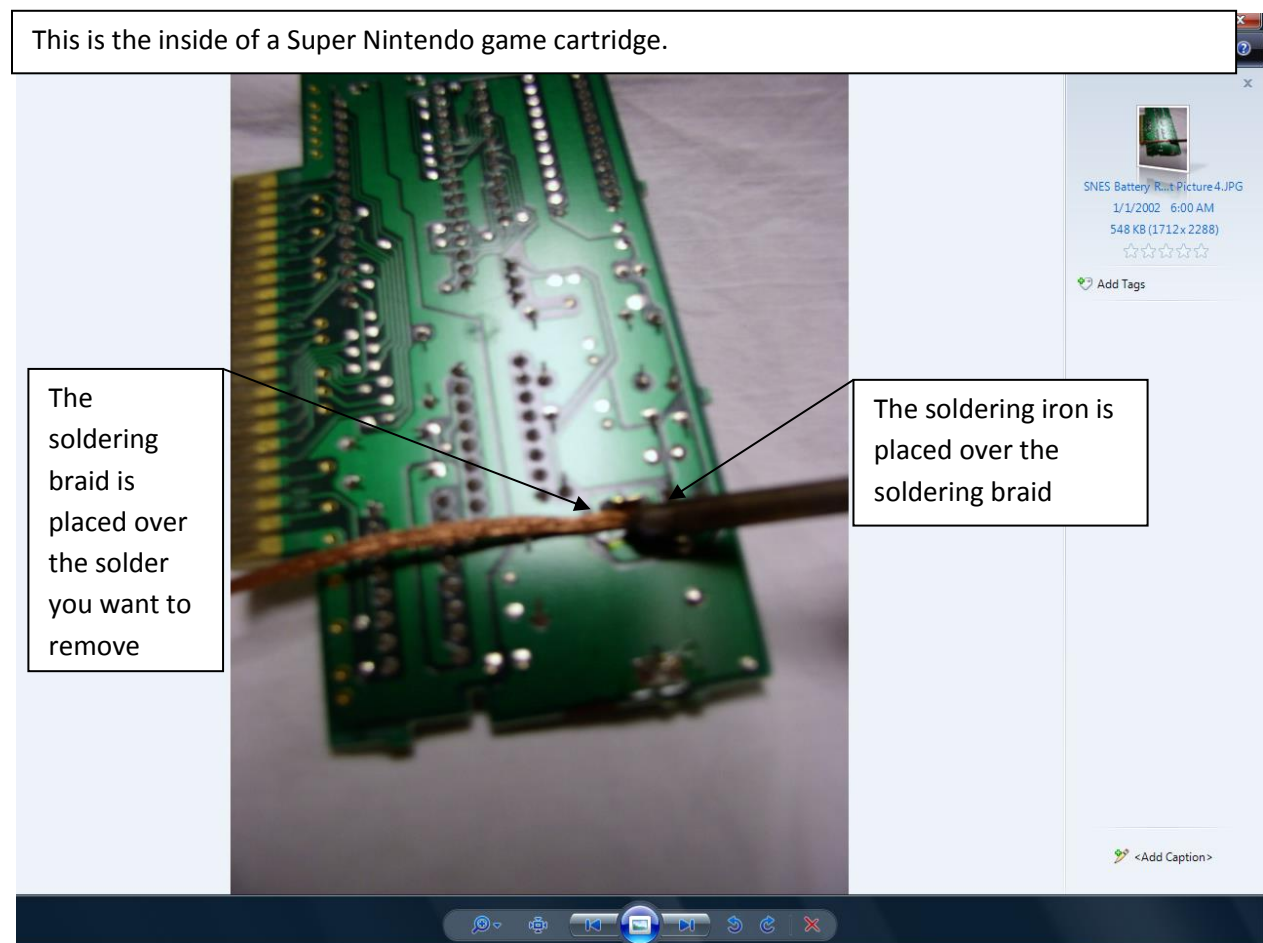
This repair requires roughly fifteen to twenty minutes of work. If you start to get tired we recommend that you stop and come back to the work at a difference time. Attention to detail is an absolute must during this repair.

Soldering Techniques:

In order to solder and unsolder correctly you will need a soldering iron, solder and soldering braid or solder sucker. Once you have these items it is safe to proceed forward. For the duration of this project it is not recommended that you use a cold heat or any other instantaneous heating soldering gun, since these soldering devices use an electrical current to melt the solder. Passing a strong electrical current through your games or systems is not recommended and as such should be avoided. We recommend that you use a typical soldering gun, the type that you have to plug in and wait to heat up. In addition it is recommended that you set your soldering iron to 30watts for the duration of this project if possible.

Unsoldering:

Correctly unsoldering a joint is rather easy once you get the hang of it. In order to unsolder a joint place soldering braid over the solder you wish to remove and then place the soldering iron over the soldering braid. The soldering iron will heat the braid and in turn the solder will liquefy, which will be sucked up by the braid. Please see the picture below.



Picture Introduction: Proper usage of solder braid

Although it might take a little while to completely remove all of the solder, patience and persistence will pay off in this case. Every 10-15 seconds remove the soldering braid and check to see if the solder have been fully removed. As soldering braid is takes up solder periodically cut off these used sections as

needed. If you do not have soldering braid and instead have a solder sucker you can melt the solder with the soldering iron and then rapidly suck the solder up with the solder sucker.

Soldering:

Now that the solder has been removed you can now remove the object that the solder was holding in place and you are now ready to solder something new into place. During this project it is not safe to use excessive soldering material as bridging between joints is very easy due to their close proximity to each other.

The two most important things to keep in mind are:

- 1) Never allow patches of solder to overlap or touch, doing so creates a short, thereby rendering the circuit inoperable.
- 2) Make sure to use enough solder to securely attach whatever it is you are soldering, do not be afraid to test the joint out.

Keeping these items in mind lets continue with our demonstration. To apply the solder take it and place it over the soldering joint and then lightly place the soldering iron over the solder. This is just like unsoldering, although this time you are soldering and not unsoldering. This part is a little tricky when you first start and is hard to describe with words alone. It is recommended that you test out melting solder first to get an idea of how it behaves.

One ideal exercise you might want to try is to attempt to solder together two pieces of wire. Take two pieces of wire, strip the ends, twist the ends together and then practice applying solder over this twisted joint. During the course of this project if you run into trouble remember you can always back track and remove the solder and try again, using the soldering braid. Soldering braid and solder are very cheap and as such are worth playing around with to get comfortable with before you go ahead and try to solder in a replacement battery. Now that we have covered the basics of soldering and unsoldering, let's get started with the replacement of that power cable.

Step One:

To start please turn over the power supply and locate the two 4.5mm security screws holding the casing together seen in picture one below.



Picture One: Back side of Nintendo 64 power supply

Once you have located them please unscrew the screws and remove the back casing. As you attempt to remove the casings, the back casing snaps off relatively easily; however the top casing doesn't. It seems as if it is still screwed in someplace; however this isn't true. There are two small foam sticky pads that are glued to the top of the mother board and cement it to the inside of the top of the casing. If you pull really hard you will be able to pull off the top casing. Once the casings have been removed then proceed to step two.

Step Two:

Now that the casing has been removed your power supply mother board should look something like picture two below.

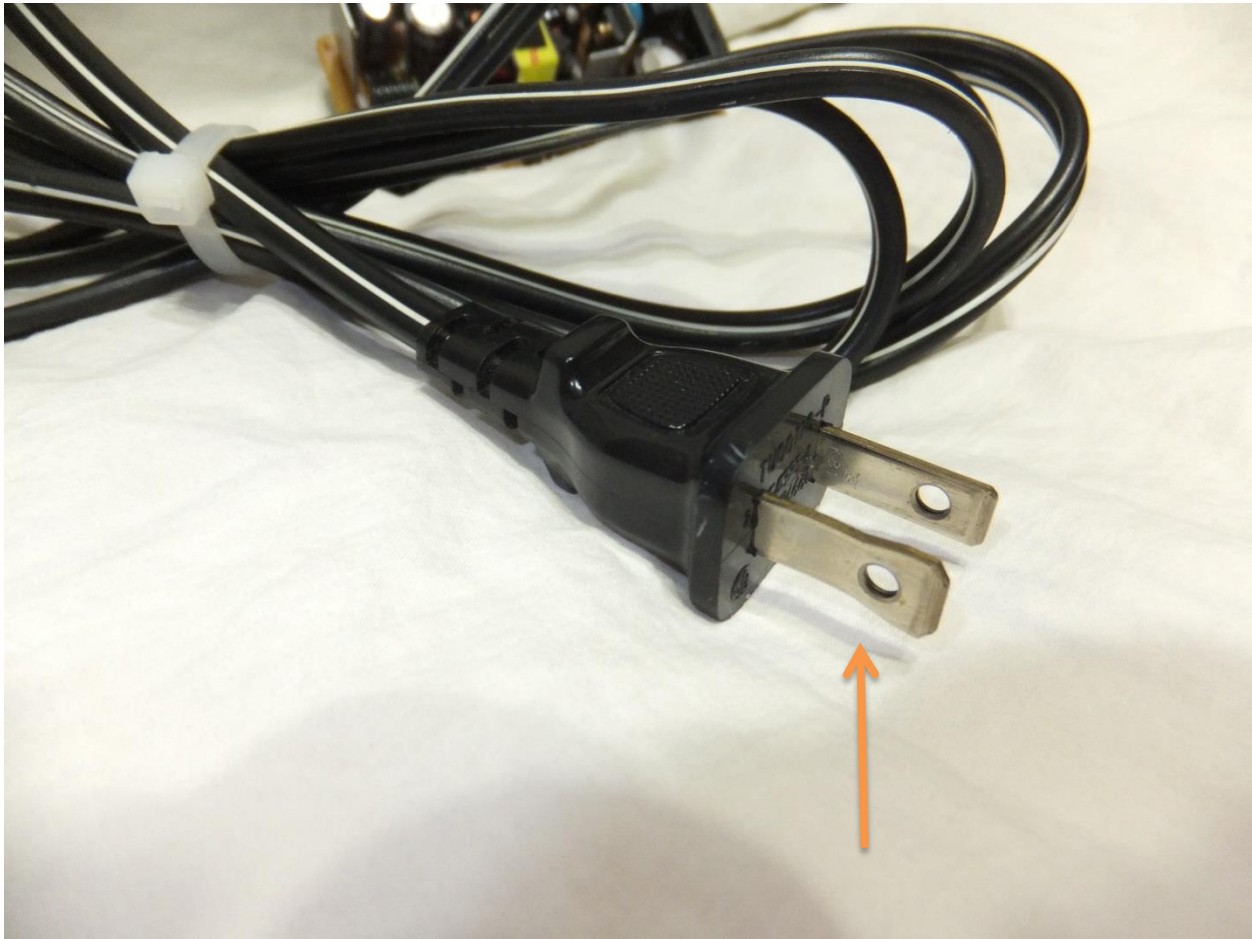


Picture Two: Nintendo 64 power supply mother board

Once the board has been accessed you are ready to start replacing the power cable. Please proceed to the next step.

Step Three

The first step is to identify the polarized prong on the power cable. Please see picture three below.



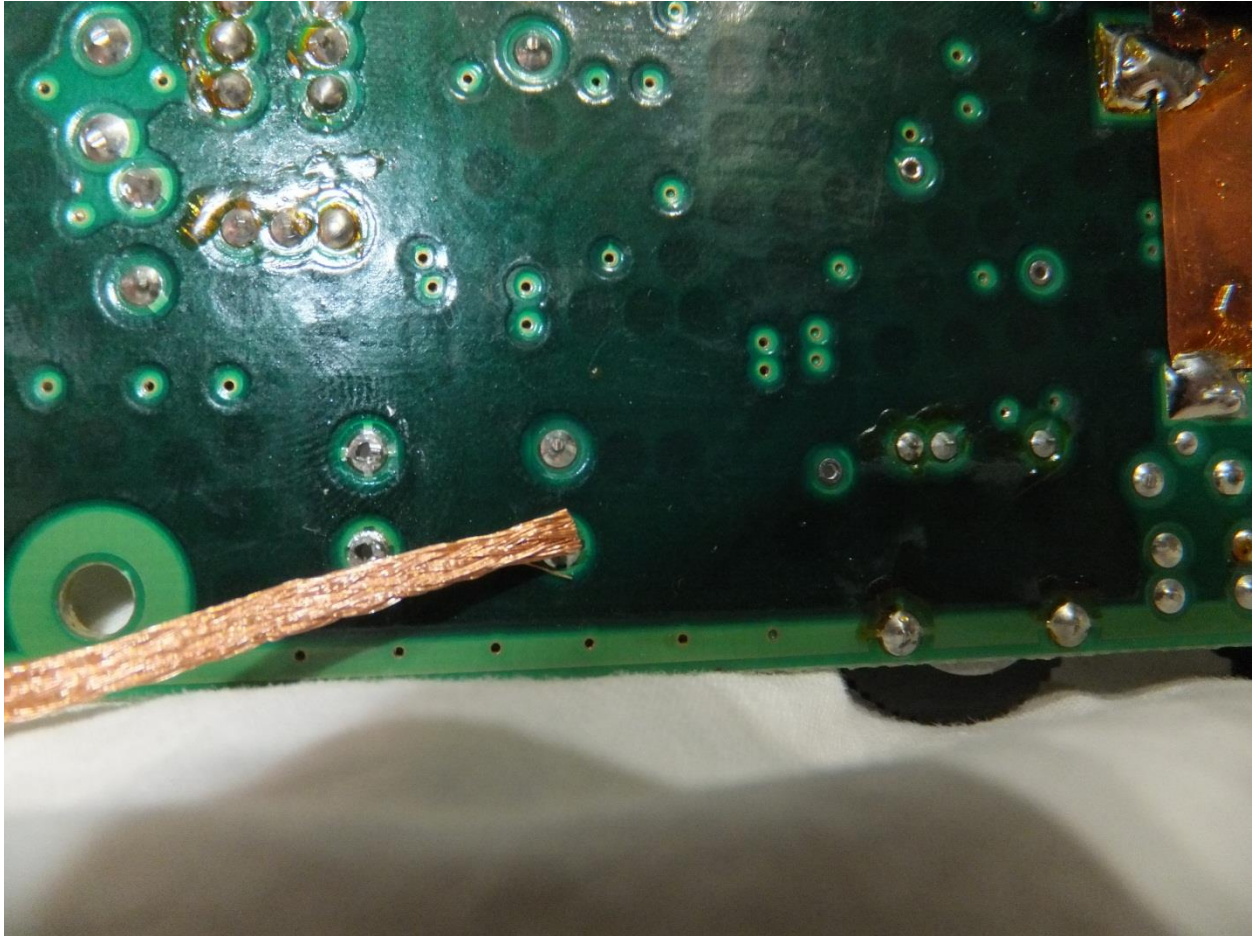
Picture Three: Power cable

Do you notice that the prong identified by the orange arrow is wider than the other? This is a polarized power cable meaning it is technically designed to be inserted into the wall outlet in only one direction. You will notice that the replacement power cable has the same feature. Furthermore you will notice that the wire originating from the polarized prong has a white strip in it; however this is not true of the replacement.

Trace back the wire attached to the polarized prong to the mother board and mark that terminal it is soldered into with a "P". When you install the replacement power cable make sure that that wire supplying the polarized prong is soldered to this terminal. Next please proceed to step four.

Step Four

In order to unsolder the power adapter cable we recommend the following strategy. For the purposes of this guide the following picture is from a sample system and are not directly taken from the Nintendo 64 power adapter.



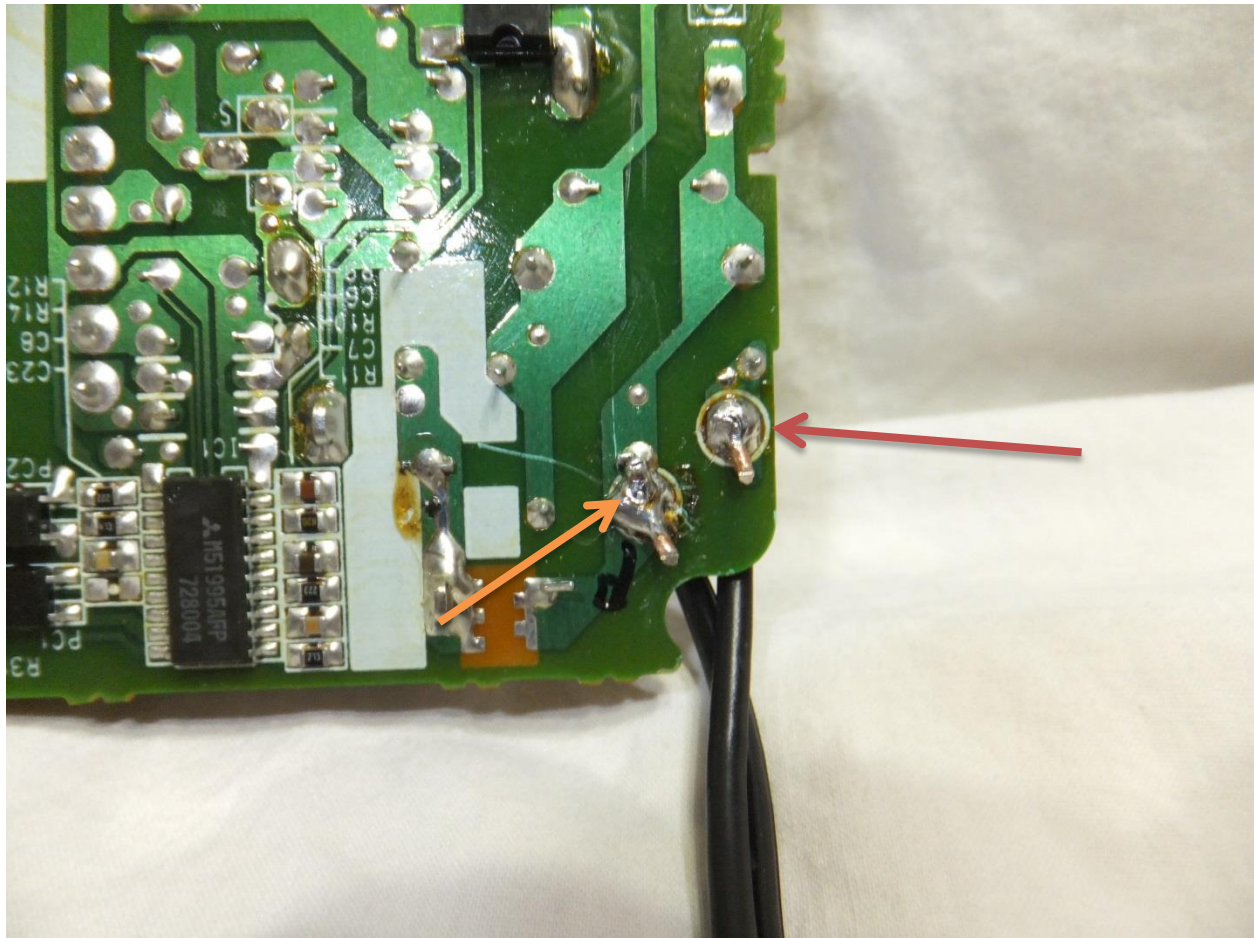
Picture Four: Proper usage of soldering braid

Place the soldering braid over the solder joint and then heat the joint with your soldering iron. The braid will suck up the solder and free the lead. You can also apply a small amount of traction on the lead by grasping the lead from the other side with a set of needle nose pliers and pulling if needed.

Once the power cable is removed please proceed to the next step>

Step Five

Next you need to solder in the replacement power cable; however before you do please insert the enclosed metal washer onto the power cable before soldering it into place. The purpose of the washer is described in step six. After the washer is installed please you solder the power cable. It should look like picture five below.



Picture Five: Soldering in the replacement power cable.

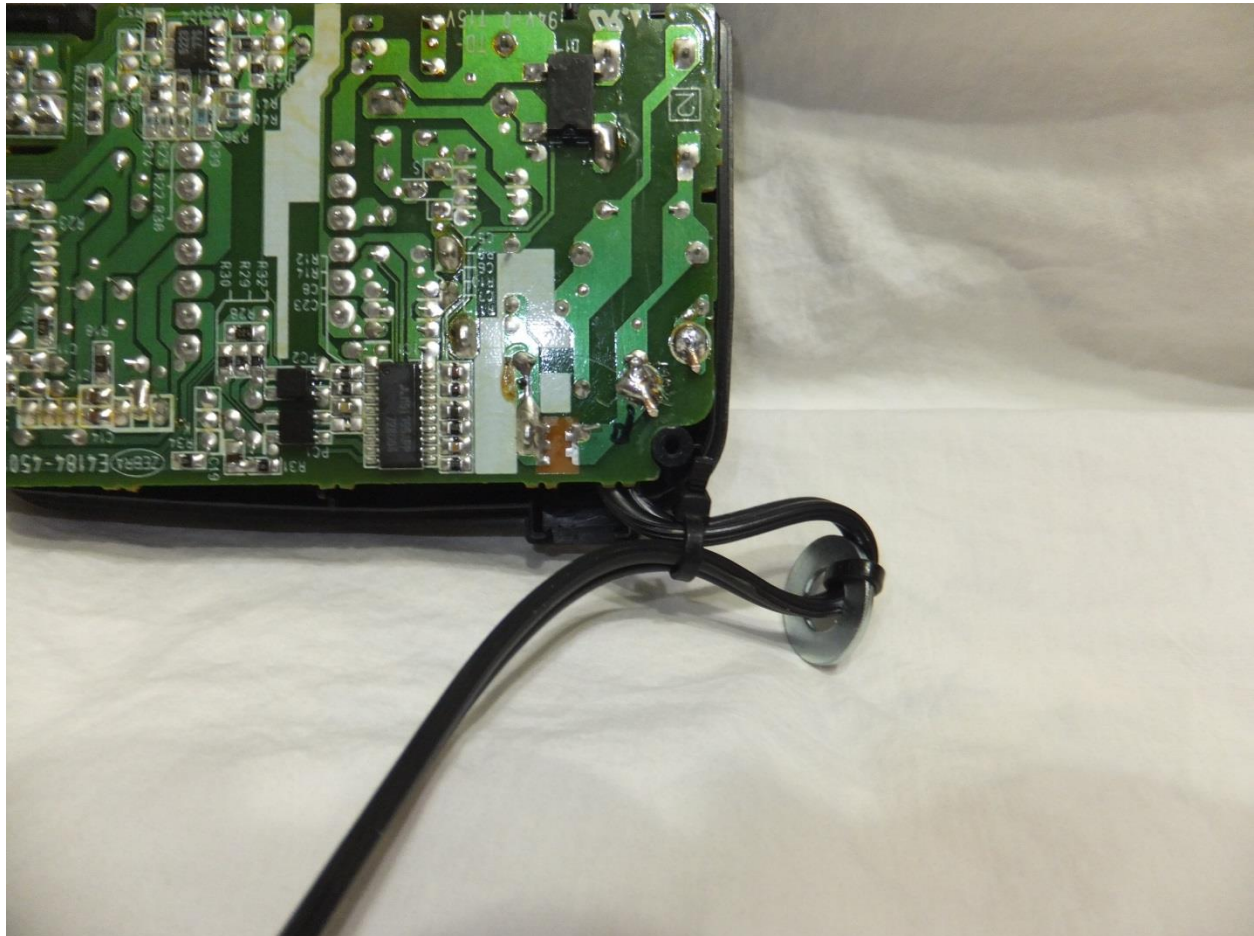
As you notice in the picture above you need to bridge the solder joint between the polarized wire and the resistor as seen by the orange arrow above. What bridging means is that the solder that holds the resistor and polarized plug wire are one unit. Usually this creates a short circuit; however in this case it is by design. Do not bridge the circuit indicated by the red arrow.

Once you have soldered on the replacement wire there is one additional step to take in order to finish. Please proceed to the next step.

Step Six

Before you close the power adapter up you will need to perform one last step. You will notice the replacement cable doesn't have the plastic grommet to anchor it to the casing, thereby preventing tension on the cable from ripping the wires loose from the mother board; however this is easily solved.

Take the included zip ties and zip tie the cable as seen in picture six below. It is very important that you zip tie the cable so the loop is located outside the casing as seen in the picture and to make sure that you have another zip tie on the loop itself.



Picture Six: Zipping the power cable

Once you are done reinsert the zipped portion of the power cable into the power adapter casing. You can alter the size of the loop by pulling on the end leading to the power plug to make the loop smaller so it will fit inside the case. Once snugly in the case this solution is amazingly resistant and will work just as well as the original.

Reassemble the power adapter and this point and congratulate yourself.

Troubleshooting Section

We are sorry to hear that you ran into complications from your repair. Unfortunately this particular repair is difficult to troubleshoot due to the complexity of the repair job, although here are some general guidelines.

- 1) Make sure that only the one circuit indicated in step five is bridged.
- 2) Consider replacing the fuse or capacitors