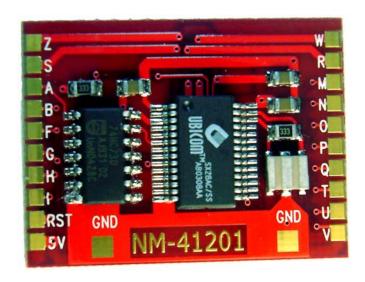


# HOW TO INSTALL YOUR NEO MAGIC MOD-CHIP For PS2's

**(FOR VERSIONS 5 - 12)** 



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## **RECOMMENDED TOOLS:**



- 1) #1 Slotted screwdriver (used for prying, Radio Shack Catalog #: 64-2970)
- 2) 15 Watt soldering iron (Radio Shack Catalog #: 64-2051)
- 4) Solder (Included)
- 5) 22 AWG wire for regular solder points (included)
- 6) 30 AWG wire for GND and PWR points (included)
- 7) De-solder wick (included)
- 8) Mini hot glue gun (optional)
- 9) Solder Flux Cleaner (optional)
- 10) Small soft bristle brush (to clean tines locations)

NOTE: Having the right tool for the right job will make all the difference between a pleasant experience vs. a nightmare!!!

THERE ARE MORE TOOL IMAGES IN THE FULL MANUAL!!!

## **BEFORE YOU BEGIN:**

Make sure you are grounded before you begin installing your mod chip; you must ground yourself by either using a grounding strap (<a href="Radio Shack Catalog #: 276-2370">Radio Shack Catalog #: 276-2370</a>) or by touching something metal. Make sure that you are working on a non-conductive surface (i.e. wood, glass...etc.). NOTE: ALL TEXT IN BLUE IN THIS DOCUMENT ARE URL LINKS FOR YOUR REVIEW!!!

## THERE ARE MORE HELPFUL TIPS IN THE FULL MANUAL!!!

#### **SOLDERING**

If you are a novice when it comes to soldering, then you should review the <u>soldering tips</u> web site first. The main thing to remember before you begin your project is to:

- 1) Use a low wattage soldering iron
- 2) Never hold the tip of the soldering iron against any electronic device for more than 3 seconds (too much heat can cause irreparable damage to electronic components).
- 3) Always tin what you are soldering to before attempting to solder a wire to it
- 4) Keep your soldering iron tip clean at all times

#### IMPORTANT THINGS TO REMEMBER

- 1) Never route wires over/under IC chips, always route your wires around them
- 2) Never cross any wires more than once (this should happen only by the modchip)
- 3) Keep your ground wire as short as possible (2cm)

#### 4) Use the 22AWG wire (supplied) for both power and ground signals

Your mod-chip comes shipped to you with all the necessary supplies (i.e. solder, wire, mod-chip...etc.) needed to complete your installation as shown below in figure #2.



PLEASE NOTE: ANY MODIFICATION TO YOUR PS2 GAME CONSOLE IS CARRIED OUT AT YOUR OWN RISK!!!

### **STEP #1: Mod-Chip Location**

Your game console should already be disassembled as shown below in figure #2. First choose a site to place your mod-chip board (see figure #3), There are different places you can put the mod-chip. Every version of PS2 motherboard is different so you will have to refer to the appropriate "installation view" picture for your PS2 model (i.e. V7, V9, V12...etc.). Next, place three long beads of hot glue to the bottom of your mod chip and quickly place it down to the game console motherboard. **NOTE: Make sure your mod-chip is positioned EXATELY like this photo or you will find yourself redoing your installation!!!** 

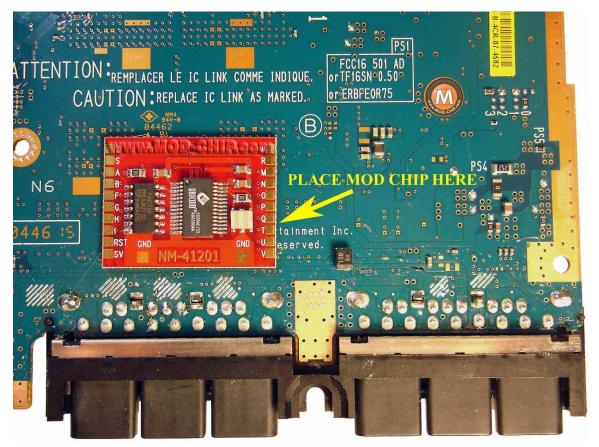


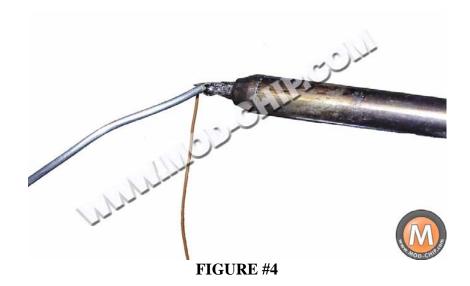
FIGURE #3

## **STEP #2: Preparing Wire To Solder**

Tin ALL the location points for which a wire is to be soldered to. This will familiar yourself with what wire goes where and you have properly prepared each site for soldering. Now tin your wire for soldering, there are two ways to do this:

- 1) Strip the wire insulation, then apply the solder to tin it
- 2) Apply a generous amount of solder to melt the wire insulation and to tin it at the same time as shown below in figure #4

Trim back the exposed wire to reveal only a very small piece of wire (too much exposed wire can touch to adjacent wires or electronic components). Now you are ready to solder your wire to the console motherboard. NOTE: Do this step for one wire at a time, you do not know what the wire length should be until you execute the next step (Step #3)!!!



If you have to solder a wire to a copper pad (VIA) or to an IC pin on the motherboard, you need to prepare these sites **before** attempting to solder a wire to it. To do this, you need to heat the pad first with the soldering iron to burn off the protective coating layer on the motherboard. Now hold your solder next to your soldering iron tip and tin the copper pad as shown bellow in figure #5. **NOTE: You will probably need to clean the pad area of flux residue using flux remover and a soft bristle brush (so you can see your work as you solder your wire to it). Too much heat to a VIA pad will cause it to lift off the motherboard, do not hold your soldering iron tip against it for longer than 3 seconds!!!** 



FIGURE #5

Your Tinned VIA pads should look like this below as shown in figure #6.



FIGURE #6

Your tinned IC pins should look like this below as shown in figure #7.



FIGURE #7

### **STEP #3: Soldering Your Wires**

Choose a location to start soldering your wires to; the illustration below (figure #8) begins with the motherboard's BIOS chip. Solder all wires at this end first before attempting to connect their endpoints to the mod-chip. After the first wire is attached to the BIOS chip, carefully determine its length by loosely routing the wire along the motherboard to the mod-chip terminal. **NOTE: be generous with your wire length; make sure each wire is long enough to go around IC chips and holes in the motherboard.** Once a wire length has been determined for a particular wire, then simply make the other wires in the cluster the same length.

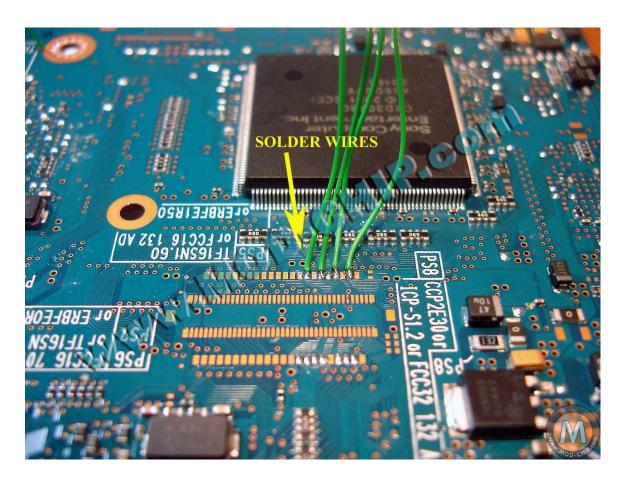


FIGURE #8

## **STEP #4: Shaping Your Wires**

Once a wire cluster is attached and their general length has been determined, carefully lay down the wires to the motherboard next to their solder location. While holding down the wires near the solder location with one finger, gently pull the wires with your other hand to make your first right angle bend as shown below in figure #9. Hot glue the wires in position near this bend. NOTE: use the #1 slotted screwdriver to carefully maneuver the wires side-by-side and to manage the wire bends near the solder location BEFORE you glue down the wires.

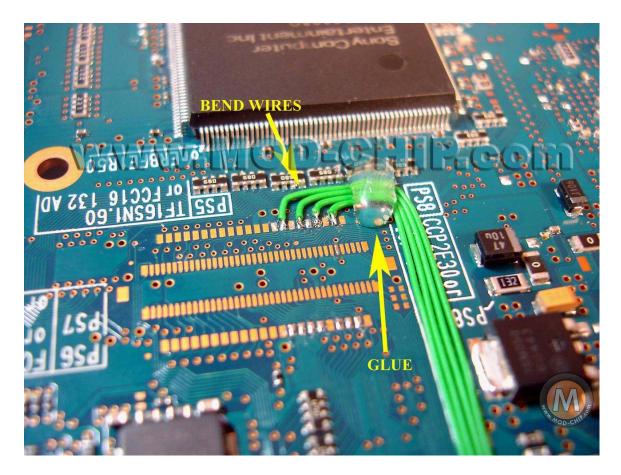


FIGURE #9

THIS IS JUST A
SNAPSHOT OF THIS
MANUAL, A FULL
VERSION OF THIS
MANUAL IS AVAILABLE
TO MOD-CHIP.COM
CUSTOMERS ONLY.