Installation tutorial for Console Customs PS3 TrueFire

Lite, Fusion v2, Pro and Pro-Jitter mod kits

This tutorial is designed to aid you in installation of a console customs rapid fire microchip. There is no one way to install this chip but this method is what I have found works the best and allows the chip to fit inside the controller.

This installation requires soldering several wires to extremely small confined spaces. We do not advise attempting this installation if you are a beginner at soldering. We recommend reading through all of the instructions and understanding them before beginning your installation.

Proceed with this installation at your own risk. We will not be held responsible for any damage to yourself, your controller, your PS3 console or any other equipment.

Tools needed:

- Small Phillips head screwdriver
- Soldering iron (A 15w/30w from radio shack about \$15)
- Solder (rosin core solder from radio shack works well so there is no need for flux)
- Wire strippers (that can strip 30ga wire, a 30ga wire wrap tool from radio shack includes a 30ga stripper \$8)
 - Wire cutters

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- Hot glue gun
- 9/64th drill bit (or close to it, a 1/8th will work as well but the hole will be a little big)
 - Small pocket knife or razor blade (optional but helpful)

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Kit Contents

- You should have the following items in your kit
 - 1. (1) 8-pin Microcontroller
 - 2. (1) tactile switch
 - 3. Aprox. 12" of 4 different colors of wire



Step 1: You will start by taking the PIC chip and putting it on its back, also called (dead bug). Note the location of the notch that is on the top of the chip, the pin numbers and their purpose.



Step 2: Soldering Wires to the microcontroller

- Make sure you pay attention to the location of the notch that is on top of the chip.
- LEFT IMAGE
 - Pin 1 (red wire) is for Power inside the controller and should be 1.5 inches long.
 - Pin 2 (yellow wire) is for the mod button, and should be aprox 5 inches long.

RIGHT IMAGE

- Pin 5 (red wire) is for the R-Common line inside the controller and should be 1.5 inches long.
- Pin 6 (Blue wire) is for the L-Common line inside the controller and should be 1.5 inches long.
- Pin 7 (Yellow wire) is for the Player 4 LED and should be 1.5 inches long.
- Pin 8 (White wire) is for Ground inside the controller and should be 1.5 inches long.

tip: For information on proper soldering visit <u>http://www.curiousinventor.com/guides/How_To_Solder</u>





Step 3: Opening the controller

• Remove the 5 screws indicated below.

• The controller also has a clip holding it together in-between the two thumbsticks at the bottom. The left image shows approximately how the clip is located inside the controller. You can usually squeeze the back cover of the controller together at the center to pop off the back cover. But you may need to use a small knife or screw drive to unlatch the clip.



There are currently 10 different circuit board layouts that you may find inside your controller. The next pages show each type and the solder location for each type. Following these diagrams is a more detailed installation guide using the current 4th generation dualshock 3 controller.

Step 4a: Original Sixaxis Version 1

- This controller is the original sixaxis (without rumble), it is very similar to the version 2 sixaxis on the next page but the player 4 LED location on the back side of the circuit board is different.
- The Player 4 LED is a very small via just to the left of the "3" in the vertical marking "U13" on the PCB



Step 4b: Original Sixaxis Version 2

- This controller is the original sixaxis (without rumble), it is very similar to the version 1 sixaxis on the previous page but the player 4 LED location on the back side of the board is different.
- The Player 4 LED is a very small via just to the top left of the "Q" in the marking "Q7" on the PCB



Step 4c: Dualshock 3 version 1 and Sixaxis version 3

- Next is the Sixaxis 3rd Generation and 1st Generation Dualshock 3. These are both the same layout and solder points. The only difference is
 the dualshock has rumble motors. Some versions of this controller do not have the small square chip that is in the upper right corner of the
 PCB in this picture but all solder points are in the same location.
- The player 4 LED on this controller is a very small via that is just to the top right of the white plastic battery holder.



Step 4d: Dualshock 3 version 2

- Next is the 2nd generations dualshock 3 controller. Pay close attention to the markings on the PCB so you are sure to find the correct layout for your controller.
- The player 4 LED is a very small via just under the P in "TP51" that is written on the PCB.



Step 4e: Dualshock 3 version 3

- Next is the 3nd generations dualshock 3 controller.
- The player 4 LED solder point is a very small via on this board and is normally covered by the battery holder but in this picture we have cut away the top portion of the holder, which you will need to do as well. The correct point is just under the "T" in "TP12" that is written on the PCB.



Step 4f: Dualshock 3 version 4

- The 4th generations dualshock 3 controller. We will use this style controller in the rest of our guide.
- The player 4 LED solder point is a very small via on this board and is normally covered by the battery holder but in this picture we have cut away the top portion of the holder, which you will need to do as well. The correct point is just under the "T" in "TP12" that is written on the PCB.



Step 4g: Dualshock 3 version 5

- Next is the 5th generations dualshock 3 controller
- The player 4 LED solder point is a very small via on this board. All 4 player light connections are just to the right of the reset button in a square pattern. The player 4 LED connection is the one that is in the lower left of the 4 connections. This spot can be hard to solder to because of the close location to the resistors below it. So we suggest to use the alternate location on the front of the board.



Step 4h: Dualshock 3 version 6

- Next is the 6th generations dualshock 3 controller
- The player 4 LED solder point is a very small via on this board in the upper right corner. The correct point is just below and to the left of the "T" in "TP28" that is printed on the circuit board.



Step 4I: Dualshock 3 version 7

- Next is the 7th generations dualshock 3 controller. This controller is very different from all previous versions. The board is about half the normal size and the thumbsticks are mounted to a plastic support and not to the circuit board.
- Please note in this version we turned the chip 180 degrees from all the rest so the notch is near the top of the board. This just puts all the connections close to where they need to go.
- The player 4 LED wire on this board must be soldered directly to the LED on the front of the board. To remove the board push out on the two clips located at both top corners of the board. Rotate the board up from the front and pull out.



Step 4J: Dualshock 3 version 8

- Finally is the 8th generations dualshock 3 controller. This controller is very different from all previous versions. The board is about half the normal size and the thumbsticks are mounted to a plastic support and not to the circuit board.
- Please note in this version we turned the chip 180 degrees from all the rest so the notch is near the top of the board. This just puts all the connections close to where they need to go.
- The player 4 LED wire on this board must be soldered directly to the LED on the front of the board. To remove the board push out on the two clips located at both top corners of the board. Rotate the board up from the front and pull out.



Step 5: Mounting your Chip.

- We will proceed with the tutorial using the 4rd generation dualshock 3 controller.
- Start By unplugging the battery from your controller. This will reduce the possibility of creating a short and causing damage to your controller.
- Then use some hot glue to hold the chip in place on the PCB. Notice that we have pushed it right up against the white piece of plastic that is sticking through the PCB. (not all controller versions have this piece, so just mount it anywhere in this general location. Just make sure it is not hanging over the edge of the PCB or the controller will not close correctly.



Step 6: Attaching the power and ground.

- Refer to the controller identification for the proper power and ground points for your controller type.
- Here you can see the power and ground wires soldered in place. The power being the red wire and ground being the white wire. We have also routed the wires around the bottom of the battery holder keeping them as short as possible.



Step 7: Attaching the Player 4 LED wire.

- This is the most difficult connection to make as the solder location is very small. If you do not feel confident in making this solder connection you can remove the Circuit board from the front half of the case and solder directly to the LED as shown in the diagrams of step 4. This makes the soldering easier but also means you will be removing the R1/R2/L1/L2 buttons and the rumble motors which will all need to be put back into place properly after making your solder connection.
- To solder to the pad for the player 4 LED you must first clean off the green protective coating. This can be done with a small pocket knife or our proffered method of using a small drill bit (about twice the diameter of the pad) and give it a few twists by hand with light pressure. This ensures a clean pad without exposing bare metal in the surrounding areas.
- Once clean you can solder your wire as shown in the Right side image.
- Make sure you use as little solder as possible. Also be sure to keep the solder and bare wire away from any other bare metal. If you exposed metal in any area surrounding the via and the wire or solder makes contact with it the LED will not work.



Step 8: The R-Common and L-Common lines.

- These two connections are what allow the mod chip to take control of all the buttons in the controller. For all styles of the circuit board these are a nice large solder pad.
- These are the last two connections you need too make from the chip to the controller.



Step 9: Keep Everything in place.

• Before moving on to installing the button you should use some hot glue to help hold all the wires in place. Do not glue over top of the solder connection as this will make it much more difficult to access later on in the event of a problem. Instead glue the wires down just behind the solder connections.



Step 10: Installing the mode/speed switch button.

- Using your 9/64th Drill bit make a hole for installing the mode switch button into your controller. We put ours just under the Right thumbstick in the small curved area. You can put where button where ever is comfortable for you. Just be sure that if you use the same location we do, you get the hole exactly in the middle or you will not have enough clearance for the button to fit properly.
- The button comes with 4 legs but on two of the legs are needed. Removing the two unused legs will make the installation easier. Refer to the image at the right to see which two legs should be removed. Once removed you can bend the remaining two legs over the back of the button.
- Again use a generous amount of hot glue to hold the button in place.





Step 13: Final Steps, Attaching wires to the button.

- Start by connecting the wire from Pin 2 to one leg of the button you have installed.
- Then solder a second small section of wire to the remaining leg of the button and then to GROUND inside the controller. There are many locations for ground inside the controller but we like to use the location shown below which is the bottom of the 4 vertical pins for the right thumbstick.
 - Note: this picture again shows the 4th gen dualshock 3 controller. All of the controllers can use this same grounding point <u>except</u> sixaxis (no Rumble) controllers. For the sixaxis, refer to the controller diagrams for different ground points.
- Finally use more hot glue to hold the wires in place. Both on the button and in the controller.
- You can now put your controller back together and start using your new mod. Please refer to the proper User guide for you mod on usage information.



