

# Power Rear Window Installation

*For 2007-2014 Toyota FJ Cruiser models*

*Chi-Town 4x4  
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### **Disclaimer Notice**

Every effort was made to ensure that the content in this document was complete and accurate at the time of publishing. However, information is subject to change. CHI-TOWN 4x4 cannot assume responsibility for any errors or omissions due to ongoing configuration or process changes. In addition, changes or corrections to the information contained in this document may be incorporated into future issues.

**ANY Damage that Is caused to your Fj Cruiser During the Installation or Use of this product is not the responsibility of Chitown4x4 or its Parent Company AOS Products**

***Note:** Working on automobiles is inherently dangerous and it is up to you to practice and adhere to all safety procedures.*

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### **Parts List**

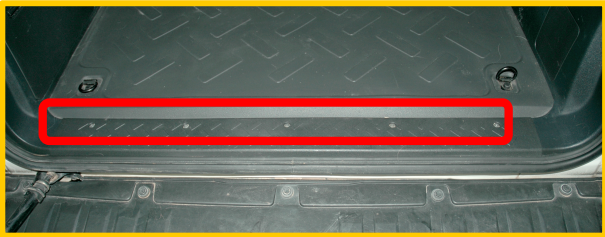
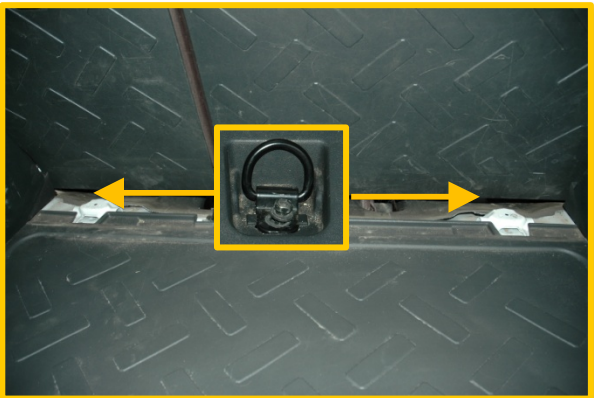

- 2x Hardware, M6x1.00 x 25 hex bolts and nuts (Attached to assembly)
- 4x Hardware Small Nylon Washers (may already be in assembly)
- 2x Hardware, M6x1.00 x 40 hex Bolts and Nuts
- Power Wire harness
- Custom Upper Mount
- Custom Lower Mount
- DPDT Switch
- Add a fuse
- 10 amp fuse

### **Tool List**

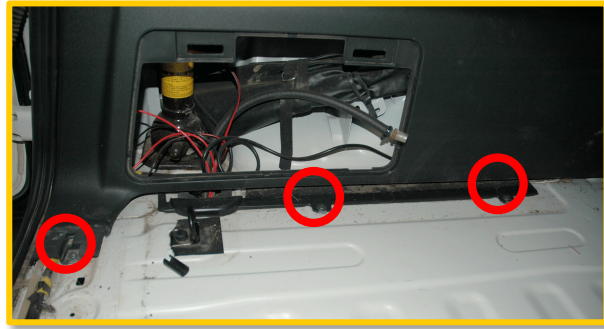
- Wire crimpers
- Philips screwdriver
- 10mm Socket Wrench
- Razor Blades
- Wire Strippers
- Dremel Tool with small sanding drum
- Pic Tool
- Panel Removal Tool
- Flat head Screw Driver
- Solder and Solder Gun
- Zip Ties
- Electrical tape.
- Ring Connectors and misc electrical connections to complete install.

## Tear Down Procedure

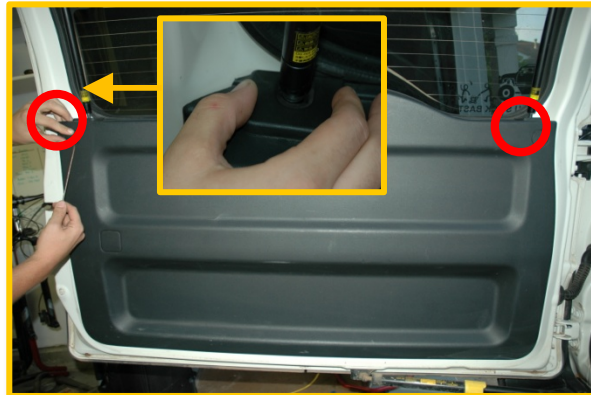
### Rear Door

Step	Description
1. Remove five Philips screws from rear trim and remove trim.	 A photograph of the interior of a rear door showing the trim panel. A red rectangle highlights a horizontal strip of trim along the bottom edge of the door, which is secured by five screws.
2. Remove two front cargo hooks and remove trim.	 A photograph of the interior of a rear door showing the trim panel. A yellow square highlights a metal hook mounted on the trim. Two yellow arrows point to the left and right of the hook, indicating the location of the second hook.
3. Remove snaps from cargo mat and remove mat.	 A photograph of the interior of a rear door showing the cargo mat. A red circle highlights a circular snap fastener on the mat, which is used to secure the mat to the door's interior panel.

4. Remove three side trim screws.



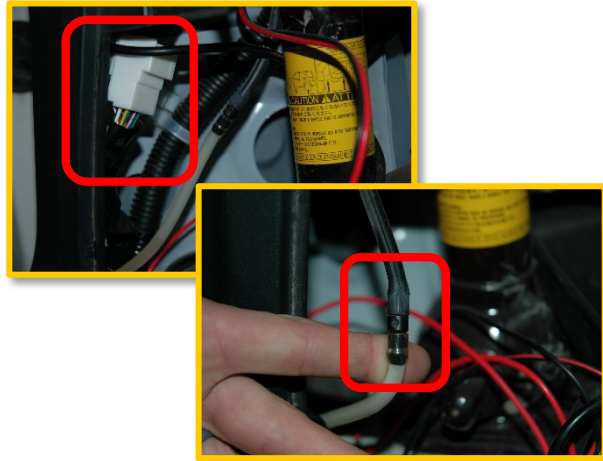
5. Remove two screw covers and screws from rear hatch door cover. Squeeze on both ends and remove both side rear window strut bottom covers.



6. Unlatch rear window by using your key and fully raise rear window. Pull on rear hatch cover and unsnap the entire cover and remove. Pull back the vapor barrier. Take care with the barrier adhesive.



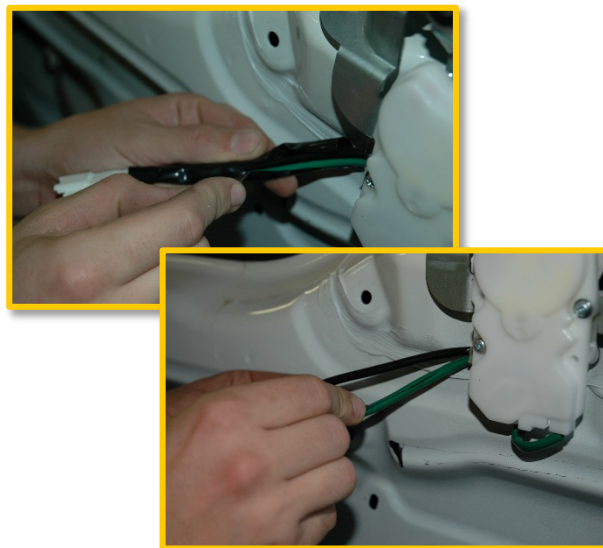
7. Open the rear left cubby if you haven't already. Unclip the rear door wiring harness by pulling the clips from the body. Disconnect the harness. Disconnect washer fluid hose also located in the rear left cubby.



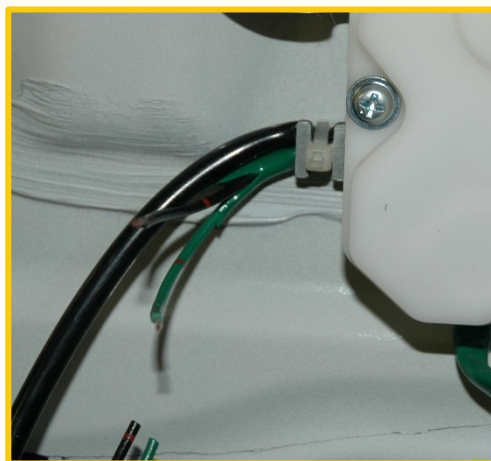
8. Remove boot from both ends of the door wiring harness. Carefully pry out grey harness retaining clip.



9. Disconnect window latch wiring harness and unclip from the rear inner door panel. Using a razor blade, slit wiring harness sleeve. (BLACK)  
Then, slit green wiring cover to expose Black and green wires connected to window pop motor.





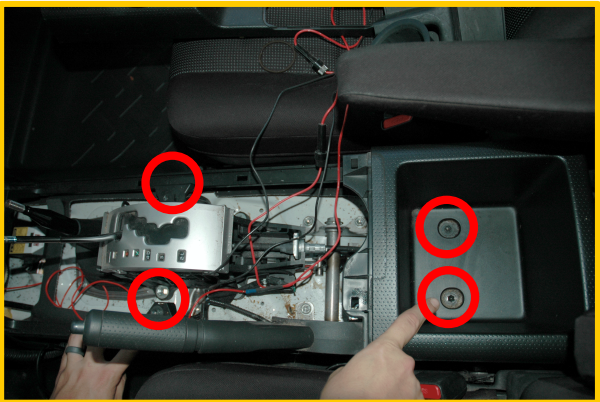
10. Here you can either cut the wires to splice and solder the connections, or use Wire taps if you don't want to cut factory wires for the install. These wires are going to be connected to your harness and actuator further on in your install.



11. Lower rear glass and remove top strut retainer. Remove strut from the top. Remove top strut bracket. Remove bottom strut bracket and remove strut assembly.

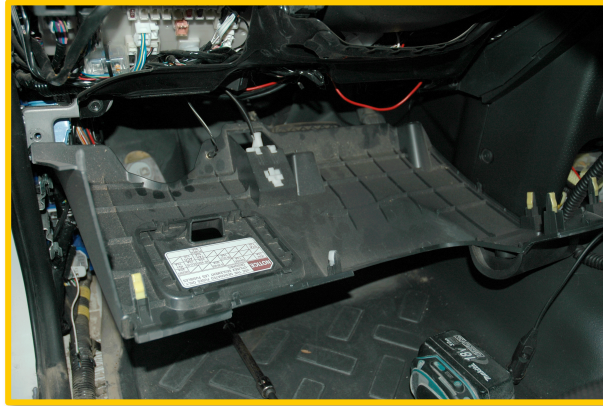


## Interior

Step	Description
12. Unsnap and remove driver's side rocker cover and kick panel.	
13. Unscrew and remove gear shift selector knob and e-brake cover. Process is the same for manual transmission. Unsnap and remove center console cover and set aside.	
14. Remove four 10mm bolts from center console. Slide center console as far back as it will go.	



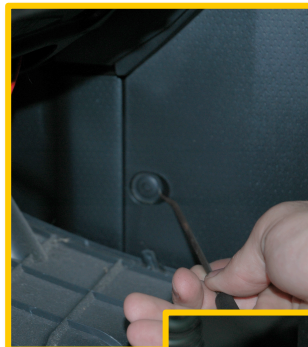
15. Remove the bottom knee plate cover.



16. Remove drivers AC vent cover by pulling up and out.



17. Remove center stack clips on both driver and passenger sides, one on each side. Remove two center stack bolts.





18. Pull out plate and remove a blank switch cover.



## Installation

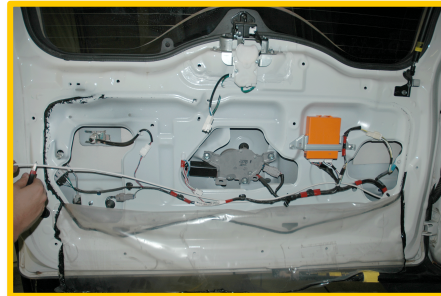
### Wiring Harness

Step	Description
<ol style="list-style-type: none"><li>1. Carefully enlarge the blank switch opening to fit the new switch. Use a rotary tool or similar. Run harness pigtail through switch blank opening and snap switch to opening.</li><li>2. At this time you have an option with how to power the window kit, You can run the harness wires directly to the battery, or use the included fuse tap and wire it inside the truck to the fuse panel.</li></ol>	
<ol style="list-style-type: none"><li>3. Run harness behind the center console stack and knee panel area. Secure the harness as necessary. Run harness under the driver's rocker panel. Use the factory clips to retain the harness. Run the harness behind the driver's rear panel.</li></ol>	

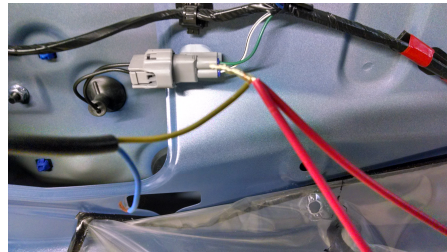
4. Cut rubber sheathing around wiring body grommet. Run harness out the vehicle body wiring access hole and through the boot. Take your time to run the harness as to not damage the wire. Run harness through rear door wiring access hole. Pull the harness all the way through the boot and then reinstall the boot grommet to the rear door and body. Reconnect the door wiring harness and washer tube.



5. Run harness along the factory door wiring. Extend the harness to the edge of the door and cut the excess harness. Strip all wires in the harness back approximately one inch.



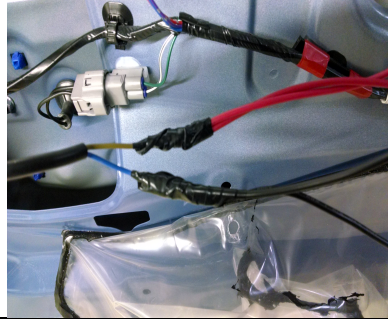
6. You will have extra harness wire once you get into the door, cut 20" off the harness's black and red wires, you are going to use these to run up to the window pop motor. Arrange your connections like the picture to the right. If you have questions, please refer to the included Wire Diagram. This is very important to not get mixed up.



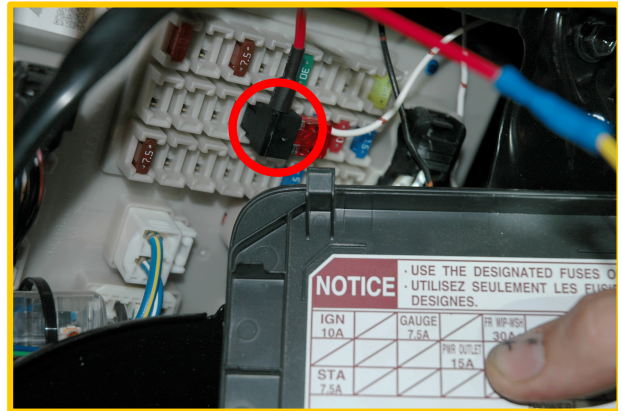
**Note On Actuator wiring. Some version of the Actuator came with Brown and Blue lead wires, others came with Red and Black. Use this as your connection rule. The Brown or Red wires are your positive wire to move the actuator UP. These colors need to be connected to the RED leads of the Wire Harness AND the GREEN wire on the Window Pop**

**Motor.**

7. Make your connections to the Actuator and to the Window pop motor.



8. To Connect the Wire Harness, Solder and Tape the Add a Fuse to the power connector and plug it into the fuse block under the knee panel. Or Run the harness into the Engine Compartment to connect to the battery.



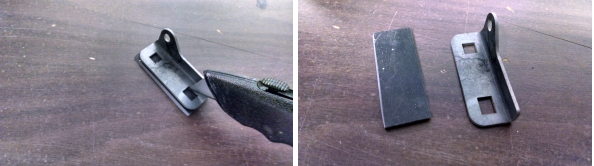


9. **Please note:** Ensure the actuator has power by clicking the window switch you installed previously. Make sure the actuator is in its collapsed position before installation! **This is critical!**

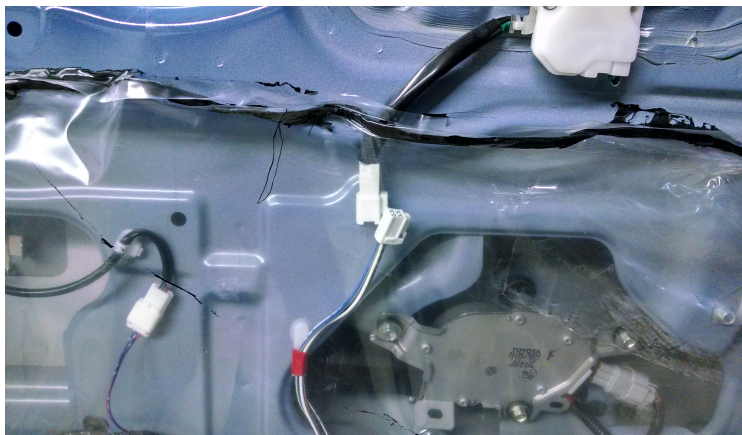
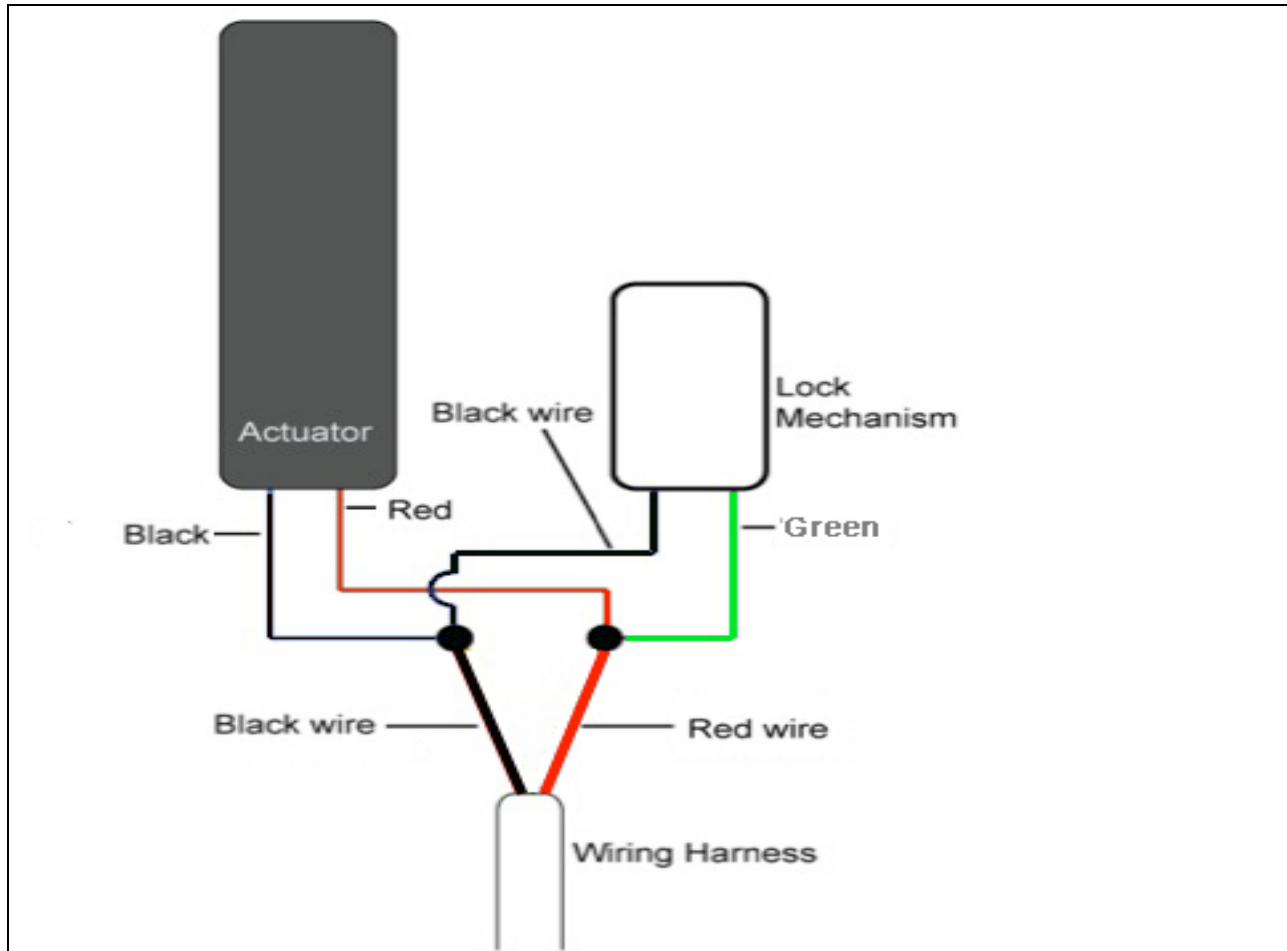
10. This is how you connect your switch to the wire harness.

11. Note that power and ground are the middle two plugs, and the actuator output is the top and bottom plugs, with loops going to the opposite corner of its main connection.



## Actuator Install

Step	Description
12. Using a razor blade, make the appropriate cut outs on the supplied Rubber Isolator pad.	
13. Install top Actuator bracket supplied with kit using factory window hardware. DO NOT over tighten! Install the top of the actuator onto the top bracket using supplied hardware. 6mm bolt and Nylon Lock Nut with Washer	 
<b>Wiring Diagram A – For use only with active latch system</b>	
Important step make sure that the brown or Red wire coming out of the actuator is connected to the Green wire on the Lock Mechanism and the Red wire from the Harness.	



**WARNING ABOUT SHORT CIRCUIT!**

Unless you disconnect the OEM Factory window pop motor harness from the rest of the vehicle, you will get a short circuit and pop fuses. This step also eliminates the dome light from staying on when the rear window is open.

Line up the actuator so it lines up vertically with the rear window. Use A marker to mark the two points

**Please note: Be sure the actuator is in the collapsed position before mounting! You must power the Actuator through its cycle in order for this to occur.**

**Drill your holes 1/8 inch below your mark!!**

**This is critical to keep tension on the assembly when closed so you don't get rattles or noise.**

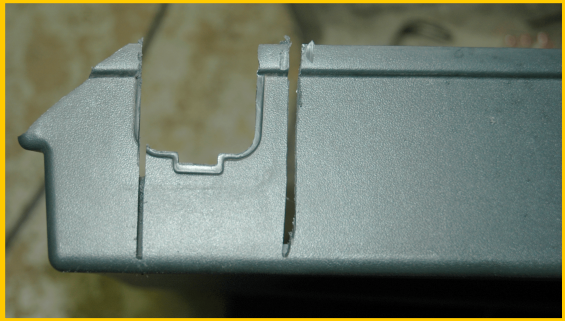
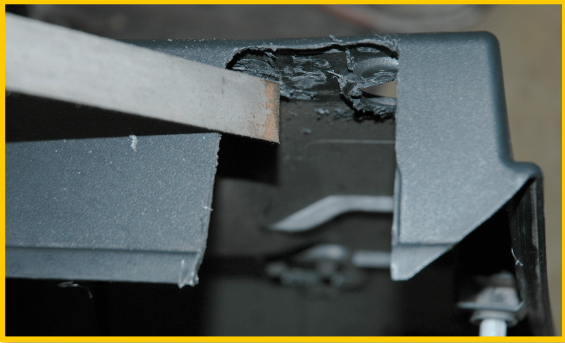

14. Drill the holes and install the lower actuator bracket using the supplied hardware. If there is play in the actuator assembly, make sure the hardware is attached securely. It should lock down very firmly
15. Tidy up excess wire and reinstall the vapor barrier to the rear door.
16. Test the Actuator to insure that you get full cycle up and down and that the window latch motor is functioning to release window.
17. NOTE: The Actuator does rub against the door skin during the open cycle and close cycle. Make sure that this is not excessive and inhibits the actuator movement.



Your DRILL Marks should be Right in line where the Vapor barrier Black Tacky strip was on the door.



## Final Steps

Step	Description
<p>1. Trim the rear door panel cover to fit the installed actuator assembly. Debur the edges with a file. Your cuts may not look like the ones below, Use your judgment to align the plastic and make the cuts needed.</p> <p>This part of the installation is free hand and up to the skill of the installer. Take your time, cutting less is better than cutting too much! But you are going to have to remove everything down to the base flat plastic in order for your rear door skin to fit properly</p>	 
<p>2. Reinstall the rear door panel cover. You can hot glue the bolt cover by the actuator, as trimming will have eliminated the possibility of the bolt cover to snap back in.</p>	
<p>3. Before installing the rest of the trim pieces, ensure the wiring harness is routed with no kinks or areas under tension.</p> <p>4. Reinstall in reverse order all interior and trim pieces that were removed in the tear down steps. Take care not to pinch or disturb the wiring harness.</p> <p>If you have installation questions, please call 630-707-1365 and ask for Joe, This is my personal Cell phone so I can be reached at any time to assist or answer questions.</p>	