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INSTALLATION INSTRUCTIONS	68 GM A-BODY 2DR COUPE, HARDTOP & CONVERTIBLE POWER WINDOW INSTALL KIT
BUICK SKYLARK & GS CHEVROLET CHEVELLE & MONTE CARLO PONTIAC GTO & LEMANS OLDSMOBILE CUTLASS & 442	

THE KIT INCLUDES
<ul style="list-style-type: none">2) DOOR WINDOW REGULATORS2) QUARTER WINDOW REGULATORS1) 4-WAY SWITCH3) 1-WAY SWITCHES1) WIRE HARNESS1) CIRCUIT BREAKER AND POWER WIRE2) DOOR CONDUIT AND GROMMET ASSEMBLIES2) QUARTER PANEL WIRING GROMMETS <p>(no hardware is included)</p>

VEHICLE PREP
<ul style="list-style-type: none">• Remove the front seats.• Remove the rear seat.<ul style="list-style-type: none">• Both the backrest and lower seat will need to be removed.• Remove both door panels and quarter panels.• Remove both kick panels.• Remove the sill plates.• Tape any areas of the car you are worried about scratching.

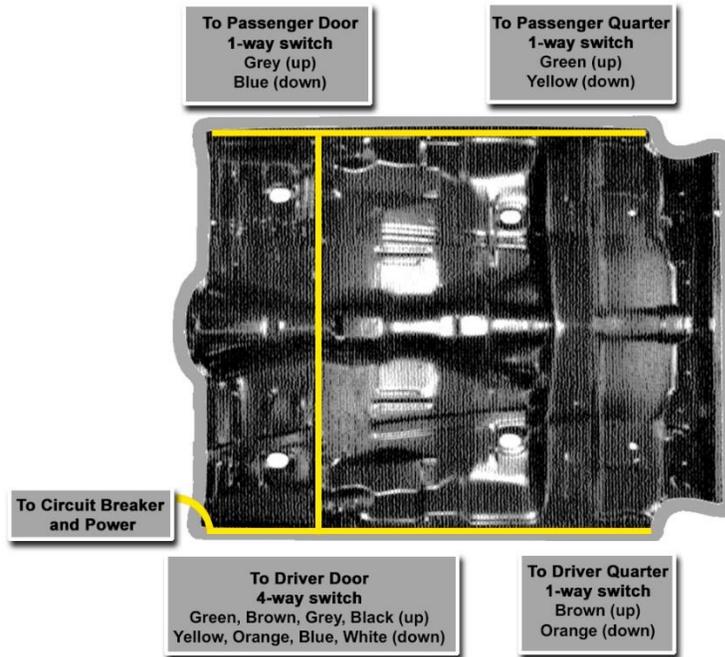
WIRING

Lay the wire harness out inside the car. The wire harness is shaped like the letter H.

The main wire for the 4 way switch and power wire go to the driver's side door. These wires are GREEN, BROWN, GREY, BLACK, YELLOW, ORANGE, BLUE & WHITE and the RED power wire.

The BROWN & ORANGE wires go to the driver's side quarter window.

The GREY & BLUE wires go across the car to the passenger's door and the GREEN & YELLOW to the passenger side quarter window.



The wires crossing the car T off at the driver door sill and crosses the car in front of the front seats to the passenger side door sill plate and hides under the carpet. The RED wire in this wire run is for a power seat option and will be unused in most instances.

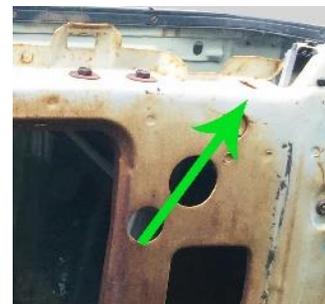
Install the supplied circuit breaker to the kick panel area of the driver's side and run the main RED power wire to one post on the circuit breaker. From the other post run the supplied RED power wire to a power source such as the positive terminal on the starter.

DOOR DISASSEMBLY

Start with either door

Before you begin you will want to mark all of the bolt/nut locations on the window guide channel, window stops, and adjusting studs with paint or a marker. If you are unsure if you should mark a bolt location, mark it!

- Remove the bolt holding the window tensioner in place, identified with the green arrow in this picture, and remove the tensioner. Place it in the bottom of the door for safe keeping.



- Roll the window down part way to allow you access the bolt holding the windows stop in place at the front and back of the lower window channel bracket and remove the window stops and place them in the bottom of the door. Be sure you mark those bolt locations before you remove the stops.
- With the help of a friend, hold the glass in place while you remove the 2 bolts holding the lower channel on the door glass through the access holes near the top of the door.
- With the bolts removed you can tilt the glass inward slightly at the top to release the lower window bracket from the channel that you just unbolted and pull the glass out.
- Slide the lower channel off the regulator rollers and place it in the bottom of the door.
- Remove the 2 bolts, identified with green arrows, holding the lower regulator slide channel to the door, slide it off the regulator roller, and place it in the bottom of the door. Be sure to mark the location of the bolts before you remove it.



- Loosen the bolt holding the pivot post on the vent window to the vent window regulator.
- Remove the 3 bolts holding the vent regulator in place and remove the regulator.
- Remove the bolt at the top of the door that is holding the vent window bracket to the door and the 2 bolts holding the vent window to the door. The location of these bolts is identified with a GREEN arrows in this picture.
- Remove the nut holding the front/upper adjusting stud in place on the vent assembly identified by the upper YELLOW arrow in this picture. Be sure to mark the location of the nut/washer on the door with paint or a marker to assist with reassembly.



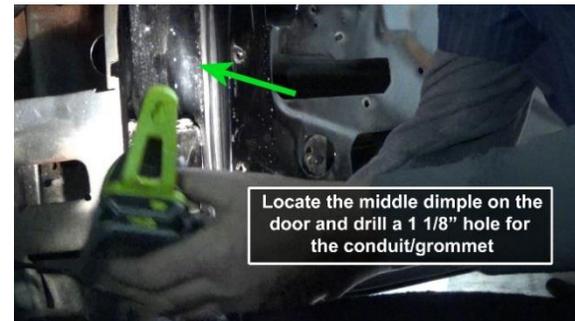
- Place a wrench over the nut on the inside of the door on that adjusting stud and unscrew the adjusting stud out from the vent frame and remove it from the door. Don't lose that nut, you will need it later when you reassemble.
- Remove the nut holding the lower adjusting stud in place, also identified with a YELLOW arrow in the picture above. Be sure to mark the location of the nut/washer before you remove it. Do not move the adjusting stud, this will help with reassembly.
- At this point the vent assembly is free to be removed. Lift the assembly up and out of the door. As the lower adjusting stud approaches the top of the door you will need to rotate the assembly 90degrees to clear that adjusting stud.
- Remove the bolts holding the regulator in place and remove the regulator from the door.
 - *Hold the regulator in place as you remove the last bolt so the regulator does not fall against the door.*

DOOR PREP

- Locate the dimple located inside the kick panel and drill a 1 7/8" hole for the wiring conduit and grommet.
 - This hole is located opposite the middle dimple located on the door



- Locate the middle dimple on the door and drill a 1 1/8" hole for the wiring conduit and grommet.



- Run the wire through the kick panel and through those holes and into the door.



- Cut one side of large grommet (came installed on the conduit with the small grommet as well) and place it over the wires and install it into the large hole you cut in the kick panel area.
- Cut one side of the small grommet and place that over the wires and install it into the smaller hole you cut in the door.

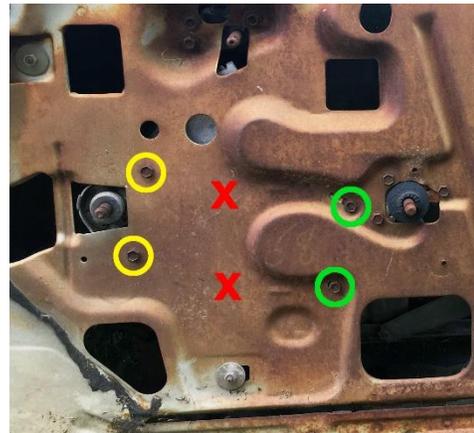


DOOR REASSEMBLY

The picture shows the approximate orientation of the new regulator when it is installed in the door.



The manual regulator and our power window regulator will share the same 4 holes. For you A-Body aficionados this is different from the original power window regulator. An original Chevelle power window regulator would share only 2 holes and use 2 other holes that were unused by the manual regulator.

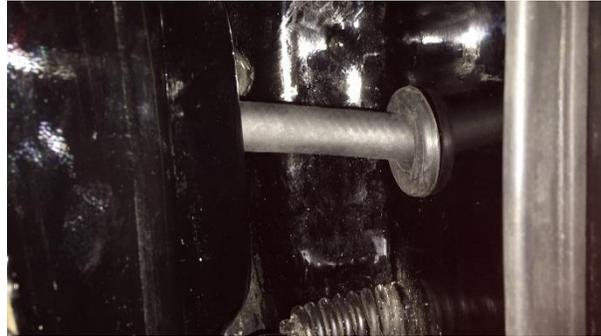


An original power regulator would have used the holes identified here with the GREEN circles and RED Xs. Our power regulator will use the same holes as the manual regulator identified with the GREEN and YELLOW circles.

- Place the regulator in the door and locate one bolt hole and install a bolt. After installing that one bolt locate the other 3 and complete installing the hardware to hold the regulator in place.
- Plug in the regulator and window switch and test the regulator. **If it does not work you may have a ground issue. Proceed to the MOTOR ISSUES section at the end of these instructions for additional information on ground/motor issues.*
- Place the vent assembly back into the door. You will need to start with the vent assembly at a 90degree angle to clear the lower adjusting stud and then rotating it back in line with the door as you lower it into the door.
- Place the nut/washer on the lower adjusting stud. Do not tighten it just yet.
- Reinstall the bolts and bracket at the bottom of the vent window to attach it to the door. Do not tighten those just yet.
- Reinsert the upper adjusting stud by placing it through the door and putting the nut on the back side and screwing it into the vent post. Be sure to screw it into the same location using the markings you made during disassembly.
- After getting the upper adjusting stud in place reinstall the nut/washer and locate it into the same location it was when you disassembled the vent assembly using the marks you made prior to disassembly. You can tighten this nut now.
- Install the vent regulator by placing the regulator onto the lower lower post on the vent window and reinstall the 3 bolts to hold it in place and the bolt that holds the vent post tightly in place on the regulator.

- Locate the nut/washer on the lower adjusting stud using the marks you made prior to disassembly and tighten the nut.
- Tighten the 3 bolts that hold the vent window to the door.
- Slide the lower window channel over the regulator rollers.
- Place the door window back into the door and into position to reach the bolts at the front and back of the lower window bracket to the lower window channel and install the 2 bolts.
- Slide the lower regulator slide channel over the regulator roller and bolt it to the door. Manually lift or lower the door window as necessary to get this in position. Be sure to use your marks you made prior to disassembly to get it in the correct position.
 - Be sure to grease up the channel well using a grease like lithium grease.
- Reinstall the front and rear window stops in the same position as they were prior to disassembly using the marks you made.
- Reinstall the window tensioner and bolt at the back of the door using your marks to locate it in the correct position.
- Test the window for smooth operation and adjust as necessary.
- Cut the provided conduit and place it over the wires between the kick panel and door and through the grommets you installed.

REPEAT THESE STEPS ON THE OTHER DOOR



QUARTER PREP

- Locate the dimple inside the bottom hole of the body support and drill a 3/8" hole.



- Locate the dimple to the right of the body support about the same height from the floor as the previous step and drill a 3/8" hole.

These 2 holes will be your new holes for the bottom of the power window regulator.



- Drill a 1 1/8" hole for the wire to enter the quarter panel. It should be located near the bottom of the quarter area just ahead of the wheel well.



QUARTER DISASSEMBLY

- Mark all the bolt locations for all the window slide mounting and adjusting brackets and window stops.
- Lower the window to its lowest position.
- Remove the lower window stop and lower slide mounting and adjusting bracket.
 - There is a bolt on the outside and inside on the bracket.
- Loosen the regulator bolts.
- Remove both upper window stops.
- Remove the upper slide mounting and adjusting bracket.
- Remove the regulator bolts.
 - **Be careful**, the window is going to be free to remove at this point. If you have not lowered the window to its lowest position have an assistant hold the window in place for you as you remove this hardware.
- Remove the regulator.
- Remove the window lifting it and tilting it inward toward the vehicle and remove it or lift and pull it forward and wedge it in place at the top of the quarter panel.



QUARTER REASSEMBLY

The power window regulator does not use the same holes as the manual regulator. This picture shows the approximate orientation of the new regulator when it is installed in the door.



Here are the bolt locations for the 2 regulators. The RED Xs were the locations of the factor regulator bolts and the GREEN are factory holes that you will now be using and the YELLOW are the holes you drilled at the beginning of the Quarter Prep.



Prior to placing the regulator in the quarter, plug the motor and switch in and rotate the regulator to a 90-120 degree angle from the mounting plate. This will aid you when you place it in the quarter and when putting the wheel from the regulator into the window channel.

- Place the regulator in the quarter and locate one bolt hole and install a bolt. After installing that one bolt locate the other 3 and complete installing the hardware to hold the regulator in place.
 - *You may need to install some washers on the bolts to act as shims so the bolts will clear the window regulator arm when it goes through its motions inside the panel. 2 washers is usually enough.*
- Place the glass back inside the quarter panel if you removed it or un wedge it if you chose that step. Place the roller from the window channel it the slide.
 - Be sure to grease up the channel well using a grease like lithium grease.
- Insert the roller on the regulator into the track on the bottom of the window channel.
 - Be sure to grease up the channel well using a grease like lithium grease.
- Place the upper slide mounting and adjusting bracket into the quarter and install it using your marked locations as a guide and just snug the bolts into place.
- Run the wire through the body support and through the hole you drilled toward the back of the quarter panel area and plug in the motor.
- Install the lower slide mounting and adjusting bracket using the marked locations to assist locating the slide in the correct location.

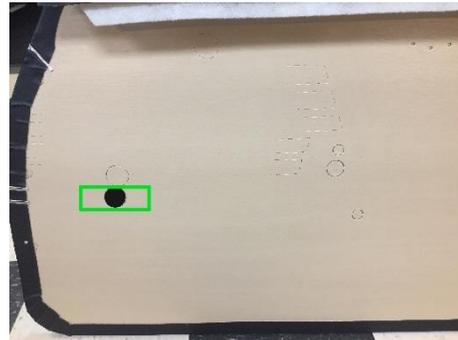
- Tighten the upper slide mounting and adjusting plate. Use the marked locations again to ensure the slide is in the correct location for smooth window operation.
- Test the window for smooth movement.
- Install all 3 window stops using the marks you made as a guide. You will likely need to adjust the locations of these stops after you complete the quarter install.
- Run the window up and down and adjust your stops as necessary. Do this until you are satisfied with the stopping point for the top and bottom motion of the window movement.
- Cut one side of the provided quarter grommet and place it over the wires and install it into the hole you drilled at the start of the quarter prep.

REPEAT THESE STEPS ON THE OTHER QUARTER

SWITCH INSTALLATION

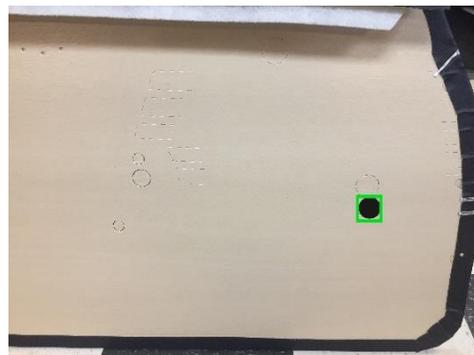
DRIVER'S DOOR

- Locate the original window crank hole on the driver's side door panel.
- Cut a 3 3/4" x 1 1/8" hole directly on center for the 4-way switch and retainer.
- Install the retainer clip into the new hole and bend the tabs outward to hold it in place on the door panel.
 - *You may need to widen the hole a little bit to install the retainer.*
- Reinstall the door panel on the car with the wiring pigtail coming through the hole.
- Plug in the switch and press it into the retainer.



PASSENGER'S DOOR

- Locate the original window crank hole on the passenger's side door panel.
- Cut a 1 1/2" x 1 1/8" hole directly on center for the 1-way switch and retainer.
- Install the retainer clip into the new hole and bend the tabs outward to hold it in place on the door panel.
 - *You may need to widen the hole a little bit to install the retainer.*
- Reinstall the door panel on the car with the wiring pigtail coming through the hole.
- Plug in the switch and press it into the retainer.



REPEAT THE SAME PROCESS FROM THE PASSENGER DOOR ON BOTH QUARTER PANELS

MOTOR ISSUES

It is uncommon but from time to time during testing or normal operation of the door motors they may not work properly. The most common cause of this is a ground issue.

The regulator motors ground between the motor housing and the door and the door then grounds to the car through the hinges. If the motor is not working or works intermittently it is most likely because of a ground issue. If there is not a sufficient ground between the motor housing and the door or the door and the car your motor is not going to work properly.

To test for a proper ground run a simple ground wire from the motor housing to a good ground location on the door. If the motor then works your ground between the motor housing and door is not good. In this case clear some paint between the bolt on the regulator and the door and make sure to make an effective ground surface.

If that test does not work then run a simple ground wire from the motor housing to a good ground location on the car. If the motor then starts working it is a ground issue between the door and the car. This can be attributed possibly to new paint or excess grease on the door hinges. In this case you will need to permanently install a dedicated ground wire attached to the door, run it through the wire conduit, and attached it to a good ground location inside the car near the kick panel.

If you have tested the grounding of both and it is still not working it could be a problem with the motor. Testing the motor is easy. Run a simple ground wire to the motor housing and a hot 12v power source to either the red wire or black wire on the motor. The black and red wires are both hot power wires to the motor. One wire powers the motor to turn in one direction and the other powers the motor turn the opposite direction. If this does not work, tap the motor with a light hammer a few times and try again. Doing this helps seat the brushes on the motor. It is also helpful to run the motor up and down (both directions) a dozen times or so after it has gotten moving to further assist in seating the brushes.

If these tests do not work you may have a defective motor. Call 800-828-2212 for more assistance.

