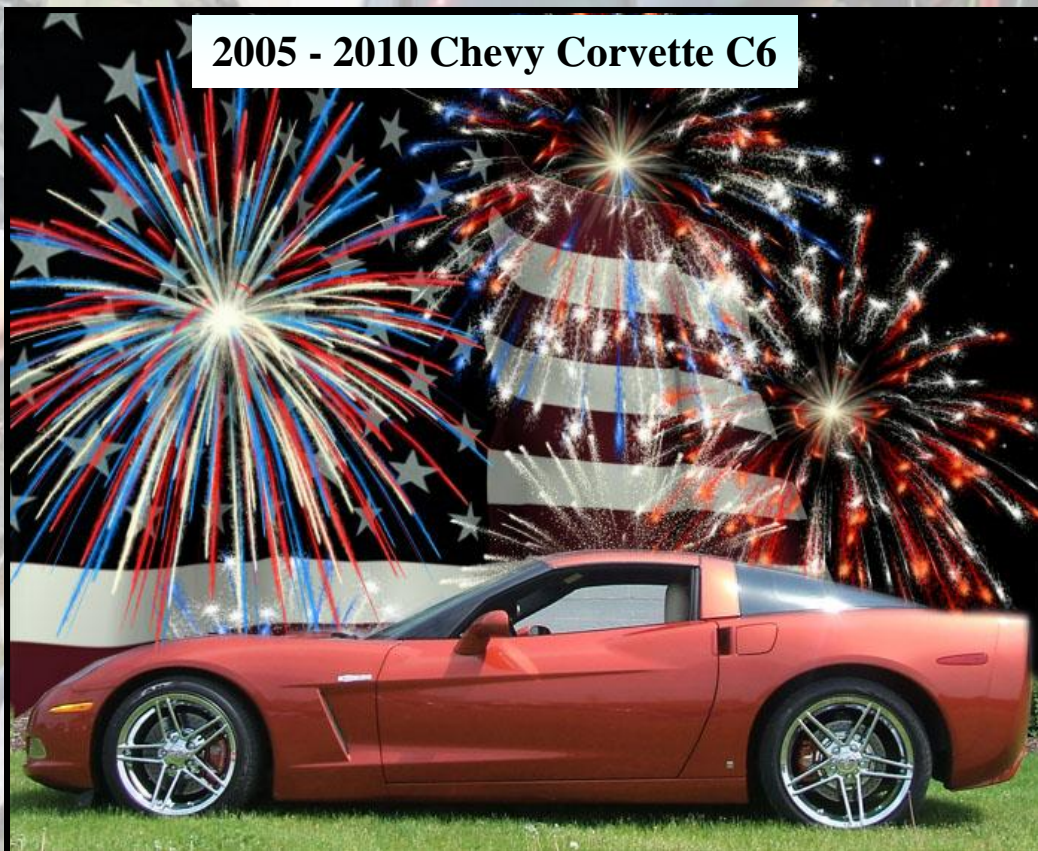




Signal® Mirror Installation Instructions

2005 - 2010 Chevy Corvette C6



THE safety accessory of the 21st Century.™

P/N 210-0144-0

Rev. A3 (9/29/2011), BTV

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Note: Professional Installation Recommended

Warranty does not cover damage to the vehicle or mirror housing due to improper installation. The following installation instructions are to be considered as a guide only. Door removal procedures, indicator wire color and location may have changed since publication of these instructions. The installer is responsible for any damage that may occur during installation.

INCLUDED ITEMS:

1 left and 1 right *Signal*[®] mirror
1 left and 1 right wire harness
2 wire taps
2 ring connectors
1 instruction manual

REQUIRED TOOLS:

Ratchet with extension or ratcheting screwdriver
7mm socket
10mm socket
Socket wrench
T-15 Torx wrench
T-27 Torx wrench
Slotted screwdriver
Phillip screwdriver
Small pry bar (flat bladed plastic pry tool)
Gopher wire
Electrical tape
Wire crimper and stripper
Needle nose pliers
Side Cutter
Multimeter or wire tester
Sturdy gloves
Safety glasses or goggles
Utility knife

Please read instructions prior to installation.

PROBLEMS OR QUESTIONS?

Technical Assistance is available by calling
Muth Mirror Systems Technicians at:

1-800-844-6616

Monday through Friday
Between 8:00 a.m. and 5:00 p.m. CST

Or through the Muth web site: www.muthco.com

Or via E-mail: techsupport@muthco.com

CAUTION: The Daytime Running Light (DRL) feature must be disarmed (if possible) before connecting the *Signal*[®] Mirrors to the turn-only circuit on the vehicle. This is due to the DRL and turn indicators sharing the same circuit. If the DRLs can't be disarmed, then the *Signal*[®] Mirrors need to be connected to the rear turn circuit. The mirrors will then work with the turn and brake indicators.

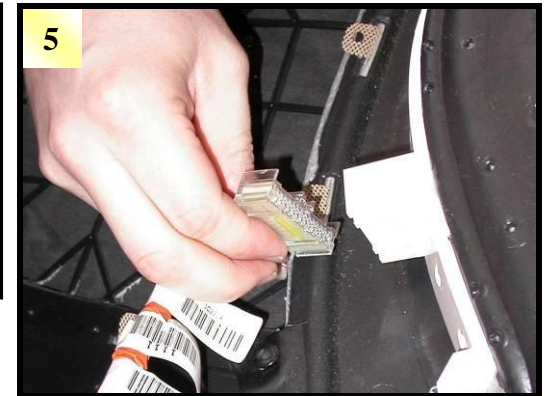
Door Panel Removal



1. Start with opening the driver's side door and lowering the window.
2. Using a small slotted screwdriver, carefully pry and push down on the locking tab to remove the small plastic cover behind door handle. Remove the (2) screws behind door handle using a T-15 Torx wrench.
3. Disengage door opening control.



4. With a pry bar, find the slot on the lower outboard perimeter of door panel, insert the pry bar into slot and carefully pry to disengage door panel. Continue prying around door panel perimeter until it disengages from the door frame. Hold the door panel away from the door slightly.
5. Disconnect any panel control console wiring connectors behind door panel and remove door panel.



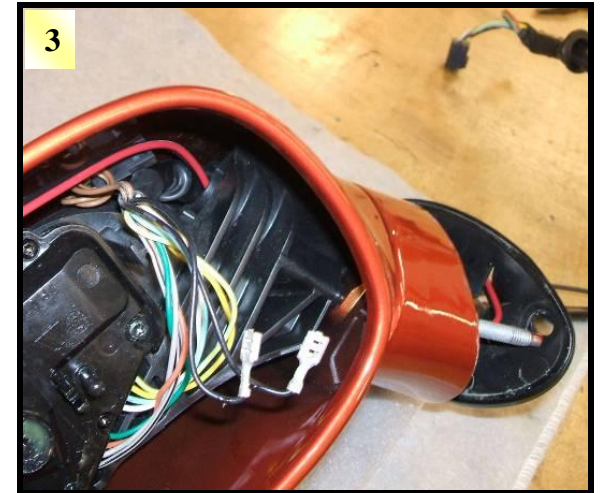
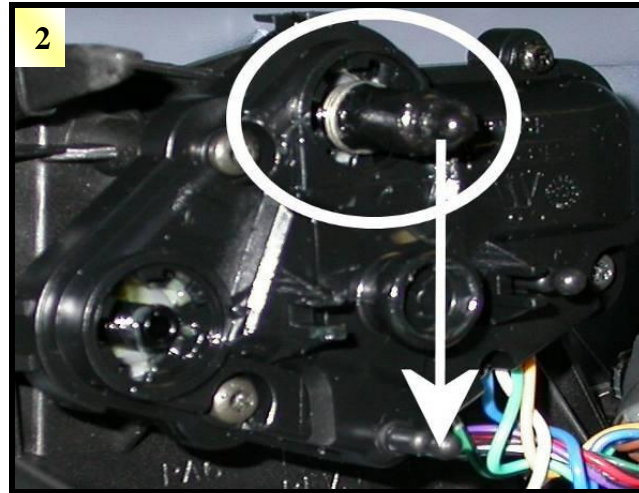
Housing Removal



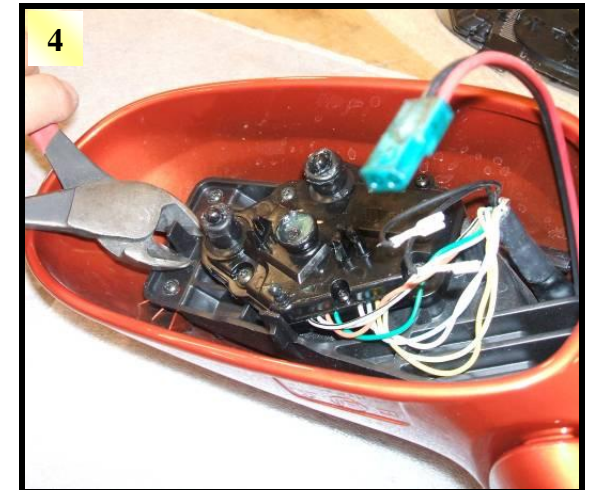
1. Remove (4) speaker screws using a 7mm socket. Disconnect speaker harness and remove speaker. Locate the rubber grommet in door jam area, push in and pull out both ends of the rubber grommet.
2. Remove sill-plate. Locate the light green connector in the kick panel area. Disconnect the light green connector. Starting from speaker's access hole, find the green connector wire and carefully pull light green connector thru access hole and rubber grommet.
3. Remove plastic insulation to gain access to (3) mirror mounting nuts. Disconnect any mirror wire harnesses and remove (2) wire clips within door frame.
4. With one hand holding the mirror housing, remove the (3) mirror mounting nuts using a 10mm socket. Carefully remove mirror housing from door frame and set it on a, cloth covered, level surface.

Mirror Removal & Replacement Continued

WARNING! Safety glasses and sturdy gloves are recommended for mirror glass replacement.

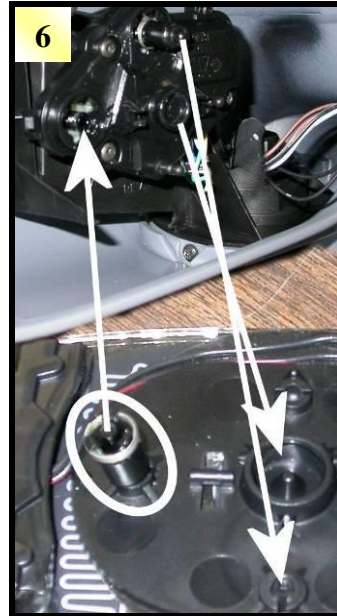
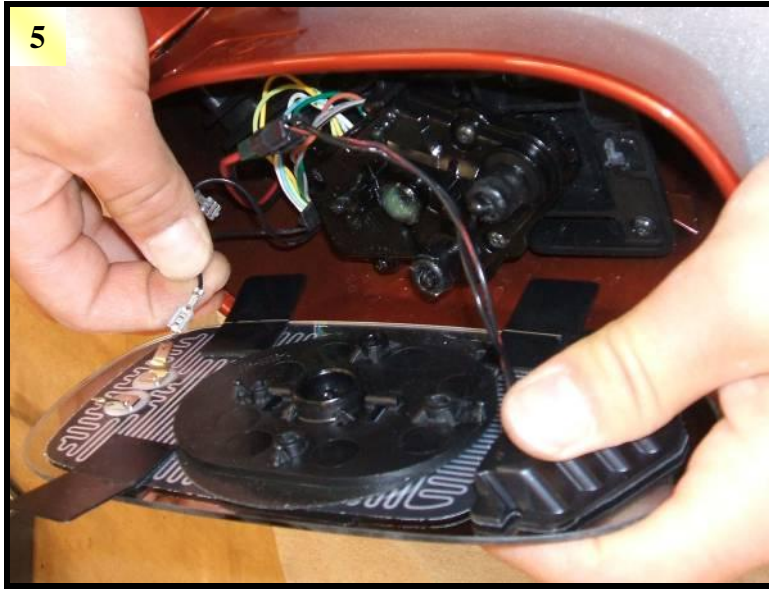


1. Push down on the lower inboard edge of glass until mirror pivots fully outward. Insert a small pry bar in between the motor mount and the motor actuator. Carefully pry and twist pry bar until original mirror pops off. **If heated**, disconnect heater wires from heater terminals and remove mirror. **Note:** During the removal of the original mirror, if motor pins stay attached to the back plate then use the small pry bar to disengage pins from back plate. Position the “V” end, in small pry bar, around the neck of the motor pin. Pry and twist to disengage motor pins from back plate.
2. Carefully place one of the drive pins back into the upper socket on the motor actuator. Align the nub of the drive pin so it points to the round plug in the center of the mirror mount.
3. Using the longer of the two harnesses from the wiring kit, guide the end without the mating connector into the mirror housing and out through the mirror mounting sail. Pull the *Signal*[®] mirror wire harness thru housing sail leaving about 4” to 6” of the wire harness inside housing for connecting purposes.
4. Using a side cutter, carefully cut the protruding stand-off as shown. **Note:** Removing the stand-off will not have any negative effect on the mirror actuator. **Not** removing the stand-off will limit the new *Signal*[®] mirror’s travel significantly.



Mirror Removal & Replacement Continued

WARNING! Safety glasses and sturdy gloves are recommended for mirror glass replacement.



5. Connect the mating connectors on the new *Signal*[®] mirror and the *Signal*[®] mirror wire harness. **If heated**, reconnect the heater wires to the heater terminals on the back of the new *Signal*[®] mirror. **NOTE: There is no polarity so the wires may be interchanged.** Carefully tuck all wiring behind motor actuator. **Not doing so, could result in wiring interfering with mirror travel.**
6. Place the other drive pin into the socket closest to the optic module on the motor mount. Using a heater gun, heat the motor mount sparingly for 20 seconds. **CRITICAL: Align the socket in the center of the *Signal*[®] mirror over the plug on the center of the motor actuator. Align all drive pins to their mating slots.**
7. With the palm of your hand, slowly push down on the center of the glass until the new *Signal*[®] mirror snaps into position. Press down on the upper edge and outboard edge of the *Signal*[®] mirror to engage both drive pins in their socket. Press down on all sides to ensure the new *Signal*[®] mirror is fully seated and functional. **WARNING: Improper installation of the new *Signal*[®] mirror could result in mirror falling off.**

Wire Routing

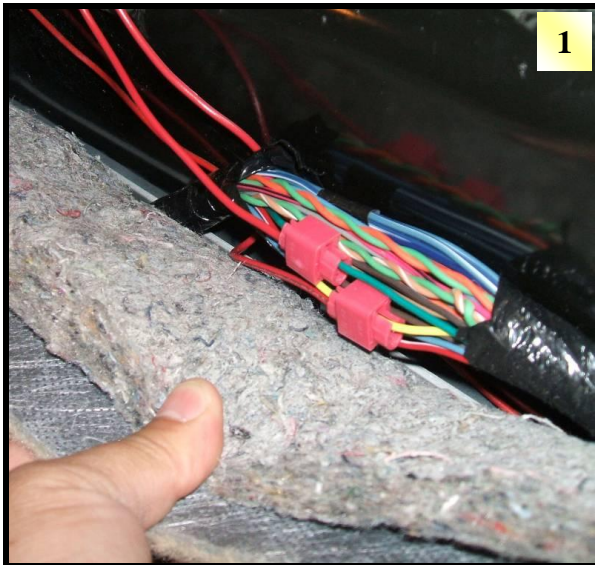
A gopher wire may be use to help ease/assist in these wire routing procedures.



1. Guide the wire harnesses through the opening in the door frame and position the mirror housing assembly on the mirror mount. Attach the mirror housing to the mirror mount with three mirror mounting nuts. **WARNING! Do not over tighten the mirror mounting nuts.** Reconnect mirror control wire harnesses and replace the (2) wire clips. Route the *Signal*[®] mirror wire harness and the light green connector wire inside door frame through rubber grommet and into vehicle. Gently pull on the *Signal*[®] mirror wire harness to remove any slack during wire routing. **WARNING! When routing wire into vehicle, it is extremely important to not let wire get pinched or crushed at any time. Avoid window track and sharp edges at all times. Not doing so may cause circuit shortage problems down the road.** Reconnect the light green connector and replace rubber grommet.

* Repeat all of the previous steps to replace the factory mirror on the passenger side door with the new *Signal*[®] mirror.

Wire Identification

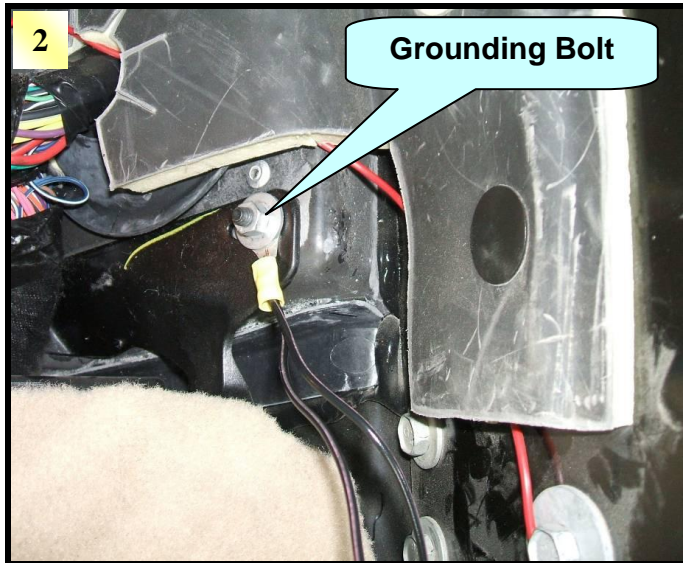


**** The wiring location is located in the wire bundle by the body control module (BCM) which is part of the fuse/relay block on the passenger side floor board (under the carpet). Route all *Signal*[®] mirror wire harnesses to this location.**

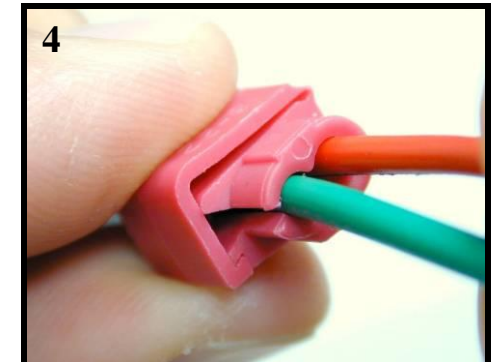
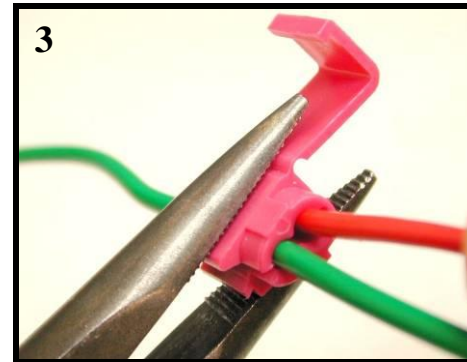
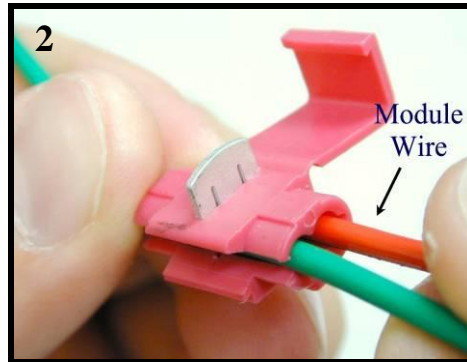
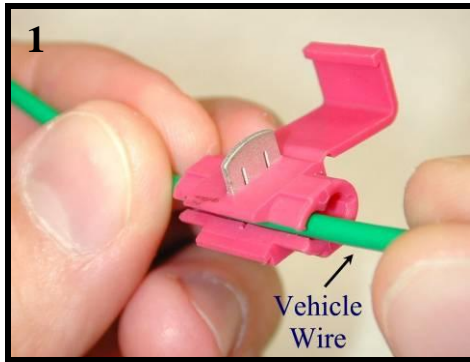
1. **TURN ONLY:** Locate the LIGHT BLUE w/ WHITE STRIPE wire [GRAY PLUG C1, PIN #38] within the wire bundle. Turn the ignition key so that electrical power is on and activate the driver side turn indicator. Probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as '**driver side indicator**'. Locate the DARK BLUE w/ WHITE STRIPE wire [GRAY PLUG C1, PIN #56] and activate the passenger side turn indicator. Probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as '**passenger side indicator**'.

1. **TURN & BRAKE:** Locate the YELLOW wire [RED PLUG C3, PIN #A9] within the wire bundle. Turn the ignition key so that electrical power is on and activate the driver side turn indicator. Probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as '**driver side indicator**'. Locate the DARK GREEN wire [RED PLUG C3, PIN #A12] and activate the passenger side turn indicator. Probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as '**passenger side indicator**'.

2. Locate a suitable grounding bolt as shown. Using a utility knife, make a small cut in between the BLACK w/ RED TRACE wire and BLACK wire of each *Signal*[®] mirror wire harness. Carefully pull each of the *Signal*[®] mirror wire harnesses to separate the BLACK w/ RED TRACE wire from the BLACK wire. Route the BLACK wires from both *Signal*[®] mirror wire harnesses to the grounding bolt location. Cut the BLACK wires to length, making sure enough wire is available for splicing. Strip about 1/2" off of each black wire. On the stripped ends, twist the wires together and bend wires back about 1/4". Insert the stripped ends into the included grounding ring connector. Using a wire crimper, crimp the black wires and the grounding ring together. Give the wires several tugs to ensure they are securely crimped onto the grounding ring. Ground the grounding ring to the grounding bolt as shown.



Wire Splicing Procedures



USE THE INCLUDED WIRE TAPS AND FOLLOW THE FOUR STEPS ABOVE TO SPLICE INTO THE TURN INDICATOR WIRES

- A. Make sure the harnesses are routed securely and enough slack is left for splicing.
- B. Splice the BLACK W/ RED TRACE wire from the driver side harness into the wire previously labeled 'DRIVER SIDE INDICATOR'.
- C. Splice the BLACK W/ RED TRACE wire from the passenger side harness into the wire previously labeled 'PASSENGER SIDE INDICATOR'.
- D. Activate each turn indicator to verify that the *Signal*[®] mirrors are working properly.
- E. Reconnect all original wiring. Turn the ignition power to on, check to verify all features are working properly.
- F. Replace the plastic door frame moldings, trim, door panels, speakers and all accessories.

PROFESSIONAL INSTALLATION RECOMMENDED

Warranty does not cover damage to vehicle or mirror housing due to improper installation. Muth Mirror Systems, LLC (MMS) assumes no responsibility with regard to the accuracy of this information. MMS assumes no liability or responsibility resulting from improper installation, even in reliance upon this information. Proper installation is the responsibility of the installer. It is your responsibility to verify any circuit before interfacing with it using a digital multimeter.

WARRANTY STATEMENT

The Signal® Mirror is warranted to be free from defects in materials and workmanship for a period of three years or 36,000 miles (whichever comes first) from date of sale to original purchaser. This warranty excludes labor, broken glass, or other situations that cause harm to the product after it has been shipped from the factory, such as damage, unreasonable use, modifications, or alterations. In the event of a defect, Muth reserves the right to evaluate the problem through Quality Control and, at Muth's discretion, replace the defective product. Any warranty or replacement part will be charged to the customer when shipped. Credit will be given when the defective part is returned to and received by Muth, and the replacement is warranted.

Muth products are protected by these, and other pending, United States Patents: 6,076,948; 6,257,746; 7,104,676; 7,327,321; 6,749,325; 7,241,037; 7,192,172; 7,273,307; 7,416,318; 6,045,243; D394,833; D409,540; D428,373; D426,506; D430,088; D426,507; D428,372; D429,202; D428,842; D425,466; D427,128