



Signal® Mirror Installation Instructions

2006-2012 Honda Ridgeline



THE safety accessory of the 21st Century.™

Professional Installation Recommended:

Warranty does not cover damage to the 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.

INCLUDED ITEMS:

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

REQUIRED TOOLS:

- Ratchet with extension or ratcheting screwdriver
- 7 mm socket
- 8 mm socket
- Socket wrench
- Cordless/Electric drill
- 1/8" drill bit
- 1/4" drill bit
- T-25 Torx bit
- Large slotted screwdriver
- Small slotted screwdriver
- Large Phillips screwdriver
- Small Phillips screwdriver
- Small pry bar (nylon, non-scratchable)
- Gopher rod (wire)
- Electrical tape
- Wire crimper and stripper
- Needle nose pliers
- 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

Door Panel Removal



1. Start with opening the driver's side door and lowering the window.
2. Using nylon, non-scratchable pry bar – pry, unsnap and remove corner trim piece.
3. Using small flat head screwdriver, remove rubber trim in handle to reveal Phillips head screw. Remove screw as shown.
4. Lift up on door latch. Remove trim cover, using small flat head screwdriver, to reveal (2) 7mm bolts. Remove bolts to reveal cable latch clip.

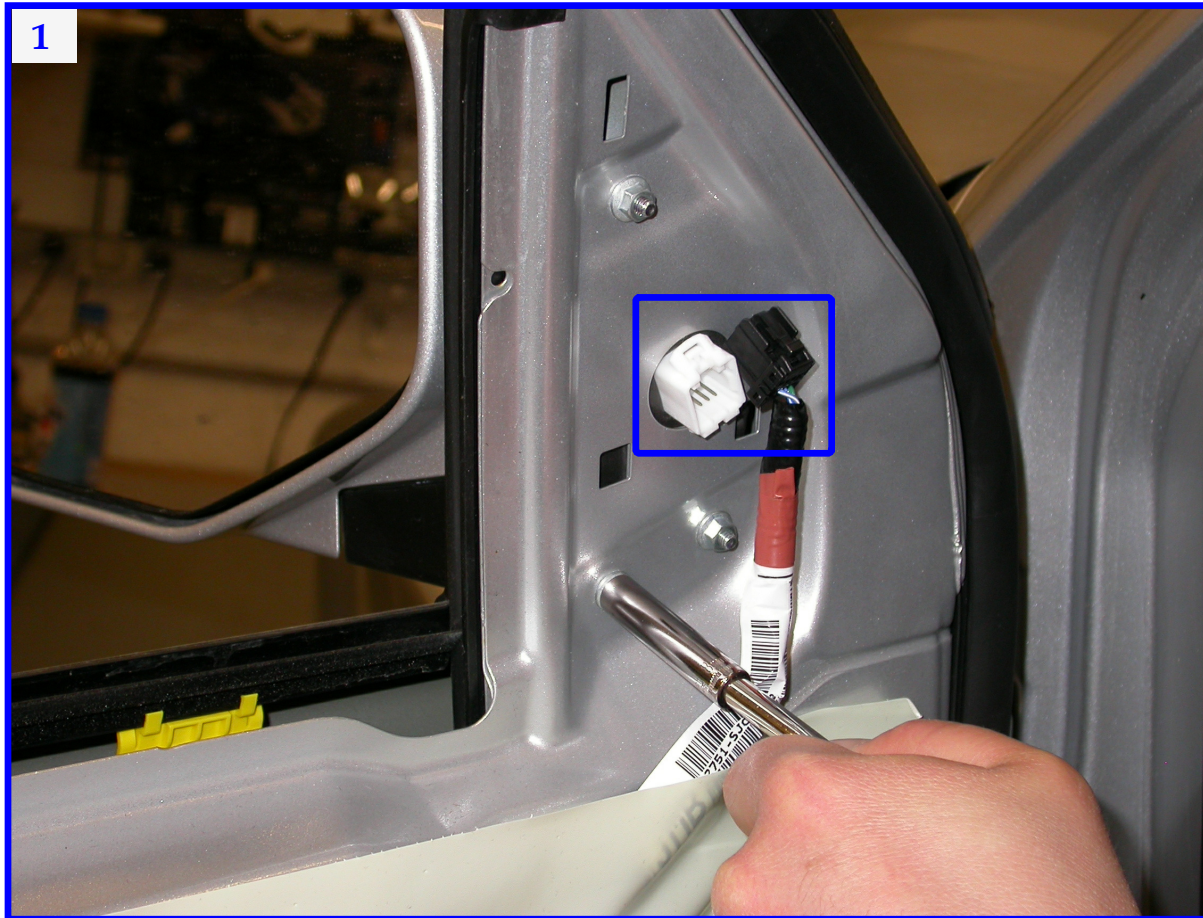
Door Panel Removal Continued



5. Using a needle nose pliers, unclip latch cable and remove latch assembly.
6. Remove (3) Phillips screws with a Phillips screwdriver.
7. Grab around the bottom of panel, carefully pull to release panel.
8. Lift the door panel off of the door and hold it a few inches away from the door. Disconnect wiring connection and remove door panel.

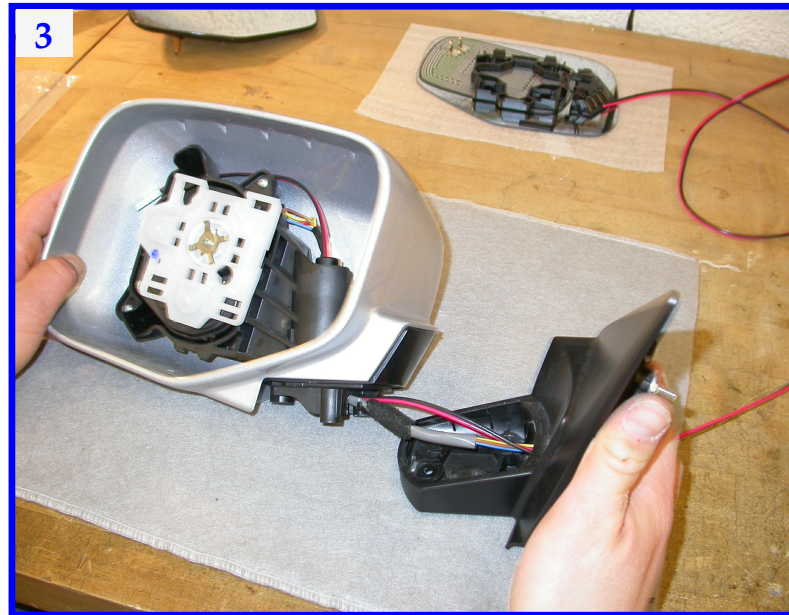
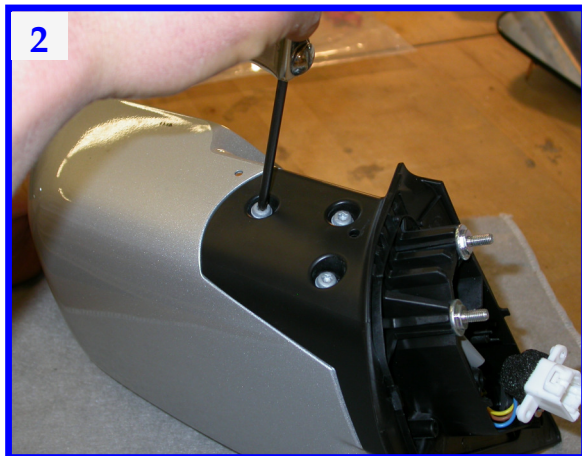


Mirror Housing Removal



1. Disconnect wiring connector. Secure the mirror housing with one hand and remove the three mirror mounting nuts from the corner of the door with 8mm socket. Carefully remove the mirror housing from the door. Lay the mirror housing on a cloth covered, flat surfaced work bench.

Mirror Replacement

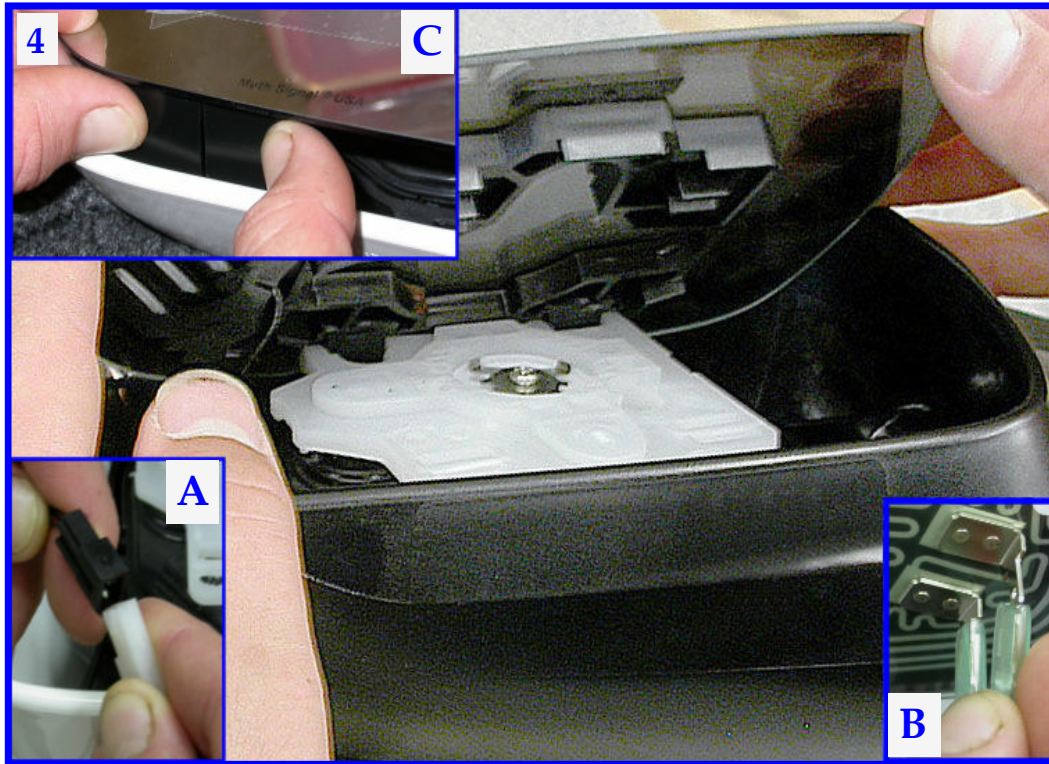


WARNING: Safety glasses and sturdy gloves are required for mirror replacement.

1. Push on the top edge of the mirror to manually pivot it fully outward. Insert a large flathead screwdriver down between the motor actuator and the backplate motor mount (white). Slowly and carefully pry up against mirror until OE mirror unsnaps. Lift up and disengage mirror mount inserts to release OE mirror. If heated, disconnect heater wires from heater terminals and remove OE mirror.
2. Turn the mirror housing upside down, using a T-25 Torx wrench, unscrew (3) Torx screws to release mirror mounting sail.
3. Using the shorter of the two harnesses from the wiring kit, guide the end without the mating connector from inside mirror housing and out through the mirror mounting sail leaving about 4"-6" of wiring inside housing for connection. Re-assemble mirror mounting sail to mirror housing. Pull the *Signal*® mirror wire harness thru to eliminate any slack inside routing passage.

Mirror Replacement Continued

WARNING: Safety glasses and sturdy gloves are required for mirror replacement.



4. Connect the *Signal*® mirror mating connector to the *Signal*® mirror wire harness (4A). **If heated**, reconnect the heater wires to the heater terminals on the back of the new *Signal*® mirror (4B). **NOTE: There is no polarity so the wires may be interchanged.** Position and align the mirror mount inserts into the motor actuator inserts' slots. Carefully tuck all wiring behind motor actuator. **Not doing so, could result in wiring interfering with mirror travel.** Push on anti-vibration tabs so that anti-vibration tabs are inside of mirror housing (4C). Slowly push down on mirror until mirror snaps into place.

Wire Routing

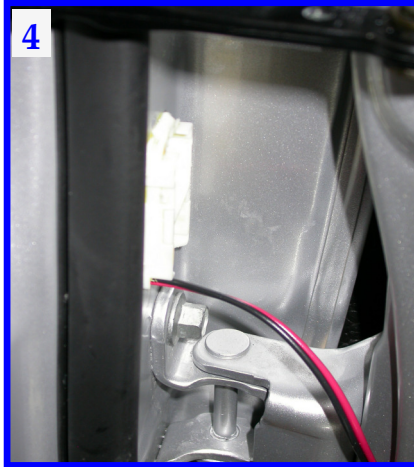
WARNING: When routing wires into vehicle, it is extremely important to not let wires get pinched or crushed at any time. Avoid window track and sharp edges at all times. Not doing so may cause circuit shortage problems in the long run.



TIP: A gopher rod (wire) maybe use to assist in the *Signal*® mirror wire harness routing processes.

1. Guide the wire harnesses through the door frame and position the mirror housing assembly on the mirror mount. Bolt the mirror housing to the mirror mount with three mirror mounting nuts. **WARNING!** Do not over tighten the mirror mounting nuts. Reconnect OE wire harness. Remove plastic plug and pull back a portion of the plastic door insulation to gain access to door frame cavity.
2. Locate rubber grommet in door jam. With a pliers, pull back weather barrier to expose connectors. **WARNING!** Careful not to damage material. Disconnect connectors.
3. Through opening in the door, remove mating connector and pull mating connector out to provide enough room to allow work to be done. **NOTE:** The passenger side does not have this mating connector, therefore, the wire routing process will be easier. Also no drilling will be required on the passenger side. Using a 1/16" drill bit, drill a pilot hole in the lower left corner of the connector. **WARNING!** This hole should **NOT** be inside where the terminals are located but on the outer area, lower left corner as shown. Re-drill hole using a 1/4" drill bit. Route the *Signal*® mirror wire harness alongside OE wire harness and thru the newly drilled hole, removing any slack in the *Signal*® mir-

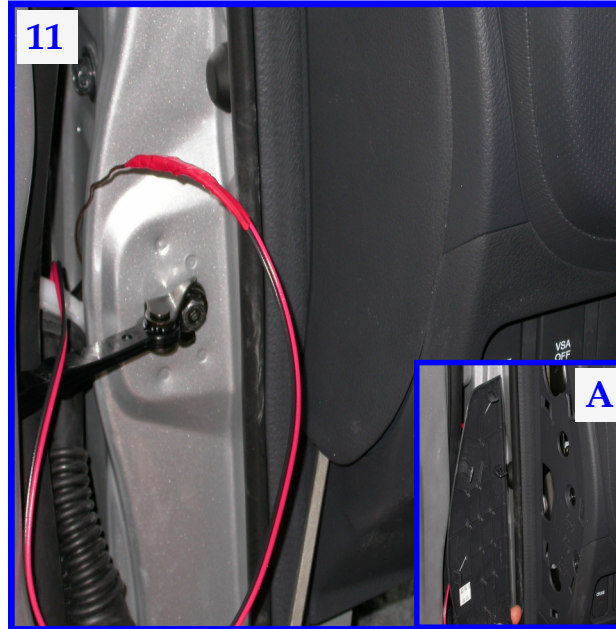
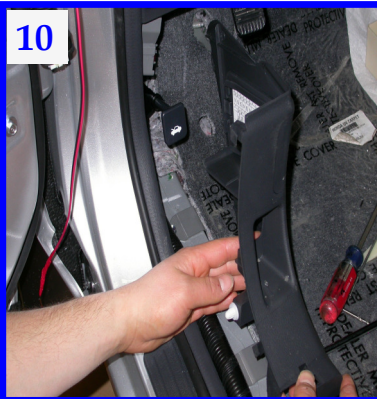
Wire Routing Continued



TIP: A gopher rod (wire) maybe use to assist in the *Signal*® mirror wire harness routing processes.

4. Route the *Signal*® mirror wire harness thru opening in the door jam and snap mating connector back into its location. Gently pull the *Signal*® mirror wire harness to remove any slack in the wire.
5. Push in and pull out the other side of the rubber grommet. Tape the *Signal*® mirror wire harness to a rigid gopher rod (wire). Push gopher rod through rubber grommet and gently pull the *Signal*® mirror wire harness thru the rubber grommet, removing any slack in the wire. Reconnect OEM harness to drilled out mating connector. **NOTE:** At this time you will have to remove the lower snap feature on the rubber grommet. The top snap should be enough to hold the rubber grommet firmly to door.
6. Remove gas opening lever cover, with the fuel pump icon, by pulling it forward.

Wire Routing Continued



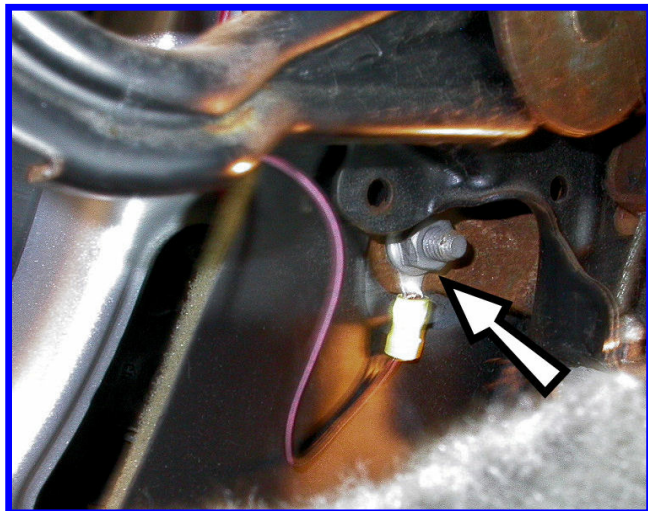
TIP: A gopher rod (wire) maybe use to assist in the *Signal*® mirror wire harness routing processes.

8. Pry off plastic cover on floor piece with a small pry bar to expose two 10mm nuts.
9. Remove nuts and lift up floor piece.
10. Remove round black bolt stud cover w/ pry tool, then remove kick panel.
11. Using the gopher wire, route the *Signal*® mirror wire harness into the vehicle thru the rubber grommet hole opening. **TIP:** To assist in seeing where to route, remove side cover off of dash panel (11A). Replace rubber grommet into its place on vehicle side. Gently pull on the *Signal*® mirror wire harness to remove any slack in the harness.

*** Before proceeding, please read remainder of instructions for information regarding wiring identification and options. ***

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

Wire Identification



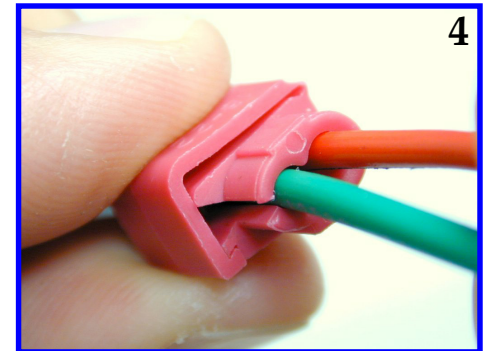
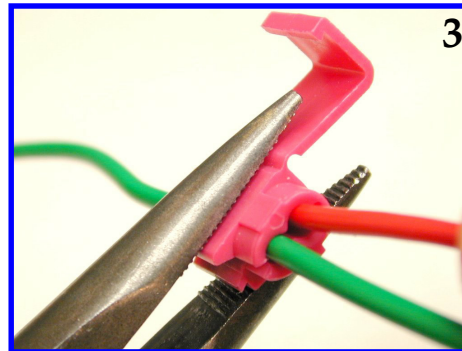
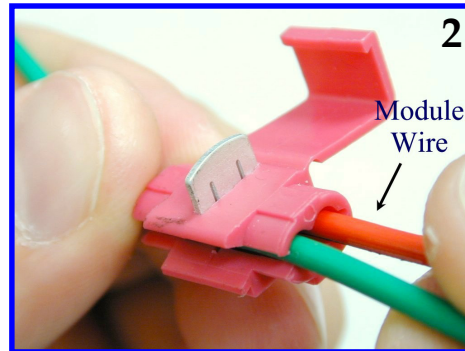
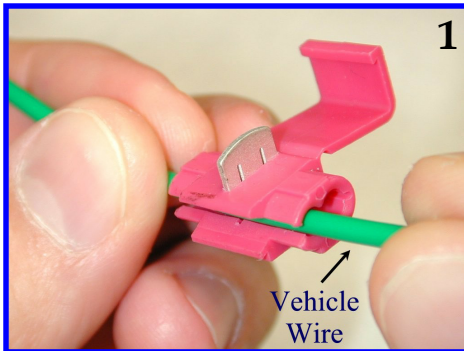
GROUNDING WIRES

The ground wiring location is located in the driver side kick panel area. Locate the grounding bolt within the driver side kick panel. Route both *Signal*® mirror wire harnesses to the driver side kick panel area. Cut and split the BLACK w/ RED TRACE and black wires on both *Signal*® mirror wire harnesses. Route the BLACK wire to the grounding bolt location. Cut both BLACK wires to length, making sure enough slack is left for splicing. Splice the BLACK wires and attach them to the supplied grounding ring. Attach the grounding ring to the grounding bolt on the vehicle frame.



TURN ONLY

The vehicle's electrical wiring is located within the wire bundle along the floor board on the driver side kick panel. Using a utility knife, carefully cut and remove some of the electrical tape to gain access to the wires behind it. Locate the solid RED w/ BLUE STRIPE wire 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 BROWN wire. Activate the passenger side turn indicator and probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as 'passenger side indicator'.



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, and all accessories.

PROFESSIONAL INSTALLATION RECOMMENDED

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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