



Signal® Mirror Installation Instructions

2005-2009 Dodge Durango Limited, 2007-2009 Chrysler Aspen



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
- 10 mm socket
- Socket wrench
- Large slotted screwdriver
- Small slotted screwdriver
- Small pry bar
- 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:

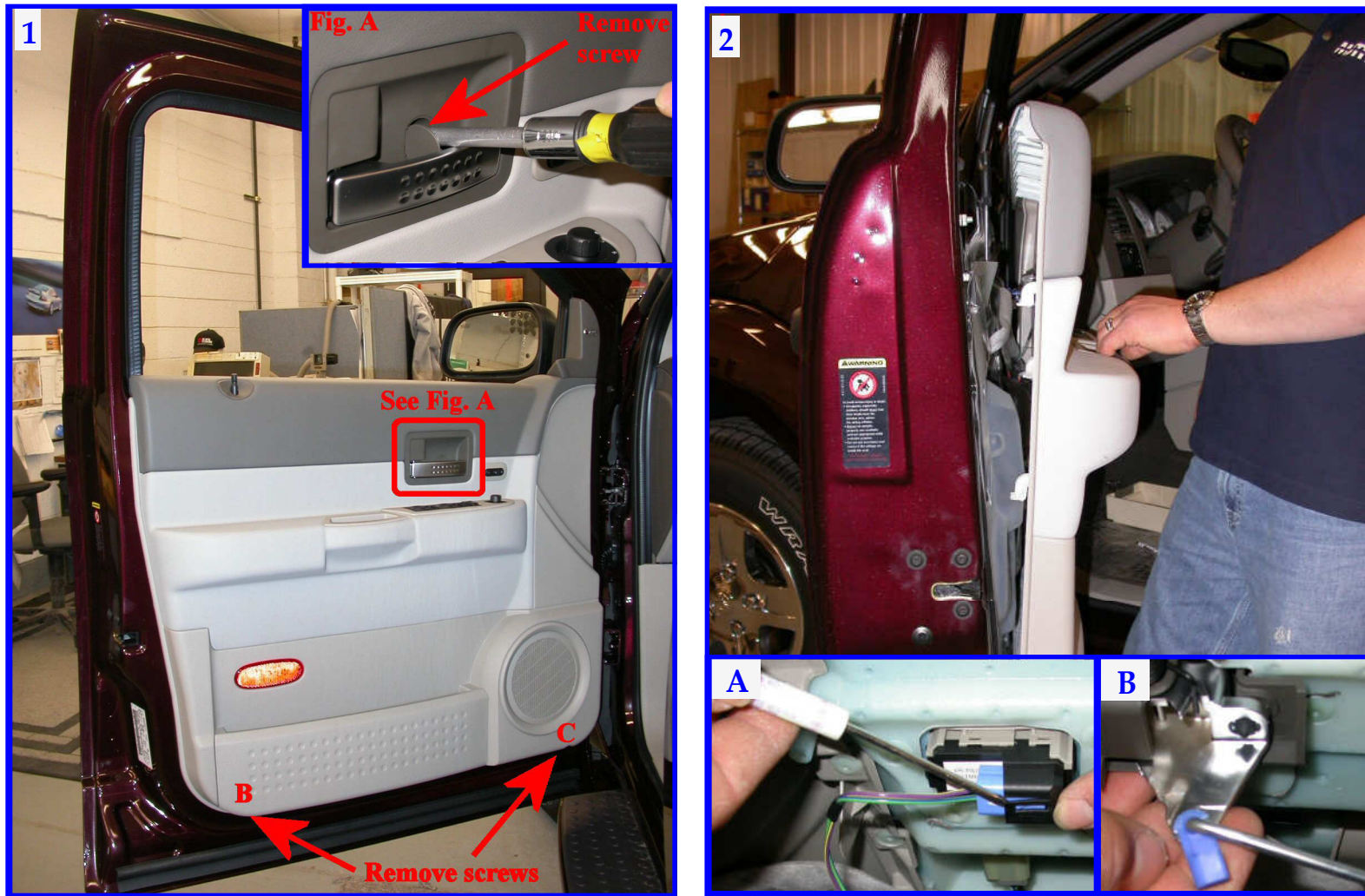
1-800-844-6616

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

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

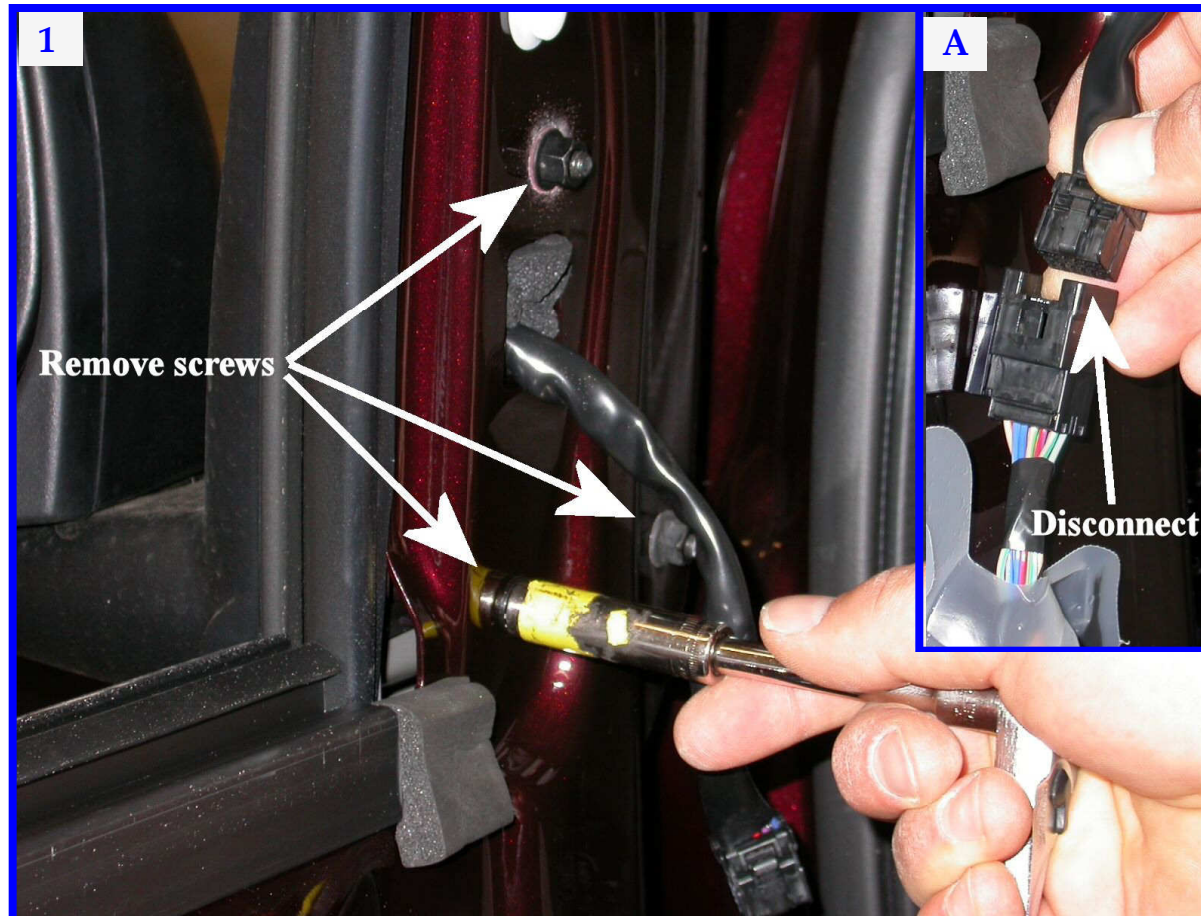
Or via E-mail: techsupport@muthco.com

Door Panel Removal



1. Start with opening the driver's side door and lowering the window. Lift-up plastic cover and remove screw in door handle (**Fig. A**). Remove the two screws located at the bottom of the door panel (**B & C**).
2. Lift the door panel off of the door and hold it a few inches away from the door. Disconnect OE wiring connection with a flat screw driver (**2A**). Unsnap the metal rod from door handle (**2B**). Remove door panel and set it aside.

Mirror Housing Removal



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

Mirror Replacement

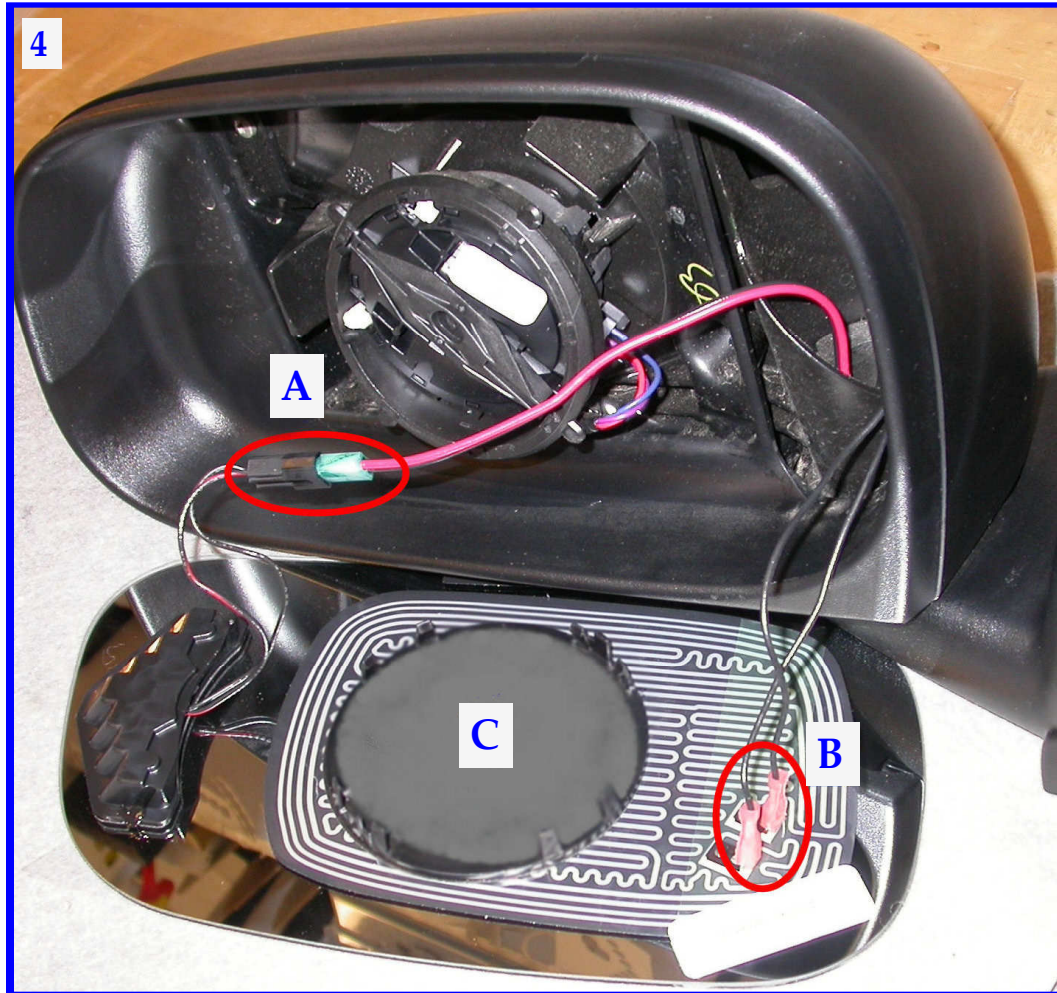


WARNING: Safety glasses and sturdy gloves are required for mirror replacement.

1. Push on the bottom 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. Slowly and carefully pry around motor actuator until OE mirror pops off. If heated, disconnect heater wires from heater terminals and remove mirror.
2. Using the shorter of the two harnesses from the wiring kit, guide the end without the mating connector into the mirror housing and out through the mirror mount.
3. Remove wire clip with a flat head screwdriver. Route the *Signal*[®] mirror wire harness alongside OE wire harness. Re-attach wire clip to secure both wire harnesses together.

Mirror Replacement Continued

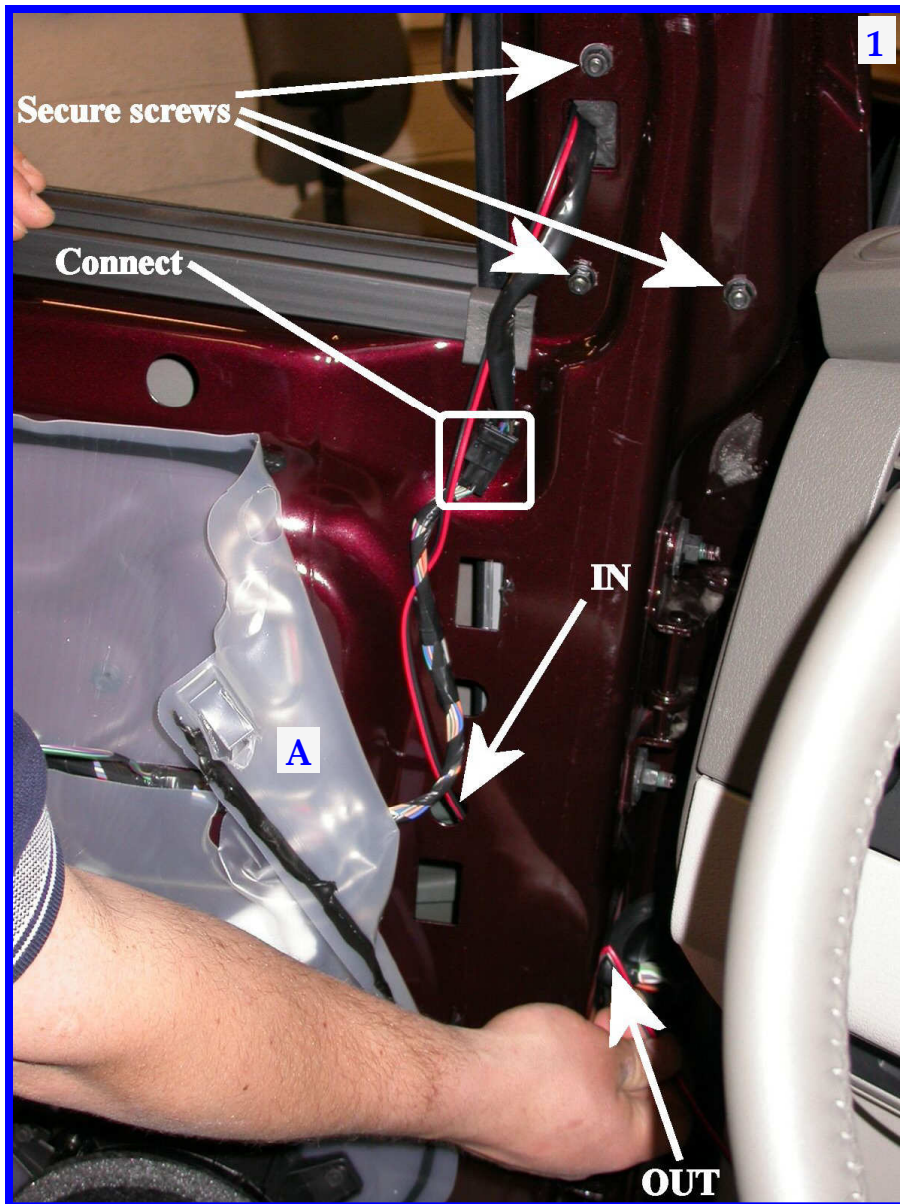
WARNING: Safety glasses and sturdy gloves are required for mirror replacement.



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 the included foam disc within the mirror snap ring (both left-hand and right-hand) (4C). Align the anti-rotation groove with the prong on the motor actuator. Carefully tuck all wiring behind motor actuator. **Not doing so, could result in wiring interfering with mirror travel.** Center the snap ring on the motor actuator and slowly push down on the center of the glass until the mirror snaps into position.
5. Firmly press down on all sides of the *Signal*® mirror to ensure mirror is fully seated and functional.

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) may be use to assist in the *Signal*[®] mirror wire harness routing processes.

1. Guide the wire harnesses through the door 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.

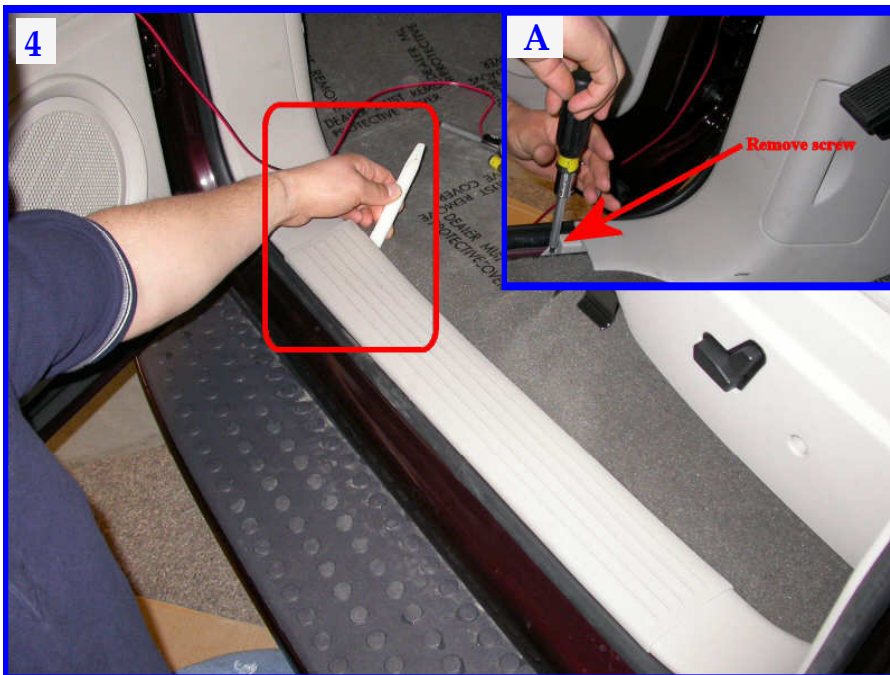
Pull back a portion of the plastic door insulation directly below where the factory mirror harness connection is made (A).

Pull the rubber boot out between the door and door frame.

Guide the *Signal*[®] mirror wire harness alongside OE wire harness as shown in the left diagram.

Insert the *Signal*[®] mirror wire harness through the exposed hole in the door and out the opening vacated by the rubber boot. Remove any slack in the *Signal*[®] mirror wire harness.

Wire Routing Continued



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

2. Disconnect wiring connector from vehicle frame. Separate the rubber boot from the connector.
3. Pass the wire harness through the rubber boot and remove any slack in the wire harness.
4. To better access the wire harness coming through the door frame, the plastic corner molding needs to be removed. With the use of a plastic insert, lift up on the plastic trim. Grab and pull off the plastic trim along the floor board. Remove the screw at the bottom of the corner molding along the floor board and remove the corner molding (4A).

Wire Routing Continued



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

- 5. Passenger Side Only:** Remove the (4) screws holding the Engine Control Unit. Remove the ECU to gain access to route the *Signal*® mirror wire harness into the vehicle.
6. There is a small channel between the wire guides and plastic connector. Guide the wire harness through this channel and then pass the wire into the car through the door frame. Remove any slack in the wire harness and stretch the rubber boot back over the plastic connector. Snap the plastic connector back into the door frame. Route the *Signal*® mirror wire harness thru the access hole into the vehicle. Replace the rubber boot back into position. Pull on the *Signal*® mirror wire harness, removing any slack in it.

* 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. **

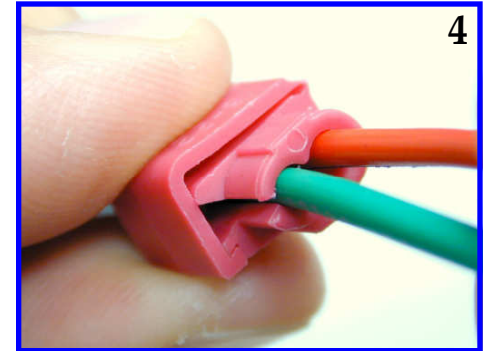
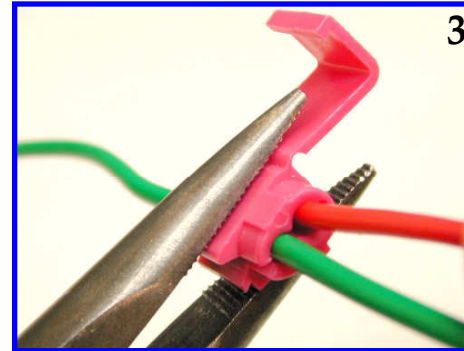
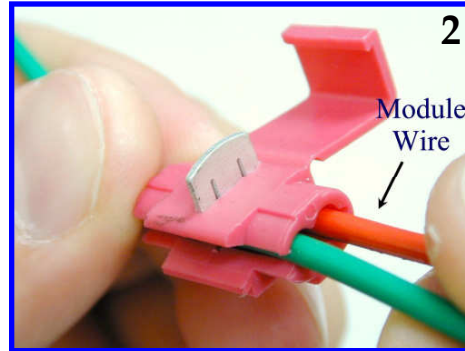
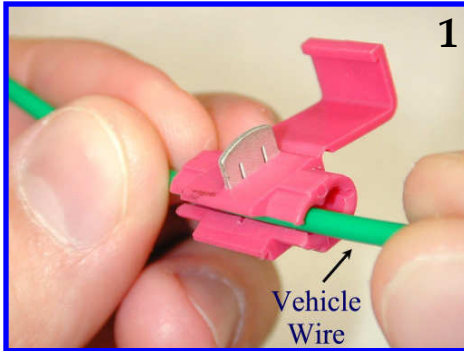
7. Locate the grounding bolt within the kick panel. Cut and split the BLACK w/ RED TRACE and BLACK wires on the *Signal*® mirror wire harness. Route the BLACK wire to the grounding bolt location. Cut the BLACK wire to length, making sure enough slack is left for splicing. Splice the BLACK wire and attach it to one of the supplied grounding rings. Attach the grounding ring to the grounding bolt on the vehicle frame.

Wire Identification



TURN ONLY

The vehicle's electrical wiring is located within the wire bundle along the floor board on the driver side. Using a utility knife, carefully cut and remove some of the electrical tape to gain access to the wires behind it. Locate the solid WHITE W/ DARK GREEN 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 PURPLE W/ GRAY STRIPE 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.

Muth products are protected by these, and other pending, United States Patents

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5,788,357	6,005,724	6,045,243	6,076,948	6,257,746	6,700,123	6,749,325	6,918,685	7,008,091	7,015,642	D363,920
D394,833	D409,540	D425,466	D426,506	D426,507	D427,128	D428,372	D428,373	D428,842	D429,202	D430,088