



Signal[®] Mirror Installation Instructions

2003 - 2007 Nissan Murano



THE safety accessory of the 21st Century.[™]

P/N 210-0106-0

Rev. A2 (8/12/08), BTW

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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
1 ring connector
2 – 6” Long wire sheathing
1 instruction manual

REQUIRED TOOLS:

Ratchet with extension or ratcheting screwdriver
10mm socket
Socket wrench
Small slotted screwdriver
Large slotted screwdriver
Phillip slotted screwdriver
Small plastic pry bar
Small pry bar
Gopher wire (rod)
Electrical tape
Wire crimper and stripper
Wire cutter
Needle nose pliers
Multimeter or wire tester
Sturdy gloves
Safety glasses or goggles
Utility knife
Dremel tool

Please read instructions prior to installation.

PROBLEMS OR QUESTIONS?

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

1-800-844-6616

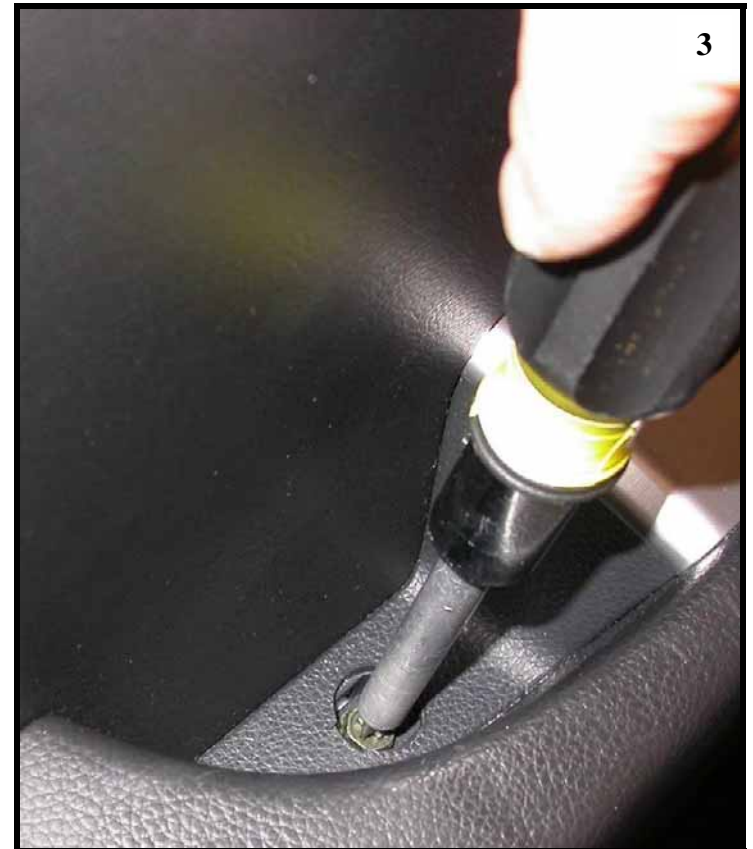
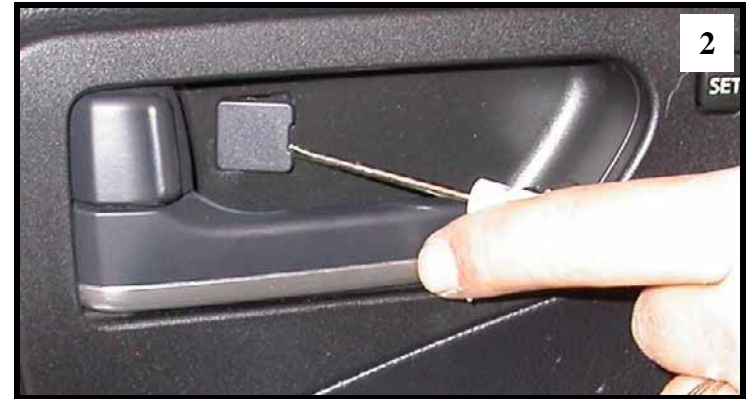
Monday through Friday
Between 8:00 a.m. and 5:00 p.m. CST

Or through the Muth web site:

www.muthco.com

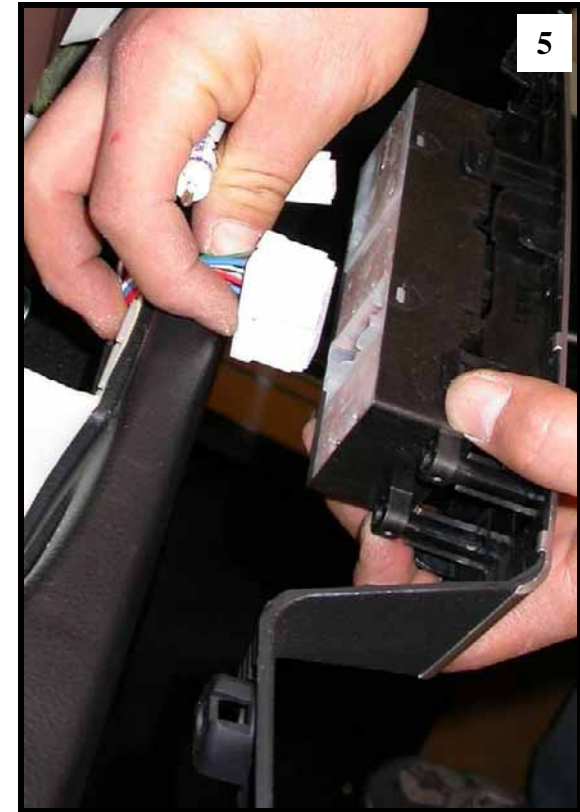
Or via E-mail: techsupport@muthco.com

Door Panel Removal

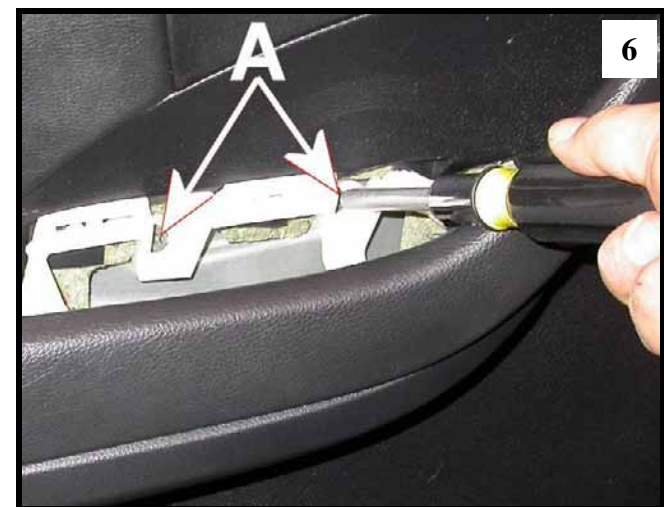


1. Start with opening the driver's side door and lowering the window.
2. Open the small plastic cover in the door handle. Remove the screw behind the small plastic cover.
3. Remove the screw located at the control console.

Door Panel Removal Continued



4. Carefully pry and lift up control console.
5. Disconnect wiring behind control console and remove control console.
6. Remove (2) screws shown (A).



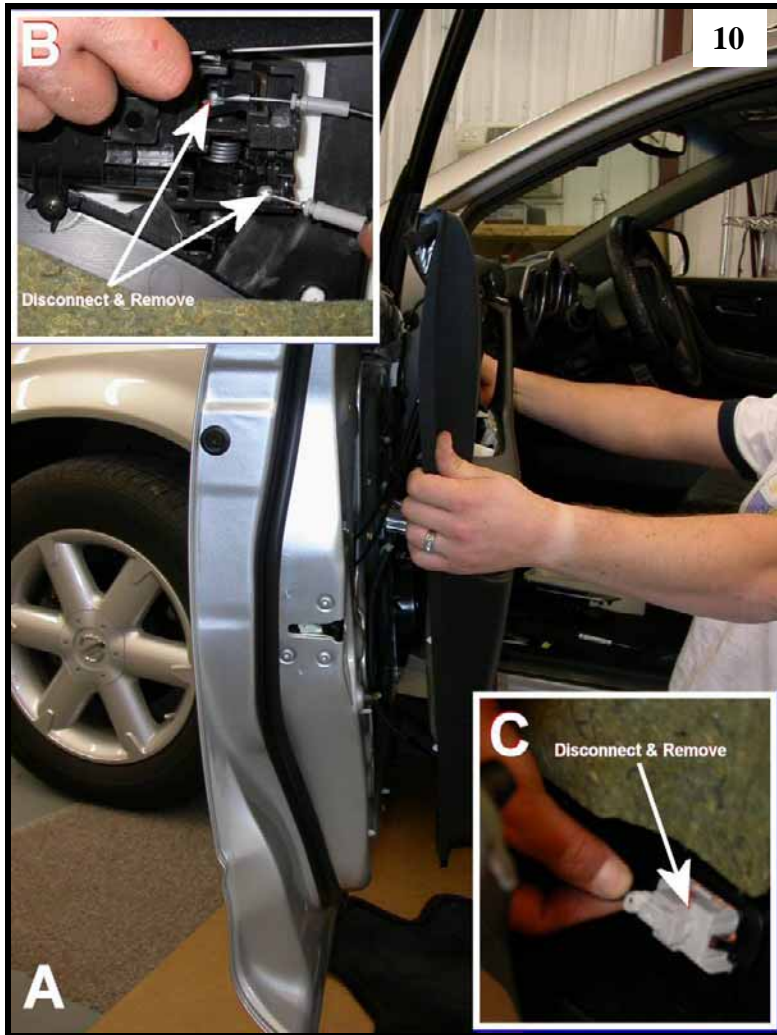
Door Panel Removal Continued



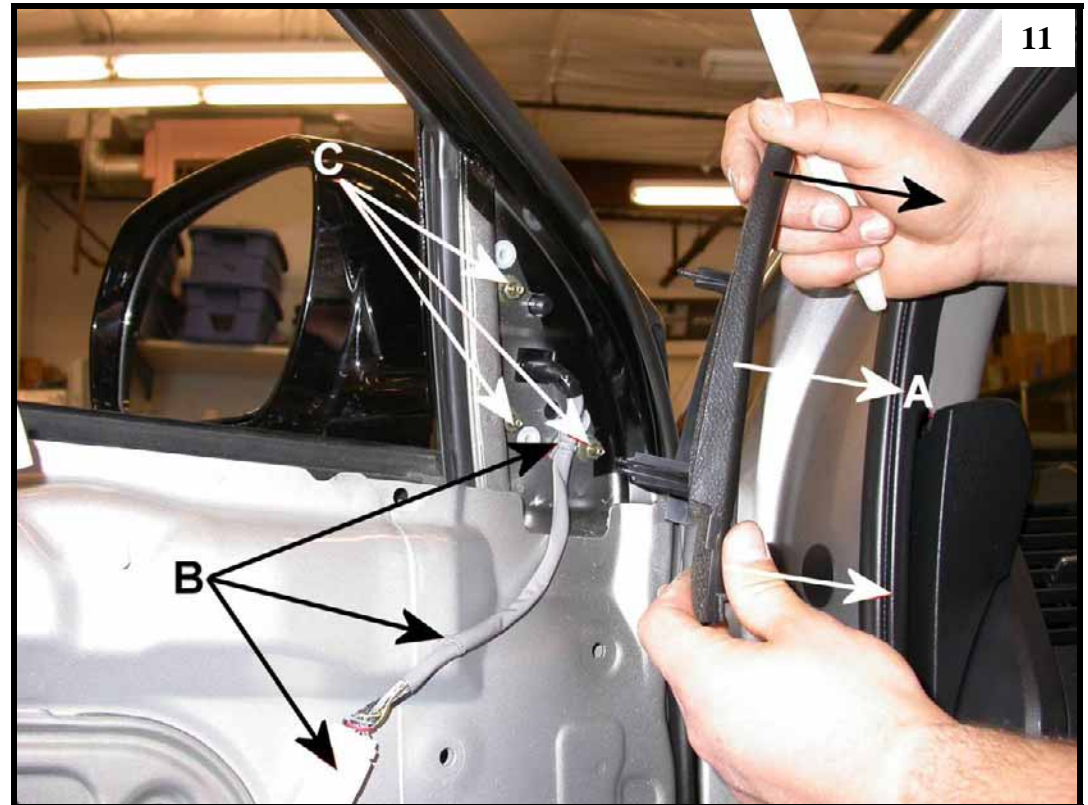
7. Insert a plastic pry bar into the door lever cover. Slowly pry all-around lever cover to disengage it from door panel. Pop off door lever cover.
8. Disconnect wiring from behind door lever cover and remove cover.
9. Remove screw located on top of door handle.



Door Panel Removal Continued



Pull all-around door panel to unsnap it from door frame. Lift up and hold door panel a few inches away from door frame (A). Remove door lever rods behind door panel (B). Disconnect wiring connection to door light (C). Remove door panel.



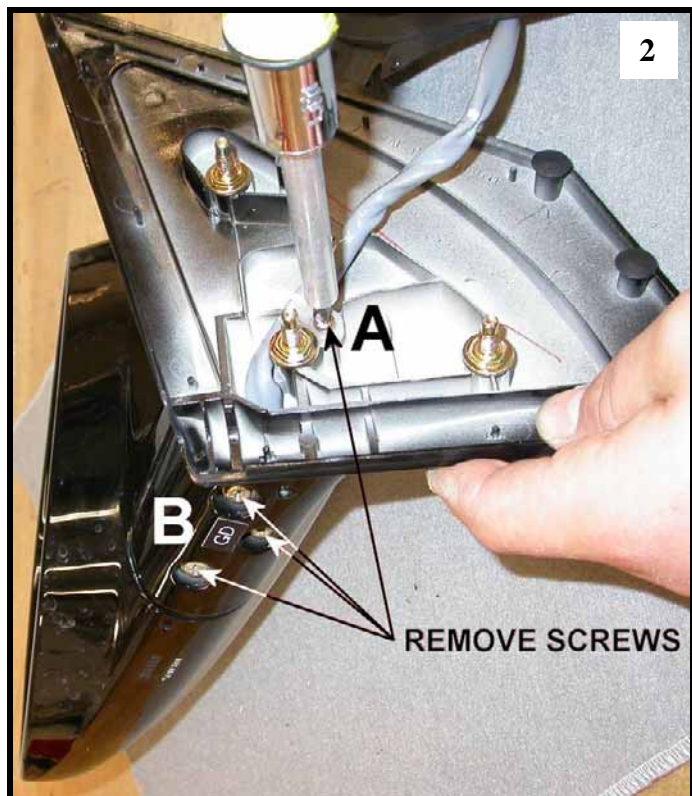
Remove the triangle cover on the door frame (A). Disconnect wiring connection and wire clips (B). Secure the mirror housing with one hand, remove the (3) nuts holding the mirror housing to the door frame using a 10mm socket (C). **WARNING: Not securing mirror housing with one hand before loosening the nuts could cause the mirror housing to fall and become damage.** Carefully remove mirror housing from door frame and set mirror housing on a cloth covered surface.

Mirror Replacement

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



Remove electrical tape and wire clip on original wire. Remove rubber insulation on the housing sail.

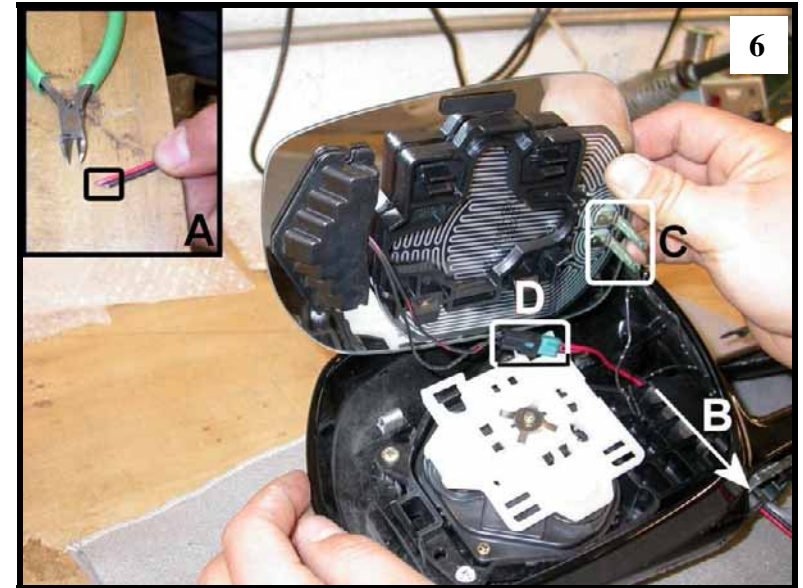
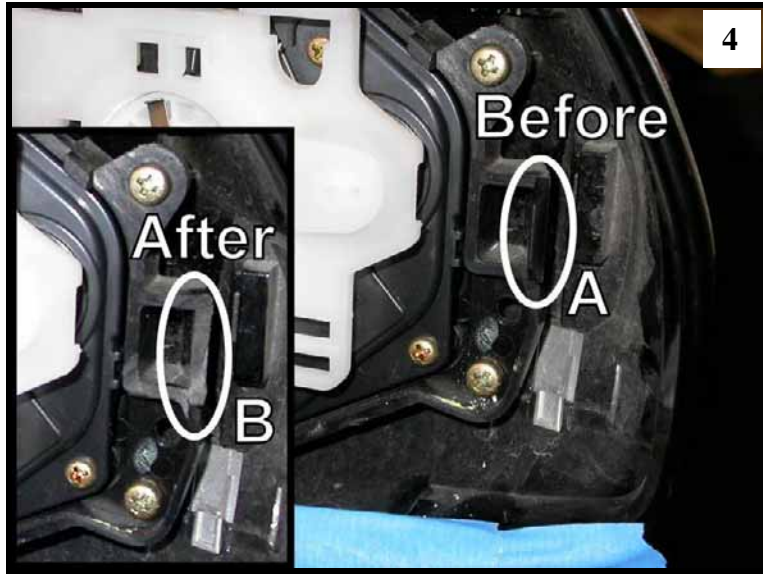


Remove screw on the wire clip and remove wire clip (A). Remove the (3) screws located at the bottom of the mirror housing (B). Remove the mirror housing sail and set it aside.



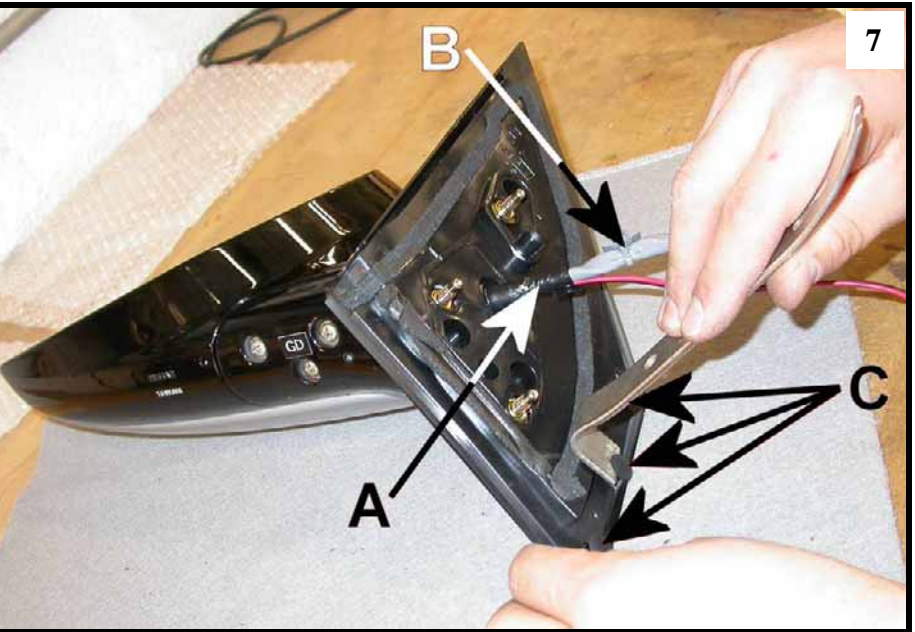
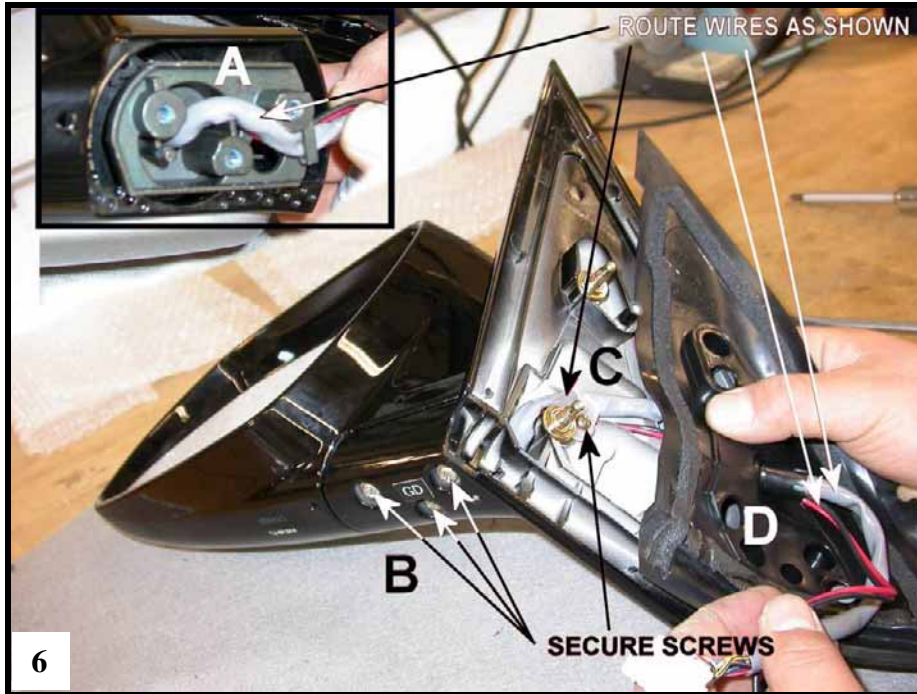
With the mirror upside down (looking down from the bottom), push down on the lower inboard edge of glass until mirror pivots fully outward. Insert a large flathead screwdriver in between the motor mount and the motor actuator. Carefully pry and twist screwdriver until original mirror pops off. **If heated**, disconnect heater wires from heater terminals. Remove mirror.

Mirror Replacement Continued



4. Using a plastic cutter or a dremel tool, cut the protruding black plastic within the mirror housing (A to B). **NOTE: Cutting out this feature is critical because it helps eliminate interference with the optic module on the Signal[®] mirror and promotes mirror travel.**
5. Pull-up on original wire to help loosen and create space to route Signal[®] mirror wire harness.
6. Using the shorter of the two harnesses from the wiring kit, cut about 1/8" off at a 60 degree angle on the end of the harness without the mating connector (A). Start from inside mirror housing, insert the end without the mating connector through housing tube (B) leaving about 4" – 6" of slack inside housing for connection maneuverability. **If heated**, reconnect the heater wires to the heater terminals on the back of the new Signal[®] mirror (C). **NOTE: There is no polarity so the wires may be interchanged.** Connect the mating connectors on the new Signal[®] mirror and the Signal[®] mirror wire harness (D). Carefully tuck all wiring behind motor actuator. **Not doing so, could result in wiring interfering with mirror travel.** Place the (2) inserts into their respective slot and snap down the motor mount onto the motor actuator. With the palm of your hand, slowly push down on the glass until the new Signal[®] mirror snaps into position. Press down on all sides to ensure the new Signal[®] mirror is fully seated and functional. Carefully pull on the original and the Signal[®] mirror wire harness to remove any slack inside mirror housing.

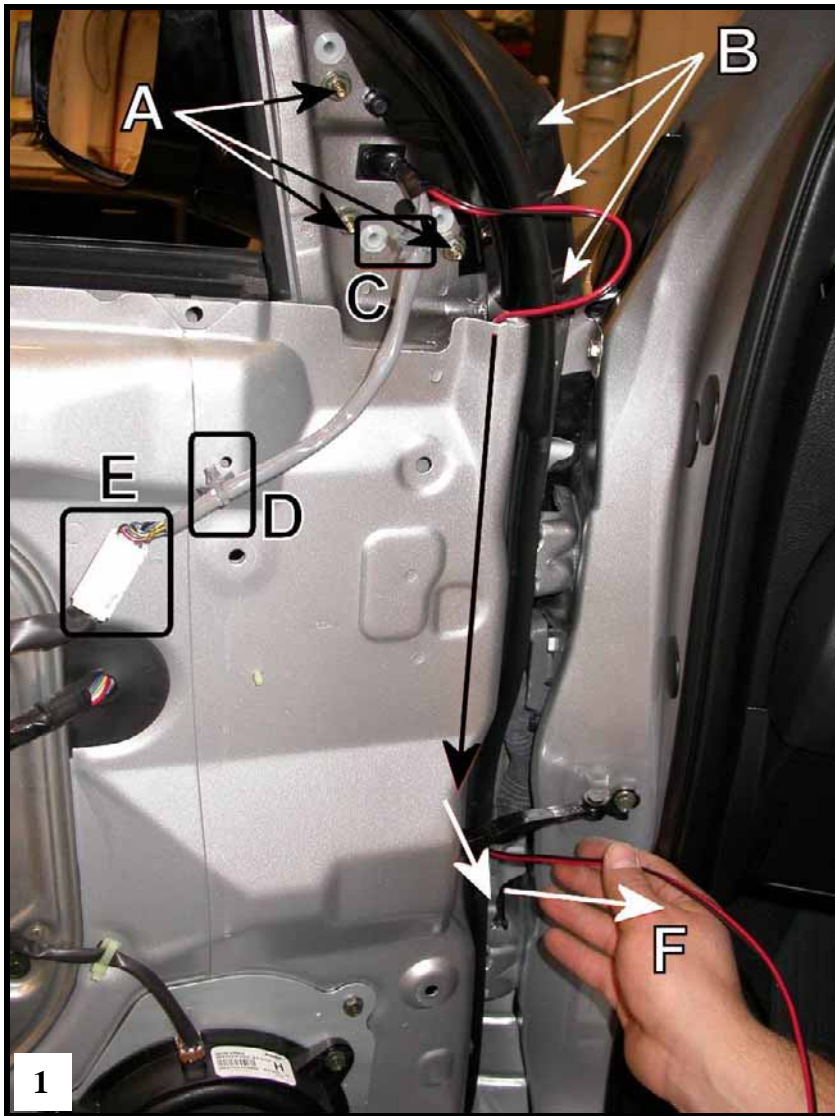
Mirror Replacement Continued



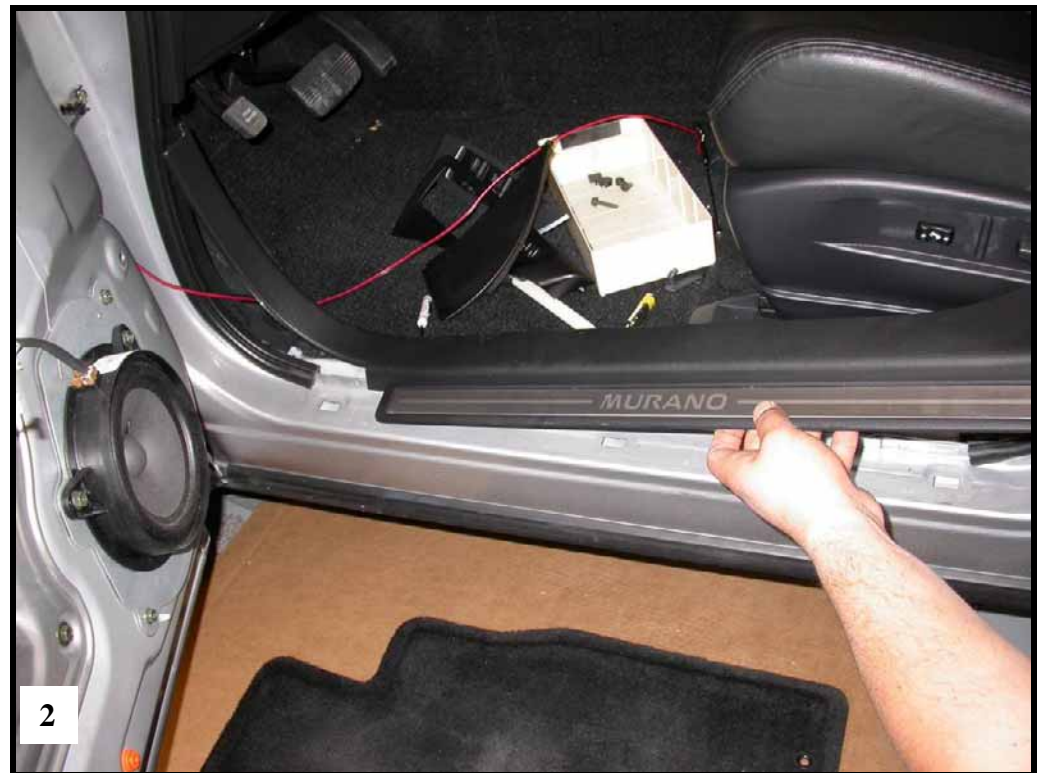
Re-wrap both wires to grommet sheathing with electrical tape (A). Reconnect wire clip to original wire (B). Remove plastic inserts using a small pry bar (C).

(A) Route original wire and *Signal*[®] mirror wire around screw-in posts as shown. **NOTE:** If the *Signal*[®] mirror wire harness does not run alongside original wire correctly, the mirror housing will not sit properly on the sail leading to possible long term problems. Continue routing both wires through housing sail. (B) Position the mirror housing and the housing sail together and secure them with the (3) screws. (C) Route wires around mounting bolt and secure wire clip to hold both wires in place. (D) Guide both wires through rubber grommet and replace grommet.

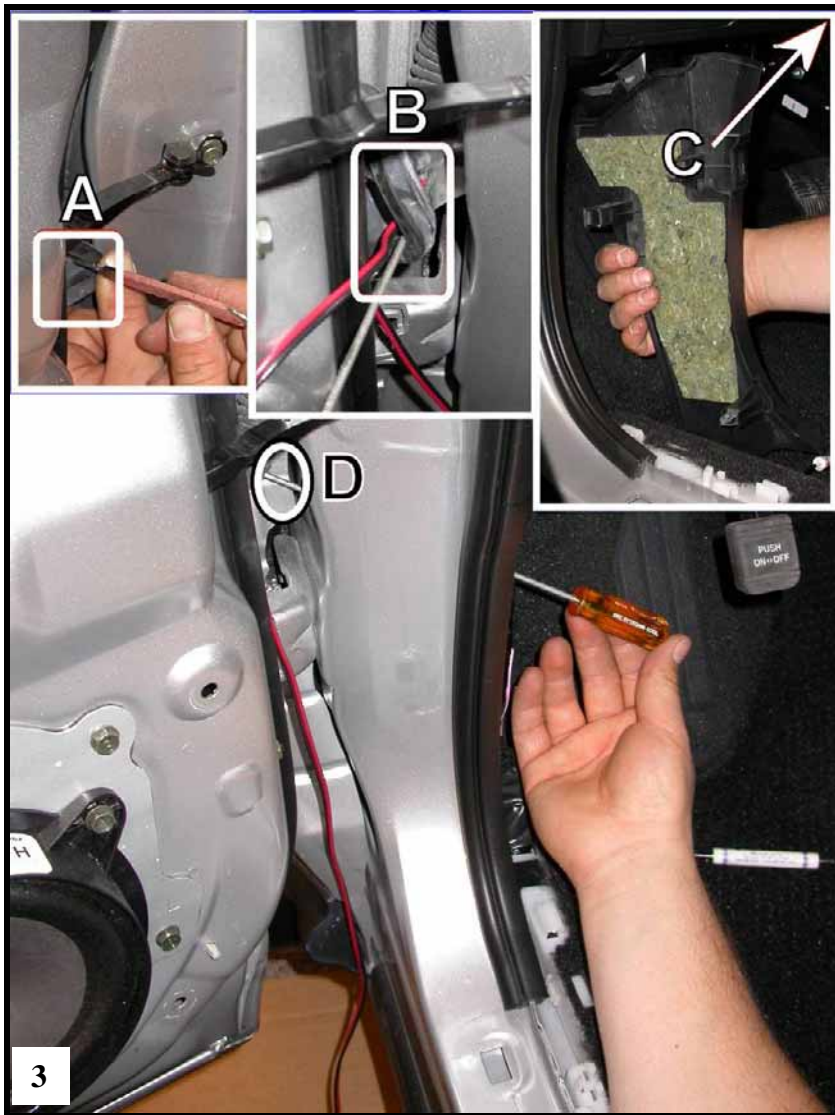
Wire Routing



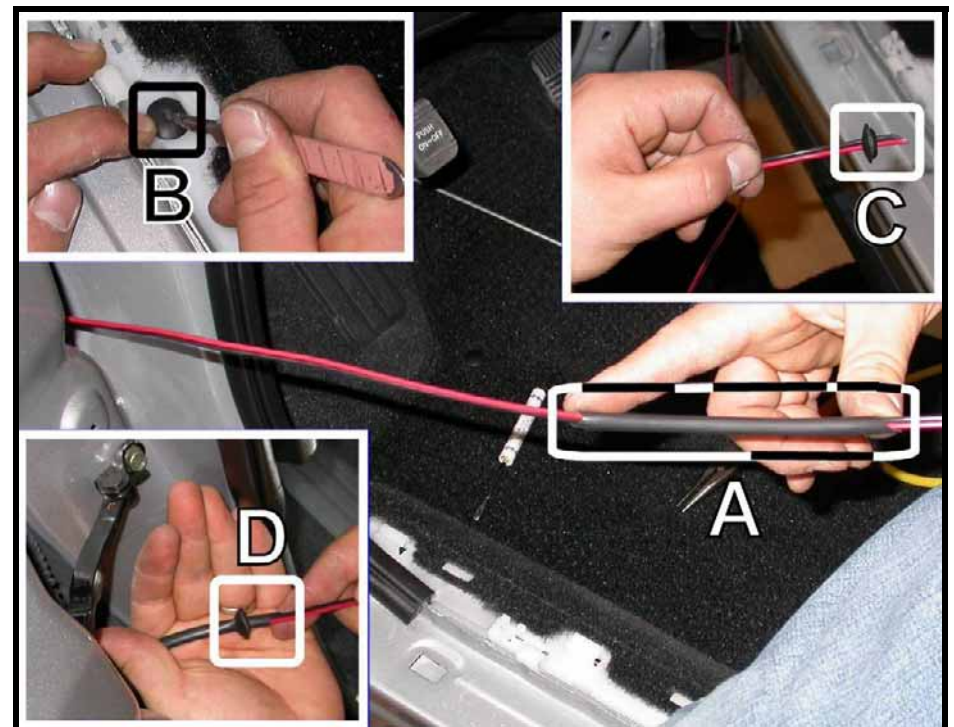
1. Guide the wire harness through the door and position the mirror housing assembly on the mirror mount. Attach the mirror housing to the mirror mount with (3) mirror mounting nuts (A). **NOTE: Tighten the nuts to 3.2 – 4.3 ft-lb.** Snap in the (3) plastic inserts as shown in (B). Snap the wire clips in place (C) & (D). Reconnect original wire mating connectors together (E). Disengage the grommet from the door frame side by first pushing it in and then pulling the grommet out. (If you prefer, you can also drill your own small holes in this section. Be sure to use grommets to seal up the new holes you create.) Route the *Signal*[®] mirror wire harness down and out the hole vacated by the grommet (F). **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.**
2. Lift and remove floor trim.



Wire Routing Continued



3. Make a small incision on the side of the rubber grommet (A). Pass the *Signal*[®] mirror wire harness through the hole in the grommet (B). Remove kick panel (C). Using a long Phillip screwdriver, pop out the small rubber plug shown located at (D).
4. Remove any slack in the *Signal*[®] mirror wire harness through the grommet. Insert one 6" wire sheathing over the *Signal*[®] mirror wire harness (A). Slide the wire sheathing along the *Signal*[®] mirror wire harness until the wire sheathing penetrates approximately 3/16" to 1/4" inside rubber grommet. Re-attach the grommet to the door frame. Make a small incision in the rubber plug (B). Guide the *Signal*[®] mirror wire harness through the hole created in the rubber plug (C). Slide the plug along the *Signal*[®] mirror wire harness until 3/16" to 1/4" of the wire sheathing protrudes through the rubber plug (D).



Wire Routing Continued

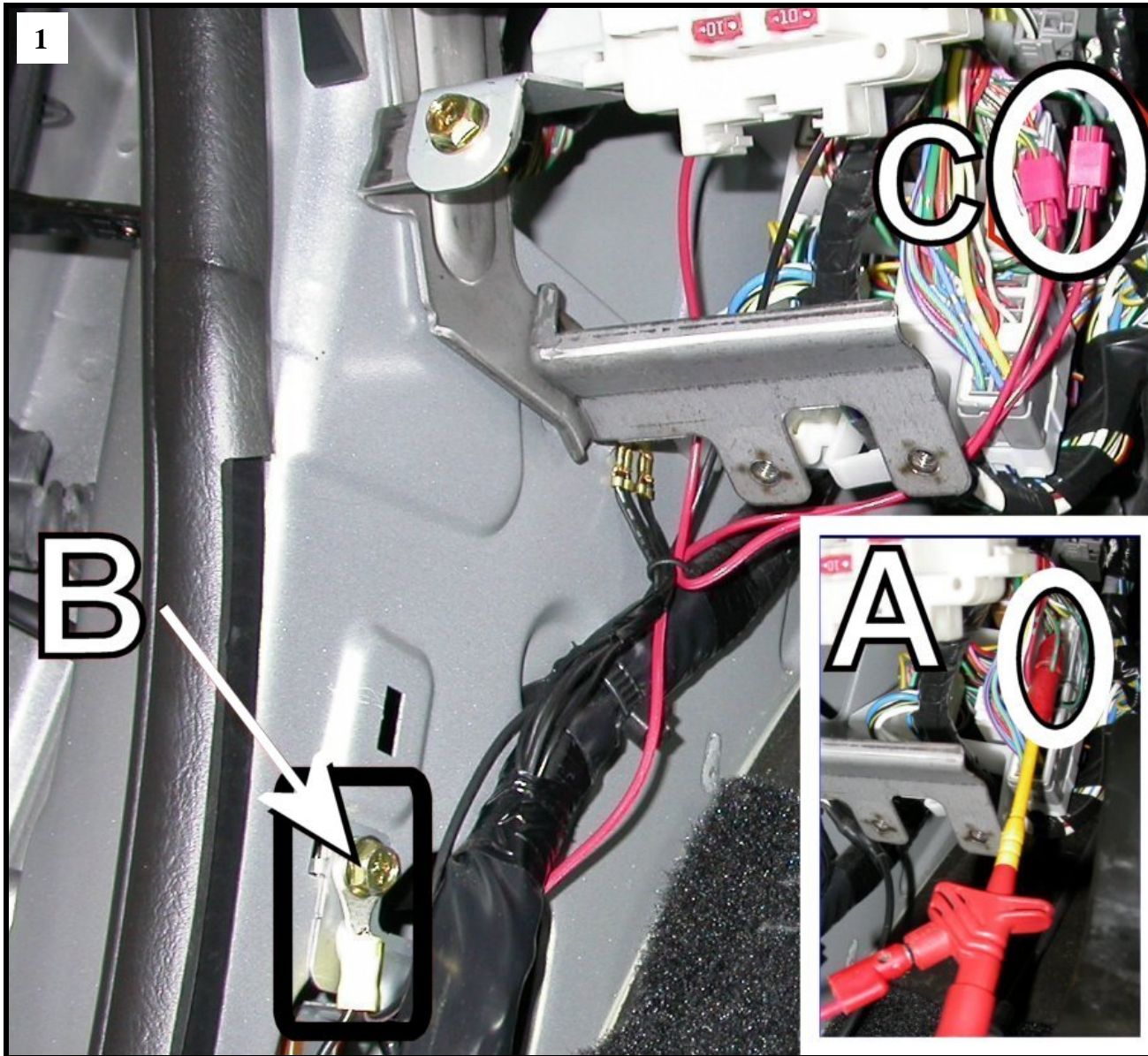


5. Route the *Signal*[®] mirror wire harness into the vehicle via the hole vacated by the rubber plug. Remove any slack in the *Signal*[®] mirror wire harness and attach the plug into place.
6. Remove the (6) screws holding the knee panel in place. Remove knee panel to gain access to the wiring location located behind the fuse block. Route both of the *Signal*[®] mirror wire harnesses into this location to make your wiring connection.

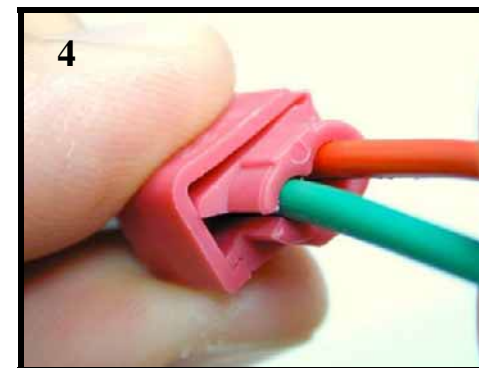
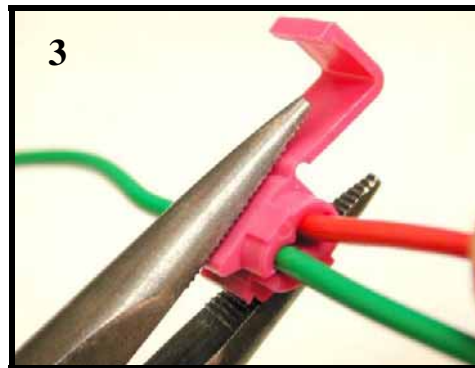
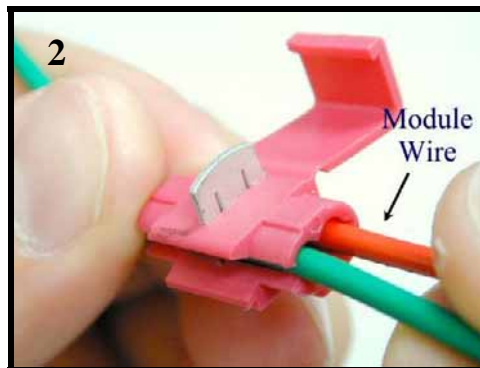
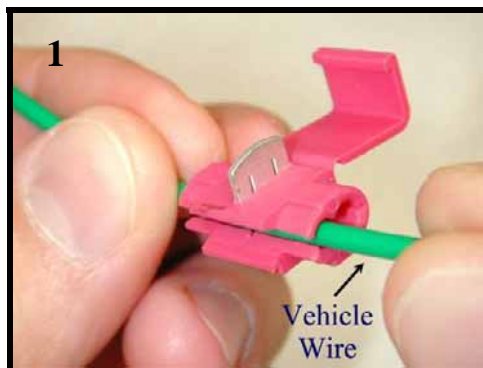
**** REPEAT ALL OF THE PREVIOUS STEPS TO REPLACE THE FACTORY MIRROR ON THE PASSENGER SIDE DOOR WITH THE NEW *SIGNAL*[®] MIRROR.****



Wire Identification



(1A) The vehicle's electrical wiring is located behind the fuse block. Locate the GREEN WITH BLACK 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 GREEN WITH YELLOW STRIPE wire 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'.



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

37. Make sure the harnesses are routed securely under the dash and enough slack is left for splicing.
38. Splice the RED wire from the driver side harness into the GREEN WITH BLACK wire previously labeled 'driver side indicator' (**1C-Previous page**).
39. Splice the RED wire from the passenger side harness into the GREEN WITH YELLOW wire previously labeled 'passenger side indicator' (**1C-Previous page**).
40. Strip and twist together the ends of the BLACK wires from each harness. Crimp them together in the supplied ring connector and ground to a suitable nearby location on the metal framework of the vehicle (**1B-Previous page**).
41. Activate each turn indicator to verify that the *Signal*[®] mirrors are working properly.
42. Reconnect all original wiring. Turn the ignition power to on, check to verify all features are working properly.
43. 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	7,104,676	D363,920
D394,833	D409,540	D425,466	D426,506	D426,507	D427,128	D428,372	D428,373	D428,842	D429,202	D430,088	