



## *Signal*® Mirror Installation Instructions

2003 - 2006 Ford Expedition, 2003 - 2006 Lincoln Navigator



***THE safety accessory of the 21<sup>st</sup> Century.™***

P/N 210-0086-0

Rev A5 (6/6/07), BTV

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**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*<sup>®</sup> mirror
- 1 left and 1 right wire harness
- 2 wire taps
- 2 grounding ring terminals
- 1 instruction manual

**REQUIRED TOOLS:**

- Ratchet with extension or ratcheting screwdriver
- 7mm socket
- 10mm socket
- 11mm socket
- Small slotted screwdriver
- Medium Philips screwdriver
- Small pry bar
- Gopher wire
- T27 torx screw
- Wire crimper and stripper
- Masking tape
- Electrical tape
- Multimeter
- Sturdy gloves
- Safety glasses or goggles

**Please read instructions prior to installation.**

**PROBLEMS OR QUESTIONS?**

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

1-800-844-6616

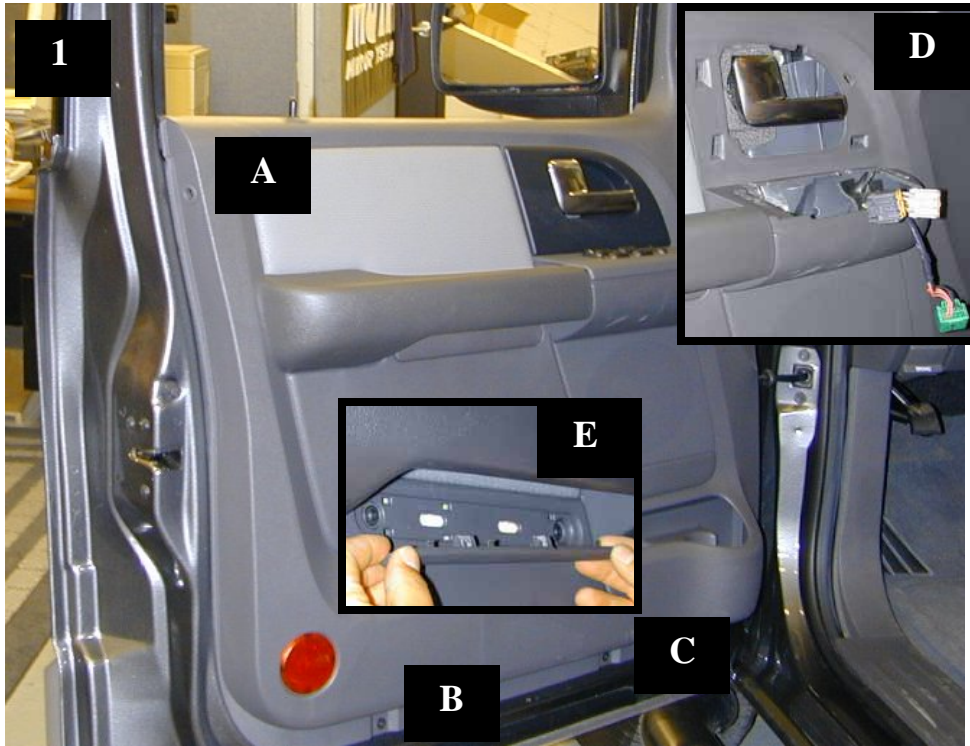
Monday through Friday  
Between 8:00 a.m. and 5:00 p.m. CST

Or through the Muth web site: [www.muthco.com](http://www.muthco.com)

Or via E-mail: [techsupport@muthco.com](mailto:techsupport@muthco.com)

Downloadable installation instructions are available via  
the internet at: [www.muthco.com](http://www.muthco.com)

# Mirror Housing Removal

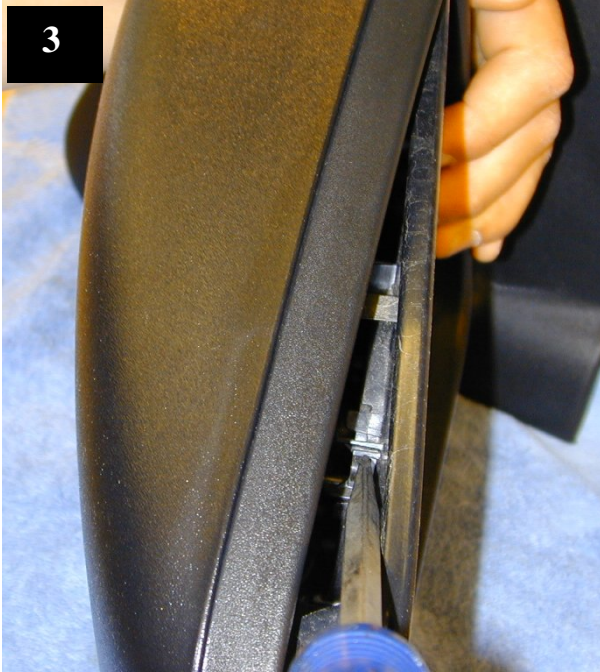


1. Open the driver side door and lower the window. Remove screw (A) using a slotted screwdriver. Using a 7mm socket, removed screw (B & C). Pry open the cover (D), for the control panel and the door handle, using a pry bar. Disconnect connectors on control panel. Pry open cover behind grab bar and remove the two screws using a torx wrench #27 (E). Pry around door panel, disconnect any remaining wire connectors, and remove door panel.



2. Using the 11mm socket, remove the (3) bolts holding the mirror housing to the door. Carefully removed mirror housing from door. Set mirror housing down on a cloth cover surface.

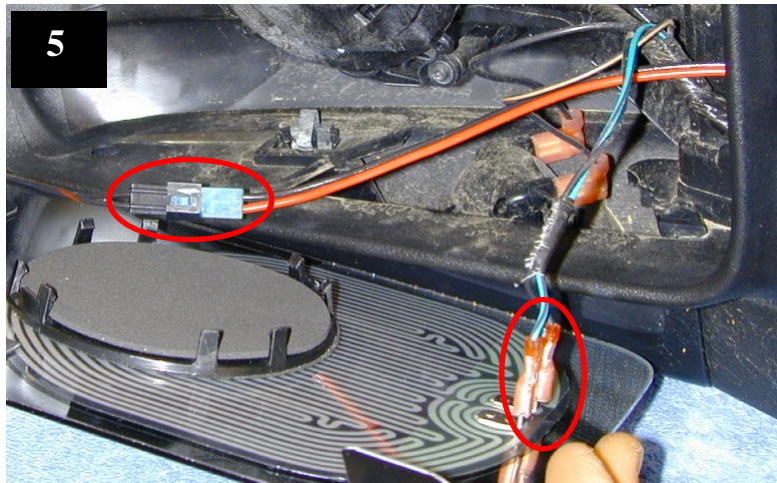
# Mirror Replacement



3. Using sturdy gloves, press down on the inboard side of the mirror to pivot it fully outward. Using a large flathead screwdriver, reach in between the motor actuator and the motor mount. Slowly twist and pry until the mirror disengage from the mirror housing. **If heated**, disconnect heater terminals. Remove mirror from mirror housing.



4. Remove foam covering from housing sail. Insert the open end of the supplied *Signal*® mirror wire harness thru housing (following OE wires). Pull the *Signal*® mirror wire harness thru leaving about 5" of slack inside housing. Following OE wires, continue routing the *Signal*® mirror wire harness thru sail cover. Replace sail cover.



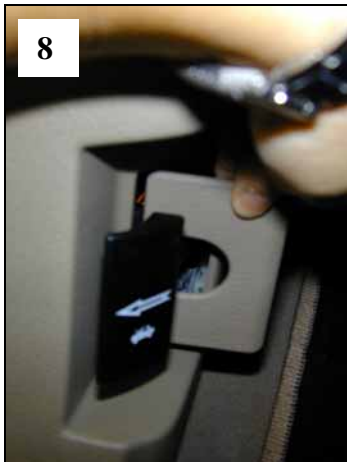
5. Connect the *Signal*® mirror mating connector to the *Signal*® mirror wire harness. Connect the factory heater wires to the heater terminals on the *Signal*® mirror. Align the anti-rotation groove with the prong on the motor actuator. Carefully tuck the anti-vibration tabs inside mirror housing. Centering the snap ring on the motor actuator and slowly push down on the glass until the mirror snap into position. Push down on all sides to ensure proper engagement and functionality.



6. Route all wires thru sail opening into door and secure mirror housing to door.

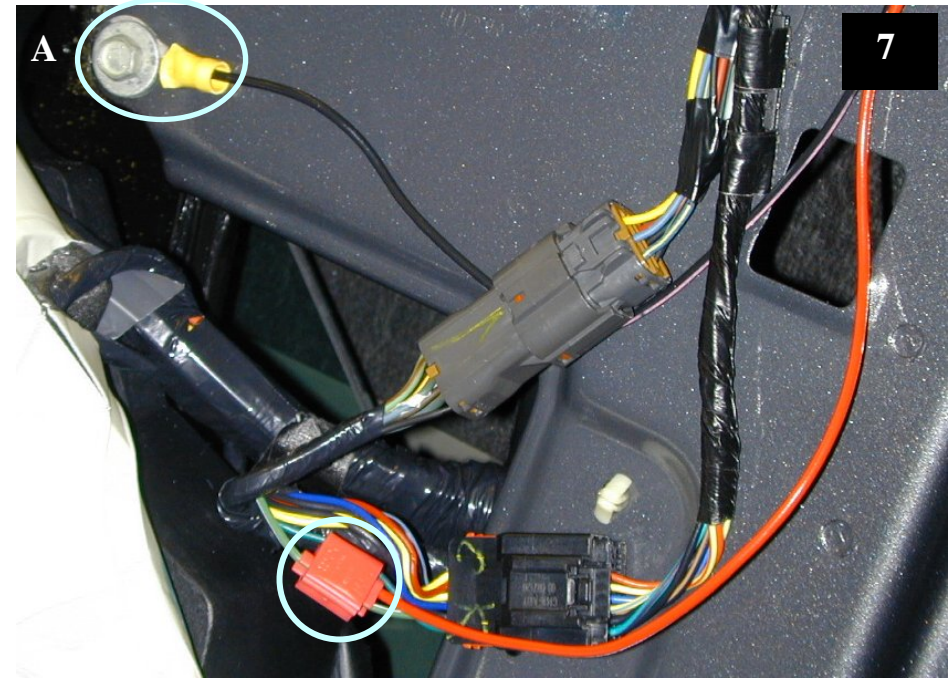
IF WIRES ARE NOT LOCATED IN DOORS, USE NON PRE-WIRED INSTRUCTIONS

## Non Pre-wired Vehicle Wire Routing



7. Pull and lift-up floor board trim.
8. Remove kick panel cover as shown above.
9. Remove kick panel.

## Pre-wired Vehicle Wire Routing



7. Repeat all of the previous steps to replace the factory mirror on the passenger side door with the new *Signal*® mirror. The vehicle's electrical wiring for the driver side turn indicator is located inside the driver side door panel. The vehicle's electrical wiring for the passenger side turn indicator is located inside the passenger side door panel. Guide the new wire harnesses from both sides of the vehicle to the electrical wiring areas. On the driver side, locate the GREEN WITH WHITE STRIPE wire from 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 indicator power is present. Label that wire as '**driver side turn**'. On the passenger side, locate the WHITE WITH BLUE STRIPE wire from within the wire bundle. Activate the passenger side turn indicator and probe the wire with the wire tester to verify that flashing turn indicator power is present. Label that wire as '**passenger side turn**'.  
8. Cut the *Signal*® mirror Wire Harness to length. Strip the end of the black wire and crimp on one of the supplied ring connectors. Bolt the ring connector to the suitable grounding bolt within the door panel as shown above (A). **Repeat steps for passenger side *Signal*® mirror.**

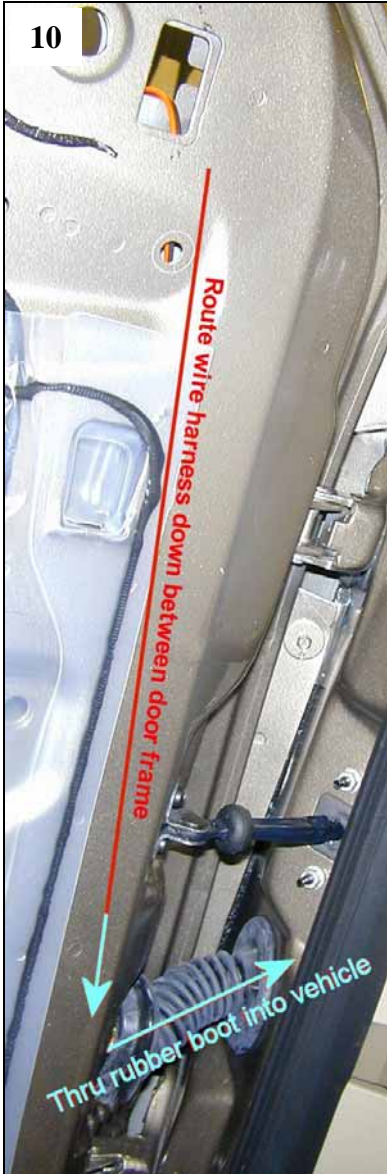
**\*\*\*For splicing procedures, go to step 13\*\*\***

# Non Pre-wired Vehicle

## Wire Routing Continued

# Pre-wired Vehicle

## Wire Routing Continued



10. Remove both ends of the rubber from the door frame and vehicle. Route the *Signal*® mirror wire harness down inside door frame and out the hole vacated by the removal of the rubber boot. **Caution: Make sure *Signal*® mirror wire harness does not go inside of window track.** Continue routing the *Signal*® mirror wire harness through the rubber boot and into the vehicle. Gently pull on the *Signal*® mirror wire harness to eliminate any slack during routing.
11. Cut and split the bonded wires. Route the black wire from *Signal*® mirror wire harness to a grounding location. Cut and strip the black wire. Crimp it to a supplied grounding ring. Attach the grounding ring to a suitable grounding source as shown.

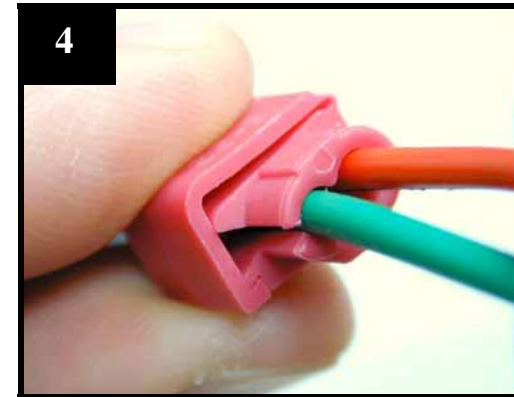
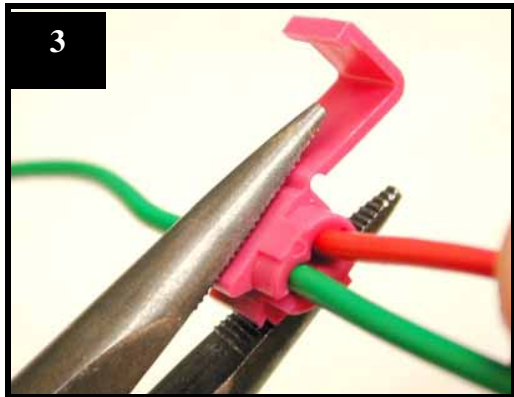
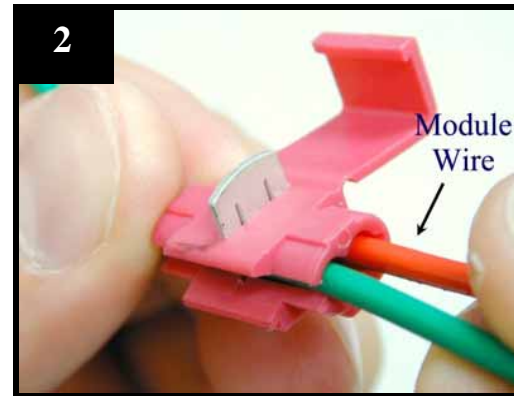
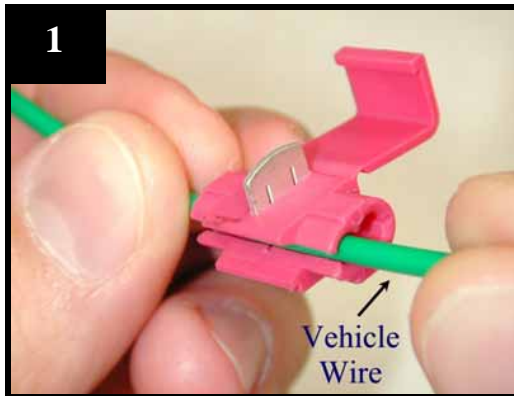
**\*\*\*Repeat steps for passenger side *Signal*® mirror\*\*\***

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## Non Pre-wired Vehicle Only Wire Routing Continued



12. The vehicle's electrical wiring is located in a wire bundle under the dash. Route both red wires from the *Signal*® mirror wire harnesses to this wiring location. Make sure there is enough slack in the wires for splicing. Locate the GREEN WITH WHITE STRIPE wire. Turn the ignition key so that electrical power is on and activate the driver side turn indicator. Probe the GREEN WITH WHITE STRIPE wire with the wire tester to verify that flashing turn indicator power is present. Label that wire as 'driver side turn'. Locate the WHITE WITH BLUE STRIPE wire. Activate the passenger side turn indicator and probe the WHITE WITH BLUE STRIPE wire with the wire tester to verify that flashing turn indicator power is present. Label that wire as 'passenger side turn'.



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

13. Splice the RED wire from the driver side harness into the wire previously labeled 'driver side turn'.
14. Splice the RED wire from the passenger side harness into the wire previously labeled 'passenger side turn'.
15. Activate each turn indicator to verify that the *Signal*<sup>®</sup> mirrors are working.
16. Reconnect all OE wiring connections. Replace both door panels, door accessories, and insulation.

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

3,075,779   5,005,009   5,014,167   5,128,659   5,207,492   5,355,284   5,361,190   5,481,409   5,528,422   5,619,374   5,619,375  
 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