



## *Signal*® Mirror Installation Instructions

2003 - 2008 Toyota 4Runner

2003 - 2009 Lexus, GX-470



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

P/N 210-0089-0

Rev A10 (10/6/09), BTV

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**INCLUDED ITEMS:**

1 left and 1 right *Signal*<sup>®</sup> mirror  
1 left and 1 right wire harness  
2 blue T-taps  
2 blue spade terminals  
2 yellow ring connectors  
4 foam adhesive pads  
8 cable ties  
1 instruction manual  
1 information card  
1 warranty card  
1 packet of dielectric grease

**REQUIRED TOOLS:**

Ratchet with extension or ratcheting screwdriver  
10mm socket  
8mm socket  
Torx screwdriver  
Small slotted screwdriver  
Medium Philips screwdriver  
Needle nose pliers  
Small pry bar  
Gopher wire  
Electrical tape  
Wire crimper and stripper  
Multimeter or wire tester  
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)

**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.

## Door Panel Removal



Open driver side door. Lower window. Remove triangular plastic cover on upper right-hand corner of door.



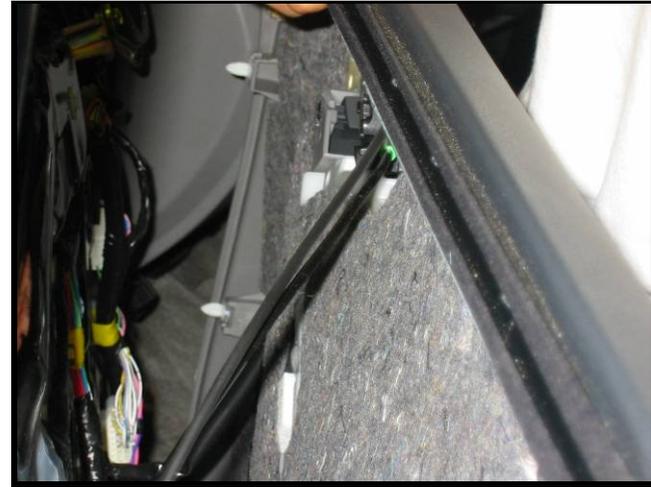
Remove plastic cover on door handle. Remove screw behind plastic cover. Disengage and remove door handle.



Unsnap and remove armrest from door panel.



Remove screws from behind armrest. Remove push-pin from door panel between A-pillar and tweeter.



Lift door panel and pull out partially. Unsnap all wiring connections and remove door panel. Unscrew the (3) bolts securing the mirror housing to the door and remove mirror housing.

# Mirror Removal



**\*\* Safety glasses and sturdy gloves are recommended for the following steps.\*\***

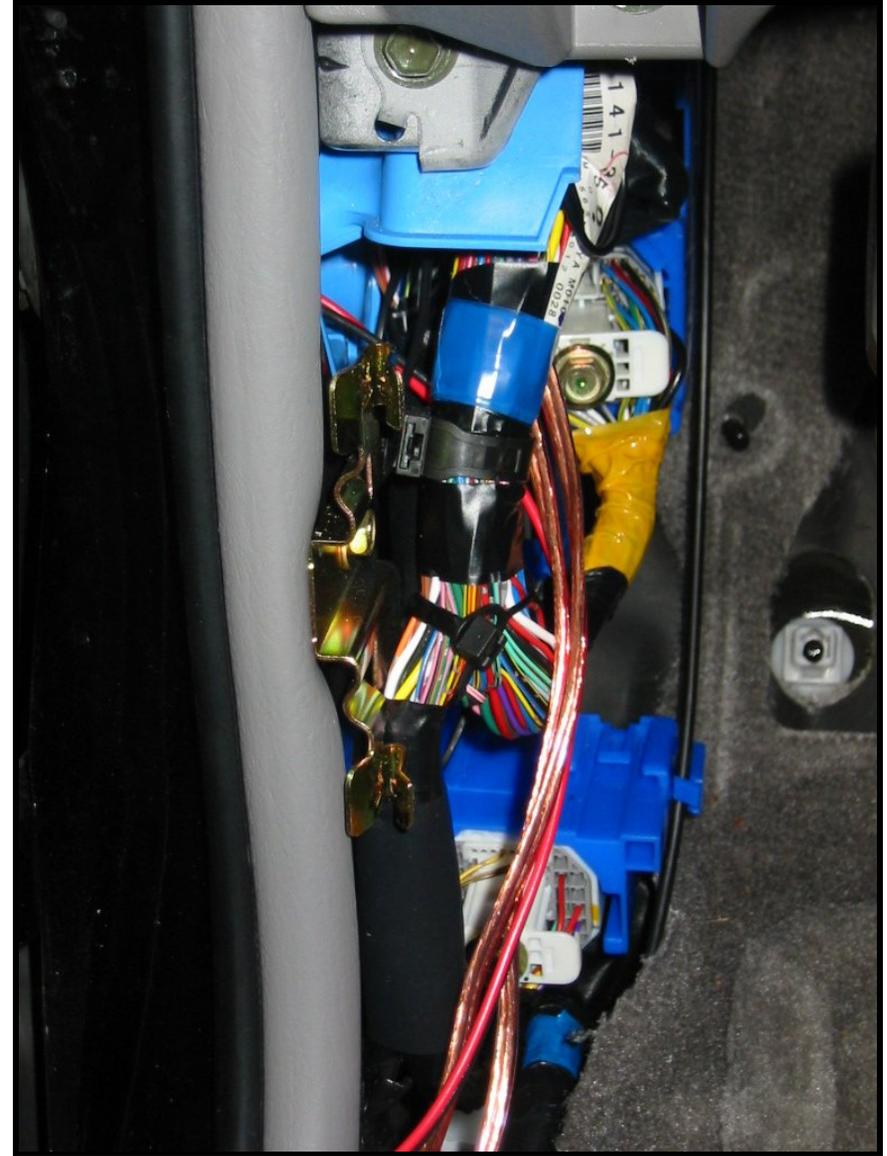
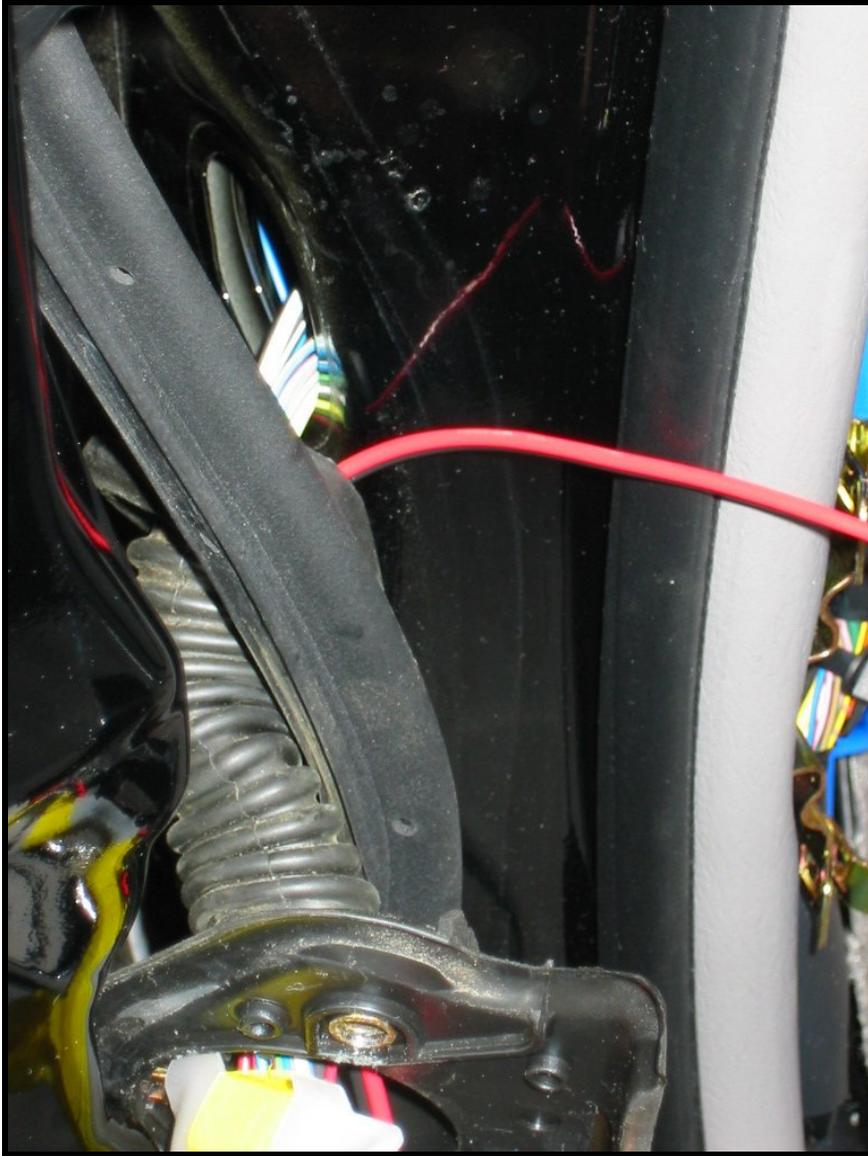
Place the mirror housing on a cloth covered, level surface. Manually push mirror upward from bottom of housing. Insert a small flathead screwdriver in between backing plate and motor mount (white), slowly pry to unlock backing plate from motor mount (A). Unhinge backing plate (B) and disconnect heater terminals (if heated). Remove backing plate from mirror housing.

# Mirror Replacement



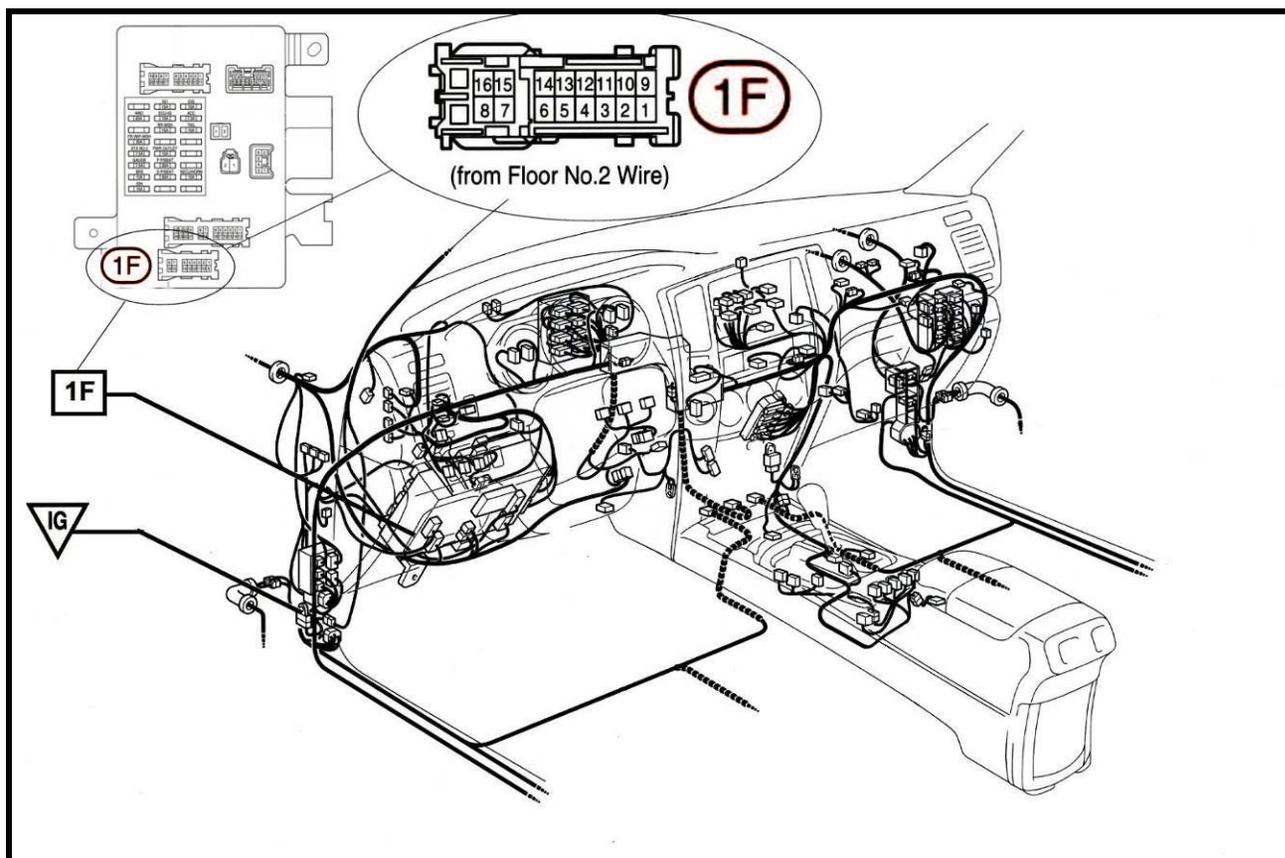
1. Using a small flathead screwdriver, remove bottom cover.
2. Remove the (3) uncovered screws by using a torx head driver.
3. Using the shorter of the two *Signal*® mirror wire harnesses, route the wire from inside housing along OEM wire harness leaving about 6 inches of slack inside housing.
4. Plug-in *Signal*® mirror harness connection and heater connection (if heated). Insert hinges onto motor mount and carefully tuck the anti-vibration tabs inside mirror housing. Press down on *Signal*® mirror with the palm of your hand, until it snaps into place. Press down on all sides to ensure proper fit, form, and function. Assemble mirror housing together using the (3) bottom screws, torque to 39 in.lbf.. Replace screw covers on bottom of mirror housing. Replace original fasteners retaining mirror housing to door and torque to 71 in.lbf..

## Wire Routing



Remove both ends of rubber boot between door frame and vehicle. Guide the *Signal*® mirror wire harness alongside OEM harness from door frame, thru rubber boot and into vehicle. Pull wire thru removing any slack in the wire. Re-attach rubber boot between door and vehicle and torque mounting bolts to 71 in.lbf.. Repeat steps for passenger side *Signal*® mirror.

# Wire Identification



**\*\*\*Wiring locations are the installer's/customer's responsibility\*\*\***

1. Route both *Signal*® mirror wire harnesses to the wiring location located on the left side kick panel. Cut and strip the black wires on each of the *Signal*® mirror harnesses. Crimp both black wires onto the supplied grounding ring terminal and ground it to a factory ground point (**IG**).
2. Splice the red wire on the right hand (passenger side) *Signal*® mirror to connection 1F, Pin 15 (blue/yellow) in the junction box. Tap the red wire on the left hand (driver side) *Signal*® mirror to connection 1F, pin 9 (blue/black).
3. Turn ignition key to the "ON" position and activate each turn indicator to verify proper operation and illumination of *Signal*® mirror.
4. Re-connect all OEM wiring connectors. Replace both door panels, door accessories, insulation, plastic moldings and trim pieces.

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

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