

SECTION 417-01: Exterior Lighting  
DIAGNOSIS AND TESTING

## 1998 Mark VIII Workshop Manual



## Turn Signal/Cornering/Hazard Lamps

Refer to Wiring Diagrams Cell [58](#), Lighting Control Module for schematic and connector information.

Refer to Wiring Diagrams Cell [90](#), Turn/Stop/Hazard Lamps for schematic and connector information.

Refer to Wiring Diagrams Cell [91](#), Cornering Lamps for schematic and connector information.

### Special Tool(s)

|  |   |
|--|---|
| <br>ST1137-A  | 73 Digital Multimeter or equivalent<br><br>105-R0051                      |
| <br>ST1217-A | New Generation STAR (NGS)<br>Tester or equivalent<br>418-F048 (007-00500) |

### Inspection and Verification

1. **NOTE:** If the headlamp switch loses power, the steering column/ignition/lighting (SCIL) module will automatically default to the autolamp mode. With the ignition switch in RUN, the autolamp function will turn on the exterior lamps and the instrument panel lighting depending on the input of the light sensor amplifier as in normal operation. However, the exit delay will be defaulted to the full three minutes.

Verify the customer concern by operating the turn signal/hazard flasher lamps to duplicate the condition.

2. Inspect to determine if any of the following electrical concerns apply:

### Visual Inspection Chart

| Electrical   |
|--|
| <ul style="list-style-type: none"> <li>• Circuitry open/shorted</li> <li>• Damaged fuse: Fuse Junction Panel fuse 7 (15A), 13 (15A), 31 (10A), 12 (15A), 26 (15A), 1 (10A), 25 (10A)</li> <li>• Damaged multi-function switch</li> <li>• Miniature bulb open</li> <li>• Damaged SCIL module</li> </ul> |

3. If the concern remains after the inspection, connect the New Generation STAR (NGS) Tester to the data link connector (DLC) located beneath the instrument panel and select the vehicle to be tested from the NGS menu. If the NGS does not communicate with the vehicle:
  - checked that the program card is properly installed.
  - check the connections to the vehicle.
  - check the ignition switch position.
4. If the NGS still does not communicate with the vehicle, refer to the New Generation STAR Tester manual.
5. Perform the DATA LINK DIAGNOSTIC TEST. If the NGS responds with:
  - CKT914, CKT915 or CKT70 = ALL ECUS NO RESP/NOT EQUIP, refer to [Section 418-00](#).
  - NO RESP/NOT EQUIP for SCIL module, go to Pinpoint Test H.
  - SYSTEM PASSED, retrieve and record the continuous diagnostic trouble codes (DTCs), erase the continuous DTCs and perform self-test diagnostics for the SCIL module.
6. If the DTCs retrieved are related to the concern, go to SCIL Diagnostic Trouble Code (DTC) Index to continue diagnostics.
7. If no DTCs related to the concern are retrieved, proceed to Symptom Chart to continue diagnostics.

### SCIL Diagnostic Trouble Code (DTC) Index

#### SCIL Diagnostic Trouble Code (DTC) Index

| DTC   | Description   | DTC Caused By | Action  |
|-------|---|---------------|---|
| C1446 | Brake Switch Circuit Failure                                | SCIL          | REFER to <a href="#">Section 206-05</a> .         |
| B1246 | Panel Dim Potentiometer Switch Circuit Failure              | SCIL          | REFER to <a href="#">Section 417-02</a> .         |
| B1312 | Lamp Headlamp Input Circuit Short to Battery                | SCIL          | GO to <a href="#">Pinpoint Test G</a> .           |
| B1334 | Luggage Compartment Door Ajar Circuit Short to Ground       | SCIL          | REFER to <a href="#">Section 417-02</a> .         |
| B1342 | ECU is Defective  | SCIL          | GO to <a href="#">Pinpoint Test A</a> .           |
| B1353 | Ignition Key-In Circuit Open                                | SCIL          | REFER to <a href="#">Section 501-12</a> .         |
| B1360 | Ignition Run/ACC Circuit Open                               | SCIL          | REFER to <a href="#">Section 501-12</a> .         |
| B1364 | Ignition Run/Start Circuit Open                             | SCIL          | REFER to <a href="#">Section 501-12</a> .         |
| B1446 | Wiper Park Sense Circuit Failure                            | SCIL          | GO to <a href="#">Pinpoint Test B</a> .           |
| B1485 | Brake Pedal Input Short to B+                               | SCIL          | GO to <a href="#">Pinpoint Test R</a> .           |
| B1490 | Right Front Door Handle Short to Ground                     | SCIL          | This is an invalid DTC. Do not attempt to repair. |
| B1498 | Luggage Compartment Door Punch Out Sensor Shorted to Ground | SCIL          | This is an invalid DTC. Do not attempt to repair. |
| B1509 | Flash-to-Pass Switch Circuit Short to                       | SCIL          | GO to <a href="#">Pinpoint Test C</a> .           |

|       |   |      |  |
|-------|---|------|--|
|       | Battery   |      |  |
| B1522 | Hood Switch Circuit Short to Ground                               | SCIL | REFER to <a href="#">Section 419-01A</a> .   |
| B1562 | Door Lock Cylinder Circuit Short to Ground                        | SCIL | REFER to <a href="#">Section 419-01A</a> .   |
| B1566 | Door Ajar Circuit Short to Ground                                 | SCIL | REFER to <a href="#">Section 417-02</a> .  |
| B1600 | PATS Ignition Key Transponder Signal Is Not Received              | SCIL | REFER to <a href="#">Section 419-01B</a> .   |
| B1601 | PATS Received Incorrect Key Code From Ignition Key Transponder    | SCIL | REFER to <a href="#">Section 419-01B</a> .   |
| B1676 | Battery Voltage Out of Range                                      | SCIL | GO to <a href="#">Pinpoint Test D</a> .  |
| B1682 | PATS is Disabled (Check Link Between PATS and Transponder)        | SCIL | REFER to <a href="#">Section 419-01B</a> .   |
| B1687 | Dome Lamp Input Circuit Short to Battery                          | SCIL | REFER to <a href="#">Section 417-02</a> .  |
| B1689 | Autolamp Delay Circuit Failure                                    | SCIL | GO to <a href="#">Pinpoint Test E</a> .  |
| B1796 | Headlamp Low Beam Circuit Short to Battery                        | SCIL | GO to <a href="#">Pinpoint Test G</a> .  |
| B1875 | Turn Signal/Hazard Switch Signal Circuit Short to Battery         | SCIL | GO to <a href="#">Pinpoint Test V</a> .  |
| B1980 | Bulb Outage Condition Detected                                    | SCIL | GO to <a href="#">Pinpoint Test F</a> .  |
| B2328 | Steering Column Reach Feedback Potentiometer Circuit Failure      | SCIL | REFER to <a href="#">Section 211-05</a> .  |
| B2332 | Steering Column Tilt Feedback Potentiometer Circuit Failure       | SCIL | REFER to <a href="#">Section 211-05</a> .  |
| B2351 | Steering Column Switch Signal Circuit Failure                     | SCIL | REFER to <a href="#">Section 211-05</a> .  |
| U1027 | SCP Invalid or Missing Data for Engine RPM                        | PCM  | REFER to Powertrain Control/Emissions Diagnosis (PC/ED) manual.  |
| U1041 | SCP Invalid or Missing Data for Vehicle Speed                     | ABS  | REFER to <a href="#">Section 206-09</a> , Inspection and Verification to continue diagnosis.                                 |
| U1057 | SCP Invalid or Missing Data for Vehicle Configuration             | SCIL | REFER to <a href="#">Section 501-16</a> , Inspection and Verification to continue diagnosis.                                 |
| U1059 | SCP Invalid or Missing Data for Transmission/Transaxle/PRNDL      | PCM  | REFER to Powertrain Control/Emissions Diagnosis (PC/ED) manual.  |
| U1123 | SCP Invalid or Missing Data for Odometer                          | ABS  | REFER to <a href="#">Section 206-09</a> , Inspection and Verification to continue diagnosis.                                 |
| U1147 | SCP Invalid or Missing Data for Vehicle Security                  | PCM  | PERFORM J1850 Communication Network Diagnostics. GO to Communication Network Diagnostics in <a href="#">Section 418-00</a> . |
| U1180 | SCP Invalid or Missing Data for Personalization (Memory) Features | DDM  | GO to <a href="#">Section 501-09</a> , Inspection and Verification to continue diagnosis.                                    |
| U1181 | SCP Invalid or Missing Data for Personalization (Memory) Features | DDM  | GO to <a href="#">Section 501-09</a> , Inspection and Verification to continue diagnosis.                                    |
| U1197 | SCP Invalid or Missing Data for Door Locks                        | DDM  | GO to <a href="#">Section 501-14B</a> , Inspection and Verification to continue diagnosis.                                   |
| U1198 | SCP Invalid or Missing Data for External Access (Doors)           | DDM  | GO to <a href="#">Section 501-14B</a> , Inspection and Verification to continue diagnosis.                                   |

|       |   |     |  |
|-------|---|-----|--|
| U1199 | SCP Invalid or Missing Data for External Access (Doors) | DDM | GO to <a href="#">Section 417-02</a> , Inspection and Verification to continue diagnosis.  |
| U1211 | SCP Invalid or Missing Data for Restraints              | DSM | GO to <a href="#">Section 413-08</a> , Inspection and Verification to continue diagnosis.  |
| U1222 | SCP Invalid or Missing Data for Interior Lamps          | DDM | GO to <a href="#">Section 501-14B</a> , Inspection and Verification to continue diagnosis. |

## SCIL Parameter Identification (PID) Index

### SCIL Parameter Identification Index

| PID     | Description                            | Expected Values             |
|---------|--|-----------------------------|
| CCNTSCI | Number of Continuous DTCs on SCIL      | one count per bit           |
| BOO_SCI | Brake Switch Input                     | ON, OFF                     |
| PRK_BRK | Parking Brake Switch Input             | ON, OFF                     |
| TILT    | Steering Column Tilt Switch            | SHORT, UP, DOWN, OFF        |
| TELESCP | Steering Column Telescope Switch       | SHORT, IN, OUT, OFF         |
| TILTPOS | Tilt Position Sensor                   | SENSED, notSEN              |
| TELEPOS | Telescope Position Sensor              | SENSED, notSEN              |
| TURN_SW | Left and Right Turn Signal Switch      | OFF, LEFT, RIGHT, SHORT     |
| LBEAMSW | Low Beam Switch                        | ON, OFF                     |
| HBEAMSW | High Beam Switch                       | ON, OFF                     |
| PARK_SW | Parking Lamp Switch                    | ON, OFF                     |
| LIGHTSN | Ambient Light                          | DAY, NIGHT                  |
| FLASH   | Flash to Pass Switch                   | ON, OFF                     |
| FTURN_L | Left and Right Front Turn Lamp         | R_OPEN, L_OPEN, L/R_OPEN OK |
| RTURN_L | Left and Right Rear Turn Lamp          | R_OPEN, L_OPEN, L/R_OPEN OK |
| TAILLMP | Left and Right Tail Lamp               | OPEN, OK                    |
| LOWBEAM | Low Beam Lamp                          | R_OPEN, L_OPEN, L/R_OPEN OK |
| AUTOLMP | Autolamp Switch                        | ON, OFF                     |
| ALP_IMP | Autolamp Analog Input                  | 0-100%                      |
| DOMESW  | Dome Lamp Switch                       | ACTIVE, notACT              |
| PANLDIM | Panel Dim Intensity Switch             | 0-100%                      |
| HOOD_SW | Hood Ajar Switch                       | AJAR, CLOSED                |
| DECKLID | Decklid Ajar Switch                    | AJAR, CLOSED                |
| P_DR_SW | Passenger Door Ajar Switch             | AJAR, CLOSED                |
| IGN_KEY | Ignition Key In/Out                    | IN, OUT                     |
| IGN_SCI | Ignition Switch                        | START, RUN, OFF, ACCSSY     |
| WPPRKS  | Windshield Wiper Park Sense            | notPRK, PARKED              |
| NUMKEYS | Number of Ignition Key Codes Supported | BCD (valid range 0-16)      |

|         |                    |         |
|---------|--------------------|---------|
| DRLKCYL | Door Lock Cylinder | ON, OFF |
| ENABLE  | PATS System Status | ON, OFF |
| FAILSAF | PATS System Status | ON, OFF |

### SCIL Active Command Index

#### SCIL Active Command Index

| Active Command                    | Display                | Action              |
|-----------------------------------|------------------------|---------------------|
| PID LATCH                         | PID LATCH              | ON, OFF             |
| ONE TOUCH WINDOW DWN & ACCY DELAY | ACCY RLY               | ON, OFF             |
| WARNING LAMPS AND CHIME           | CHIME                  | ON, OFF             |
|                                   | ANTI-THEFT             | ON, OFF             |
|                                   | AUTOLMP                | ON, OFF             |
|                                   | HIGH BEAM              | ON, OFF             |
| INTERIOR COURTESY LAMPS           | INT LAMPS<br>MIRRORLMP | ON, OFF<br>ON, OFF  |
| DECKLID RELEASE                   | RELEASE                | ON, OFF             |
| TURN SIGNAL AND MARKER LAMPS      | LF TURN                | ON, OFF             |
|                                   | RF TURN                | ON, OFF             |
|                                   | LR TURN                | ON, OFF             |
|                                   | RR TURN                | ON, OFF             |
|                                   | PARKLAMPS              | ON, OFF             |
| HEADLAMP CONTROL                  | LEFT LOW               | ON, OFF             |
|                                   | RIGHT LOW              | ON, OFF             |
|                                   | HIGH BEAM              | ON, OFF             |
|                                   | DRUN LAMP              | ON, OFF             |
|                                   | LF CORNER              | ON, OFF             |
|                                   | RF CORNER              | ON, OFF             |
| HORN CONTROL                      | HORN                   | ON, OFF             |
| BACKLIGHTING INTENSITY            | INTENSITY              | 0%-100%             |
| COURTESY LAMP INTENSITY           | INTENSITY              | 0%-100%             |
| DOOR AJAR SIGNAL                  | DOOR AJAR              | ON, OFF             |
| TRANSMIT SIGNAL COMMAND           | TRANSMIT               | ON, OFF             |
| BRAKE SYSTEM                      | BRK/SHIFT              | ON, OFF             |
|                                   | PARK BRK               | ON, OFF             |
| STEERING COLUMN CONTROL           | TILT UP                | ONE SECOND TIME OUT |
|                                   | TILT DOWN              | ONE SECOND TIME OUT |
|                                   | TELSCP IN              | ONE SECOND TIME OUT |
|                                   |                        |                     |

|                        |          |                     |
|------------------------|----------|---------------------|
|                        | TELSPOUT | ONE SECOND TIME OUT |
| KEYCODE ERASE TIME SET | MINUTES  | 8-63 MINUTES        |

## Symptom Chart

### Symptom Chart

| Condition  | Possible Sources   | Action   |
|--|--|--|
| <ul style="list-style-type: none"> <li>No Communication With the Steering Column/Ignition/Lighting Control Module</li> </ul> | <ul style="list-style-type: none"> <li>Steering column/ignition/lighting (SCIL) control module.</li> <li>Circuitry.</li> </ul>     | <ul style="list-style-type: none"> <li>GO to <a href="#">Pinpoint Test H</a>.</li> </ul>                                     |
| <ul style="list-style-type: none"> <li>The Turn Signal Lamps Are Never On — One Or More</li> </ul>                           | <ul style="list-style-type: none"> <li>Circuitry.</li> <li>SCIL module.</li> <li>Multi-function switch .</li> <li>Fuse.</li> </ul> | <ul style="list-style-type: none"> <li>GO to <a href="#">Pinpoint Test W</a>.</li> </ul>                                     |
| <ul style="list-style-type: none"> <li>The Hazard Flasher Lamps Are Never On — Turn Signals Are Operative</li> </ul>         | <ul style="list-style-type: none"> <li>SCIL module.</li> <li>Multi-function switch.</li> </ul>                                     | <ul style="list-style-type: none"> <li>REPAIR the multi-function switch; REFER to <a href="#">Section 211-05</a>.</li> </ul> |
| <ul style="list-style-type: none"> <li>The Individual Cornering Lamp Is Inoperative</li> </ul>                               | <ul style="list-style-type: none"> <li>Circuitry open.</li> <li>Damaged miniature bulb .</li> <li>SCIL module.</li> </ul>          | <ul style="list-style-type: none"> <li>GO to <a href="#">Pinpoint Test X</a>.</li> </ul>                                     |
| <ul style="list-style-type: none"> <li>The Individual Cornering Lamp Is On Continuously</li> </ul>                           | <ul style="list-style-type: none"> <li>Circuitry open/shorted.</li> <li>SCIL module.</li> </ul>                                    | <ul style="list-style-type: none"> <li>GO to <a href="#">Pinpoint Test Y</a>.</li> </ul>                                     |

## Pinpoint Tests

### PINPOINT TEST V: DTC B1875: TURN SIGNAL/HAZARD SWITCH SIGNAL CIRCUIT SHORT TO BATTERY

| CONDITIONS                    | DETAILS/RESULTS/ACTIONS  |
|-------------------------------|--|
| <b>V1 CHECK FOR DTC B1509</b> |  |
|                               | <p><b>1</b> Check the continuous DTCs recorded during Inspection and Verification.</p> <ul style="list-style-type: none"> <li><b>Are both DTCs B1509 and B1875 stored as continuous DTCs?</b></li> </ul> <p>→ <b>Yes</b><br/>REPAIR circuit 1041 (BR/O). RETEST the system.</p> <p>→ <b>No</b></p> |

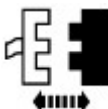
GO to [V2](#).**V2 CHECK TURN\_SW PID****1**

SCIL Module PID TURN\_SW

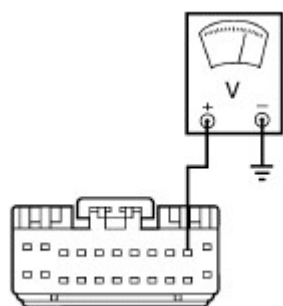
- Does PID TURN\_SW read OFF?

→ **Yes**  
GO to [V3](#).

→ **No**  
GO to [V4](#).

**V3 CHECK CIRCUIT 375 (Y/LG) FOR A SHORT TO VOLTAGE****1**

SCIL Module C286

**2**

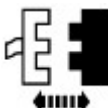
AK1299-A

- 2** Connect a voltmeter between steering column/ignition/lighting control (SCIL) module C286-10, circuit 375 (Y/LG), and ground.




- Is the voltage reading B+?

→ **Yes**  
REPAIR circuit 375 (Y/LG). RETEST the system.


→ **No**  
REPLACE the SCIL module. RETEST the system.

**V4 CHECK PID TURN\_SW WITH THE MULTI-FUNCTION SWITCH DISCONNECTED****1**




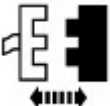
Multi-Function Switch Connector C215

|   |   |
|---|---|
| <p>2</p>  <p>SCIL Module PID TURN_SW</p>   | <ul style="list-style-type: none"> <li>Does PID TURN_SW read OFF?</li> </ul> <p>→ <b>Yes</b><br/>REPLACE the multi-function switch. REFER to <a href="#">Section 211-05</a>. RETEST the system.</p> <p>→ <b>No</b><br/>GO to <a href="#">V5</a>.</p>            |
| <b>V5 CHECK PID TURN_SW WITH SCIL MODULE DISCONNECTED</b>   |   |
| <p>1</p>  <p>SCIL Module C286</p> <p>2</p>  <p>SCIL Module PID TURN_SW</p> | <ul style="list-style-type: none"> <li>Does PID TURN_SW read OFF?</li> </ul> <p>→ <b>Yes</b><br/>REPAIR the short between circuit 1041 (BR/O) and circuit 375 (Y/LG). RETEST the system.</p> <p>→ <b>No</b><br/>REPLACE the SCIL module. RETEST the system.</p> |

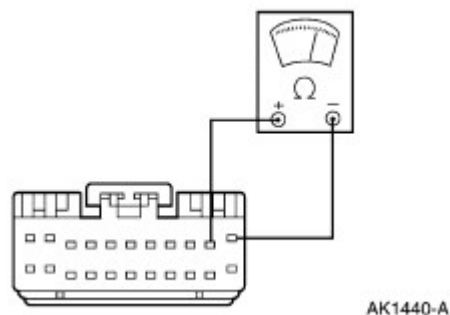
**PINPOINT TEST W: THE TURN SIGNAL LAMPS ARE NEVER ON — ONE OR MORE**

| CONDITIONS   | DETAILS/RESULTS/ACTIONS  |
|--|--|
| <b>W1 CHECK ALL TURN SIGNALS</b>   |  |
| <p>1</p>  | <p>1 Activate the left turn signals.</p> <p>2 Activate the right turn signals.</p> |



|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Are all turn signals inoperative?</li> </ul> <p>→ <b>Yes</b><br/>GO to <a href="#">W25</a>.</p> <p>→ <b>No</b><br/>GO to <a href="#">W2</a>.</p>   |
| <b>W2 CHECK THE LEFT TURN SIGNALS</b>  |   |
| <p>1</p>    | <p>1 Activate the left turn signals.</p> <ul style="list-style-type: none"> <li>• Are both LH front and rear turn signals inoperative?</li> </ul> <p>→ <b>Yes</b><br/>GO to <a href="#">W3</a>.</p> <p>→ <b>No</b><br/>GO to <a href="#">W10</a>.</p> |
| <b>W3 COMMAND THE LH TURN SIGNAL ON</b>  |   |
| <p>1</p>  <p>SCIL Module Active Command TURN SIGNAL AND MARKER LAMPS</p> <p>2</p>  <p>Trigger LF TURN ON</p> | <ul style="list-style-type: none"> <li>• Does the LH front turn signal lamp turn on?</li> </ul> <p>→ <b>Yes</b><br/>GO to <a href="#">W4</a>.</p> <p>→ <b>No</b><br/>GO to <a href="#">W5</a>.</p>  |
| <b>W4 CHECK THE MULTI-FUNCTION SWITCH</b>  |   |
| <p>1</p>  <p>SCIL Module C286</p>   |   |

2



2

Connect an ohmmeter between steering column/ignition/lighting (SCIL) module C286-11, circuit 1041 (BR/O), and SCIL C286-10, circuit 375 (Y/LG).

3

Actuate the turn signal lever to the LH turn position.

- **Is the resistance reading between 300-360 ohms?**

→ **Yes**

REPLACE the SCIL module. RETEST the system.

→ **No**

REPLACE the multi-function switch. REFER to [Section 211-05](#). RETEST the system.

#### W5 CHECK FUSE JUNCTION PANEL FUSE 7 (15A)

1



Fuse Junction Panel Fuse 7 (15A)

- **Is the fuse OK?**

→ **Yes**

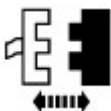
REPAIR circuit 1057 (O/BK). RETEST the system.

→ **No**

GO to [W6](#).

#### W6 CHECK CIRCUIT 1057 (O/BK) FOR A SHORT TO GROUND

1

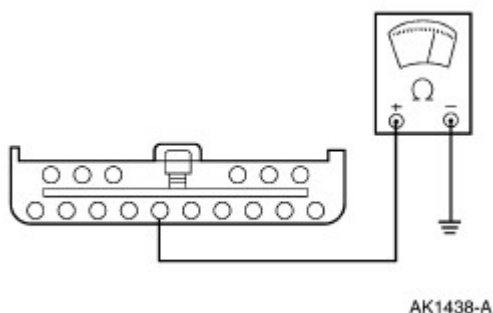


SCIL Module C289

2

2

Connect an ohmmeter between SCIL module C289-6, circuit 1057 (O/BK), and ground.



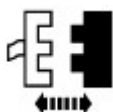
- Is the resistance 5 ohms or less?

→ **Yes**  
REPAIR circuit 1057 (O/BK). RETEST the system.

→ **No**  
GO to [W7](#).

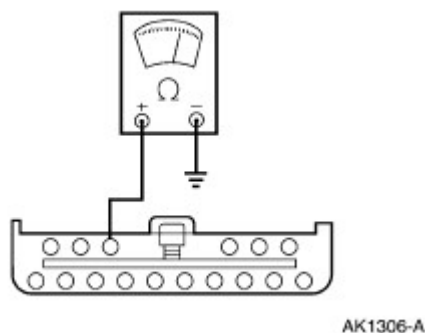
#### W7 CHECK CIRCUIT 380 (P/Y) FOR A SHORT

1



LH Cornering Lamp Bulb

2



2 Connect an ohmmeter between SCIL module C289-14, circuit 380 (P/Y), and ground.


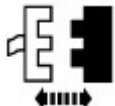


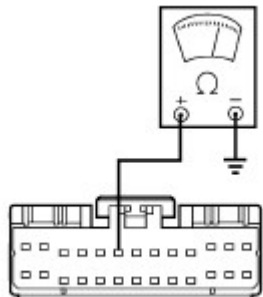
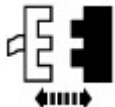
- Is the voltage reading 10 kohms or less?

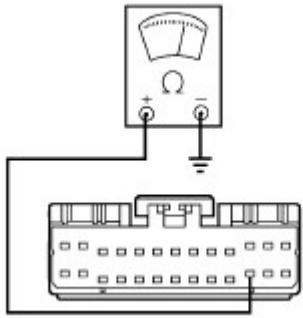



→ **Yes**  
REPAIR circuit 380 (P/Y). RETEST the system.

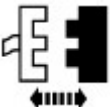
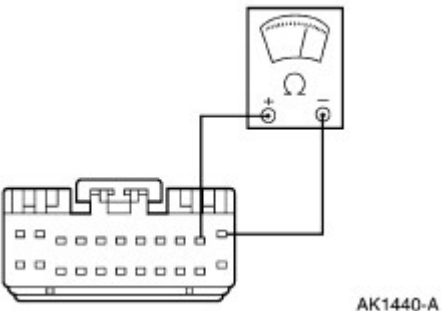

→ **No**  
GO to [W8](#).

#### W8 CHECK CIRCUIT 3 (LG/W) FOR A SHORT

1

|  |  |
|--|--|
|  <p>SCIL Module C287</p> <p>2 </p> <p>LH Front Turn Signal Bulb</p> <p>3 </p> <p>LH Outside Rear View Mirror C509</p> <p>4 </p> <p>Hybrid Electronic Instrument Cluster C293</p> <p>5 </p> <p>AK1302-A</p> | <p>5 Connect an ohmmeter between SCIL module C287-6, circuit 3 (LG/W), and ground.</p> <ul style="list-style-type: none"> <li>Is the voltage reading 10 kohms or less?</li> </ul> <p>→ <b>Yes</b><br/>REPAIR circuit 3 (LG/W). RETEST the system.</p> <p>→ <b>No</b><br/>GO to <a href="#">W9</a>.</p> |
| <b>W9 CHECK CIRCUIT 9 (LG/R) FOR A SHORT TO GROUND</b>   |  |
| <p>1 </p> <p>LH Rear Turn Signal Bulb</p> <p>2</p>  | <p>2 Connect an ohmmeter between SCIL module</p>   |

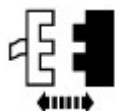
|  |  |
|--|--|
|  <p>AK1301-A</p>  | <p>C287-24, circuit 9 (LG/R), and ground.</p> <ul style="list-style-type: none"> <li>• <b>Is the voltage reading 10 kohms or less?</b></li> </ul> <p>→ <b>Yes</b><br/>REPAIR circuit 9 (LG/R). RETEST the system.</p> <p>→ <b>No</b><br/>REPLACE the SCIL module. RETEST the system.</p> |
| <b>W10 CHECK THE RIGHT TURN SIGNALS</b>  |  |
| <p>1</p>   | <p>1 Activate the right turn signals.</p> <ul style="list-style-type: none"> <li>• <b>Are both RH front and rear turn signals inoperative?</b></li> </ul> <p>→ <b>Yes</b><br/>GO to <a href="#">W11</a>.</p> <p>→ <b>No</b><br/>GO to <a href="#">W18</a>.</p>                           |
| <b>W11 COMMAND THE RH TURN SIGNAL ON</b>   |  |
| <p>1</p>  <p>SCIL Module Active Command TURN SIGNAL AND MARKER LAMPS</p> <p>2</p>  <p>Trigger RF TURN ON</p> | <ul style="list-style-type: none"> <li>• <b>Does the RH front turn signal lamp turn on?</b></li> </ul>   |

|   |  |
|---|--|
|   | <p>→ <b>Yes</b><br/>GO to <a href="#">W12</a>.</p> <p>→ <b>No</b><br/>GO to <a href="#">W13</a>.</p>   |
| <b>W12 CHECK THE MULTI-FUNCTION SWITCH</b>  |  |
| <p><b>1</b></p>  <p>SCIL Module Connector C286</p> <p><b>2</b></p>  <p>AK1440-A</p> | <p><b>2</b> Connect an ohmmeter between SCIL module C286-11, circuit 1041 (BR/O), and Pin C286-10, circuit 375 (Y/LG).</p> <p><b>3</b> Actuate the turn signal lever to the RH turn position.</p> <ul style="list-style-type: none"><li>• <b>Is the resistance reading between 2000 - 2400 ohms?</b></li></ul> <p>→ <b>Yes</b><br/>REPLACE the SCIL module. RETEST the system.</p> <p>→ <b>No</b><br/>REPLACE the multi-function switch. REFER to <a href="#">Section 211-05</a>. RETEST the system.</p> |
| <b>W13 CHECK FUSE 13 (15A)</b>  |  |
| <p><b>1</b></p>  <p>Fuse Junction Panel Fuse 13 (10A)</p>  | <ul style="list-style-type: none"><li>• <b>Is the fuse OK?</b></li></ul> <p>→ <b>Yes</b><br/>REPAIR circuit 1058 (BR/W). RETEST the system.</p>  |

→ **No**  
GO to [W14](#).

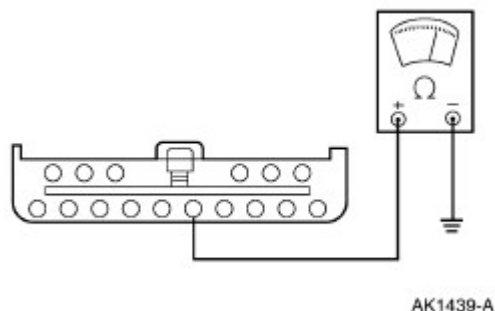
### W14 CHECK CIRCUIT 1058 (BR/W) FOR A SHORT TO GROUND

1



SCIL Module C289

2



AK1439-A

2 Connect an ohmmeter between SCIL module C289-5, circuit 1058 (BR/W), and ground.

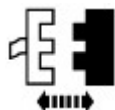
- Is the resistance 5 ohms or less?

→ **Yes**  
REPAIR circuit 1058 (BR/W). RETEST the system.

→ **No**  
GO to [W15](#).

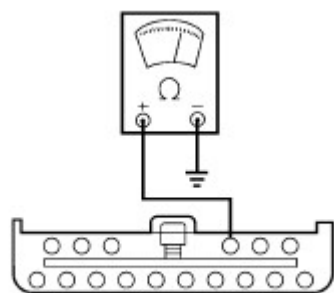
### W15 CHECK CIRCUIT 379 (BR/W) FOR A SHORT

1



RH Cornering Lamp Bulb

2



AK1309-A

2 Connect an ohmmeter between SCIL module C289-13, circuit 379 (BR/W), and ground.

- Is the voltage reading 10 kohms or less?

- **Yes**  
REPAIR circuit 379 (BR/W). RETEST the system.
- **No**  
GO to [W16](#).

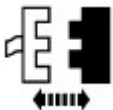
**W16 CHECK CIRCUIT 2 (W/LB) FOR A SHORT**

1



SCIL Module C287

2



RH Front Turn Signal Bulb

3



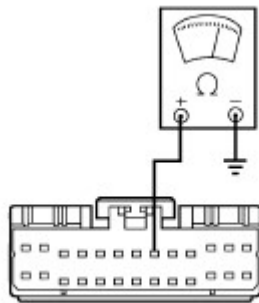
RH Outside Rear View Mirror C600

4



Hybrid Electronic Instrument Cluster C294

5



AK1303-A

- 5 Connect an ohmmeter between SCIL module C287-8, circuit 2 (W/LB), and ground.

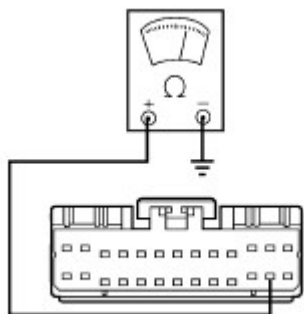
- Is the voltage reading 10 kohms or less?

- **Yes**  
REPAIR circuit 2 (W/LB). RETEST the system.
- **No**  
GO to [W17](#).



**W17 CHECK CIRCUIT 5 (O/LB) FOR A SHORT TO GROUND****1**

RH Rear Turn Signal Bulb

**2**

AK1300-A

**2**

Connect an ohmmeter between SCIL module C287-25, circuit 5 (O/LB), and ground.

- Is the voltage reading 10 kohms or less?

→ **Yes**

REPAIR circuit 5 (O/LB). RETEST the system.

→ **No**

REPLACE the SCIL module. RETEST the system.

**W18 CHECK THE LH FRONT TURN SIGNALS****1**

Activate the left turn signals.

- Are the LH front turn signals inoperative?

→ **Yes**

GO to [W23](#).

→ **No**

GO to [W19](#).

**W19 CHECK THE LH REAR TURN SIGNALS****1**

Activate the left turn signals.

- Is the LH rear turn signal inoperative?

→ **Yes**

GO to [W22](#).

→ **No**

GO to [W20](#).

**W20 CHECK THE RH REAR TURN SIGNALS**

**1** Activate the right turn signals.

- **Are the RH front turn signals inoperative?**

→ **Yes**  
GO to [W24](#).

→ **No**  
GO to [W21](#).

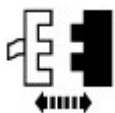
**W21 CHECK CIRCUIT 5 (O/LB) FOR A SHORT TO GROUND**

**1**



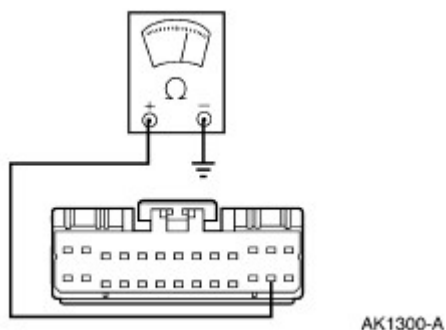
RH Rear Turn Signal Lamp Bulb

**2**



SCIL Module C287

**3**



AK1300-A

**3** Connect an ohmmeter between SCIL module C287-25, circuit 5 (LG/O), and ground.

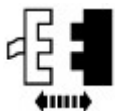
- **Is the resistance 10 kohms or less?**


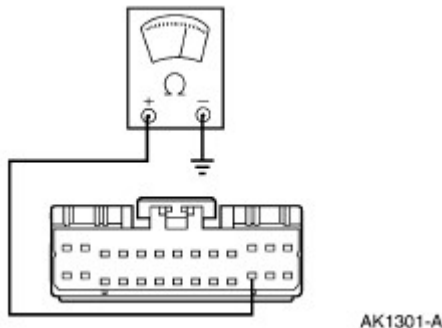
→ **Yes**  
REPAIR circuit 5 (O/LB). RETEST the system.

→ **No**  
REPLACE the SCIL module. RETEST the system.

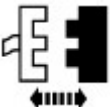



**W22 CHECK CIRCUIT 9 (LG/O) FOR A SHORT TO GROUND**

**1**



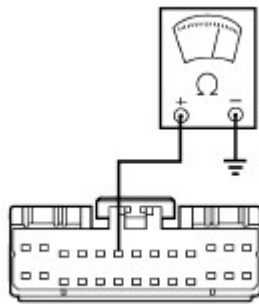
|  |  |
|--|--|
| <p>LH Rear Turn Signal Lamp Bulb</p> <p>2</p>  <p>SCIL Module C287</p> <p>3</p>  <p>AK1301-A</p> | <p>3</p> <p>Connect an ohmmeter between SCIL module C287-24, circuit 9 (LG/O), and ground.</p> <p>• Is the resistance 10 kohms or less?</p> <p>→ <b>Yes</b><br/>REPAIR circuit 9 (LG/O). RETEST the system.</p> <p>→ <b>No</b><br/>REPLACE the SCIL module. RETEST the system.</p> |
|--|--|

**W23 CHECK CIRCUIT 3 (LG/W) FOR A SHORT TO GROUND**

|  |  |
|--|--|
| <p>1</p>  <p>LH Front Turn Signal Lamp Bulb</p> <p>2</p>  <p>LH Outside Rear View Mirror C509</p> <p>3</p>  <p>Hybrid Electronic Instrument Cluster C293</p> <p>4</p>  |  |
|--|--|

## SCIL Module C287

5



AK1302-A

5

Connect an ohmmeter between SCIL module C287-6, circuit 3 (LG/W), and ground.

• Is the resistance 10 kohms or less?

→ **Yes**

REPAIR circuit 3 (LG/W). RETEST the system.

→ **No**

REPLACE the SCIL module. RETEST the system.

**W24 CHECK CIRCUIT 2 (W/LB) FOR A SHORT TO GROUND**

1



RH Front Turn Signal Lamp Bulb

2



RH Outside Rear View Mirror C600

3



Hybrid Electronic Instrument Cluster C294

4

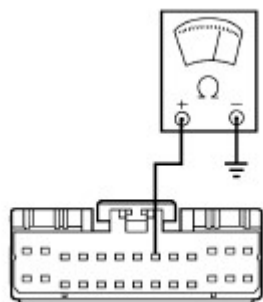


SCIL Module C287

5

5

Connect an ohmmeter between SCIL module C287-8, circuit 2 (W/LB), and ground.



AK1303-A

- Is the resistance 10 kohms or less?

→ **Yes**

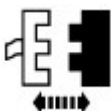
REPAIR circuit 2 (W/LB). RETEST the system.

→ **No**

REPLACE the SCIL module. RETEST the system.

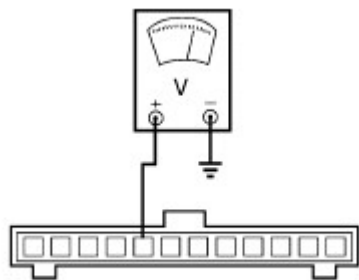
#### W25 CHECK CIRCUIT 1041 (BR/O) FOR VOLTAGE

1



Multi-Function Switch C215

2



AK1250-A

2

Connect a voltmeter between multi-function switch C215-5, circuit 1041 (BR/O), and ground.

- Is the voltage between 4.7 and 5.3 volts?

→ **Yes**

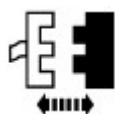
GO to [W28](#).

→ **No**

GO to [W26](#).

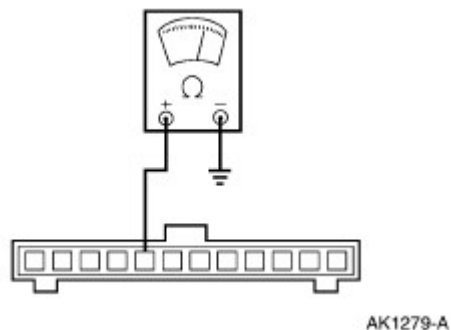
#### W26 CHECK CIRCUIT 1041 (BR/O) FOR A SHORT TO GROUND

1



SCIL Module C286

2



2

Connect an ohmmeter between multi-function switch C215-5, circuit 1041 (BR/O), and ground.

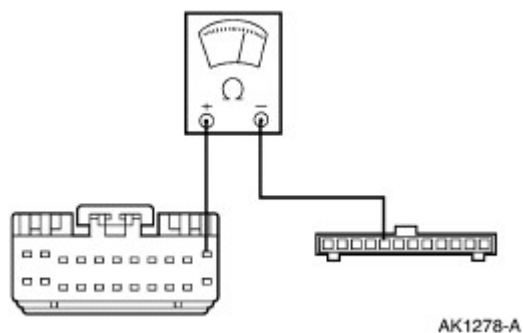
• Is the resistance 10 kohms or less?

→ **Yes**  
REPAIR circuit 1041 (BR/O). RETEST the system.

→ **No**  
GO to [W27](#).

### W27 CHECK CIRCUIT 1041 (BR/O) FOR AN OPEN

1



1

Connect an ohmmeter between SCIL module C286-11 and multi-function switch C215-5, circuit 1041 (BR/O).

• Is the resistance 5 ohms or less?

→ **Yes**  
REPLACE the SCIL module. RETEST the system.

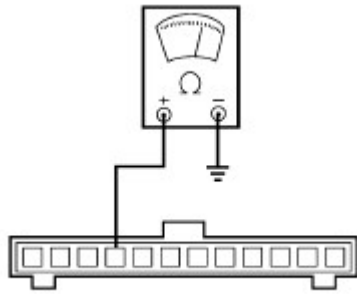
→ **No**  
REPAIR circuit 1041 (BR/O). RETEST the system.

### W28 CHECK CIRCUIT 375 (Y/LG) FOR A SHORT TO GROUND

1

1

Connect an ohmmeter between multi-function switch C215-4, circuit 375 (Y/LG), and



AK1317-A

ground.

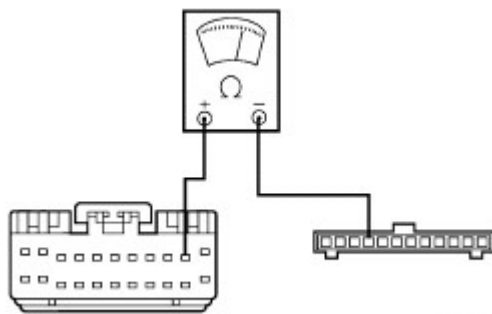
- Is the resistance 10 kohms or less?

→ **Yes**  
REPAIR circuit 375 (Y/LG). RETEST the system.

→ **No**  
GO to [W29](#).

### W29 CHECK CIRCUIT 375 (Y/LG) FOR AN OPEN

1



AK1304-A

1

Connect an ohmmeter between SCIL module C286-10 and multi-function switch C215-4, circuit 375 (Y/LG).

- Is the resistance 5 ohms or less?

→ **Yes**  
GO to [W30](#).

→ **No**  
REPAIR circuit 375 (Y/LG). RETEST the system.

### W30 CHECK THE MULTI-FUNCTION SWITCH

1

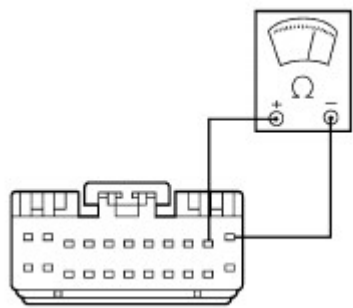


Multi-Function Switch Connector


2

2

Connect an ohmmeter between SCIL module C286-11, circuit 1041 (BR/O), and SCIL module C286-10, circuit 375 (Y/LG).

|   |   |
|---|---|
|  <p>AK1440-A</p> | <p><b>3</b> Measure the resistance with the multi-function switch in LH turn, RH turn and hazard positions.</p> <ul style="list-style-type: none"> <li>• <b>Is the resistance between 300 and 360 ohms in LH turn, between 2000 and 2400 ohms in RH turn and greater than 10,000 ohms in hazard?</b></li> </ul> <p>→ <b>Yes</b><br/>REPLACE the SCIL module. RETEST the system.</p> <p>→ <b>No</b><br/>REPLACE the multi-function switch. REFER to <a href="#">Section 211-05</a>. RETEST the system.</p> |
|---|---|

#### PINPOINT TEST X: THE INDIVIDUAL CORNERING LAMP IS INOPERATIVE

| CONDITIONS  | DETAILS/RESULTS/ACTIONS  |
|---|--|
| <b>X1 CHECK TURN SIGNAL OPERATION</b>   |  |
| <p><b>1</b></p>  | <p><b>2</b> Operate the left and right turn signals.</p> <ul style="list-style-type: none"> <li>• <b>Do the turn signals operate properly?</b></li> </ul> <p>→ <b>Yes</b><br/>GO to <a href="#">X2</a>.</p> <p>→ <b>No</b><br/>GO to Turn Signal/Cornering/Hazard Lamps.</p> |
| <b>X2 CHECK THE LH CORNERING LAMPS</b>  |  |
| <p><b>1</b></p>   |  |





2 Turn the headlamp switch to the HEAD position.

3 Actuate the multi-function switch to the left turn position.

• Does the LH cornering lamp come on?

→ **Yes**  
GO to [X8](#).

→ **No**  
GO to [X3](#).

### X3 COMMAND THE LH FRONT CORNERING LAMP ON

1



SCIL Module Active Command HEADLAMP CONTROL

2



Trigger LF CORNER ON

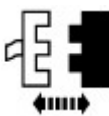
• Does the LH cornering lamp come on?

→ **Yes**  
REPLACE the steering column/ignition/lighting (SCIL) module. RETEST the system.

→ **No**  
TRIGGER LF CORNER OFF. GO to [X4](#).

### X4 CHECK FOR SUPPLY TO THE LH CORNERING LAMP

1


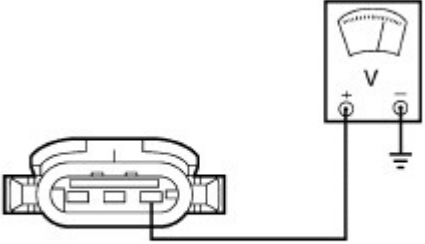

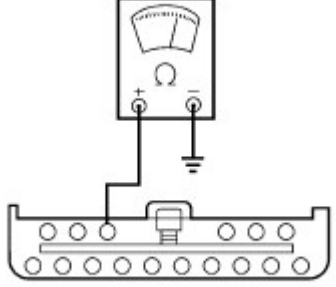


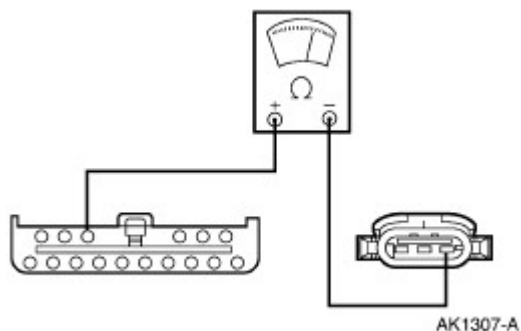
LH Cornering Lamp

2



SCIL Module Active Command HEADLAMP CONTROL

|   |   |
|---|---|
| <p><b>3</b></p>  <p>Trigger LF CORNER ON</p> <p><b>4</b></p>  <p>AK1305-A</p> | <p><b>4</b> Connect a voltmeter between LH cornering lamp connector C107, circuit 380 (P/Y), and ground.</p> <p>• Is the voltage reading B+?</p> <p>→ <b>Yes</b><br/>TRIGGER LF CORNER OFF. GO to <a href="#">X7</a>.</p> <p>→ <b>No</b><br/>TRIGGER LF CORNER OFF. GO to <a href="#">X5</a>.</p> |
| <p><b>X5 CHECK CIRCUIT 380 (P/Y) FOR A SHORT TO GROUND</b></p>  |   |
| <p><b>1</b></p>  <p>SCIL Module C289</p> <p><b>2</b></p>  <p>AK1306-A</p> | <p><b>2</b> Connect an ohmmeter between SCIL module C289-14, circuit 380 (P/Y), and ground.</p> <p>• Is the resistance 10 kohms or less?</p> <p>→ <b>Yes</b><br/>REPAIR circuit 380 (P/Y). RETEST the system.</p> <p>→ <b>No</b><br/>GO to <a href="#">X6</a>.</p>                                |

**X6 CHECK CIRCUIT 380 (P/Y) FOR AN OPEN****1****1**

Connect an ohmmeter between SCIL module C289-14, circuit 380 (P/Y), and LH cornering lamp C107, circuit 380 (P/Y).

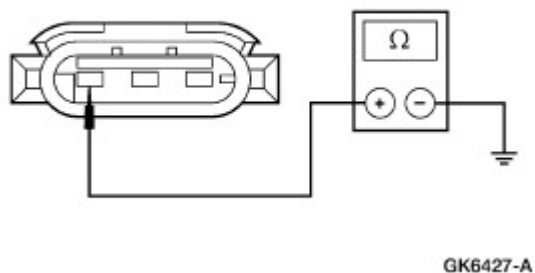
- **Is the resistance 5 ohms or less?**

→ **Yes**

REPLACE the SCIL module. RETEST the system.

→ **No**

REPAIR circuit 380 (P/Y). RETEST the system.

**X7 CHECK CIRCUIT 57 (BK) FOR AN OPEN****1****1**

Connect an ohmmeter between LH cornering lamp C107, circuit 57 (BK), and ground.

- **Is the resistance 5 ohms or less?**

→ **Yes**

REPLACE the LH cornering lamp bulb. RETEST the system.

→ **No**

REPAIR circuit 57 (BK). RETEST the system.

**X8 COMMAND THE RH FRONT CORNERING LAMP ON****1**

SCIL Module Active Command HEADLAMP CONTROL

**2**



Trigger RF CORNER ON

- Does the RH cornering lamp come on?

→ **Yes**  
REPLACE the SCIL module. RETEST the system.

→ **No**  
TRIGGER RF CORNER OFF. GO to [X9](#).

### X9 CHECK FOR SUPPLY TO THE RH CORNERING LAMP

1



RH Cornering Lamp

2



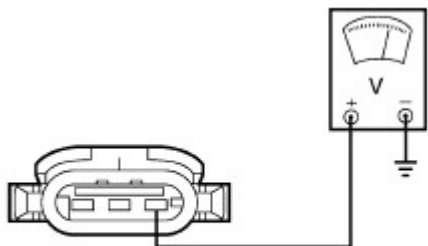
SCIL Module Active Command HEADLAMP CONTROL

3



Trigger RF CORNER ON

4



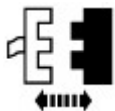
AK1305-A

- 4 Connect a voltmeter to RH cornering lamp C1006, circuit 379 (BR/W).

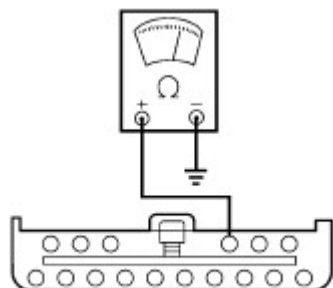
- Is the voltage reading B+?

→ **Yes**  
TRIGGER RF CORNER OFF. GO to [X12](#).

→ **No**  
TRIGGER RF CORNER OFF. GO to [X10](#).

**X10 CHECK CIRCUIT 379 (BR/W) FOR A SHORT TO GROUND****1**

SCIL Module C289

**2**

AK1309-A

**2**

Connect an ohmmeter between SCIL module C289-13, circuit 379 (BR/W), and ground.

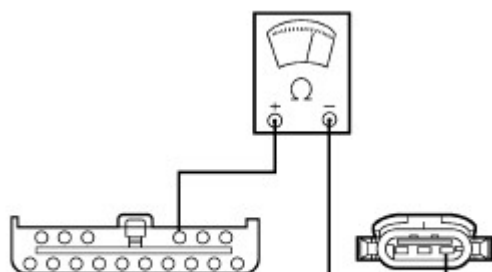
- Is the resistance 10 kohms or less?

→ **Yes**

REPAIR circuit 379 (BR/W). RETEST the system.

→ **No**

GO to [X11](#).

**X11 CHECK CIRCUIT 379 (BR/W) FOR AN OPEN****1**

AK1310-A

**1**

Connect an ohmmeter between SCIL module C289-13, circuit 379 (BR/W), and LH cornering lamp connector C1006, circuit 379 (BR/W).

- Is the resistance 5 ohms or less?

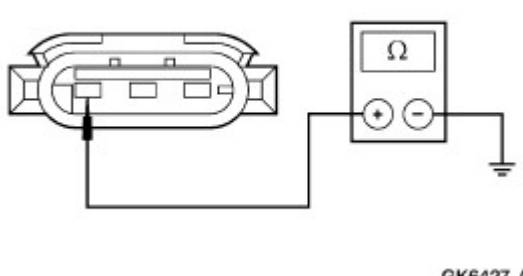
→ **Yes**

REPLACE the SCIL module. RETEST the system.



→ **No**

REPAIR circuit 379 (BR/W). RETEST the system.

**X12 CHECK CIRCUIT 57 (BK) FOR AN OPEN**

|  |  |
|--|--|
| <p><b>1</b></p>  <p style="text-align: right;">GK6427-A</p> | <p><b>1</b> Connect an ohmmeter between RH cornering lamp C1006, circuit 57 (BK), and ground.</p> <p>• <b>Is the resistance 5 ohms or less?</b></p> <p>→ <b>Yes</b><br/>REPLACE the RH cornering lamp bulb.<br/>RETEST the system.</p> <p>→ <b>No</b><br/>REPAIR circuit 57 (BK). RETEST the system.</p> |
|--|--|

#### PINPOINT TEST Y: THE INDIVIDUAL CORNERING LAMP IS ON CONTINUOUSLY

| CONDITIONS   | DETAILS/RESULTS/ACTIONS   |
|--|---|
| <b>Y1 CHECK FOR DTC</b>  |   |
| <p><b>1</b></p>  <p>SCIL Module Self-Test</p> | <p>• <b>Are any DTCs retrieved?</b></p> <p>→ <b>Yes</b><br/>REPAIR DTCs. GO to SCIL Diagnostic Trouble Code (DTC) Index.</p> <p>→ <b>No</b><br/>GO to <a href="#">Y2</a>.</p> |
| <b>Y2 CHECK THE STEERING COLUMN/IGNITION/LIGHTING CONTROL MODULE</b>   |   |
| <p><b>1</b></p>  <p>SCIL Module C289</p>      | <p>• <b>Does the cornering lamp turn off?</b></p>   |

|   |   |
|---|---|
|   | <p>→ <b>Yes</b><br/>REPLACE the SCIL module. RETEST the system.</p> <p>→ <b>No</b><br/>GO to <a href="#">Y3</a>.</p>  |
| <b>Y3 CHECK FOR SHORT TO B+ IN THE LAMP CIRCUIT</b> |   |
|   | <p><b>1</b> Make sure the multi-function switch is in the neutral position.</p> <p>• <b>Is the LH cornering lamp always on?</b></p> <p>→ <b>Yes</b><br/>REPAIR circuit 380 (P/Y) for a short to B+. RETEST the system.</p> <p>→ <b>No</b><br/>REPAIR circuit 379 (BR/W) for a short to B+. RETEST the system.</p> |

---