Moonroof

Component Location Index

MOONROOF SWITCH
Test, page 22-290
Replacement, page 22-290

MOONROOF MOTOR/CONTROL UNIT
Input Test, page 22-288
Moonroof Calibration,
 page 22-286
Replacement, page 20-54

**MULTIPLEX INTEGRATED
CONTROL UNIT (MICU)**
(Built into the under-dash
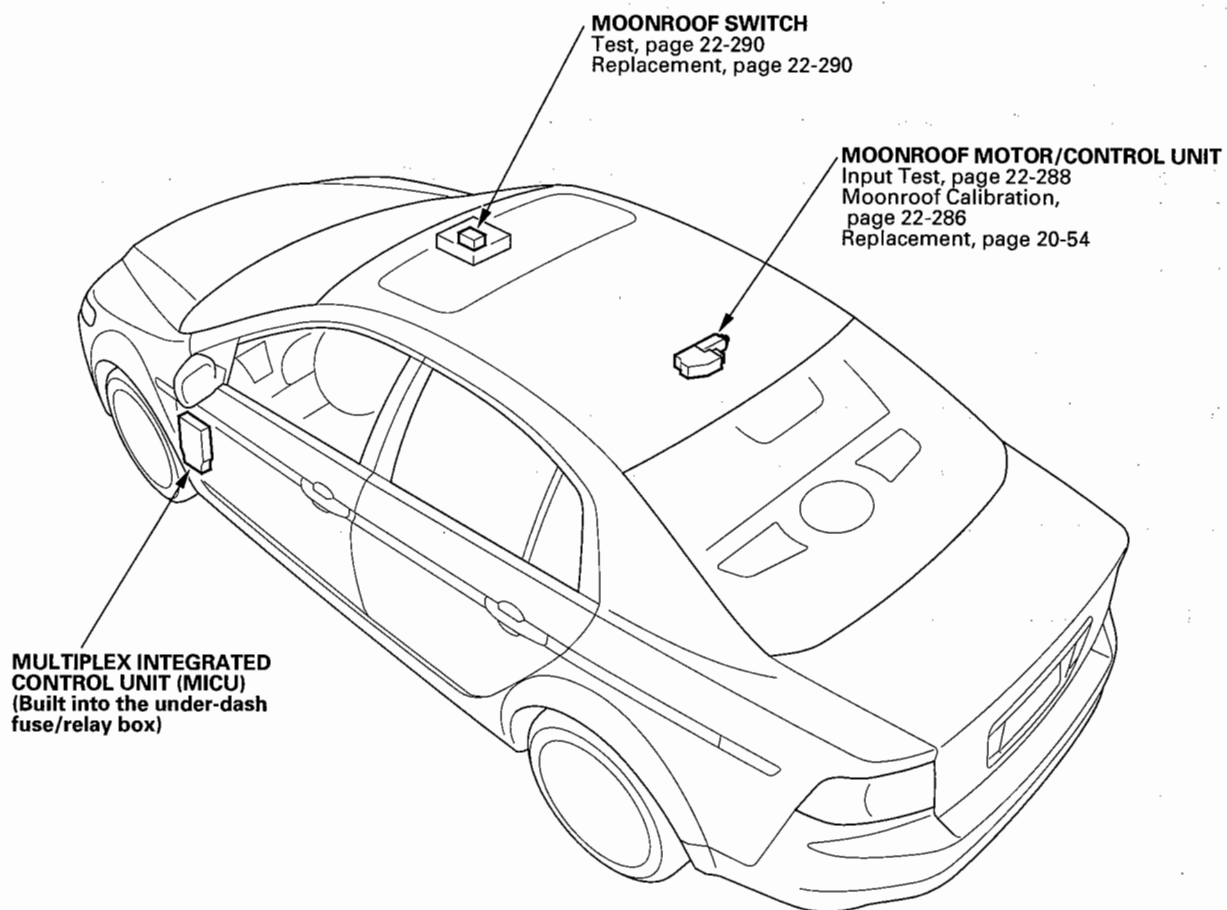fuse/relay box)

Moonroof

Moonroof Calibration

NOTE: The moonroof calibration must be performed when any of the following events have occurred.
- The moonroof is manually moved with the battery dead or disconnected.
- The moonroof motor is replaced with a new one.
- Any component related to the moonroof replaced.
  - Wind deflector
  - Moonroof glass
  - Moonroof seal
  - Moonroof glass bracket
  - Moonroof cables, etc.

To calibrate the moonroof, perform the following steps

1. Turn the ignition switch ON (II).

2. Open the moonroof to full open position and release the open button.

3. Pull and hold the moonroof OPEN switch until the moonroof glass moves slightly back to its mechanical stop and then forward again slightly.

   - New Motor:
   - Other than new motor: This will take about 13 seconds.

4. Release the OPEN switch.

5. Within 5 seconds, pull and hold the moonroof OPEN switch again.

6. In about 3 seconds the moonroof glass will begin to slide closed.

7. Continue to hold the open button until the glass moves to closed position, tilts up, and returns to the closed position again.

8. Test the moonroof auto operation.

Circuit Diagram

22-287
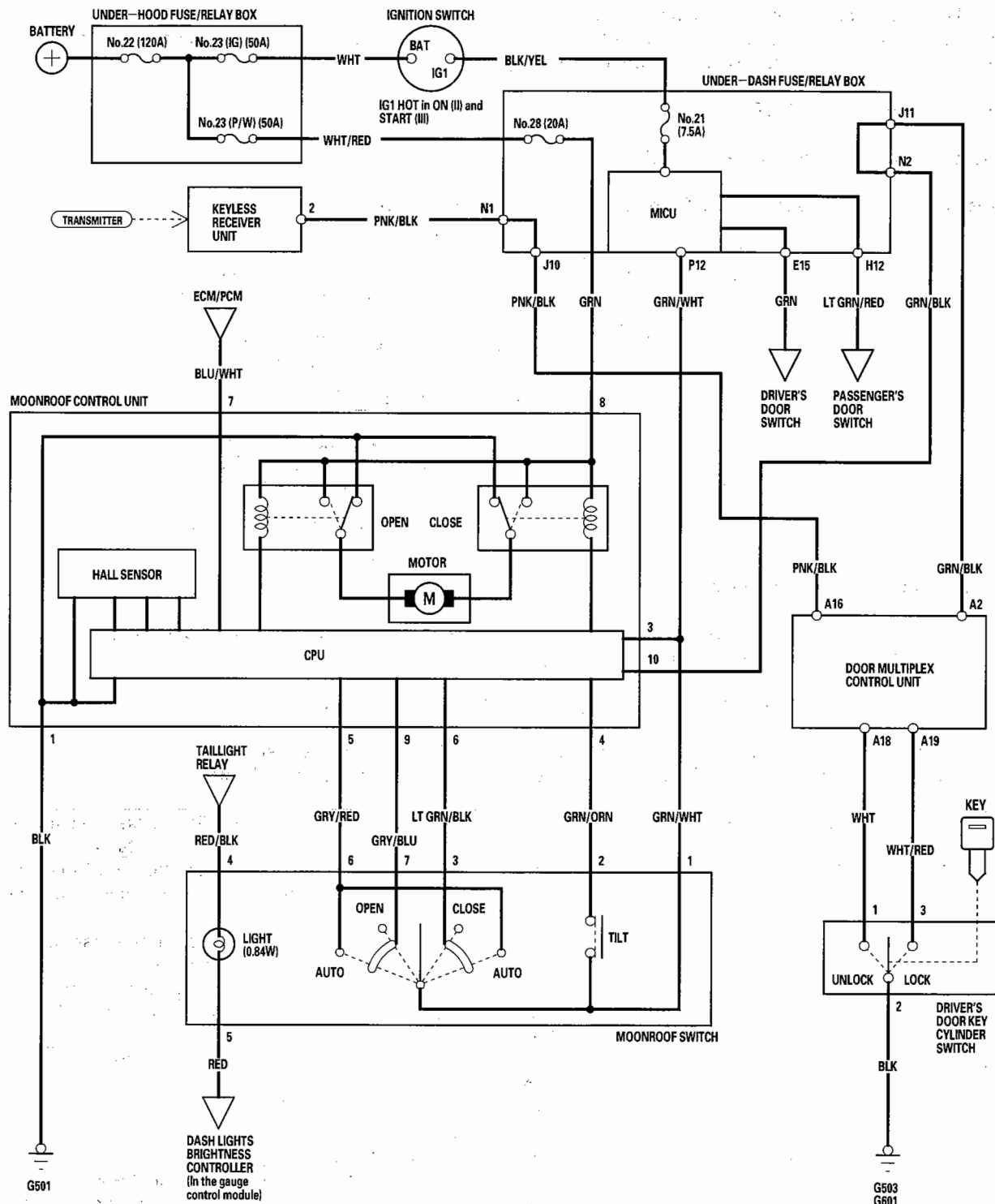
Moonroof

Moonroof Control Unit Input Test

Before troubleshooting the moonroof circuit, troubleshoot the multiplex integrated control system using B-CAN System Diagnosis Test Mode A (see page 22-108).
If the moonroof works OK manually, but will not work in AUTO, or reverse frequently (pinch detection), do the moonroof calibration (see page 22-286) before proceeding with the input test.

1. Turn the ignition switch OFF.

2. Remove the headliner (see page 20-70).

3. Disconnect the 10P connector (A) from the moonroof control unit (B).

Wire side of female terminals
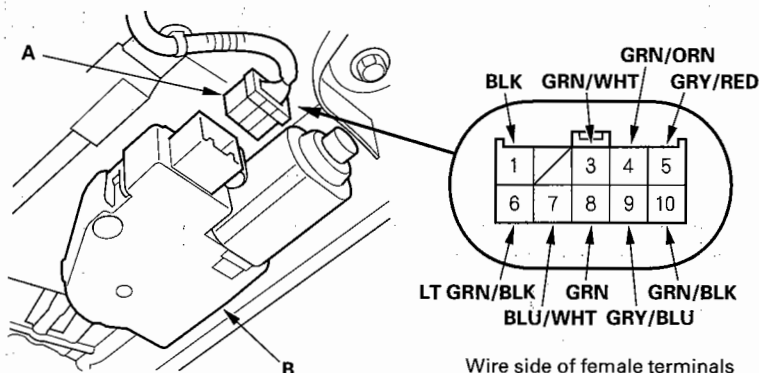
4. Inspect the connector and socket terminals to be sure they are all making good contact.

   • If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
   • If the terminals look OK, go to step 5.

5. With the control unit still disconnected, make these input tests at the connector.

   • If any test indicates a problem, find and correct the cause, then recheck the system.
   • If all the input tests prove OK, the control unit must be faulty; replace the control unit.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
8	GRN	Under all conditions	Check for voltage to ground: There should be battery voltage.	• Blown No. 28 (20A) fuse in the under-dash fuse/relay box • Faulty under-dash fuse/relay box • An open in the wire
1	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	• Poor ground (G501) • An open in the wire
3	GRN/WHT	Under all conditions	Check for continuity between the No. 3 terminal and the multiplex integrated control unit P12 terminal: There should be continuity.	• An open in the wire
		Disconnect the under-dash fuse/relay box connector P (30P)	Check for continuity between the No. 3 terminal and body ground: There should be no continuity.	• A short in the wire • Faulty moonroof switch

| Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
4	GRN/ORN	Moonroof switch in TILT position	Check for continuity between the No. 3 and No. 4 terminals: There should be continuity.	• Faulty moonroof switch • An open in the wire
9	GRY/BLU	Moonroof switch in OPEN position	Check for continuity between the No. 3 and No. 9 terminals: There should be continuity.	• Faulty moonroof switch • An open in the wire
6	LT GRN/ BLK	Moonroof switch in CLOSE position	Check for continuity between the No. 3 and No. 6 terminals: There should be continuity.	• Faulty moonroof switch • An open in the wire
5	GRY/RED	Moonroof switch in AUTO OPEN or AUTO CLOSE position	Check for continuity between the No. 3 and No. 5 terminals: There should be continuity.	• Faulty moon roof switch • An open in the wire

6. Jump the SCS line with the HDS disconnect the ECM/PCM connector A (31P), and make these input tests at the connector.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
7	BLU/WHT	Under all conditions	Check for continuity between the No. 7 terminal and the ECM/PCM connector A No. 11 terminal: There should be continuity.	• An open in the wire
			Check for continuity between the No. 7 terminal and body ground: There should be no continuity.	• A short in the wire
10	GRN/BLK	Under all conditions	Check for continuity between the No. 10 terminal and the power window master switch (door multiplex control unit) A2 terminal: There should be continuity.	• An open in the wire
		Disconnect power window master switch connector A (22P)	Check for continuity between the No. 10 terminal and body ground: There should be no continuity.	• A short in the wire

22-289

Moonroof

Moonroof Switch Test/Replacement

1. Carefully pry out the moonroof switch (A).
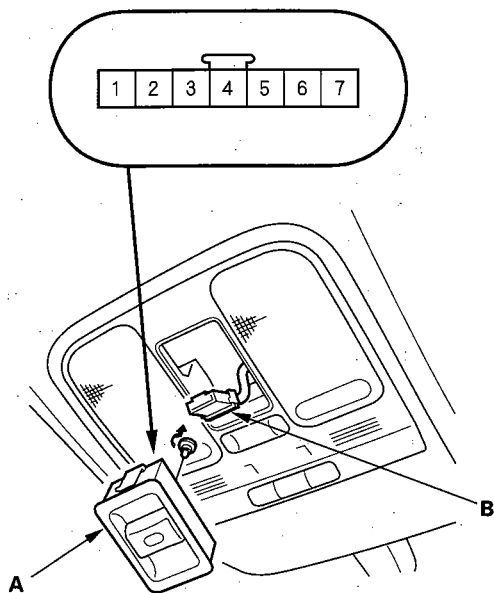
2. Disconnect the 7P connector (B) from the moonroof switch.

3. Check for continuity between the terminals in each switch position according to the table.

Terminal Position	1	2	3	6	7	4		5
OPEN	O—				—O	O—⊗—O		
CLOSE	O—	—O				O—⊗—O		
TILT	O—O					O—⊗—O		
CLOSE+AUTO	O—		—O—O			O—⊗—O		
OPEN+AUTO	O—			—O—O		O—⊗—O		

4. If the continuity check is not as specified, check the bulb. If the bulb is OK, replace the switch.