



F11
30A DIFF
FUSE BLOCK

D 4
DIFF. LOCK
CONTROL SW

D 5
DIFF. LOCK ECU

F12
FRONT DIFF. LOCK
CONTROL MOTOR

J 8
JUNCTION
CONNECTOR

Wiring details: The diagram shows a 30A fuse block (F11) connected to a differential lock control switch (D4). The switch has two positions: REAR and FRONT/REAR. The switch is connected to a differential lock ECU (D5). The ECU has four outputs: M4, M3, REL4, and REL3. M4 is connected to a relay (REL4) and a relay (REL3). M3 is connected to a relay (REL4) and a relay (REL3). REL4 is connected to a relay (REL4) and a relay (REL3). REL3 is connected to a relay (REL4) and a relay (REL3). The relay (REL4) is connected to a front differential lock control motor (F12). The relay (REL3) is connected to a junction connector (J8). The junction connector (J8) is connected to the ECU via a relay (REL4) and a relay (REL3). The diagram also shows the ground connection for the system.



FRONT/REAR DIFFERENTIAL LOCK

SYSTEM OUTLINE

THIS SYSTEM FREES OR LOCKS THE FRONT AND REAR DIFFERENTIALS ACCORDING TO THE POSITION OF THE DIFF. LOCK CONTROL SW. THE DIFFERENTIAL WILL LOCK ONLY WHEN THE CENTER DIFF. LOCK INDICATOR SW IS ON AND THE VEHICLE SPEED IS AT **8 KM/H (5 MPH)** OR LESS.

WHEN THE CENTER DIFF. LOCK INDICATOR SW IS OFF, DIFFERENTIAL LOCK DOES NOT OCCUR EVEN IF THE DIFF. LOCK CONTROL SW IS IN **RR** POSITION OR **FR-RR** POSITION.

WHEN THE DIFF. LOCK CONTROL SW IS SWITCHED FROM **OFF** POSITION TO **RR** POSITION, CURRENT FLOWS FROM THE **DIFF** FUSE THROUGH THE DIF. LOCK CONTROL SW TO **TERMINAL 12** OF THE DIFF. LOCK ECU. IF THE LIMIT SW ON THE LOCK SIDE INSIDE THE REAR DIFF. LOCK CONTROL MOTOR IS ON AT THIS TIME, UNTIL THE LIMIT SW IS TURNED OFF, CURRENT FLOWS FROM THE **DIFF** FUSES TO **TERMINAL 8** OF THE DIFF. LOCK ECU → **TERMINAL 3** → **TERMINAL 3** OF THE REAR DIFF. LOCK CONTROL MOTOR → **TERMINAL 2** → **TERMINAL 1** OF THE DIFF. LOCK ECU → **TERMINAL 13** → **GROUND**. THIS DRIVES THE REAR DIFF. LOCK CONTROL MOTOR AND LOCKS THE REAR DIFFERENTIAL. WHEN THE REAR DIFFERENTIAL LOCKS, THE REAR DIFF. LOCK POSITION SW TURNS ON, LIGHTING UP THE REAR DIFF. LOCK INDICATOR LIGHT IN THE COMBINATION METER.

WHEN THE DIFF. LOCK CONTROL SW IS SWITCHED FROM **RR** POSITION TO **FR-RR** POSITION, CURRENT FLOWS FROM THE **DIFF** FUSE THROUGH THE DIFF LOCK CONTROL SW TO **TERMINAL 6** OF THE DIFF. LOCK ECU. IF THE LIMIT SW ON THE LOCK SIDE INSIDE THE FRONT DIFF. LOCK CONTROL MOTOR IS ON AT THIS TIME, UNTIL THE LIMIT SW IS TURNED OFF, CURRENT FLOWS FROM THE **DIFF** FUSE TO **TERMINAL 8** OF THE DIFF. LOCK ECU → **TERMINAL 7** → **TERMINAL 3** OF THE FRONT DIFF. LOCK CONTROL MOTOR → **TERMINAL 2** → **TERMINAL 5** OF THE DIFF. LOCK ECU → **TERMINAL 13** → **GROUND**. THIS DRIVES THE FRONT DIFF. LOCK CONTROL MOTOR AND LOCKS THE FRONT DIFFERENTIAL. WHEN THE FRONT DIFFERENTIAL LOCKS, THE FRONT DIFF. LOCK POSITION SW TURNS ON, LIGHTING UP THE FRONT DIFF. LOCK INDICATOR LIGHT IN THE COMBINATION METER.

WHEN THE DIFF. LOCK CONTROL SW IS SWITCHED FROM **FR-RR** POSITION TO **RR** POSITION, CURRENT TO **TERMINAL 6** OF THE DIFF. LOCK ECU IS CUT OFF. IF THE LIMIT SW ON THE FREE SIDE INSIDE THE FRONT DIFF. LOCK CONTROL MOTOR IS ON AT THIS TIME, UNTIL THE LIMIT SW IS TURNED OFF, CURRENT FLOWS FROM THE **DIFF** FUSE TO **TERMINAL 8** OF THE DIFF. LOCK ECU → **TERMINAL 5** → **TERMINAL 2** OF THE FRONT DIFF. LOCK CONTROL MOTOR → **TERMINAL 3** → **TERMINAL 7** OF THE DIFF. LOCK ECU → **TERMINAL 13** → **GROUND**. THIS DRIVES THE FRONT DIFF. LOCK CONTROL MOTOR AND FREES THE FRONT DIFFERENTIAL. THIS CAUSES THE FRONT DIFF. LOCK POSITION SW AND THE FRONT DIFF. LOCK INDICATOR LIGHT INSIDE THE COMBINATION METER TO TURN OFF.

WHEN THE DIFF. LOCK CONTROL SW IS SWITCHED FROM **RR** POSITION TO **OFF** POSITION, CURRENT TO **TERMINAL 12** OF THE DIFF. LOCK ECU IS CUT OFF. IF THE LIMIT SW ON THE FREE SIDE INSIDE THE REAR DIFF. LOCK CONTROL MOTOR IS ON, UNTIL THE LIMIT SW IS TURNED OFF, THE CURRENT FLOWS FROM THE **DIFF** FUSE TO **TERMINAL 8** OF THE DIFF. LOCK ECU → **TERMINAL 1** → **TERMINAL 2** OF THE REAR DIFF. LOCK CONTROL MOTOR → **TERMINAL 3** → **TERMINAL 3** OF THE DIFF. LOCK ECU → **TERMINAL 13** → **GROUND**. THIS DRIVES THE REAR DIFF. LOCK CONTROL MOTOR AND FREES THE REAR DIFFERENTIAL. WHEN THE REAR DIFFERENTIAL IS FREE, THE REAR DIFF. LOCK POSITION SW AND THE REAR DIFF. LOCK INDICATOR LIGHT IN THE COMBINATION METER ARE TURNED OFF.

THE DIFF. LOCK INDICATOR LIGHT FLASHES WHEN:

- THE DIFF. LOCK CONTROL SW IS SWITCHED TO **RR** POSITION OR **FR-RR** POSITION DURING DIFFERENTIAL LOCK PROHIBITION CONDITIONS (VEHICLE SPEED ABOVE **8 KM/H (5 MPH)** OR CENTER DIFF. LOCK INDICATOR SW OFF).
- THE DIFF. LOCK POSITION SW IS TURNED OFF DURING OPERATION OF THE DIFF. LOCK CONTROL MOTOR.

SERVICE HINTS

D4 DIFF. LOCK CONTROL SW

- 4-1 : CLOSED WITH THE DIFF. LOCK CONTROL SW AT "**RR**" POSITION OR "**FR-RR**" POSITION
- 4-2 : CLOSED WITH THE DIFF. LOCK SW AT "**FR-RR**" POSITION

D5 DIFF. LOCK ECU

(DISCONNECTED WIRING CONNECTOR FROM ECU)

- 13-GROUND : ALWAYS CONTINUITY
- 4-GROUND : PULSE GENERATION WITH VEHICLE MOVING
- 8-GROUND : **9-14** VOLTS WITH THE IGNITION SW ON
- 2-GROUND : ABOUT **0** VOLTS WITH THE REAR DIFF. LOCK INDICATOR LIGHT ON
: **9-14** VOLTS WITH THE REAR DIFF. LOCK INDICATOR LIGHT OFF
- 9-GROUND : ABOUT **0** VOLTS WITH THE FRONT DIFF. LOCK INDICATOR LIGHT ON
: **9-14** VOLTS WITH THE FRONT DIFF. LOCK INDICATOR LIGHT OFF
- 15-GROUND : ABOUT **0** VOLTS WITH THE CENTER DIFF. LOCK INDICATOR LIGHT ON
: **9-14** VOLTS WITH THE CENTER DIFF. LOCK INDICATOR LIGHT OFF

F12, R9 FRONT, REAR DIFF. LOCK CONTROL MOTOR

- 2-3 : **0.3-100Ω**

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C2	22	D5	24	J8	25
C10 A	24	F11	25	R9	27
C11 B	24	F12	26	R10	27
C13 D	24	F13	26		
D4	24	J1	25		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

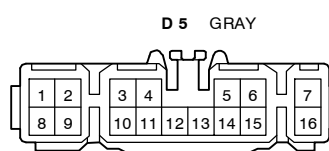
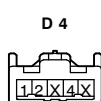
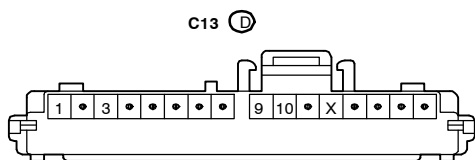
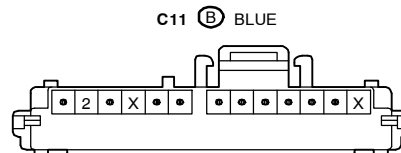
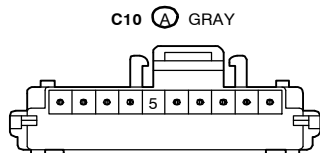
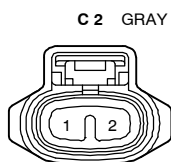
CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EC1	30	ENGINE WIRE AND TRANSMISSION WIRE (NEAR THE STARTER)
ID1	32	COWL WIRE AND FLOOR WIRE (LEFT KICK PANEL)
IL1	34	ENGINE WIRE AND COWL WIRE (BEHIND GLOVE BOX)
BU1	36	FLOOR NO. 3 WIRE AND FLOOR WIRE (LEFT QUARTER PANEL INNER)
Bb1	38	COWL WIRE AND FRAME WIRE (RIGHT FENDER)
Bh2	38	FLOOR NO. 3 WIRE AND FRAME NO. 2 WIRE (LEFT QUARTER PANEL INNER)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EC	30	AIR INTAKE CHAMBER
ID	32	LEFT KICK PANEL
IE	32	RIGHT KICK PANEL
BG	36	LOWER BACK PANEL CENTER

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I2	34	COWL WIRE	I15	34	COWL WIRE
I6			B1	38	FRAME WIRE
I7			B23	38	FLAME NO. 2 WIRE



F11
(SEE PAGE 20)

