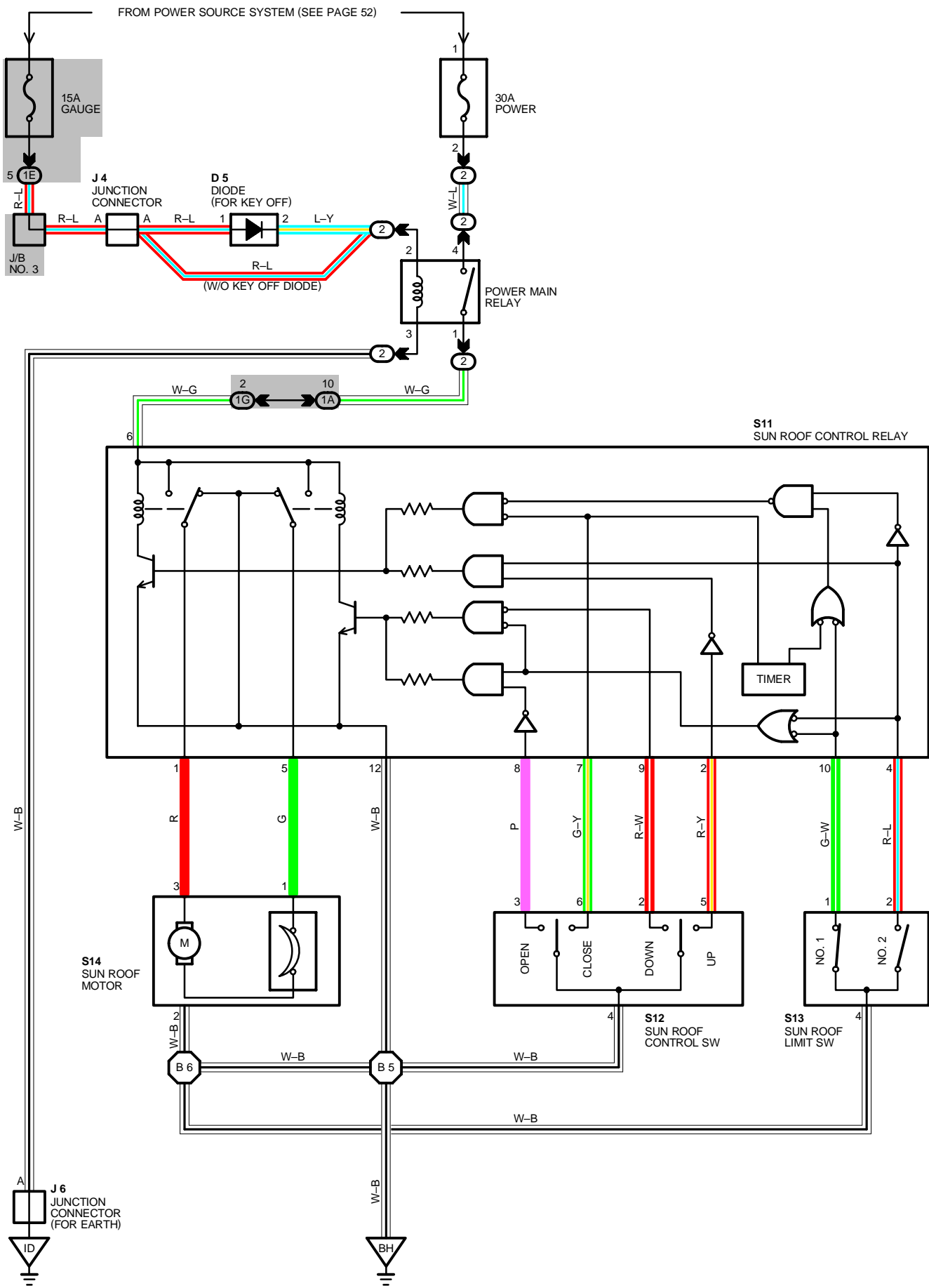


SUN ROOF



SYSTEM OUTLINE

CURRENT ALWAYS FLOWS TO **TERMINAL 4** OF THE POWER MAIN RELAY THROUGH THE POWER FUSE, WITH THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE GAUGE FUSE TO **TERMINAL 2** OF THE POWER MAIN RELAY. THIS ACTIVATES THE RELAY AND CURRENT FLOWING TO **TERMINAL 4** OF THE POWER MAIN RELAY FLOWS TO **TERMINAL 1** OF THE POWER MAIN RELAY → TO **TERMINAL 6** OF THE SUN ROOF CONTROL RELAY.

1. SLIDE OPEN OPERATION

WHEN THE IGNITION SW IS ON AND THE SUN ROOF SW IS PUSHED TO THE OPEN SIDE, A SIGNAL IS INPUT TO **TERMINAL 8** OF THE SUN ROOF CONTROL RELAY. WHEN THIS OCCURS ACTIVATING THE RELAY SO THAT CURRENT FLOWS FROM **TERMINAL 6** OF THE RELAY → **TERMINAL 5** → **TERMINAL 1** OF THE SUN ROOF MOTOR → MOTOR → **TERMINAL 3** → **TERMINAL 1** OF THE RELAY → **TERMINAL 12** → **GROUND**, THE MOTOR ROTATES TO THE OPEN SIDE AND THE SUN ROOF SLIDES OPEN AS LONG AS THE SUN ROOF CONTROL SW IS PUSHED TO THE OPEN SIDE.

WHEN THE SUN ROOF IS OPENED COMPLETELY, EVEN IF THE SUN ROOF SW IS PUSHED CONTINUOUSLY, THE CURRENT TO THE SUN ROOF MOTOR INCREASES.

IN THIS CASE, THE CIRCUIT BREAKER BUILT INTO THE MOTOR OPENS AND CUTS OUT THE CURRENT TO THE MOTOR, PREVENTING THE MOTOR FROM BURNING OUT.

2. SLIDE CLOSE OPERATION

WHEN THE IGNITION SW IS ON AND THE SUN ROOF CONTROL SW IS PUSHED TO THE CLOSE SIDE, A SIGNAL IS INPUT TO **TERMINAL 7** OF THE SUN ROOF CONTROL RELAY. THIS ACTIVATES THE RELAY AND THE CURRENT FLOWING TO **TERMINAL 6** FLOWS TO **TERMINAL 1** → **TERMINAL 3** OF THE SUN ROOF MOTOR → MOTOR → **TERMINAL 1** → **TERMINAL 5** OF THE RELAY → **TERMINAL 12** → **GROUND**. THIS CAUSES THE MOTOR TO ROTATE TO THE CLOSE SIDE AND SLIDE CLOSE OPERATION CONTINUES AS LONG AS THE SUN ROOF CONTROL SW IS PUSHED TO THE CLOSE SIDE.

100 MM BEFORE THE FULLY **CLOSED** POSITION THE SUN ROOF LIMIT NO. 1 SW TURN OFF. THIS SIGNAL IS INPUT INTO THE RELAY, SO THE RELAY STOPS OPERATION. THUS CURRENT DOES NOT FLOW TO THE SUN ROOF MOTOR AND THE SUN ROOF AUTOMATICALLY STOPS.

IF THE SUN ROOF SW IS THEN PUSH AGAIN, THE TIMER INSTALLED IN THE SUN ROOF CONTROL TURNS ON AND THE RELAY OPERATES FOR **0.65 SEC.** TO RE-OPERATE THE MOTOR SO THAT THE SUN ROOF LIMIT SW NO. 1 TURNS ON (SUN ROOF LIMIT SW NO. 2 TURNS OFF). AS A RESULT, AS LONG AS THE SUN ROOF SW IS PUSHED, SLIDE CLOSE OPERATION OCCURS AND THE SUN ROOF IS ABLE TO FULLY CLOSE.

3. TILT UP OPERATION

WHEN THE SUN ROOF CONTROL SW IS PUSHED TO THE **TILT UP** POSITION, WITH THE IGNITION SW TURNED ON AND THE SLIDE ROOF COMPLETELY CLOSED A SIGNAL IS INPUT TO **TERMINAL 2** OF THE SUN ROOF CONTROL RELAY AND SUN ROOF LIMIT SW NO. 2 IS TURNED OFF (SUN ROOF LIMIT SW NO. 1 TURNS ON) SIMULTANEOUSLY, CAUSING THE SUN ROOF CONTROL RELAY TO OPERATE. AS A RESULT, THE RELAY IS ACTIVATED AND CURRENT FLOWS FROM **TERMINAL 6** OF THE RELAY → **TERMINAL 1** → **TERMINAL 3** OF THE SUN ROOF MOTOR → MOTOR → **TERMINAL 1** → **TERMINAL 5** OF THE RELAY → **TERMINAL 12** → **GROUND**, ROTATING THE MOTOR FOR TILT UP OPERATION.

4. TILT DOWN OPERATION

WHEN THE SUN ROOF CONTROL SW IS PUSHED TO THE **TILT DOWN** POSITION, WITH THE IGNITION SW TURNED ON AND THE SLIDE ROOF TILTED UP, A SIGNAL IS INPUT TO **TERMINAL 9** OF THE SUN ROOF CONTROL RELAY SIGNALS THAT SUN ROOF LIMIT SW NO. 1 AND NO. 2 ARE OFF ARE INPUT SEPARATELY TO **TERMINAL 10** AND **TERMINAL 4**.

AS A RESULT, RELAY ACTIVATES AND THE CURRENT FLOWS FROM **TERMINAL 6** OF THE RELAY → **TERMINAL 5** → **TERMINAL 1** OF THE SUN ROOF MOTOR → MOTOR → **TERMINAL 3** → **TERMINAL 1** OF THE RELAY → **TERMINAL 12** → **GROUND**, ROTATING THE MOTOR FOR TILT DOWN OPERATION.

SERVICE HINTS

S11 SUN ROOF CONTROL RELAY

12-GROUND : ALWAYS CONTINUITY

6-GROUND : APPROX. 12 VOLTS WITH IGNITION SW AT **ON** POSITION

1-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND SUN ROOF SW **CLOSED** OR **UP** POSITION

5-GROUND : APPROX. 12 VOLTS WITH IGNITION SW ON AND SUN ROOF SW **OPEN** OR **DOWN** POSITION

(DISCONNECT WIRING CONNECTOR FROM ECU)

8-GROUND : CONTINUITY WITH SUN ROOF SW AT **OPEN** POSITION

7-GROUND : CONTINUITY WITH SUN ROOF SW AT **CLOSE** POSITION

9-GROUND : CONTINUITY WITH SUN ROOF SW AT **DOWN** POSITION

2-GROUND : CONTINUITY WITH SUN ROOF SW AT **UP** POSITION

SUN ROOF

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
D 5	28	S11	30 (L/B), 31 (C/P)	S14	30 (L/B), 31 (C/P)
J 4	29	S12	30 (L/B), 31 (C/P)		
J 6	29	S13	30 (L/B), 31 (C/P)		

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	23	R/B NO. 2 (LEFT KICK PANEL)

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1E		
1G	18	ROOF WIRE AND J/B NO. 1 (LEFT KICK PANEL)

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
ID	36	LEFT KICK PANEL
BH	38 (L/B)	ROOF LEFT

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
B 5	38 (L/B)	ROOF WIRE	B 6	38 (L/B)	ROOF WIRE
	40 (C/P)			40 (C/P)	

D 5 BLACK

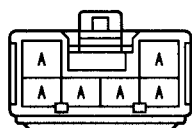


J 4



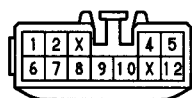
(HINT:SEE PAGE 7)

J 6



(HINT:SEE PAGE 7)

S11



S12



S13



S14

