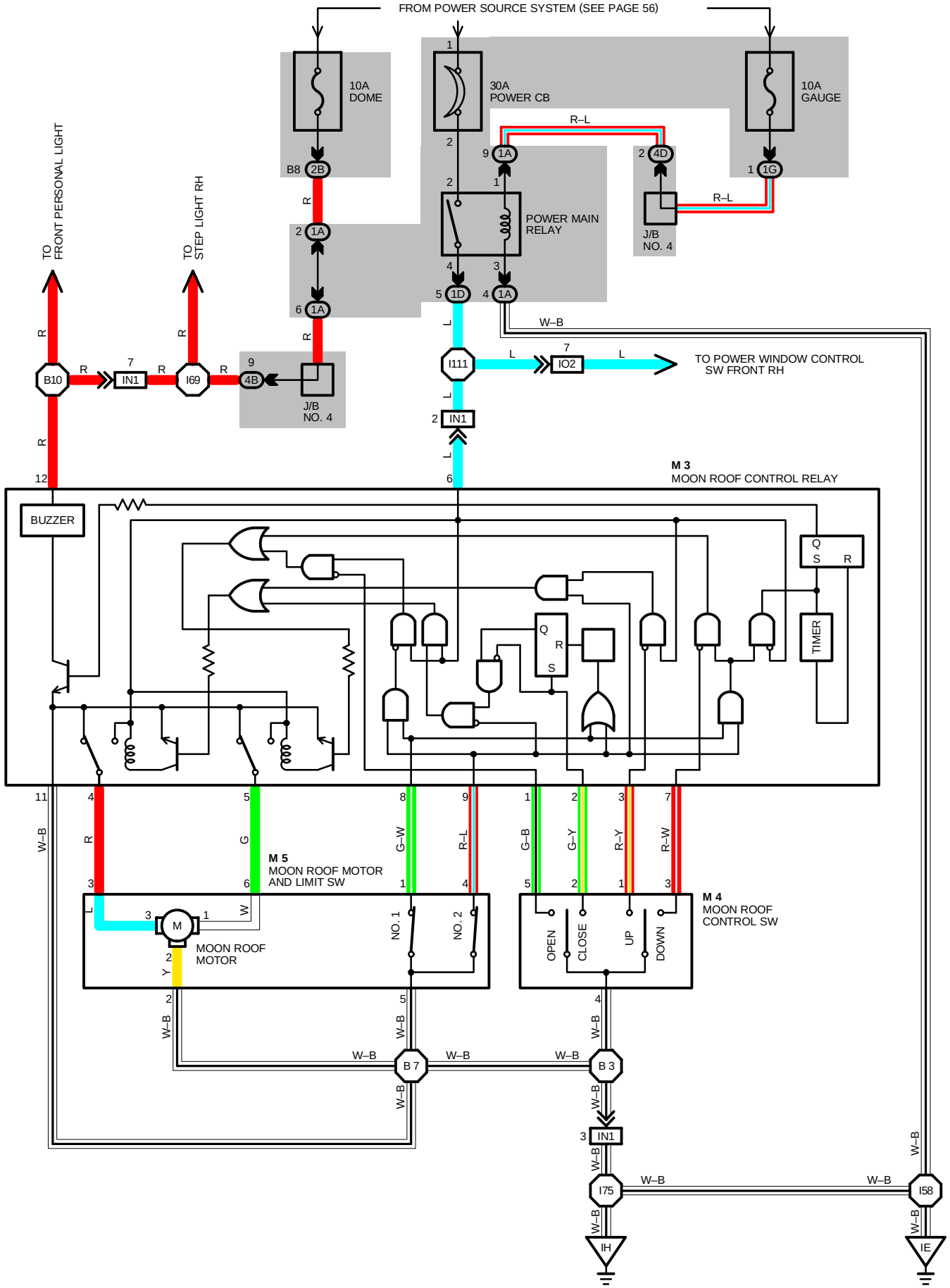
MOON ROOF


FROM POWER SOURCE SYSTEM (SEE PAGE 56)
10A DOME
30A POWER CB
10A GAUGE
POWER MAIN RELAY
J/B NO. 4
TO FRONT PERSONAL LIGHT
TO STEP LIGHT RH
TO POWER WINDOW CONTROL SW FRONT RH
M 3 MOON ROOF CONTROL RELAY
BUZZER
TIMER
M 5 MOON ROOF MOTOR AND LIMIT SW
MOON ROOF MOTOR
NO. 1
NO. 2
M 4 MOON ROOF CONTROL SW
OPEN
CLOSE
UP
DOWN
B10
I69
I111
IO2
IN1
I75
I58
B 7
B 3
IH
IE
W–B
R–L
R
L
G
G–W
G–B
G–Y
R–Y
R–W

SYSTEM OUTLINE

CURRENT IS APPLIED AT ALL TIMES THROUGH POWER CB TO **TERMINAL 2** OF POWER WINDOW MAIN RELAY AND ALSO THROUGH DOME FUSE TO **TERMINAL 12** OF MOON ROOF CONTROL RELAY. WITH THE IGNITION SW TURNED ON, THE CURRENT FLOWS FROM **TERMINAL 1** OF POWER WINDOW MAIN RELAY → **TERMINAL 3** → TO **GROUND** THROUGH GAUGE FUSE. AS A RESULT, POWER WINDOW MAIN RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 2** OF POWER WINDOW MAIN RELAY FLOWS FROM **TERMINAL 4** OF RELAY TO **TERMINAL 6** OF MOON ROOF CONTROL RELAY.

1. SLIDE OPEN OPERATION

WHEN THE IGNITION SW IS TURNED ON AND THE MOON ROOF CONTROL SW IS PUSHED TO THE **OPEN** POSITION, A SIGNAL IS INPUT FROM **TERMINAL 5** OF MOON ROOF CONTROL SW TO **TERMINAL 1** OF MOON ROOF CONTROL RELAY, MOON ROOF LIMIT SW NO.2 IS ON AT THIS TIME.

WHEN THIS OCCURS, THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 6** OF MOON ROOF CONTROL RELAY FLOWS FROM **TERMINAL 5** → **TERMINAL 6** OF MOON ROOF MOTOR → **TERMINAL 3** → **TERMINAL 4** OF MOON ROOF CONTROL RELAY → **TERMINAL 11** → TO **GROUND** AND ROTATES THE MOTOR TO OPEN THE MOON ROOF WHILE THE SW IS BEING PUSHED TO **OPEN** POSITION.

2. SLIDE CLOSED OPERATION

WITH THE IGNITION SW TURNED ON, THE MOON ROOF COMPLETELY OPEN AND MOON ROOF LIMIT SW NO.1 AND NO.2 BOTH ON, WHEN THE MOON ROOF CONTROL SW IS PUSHED TO THE **CLOSE** POSITION A SIGNAL IS INPUT FROM **TERMINAL 2** OF MOON ROOF CONTROL SW TO **TERMINAL 2** OF MOON ROOF CONTROL RELAY.

WHEN THIS OCCURS, THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 6** OF MOON ROOF CONTROL RELAY FLOWS FROM **TERMINAL 4** → **TERMINAL 3** OF MOON ROOF MOTOR → **TERMINAL 6** → **TERMINAL 5** OF MOON ROOF CONTROL RELAY → **TERMINAL 11** → TO **GROUND** AND ROTATES THE MOTOR TO CLOSE THE MOON ROOF WHILE THE SW IS BEING PUSHED TO **CLOSE** POSITION.

MOON ROOF LIMIT SW NO.1 TURNS OFF (LIMIT SW NO.2 IS ON) AND A **100**MM BEFORE FULLY **CLOSED** POSITION, SIGNAL IS INPUT FROM **TERMINAL 1** OF LIMIT SW NO.1 TO **TERMINAL 8** OF MOON ROOF CONTROL RELAY. THIS SIGNAL ACTIVATES THE RELAY AND STOPS CONTINUITY FROM **TERMINAL 6** OF MOON ROOF CONTROL RELAY TO **TERMINAL 11**, AS A RESULT, THE MOON ROOF STOPS AT THIS POSITION.

TO CLOSE THE MOON ROOF COMPLETELY, PUSHING THE MOON ROOF CONTROL SW AGAIN TO THE CLOSE SIDE CAUSES A SIGNAL TO BE INPUT AGAIN TO **TERMINAL 2** OF MOON ROOF CONTROL RELAY. THIS ACTIVATES THE RELAY AND THE MOON ROOF WILL CLOSE AS LONG AS THE MOON ROOF CONTROL SW IS BEING PUSHED, ALLOWING THE MOON ROOF TO FULLY CLOSE.

3. TILT UP OPERATION

WHEN THE MOON ROOF CONTROL SW IS PUSHED TO **TILT UP** POSITION, WITH THE IGNITION SW TURNED ON AND THE MOON ROOF COMPLETELY CLOSED (MOON ROOF LIMIT SW NO.2 IS OFF), A SIGNAL IS INPUT FROM **TERMINAL 1** OF MOON ROOF CONTROL SW TO **TERMINAL 3** OF MOON ROOF CONTROL RELAY. AS A RESULT, THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 6** OF RELAY FLOWS FROM **TERMINAL 4** OF RELAY → **TERMINAL 3** OF MOON ROOF MOTOR → **TERMINAL 6** → **TERMINAL 5** OF RELAY → **TERMINAL 11** TO **GROUND** AND ROTATES THE MOTOR SO THAT TILT UP OPERATION OCCURS AS LONG AS THE MOON ROOF CONTROL SW IS PUSHED ON THE TILT UP SIDE.

4. TILT DOWN OPERATION

WHEN THE MOON ROOF CONTROL SW IS PUSHED TO **TILT DOWN** POSITION, WITH THE IGNITION SW TURNED ON AND THE MOON ROOF TILTED UP (NO.1 AND NO.2 MOON ROOF LIMIT SWITCHES ARE BOTH OFF), A SIGNAL IS INPUT FROM **TERMINAL 3** OF MOON ROOF CONTROL SW TO **TERMINAL 7** OF MOON ROOF CONTROL RELAY.

AS A RESULT. THE RELAY IS ACTIVATED AND THE CURRENT TO **TERMINAL 6** OF RELAY FLOWS FROM **TERMINAL 5** OF RELAY → **TERMINAL 6** OF MOON ROOF MOTOR → **TERMINAL 3** → **TERMINAL 4** OF RELAY → **TERMINAL 11** → TO **GROUND** AND ROTATES THE MOTOR SO THAT TILT DOWN OPERATION OCCURS AS LONG AS THE MOON ROOF CONTROL SW IS PUSHED ON THE TILT DOWN SIDE. (DURING TILT DOWN, LIMIT SW NO.1 CHANGES FROM OFF TO ON.)

5. TILT UP REMINDER SYSTEM

WHEN THE IGNITION SW IS TURNED FROM ON TO ACC OR OFF WITH THE MOON ROOF STILL TILTED UP THE CURRENT DOES NOT FLOW TO **TERMINAL 6** OF MOON ROOF CONTROL RELAY.

THIS IS RECEIVED BY THE RELAY AS A SIGNAL THAT THE IGNITION SW IS TURNED OFF. AT THIS TIME, MOON ROOF LIMIT SW NO.1 AND NO.2 ARE OFF, SO SIGNALS ARE INPUT TO **TERMINALS 8** AND **9** OF MOON ROOF CONTROL RELAY THAT THE MOON ROOF IS IN THE TILT OPERATION POSITION. WHEN THESE SIGNALS ARE INPUT TO THE MOON ROOF CONTROL RELAY, THE TIMER BUILT INTO THE RELAY OPERATES.

THUS THE CURRENT TO **TERMINAL 12** OF MOON ROOF CONTROL RELAY FLOWS THROUGH BUZZER OF MOON ROOF CONTROL RELAY AND **TERMINAL 11** OF MOON ROOF CONTROL RELAY TO **GROUND** AND THE BUZZER SOUNDS ABOUT **8** TIMES TO NOTIFY THAT THE MOON ROOF IS STILL IN THE TILT UP CONDITION.

MOON ROOF

SERVICE HINTS

POWER MAIN RELAY
4–2 : CLOSED WITH IGNITION SW AT **ON** POSITION
M 3 MOON ROOF CONTROL RELAY
11–GROUND : ALWAYS CONTINUITY
6–GROUND : APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION
5–GROUND : APPROX. **12** VOLTS WITH IGNITION SW ON, AND MOON ROOF CONTROL SW AT **CLOSE** OR **UP** POSITION
(EXCEPT APPROX. **100**MM (**3.941**IN.) **2** SECOND IN THE BEFORE **CLOSED** POSITION)
4–GROUND : APPROX. **12** VOLTS WITH IGNITION SW ON, AND MOON ROOF CONTROL SW AT **OPEN** OR **DOWN** POSITION
9–GROUND : APPROX. **12** VOLTS → **0** VOLTS WITH FROM OPEN TO CLOSE
0 VOLTS WITH **UP** OR **DOWN** POSITION
0 VOLTS → APPROX. **12** VOLTS WITH APPROX. **100**MM (**3.941**IN.) BEFORE **CLOSED** POSITION
8–GROUND : **0** VOLTS → APPROX. **12** VOLTS WITH FROM **UP** TO **DOWN**
M 4 MOON ROOF CONTROL SW
1–4 : CLOSED WITH MOON ROOF CONTROL SW AT **UP** POSITION
2–4 : CLOSED WITH MOON ROOF CONTROL SW AT **CLOSE** POSITION
3–4 : CLOSED WITH MOON ROOF CONTROL SW AT **DOWN** POSITION
5–4 : CLOSED WITH MOON ROOF CONTROL SW AT **OPEN** POSITION
4–GROUND : ALWAYS CONTINUITY

: PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
M 3	29	**M 4**	29	**M 5**	29

: 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 SIDE OF STEERING COLUMN TUBE)
1D		
1G		
2B	20	COWL WIRE AND J/B NO.2 (ENGINE COMPARTMENT LEFT)
4B	23	COWL WIRE AND J/B NO.4 (BEHIND THE COMBINATION METER)
4D		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IN1	36	COWL WIRE AND ROOF WIRE (BEHIND GLOVE BOX)
IO2	36	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)

: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IE	34	LEFT KICK PANEL
IH	34	RIGHT KICK PANEL

: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 58	36	COWL WIRE	**B 3**	38	ROOF WIRE
I 69			**B 7**		
I 75			**B 10**		
I111