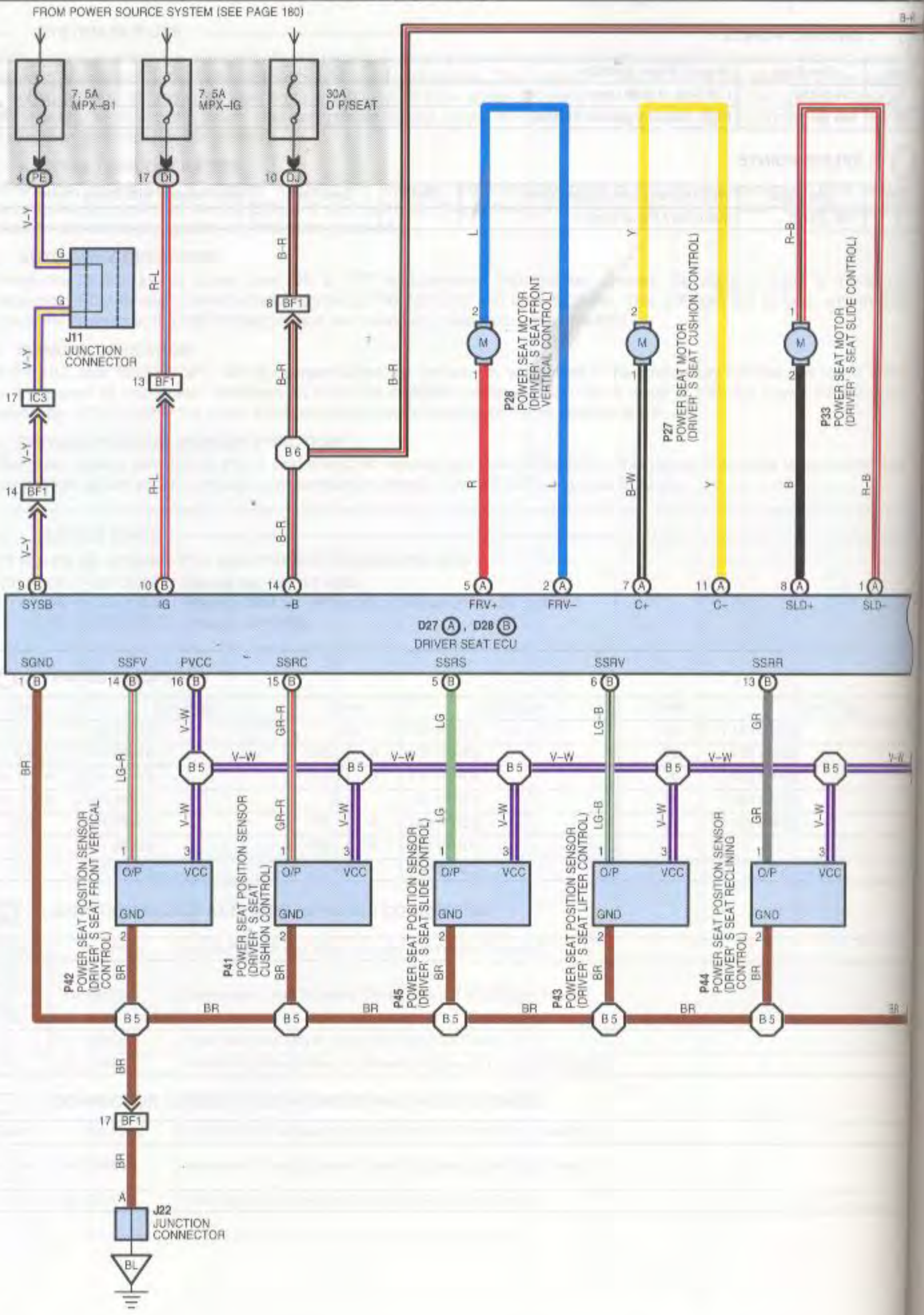
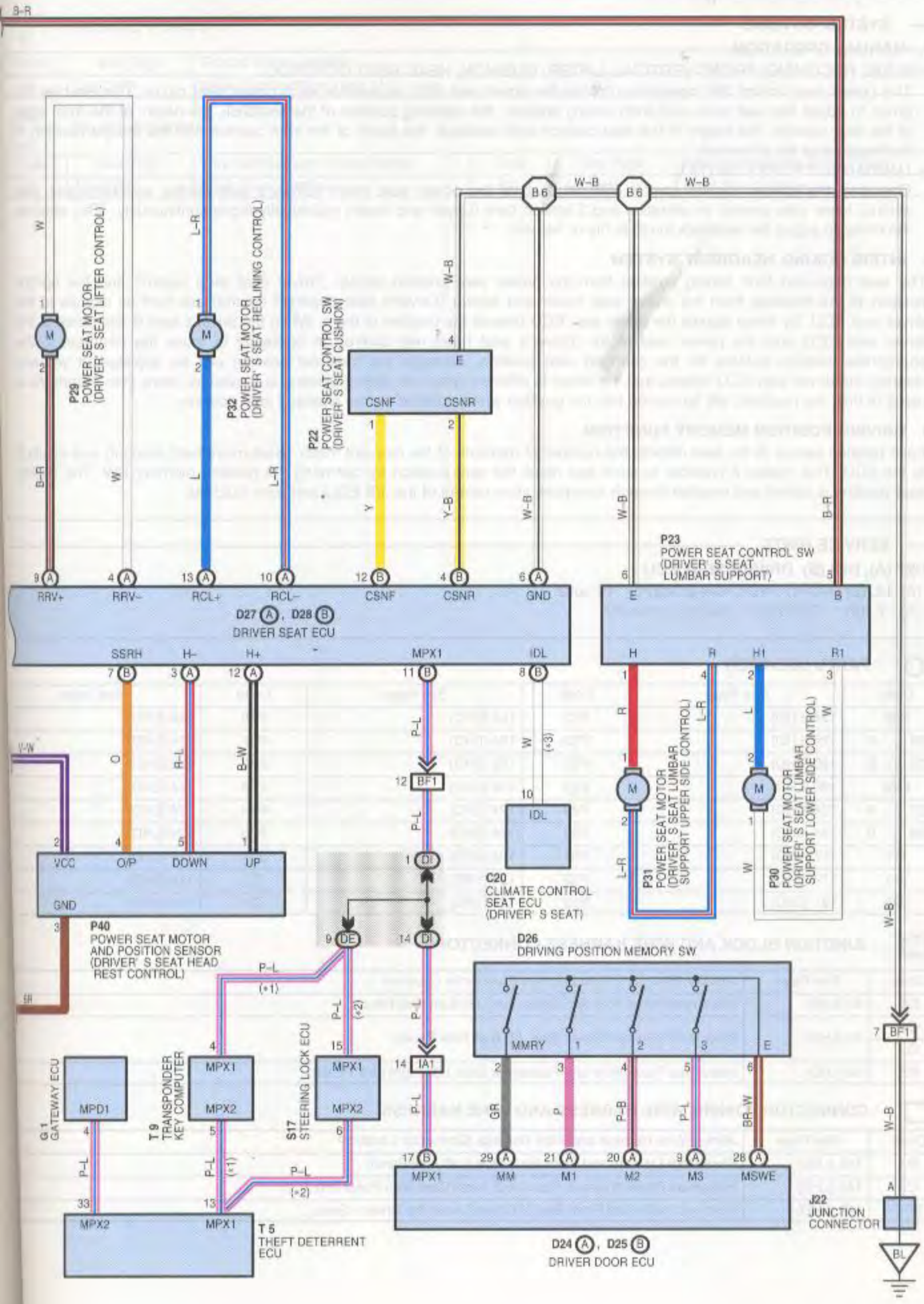
POWER SEAT (DRIVER'S SEAT) [LHD]



* 1 : W/O SMART KEY SYSTEM
* 2 : W/ SMART KEY SYSTEM
* 3 : W/ CLIMATE CONTROL SEAT



POWER SEAT (DRIVER'S SEAT) [LHD]

SYSTEM OUTLINE

1. MANUAL OPERATION

* SLIDE, RECLINING, FRONT VERTICAL, LIFTER, CUSHION, HEAD REST CONTROL
The power seat control SW operation controls the driver seat ECU to operate each power seat motor. This enables the driver to adjust the seat back-and-forth sliding position, the reclining position of the seatback, the height of the front edge of the seat cushion, the height of the seat cushion and seatback, the depth of the seat cushion and the upright position of the headrest at his or her will.
* LUMBAR SUPPORT CONTROL
Operating the lumber support control SW put each of the power seat motor (Driver's seat lumber support upper side control, lower side control) in operation and 2 torsion bars (Upper and lower) individually move continuously. This enables the driver to adjust the seatback touch at his or her will.

2. INTERLOCKING HEADREST SYSTEM

The seat back-and-forth sliding position from the power seat position sensor (Driver seat slide control) and the upright position of the headrest from the power seat motor and sensor (Driver's seat headrest control) are sent as signals to the driver seat ECU. By these signals the driver seat ECU detects the position of them. When the driver's seat is slid forward, the driver seat ECU puts the power seat motor (Driver's seat head rest control) in operation to move the headrest to the appropriate position suitable for the changed seat position. Although the headrest position can be adjusted at will and cleared, the driver seat ECU detects that the driver is different when the sliding position is moved for more than 15mm. As a result of that, the headrest will be moved into the position which suitable for the changed seat position.

3. DRIVING POSITION MEMORY FUNCTION

Each position sensor in the seat detects the number of rotations of the relevant motor (Seat movement amount) and inputs it to the ECU. This makes it possible to store and recall the seat position by operating the position memory SW. The driving seat position is stored and recalled through communication control of the J/B ECU and door ECU etc.

SERVICE HINTS

D27 (A), D28 (B) DRIVER SEAT ECU

(A) 14, (B) 9-GROUND : Always approx. **12** volts
(A) 6, (B) 1-GROUND : Always continuity

○ : PARTS LOCATION

Code		See Page	Code	See Page	Code	See Page
C20		124 (LHD)	P22	124 (LHD)	P40	124 (LHD)
D24	A	120 (LHD)	P23	124 (LHD)	P41	124 (LHD)
D25	B	120 (LHD)	P27	124 (LHD)	P42	124 (LHD)
D26		120 (LHD)	P28	124 (LHD)	P43	124 (LHD)
D27	A	124 (LHD)	P29	124 (LHD)	P44	124 (LHD)
D28	B	124 (LHD)	P30	124 (LHD)	P45	124 (LHD)
G1		117 (LHD)	P31	124 (LHD)	S17	119 (LHD)
J11		117 (LHD)	P32	124 (LHD)	T5	119 (LHD)
J22		121 (LHD)	P33	124 (LHD)	T9	119 (LHD)

⬭ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
DE	87 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
DI	89 (LHD)	Floor No.2 Wire and Driver Side J/B (Left Kick Panel)
DJ		
PE	94 (LHD)	Instrument Panel Wire and Passenger Side J/B (Right Kick Panel)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IA1	142 (LHD)	Front Door LH Wire and Floor No.2 Wire (Left Kick Panel)
IC3	142 (LHD)	Instrument Panel Wire and Floor No.2 Wire (Cowl Side Panel LH)
BF1	148 (LHD)	Floor No.2 Wire and Front Seat LH Wire (Under the Driver's Seat)

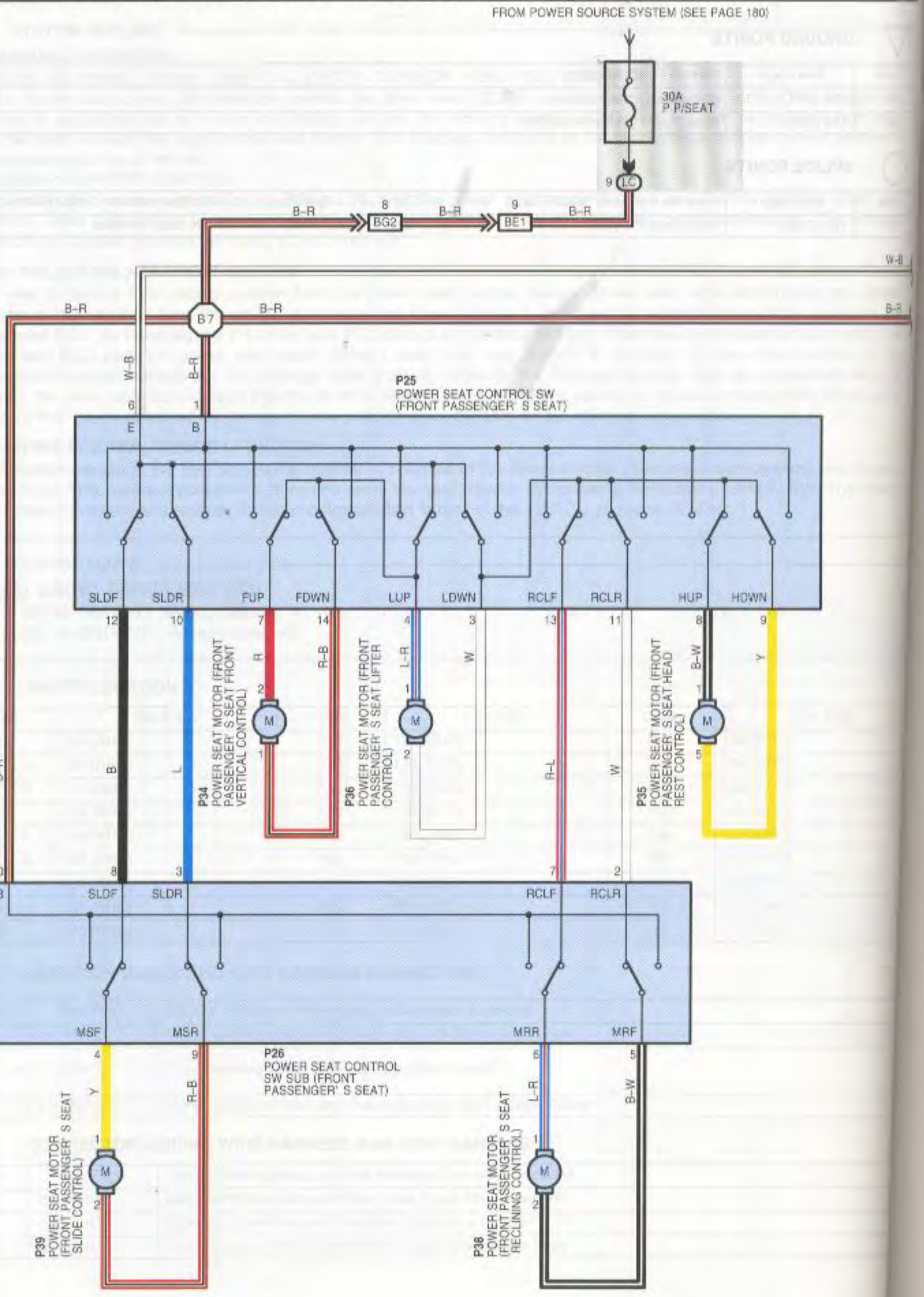
: GROUND POINTS

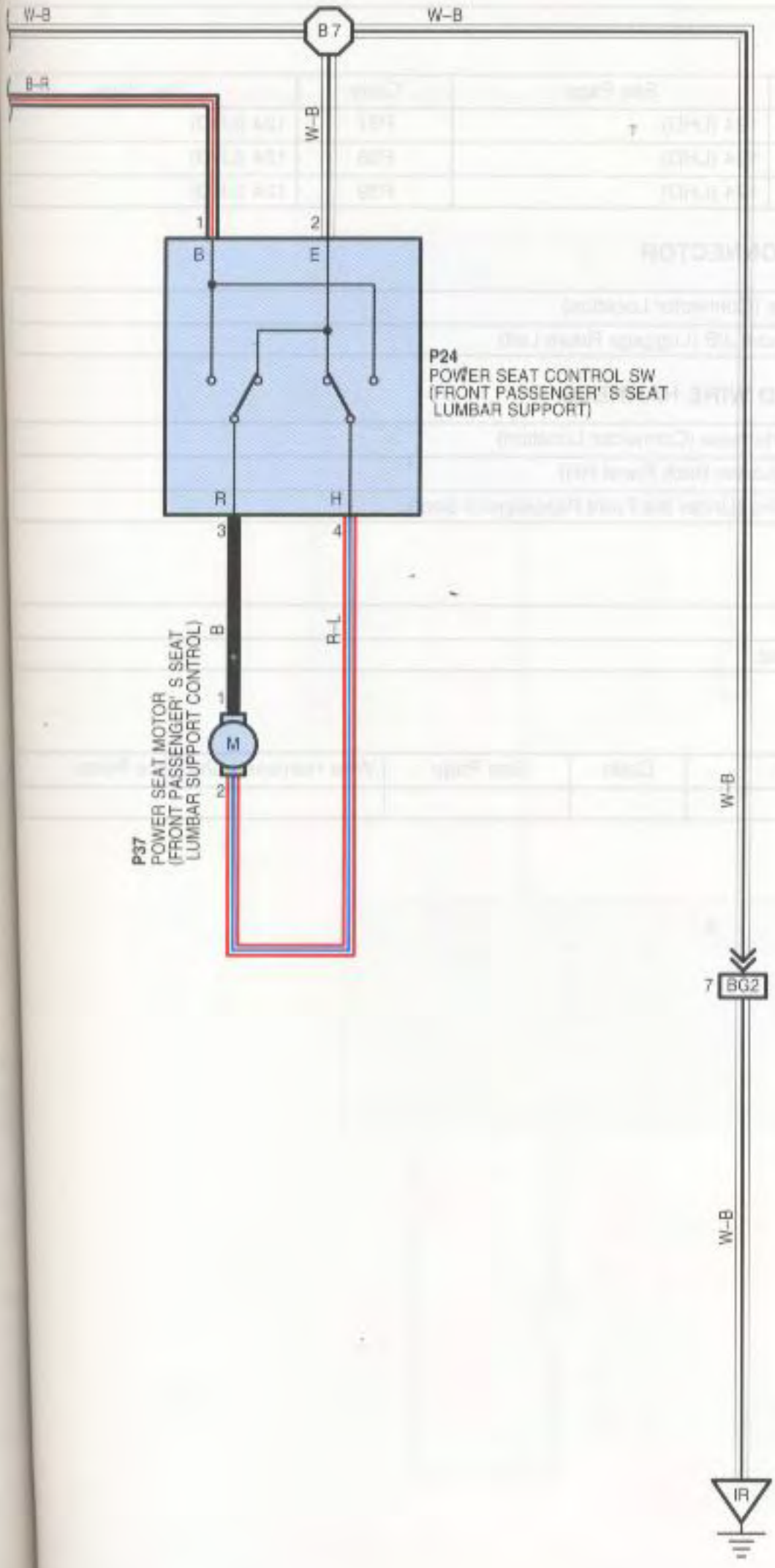
Code	See Page	Ground Points Location
BL	146 (LHD)	Rear Floor Partition Panel LH

: SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B5	148 (LHD)	Front Seat LH Wire	B6	148 (LHD)	Front Seat LH Wire

POWER SEAT (FRONT PASSENGER'S SEAT) [LHD]




W-B
B 7
W-B
B-R
W-B
1
2
B
E
P24
POWER SEAT CONTROL SW
(FRONT PASSENGER' S SEAT
LUMBAR SUPPORT)
R
H
3
4
B
R-L
1
M
2
P37
POWER SEAT MOTOR
(FRONT PASSENGER' S SEAT
LUMBAR SUPPORT CONTROL)
W-B
7
BG2
W-B
IR

POWER SEAT (FRONT PASSENGER'S SEAT) [LHD]

SERVICE HINTS

P25 POWER SEAT CONTROL SW (FRONT PASSENGER'S SEAT)

1-GROUND : Always approx. **12** volts
6-GROUND : Always continuity

P24 POWER SEAT CONTROL SW (FRONT PASSENGER'S SEAT LUMBAR SUPPORT)

1-GROUND : Always approx. **12** volts
2-GROUND : Always continuity

P26 POWER SEAT CONTROL SW SUB (FRONT PASSENGER'S SEAT)

10-GROUND : Always approx. **12** volts

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
P24	124 (LHD)	P34	124 (LHD)	P37	124 (LHD)
P25	124 (LHD)	P35	124 (LHD)	P38	124 (LHD)
P26	124 (LHD)	P36	124 (LHD)	P39	124 (LHD)

▢ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
LC	110	Floor No.2 Wire and Luggage Room J/B (Luggage Room Left)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
BE1	146 (LHD)	Floor No.2 Wire and Floor Wire (Lower Back Panel RH)
BG2	148 (LHD)	Floor Wire and Front Seat RH Wire (Under the Front Passenger's Seat)

▽ : GROUND POINTS

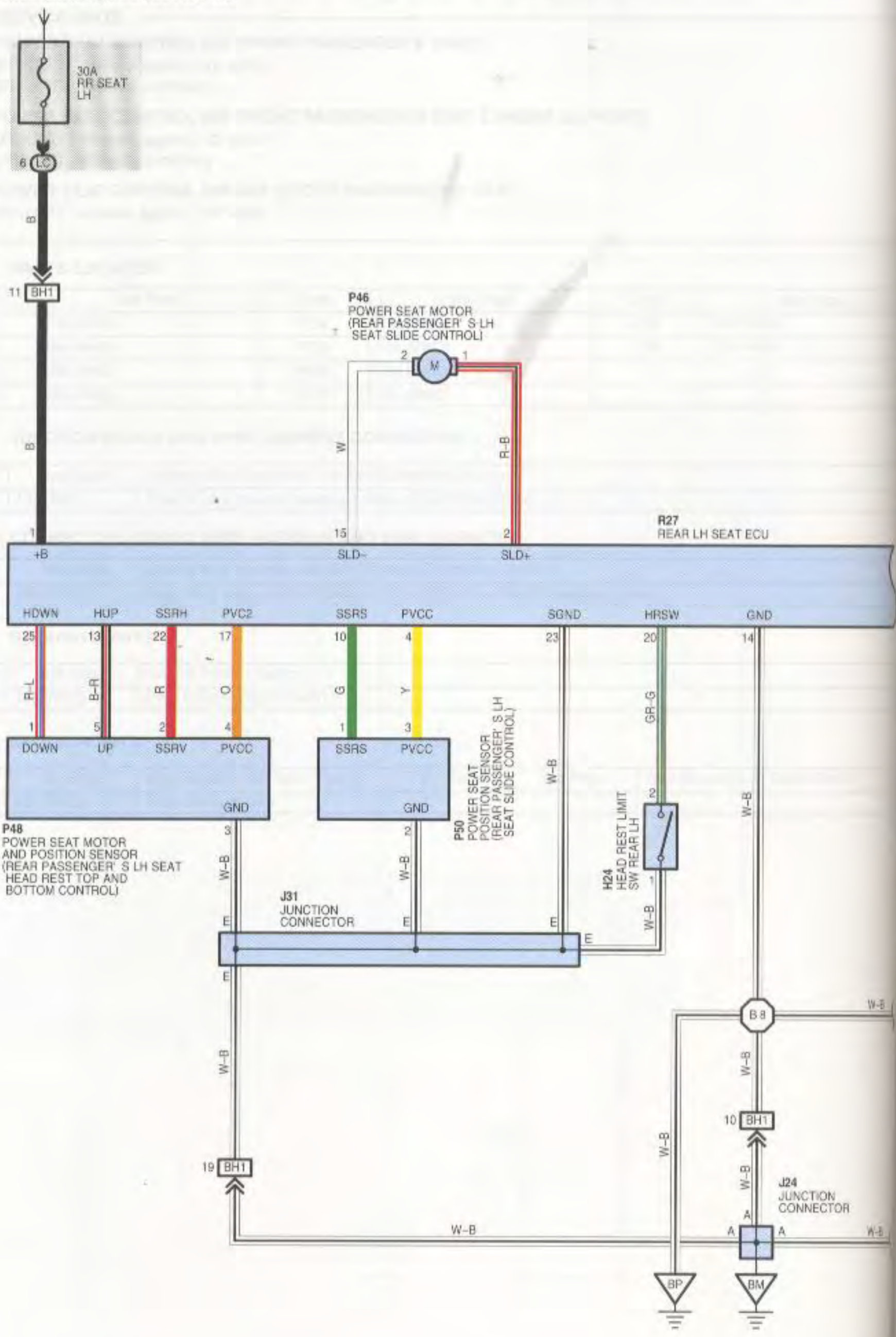
Code	See Page	Ground Points Location
IR	142 (LHD)	Under the Front Passenger's Seat

⬡ : SPLICE POINTS

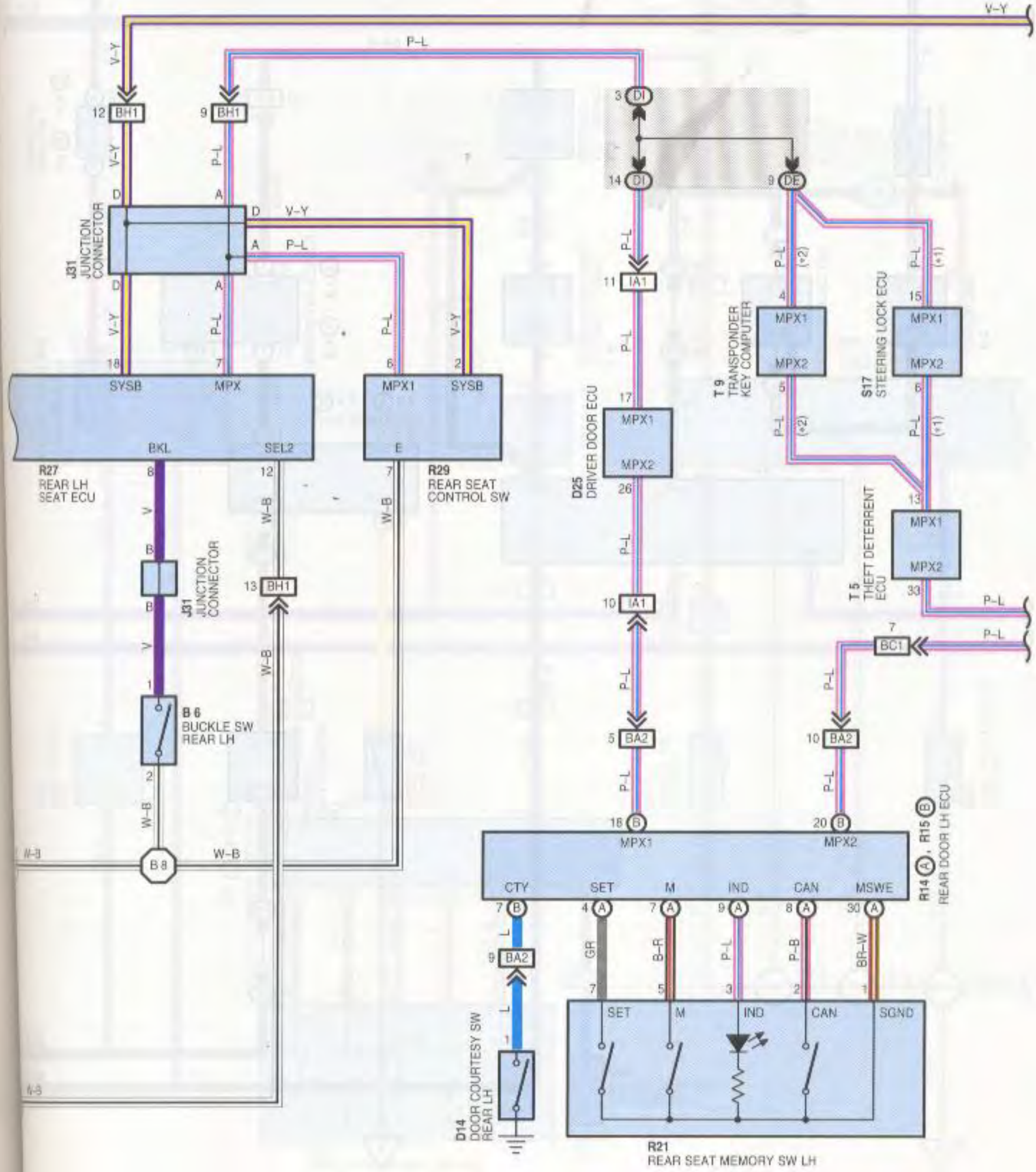
Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B7	148 (LHD)	Front Seat RH Wire			

POWER SEAT (REAR PASSENGER'S SEAT) [LHD]

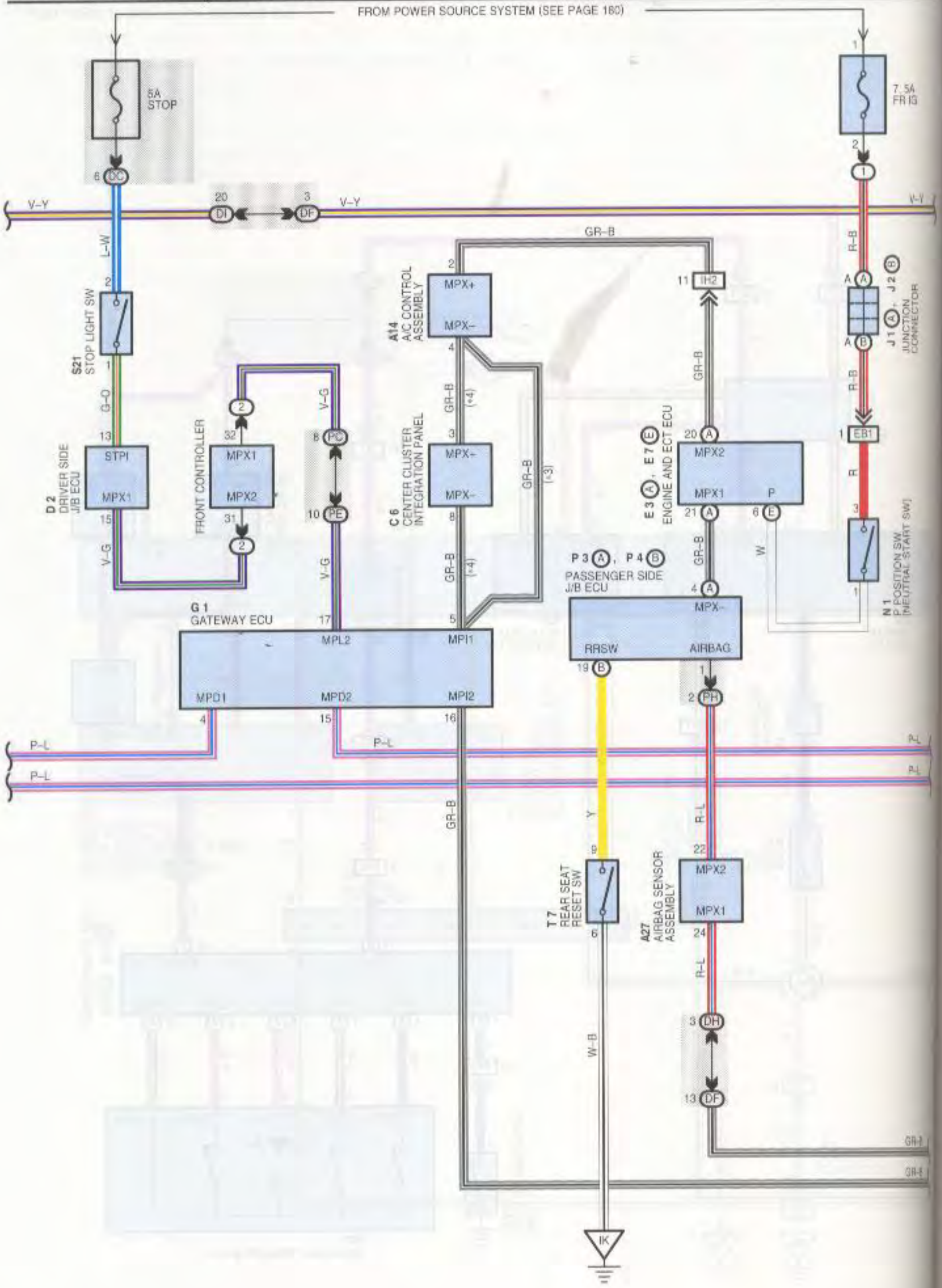
FROM POWER SOURCE SYSTEM (SEE PAGE 180)



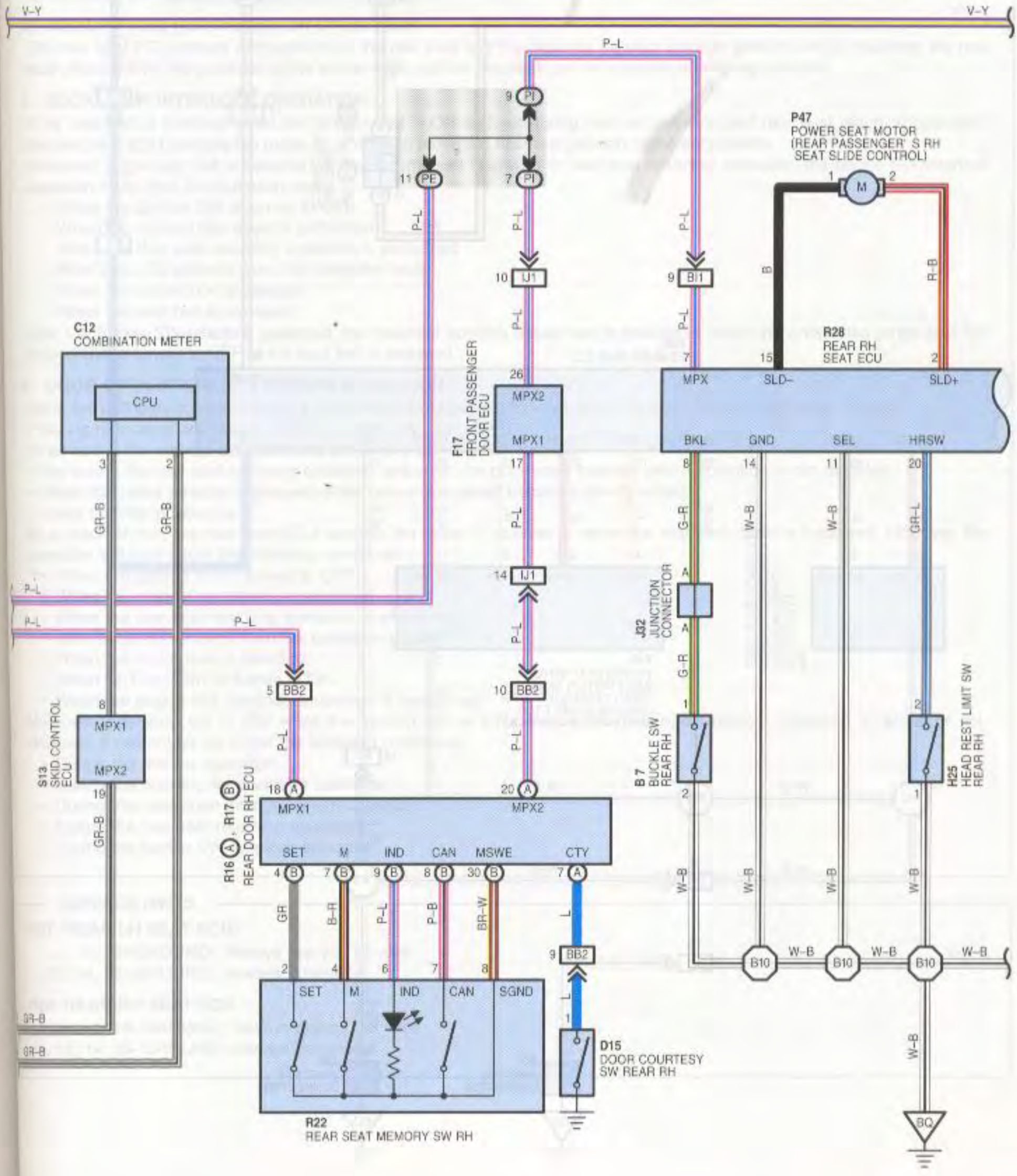
* 1 : W/ SMART KEY SYSTEM
* 2 : W/O SMART KEY SYSTEM



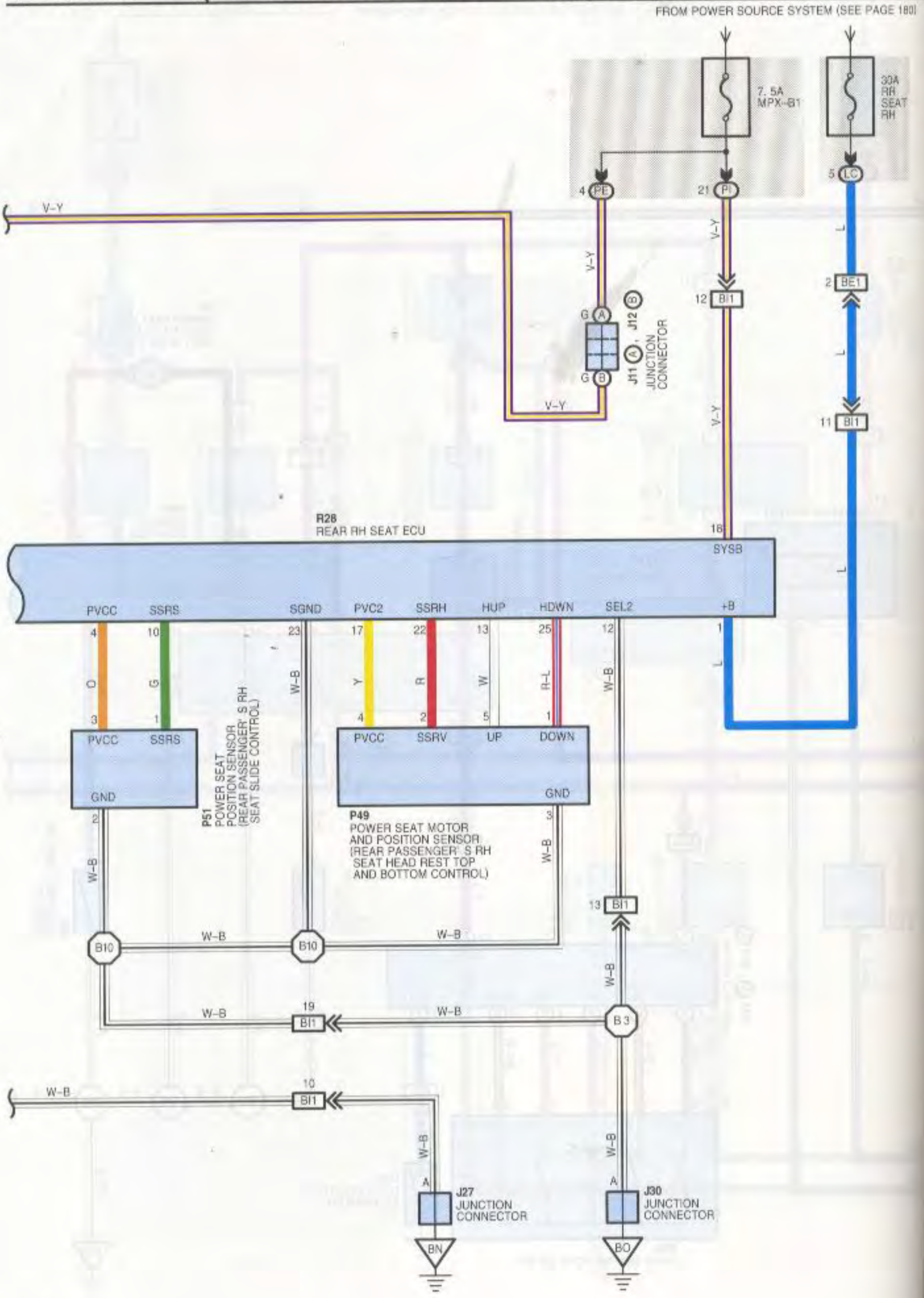
POWER SEAT (REAR PASSENGER'S SEAT) [LHD]



* 3 : W/ LEXUS NAVIGATION SYSTEM
* 4 : W/O LEXUS NAVIGATION SYSTEM



POWER SEAT (REAR PASSENGER'S SEAT) [LHD]



SYSTEM OUTLINE

1. MANUAL OPERATION

If the rear seat control SW is operated, the signal is sent to the rear seat ECU by the multiplex communication. As a result of that, the rear seat ECU controls the motor to operate and the rear seat slides or the headrest moves up or down, or back and forth so that the passenger adjust the position of the rear seat of headrest at will.

2. REAR SEAT RETURNING OPERATION

If the any of the rear doors is opened, the rear seat position is returned automatically to the original position before the sliding controlled by the rear seat ECU.

3. MEMORY AND REGENERATION OPERATION

The rear seat ECU detects the positions of the rear seat and the headrest by each position sensor. And by operating the rear seat memory SW, the positions of the power seat and the headrest can be memorized and regenerated.

4. BUCKLE SW INTERLOCK OPERATION

If the seat belt is fastened when the ignition SW is ON and not during manual operation and rear seat returning operation, the rear seat ECU controls the motor to operate to move the headrest position to the set position.
Moreover, if the seat belt is fastened during the manual operation or rear seat returning operation, the buckle SW interlock operation halts after the operation ends.

- When the ignition SW is turned to OFF
- When the manual operation is performed
- When the rear seat returning operation is performed
- After about 30 seconds from the operation ends
- When the motor lock is detected
- When the seat belt is released

After the buckle SW interlock operation, the headrest position adjustment is restrained within the prescribed range until the ignition SW is turned to OFF or the seat belt is released.

5. DOOR OPEN INTERLOCK RETURN OPERATION

Using the multiplex communication, the rear seat ECU detects the rear door opening under the following conditions:

- During rear doors are closed with the ignition SW being ON
- Not during the manual operation and the buckle SW interlock operation
- Not during the rear seat returning operation and when the door open interlock return operation is not canceled.
- When the brake pedal is depressed while the vehicle speed becomes 5km/h or less
- When the shift position is P

As a result of that, the rear seat ECU controls the motor to operate to move the rear seat position backward. However, the operation will stop under the following conditions:

- When the ignition SW is turned to OFF
- When the manual operation is performed
- When the rear seat returning operation is performed
- After about 30 seconds from the operation stops
- When the motor lock is detected
- When SET or C SW is turned to ON
- When the buckle SW interlock operations is performed

Moreover, operating the C SW while the ignition SW is ON can set the door open interlock operation in active or not. However, it can not be set under the following conditions:

- During the manual operation
- During the memory regeneration operation
- During the door open interlock return operation
- During the rear seat returning operation
- During the buckle SW interlock operation

SERVICE HINTS

R27 REAR LH SEAT ECU

1, 18–GROUND : Always approx. **12** volts
12, 24, 23–GROUND : Always continuity

R28 REAR RH SEAT ECU

1, 18–GROUND : Always approx. **12** volts
11, 12, 14, 23–GROUND : Always continuity

POWER SEAT (REAR PASSENGER'S SEAT) [LHD]

○ : PARTS LOCATION

Code	See Page	Code	See Page	Code	See Page
A14	116 (LHD)	J2 B	114 (LHD)	R14 A	122 (LHD)
A27	116 (LHD)	J11 A	117 (LHD)	R15 B	122 (LHD)
B6	125 (LHD)	J12 B	117 (LHD)	R16 A	122 (LHD)
B7	125 (LHD)	J24	121 (LHD)	R17 B	122 (LHD)
C6	116 (LHD)	J27	121 (LHD)	R21	122 (LHD)
C12	116 (LHD)	J30	121 (LHD)	R22	122 (LHD)
D2	117 (LHD)	J31	125 (LHD)	R27	125 (LHD)
D14	120 (LHD)	J32	125 (LHD)	R28	125 (LHD)
D15	120 (LHD)	N1	115 (LHD)	R29	125 (LHD)
D25	120 (LHD)	P3 A	118 (LHD)	S13	119 (LHD)
E3 A	112 (LHD)	P4 B	118 (LHD)	S17	119 (LHD)
E7 E	112 (LHD)	P46	125 (LHD)	S21	119 (LHD)
F17	120 (LHD)	P47	125 (LHD)	T5	119 (LHD)
G1	117 (LHD)	P48	125 (LHD)	T7	119 (LHD)
H24	125 (LHD)	P49	125 (LHD)	T9	119 (LHD)
H25	125 (LHD)	P50	125 (LHD)		
J1 A	114 (LHD)	P51	125 (LHD)		

⬭ : RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
1	81	Engine Room No.1 R/B (Engine Compartment Left)
2	82	Engine Room No.2 R/B (Engine Compartment Left)

⬭ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
DC	88 (LHD)	Engine Room Main Wire and Driver Side J/B (Left Kick Panel)
DE	87 (LHD)	Instrument Panel Wire and Driver Side J/B (Left Kick Panel)
DF		
DH		
DI	89 (LHD)	Floor No.2 Wire and Driver Side J/B (Left Kick Panel)
LC	110	Floor No.2 Wire and Luggage Room J/B (Luggage Room Left)
PC	93 (LHD)	Engine Room Main Wire and Passenger Side J/B (Right Kick Panel)
PE	94 (LHD)	Instrument Panel Wire and Passenger Side J/B (Right Kick Panel)
PH		
PI	95 (LHD)	Floor Wire and Passenger Side J/B (Right Kick Panel)

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
EB1	140 (LHD)	Engine Wire and Engine Room Main Wire (Inside of ECU Box)
IA1	142 (LHD)	Front Door LH Wire and Floor No.2 Wire (Left Kick Panel)
IH2	144 (LHD)	Instrument Panel Wire and Engine Room Main Wire (Cowl Side Panel RH)
IJ1	144 (LHD)	Front Door RH Wire and Floor Wire (Right Kick Panel)
BA2	146 (LHD)	Rear Door No.2 Wire and Floor No.2 Wire (Left Center Pillar)
BB2	146 (LHD)	Rear Door No.1 Wire and Floor Wire (Right Center Pillar)
BC1	146 (LHD)	Floor No.2 Wire and Floor Wire (Rear Floor Partition Panel LH)
BE1	146 (LHD)	Floor No.2 Wire and Floor Wire (Lower Back Panel RH)
BH1	150 (LHD)	Rear Seat LH Wire and Floor No.2 Wire (Under the Rear Passenger's LH Seat)
BI1	150 (LHD)	Rear Seat RH Wire and Floor Wire (Under the Rear Passenger's RH Seat)

▽ : GROUND POINTS

Code	See Page	Ground Points Location
IK	142 (LHD)	Cowl Side Panel RH
BM	146 (LHD)	Quarter Panel LH
BN	146 (LHD)	Rear Floor Partition Panel RH
BO	146 (LHD)	Quarter Panel RH
BP	150 (LHD)	Rear Passenger LH Seat Back
BQ	150 (LHD)	Rear Passenger RH Seat Back

⬡ : SPLICE POINTS

Code	See Page	Wire Harness with Splice Points	Code	See Page	Wire Harness with Splice Points
B3	146 (LHD)	Floor Wire	B10	150 (LHD)	Rear Seat RH Wire
B8	150 (LHD)	Rear Seat LH Wire			