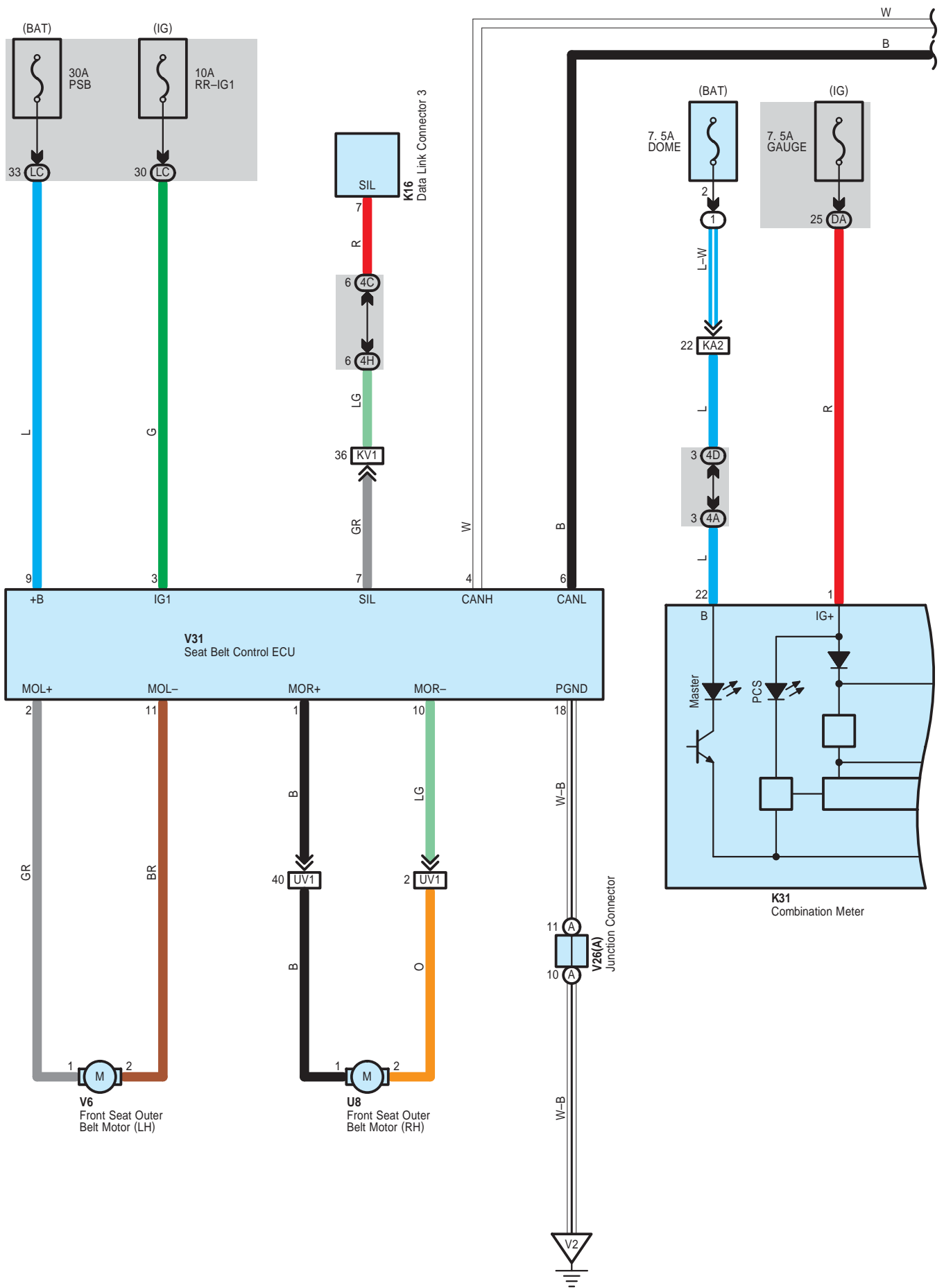
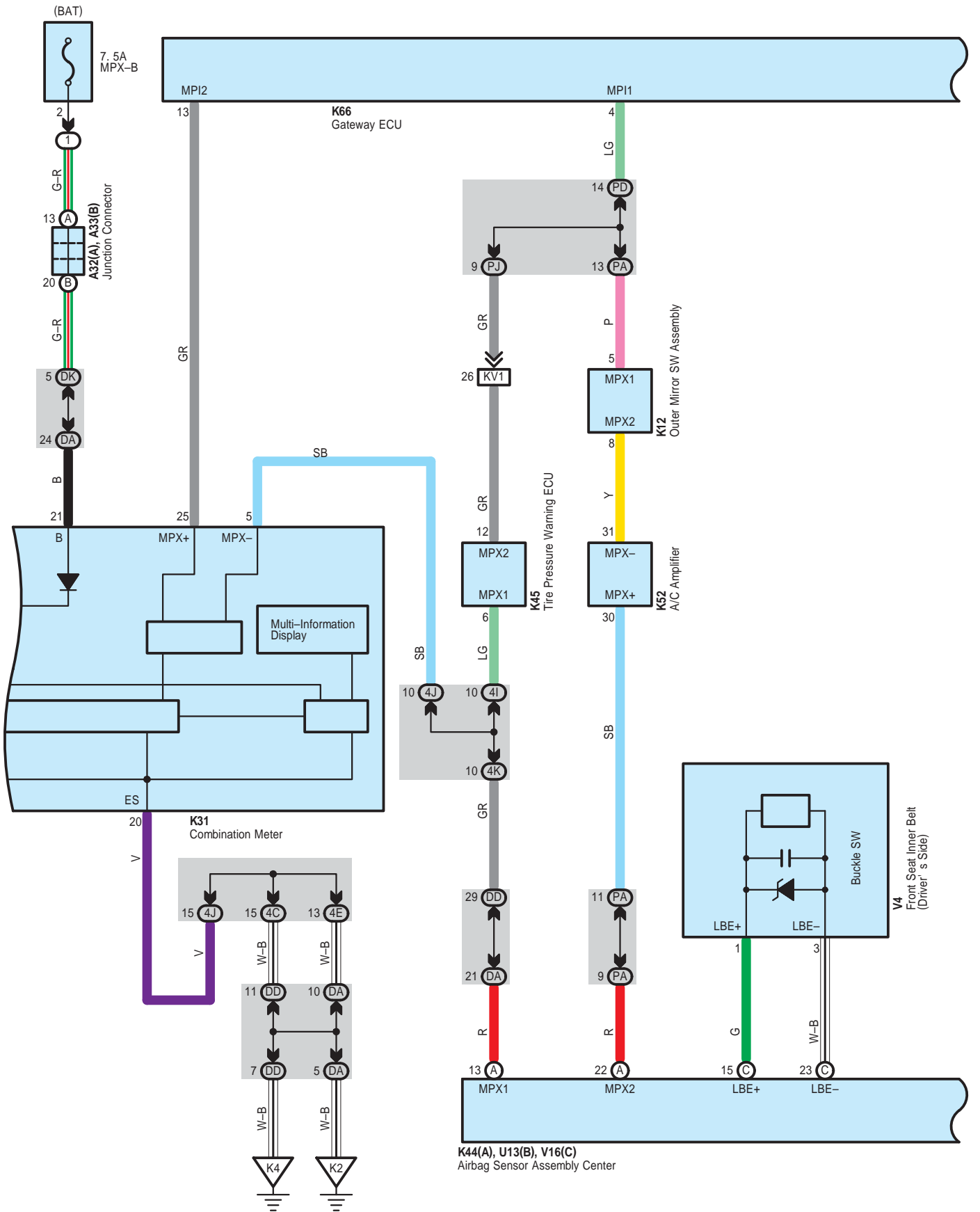
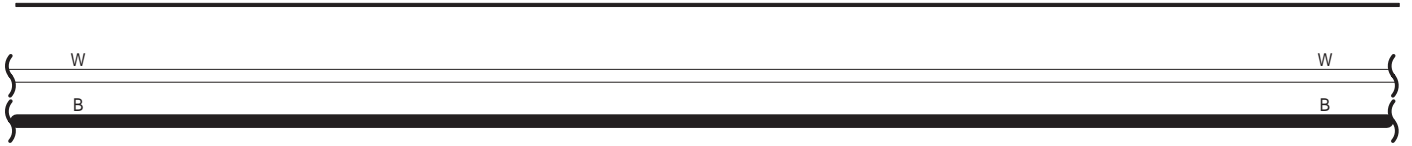
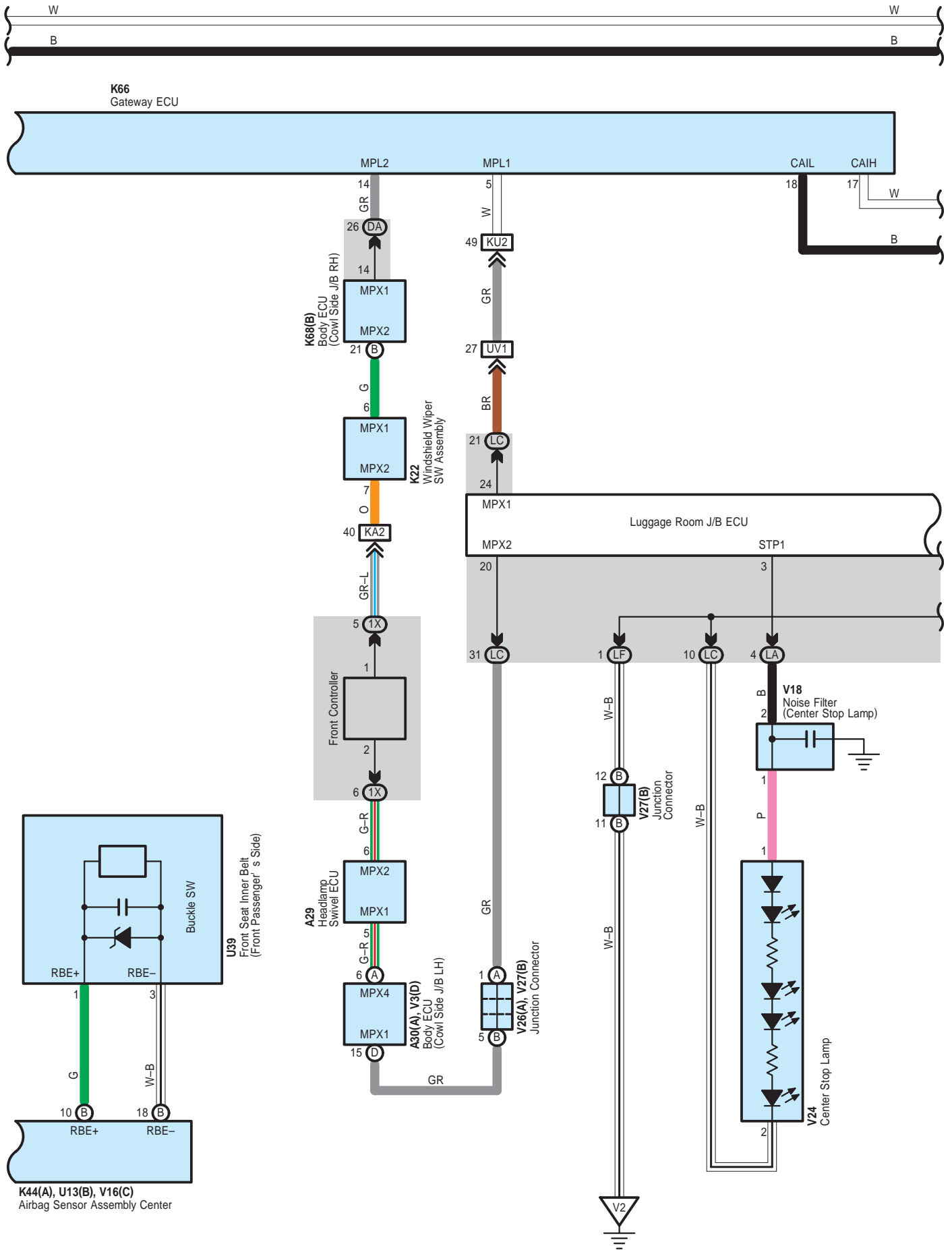


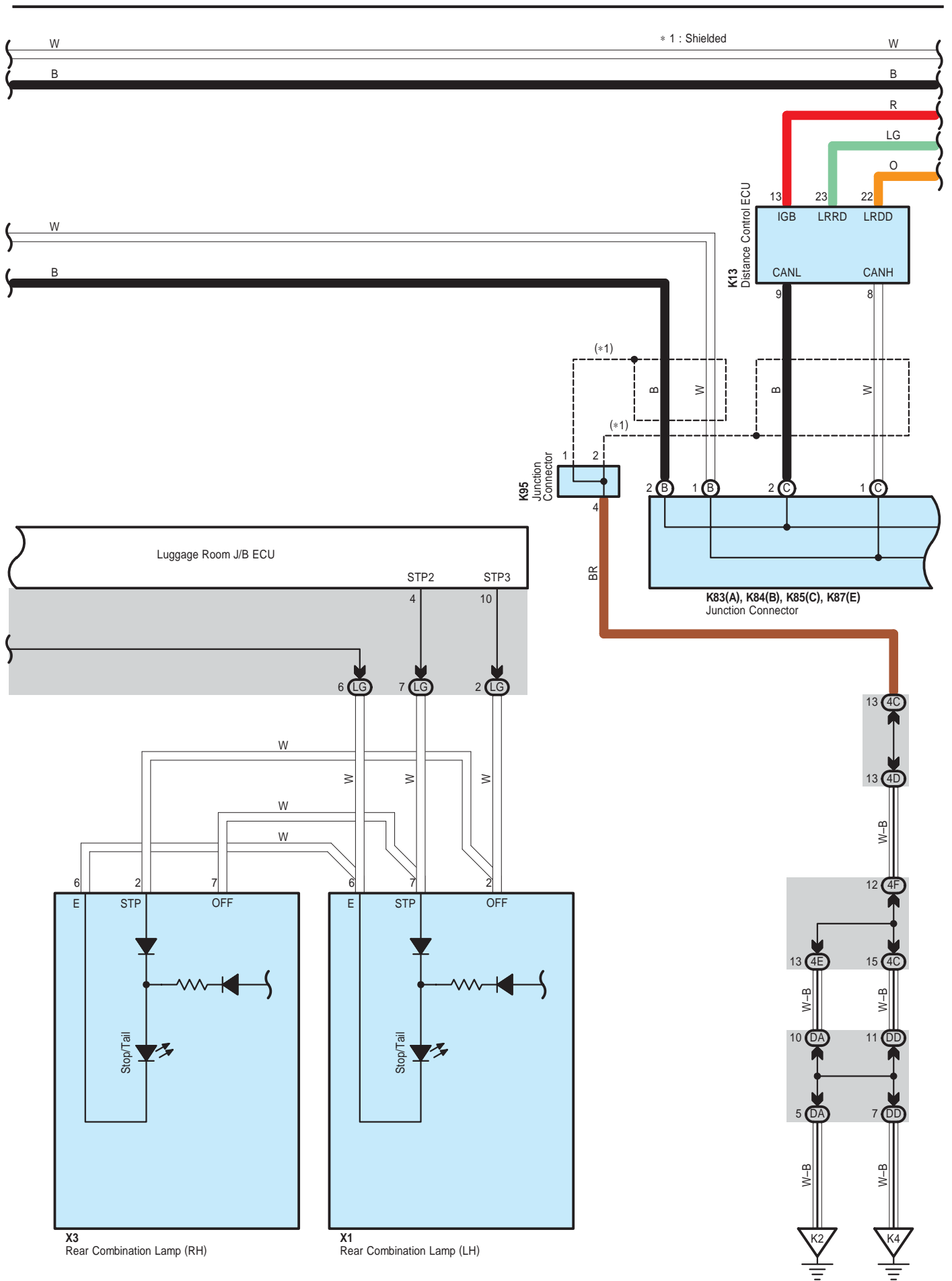
Pre-Collision System





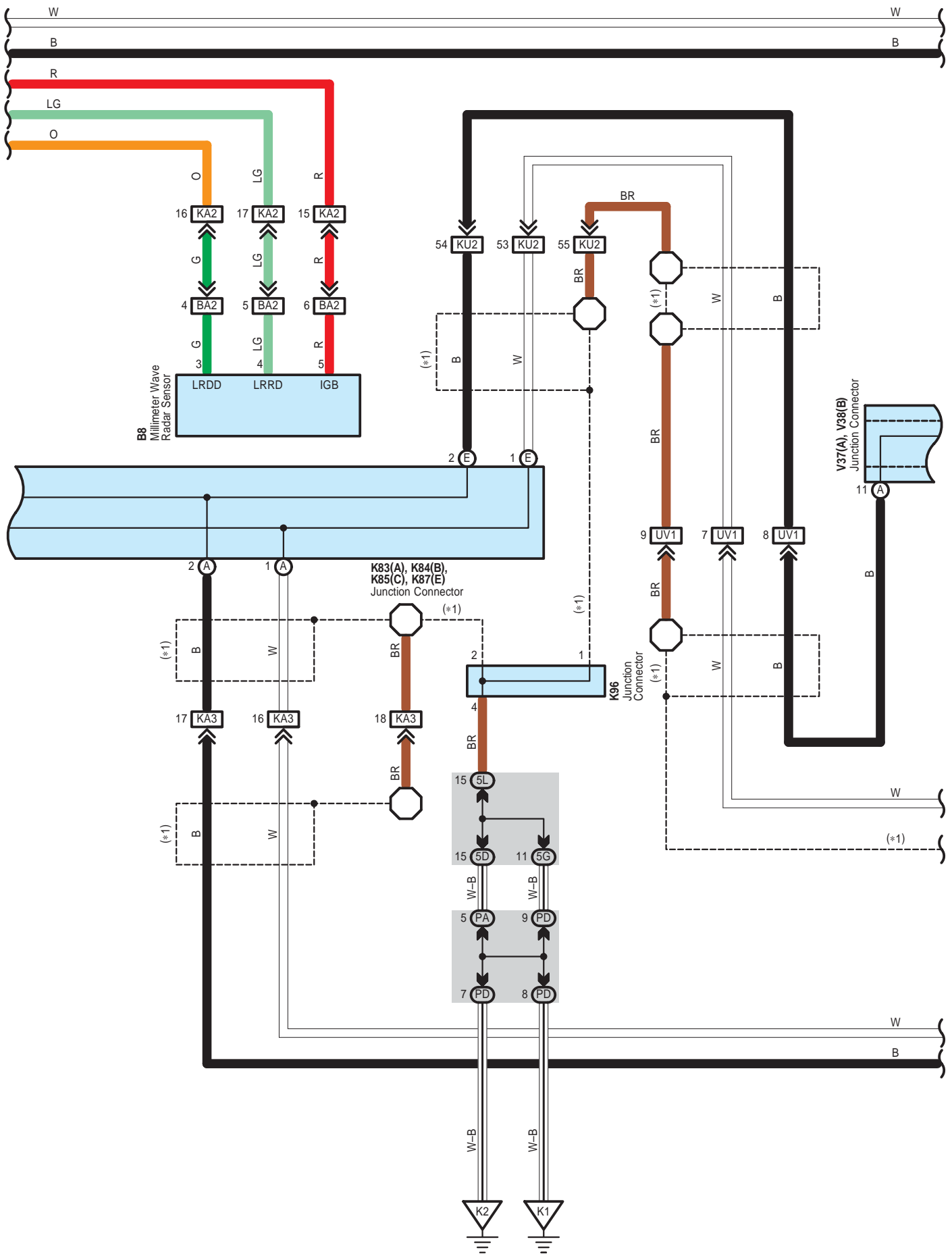
Pre-Collision System

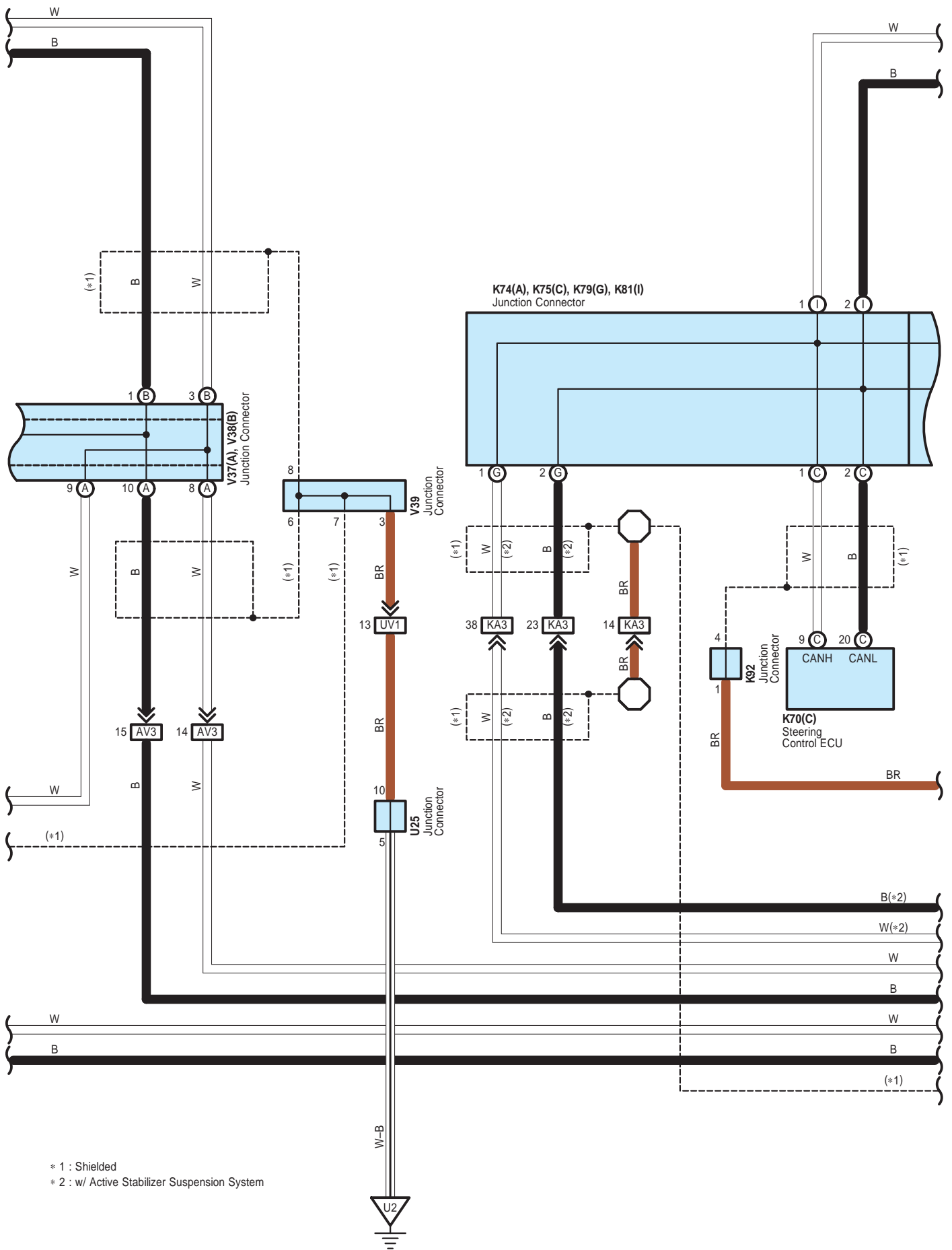




LEXUS GS 450h (EM02D0U)

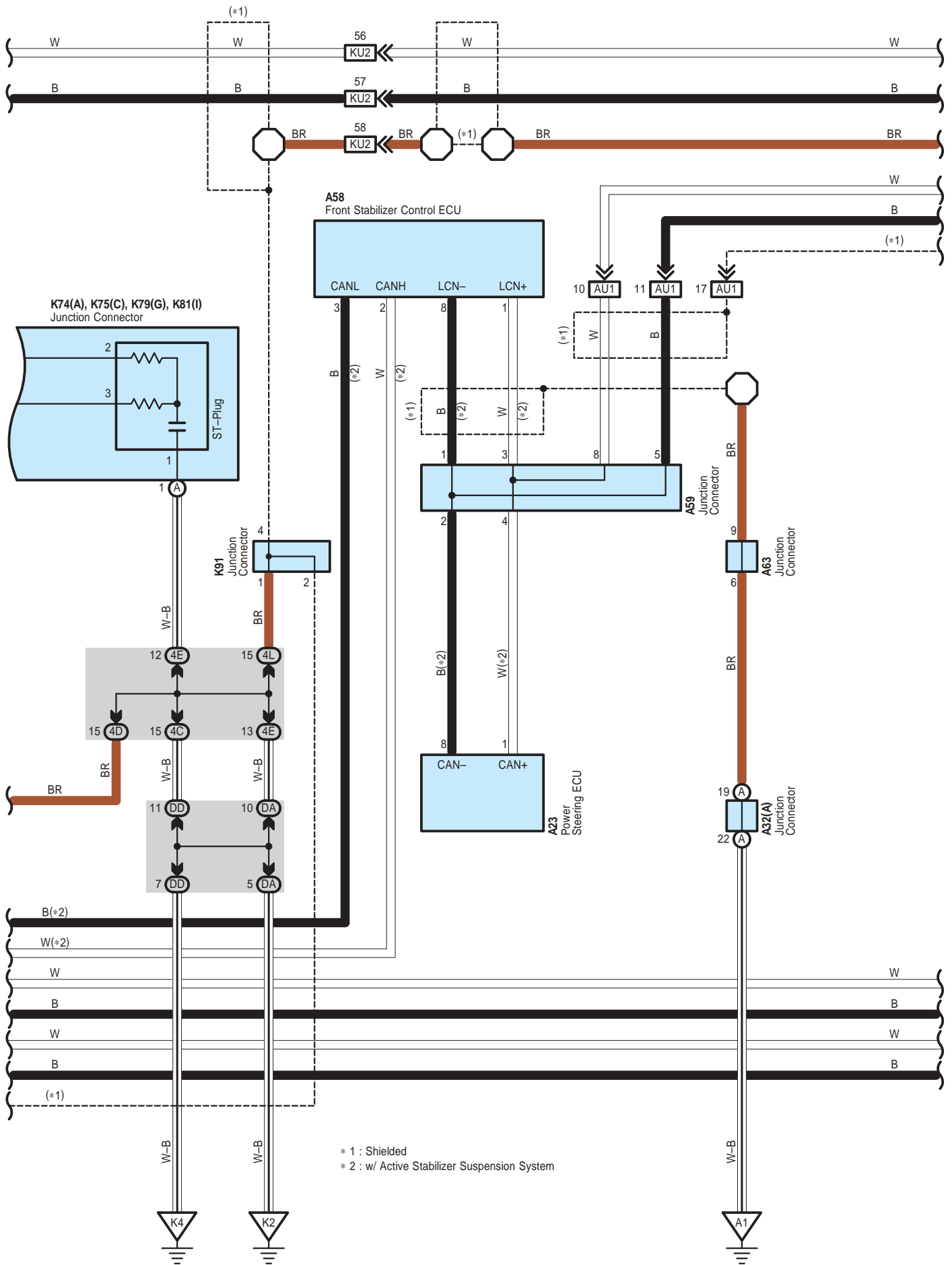
Pre-Collision System

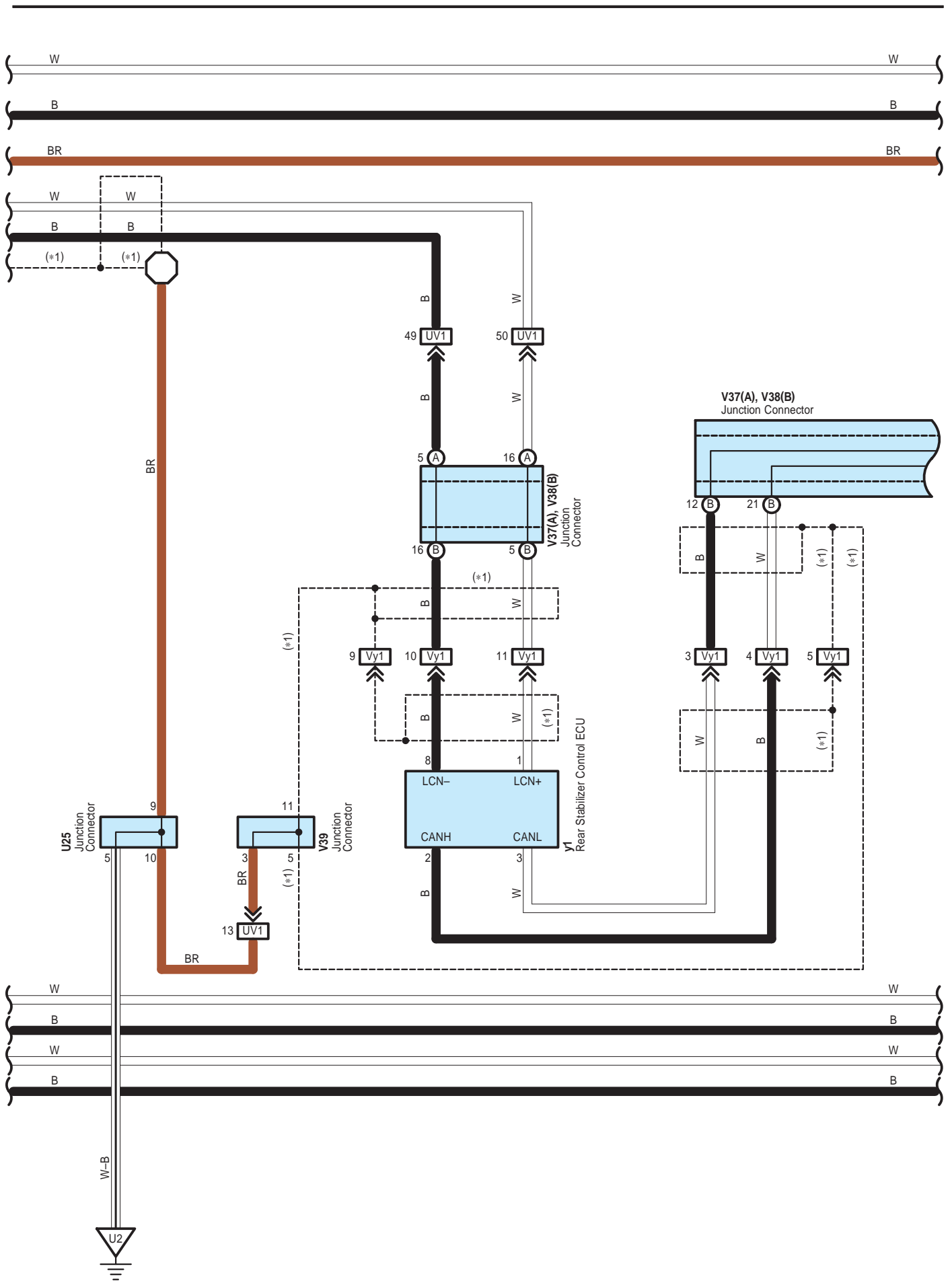




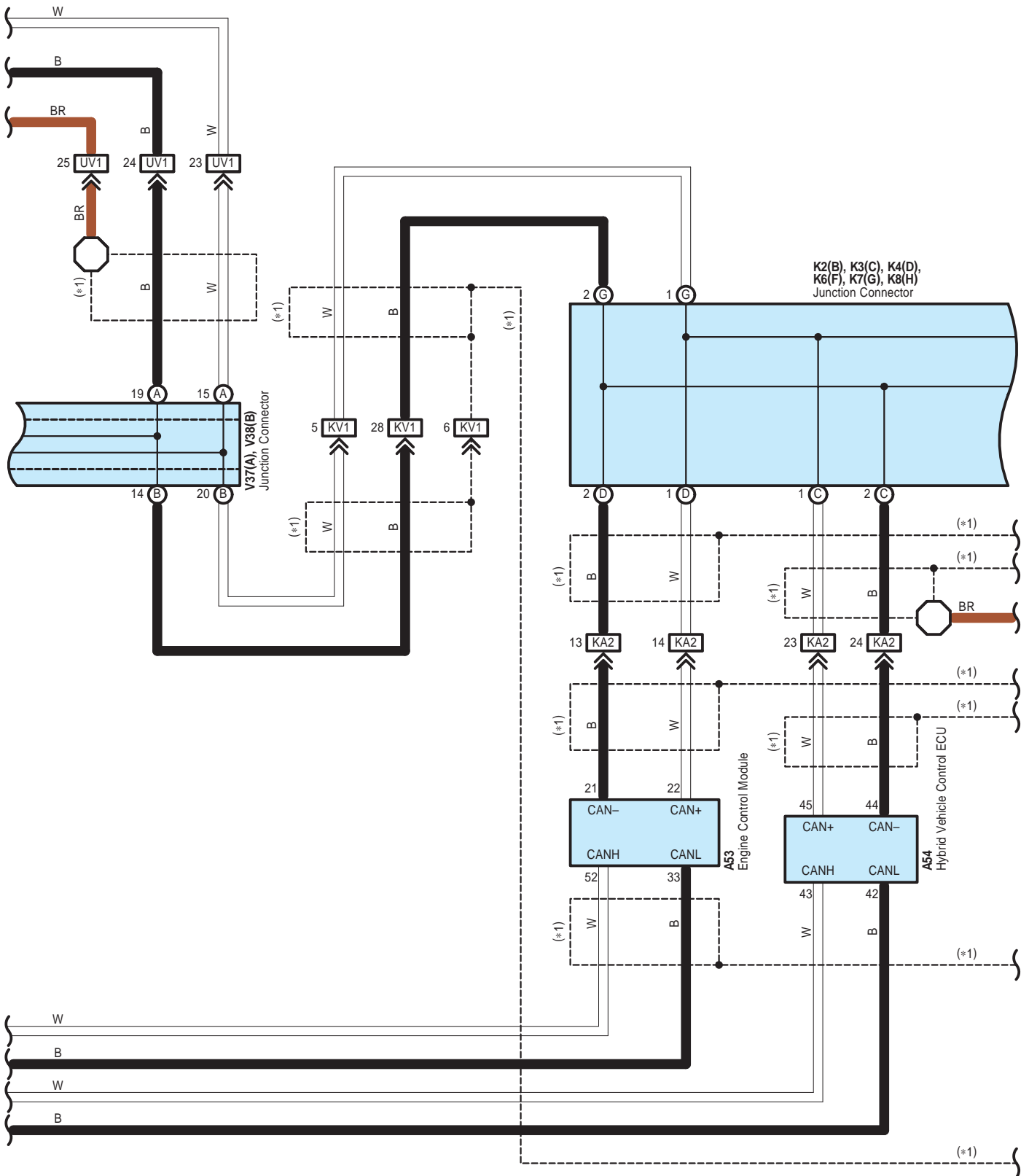
* 1 : Shielded
 * 2 : w/ Active Stabilizer Suspension System

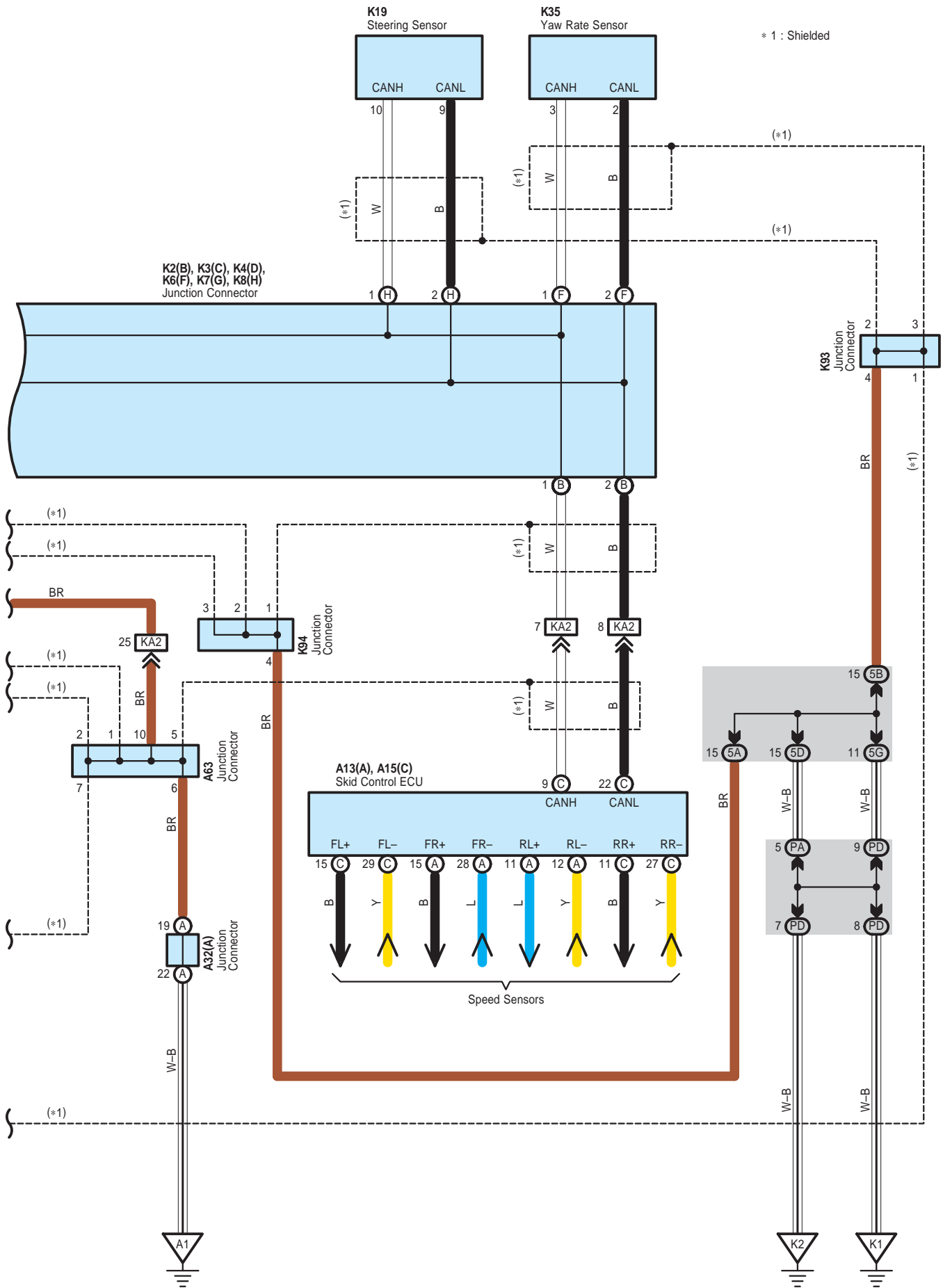
Pre-Collision System





Pre-Collision System





Pre-Collision System

System Outline

- * In the pre-collision (Hereinafter called PCS), the seat belt is retracted to optimize the restraint performance with the motor by receiving signal from the pre-collision sensor (Millimeter wave radar sensor + distance control ECU) and skid control ECU.
- * Skid control ECU sends trigger signal to seat belt control ECU through CAN communication when detecting certain vehicle conditions such as spin condition, under-steer condition and sudden braking. Seat belt control ECU operates PCS upon receiving the signal.
- * Pre-collision sensor detects an on-coming vehicle or object on the road ahead with the millimeter wave radar and determines in advance whether a collision is unavoidable from information of the distance control ECU such as the position, speed and on-coming route of the object. The distance control ECU sends signal to seat belt control ECU through CAN communication to activate PCS motor to retract the seat belt before a crash. This function works when the vehicle speed is more than 5 km/h if conditions are right.
- * When the pre-collision system has failure, 'CHECK PCS SYSTEM' is shown on the multi-information display in the meter. The warning lamp exclusively for PCS is lit up then. When the system is not available due to dirt on the radar, 'PCS NOT AVAILABLE NOW' is displayed and the warning lamp blinks.

○ : Parts Location

Code		See Page	Code		See Page	Code		See Page
A13	A	80	K19		85	K95		86
A15	C	80	K22		85	K96		86
A23		80	K31		85	U8		90
A29		84	K35		85	U13	B	87
A30	A	84	K44	A	86	U25		90
A32	A	84	K45		86	U39		94
A33	B	84	K52		86	V3	D	87
A53		80	K66		86	V4		94
A54		80	K68	B	86	V6		91
A58		80	K70	C	86	V16	C	87
A59		80	K74	A	76, 86	V18		91
A63		84	K75	C	76, 86	V24		91
B8		82	K79	G	76, 86	V26	A	91
K2	B	74, 85	K81	I	76, 86	V27	B	91
K3	C	74, 85	K83	A	78, 86	V31		91
K4	D	74, 85	K84	B	78, 86	V37	A	91
K6	F	74, 85	K85	C	78, 86	V38	B	91
K7	G	74, 85	K87	E	78, 86	V39		91
K8	H	74, 85	K91		86	X1		92
K12		85	K92		86	X3		92
K13		85	K93		86	y1		93
K16		85	K94		86			

○ : Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	24	Engine Room R/B No.1 (Engine Compartment Left)

 : **Junction Block and Wire Harness Connector**

Code	See Page	Junction Block and Wire Harness (Connector Location)
1X	29	Engine Room Main Wire and Engine Room J/B No.1 (Engine Compartment left)
4A	70	Instrument Panel Wire and Center J/B RH (Right Side of the Instrument Panel Reinforcement)
4C		
4D		
4E		
4F		
4H		
4I		
4J		
4K		
4L		
5A	66	Instrument Panel Wire and Center J/B LH (Right Side of the Instrument Panel Reinforcement)
5B		
5D		
5G		
5L		
DA	55	Instrument Panel Wire and Cowl Side J/B RH (Behind the Glove Box)
DD		
DK	56	Engine Room Main Wire and Cowl Side J/B RH (Behind the Glove Box)
LA	62	Floor No.2 Wire and Luggage Room J/B (Left Side of the Quarter Panel)
LC	63	
LF		
LG	62	Luggage Room Wire and Luggage Room J/B (Left Side of the Quarter Panel)
PA	49	Instrument Panel Wire and Cowl Side J/B LH (Lower Finish Panel)
PD		
PJ	50	Floor No.2 Wire and Cowl Side J/B LH (Lower Finish Panel)

 : **Connector Joining Wire Harness and Wire Harness**

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
AU1	97	Engine Room Main Wire and Floor No.1 Wire (Cowl Side Panel RH)
AV3	97	Engine Room Main Wire and Floor No.2 Wire (Cowl Side Panel LH)
BA2	96	Engine Room No.2 Wire and Engine Room Main Wire (Inside of the Engine Room R/B No.2)
KA2	97	Instrument Panel Wire and Engine Room Main Wire (Left Kick Panel)
KA3	97	Instrument Panel Wire and Engine Room Main Wire (Right Kick Panel)
KU2	97	Instrument Panel Wire and Floor No.1 Wire (Right Kick Panel)
KV1	97	Instrument Panel Wire and Floor No.2 Wire (Left Kick Panel)
UV1	98	Floor No.1 Wire and Floor No.2 Wire (Center of the Rear Floor Partition Panel)
Vy1	98	Floor No.2 Wire and Luggage Room Wire (Quarter Wheel House Inner Panel LH)

 : **Ground Points**

Code	See Page	Ground Points Location
A1	96	Left Side of the Dash Panel
K1	97	Left Kick Panel
K2	97	Left Side of the Shift Lever
K4	97	Right Kick Panel
U2	98	Right Side of the Rear Floor Partition Panel
V2	98	Roof Side Inner Panel LH