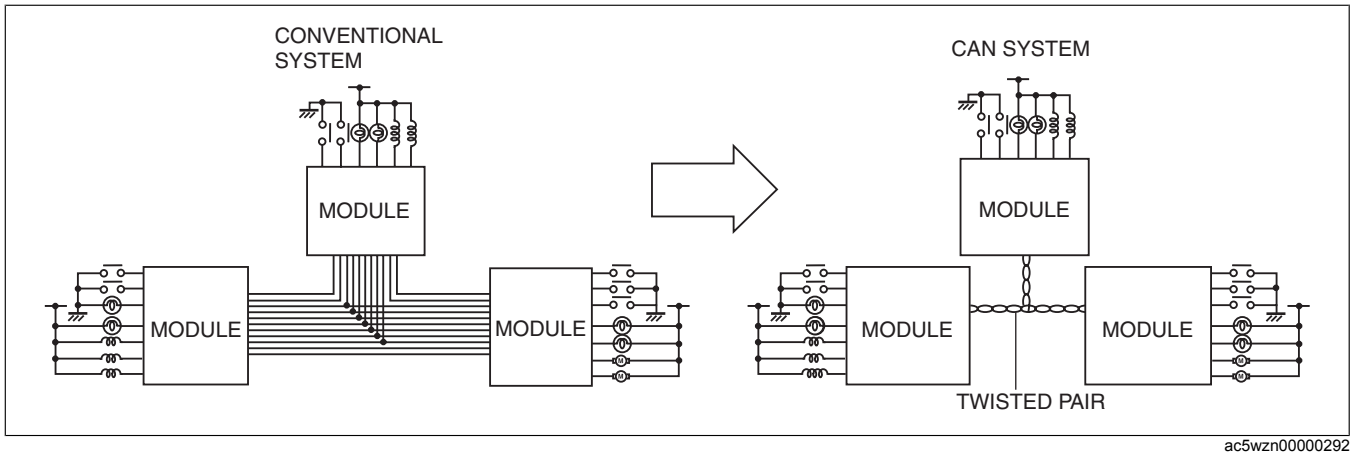
CONTROLLER AREA NETWORK (CAN) SYSTEM

id104000001300

Outline

- A CAN system has been adopted which can send and receive multiple signals over a single communication path from related modules.



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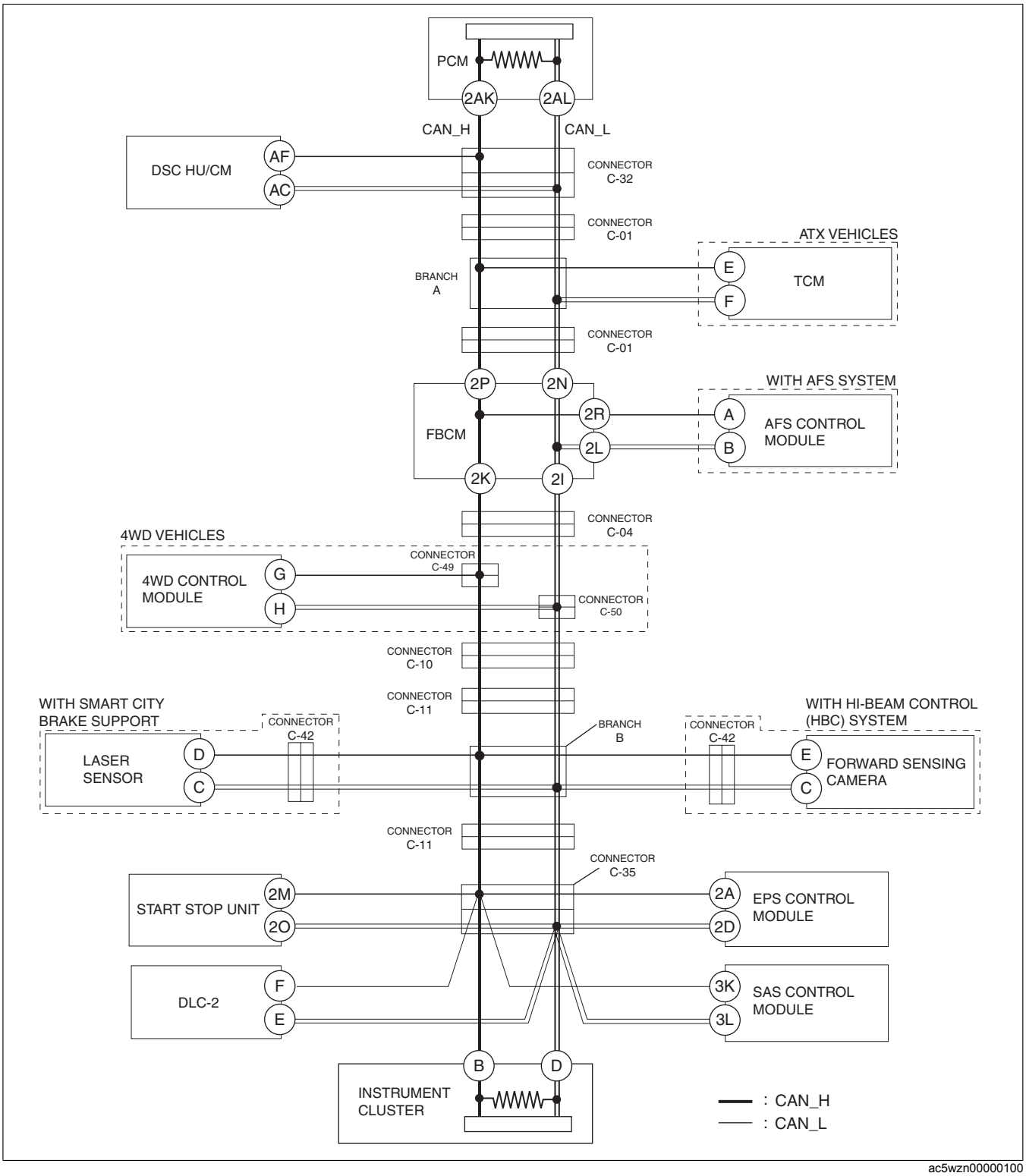
System wiring diagram

HS-CAN (SKYACTIV-G 2.0, SKYACTIV-G 2.5 (L.H.D.))



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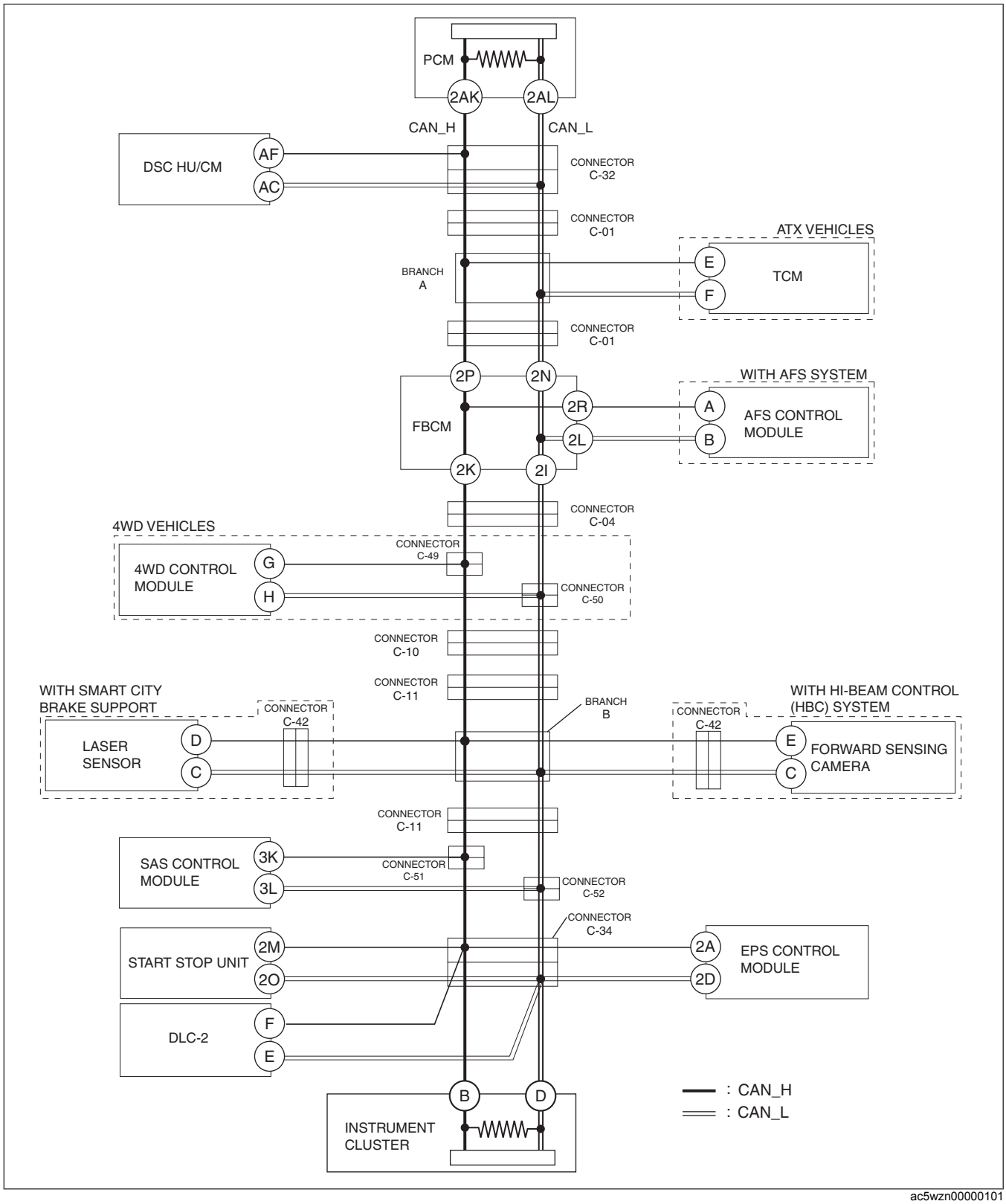
HS-CAN (SKYACTIV-G 2.0, SKYACTIV-G 2.5 (R.H.D.))



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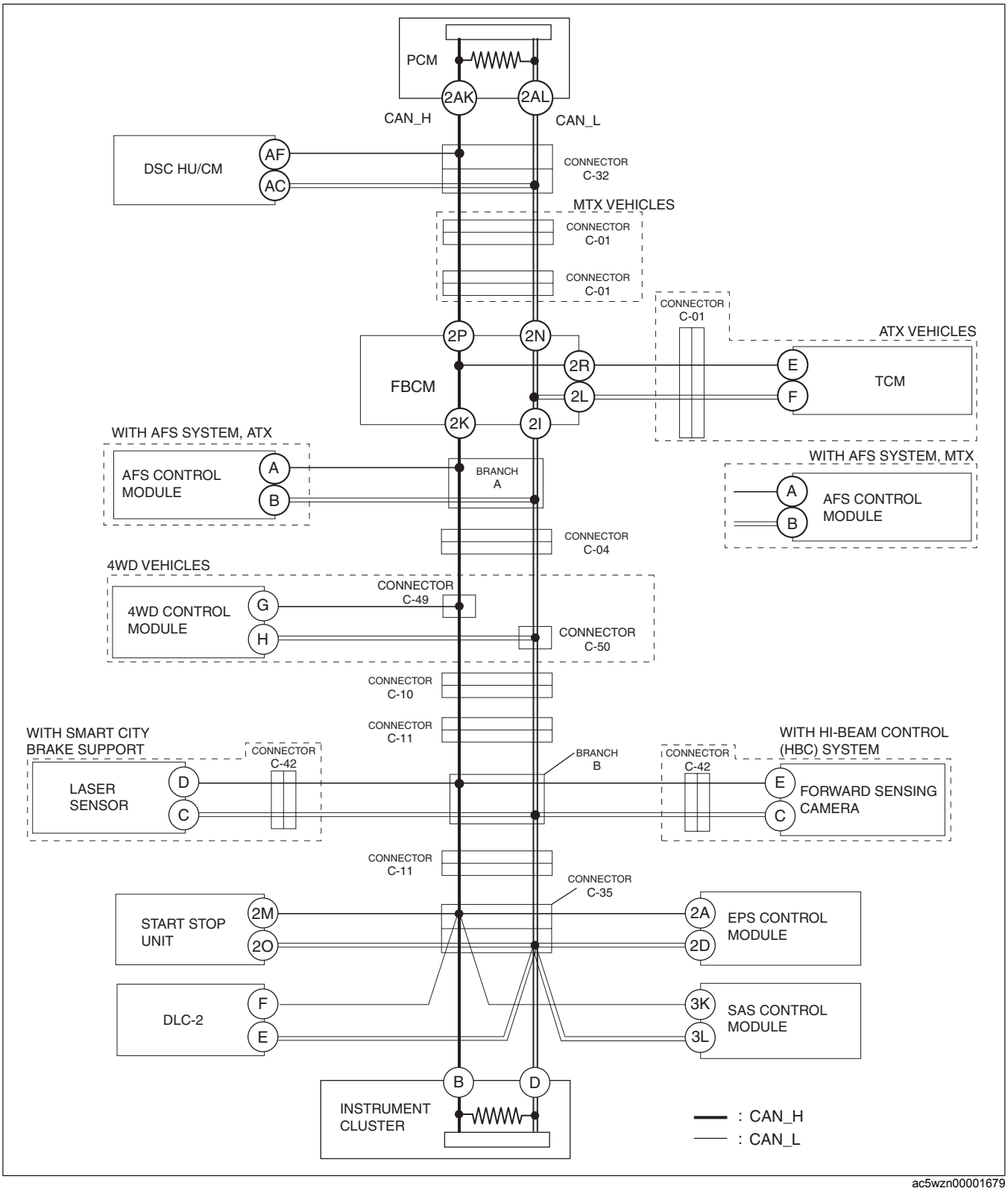
HS-CAN (SKYACTIV-D 2.2 (L.H.D.))



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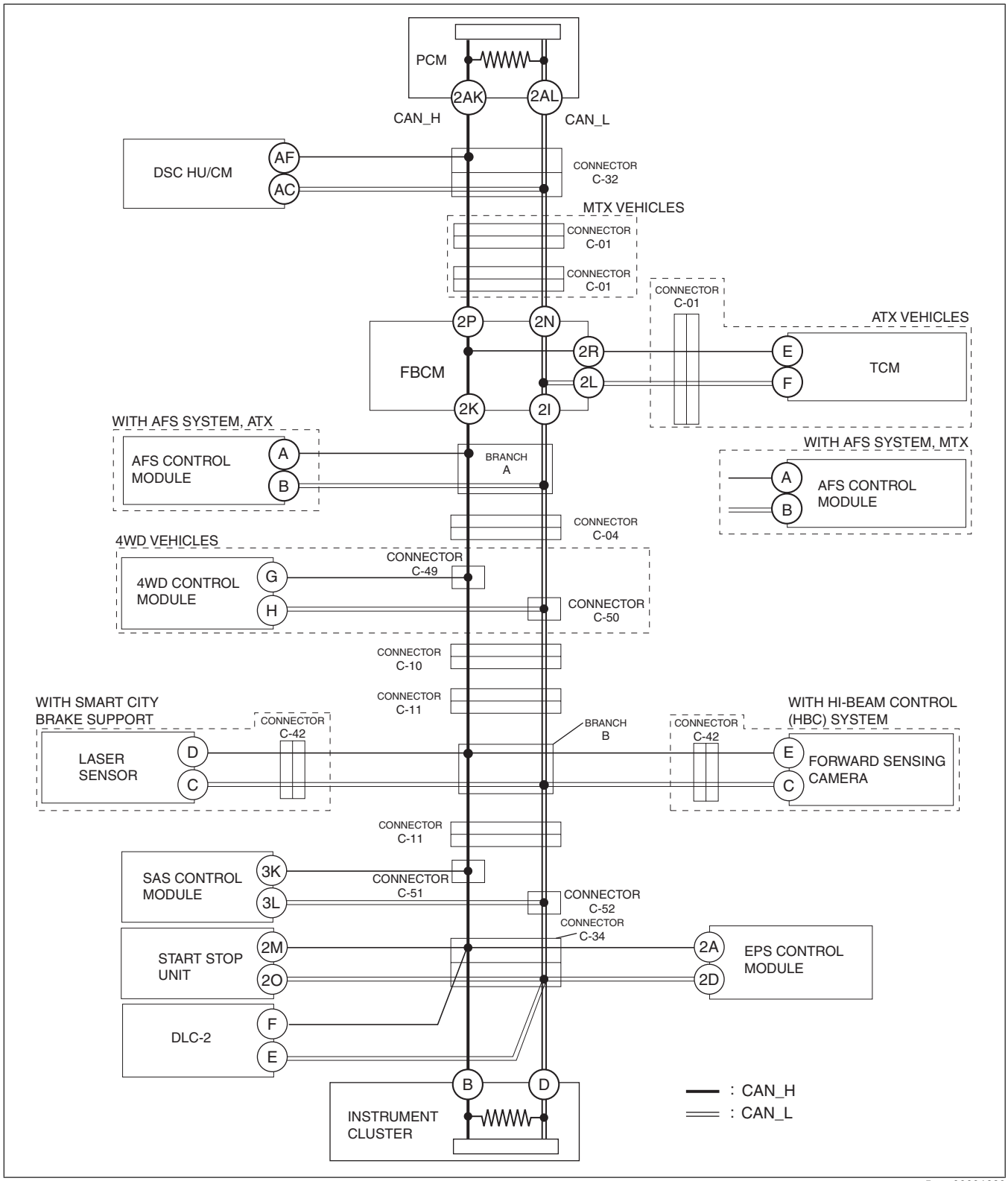
HS-CAN (SKYACTIV-D 2.2 (R.H.D.))



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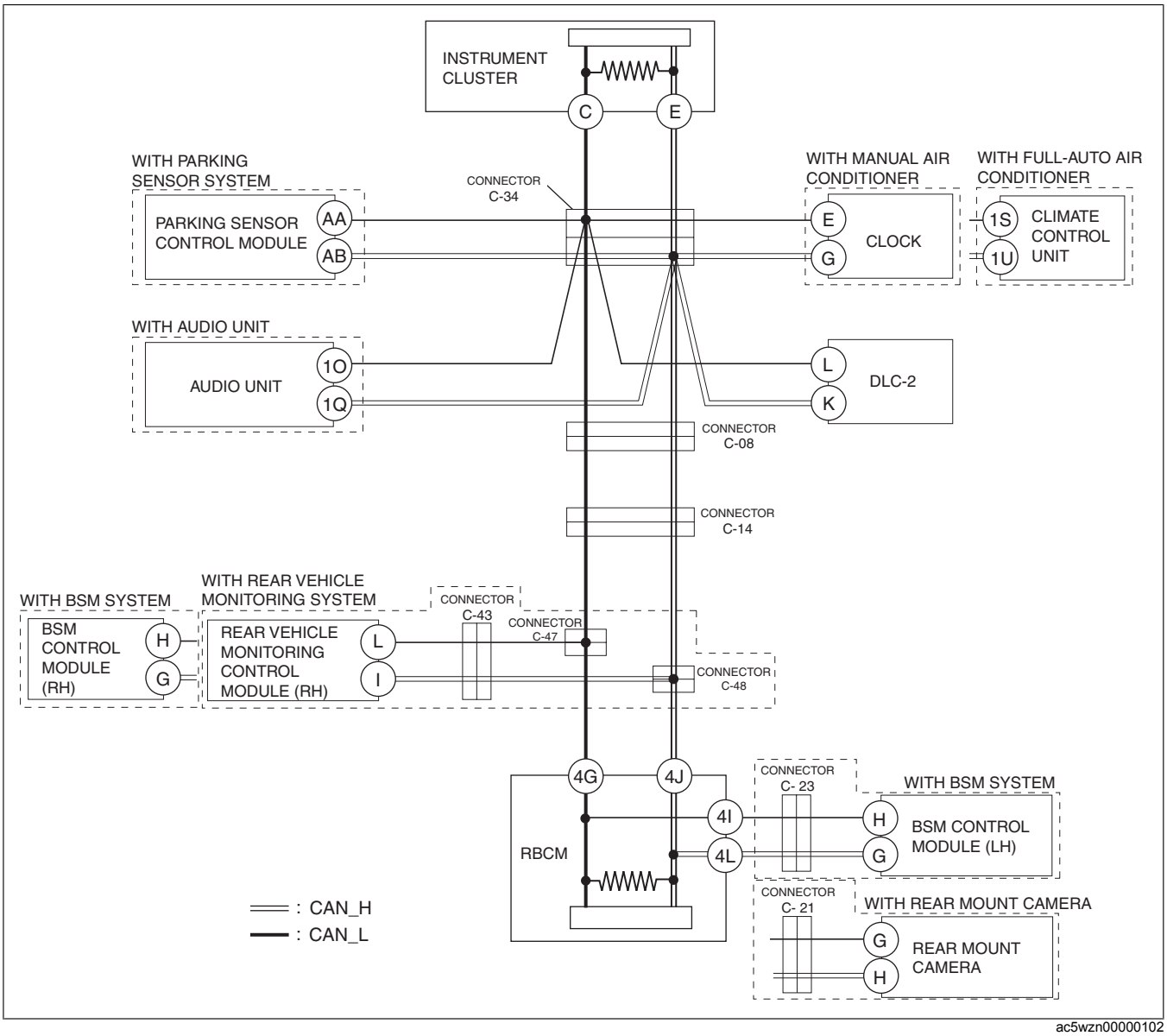
MS-CAN



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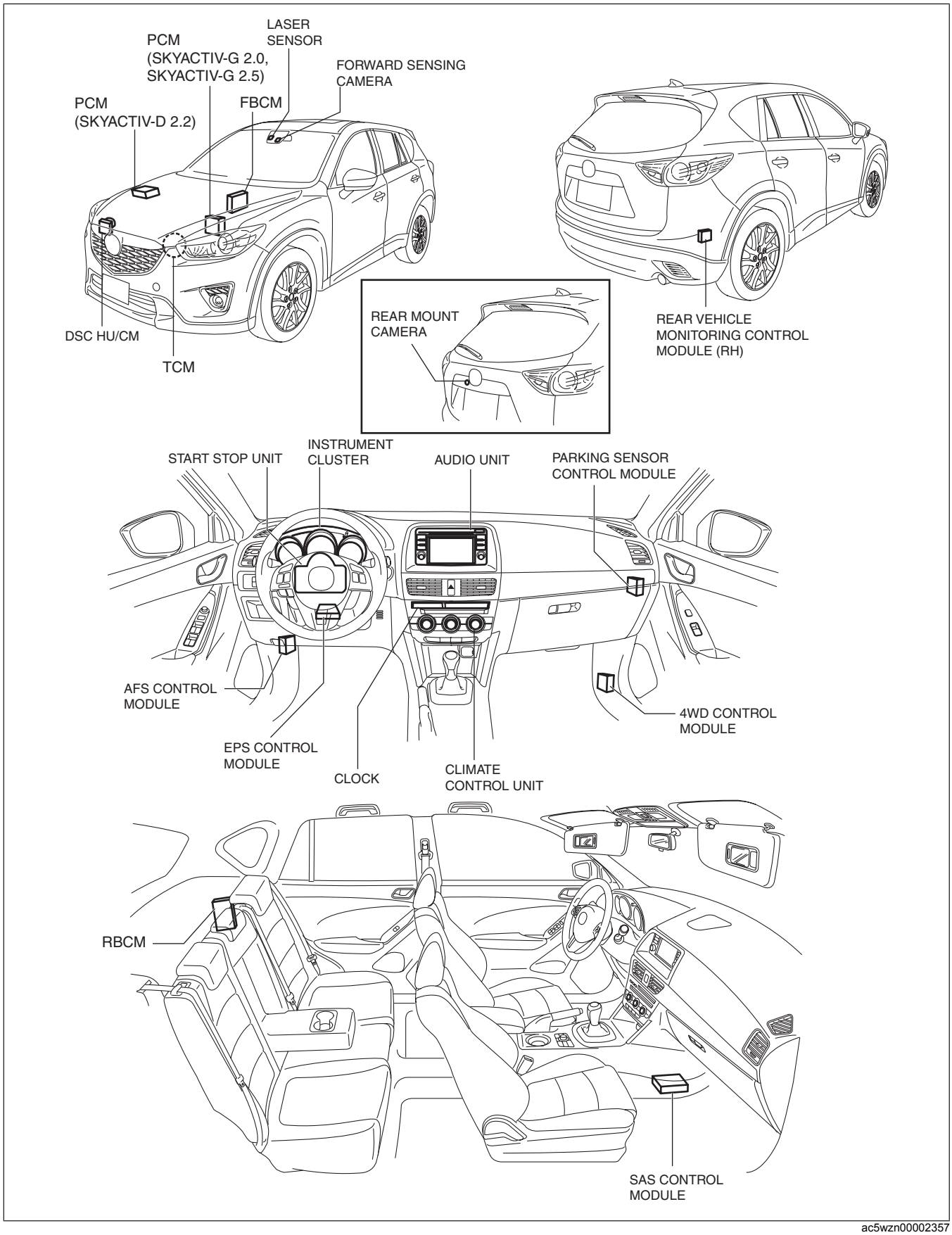
Structure

- The CAN system consists of CAN system-related modules built into the CPU and wiring harnesses connecting related modules.

L.H.D.



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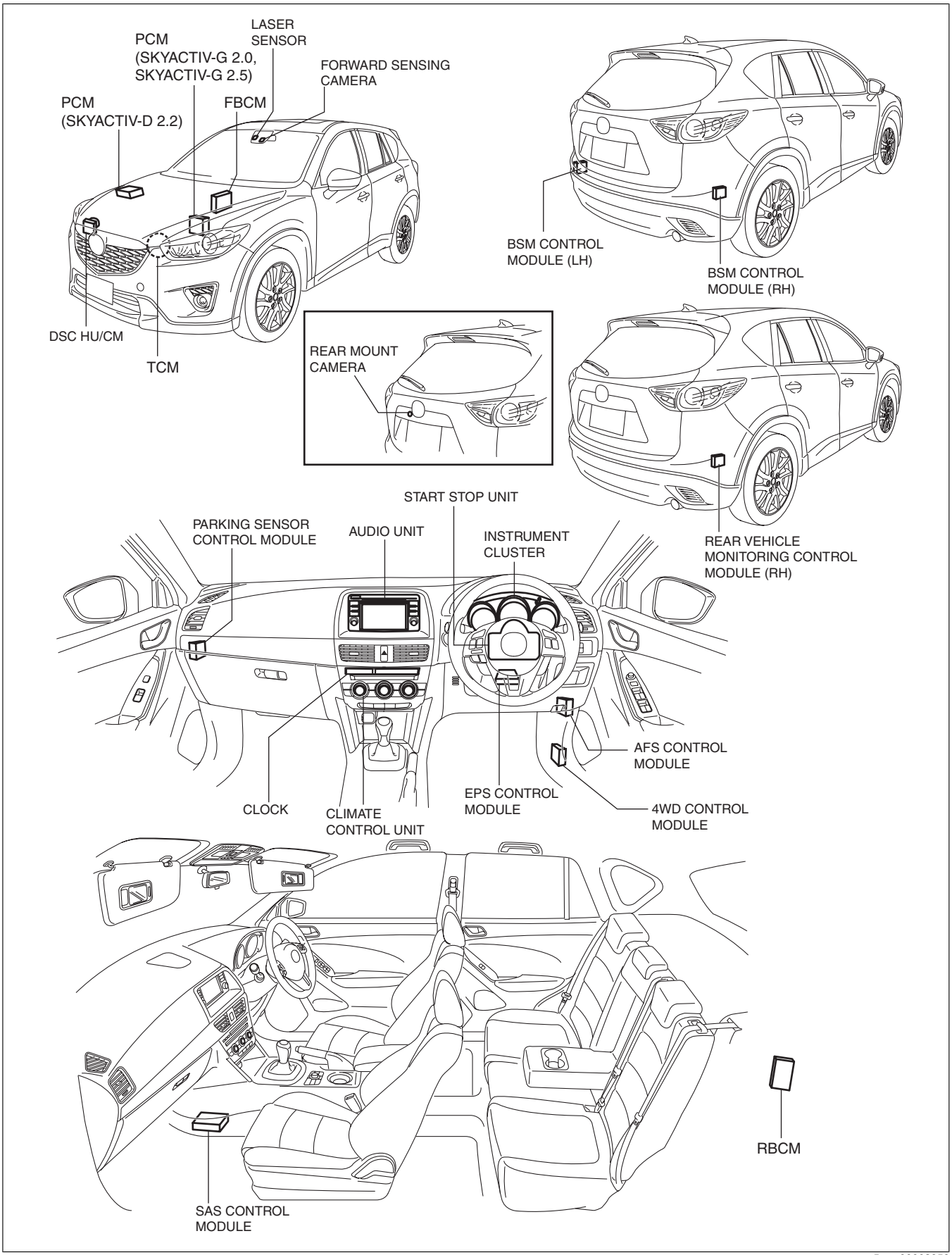
R.H.D.



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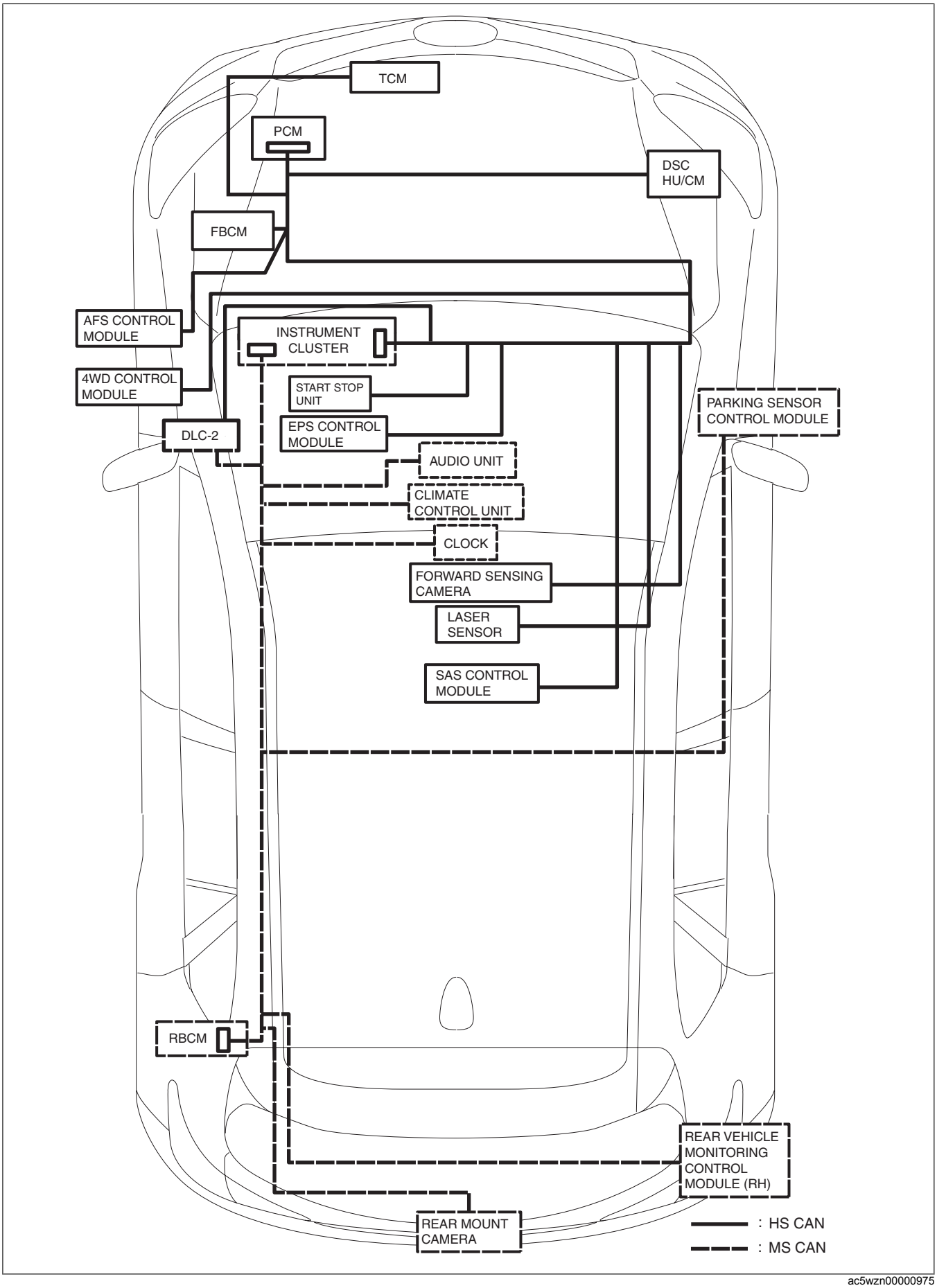
Function

- Terminator resistors are built into the PCM and instrument cluster which form the HS-CAN between the PCM and instrument cluster.
- Terminator resistors are built into the rear body control module (RBCM) and instrument cluster which form the MS-CAN between the rear body control module (RBCM) and instrument cluster.
- The instrument cluster is connected to the HS-CAN and MS-CAN which communicate with each other via the instrument cluster.

L.H.D.



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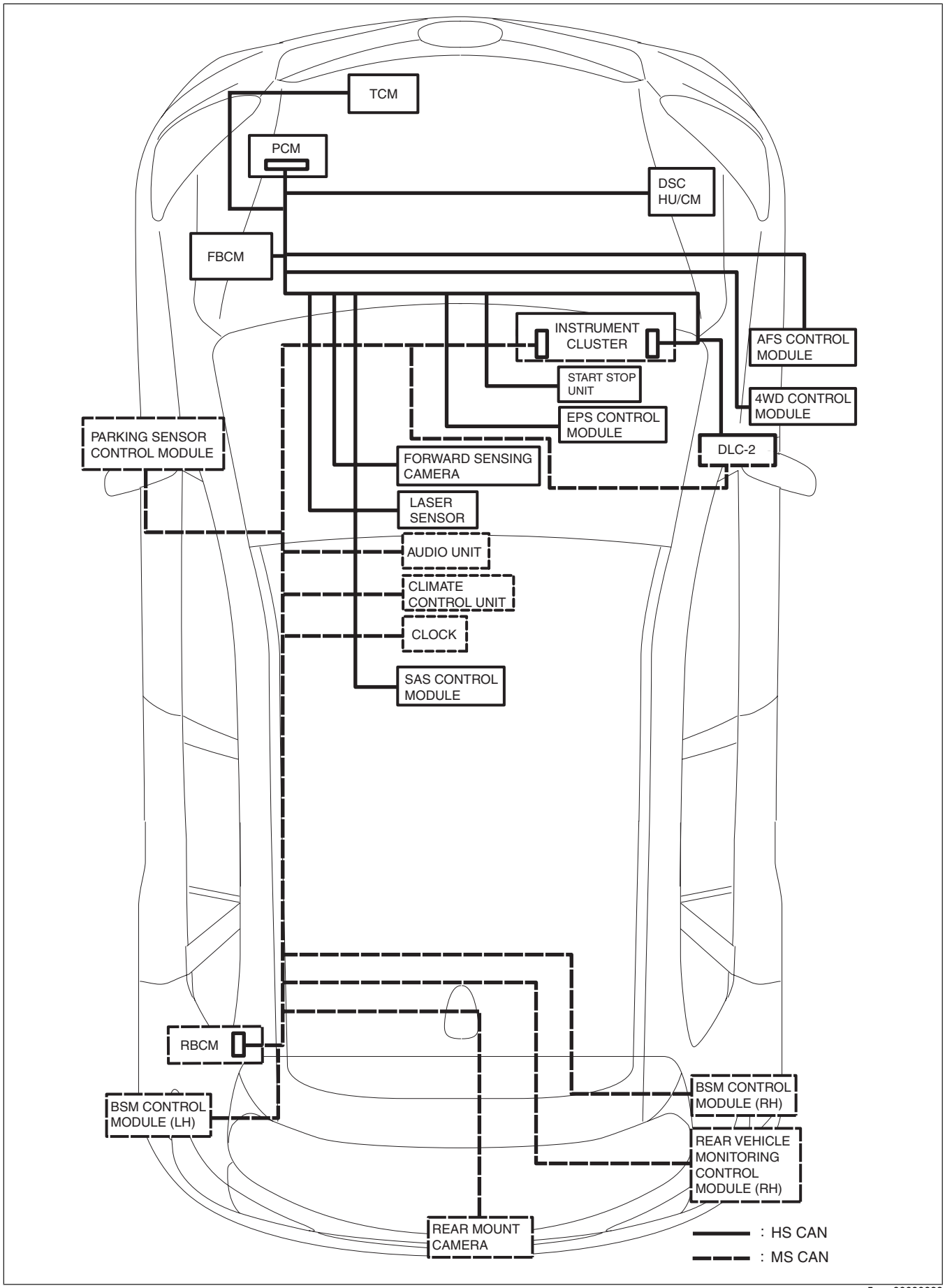
R.H.D.



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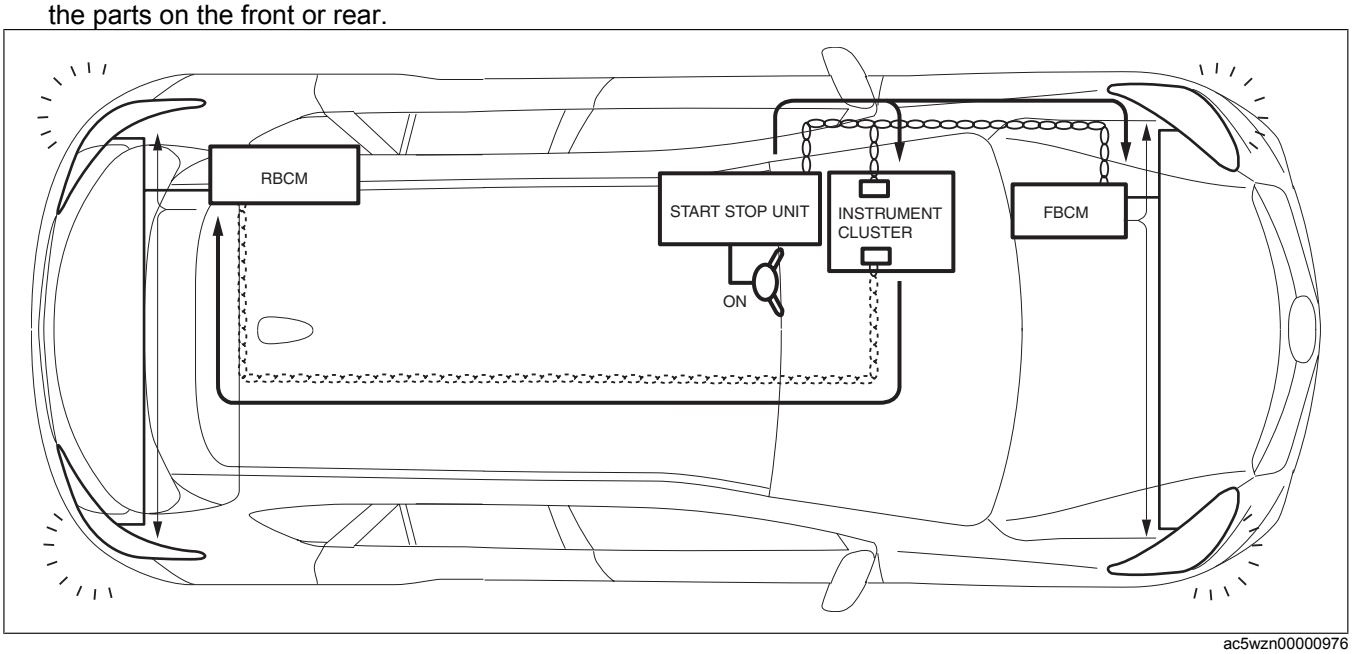
Body communication function

- The front body control module (FBCM) is located at the vehicle front, the start stop unit is located in the dashboard, the rear body control module (RBCM) is located at the rear, and lighting parts, wiper parts, each type of switch, and door lock parts in each location are each connected to three CMs, creating a three-system communication network.
- The front body control module (FBCM) and start stop unit are connected to the HS-CAN and the rear body control module (RBCM) is connected to the MS-CAN which communicate with each other via the instrument cluster.
- For example, when the switch connected to the start stop unit is turned ON, the start stop unit sends an operation request signal to the front body control module (FBCM) and rear body control module (RBCM), which operate the parts on the front or rear.



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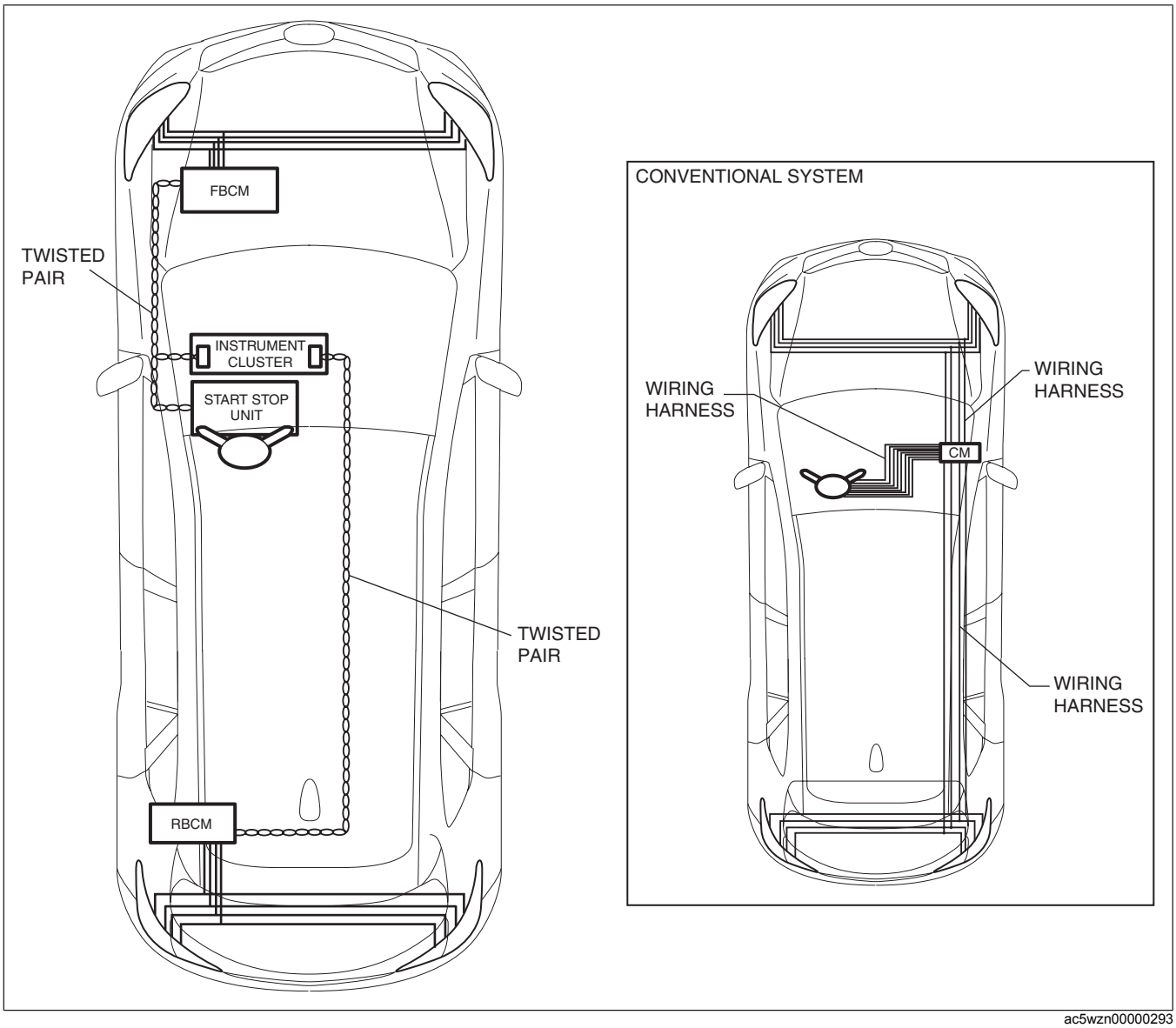
- By connecting the front body control module (FBCM), start stop unit, and rear body control module (RBCM) via the CAN, the number of wiring harness used compared to the conventional number used has decreased.



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CAN signal table

- Signals transmitted using the CAN system are as follows:

HS-CAN communication table

OUT: Output (sends signal)
IN: Input (receives signal)

Signal	CAN system related module											
	PCM	TCM*1	AFS control module*2	4WD control module*3	Laser sensor*4	DSC HU/ CM	EPS control module	Front body control module (FBCM)	Forward sensing camera*5	Instrument cluster	Start stop unit	SAS control module
Accelerator pedal opening angle	OUT	–	–	IN	–	IN	–	–	IN	IN	–	IN
AFS OFF switch status	–	–	IN	–	–	–	–	–	–	OUT	–	–
AFS system configuration information	–	–	OUT	–	–	–	–	–	–	IN	–	–

Signal	CAN system related module											
	PCM	TCM*1	AFS control module*2	4WD control module*3	Laser sensor*4	DSC HU/ CM	EPS control module	Front body control module (FBCM)	Forward sensing camera*5	Instrument cluster	Start stop unit	SAS control module
AFS system warning light status	–	–	OUT	–	–	–	–	–	–	IN	–	–
Air bag system warning buzzer status	–	–	–	–	–	–	–	–	–	IN	–	OUT
Air bag system warning light on request	–	–	–	–	–	–	–	–	–	IN	–	OUT
Air bag system-related information	–	–	–	–	–	–	–	–	–	IN	–	OUT
Ambient temperature	IN	IN	IN	IN	IN	IN	IN	IN	–	OUT	–	IN
	OUT	–	–	–	–	IN	–	–	–	–	–	–
Answer-back-related information	–	–	–	–	–	–	–	IN	–	OUT	–	–
AT shift position	IN	OUT	–	–	–	–	–	–	–	–	–	–
Back-up light on request	–	–	IN	–	IN	IN	–	–	–	OUT	–	–
Back-up light switch	OUT	–	–	–	–	IN	–	–	IN	IN	–	–
Battery management system malfunction determination	OUT	–	–	–	–	–	–	–	–	IN	–	–
Battery regeneration status	OUT	–	–	–	–	–	–	–	–	IN	–	–
Blower motor relay status	–	–	–	–	–	–	–	OUT	–	IN	–	–
Bonnet status (with i-stop)	IN	–	–	–	–	–	–	–	–	OUT	IN	–
Brake fluid level	–	–	–	–	–	–	–	OUT	–	IN	–	–
Brake light status	–	–	–	–	–	IN	–	–	–	OUT	–	–
Brake override system cancel execution signal	OUT	–	–	–	–	–	–	IN	–	IN	–	–
Brake pedal depressed status	OUT	–	–	–	IN	–	–	–	–	–	–	–
Brake switch (No.1 signal)	OUT	IN	–	–	–	IN	–	IN	IN	IN	–	–
Brake switch (No.2 signal)	OUT	IN	–	–	–	–	–	–	IN	IN	IN	IN
Brake switch malfunction determination	OUT	–	–	–	–	–	–	–	–	IN	–	–
Check engine light on request	OUT	–	–	–	–	–	–	–	–	IN	–	–
Cluster switch status	–	–	IN	–	–	–	–	–	IN	OUT	–	–
Clutch pedal stroke sensor	OUT	–	–	IN	–	IN	–	–	–	–	–	–
Collision detection (front, side, roll over)	IN	–	–	–	–	IN	–	IN	–	–	–	OUT
Collision detection (rear)	IN	–	–	–	–	IN	–	IN	–	–	–	OUT
Cranking start	IN	–	–	–	–	–	–	IN	–	IN	OUT	–
Cranking time	OUT	–	–	–	–	–	–	–	–	–	IN	–

Signal	CAN system related module											
	PCM	TCM*1	AFS control module*2	4WD control module*3	Laser sensor*4	DSC HU/ CM	EPS control module	Front body control module (FBCM)	Forward sensing camera*5	Instrument cluster	Start stop unit	SAS control module
Cruise control control status	OUT	–	–	–	–	IN	–	–	–	–	–	–
Cruise control set speed	OUT	–	–	–	–	IN	–	–	–	–	–	–
Cruise control switch	OUT	–	–	–	–	IN	–	–	–	–	–	–
Cruise control switch signal	IN	–	–	–	–	–	–	–	–	–	OUT	–
	IN	–	–	–	–	IN	–	–	–	–	OUT	–
Cruise control system-related information	IN	–	–	–	–	OUT	–	–	–	–	–	–
	OUT	–	–	–	–	IN	–	–	–	–	–	–
	–	–	–	–	OUT	–	–	–	–	IN	–	–
	–	–	–	–	OUT	IN	–	–	–	IN	–	–
Dimmer cancel	–	–	–	–	–	–	–	–	–	OUT	IN	–
Driver-side buckle switch status	–	–	–	–	–	–	–	–	–	IN	IN	OUT
TCS OFF switch status	–	–	–	–	–	IN	–	–	–	OUT	–	–
DSC system-related information	–	–	–	–	–	OUT	–	–	–	IN	–	–
	–	IN	–	–	–	OUT	–	–	–	IN	–	–
	–	–	–	–	–	OUT	–	IN	–	–	–	–
	–	–	–	–	IN	OUT	–	–	–	–	–	–
	–	–	–	–	IN	OUT	–	–	–	IN	–	–
DPF warning light on request*6	OUT	–	–	–	–	–	–	–	–	IN	–	–
Electric AT oil pump-related signal (i-stop)	IN	OUT	–	–	–	–	–	–	–	–	–	–
Engine coolant temperature	OUT	–	–	–	–	–	–	IN	–	IN	–	–
Engine displacement	OUT	–	–	IN	–	IN	–	–	–	IN	–	–
	OUT	IN	–	IN	–	IN	IN	IN	–	IN	–	–
Engine status	OUT	–	–	–	–	–	–	–	–	IN	–	–
Engine status at idle	OUT	–	–	–	–	–	–	–	–	IN	–	–
Engine torque	OUT	–	–	–	–	–	–	IN	–	–	–	–
	OUT	–	–	IN	–	–	–	–	–	–	–	–
	OUT	–	–	IN	–	IN	–	–	–	–	–	–
Engine-off time	IN	–	–	–	–	–	–	–	–	–	OUT	–
EPS status	IN	–	–	IN	–	–	OUT	–	–	–	–	–
	IN	–	–	–	–	–	OUT	–	–	–	–	–
	–	–	–	–	–	–	OUT	–	–	IN	–	–
Forward sensing camera customize request	–	–	–	–	–	–	–	–	OUT	IN	–	–
	–	–	–	–	–	–	–	–	IN	OUT	–	–
Front combination light on request	–	–	–	–	–	–	–	IN	OUT	–	–	–
Front fog light information	–	–	–	–	–	–	–	OUT	IN	IN	–	–
Fuel cap status	OUT	–	–	–	–	–	–	–	–	IN	–	–
Fuel cut request	IN	–	–	–	–	–	–	IN	–	IN	–	OUT
	IN	–	–	–	–	IN	–	–	–	–	–	OUT
Fuel injection amount	OUT	–	–	–	–	–	–	–	–	IN	–	–
Generator warning light on request	OUT	–	–	–	–	–	–	IN	–	IN	–	–

Signal	CAN system related module											
	PCM	TCM*1	AFS control module*2	4WD control module*3	Laser sensor*4	DSC HU/ CM	EPS control module	Front body control module (FBCM)	Forward sensing camera*5	Instrument cluster	Start stop unit	SAS control module
Glow indicator light on request*6	OUT	–	–	–	–	–	–	–	–	IN	–	–
Hazard warning switch information	–	–	–	–	–	–	–	IN	IN	IN	OUT	–
Headlight information	IN	–	IN	–	–	–	–	OUT	IN	IN	–	–
Headlight status	–	–	–	–	–	–	–	OUT	IN	–	–	–
High-beam indicator	–	–	–	–	–	–	–	OUT	IN	IN	–	–
Ignition off timer	IN	IN	IN	IN	IN	IN	IN	IN	–	OUT	IN	IN
Ignition switch status	–	–	IN	IN	–	–	IN	IN	IN	OUT	–	–
Immobilizer system related information	OUT	–	–	–	–	–	–	–	–	–	IN	–
	IN	–	–	–	–	–	–	–	–	–	OUT	–
i-stop OFF switch status	IN	–	–	–	–	–	–	–	–	OUT	–	–
i-stop status	OUT	–	–	–	IN	–	–	–	–	–	–	–
i-stop-related information (with i-stop)	IN	–	–	–	–	–	–	–	–	–	OUT	–
	OUT	–	–	–	–	–	–	–	–	IN	–	–
	OUT	IN	–	–	–	–	–	–	–	IN	–	–
	OUT	IN	–	–	–	–	–	–	–	IN	IN	–
	OUT	–	–	–	–	IN	–	–	–	–	–	–
	OUT	–	–	–	–	–	–	–	–	–	IN	–
	OUT	–	–	–	–	–	–	IN	–	–	–	–
	OUT	IN	–	–	–	IN	IN	IN	–	IN	IN	–
Key status	OUT	–	–	–	–	–	–	–	–	–	IN	–
Keyless indicator light on request	–	–	–	–	–	–	–	–	–	IN	OUT	–
Keyless warning buzzer operation request	–	–	–	–	–	–	–	–	–	IN	OUT	–
Keyless warning light on request	–	–	–	–	–	–	–	–	–	IN	OUT	–
Laser sensor-related information	IN	–	–	–	OUT	–	–	–	–	–	–	–
Manual air conditioner operation request	IN	–	–	–	–	–	–	OUT	–	IN	–	–
Manual shift control	–	IN	–	–	–	–	–	–	–	OUT	–	–
	IN	–	–	–	–	–	–	–	–	OUT	–	–
Neutral switch	OUT	–	–	IN	–	–	–	–	–	IN	IN	–
Oil pressure warning light on request	OUT	–	–	–	–	–	–	–	–	IN	–	–
PAD indicator on request	–	–	–	–	–	–	–	–	–	IN	–	OUT
Parking brake status	IN	–	–	IN	–	IN	–	IN	–	OUT	–	–
Passenger-side buckle switch status	–	–	–	–	–	–	–	–	–	IN	–	OUT
Power supply status	IN	–	–	–	–	–	–	IN	–	IN	OUT	–
	IN	–	–	–	–	–	–	IN	–	–	OUT	–
Priority recirculate request	OUT	–	–	–	–	–	–	IN	–	IN	–	–

Signal	CAN system related module											
	PCM	TCM*1	AFS control module*2	4WD control module*3	Laser sensor*4	DSC HU/ CM	EPS control module	Front body control module (FBCM)	Forward sensing camera*5	Instrument cluster	Start stop unit	SAS control module
Push button system-related information	–	–	–	–	–	–	–	–	–	IN	OUT	–
Rear body control module (RBCM) customize request	–	–	–	–	–	–	–	–	IN	OUT	–	–
Rear fog indicator light information	–	–	–	–	–	–	–	IN	–	OUT	–	–
Rear fog light information	–	–	–	–	–	–	–	OUT	IN	IN	–	–
Rear washer switch information	–	–	–	–	–	–	–	IN	–	–	OUT	–
Rear window defroster information	IN	–	–	–	–	–	–	OUT	–	IN	–	–
Rear wiper information	–	–	–	–	–	–	–	OUT	IN	IN	–	–
Rear wiper status	–	–	–	IN	–	–	–	IN	–	–	OUT	–
ROOM fuse status	–	IN	–	IN	–	–	IN	–	IN	OUT	–	–
Seat warmer cut status	–	–	–	–	–	–	–	OUT	–	IN	–	–
Security indicator buzzer sound request	–	–	–	–	–	–	–	–	–	IN	OUT	–
Security indicator on request	–	–	–	–	–	–	–	–	–	IN	OUT	–
Selector lever position	IN	OUT	–	IN	–	IN	–	IN	IN	IN	IN	–
	–	OUT	–	–	–	–	–	–	–	IN	–	–
	IN	OUT	–	–	–	IN	–	–	–	–	–	–
	–	OUT	–	–	–	IN	–	–	–	IN	–	–
Shift indicator light	OUT	–	–	–	–	–	–	–	–	IN	–	–
Shift range position	OUT	–	–	IN	–	–	–	–	–	IN	–	–
Start stop unit customize request	–	–	–	–	–	–	–	–	–	IN	OUT	–
	–	–	–	–	–	–	–	–	–	OUT	IN	–
Starter relay status	OUT	–	–	–	–	–	–	–	–	–	IN	–
Steering angle (absolute angle) signal	–	–	–	–	–	–	IN	–	–	–	OUT	–
Steering angle (relative angle) signal	–	–	–	–	–	IN	OUT	–	IN	IN	–	–
Steering angle (estimated absolute angle) signal	IN	IN	IN	IN	IN	–	OUT	–	IN	IN	IN	–
	IN	IN	IN	IN	–	–	OUT	–	IN	IN	IN	–
	IN	IN	IN	–	IN	–	OUT	–	IN	IN	IN	–
	IN	IN	IN	–	–	–	OUT	–	–	–	–	–
Steering angle condition	–	–	–	–	–	–	OUT	–	–	–	IN	–
	–	–	IN	–	IN	–	OUT	–	–	–	–	–
	IN	–	–	–	–	–	OUT	–	–	–	–	–
	–	–	–	IN	–	–	OUT	–	–	–	–	–
	IN	–	–	–	IN	–	OUT	–	–	–	–	–
Steering lock system-related information	–	–	–	–	–	–	–	–	–	IN	OUT	–
Steering shift switch	–	IN	–	–	–	–	–	–	–	–	OUT	–

Signal	CAN system related module											
	PCM	TCM*1	AFS control module*2	4WD control module*3	Laser sensor*4	DSC HU/ CM	EPS control module	Front body control module (FBCM)	Forward sensing camera*5	Instrument cluster	Start stop unit	SAS control module
Steering switch information	–	–	–	–	–	–	–	IN	IN	IN	OUT	–
	–	–	–	–	–	–	–	IN	IN	–	OUT	–
	–	–	–	–	–	–	–	IN	–	–	OUT	–
Target gear position	IN	OUT	–	IN	–	–	–	–	–	IN	–	–
Theft-deterrent system alarm-related information	–	–	–	–	–	–	–	IN	–	OUT	–	–
Theft-deterrent system status	–	–	–	–	–	–	–	–	–	OUT	IN	–
Tire size	IN	IN	–	–	–	IN	–	–	–	OUT	–	–
TNS status	–	–	–	–	–	–	–	OUT	–	IN	IN	–
TPMS OFF switch status	–	–	–	–	–	IN	–	–	–	OUT	–	–
Traveled distance	IN	IN	IN	IN	IN	IN	IN	IN	–	OUT	IN	IN
Turn indicator light on request	–	–	–	–	–	–	–	OUT	IN	IN	–	–
Vehicle speed	IN	–	–	–	IN	OUT	IN	–	IN	IN	–	–
	IN	–	–	–	–	OUT	IN	–	IN	–	–	–
	IN	–	–	–	IN	OUT	–	–	IN	IN	–	–
	IN	–	–	–	–	OUT	–	–	IN	–	–	–
	OUT	–	IN	–	–	IN	IN	IN	IN	IN	IN	IN
Washer level sensor status	–	–	–	–	–	–	–	OUT	–	IN	–	–
Wheel speed (LF, RF, LR, RR)	IN	IN	–	IN	–	OUT	IN	IN	IN	IN	IN	–
Windshield washer switch information	–	–	–	–	IN	–	–	IN	–	IN	OUT	–
Windshield wiper (INT) status	–	–	–	–	–	–	–	IN	–	–	OUT	–
Windshield wiper operation status	IN	–	–	–	–	–	–	OUT	IN	IN	–	–
Windshield wiper status	–	–	–	–	–	–	–	OUT	IN	–	–	–
	–	–	–	IN	–	–	–	IN	–	–	OUT	–
Windshield wiper switch information	–	–	–	IN	IN	–	–	IN	–	–	OUT	–
Yaw rate	IN	IN	–	–	IN	OUT	IN	–	IN	–	–	–
	IN	IN	–	–	–	OUT	–	–	IN	–	–	–
4WD system status	–	–	–	OUT	–	IN	–	–	–	–	–	–
	–	–	–	OUT	–	–	–	–	–	IN	–	–

*1 : ATX vehicles
*2 : With AFS system
*3 : 4WD vehicles
*4 : With smart city brake support
*5 : With hi-beam control (HBC) system
*6 : With SKYACTIV-D 2.2

MS-CAN communication table

OUT: Output (sends signal)
IN: Input (receives signal)

Signal	CAN system related module									
	Rear body control module (RBCM)	BSM control module (LH)*1	BSM control module (RH)*1	Climate control unit*2	Clock*3	Audio	Instrument cluster	Rear vehicle monitoring control module *4	Rear mount camera *5	Parking sensor control module *6
A/C	–	–	–	OUT	–	–	IN	–	–	–
Alarm status	OUT	–	–	–	–	–	IN	–	–	–
Answer-back-related information	OUT	–	–	–	–	–	IN	–	–	–
Audio configuration information	–	–	–	–	–	IN	OUT	–	–	–
Back-up light on request signal	IN	IN	IN	–	–	–	OUT	IN	IN	IN
Blower speed	–	–	–	OUT	–	–	IN	–	–	–
Brake light status	IN	–	–	–	–	–	OUT	–	–	–
BSM control module (LH) status	–	OUT	IN	–	–	–	–	–	–	–
BSM control module (RH) status	–	IN	OUT	–	–	–	–	–	–	–
BSM control module configuration information	–	IN	IN	–	–	–	OUT	–	–	–
BSM system (LH) buzzer on request	–	OUT	IN	–	–	–	–	–	–	–
BSM system (LH) indicator off request	–	OUT	IN	–	–	–	–	–	–	–
BSM system (RH) buzzer on request	–	IN	OUT	–	–	–	–	–	–	–
BSM system (RH) indicator off request	–	IN	OUT	–	–	–	–	–	–	–
BSM system buzzer on request	–	IN	OUT	–	–	–	IN	–	–	–
BSM system customize-related information	–	IN	IN	–	–	–	OUT	IN	–	–
	–	–	OUT	–	–	–	IN	–	–	–
BSM system indicator off request	–	IN	OUT	–	–	–	IN	–	–	–
BSM system main switch status	–	IN	OUT	–	–	–	–	–	–	–
Climate control unit configuration information	–	–	–	IN	–	–	OUT	–	–	–
Cranking start status	–	–	–	IN	–	–	OUT	–	–	–
Customize information	–	–	–	–	–	OUT	IN	–	–	–
	–	–	–	–	–	IN	OUT	–	–	–
Defroster	–	–	–	OUT	–	–	IN	–	–	–
Dimmer cancel	–	–	–	IN	IN	IN	OUT	IN	–	–
Driver's seat belt status	IN	–	–	–	–	–	OUT	–	–	–
Engine status (with i-stop)	–	–	–	IN	–	–	OUT	–	–	–
Engine stop request	–	–	–	OUT	–	–	IN	–	–	–
Engine-off time	IN	–	–	IN	–	–	OUT	IN	–	–
Fuel cut request	IN	–	–	–	–	IN	OUT	–	–	–
Fuel-level sensor-related information	OUT	–	–	–	–	–	IN	–	–	–
Gear position	IN	–	–	–	–	–	OUT	IN	–	IN
	–	–	–	–	–	–	OUT	IN	–	–
Gear position/selector lever position	–	–	–	–	–	OUT	IN	–	IN	–
Hazard warning switch status	IN	–	–	–	–	–	OUT	–	–	–

Signal	CAN system related module									
	Rear body control module (RBCM)	BSM control module (LH)*1	BSM control module (RH)*1	Climate control unit*2	Clock*3	Audio	Instrument cluster	Rear vehicle monitoring control module *4	Rear mount camera *5	Parking sensor control module *6
Headlight status	–	–	–	–	–	–	OUT	–	IN	IN
High beam control system customize information	–	–	–	–	–	OUT	IN	–	–	–
	–	–	–	–	–	IN	OUT	–	–	–
Ignition key status	IN	–	–	IN	–	–	OUT	–	–	–
Ignition switch status	–	–	–	–	–	IN	OUT	–	–	–
	IN	–	–	–	–	–	OUT	–	–	–
	IN	IN	IN	IN	–	IN	OUT	–	IN	–
Light switch status	–	IN	IN	–	–	–	OUT	–	–	–
Neutral switch status	–	–	–	–	–	–	OUT	–	–	IN
PAD indicator on status	–	–	–	OUT	OUT	–	IN	–	–	–
Panel light level	–	–	–	IN	IN	–	OUT	–	–	–
Parking assist control signal	–	–	–	–	–	IN	–	–	OUT	–
Parking brake status	IN	–	–	–	–	–	OUT	–	IN	IN
Parking sensor system status	–	–	–	–	–	IN	–	–	IN	OUT
Passing switch status	–	–	–	–	–	–	OUT	–	IN	–
PTC heater operation request	–	–	–	OUT	–	–	IN	–	–	–
Rear body control module (RBCM) customize-related information	IN	–	–	–	–	OUT	–	–	–	–
	OUT	–	–	–	–	IN	–	–	–	–
	OUT	–	–	–	–	IN	IN	–	–	–
	OUT	–	–	–	–	–	IN	–	–	–
Rear fog indicator light on request	OUT	–	–	–	–	–	IN	–	–	–
Rear fog light status	IN	–	–	–	–	–	OUT	–	–	–
Rear vehicle monitoring control module configuration information	–	–	–	–	–	–	OUT	IN	–	–
Rear vehicle monitoring status	–	–	–	–	–	–	IN	OUT	–	–
Rear vehicle monitoring system buzzer on request	–	–	–	–	–	–	IN	OUT	–	–
Rear window defroster operation request	–	–	–	OUT	–	–	IN	–	–	–
Rear window defroster status	–	–	–	IN	–	–	OUT	–	–	–
Rear wiper low speed status	IN	–	–	–	–	–	OUT	–	–	–
ROOM fuse status	–	–	–	IN	–	–	OUT	–	IN	–
	OUT	–	–	–	–	IN	IN	–	–	–
Seat belt status	OUT	–	–	–	–	–	IN	–	–	–
Seat belt warning status (passenger's seat, rear)	–	–	–	IN	IN	–	OUT	–	–	–
Seat warmer cut status	–	–	–	IN	IN	–	OUT	–	–	–
Security indicator light on request	OUT	–	–	–	–	–	IN	–	–	–
Steering angle (relative angle) signal	–	–	–	–	–	–	OUT	–	IN	–
Steering angle (estimated absolute angle) signal	–	IN	IN	–	–	–	OUT	–	IN	–

Signal	CAN system related module									
	Rear body control module (RBCM)	**BSM control module (LH)*1**	**BSM control module (RH)*1**	**Climate control unit*2**	**Clock*3**	**Audio**	**Instrument cluster**	**Rear vehicle monitoring control module *4**	**Rear mount camera *5**	**Parking sensor control module *6**
Temperature control dial status	–	–	–	OUT	–	–	IN	–	–	–
Theft-deterrent system alarm-related information	OUT	–	–	–	–	–	IN	–	–	–
Theft-deterrent system status	OUT	–	–	–	–	–	IN	–	–	–
Traveled distance	IN	–	–	IN	–	–	OUT	–	–	–
Turn switch status	–	IN	IN	–	–	–	OUT	IN	IN	–
Warning buzzer request signal	–	–	–	–	–	IN	OUT	–	–	–
Wheel speed	–	–	–	–	–	–	OUT	–	IN	–
Windshield washer switch status	–	–	–	–	–	–	OUT	–	–	IN
Windshield wiper operation status	–	–	–	IN	–	–	OUT	–	–	–

*1 : With BSM system
*2 : With full-auto air conditioner
*3 : With manual air conditioner
*4 : With rear vehicle monitoring system
*5 : With rear mount camera
*6 : With parking sensor system

Construction

- The HS-CAN has terminator resistors built into the following units which form the CAN lines.
  - — Between PCM terminal 2AK (CAN_H)—2AL terminal (CAN_L), resistance value: **124 ohms**
  - — Between instrument cluster terminal B (CAN_H)—Terminal D (CAN_L), resistance value:**120 ohms**
- The MS-CAN has terminal resistors built into the following units which form the CAN lines.
  - — Rear body control module (RBCM) terminal 4G (CAN_H)—Terminal 4J (CAN_L), resistance value: **120 ohms**
  - — instrument cluster terminal C (CAN_H)—Terminal E (CAN_L), resistance value: **120 ohms**