

09-22 INSTRUMENTATION/DRIVER INFO.

INSTRUMENT CLUSTER OUTLINE . . .	09-22-1
INSTRUMENT CLUSTER SPECIFICATIONS	09-22-1
INSTRUMENT CLUSTER STRUCTURAL VIEW	09-22-2
Meter and Gauge	09-22-2
Warning and Indicator Light	09-22-2
INSTRUMENT CLUSTER SYSTEM WIRING DIAGRAM	09-22-5
TACHOMETER CONTROL OUTLINE	09-22-7

TACHOMETER CONTROL CONSTRUCTION/OPERATION	09-22-7
Variable Red Zone Control	09-22-7
INPUT/OUTPUT CHECK MODE OPERATION	09-22-8
Input circuit check	09-22-8
INFORMATION DISPLAY FUNCTION	09-22-8
INFORMATION DISPLAY CONSTRUCTION/OPERATION	09-22-8
Display Function	09-22-8
Clock function	09-22-9
Input/output Check Function	09-22-9

INSTRUMENT CLUSTER OUTLINE

id092200100200

- Variable red zone has been adopted that changes the red zone display of the engine speed according to the engine coolant temperature.

INSTRUMENT CLUSTER SPECIFICATIONS

id092200101100

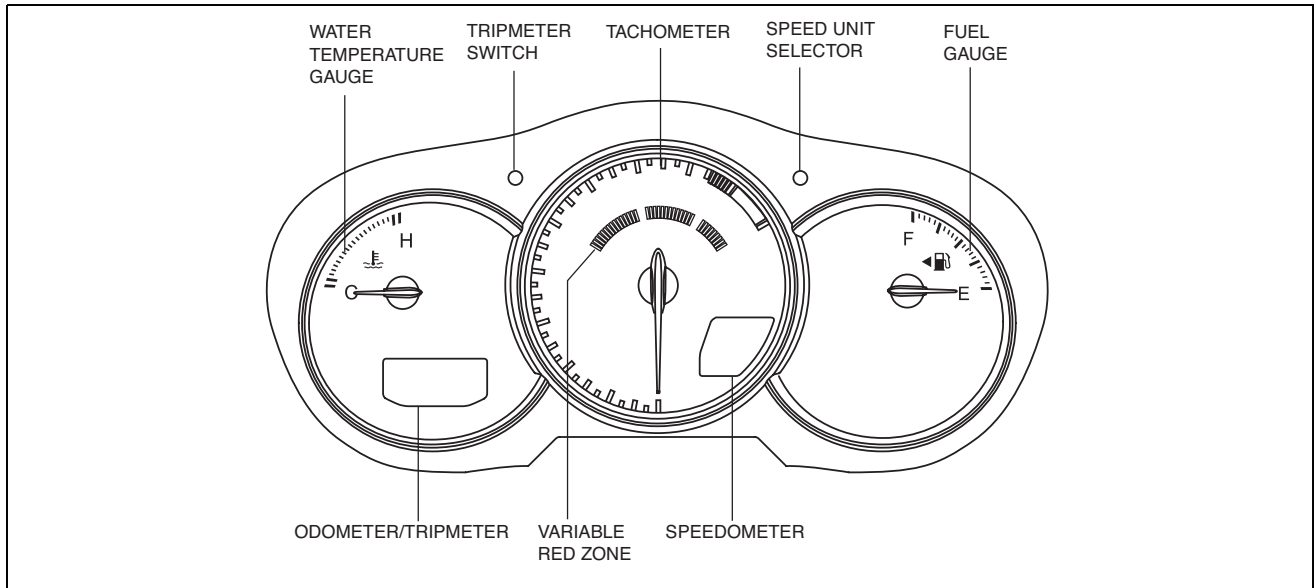
Item		Specification
Warning/indicator alarms		
Sound frequency	(Hz)	1,800—2,600
Lights-on reminder warning alarm	Sound frequency (Hz)	1,900
	Sound cycle	<p>ON</p> <p>CONTINUOUS</p> <p>OFF</p>
Key reminder warning alarm	Sound frequency (Hz)	1,800
	Sound cycle	<p>ON</p> <p>CONTINUOUS</p> <p>OFF</p> <p>t1: approx. 0.22 s t2: approx. 0.33 s t3: approx. 1.25 s</p>
Oil level warning alarm	Sound frequency (Hz)	2,000
	Sound cycle	<p>ON</p> <p>OFF</p> <p>t1: approx. 0.3 s t2: approx. 0.2 s</p>
Tire pressure warning alarm	Sound frequency (Hz)	2,600
	Sound cycle	<p>ON</p> <p>CONTINUOUS</p> <p>OFF</p> <p>t1: approx. 0.3 s t2: approx. 0.6 s</p>
Over-revolution warning alarm	Sound frequency (Hz)	2,600
	Sound cycle	<p>ON</p> <p>CONTINUOUS</p> <p>OFF</p>

INSTRUMENTATION/DRIVER INFO.

INSTRUMENT CLUSTER STRUCTURAL VIEW

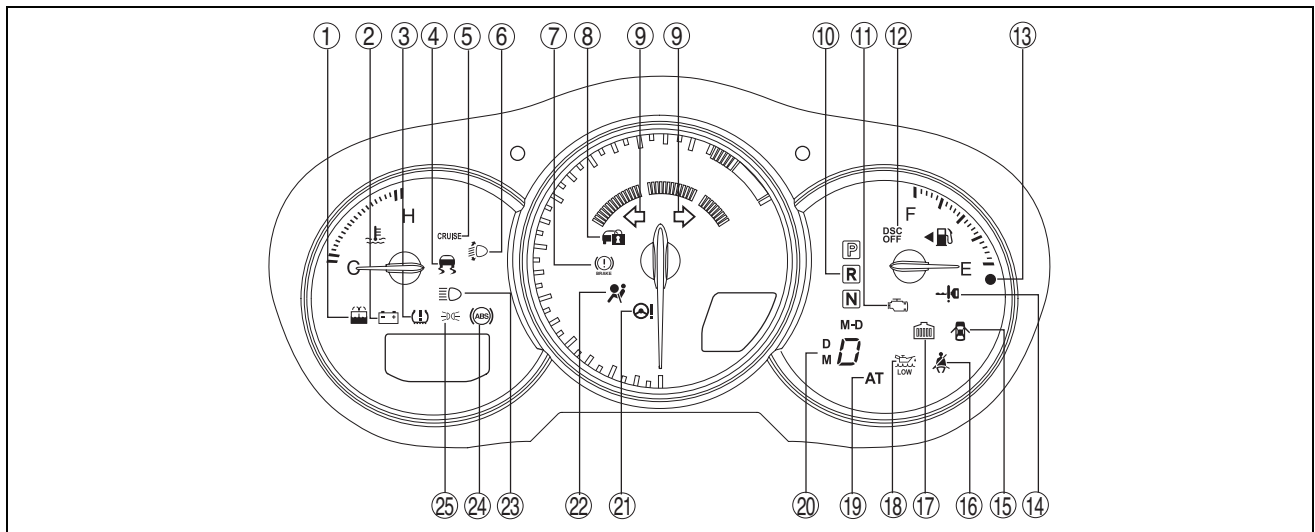
id092200101200

Meter and Gauge



ar8uun00000222

Warning and Indicator Light



ar8uun00000217

×: Applicable

No.	Warning and indicator light	Input signal source	CAN system	Description	Note
1	Washer fluid level warning light	Washer fluid level sensor	—	When the washer fluid-level is low, the washer fluid level warning light illuminates. (See BODY & ACCESSORIES, WIPER/WASHER SYSTEM.)	With washer fluid level sensor
2	Generator warning light	PCM	×	Illuminates if the generator output is not normal. (See ENGINE, CHARGING SYSTEM.)	—

INSTRUMENTATION/DRIVER INFO.

No.	Warning and indicator light	Input signal source	CAN system	Description	Note
3	Tire pressure monitoring system (TPMS) warning light	Keyless control module	—	If the TPMS system is malfunctioning or the tire pressure is abnormal, the tire pressure warning light remains illuminated. (See 02-12-6 TIRE PRESSURE MONITORING SYSTEM (TPMS) WARNING LIGHT CONSTRUCTION.)	With TPMS, advanced keyless and start system
		Keyless receiver	—		With TPMS, keyless entry system
4	DSC indicator light	DSC HU/CM	×	<ul style="list-style-type: none"> If the DSC system is malfunctioning, the DSC indicator light remains illuminated. (See 04-02-2 ON-BOARD DIAGNOSTIC SYSTEM FUNCTION [DYNAMIC STABILITY CONTROL (DSC)].) When the DSC or TCS is operating, the DSC indicator light flashes. (See 04-02-2 ON-BOARD DIAGNOSTIC SYSTEM FUNCTION [DYNAMIC STABILITY CONTROL (DSC)].) 	With DSC
5	Cruise main indicator light (amber)	PCM	×	Illuminates if the cruise control system is in control status. (See 01-20-1 CRUISE CONTROL SYSTEM OUTLINE [13B-MSP].)	With cruise control system
	Cruise set indicator light (green)				
6	Headlight auto leveling warning light	Auto leveling control module	—	The headlight auto leveling system warning light illuminates if a malfunction in the auto leveling system is detected. (See BODY & ACCESSORIES, LIGHTING SYSTEMS.)	With headlight auto leveling system
7	Brake system warning light	ABS HU/CM	×	If the ABS system is malfunctioning, the brake system warning light remains illuminated. (See BRAKE, ON-BOARD DIAGNOSTIC SYSTEM.)	With ABS
		DSC HU/CM	×	If the DSC system is malfunctioning, the brake system warning light remains illuminated. (See 04-02-2 ON-BOARD DIAGNOSTIC SYSTEM FUNCTION [DYNAMIC STABILITY CONTROL (DSC)].)	With DSC
		Brake fluid-level sensor	—	Illuminates when engine oil level is the specified value or less.	—
		Parking brake switch	—	When the parking brake is operating, the brake system warning light illuminates.	
8	Security light	Keyless control module	—	Illuminates or flashes when immobilizer system has malfunction.	With advanced keyless and start system
					With keyless entry system
9	Turn indicator light	<ul style="list-style-type: none"> Light switch Hazard warning switch 	—	<ul style="list-style-type: none"> Flashes when ignition switch is ON position during turn switch operation. Flashes when hazard warning switch is on. 	—
10	Selector indicator light	TCM	×	The selector indicator light displays the selector lever position. (See TRANSMISSION/TRANSAXLE, AUTOMATIC TRANSMISSION [SJ6A-EL].)	AT
11	MIL	PCM	×	Illuminates if a malfunction occurs in the engine control system and the automatic transmission control system. (See ENGINE, ON-BOARD DIAGNOSTIC.)	—

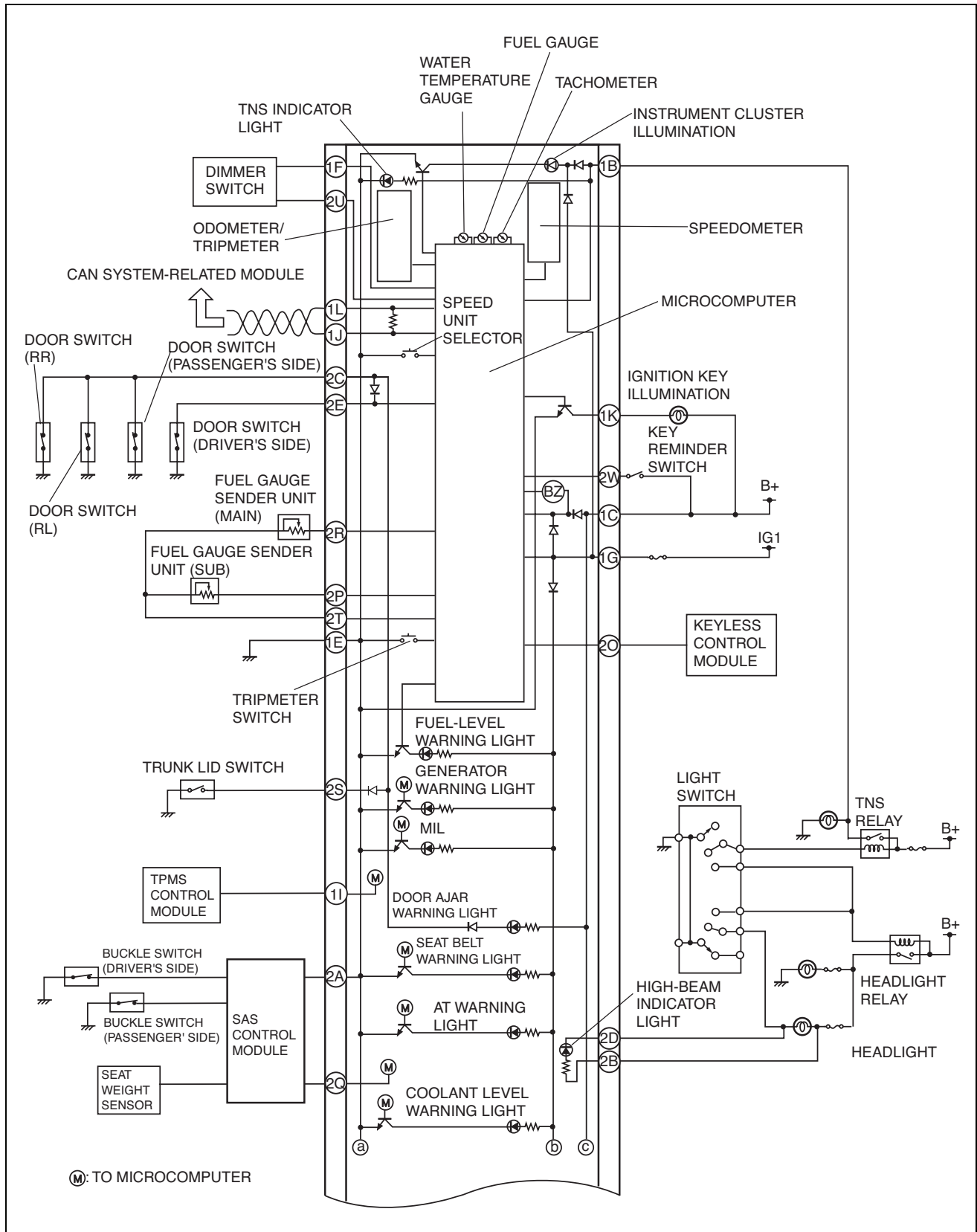
INSTRUMENTATION/DRIVER INFO.

No.	Warning and indicator light	Input signal source	CAN system	Description	Note
12	DSC OFF indicator light	DSC HU/CM	×	<ul style="list-style-type: none"> If the DSC system is malfunctioning, the DSC OFF light remains flashed. (See 04-02-2 ON-BOARD DIAGNOSTIC SYSTEM FUNCTION [DYNAMIC STABILITY CONTROL (DSC)].) When the DSC OFF switch is pressed to disable, the DSC OFF light illuminates. (See BRAKE, ON-BOARD DIAGNOSTIC SYSTEM.) 	With DSC
13	Fuel-level warning light	Fuel gauge sender unit	—	When the remaining fuel amount in the fuel tank is low, the fuel-level warning light illuminates.	—
14	Keyless indicator light (green)	Keyless control module	×	Illuminates when start knob is pressed.	With advanced keyless and start system
	Keyless warning light (red)			Illuminates or flashes when keyless control module has malfunction.	
15	Door ajar warning light	Door switch, Trunk lid opener switch	—	Illuminates when door or trunk lid is open.	—
16	Seat belt warning light	SAS control module	—	Warns the driver that the seat belt (driver side or passenger side) is unfastened	—
17	Coolant level warning light	PCM	×	Illuminates when engine coolant level is the specified value or less.	—
18	Oil level warning light	PCM	×	<ul style="list-style-type: none"> Illuminates when engine oil level is the specified value or less. Flashes when a DTC is recorded in the PCM after a malfunction in the oil supply control occurs. 	—
19	AT warning light	TCM	×	The AT warning light illuminates to alert the driver of a malfunction in the automatic transmission. (See TRANSMISSION/TRANSAXLE, AUTOMATIC TRANSMISSION [SJ6A-EL].)	AT
20	Gear position indicator light	TCM	×	The gear position indicator light displays the gear position when in the manual mode. (See TRANSMISSION/TRANSAXLE, AUTOMATIC TRANSMISSION [SJ6A-EL].)	AT
21	Electric power steering (EPS) warning light	EPS control module	×	Illuminates when EPS system has malfunction. (See STEERING, ON-BOARD DIAGNOSTIC.)	—
22	Air bag system warning light	SAS control module	—	Illuminates or flashes when SRS air bag system has malfunction. (See RESTRAINTS, ON-BOARD DIAGNOSTIC.)	—
23	High-beam indicator light	Light switch	—	When the headlight (high-beam) illuminates, the high-beam indicator light illuminates.	—
24	ABS warning light	ABS HU/CM, DSC HU/CM	×	<p>If the ABS/DSC system is malfunctioning, the ABS warning light remains illuminated. (See BRAKE, ON-BOARD DIAGNOSTIC SYSTEM.)</p> <p>(See 04-02-2 ON-BOARD DIAGNOSTIC SYSTEM FUNCTION [DYNAMIC STABILITY CONTROL (DSC)].)</p>	—
25	TNS indicator light	TNS relay	—	When the TNS illuminates, the TNS indicator light illuminates.	—

INSTRUMENTATION/DRIVER INFO.

INSTRUMENT CLUSTER SYSTEM WIRING DIAGRAM

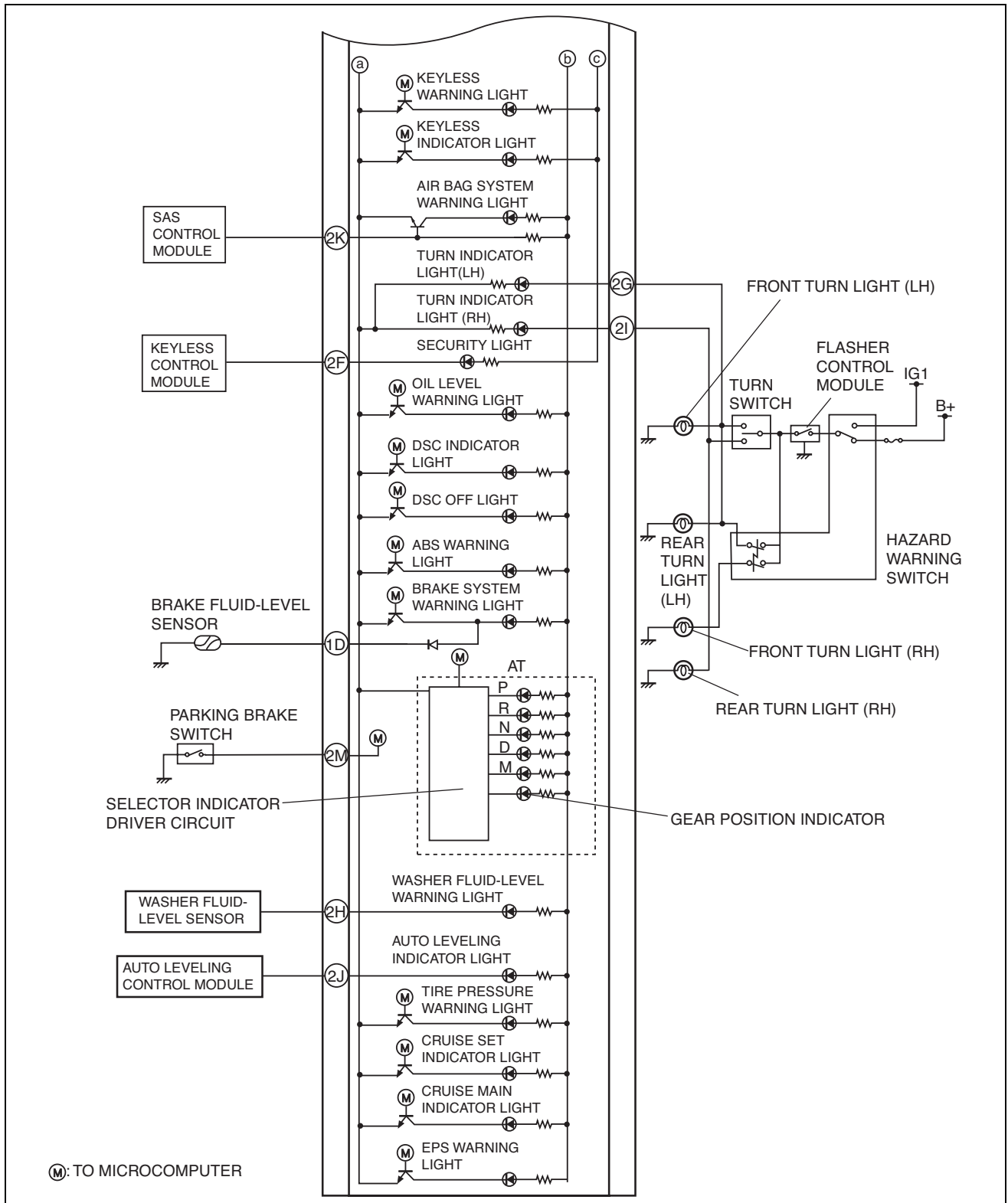
id092200101300



09-22

ar8uun00000157

INSTRUMENTATION/DRIVER INFO.



ar8uun00000158

INSTRUMENTATION/DRIVER INFO.

TACHOMETER CONTROL OUTLINE

id092200102300

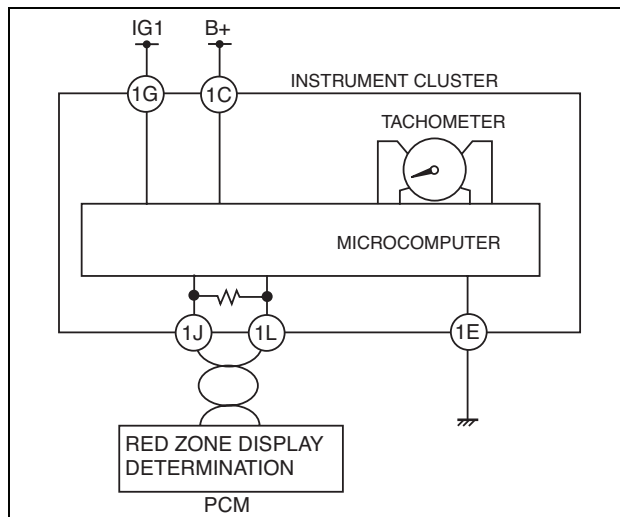
- Variable red zone has been adopted that changes the red zone display of the engine speed according to the engine coolant temperature.

TACHOMETER CONTROL CONSTRUCTION/OPERATION

id092200102200

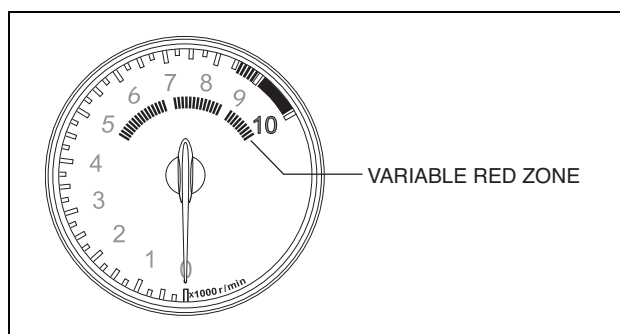
Variable Red Zone Control

- The PCM determines the red zone of the engine speed based on the engine coolant temperature signal from the ECT sensor, and outputs a variable red zone display request signal to the instrument cluster via CAN system.



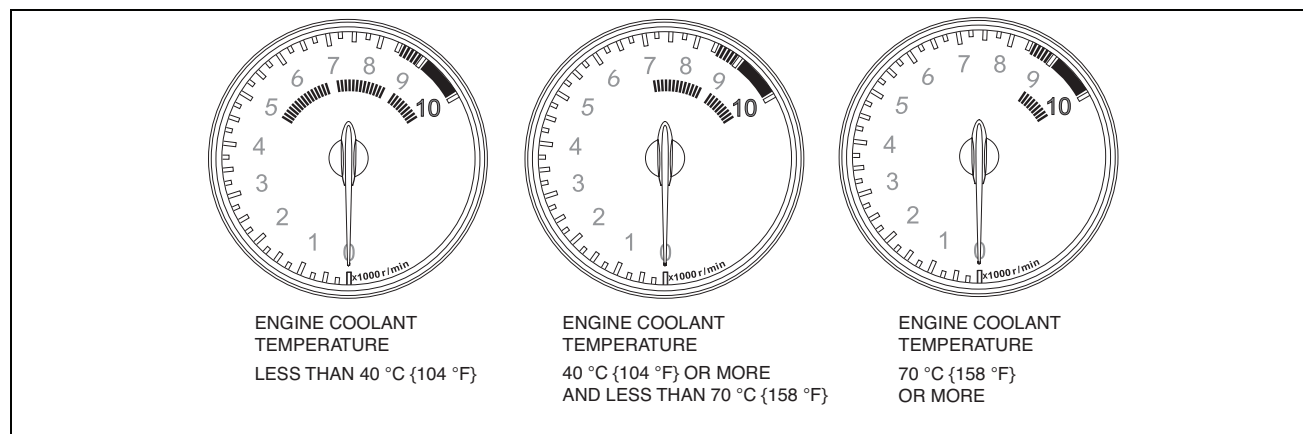
ar8uun00000159

- The instrument cluster switches the variable red zone display in the tachometer based on the red zone display request signal input from the PCM.
- Variable red zone has three display patterns that are switched according to the engine coolant temperature.



ar8uun00000160

09-22



ar8uun00000161

Engine coolant temperature	Range of variable red zone	
	5MT, 6AT	6MT
Less than 40 °C {104 °F}	5,000 rpm	5,000 rpm
40 °C {104 °F} or more and less than 70 °C {158 °F}	6,500 rpm	7,000 rpm
70 °C {158 °F} or more	7,500 rpm	9,000 rpm