

■ SYSTEM OPERATION

1. General

The corresponding chart below illustrates the relationship between the body electrical system and the ECUs under the control of the multiplex communication system.

<div>Components</div> <div>System</div>	Door Bus								Instrument Panel Bus				
	No. 1 Body ECU	No. 2 Body ECU	Driver Door ECU	Front Passenger Door ECU	Rear Right Door ECU	Rear Left Door ECU	Seat ECU	Moon Roof ECU	Engine ECU	Meter ECU	Air Conditioner ECU	Multi Media ECU	Tilt and Telescopic ECU
Power Window	△	△	○	△	△	△		△					
Door Lock Control	○	△	△	△	△	△				△			
Wireless Door Lock Remote Control	○	△	△	△	△	△		△					
Light Auto Turn-Off		○	△	△	△	△							
Automatic Light Control		○	△							△			
Theft Deterrent	○	△	△	△	△	△							
Illuminated Entry		○	△	△	△	△							
Key Reminder Buzzer		○	△										
Trunk Lid Open	○												
Mirror Control	△	△	○	○									
Shift Lock System		○							△				
Front and Rear Fog Lights Control		○								△			
Customized Body Electronics	○		△	△	△	△		△			△		
Diagnosis	○	△	△	△	△	△	△	△		△	△		△
Memory Adjust			△	△			○						△
Seat Belt Warning	△	△								○			
ECT Signal Processing	△								○	△			
Air Conditioner Control	△								△		○	△	
Displays of Various Meters	△	△	△	△	△	△		△	△	○	△	△	
Displays of Various Types of Vehicle Information									△	○		△	

- : Master control (The ECU, which has a central role in controlling each system, outputs the signals to other ECUs to activate motors or other applicable components.)
- △: Sub control (The ECU which has a supporting role in controlling each system, outputs control signals to the master control, or receives signals from the master control to activate motors or other applicable components.)

Power Window System

The power window system provides the following function:

- Jam protection function
- One-touch auto up-and-down function
- One-touch auto up-and-down remote control function
- Transmitter-linked up-and-down function
- Key-linked up-and-down function

The operation of these functions are basically the same as those of the LS400.

Door Lock Control System

The door lock control system provides the following functions:

- Key-linked lock and unlock function
- Key-confine prevention function
- Manual unlock prevention function

The operation of the functions are basically the same as those of the LS400, except for the manual unlock prevention function.

1) Manual Unlock Prevention Function

When the doors are locked through the operation of the door key cylinder, the transmitter, or through the key-less lock operation, this function prohibits the unlock operation to be effected through the door lock control switch until the doors are unlocked by turning the ignition ON or operating the door key cylinder, or through the unlock operation of the transmitter.

Wireless Door Lock Remote Control System

The wireless door lock remote control system provides the following functions:

- All doors lock/unlock operation
- Trunk lid open operation
- Auto lock function
- Transmitter switch misoperation prevention function
- Repeat function
- Interior light function
- Security function
- Operation verification beeper function
- Door ajar warning function

The operation of these functions are basically the same as those of the LS400.

Light Auto Turn-Off System

The light auto turn-off system provides the following functions:

- Light auto turn-off function (When the taillights are ON.)
- Headlight off delay control function (When the headlights and taillights are ON.)

The operation of these functions are basically the same as those of the LS400.

Automatic Light Control System

The automatic light control system controls the headlights and taillights to turn ON and OFF in accordance with the light availability surrounding the vehicle.

The operation of this system are basically the same as those of the LS400.

Theft Deterrent System

A theft deterrent system is used to prevent vehicle theft. When the system is set, the horn and headlights, taillights and turn signal lights operate if the door, hood or trunk lid is forcibly opened.

The operation of this system is basically the same as those of the LS400.

Illuminated Entry System

The system operation of this system is basically the same as in the LS400.

However, the new GS300 is not provided with a seat belt inner buckle illumination.

Also, the length of time during which the ignition key cylinder light and the dome light remain illuminated can be changed in the Customized Body Electronics System.

Warning System

The warning system provides the following systems:

- Key reminder system
- Seat belt warning buzzer and light system

The system operation of these system are basically the same as in the LS400.

Trunk Lid Open System

The No. 1 body ECU detects the output signal from the trunk lid opener switch. When the trunk lid opener switch is turned ON, the No. 1 body ECU activates the trunk lid opener.

Fog Light Control System

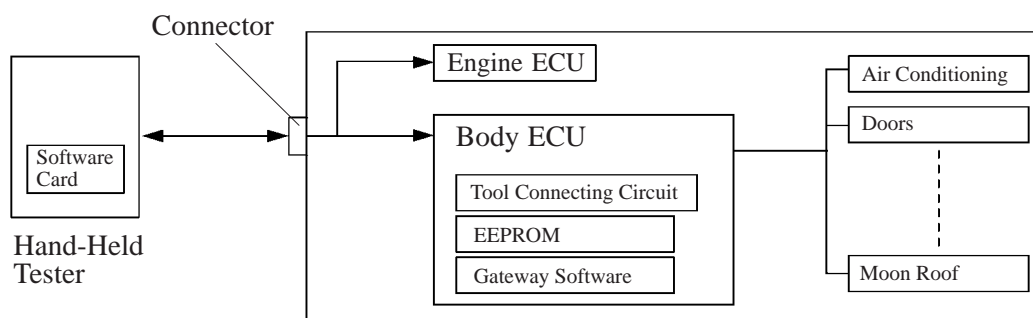
The No. 2 body ECU detects the output signal from the fog light switch. When the fog light switch is turned ON, the No. 2 body ECU activates the fog light relay to illuminate the fog lights.

Customized Body Electronics System

1) General

The customized body electronics system can change the specification of functions (by changing their settings) according to customer preferences by a hand-held tester to overwrite the EEPROM that is enclosed in the body ECU.

► System Diagram ◀



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2) Operation

The specifications of the systems and functions that can be changed by operating a hand-held tester are listed next page.

System	Content	Initial Setting			Selection	Customer Recognition	Customer Unrecognizableness
		Europe	Australia	G.C.C. Countries			
Wireless Door Lock Remote Control System	Wireless Operation	Permission	Permission	Permission	Permission/Prohibition	○	—
	Operation Verification Beeper Volume Adjustment	84%	84%	84%	93/89/75/50 (%) / Prohibition (Small ↔ Large)	○	—
	Door Ajar Warning Beeper	ON	ON	ON	ON/OFF	○	—
	Time Until the Operation of the Autolock Function	30 sec.	30 sec.	30 sec.	60/30 (sec.)	○	—
	Trunk Lid Open Operation	0.8 sec. Pressed Continuously	0.8 sec. Pressed Continuously	0.8 sec. Pressed Continuously	Pressed Once/0.8 sec. Pressed Continuously/Pressed Twice/Non-Operation	○	—
	All Door's Unlock Operation (Unlock Switch Pressed Twice)	OFF	ON	ON	ON/OFF	○	—
	Interior Light Function	ON	ON	ON	ON/OFF	○	—
	Panic Alarm Operation	OFF*	ON	OFF*	ON/OFF	○	—
	Car-Finding Operation	OFF*	ON	ON	ON/OFF	○	—
	Speed Sensitive Auto Door Lock Function	OFF*	OFF*	OFF*	—	○	—
Door Lock Control System	All Door's Unlock Operation (Door Key Operated Twice)	OFF	ON	ON	ON/OFF	○	—
	All Door's Unlock Operation (Opening the driver's door within 10 seconds after turning the ignition switch from ON to OFF)	OFF	OFF	OFF	ON/OFF	—	○
	All Door's Unlock Operation (With the ignition switch ON, and vehicle speed 0, engaging the shift lever to the P range)	OFF	OFF	OFF	ON/OFF	—	○
	All Door's Unlock Operation (With the ignition switch ON, engaging the shift lever to the D range. However, once the locks operate, they will not operate until the ignition switch is turned again from OFF to ON.)	OFF*	OFF*	OFF*	—	—	○

*: Unable to change

System	Content	Initial Setting			Selection	Customer Recognition	Customer Unrecognizableness
		Europe	Australia	G.C.C. Countries			
Theft Deterrent System	Theft Deterrent System	ON*	ON*	ON*	—	○	—
	Alarm operation time	27.5 sec.*	27.5 sec.*	60 sec.*	—	○	—
	Passive Mode	OFF*	OFF	OFF	ON/OFF	○	—
Power Window System	Operation Verification Light Function	Parking Lights	Parking Lights	Parking Lights	Parking Lights/OFF	○	—
	Key-Linked Open Operation	ON	ON	ON	ON/OFF	○	—
	Key-Linked Close Operation	ON	ON	ON	ON/OFF	○	—
	Transmitter Operation Linked Open Operation	ON	ON	ON	ON/OFF	○	—
	Transmitter Operation Linked Close Operation	ON	OFF*	ON	ON/OFF	○	—
	Door Key Linked Open Operation	ON	ON	ON	ON/OFF	○	—
Moon Roof	Door Key Linked Close Operation	ON	ON	ON	ON/OFF	○	—
	Transmitter Operation Linked Open Operation	ON	ON	ON	ON/OFF	○	—
	Transmitter Operation Linked Close Operation	ON	OFF*	ON	ON/OFF	○	—
	Door Key Linked Operation Selection	Slide	Slide	Slide	Slide/Tilt	○	—
	Transmitter Operation Linked Operation Selection	Slide	Slide	Slide	Slide/Tilt	○	—
	Interior lights illuminate when the doors are unlocked by the operation of the door key.	ON	ON	ON	ON/OFF	○	—
Illuminated Entry System	Interior Light Illumination Time	15 sec.	15 sec.	15 sec.	7.5/15/30 (sec.)	○	—

*: Unable to change

System	Content	Initial Setting			Selection	Customer Recognition	Customer Unrecognizableness
		Europe	Australia	G.C.C. Countries			
Reminder System	Key Reminder Buzzer Volume	—	—	Large	Small/Medium/Large	○	—
	Key Reminder Buzzer Sound- ing Interval	—	—	0.9 sec.	0.6/0.9/1.2 (sec.)	○	—
	Light Reminder Buzzer	ON	OFF	OFF	ON/OFF	○	—
	Seat Belt Warning Buzzer	OFF	OFF	ON*	ON/OFF	○	—
Automatic Light Control System	Delay Time of Taillights Illumination	—	0.1 sec.	0.1 sec.	1.0/0.1 (sec.)	○	—
	Sensitivity Adjustment	0	0	0	-40/-20/0/+20/+40 (%)	○	—
	Display Dimmer Level Light Sensitivity Control (for dimming)	0	0	0	-2/-1/0/+1/+2	○	—
	Display Dimmer Level Light Sensitivity Control (cancel dimming)	0	0	0	-2/-1/0/+1/+2	○	—
Power Tilt and Telescopic Steering	Auto Tilt Away operation	ON	ON	ON	ON/OFF	○	—
Air Conditioner	Set Temperature Shift Control Function	0	0	0	-2/-1/0/+1/+2 (°C)	—	○
	With the Cool Down, Air Inlet Mode Automatically Switch Function	ON	ON	—	ON/OFF	—	○
	Automatic Mode Linked Compressor Control Function	ON	ON	ON	ON/OFF	—	○
	Defroster Linked Compressor Control Function	ON	ON	ON	ON/OFF	—	○
	Air Inlet Mode Switch Function (with the Pressure Switch OFF or Compressor Lock	ON	ON	ON	ON/OFF	—	○

*: Unable to change