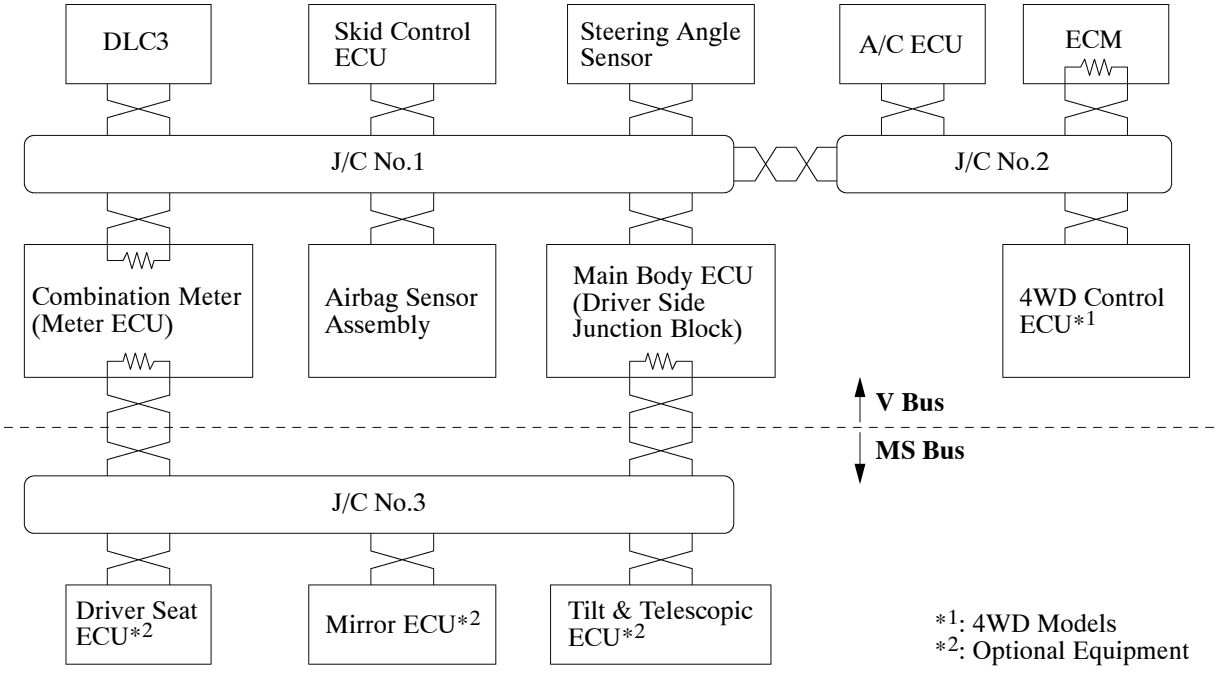
■CAN

1. General

The CAN (Controller Area Network) uses two different CAN buses: V bus for high-speed communication (500 kbps) and MS bus for medium-speed communication (250 kbps).

- The CAN has two terminating resistors of 120 Ω which are necessary for accurate judgment of communication on the main bus.
- The terminating resistors for the V bus are located in the ECM and the combination meter (Meter ECU).
- The terminating resistors for the MS bus are located in the Main Body ECU (Driver Side Junction Block) and the combination meter (Meter ECU).
- Combination meter (Meter ECU) is connected to MS bus only for the termination resistor. The combination meter does not communicate using the MS bus.
- The Main Body ECU (Driver Side Junction Block) has a gateway function and is used to transmit data between the V bus and the MS bus.

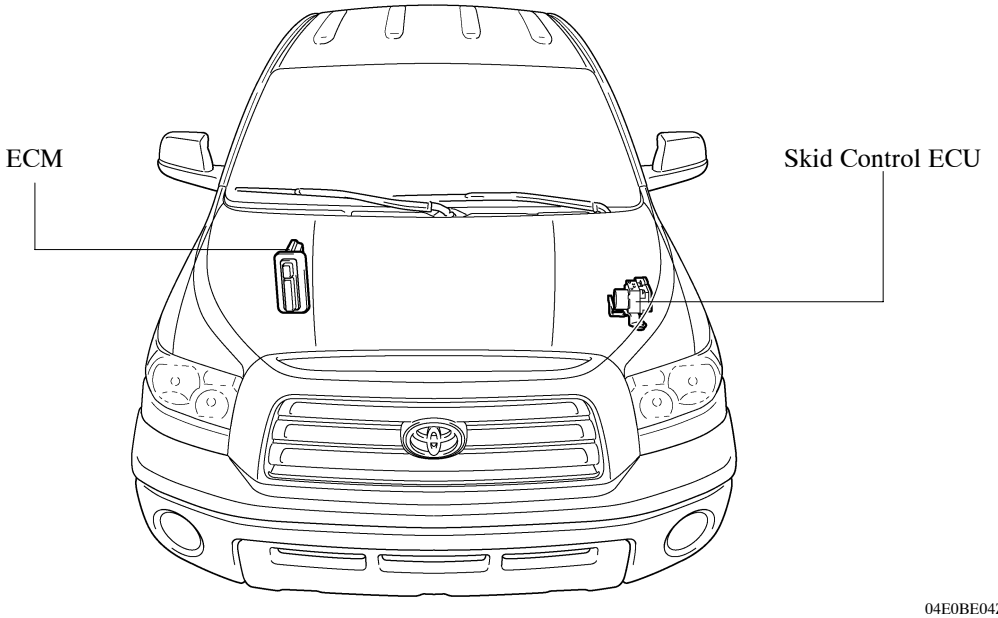
2. Wiring Diagram



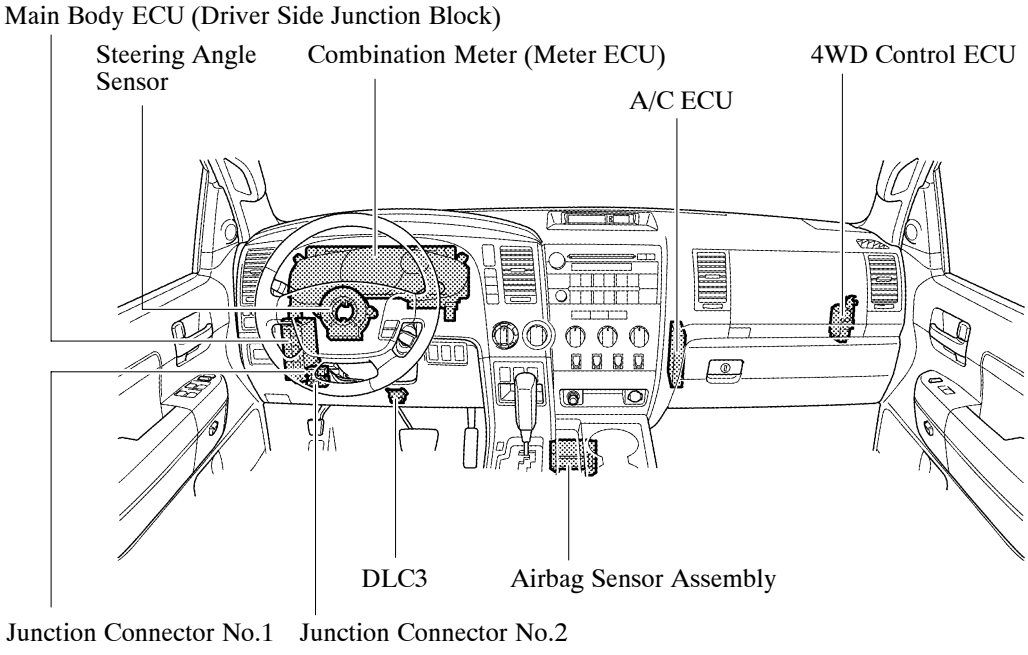
04E1BE05C

3. Layout of Main Components

V Bus



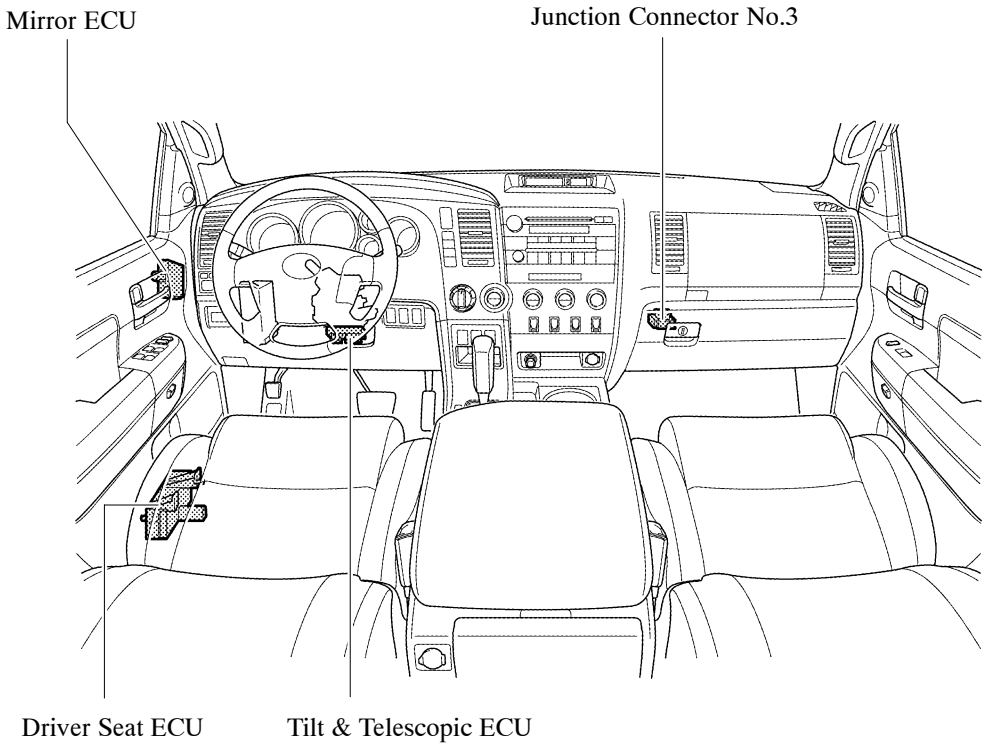
04E0BE04Z



04E0BE36Z

BE

MS Bus



04E0BE37Z

4. Diagnosis

If a malfunction occurs on the CAN communication bus, ECUs that are connected to the CAN communication bus store the DTC (Diagnostic Trouble Code) in memory.

- The 5-digit DTCs can be read after connecting a hand-held tester to DLC3.
- DLC3 is equipped with a CAN-H and a CAN-L terminal on the V bus to allow CAN diagnosis. It is possible to determine if there is an open or short in the main wires of the V bus by measuring the resistance value between these terminals.

For details, see the 2007 TOYOTA TUNDRA Repair Manual (Pub. No. RM04E2U).

5. Customized Body Electronic Function

A hand-held tester or Techstream* can be used to customize the system settings.

*: Techstream is the name for the diagnostic tester in North America, but other countries will continue to use the hand-held tester.

System	Hand-held Tester Display Content	Contents	Default Setting	Available Setting
Lighting	FOOT LIGHT T (Foot Light T)	Changes the time the foot lights stay on.	15 sec	7.5 sec/ 15 sec/ 30 sec/ OFF
	LIGHTING TIME (Lighting time)	Changes the lighting time after closing the door. (It will quickly fade out in the event the ignition switch is turned ON.)	15 sec	7.5 sec/ 15 sec/ 30 sec
	I/L ON/UNLOCK (Light dome lamp when unlocking with door key)	Lights up the interior lights, etc. when the door is unlocked with a transmitter, key cylinder or door lock control switch.	ON	ON/OFF
	I/L ON/ACC OFF (Light the I/L when ACC OFF)	Lights up the interior lights when the ignition switch is operated from "ACC" to "OFF".	ON	ON/OFF
	LIGHT OFF DELAY (Light auto OFF delay)	Keeps the headlights illuminated for a certain period of time after closing all the doors when the ignition switch has been turned OFF (was in the ON mode), the light control switch is in the HEAD or AUTO position and the headlights were ON.	30 sec	OFF/ 30 sec/ 60 sec/ 90 sec
	RESPONSE TIME*1 (Response Time)	To change the delay timing of lighting the taillight when going into the tunnel in case that the light control switch is at AUTO position.	NORMAL	LONG/ NORMAL
	SENSITIVITY (Turn ON luminous intensity)	To adjust the sensitivity of the lighting illumination.	NORMAL	LIGHT 2/ LIGHT 1/ NORMAL/ DARK 1/ DARK 2
	DISP EX ON SEN (Display extinction luminous intensity)	Used to changes the brightness required to dim the lights such as the indicator light of the combination meter, A/C indicator lights, clock.	NORMAL	LIGHT 2/ LIGHT 1/ NORMAL/ DARK 1/ DARK 2
	DISP EX OFF SEN (Display extinction release luminous intensity)	Used to change the brightness required to cancel the dimming of the lights such as the indicator light of the combination meter, A/C indicator lights, clock.	NORMAL	LIGHT 2/ LIGHT 1/ NORMAL/ DARK 1/ DARK 2

*1: Automatic A/C only

(Continued)

System	Hand-held Tester Display Content	Contents	Default Setting	Available Setting
Meter	KEY REMND VOLUM (Key reminder buzzer volume)	Changes the volume of the key reminder buzzer.	LARGE	LARGE/ MEDIUM/ SMALL
	KEY REMND SOUND (Key reminder buzzer sound)	Changes the frequency of the key reminder buzzer.	SLOW	NORMAL/ FAST/ SLOW
	P-SEATBELT WARN (Seat-belt warning Buzzer)	Function to change the seatbelt reminder buzzer.	ON	ON/OFF
A/C	SET TEMP SHIFT*1 (Set Temperature Shift)	Shifts the climate control output air temperature compared to the displayed temperature.	NORMAL	+2°C/ +1°C/ NORMAL/ -1°C/ -2°C
	AIR INLET MODE*1 (Air Inlet Mode)	When the A/C is turned ON and it is desired to make the compartment cool down quickly, this is the function to set the mode automatically to RECIRCULATE mode.	AUTO	MANUAL/ AUTO
	COMPRESSOR MODE*1 (Compressor Mode)	Turns the A/C ON automatically by pressing the AUTO button when the blower is ON and the A/C is OFF.	AUTO	MANUAL/ AUTO
	COMPRS/DEF OPER*1 (Compressor/Air Inlet DEF operation)	Turns the A/C ON automatically linking with the FRONT DEF button when the A/C is OFF.	LINK	NORMAL/ LINK
	FOOT/DEF MODE*1 (Foot/DEF auto mode)	Turns the air flow to FOOT/DEF ON automatically when AUTO MODE is ON.	ON	ON/OFF
	AUTO BLOW UP*1 (Foot/DEF automatic blower increase function)	Function to increase the blower level automatically when the defroster is ON.	ON	ON/OFF
	AMBIENT TMP SFT*1 (Ambient Temperature Shift)	To shift the ambient temperature that is detected against the displayed ambient temperature.	NORMAL	+3°C/ +2°C/ +1°C/ NORMAL/ -1°C/ -2°C/ -3°C

*1: Automatic A/C only

(Continued)

System	Hand-held Tester Display Content	Contents	Default Setting	Available Setting
Door Lock	UNLK/KEY TWICE (Unlock w/2 times D key operation)	Unlocks only the driver's door by operating the key once and unlocks all the doors when the key is operated twice. In the OFF setting, operating the key "UNLOCK" once makes all the doors unlock.	ON	ON/OFF
	AUTO LOCK (Auto lock)	Locks the doors when the vehicle reaches a certain speed.	OFF	ON/OFF
	AUTO LOCK/SHIFT (Auto Lock/shift not P)	Locks the doors when the shift lever is moved from P range to the range other than P.	ON	ON/OFF
	AUTO UNLOCK/SHIFT (Auto Unlock/shift P)	Unlocks the doors when the shift lever is moved from the range other than P range to the P range.	ON	ON/OFF
	ALL UNLK/OPN-CL (All Unlock w/D door open-close)	Unlocks all the other doors when the driver's door is opened within 10 seconds after turning the ignition switch to OFF from ON.	OFF	ON/OFF
Wireless Door Lock	WIRELESS OPER (Wireless door lock control function)	Turns the wireless door lock function on or off.	ON	ON/OFF
	HAZARD ANS BACK (Hazard answer back of the wireless)	Lights up the all turn signal lights once when the transmitter lock button is pressed, and twice when the unlock button is pressed.	ON	ON/OFF
	WIRLS BUZZ RESP (Wireless buzzer response)	Turns the wireless buzzer response function on or off.	ON	ON/OFF
	OPEN DOOR WARN (Open door warning)	Makes the buzzer sound for 10 seconds if the door is open when locking with the wireless door lock function.	ON	ON/OFF
	UNLOCK/2 OPER (2 times operation wireless unlock)	Unlocks the driver's door when the unlock button of the transmitter is pressed once and unlocks all the doors when it is pressed twice. In the OFF setting, pressing one time makes all the doors unlock.	ON	ON/OFF
	AUTO LOCK DELAY (Auto Lock Time)	To change the time until re-locking after unlocking with the wireless door lock function.	30 sec	30 sec/ 60 sec/ 120 sec/

(Continued)

System	Hand-held Tester Display Content	Contents	Default Setting	Available Setting
Wireless Door Lock	ALARM FUNCTION (Panic function)	Operates the theft deterrent system horn and lights when the lock button of the transmitter is pressed for 2.5 seconds. If there is a separate panic button, the panic button will be used instead of the lock button.	ON	ON/OFF
	WIRLS AUTO LOCK (Wireless Auto Lock)	Function of auto-locking the doors after 30/60/120 seconds after opening them by unlock button on the transmitter.	ON	ON/OFF
Theft Deterrent	WARN BY GLS SEN*2 (Warning by glass broken sensor)	Function to turn ON/OFF of the glass break sensor. This function is only effective for the vehicle with glass break sensor.	ON	ON/OFF
	WARN BY HORN (Warning by vehicle's horn)	Function to make the warning by the horn and security horn available.	ON	ON/OFF
	PASSIVE MODE (Passive mode (Security system))	PASSIVE MODE is the function used to set the theft deterrent system automatically 30 seconds after closing the driver's door when the door was opened after removing the key from the key cylinder.	OFF	ON/OFF
	ENTRY DELAY (Entry Delay)	To change the entry delay time (period before starting the warning) for the passive mode.	14 sec	0 sec/ 14 sec/ 30 sec
Tilt & Telescopic	AUTO TILT AWAY (Autoaway/Return function)	Turns the Auto away/return function on or off.	ON	ON/OFF
Sliding Roof	DOOR KEY OPER (Door key related operation)	Function to select the opening type of the sliding roof if the driver side door key is held for 1.5 seconds or more to the unlock side when the ignition switch is OFF.	SLIDE	TILT/ SLIDE
	OPEN/DOOR KEY (Door key related open)	Opens the sliding roof if the key cylinder is held for 1.5 seconds or more to the unlock side when the ignition switch is OFF.	ON	ON/OFF
	CLOSE/DOOR KEY (Door key related close)	Closes the sliding roof if the key cylinder is held for 1.5 seconds or more to the lock side when the ignition switch is OFF.	ON	ON/OFF

*2: With Glass Breakage Sensor Only