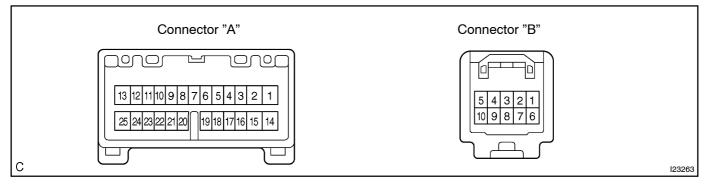
# TERMINALS OF ECU

### 1. MULTI DISPLAY



Terminals (Symbols)	Condition	Specified value	Problem symptom when open circuit is detected. Problem symptom when short circuit is detected.
A1 – A25 (+B – GND1)	Constant	Battery voltage	Screen is in disorder.
A3 – A25 (IG – GND1)	Ignition switch ON	Battery voltage	Navigation system does not oper- ate.
A4 – A25 (SPD – GND1)	Input signal displayed	_	Navigation operation is available during driving, or a cursor on pres- ent site does not move.
		_	Screen is in disorder.
A5 (GTX+)	System checking		Navigation system does not oper- ate.
			Screen is in disorder.
A7 – A25 (DR – GND1)	System checking	-	Navigation system does not oper- ate.
A10 – A25 (RE1 – GND1)	Ignition switch position ACC	Approx. 3 V	Controller does not operate.
A14 – A25	Ignition switch position ACC	Battery voltage	Screen is in disorder
(ACC – GND1)			Fuse is blown.
A15 – A25 (ST1 – GND1)	Ignition switch ON	Battery voltage	Navigation system does not oper- ate.
A16 – A25	Ignition switch position OFF and connect terminals TC and CG of DLC3.	Continuity	Screen ins in disorder.
(TC – GND1)			Constant screen is normal.
A17 - A25	Input signal displayed	_	The system can not enter diagno- sis system mode.
(PKB – GND1)			Normal.
	System checking	_	Screen is in disorder.
A18 (GTX–)			Navigation system does not oper- ate.
A22 – Body ground (SGD1 – Body ground)	Constant	Continuity	Normal.
A25 – Body ground (GND1 – Body ground)	Diagnosis display check screen is white.	Continuity	Normal.

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#### DIAGNOSTICS - LEXUS NAVIGATION SYSTEM

B1 – A25 (VR – GND1)	Constant	Approx. 2.5 V	Screen is in disorder.
			Navigation system does not oper- ate.
B2 – A25 (R – GND1)	Diagnosis display check screen is white.	Using an oscilloscope *2	Screen color turns to light blue.
B3 – A25 (B – GND1)	Ignition switch position ACC	Using an oscilloscope *2	Screen color turns to yellow.
B5 (CTX+)	System checking	-	Screen is in disorder.
			Navigation system does not oper- ate.
B6 – A25 (VG – GND1)	Constant	Continuity	Normal.
B7 – A25 (G – GN1)	Diagnosis display check screen is white.	Using an oscilloscope *2	Screen color turns to pink.
B8 – A25 (SYNC – GND1)	Navigation screen is display.	Using an oscilloscope *1	Screen noise or other types of noise occur.
B10 (CTX-)	System checking	_	Screen is in disorder.
			Navigation system does not oper- ate.

С

Connector "A" Connector "B" Connector "C" 321 654321 987654321 181716151413121110

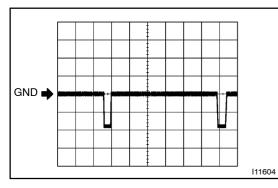
Connector "D"



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Terminals (Symbols)	Condition	Specified value	Problem symptom when open circuit Problem symptom when short circuit
B1 – Body ground (VR – Body ground)	Constant	Continuity	Normal
B2 – C17 (R – GND)	Diagnosis display check screen is while	Using an oscilloscope *2	Screen color turns to light blue.
B3 – C17 (B – GND)	Diagnosis display check screen is while	Using an oscilloscope *2	Screen color turns to light yellow.
B5 – B10 (TX+ – TX–)	Ignition switch position ACC	Approx. 3 V	Controller does not operate.
B6 – Body ground (VG – Body ground)	Constant	Continuity	Normal
B7 – C17 (G – GND)	Diagnosis display check screen is while	Using an oscilloscope *2	Screen color turns to pink.
B8 – C17 (SYNC – GND)	Diagnosis display check screen is while	Using an oscilloscope *1	Screen is in disorder.
B10 – Body ground (TX– – Body ground)	Constant	Continuity	Normal.
C1 – C17 (AUI+ – GND)	Speaker sounding.	5 – 7 V	Driver side speaker does not sound.
C2 – C17 (AUO+ – GND)	Speaker sounding.	5 – 7 V	Driver side speaker does not sound.
	Speaker sounding.	-	Screen noise or other types of noise occur.
C4 (MUTE)			Driver side speaker does not sound.
C5 (SPD)	Input signal displayed	-	Navigation operation is available during driving, or a cursor on pres- ent site does not move.
C9 – C17	Constant	Battery voltage	Screen is in disorder.
(+B – GND)			Fuse is blown.
C10 – C17 (AUI– – GND)	Speaker sounding.	5 – 7 V	Diver side speaker does not sound.
C11 – C17 (AUO– – GND)	Speaker sounding.	5 – 7 V	Driver side speaker does not sound.

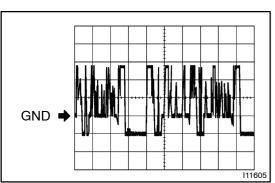
C15 (MUTE)	Speaker sounding.	-	Screen noise or other types of noise occur.
			Driver side speaker does not sound.
C17 – Body ground (GND – Body ground)	Constant	Continuity	Normal.
C18 – C17	Ignition switch position ACC.	Battery voltage	Screen is in disorder.
(ACC – GND)			Fuse is blown.
D1 – C17 (SW– – GND)	Ignition switch OFF	0 V	Switch illumination dose not light up and switch can be operation.
D3 – C17 (MIC+ – GND)	Ignition switch position ACC	Approx. 5 V	No voice can be heard from cellu- lar phone and voice recognition cannot be done.
D4 – C17 (MACC – GND)	Ignition switch position ACC	Approx. 5 V	No voice can be heard from cellu- lar phone and voice recognition cannot be done.
D5 – C17 (MIC– – GND)	Ignition switch position ACC	Approx. 5 V	No voice can be heard from cellu- lar phone and voice recognition cannot be done.
D6 – Body ground (SGND – Body ground)	Constant	Continuity	Normal.
D7 (SNSE)	_	-	-
D8 – C17 (SW+ – GND)	Ignition switch position ACC	Approx. 5 V	Switch illumination dose not light up and switch can be operation.



## Oscilloscope

Wave \*1 HINT:

- Terminal SYNC, EXSYNG ↔ GND1
- Gauge set 500 mV/DIV 10 μs/DIV
- Condition: Screen is display



# Wave \*2

HINT:

- Terminal R, G, B, E\*–R, E\*–G, EX–B  $\leftrightarrow$  GND1
- Gauge set 200 mV/DIV 10  $\mu$ s/DIV
- Condition: Screen changing