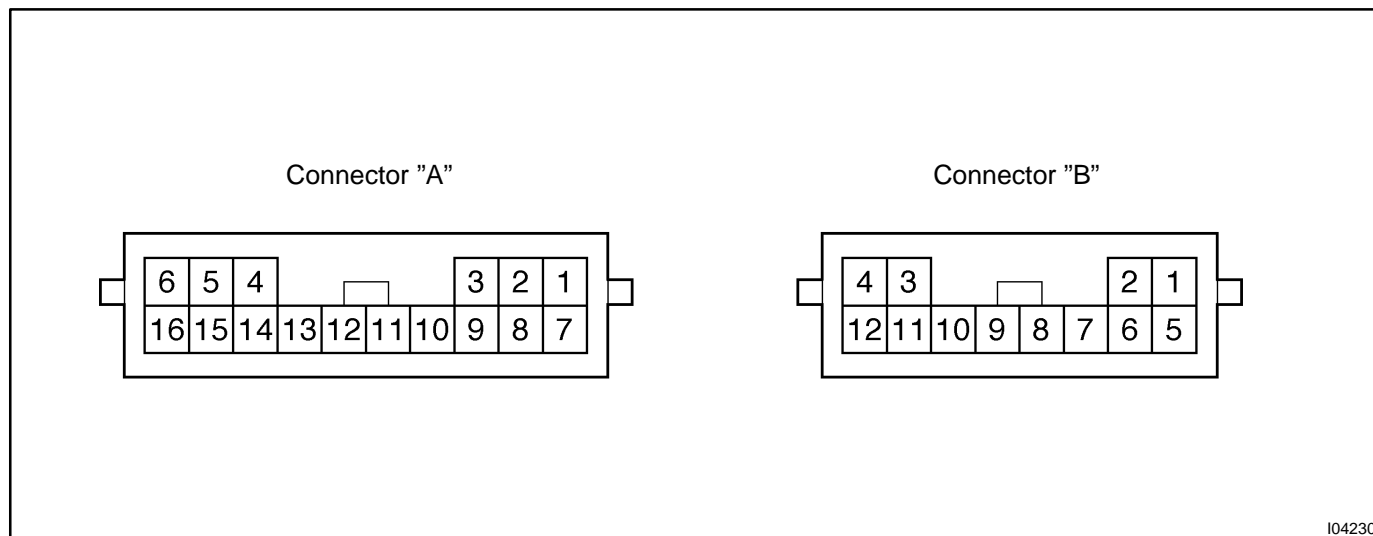


# TERMINALS OF ECU

## 1. DISPLAY ECU

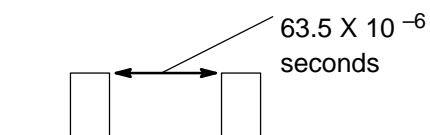


I04230

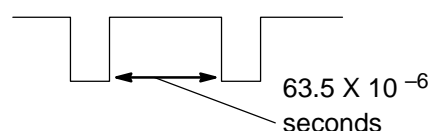
Terminals	Condition	Specified value	Problem symptom when open circuit
Symbols			Problem symptom when short circuit
A1 – Body ground	Constant	Continuity	Screen noise or other types of noise occur.
GND1 – Body ground			LEXUS navigation system is normal.
A2 – A1	Ignition switch ACC or ON (Using a oscilloscope)	10 – 14 V	A/C does not operate.
MPX1 – GND1		1 V or below	
A3 – A1	Ignition switch ACC or ON	2 – 3 V	LEXUS navigation system does not operate.
TX1+ – GND1			
A4 – A1	Seat belt unfastened	0.5 V or below	Seat belt warning light does not light up.
PBEW – GND1			Seat belt warning light light up.
A5 – A1	Light control switch TAIL (Using a oscilloscope)	10 – 14 V	Panel switch illumination does not light up.
ILL – GND1		0.5 V or below	Light control rheostat does not operate.
A6 – A1	Constant	10 – 14 V	LEXUS navigation system does not operate.
+B1 – GND1			Fuse is blown.
A8 – A1	Ignition switch ACC or ON (Using a oscilloscope)	10 – 14 V	A/C system does not operate.
MPX2 – GND1		1 V or below	
A9 – A1	Ignition switch ACC or ON	2 – 3 V	LEXUS navigation system does not operate.
TX1 – GND1			
A15 – A1	Light control switch TAIL	10 – 14 V	Panel switch illumination does not light up.
ILL+ – GND1			Fuse is blown. (Panel switch illumination does not light up.)

A16 – A1	Ignition switch ACC or ON	10 – 14 V	LEXUS navigation system does not operate.
ACC – GND1			Fuse is blown. (LEXUS navigation system does not operate.)
B1 – B5	Constant	Continuity	Screen noise or other types of noise occur.
VR – VG			LEXUS navigation system does not operation.
B2 – B5	Display ON (Using a oscilloscope)	0.5 – 1.3 V *2	Screen is in disorder
SYNC – VG			
B3 – A1	Ignition switch ACC or ON	2 – 3 V	Cellular phone does not operate.
DTX+ – GND1			LEXUS navigation system does not operate.
B4 – A1	Ignition switch ACC or ON	2 – 3 V	LEXUS navigation system does not operate.
TX+ – GND1			
B5 – A1	Constant	Continuity	Screen noise or other types of noise occur.
VG – GND1			LEXUS navigation system is normal.
B6 – B5	Diagnosis display check screen is white (Using a oscilloscope)	0.7 V $\pm$ 0.1 V *1	Screen color turns to yellow.
B – VG			Screen color turns to red–purple.
B7 – B5			
G – VG			Screen color turns to light blue.
B8 – B5			
R – VG			
B11 – A1	Ignition switch ACC or ON	2 – 3 V	Cellular phone does not operate.
DTX– – GND1			LEXUS navigation system does not operate.
B12 – A1	Ignition switch ACC or ON	2 – 3 V	Audio system does not operate.
TX– – GND1			LEXUS navigation system does not operate.

\*1

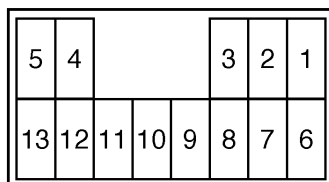


\*2

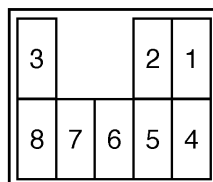


## 2. NAVIGATION ECU

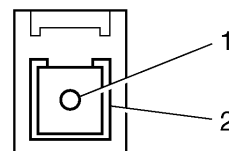
Connector "C"



Connector "D"



Connector "E"

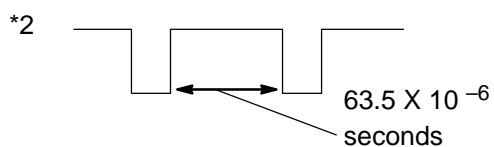
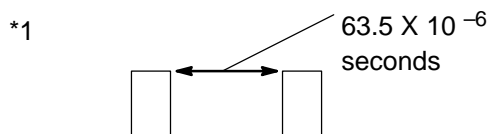


I04231

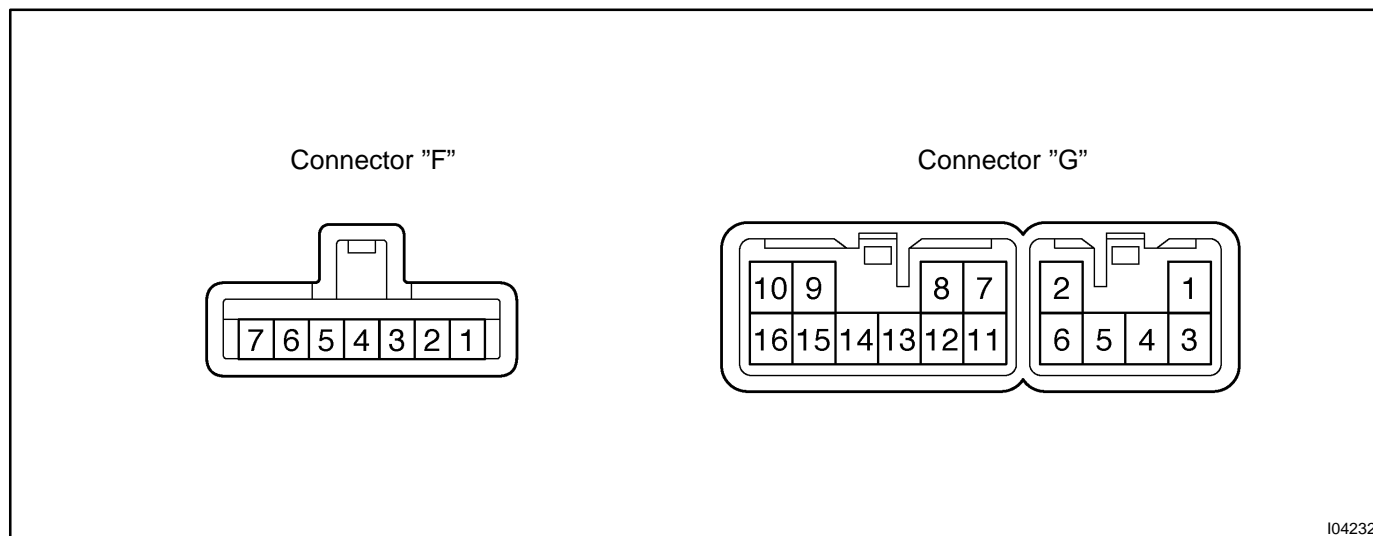
Terminals	Condition	Specified value	Problem symptom when open circuit
Symbols			Problem symptom when short circuit
C1 – C8	Radio switch ON	5 – 7 V	Driver's side speaker does not sound.
AUI+ – GND			
C2 – C8	Radio switch ON	5 – 7 V	Driver's side speaker does not sound.
AUO+ – GND			
C5 – C8	Constant	10 – 14 V	The set route can not be memo-rized. (The route disappears by turning the ignition switch OFF.)
+B – GND			Fuse is blown.
C6 – C8	Radio switch ON	5 – 7 V	Driver's side speaker does not sound.
AUI– – GND			
C7 – C8	Radio switch ON	5 – 7 V	Driver's side speaker does not sound.
AUO– – GND			
C8 – Body ground	Constant	Continuity	LEXUS navigation system does not operate.
GND – Body ground			LEXUS navigation system is normal.
C12 – C8	Ignition switch ON and rotate driv-ing wheel slowly.	Repeatedly changes from below 1 V to 9 V	Navigation operation is available during driving, or a cursor on pres-ent site does not move.
SPD – GND			
C13 – C8	Ignition switch ACC	10 – 14 V	LEXUS navigation system does not operate.
ACC – GND			Fuse is blown.
D1 – D6	Diagnosis display check screen is white (Using a oscilloscope)	0.7 V ± 0.1 V *1	Screen color turns to light blue.
R – VR			
D2 – D6	Ignition switch ACC or ON (Using a oscilloscope)	0.5 – 1.3 V *2	Screen is in disorder.
SYNC – VR			
D3 – C8	Ignition switch ACC or ON	2 – 3 V	LEXUS navigation system does not operate.
TX+ – GND			

## DIAGNOSTICS – LEXUS NAVIGATION SYSTEM

D4 – D6	Diagnosis display check screen is white. (Using a oscilloscope)	$0.7\text{ V} \pm 0.1\text{ V}^*1$	Screen color turns to red-purple.
G – VR			Screen color turns to yellow.
D5 – D6			
B – VR			
D6 – D7	Constant	Continuity	Screen noise or other type of noise occur.
VR – VG			LEXUS navigation system does not operate.
D7 – C8	Constant	Continuity	Screen noise or other type of noise occur.
VG – GND			LEXUS navigation system does not operate.
D8 – C8	Ignition switch ACC or ON	2 – 3 V	LEXUS navigation system does not operate.
TX – GND			
E1	–	–	–
GPS			
E2 – Body ground	Constant	Continuity	GPS signal received error
GND – Body ground			



## 3. AUDIO HEAD UNIT



I04232

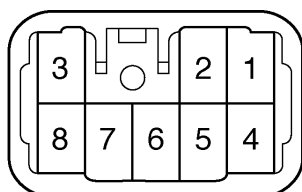
Terminals	Condition	Specified value	Problem symptom when open circuit
Symbols			Problem symptom when short circuit
F1 – G3	Ignition switch ACC or ON	2 – 3 V	LEXUS navigation system does not operate.
TX+ – E			
F2 – G3	Ignition switch ACC or ON	2 – 3 V	LEXUS navigation system does not operate.
TX– – E			
F3 – G3	Radio switch ON	10 – 14 V	Antenna does not extend.
ANT – E			
F4 – G3	Radio switch ON	10 – 14 V	Antenna does not extend.
ANTA – E			
F5 – G3	Radio switch ON	10 – 14 V	Antenna does not extend.
ANTB – E			
G1 – G3	Ignition switch ACC or ON	10 – 14 V	Audio system does not sound.
ACC – E			
G2 – Body ground	Constant	Continuity	Audio system is normal.
E2 – Body ground			
G3 – Body ground	Constant	Continuity	Audio system is normal.
E – Body ground			
G4 – G3	Constant	10 – 14 V	Audio system does not operate.
ILL+ – E			Fuse is blown.
G5 – G3	Light control switch TAIL	10 – 14 V	Audio head unit illumination does not light up.
B – E			Fuse is blown.
G6 – G3	Light control switch TAIL	10 – 14 V	Audio head unit illumination does not light up.
ILL– – E		0.5 V or below	Light control rheostat does not operate.
G7	–	–	Sound from right side speaker is small.
R+			

## DIAGNOSTICS – LEXUS NAVIGATION SYSTEM

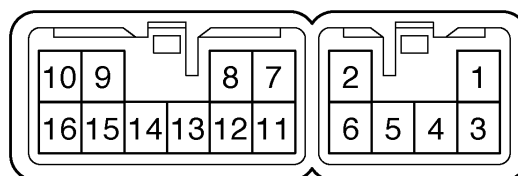
G8	–	–	Sound from left side speaker is small.
L+			
G9 – G3	Radio switch ON	10 – 14 V	Audio system does not sound.
ACCO – E			
G11	–	–	Sound from right side speaker is small.
R–			
G12	–	–	Sound from left side speaker is small.
L–			
G14 – G3	Radio switch ON	5 V	Pop sound etc., during key operation.
MUTE – E			
G15 – G3	Ignition switch ACC or ON	2 – 3 V	Audio system does not operate.
ATX– – E			LEXUS navigation system does not operate.
G16 – G3	Ignition switch ACC or ON	2 – 3 V	LEXUS navigation system does not operate.
ATX+ – E			

## 4. POWER AMPLIFIER (NAKAMICHI made)

Connector "H"



Connector "I"



I04233

Terminals	Condition	Specified value	Problem symptom when open circuit
Symbols			Problem symptom when short circuit
H1 – I13	Ignition switch ACC or ON	2 – 3 V	Audio system does not operate.
TXM+ – E			LEXUS navigation system does not operate.
H2	–	–	Sound from right side speaker is small.
CDR+			
H3	–	–	Sound from left side speaker is small.
CDL+			
H4 – I13	Ignition switch ACC or ON	2 – 3 V	Audio system does not operate.
TXM+ – E			LEXUS navigation system does not operate.
H5	–	–	Sound from right side speaker is small.
CDR–			
H6 – I13	CD auto changer operation	5 V	Pop sound etc..
CDMT – E			
H7 – Body ground	Constant	Continuity	Audio system is normal.
SGND – Body ground			
H8	–	–	Sound from left side speaker is small.
CDL–			
I1 – I13	Radio switch ON	5 – 7 V	Rear RH speaker does not sound.
SRR+ – E			Rear speaker does not sound.
I2 – I13	Radio switch ON	5 – 7 V	Rear LH speaker does not sound.
SRL+ – E			Rear speaker does not sound.
I3 – I13	Radio switch ON	5 – 7 V	Rear RH speaker does not sound.
SRR– – E			Rear speaker does not sound.
I4 – I13	Radio switch ON	5 – 7 V	Woofer does not sound.
WF+ – E	Radio switch ON	5 – 7 V	Woofer does not sound.
I5 – I13	Radio switch ON	5 – 7 V	Woofer does not sound.
WF– – E			

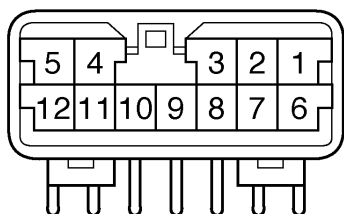
## DIAGNOSTICS – LEXUS NAVIGATION SYSTEM

I6 – I13	Radio switch ON	5 – 7 V	Rear LH speaker does not sound.
SRL– – E			Rear speaker does not sound.
I7 – I13	Radio switch ON	5 – 7 V	Rear RH speaker does not sound.
SFR+ – E			Rear speaker does not sound.
I8 – I13	Radio switch ON	5 – 7 V	Rear LH speaker does not sound.
SFL+ – E			Rear speaker does not sound.
I10 – I13	Constant	10 – 14 V	Audio system does not sound.
+B – E			Fuse is blown.
I11 – I13	Radio switch ON	5 – 7 V	Rear RH speaker does not sound.
SFR– – E			Rear speaker does not sound.
I12 – I13	Radio switch ON	5 – 7 V	Rear LH speaker does not sound.
SFL– – E			Rear speaker does not sound.
I13 – Body ground	Constant	Continuity	Audio system is normal.
E – Body ground			
I14 – I13	Cellular phone system is switched.	5 V	Pop sound.
TLMT – E			
I16 – I13	LEXUS navigation system is switched.	5 V	Pop sound.
NVMT – E			No navigation voice.

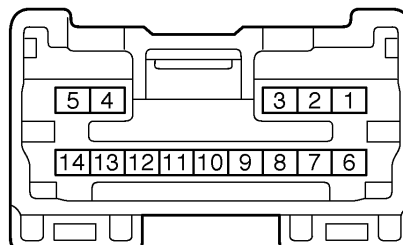


## 5. POWER AMPLIFIER (PIONEER made)

Connector "J"



Connector "K"

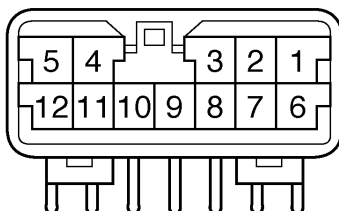


I04234

Terminals	Condition	Specified value	Problem symptom when open circuit
Symbols			Problem symptom when short circuit
J1	–	–	RH side speaker does not sound.
R+			
J2	–	–	LH side speaker does not sound.
L+			
J3 – Body ground	Constant	Continuity	Audio system is normal.
SGND – Body ground			
J4 – J3	Radio switch ON	5 V	Pop sound etc..
MUTE – SGND			Audio system does not sound.
J6	–	–	RH side speaker does not sound.
R–			
J7	–	–	LH side speaker does not sound.
L–			
J9 – J3	Ignition switch ACC or ON	2 – 3 V	Audio system does not sound.
BUS– – SGND			LEXUS navigation system does not sound.
J10 – J3	Ignition switch ACC or ON	2 – 3 V	Audio system does not sound.
BUS+ – SGND			LEXUS navigation system does not sound.
J12 – J3	Ignition switch ACC or ON	10– 14 V	Audio system does not sound.
ACC – SGND			

## 6. CD AUTO CHANGER

Connector "L"



I04235

Terminals	Condition	Specified value	Problem symptom when open circuit
Symbols			Problem symptom when short circuit
L1	–	–	Sound from right side speaker is small.
CDR+			
L2	–	–	Sound from left side speaker is small.
CDL+			
L3 – Body ground	Constant	Continuity	Audio system does not sound.
SGND – Body ground			
L4 – L8	Radio switch ON	5 V	Pop sound etc..
MUTE – SGND			Audio system does not sound.
L5 – L8	Constant	10 – 14 V	CD auto changer does not operate.
+B – SGND			Fuse is blown.
L6	–	–	Sound from right side speaker is small.
CDR–			
L7	–	–	Sound from left side speaker is small.
CDL–			
L8 – Body ground	Constant	Continuity	Audio system is normal.
GND – Body ground			
L9 – L8	Ignition switch ACC or ON	2 – 3 V	CD auto changer does not operate.
TXM+ – GND			LEXUS navigation system does not operate.
L10 – L8	Ignition switch ACC or ON	2 – 3 V	CD auto changer does not operate.
TXM+ – GND			LEXUS navigation system does not operate.
L12 – L8	Ignition switch ACC or ON	10 – 14 V	CD auto changer does not operate.
ACC – GND			Fuse is blown.