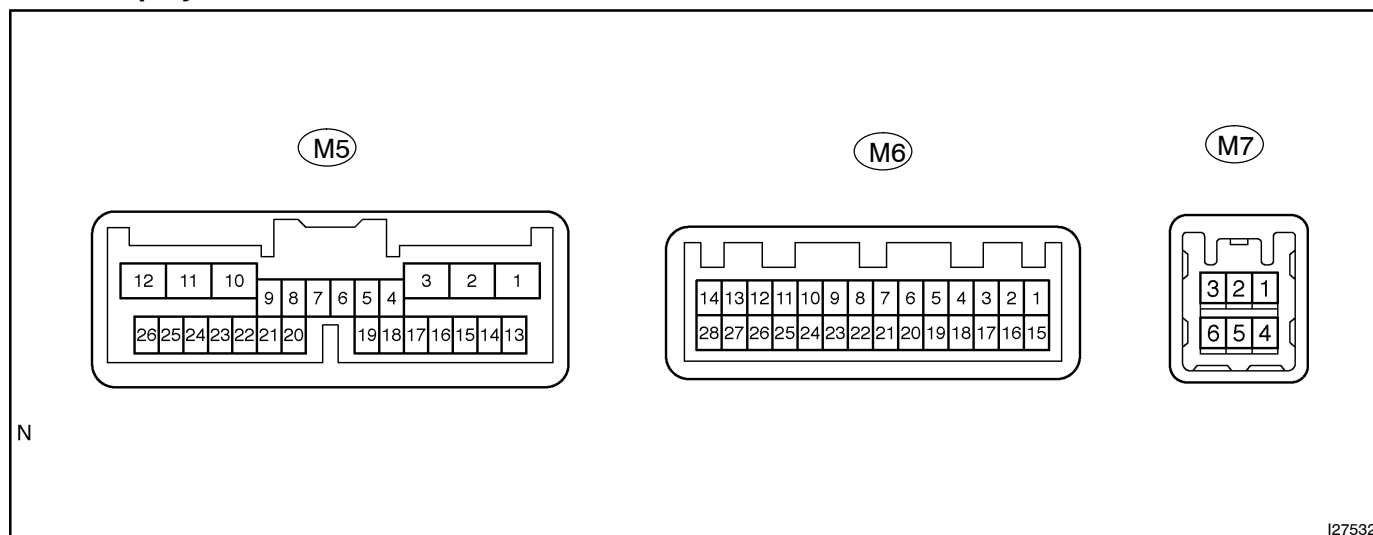


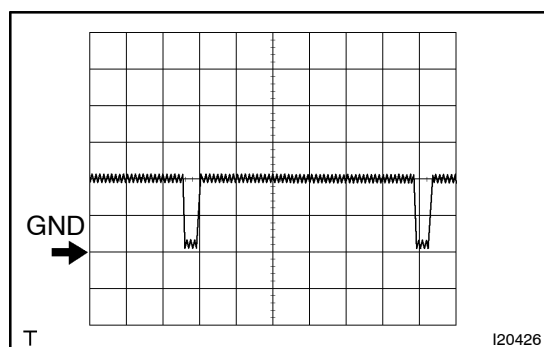
TERMINALS OF ECU

Multi-display:

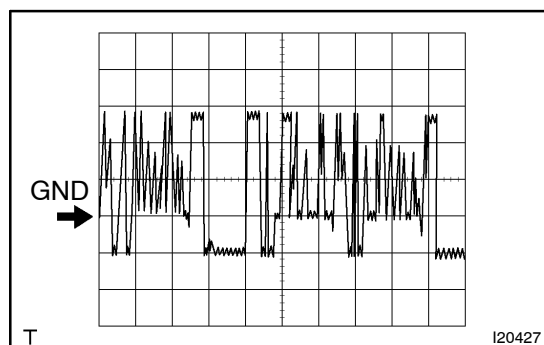


Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specification
GND1 (M5-3) – Body ground	W-B – Body ground	Ground	Always	Below 1 V
TX1+ (M5-4) – GND1 (M5-3)	P – W-B	AVC-LAN communication signal	Turn ignition switch to ON	2 to 3 V
TX1- (M5-5) – GND1 (M5-3)	L-B – W-B	AVC-LAN communication signal	Turn ignition switch to ON	2 to 3 V
TC (M5-7) – GND1 (M5-3)	P-B – W-B	Diagnosis ON signal	Turn ignition switch to the ON position	9 to 14 V
IG (M5-10) – GND1 (M5-3)	B-W – W-B	Ignition (ON)	Turn ignition switch OFF → ON	Below 1 V → 10 to 14 V
ACC (M5-11) – GND1 (M5-3)	GR – W-B	Accessory (ON)	Turn ignition switch OFF → ACC or ON	Below 1 V → 10 to 14 V
B1 (M5-12) – GND1 (M5-3)	L-W – W-B	Battery	Always	10 to 14 V
PKB (M5-16) – GND1 (M5-3)	R-W – W-B	Parking brake signal	Turn parking brake switch ON → OFF	Below 1 V → 10 to 14 V
SPD (M5-25) – GND1 (M5-3)	V – W-B	Speed signal from combination meter	See "vehicle signal check mode"	
SGND (M6-3) – GND1 (M5-3)	W-B – W-B	Screen noise or other types of noise occur	Ignition switch OFF	Below 1 V
MIN+ (M6-4) – GND1 (M5-3)	B – W-B	Microphone voice signal	See "microphone check"	–
MIN- (M6-5) – Body ground	W – Body ground	Microphone voice signal	See "microphone check"	–
MACC (M6-6) – GND1 (M5-3)	Y-G – W-B	Microphone Accessory	Turn ignition switch OFF → ON	Below 1 V → 10 to 14 V
TX3+ (M6-11) – GND1 (M5-3)	P-L – W-B	AVC-LAN communication signal	Turn ignition switch to ON	2 to 3 V
TX3- (M6-12) – GND1 (M5-3)	P-B – W-B	AVC-LAN communication signal	Turn ignition switch to ON	2 to 3 V
TX+ (M6-13) – GND1 (M5-3)	P – W-B	AVC-LAN communication signal	Turn ignition switch to ON	2 to 3 V
TX- (M6-14) – GND1 (M5-3)	L – W-B	AVC-LAN communication signal	Turn ignition switch to ON	2 to 3 V

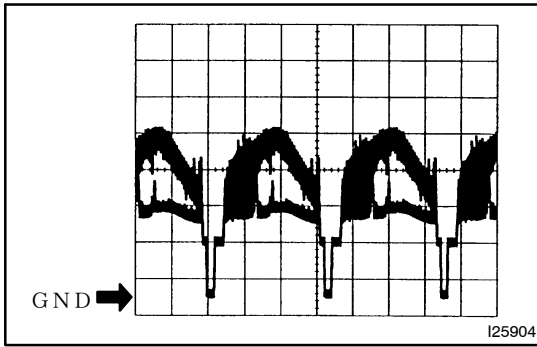
SGND (M6-17) – GND1 (M5-3)	Shielded – W-B	Screen noise or other types of noise occur	Ignition switch OFF	Below 1 V
MCO+ (M6-18) – GND1 (M5-3)	B – W-B	Microphone voice signal	See "microphone check"	–
MCO– (M6-19) – GND1 (M5-3)	W – W-B	Microphone voice signal	See "microphone check"	–
IVO+ (M6-21) – GND1 (M5-3)	O – W-B	Telephone voice signal (buletooth)	See "microphone check"	–
IVO– (M6-22) – GND1 (M5-3)	W – W-B	Telephone voice signal (buletooth)	See "microphone check"	–
VR (M6-23) – GND1 (M5-3)	B – W-B	Video return signal	Turn ignition switch OFF	Below 1 V
R (M6-24) – GND1 (M5-3)	Y – W-B	Display signal (red)	Navigation display is on	Pulse generation *2
G (M6-25) – GND1 (M5-3)	W – W-B	Display signal (green)	Navigation display is on	Pulse generation *2
B (M6-26) – GND1 (M5-3)	R – W-B	Display signal (blue)	Navigation display is on	Pulse generation *2
SYNC (M6-27) – GND1 (M5-3)	G – W-B	Display signal (synchronize)	Navigation display is on	Pulse generation *1
VG (M6-28) – Body ground	Shielded – Body ground	Shielded ground	Always	Below 1 V
NTSC (M7-1) – GND1 (M5-3)	W – W-B	DVD screen is in disorder	Ignition switch ON and DVD displayed	Pulse generation *3
SGD1 (M7-4) – GND1 (M5-3)	B – W-B	Screen noise or other types of noise occur	Ignition switch OFF	Below 1 V
SGND (M7-5) – GND1 (M5-3)	Shielded – W-B	Screen noise or other types of noise occur	Ignition switch OFF	Below 1 V



- *1: Oscilloscope wave
Terminal to be measured: SYNC – GND1
Setting for measurement: 500 mV/DIV 10 μ s/DIV
Condition: Navigation display is displayed.

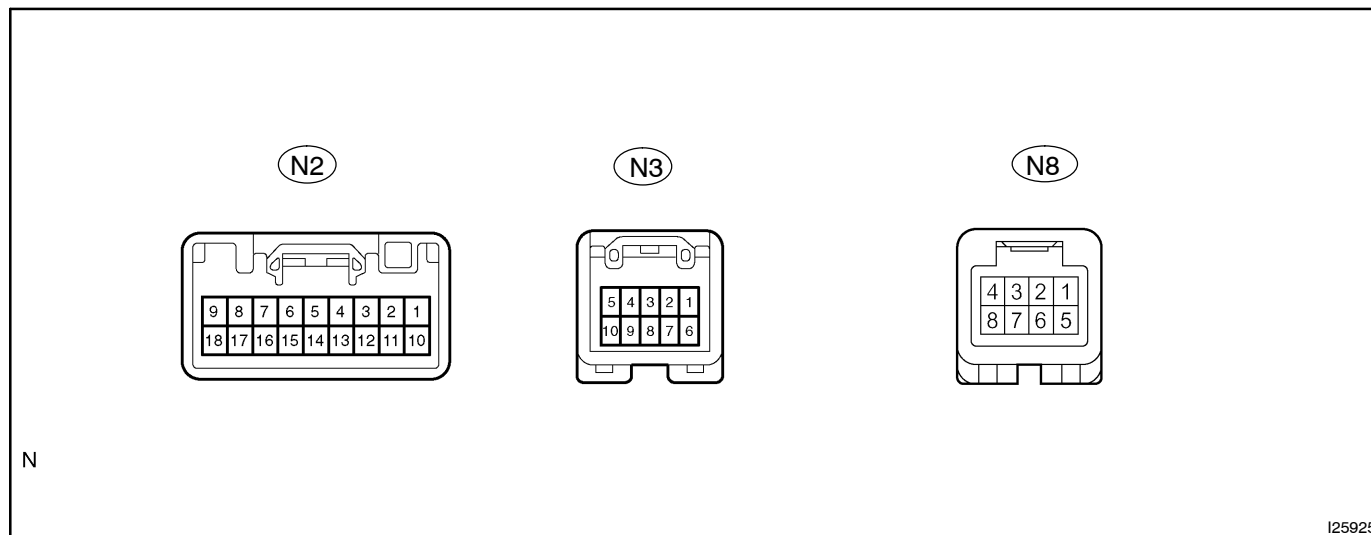


- *2: Oscilloscope wave
Terminal to be measured: R, G, B – GND1
Setting for measurement: 200 mV/DIV 10 μ s/DIV
Condition: Navigation map is switched.



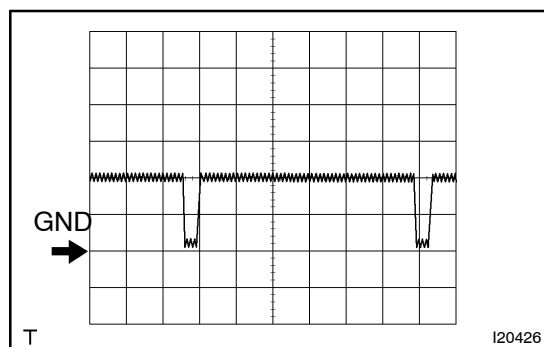
- *3: Oscilloscope wave
Terminal to be measured: NTSC – SGD1
Setting for measurement: 0.2 mV/DIV, 0.2 μ s/DIV
Condition: Ignition switch ON and DVD displayed.

Navigation ECU

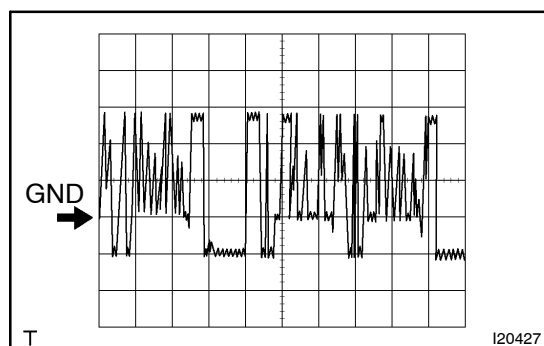


Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specification
AUI+ (N2-1) – GND (N2-17)	P – W-B	Sound signal (input)	Audio system is playing	–
AUO+ (N2-2) – GND (N2-17)	P – W-B	Sound signal (output)	Audio system is playing	–
SLD1 (N2-3) – Body ground	Shielded – Body ground	Shielded ground	Always	Below 1.0 V
SPD (N2-5) – GND1 (N2-17)	V – W-B	Speed signal from combination meter	See "Vehicle Signal Check Mode" (see page DI-1556)	–
+B (N2-9) – GND (N2-17)	L-Y – W-B	Battery	Always	10 to 14 V
AUI– (N2-10) – GND (N2-17)	V – W-B	Sound signal (input)	Audio system is playing	–
AUO– (N2-11) – GND (N2-17)	V – W-B	Sound signal (output)	Audio system is playing	–
VOI+ (N2-12) – Body ground	O – Body ground	Telephone voice signal (buletooth)	See "microphone check"	–
VOI– (N2-13) – Body ground	W – Body ground	Telephone voice signal (buletooth)	See "microphone check"	–
REV (N2-14) – GND (N2-17)	R-B – W-B	Reverse signal from combination meter	See "Vehicle Signal Check Mode" (see page DI-1556)	–
GND (N2-17) – Body ground	W-B – Body ground	Ground	Always	Below 1 V
ACC (N2-18) – GND (N2-17)	GR – W-B	Accessory (ON)	Turn ignition switch OFF → ACC or ON	Below 1 V → 10 – 14 V
VR (N3-1) – GND (N2-17)	B – W-B	Video return signal	Turn ignition switch OFF	Below 1 V
R (N3-2) – GND (N2-17)	Y – W-B	Display signal (red)	Navigation display is on	Pulse generation *2
B (N3-3) – GND (N2-17)	R – W-B	Display signal (blue)	Navigation display is on	Pulse generation *2
TX+ (N3-5) – GND (N2-17)	P – W-B	AVC-LAN communication signal	Turn ignition switch to ACC	2 to 3 V
VG (N3-6) – Body ground	Shielded – Body ground	Shielded ground	Always	Below 1 V
G (N3-7) – GND (N2-17)	W – W-B	Display signal (green)	Navigation display is on	Pulse generation *2
SYNC (N3-8) – GND (N2-17)	G – W-B	Display signal (synchronize)	Navigation display is on	Pulse generation *1
TX– (N3-10) – GND (N2-17)	L-B – W-B	AVC-LAN communication signal	Turn ignition switch to ACC	2 to 3 V

MIC+ (N8-3) – GND (N2-17)	B – W-B	Microphone voice signal	See "microphone check"	–
MIC- (N8-5) – GND (N2-17)	W – W-B	Microphone voice signal	See "microphone check"	–
SNSE (N8-7) – Body ground	W-B – Body ground	Ground	Always	Below 1 V

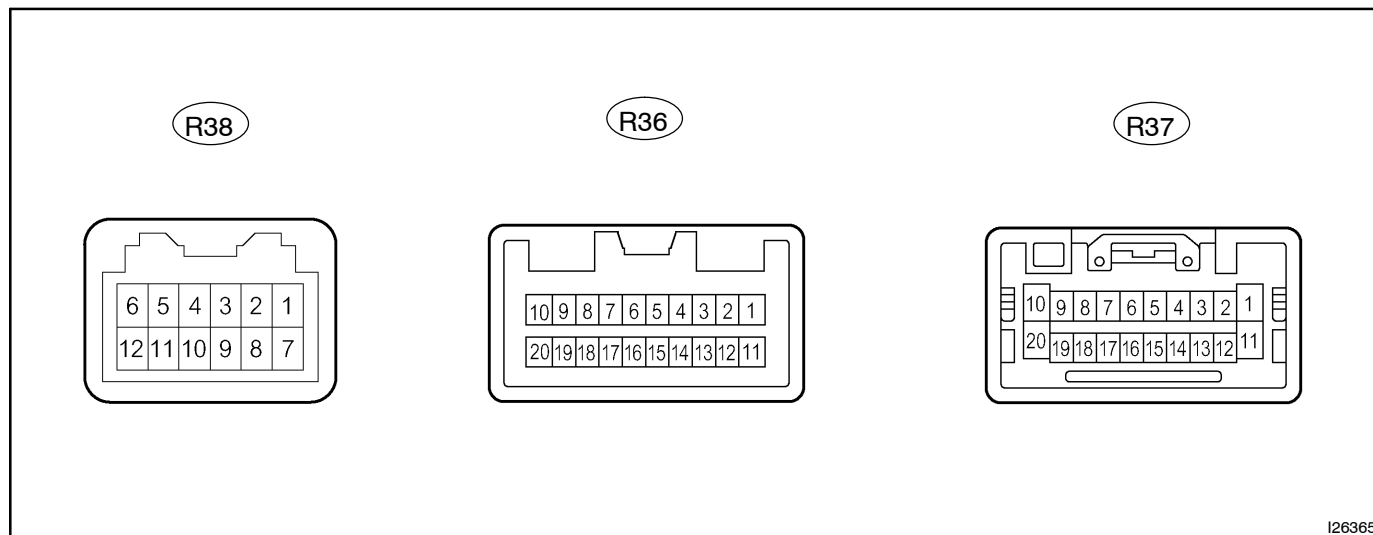


- *1: Oscilloscope wave
Terminal to be measured: SYNC – GND1
Setting for measurement: 500mV/DIV 10 μ s/DIV
Condition: Navigation display is displayed



- *2: Oscilloscope wave
Terminal to be measured: R, G, B – GND1
Setting for measurement: 200mV/DIV 10 μ s/DIV
Condition: Navigation map is switched.

Radio receiver assembly

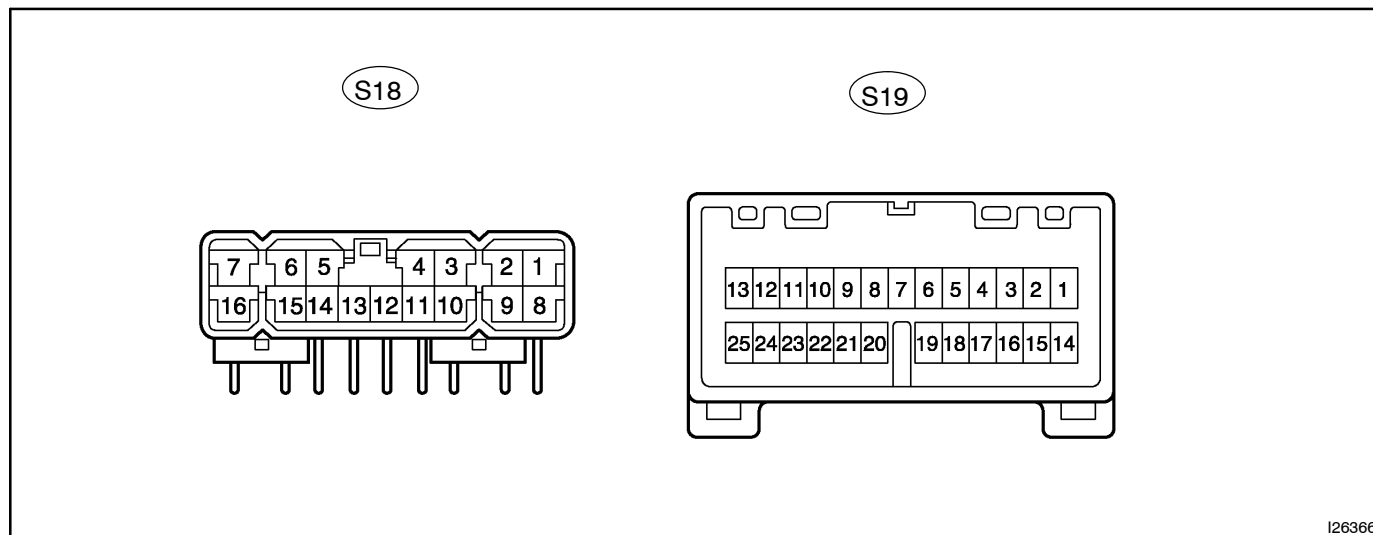


I26365

Symbols (Terminal No.)	Condition	STD Voltage (V)	Problem symptom when open circuit is detected.
			Problem symptoms when short circuit is detected.
BU ↔ GND (R37-1 ↔ R37-20)	Always	10 – 14 V	Audio system does not operate.
ILL+ ↔ GND (R37-2 ↔ R37-20)	Light control switch TAIL	10 – 14 V	Audio head unit illumination does not come on.
TX+ (R37-5)	AVC-LAN Communication circuit	–	Audio system does not operate.
MUTE ↔ GND (R37-7 ↔ R37-20)	–	–	–
R+ ↔ GND (R37-8 ↔ R37-20)	Always	10 – 14 V	Sound from right speaker is small
L+ ↔ GND (R37-9 ↔ R37-20)	Always	10 – 14 V	Sound from left speaker is small
ACC ↔ GND (R37-11 ↔ R37-20)	Ignition switch ACC	10 – 14 V	Audio system does not operate.
ILL- ↔ GND (R37-12 ↔ R37-20)	Light control switch TAIL	Below 0.5 V	Audio head unit illumination does not come on.
ANT ↔ GND (R37-13 ↔ R2-20)	Radio switch ON	10 – 14 V	Antenna does not extend.
TX- (R37-15)	AVC-LAN Communication circuit	–	Audio system does not operate.
R- ↔ GND (R37-18 ↔ R37-20)	Always	10 – 14 V	Sound from right side speaker is small.
L- ↔ GND (R37-19 ↔ R37-20)	Always	10 – 14 V	Sound from left side speaker is small.
GND ↔ Body ground (R37-20 ↔ Body ground)	Always	Continuity	Audio system is normal.
TX+ (R36-9)	AVC-LAN Communication circuit	–	Navigation system does not operate.
TX- (R36-10)	AVC-LAN Communication circuit	–	Navigation system does not operate.

R+ (R38-2)	–	–	Sound from right side speaker is small
R– (R38-3)	–	–	Sound from right side speaker is small
L+ (R38-4)	–	–	Sound from left side speaker is small
L– (R38-5)	–	–	Sound from left side speaker is small
MUTE (R38-6)	–	–	Pop sound etc.
			Speaker does not sound
TX+ (R38-9)	AVC–LAN communication circuit	–	Audio system does not operate.
TX– (R38-10)	AVC–LAN communication circuit	–	Audio system does not operate.

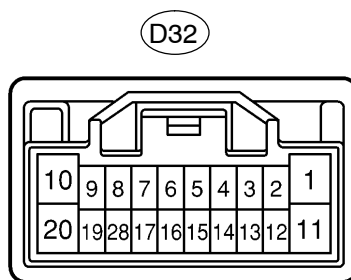
Stereo component amplifier



I26366

Symbols (Terminal No.)	Condition	STD Voltage (V)	Problem symptom when open circuit is detected.
FR+ ↔ E (S18-1 ↔ S18-12)	Radio switch ON	5 – 7 V	RH side speaker does not sound.
FL+ ↔ E (S18-2 ↔ S18-12)	Radio switch ON	5 – 7 V	LH side speaker does not sound.
RR+ ↔ E (S18-3 ↔ S18-12)	Radio switch ON	5 – 7 V	Rear RH side speaker does not sound.
RL+ ↔ E (S18-4 ↔ S18-12)	Radio switch ON	5 – 7 V	Rear LH side speaker does not sound.
WFR+ ↔ E (S18-5 ↔ S18-12)	Radio switch ON	5 – 7 V	Woofer speaker does not sound.
WFL+ ↔ E (S18-6 ↔ S18-12)	Radio switch ON	5 – 7 V	Woofer speaker does not sound.
+B ↔ E (S18-7 ↔ S18-12)	Always	10 – 14 V	All speaker does not sound
FR- ↔ E (S18-8 ↔ S18-12)	Radio switch ON	5 – 7 V	RH side speaker does not sound.
FL- ↔ E (S18-9 ↔ S18-12)	Radio switch ON	5 – 7 V	LH side speaker does not sound.
RR- ↔ E (S18-10 ↔ S18-12)	Radio switch ON	5 – 7 V	Rear RH side speaker does not sound.
RL- ↔ E (S18-11 ↔ S18-12)	Radio switch ON	5 – 7 V	Rear LH side speaker does not sound.
E ↔ Body ground (S18-12 ↔ Body ground)	Always	Continuity	–
GND2 ↔ Body ground (S18-13 ↔ Body ground)	Always	Continuity	–
WFR- ↔ E (S18-14 ↔ S18-12)	Radio switch ON	5 – 7 V	Woofer speaker does not sound.
WFL- ↔ E (S18-15 ↔ S18-12)	Radio switch ON	5 – 7 V	Woofer side speaker does not sound.
+B2 ↔ GND2 (S18-16 ↔ S18-13)	Always	10 – 14 V	All speaker does not sound

MR+ ↔ E (S19-1 ↔ S18-12)	Always	5 – 7 V	Sound from front RH speaker is small.
ML+ ↔ E (S19-2 ↔ S18-12)	Always	5 – 7 V	Sound from front LH speaker is small.
TMUT ↔ E (S19-3 ↔ S18-12)	Radio switch ON	5 – 7 V	Audio system does not operate.
BEEP (S19-4)	–	–	Beep does not sound.
TX+ (S19-5)	AVC–LAN communication circuit	–	Audio system does not operate.
N–MU ↔ E (S19-9 ↔ S18-12)	Radio switch ON	5 – 7 V	Audio system does not operate.
R+ ↔ E (S19-11 ↔ S18-12)	Always	10 – 14 V	Sound from RH speaker is small.
L+ ↔ E (S19-12 ↔ S18-12)	Always	10 – 14 V	Sound from LH speaker is small.
SPD – E (S19-13 – S18-12)	–	–	–
MR– ↔ E (S19-14 ↔ S18-12)	Always	5 – 7 V	Sound from front RH speaker is small.
ML– ↔ E (S19-15 ↔ S18-12)	Always	5 – 7 V	Sound from front LH speaker is small.
TX– (S19-18)	AVC–LAN communication circuit	–	Audio system does not operate.
ACC ↔ E (S19-20 ↔ S18-12)	Ignition switch ACC	10 – 14 V	Audio system does not operate.
MUTE ↔ E (S19-21 ↔ S18-12)	Radio switch ON	5 – 7 V	Audio system does not operate.
SGND ↔ E (S19-22 ↔ S18-12)	–	–	–
R– ↔ E (S19-23 ↔ S18-12)	Always	10 – 14 V	Sound from RH speaker is small.
L– ↔ E (S19-24 ↔ S18-12)	Always	10 – 14 V	Sound from LH speaker is small.

DVD auto changer:

P

I21103

Symbols (Terminal No.)	Condition	STD Voltage (V)	Problem symptom when open circuit is detected.
ACC ↔ GND (D32-1 ↔ D32-20)	Ignition switch ACC	10 – 14 V	DVD auto changer does not operate.
TXM+ (D32-3)	AVC-LAN communication circuit	–	Audio system does not operate.
CDR+ (D32-5)	–	–	Sound from right side speaker is small.
CDL+ (D32-6)	–	–	Sound from left side speaker is small.
NTSC (D32-9)	–	–	DVD auto changer does not display.
+B ↔ GND (D32-10 ↔ D32-20)	Always	10 – 14 V	DVD auto changer does not operate.
MUTE ↔ GND (D32-11 ↔ D32-20)	DISC switch ON	5 – 7 V	Pop sound etc.
			Speaker does not sound
TXM- (D32-13)	AVC-LAN communication circuit	–	Audio system does not operate.
CDR- (D32-15)	–	–	Sound from right side speaker is small.
CDL- (D32-16)	–	–	Sound from left side speaker is small.

A diagram of a G5 connector. Above the connector is an oval labeled "G5". The connector itself is a rectangular component with a central 2x7 grid of pins. The pins are numbered 1 through 14. The top row of pins is numbered 7, 6, 5, 4, 3, 2, 1 from left to right. The bottom row of pins is numbered 14, 13, 12, 11, 10, 9, 8 from left to right. The connector has a central latch mechanism and side tabs.

Symbols (Terminals No.)	Wiring Color	Condition	STD Voltage (V)
IG ↔ GND (G5-2 ↔ G5-14)	B-W ↔ W-B	Ignition switch ON.	10 – 14 V
MPD1 (G5-4)	B	Communication circuit (Gateway ECU and Center ECU)	–
GTX+ (G5-5)	P-L	AVC-LAN communication circuit	–
CG ↔ Body ground (G5-7 ↔ Body ground)	BR ↔ Body ground	Always	Continuity
BATT ↔ GND (G5-8 ↔ G5-14)	L-W ↔ W-B	Always	10 – 14 V
MPD2 (G5-11)	P-B	Communication circuit (Gateway ECU and Center ECU)	–
GTX- (G5-12)	P-B	AVC-LAN communication circuit	–
GND ↔ Body ground (G5-14 ↔ Body ground)	W-B ↔ Body ground	Always	Continuity