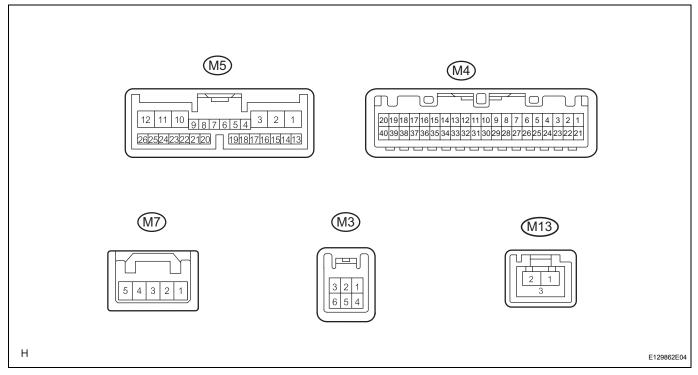
# **TERMINALS OF ECU**

## 1. MULTI-DISPLAY



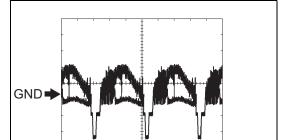
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
GND (M5-1) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
ACC (M5-2) - GND (M5-1)	W - W-B	Accessory (ON)	Turn ignition switch off	Below 1 V
ACC (M5-2) - GND (M5-1)	W - W-B	Accessory (ON)	Turn ignition switch to the ACC position	10 to 14 V
+B1 (M5-3) - GND (M5-1)	B - W-B	Battery	Always	10 to 14 V
TX1+ (M5-4) - GND (M5-1)	GR - W-B	AVC-LAN communication signal	Turn ignition switch to the ACC position	2 to 3 V
TX1- (M5-5) - GND (M5-1)	G - W-B	AVC-LAN communication signal	Turn ignition switch to the ACC position	2 to 3 V
TC (M5-7) - GND (M5-1)	P - W-B	Diagnosis ON signal	Turn ignition switch to the ON position	9 to 14 V
PKB (M5-8) - GND (M5-1)	W - W-B	Parking brake signal	See "Vehicle Signal Check Mode" (See page NS-20)	-
IG (M5-10) - GND (M5-1)	LG - W-B	Ignition (ON)	Turn ignition switch off	Below 1 V
IG (M5-10) - GND (M5-1)	LG - W-B	Ignition (ON)	Turn ignition switch to the ON position	10 to 14 V
ILL- (M5-11) - GND (M5-1)	Y - W-B	Illumination signal	Turn light control switch OFF	Below 1 V
ILL- (M5-11) - GND (M5-1)	Y - W-B	Illumination signal	Turn light control switch ON	10 to 14 V
ILL+ (M5-12) - GND (M5-1)	R - W-B	Illumination signal	Turn light control switch OFF	Below 1 V
ILL+ (M5-12) - GND (M5-1)	R - W-B	Illumination signal	Turn light control switch ON	10 to 14 V
HAZ (M5-13) - GND (M5-1)	V - W-B	Hazard signal	Turn hazard switch OFF	Below 1 V
HAZ (M5-13) - GND (M5-1)	V - W-B	Hazard signal	Turn hazard switch ON	Pulse generation
AIR (M5-14) - GND (M5-1)	Y - W-B	Passenger airbag off signal	Ignition switch ON, passenger airbag off indicator light off condition	10 to 14 V

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Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
ARON (M5-15) - GND (M5-1)	SB - W-B	Passenger airbag on signal	Ignition switch ON, passenger airbag off indicator light on condition	10 to 14 V
PBEW (M5-16) - GND (M5-1)	O - W-B	Passenger seat belt warning signal	Ignition switch ON, front passenger seat and front seat buckle switch ON (Belt unfastened)	10 to 14 V
PBEW (M5-16) - GND (M5-1)	O - W-B	Passenger seat belt warning signal	Ignition switch ON, front passenger seat and front seat buckle switch OFF (Belt fastened)	Below 1 V
DR (M5-17) - GND (M5-1)	L - W-B	Audio dimmer signal	Ignition switch ON, light control switch TAIL or ON and automatic light control sensor covered by hand	Above 9 V
TX2+ (M5-18) - GND (M5-1) (*1)	B - W-B	AVC-LAN communication signal	Turn ignition switch to the ACC position	2 to 3 V
TX2- (M5-19) - GND (M5-1) (*1)	W - W-B	AVC-LAN communication signal	Turn ignition switch to the ACC position	2 to 3 V
SPD (M5-20) - GND (M5-1)	R - W-B	Speed signal from combination meter	See "Vehicle Signal Check Mode" (See page NS-20)	-
REV (M5-21) - GND (M5-1)	V - W-B	Reverse signal	See "Vehicle Signal Check Mode" (See page NS-20)	-
SGND (M4-1) - GND (M5-1)	LG - W-B	Signal ground	Always	Below 1 V
MIN+ (M4-2) - GND (M5-1)	G - W-B	Microphone voice signal	See "Microphone & Voice Recognition Check" (See page NS-20)	-
MIN- (M4-3) - GND (M5-1)	R - W-B	Microphone voice signal	See "Microphone & Voice Recognition Check" (See page NS-20)	-
MACC (M4-4) - GND (M5-1)	GR - W-B	Microphone AMP power supply	Turn ignition switch off	Below 1 V
MACC (M4-4) - GND (M5-1)	GR - W-B	Microphone AMP power supply	Turn ignition switch to the ON position	5 V
IVI+ (M4-5) - GND (M5-1)	L - W-B	Voice guidance signal	Voice guidance is provided	A waveform synchronized with sounds is output
IVI- (M4-6) - GND (M5-1)	P - W-B	Voice guidance signal	Voice guidance is provided	A waveform synchronized with sounds is output
N.C (M4-8) - GND (M5-1)	LG - W-B	Telephone relation switch signal	Always	Below 1 V
TX+ (M4-9) - GND (M5-1)	O - W-B	AVC-LAN communication signal	Turn ignition switch to the ON position	2 to 3 V
TX- (M4-10) - GND (M5-1)	SB - W-B	AVC-LAN communication signal	Turn ignition switch to the ON position	2 to 3 V
SGND (M4-21) - GND (M5-1)	Shielded - W-B	Signal ground	Always	Below 1 V
MCO+ (M4-22) - GND (M5-1)	BR - W-B	Microphone voice signal	See "Microphone & Voice Recognition Check" (See page NS-25)	-
MCO- (M4-23) - GND (M5-1)	Y - W-B	Microphone voice signal	See "Microphone & Voice Recognition Check" (See page NS-25)	-
SLD (M4-24) - GND (M5-1)	Shielded - W-B	Shielded ground	Always	Below 1 V
IVO+ (M4-25) - GND (M5-1)	SB - W-B	Voice guidance signal	Voice guidance is provided	A waveform synchronized with sounds is output
IVO- (M4-26) - GND (M5-1)	V - W-B	Voice guidance signal	Voice guidance is provided	A waveform synchronized with sounds is output
V+ (M4-27) - CGND (M4-30)	W - R	Television camera image signal	Turn ignition switch to the ON position, shift lever in R position	Pulse generation (Refer to waveform 1)

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
V- (M4-28) - CGND (M4-30)	Shielded - R	Shielded ground	Always	Below 1 V
CA+ (M4-29) - GND (M5-1)	B - W-B	Television camera power supply	Turn ignition switch to the ON position, shift lever in R position	Approx. 6 V
CGND (M4-30) - Body ground	R - Body ground	Ground	Always	Below 1 V
VV+ (M3-1) - GND (M5-1)	R - W-B	DVD image signal	DVD is played	Pulse generation (Refer to waveform 2)
TX4+ (M3-3) - GND (M5-1)	B - W-B	AVC-LAN communication signal	Turn ignition switch to the ON position	2 to 3 V
VV- (M3-4) - GND (M5-1)	G - W-B	Signal ground	Always	Below 1 V
SGND (M3-5) - Body ground	Shielded - Body ground	Shielded ground	Always	Below 1 V
TX4- (M3-6) - GND (M5-1)	W - W-B	AVC-LAN communication signal	Turn ignition switch to the ON position	2 to 3 V
HSY (M7-1) - GND (M5-1)	P - W-B	Security indicator signal	Insert ignition key	Below 1 V
HSY (M7-1) - GND (M5-1)	P - W-B	Security indicator signal	Remove key from ignition key cylinder	Pulse generation
HILL (M7-5) - GND (M5-1)	B - W-B	Illumination signal	Turn light control switch OFF	Below 1 V
HILL (M7-5) - GND (M5-1)	B - W-B	Illumination signal	Turn light control switch ON	10 to 14 V
GVIF+ (M13-1) - GVG (M13-3)	B - B	Digital image signal	Navigation display is on	Pulse generation
GVIF- (M13-2) - GVG (M13-3)	B - B	Digital image signal	Navigation display is on	Pulse generation
GVG (M13-3) - Body ground	B - Body ground	Ground	Always	Below 1 V



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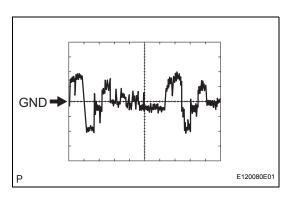
\*1: with Rear Seat Entertainment System

(a) Reference: waveform 1 HINT:

• Terminal: V+ - CGND

• Gauge set: 0.2 V/DIV., 0.2 μs/DIV.

Condition: Ignition switch: ON, shift lever: R position



(b) Reference: waveform 2 HINT:

• Terminal: VV+ - Body ground

• Gauge set: 200 mV/DIV., 10 μs/DIV.

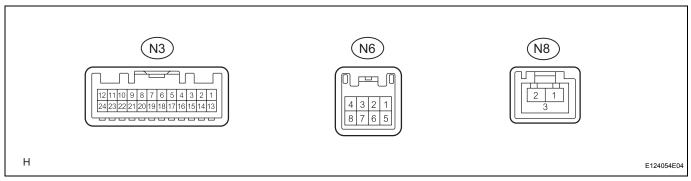
• Condition: DVD is played on multi-display

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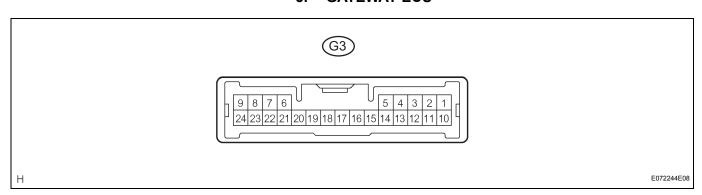
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## 2. NAVIGATION ECU



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
+B (N3-1) - GND1 (N3-15)	SB - W-B	Battery	Always	10 to 14 V
SPD (N3-4) - GND1 (N3-15)	BR - W-B	Speed signal	See "Vehicle Sensors" (See page NS-25)	-
SLD1 (N3-7) - GND1 (N3-15)	Shielded - W-B	Shielded ground	Always	Below 1 V
VOI- (N3-8) - GND1 (N3-15)	G - W-B	Voice guidance signal	Voice guidance is provided	A waveform synchronized with sounds is output
VOI+ (N3-9) - GND1 (N3-15)	R - W-B	Voice guidance signal	Voice guidance is provided	A waveform synchronized with sounds is output
ACC (N3-13) - GND1 (N3-15)	P - W-B	Accessory (ON)	Turn ignition switch off	Below 1 V
ACC (N3-13) - GND1 (N3-15)	P - W-B	Accessory (ON)	Turn ignition switch to the ACC position	10 to 14 V
GND1 (N3-15) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
TX- (N3-18) - GND1 (N3-15)	P - W-B	AVC-LAN communication signal	Turn ignition switch to the ACC position	2 to 3 V
TX+ (N3-19) - GND1 (N3-15)	L - W-B	AVC-LAN communication signal	Turn ignition switch to the ACC position	2 to 3 V
REV (N3-20) - GND1 (N3-15)	V - W-B	Reverse signal	See "Vehicle Sensors" (See page NS-25)	-
MIC+ (N6-3) - GND1 (N3-15)	BR - W-B	Microphone voice signal	See "Microphone & Voice Recognition Check" (See page NS-25)	-
MIC- (N6-5) - GND1 (N3-15)	Y - W-B	Microphone voice signal	See "Microphone & Voice Recognition Check" (See page NS-25)	-
GVI+ (N8-1) - GND2 (N8-3)	B - B	Digital image signal	Navigation display is on	Pulse generation
GVI- (N8-2) - GND2 (N8-3)	B - B	Digital image signal	Navigation display is on	Pulse generation
GND2 (N8-3) - Body ground	B - Body ground	Ground	Always	Below 1 V

## 3. GATEWAY ECU



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
IG (G3-1) - GND (G3-24)	G - W-B	Ignition (ON)	Turn ignition switch off	Below 1 V

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specification
IG (G3-1) - GND (G3-24)	G - W-B	Ignition (ON)	Turn ignition switch to the ON position	10 to 14 V
ACC (G3-2) - GND (G3-24)	L - W-B	Accessory (ON)	Turn ignition switch off	Below 1 V
ACC (G3-2) - GND (G3-24)	L - W-B	Accessory (ON)	Turn ignition switch to the ACC position	10 to 14 V
GTX- (G3-21) - GND (G3-24)	B - W-B	AVC-LAN communication signal	Turn ignition switch to the ACC position	2 to 3 V
GTX+ (G3-6) - GND (G3-24)	R - W-B	AVC-LAN communication signal	Turn ignition switch to the ACC position	2 to 3 V
BATT (G3-10) - GND (G3-24)	Y - W-B	Battery	Always	10 to 14 V
GND (G3-24) - Body ground	W-B - Body ground	Ground	Always	Below 1 V

- 4. RADIO RECEIVER (See page AV-14)
- 5. STEREO COMPONENT AMPLIFIER (See page AV-14)
- 6. TELEVISION DISPLAY ASSEMBLY (with Rear Seat Entertainment System) (See page AV-173)