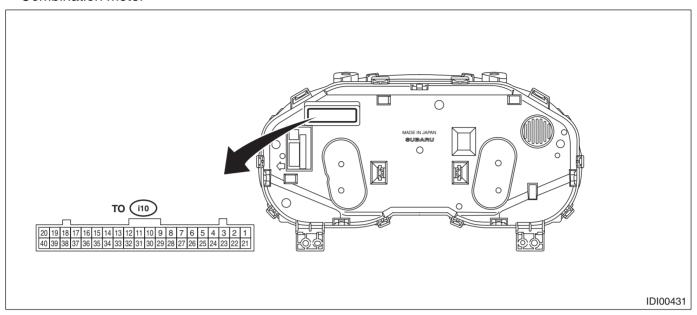
# 5. Control Module I/O Signal

#### **A: ELECTRICAL SPECIFICATION**

• Combination meter



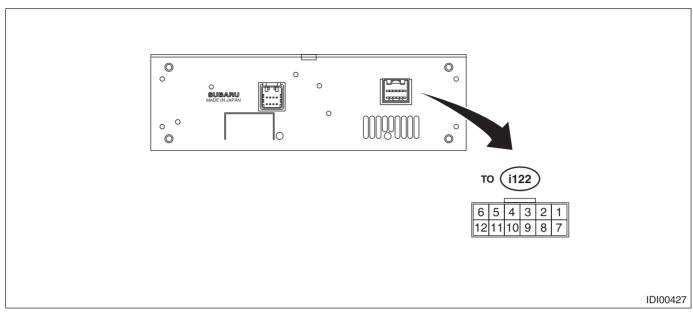
Terminal No.	Description	Terminal No.	Description
1	Immobilizer/security indicator	27	Ambient sensor
2	Charge warning light	28	UART (MFD)
3	Oil pressure warning light	29	Steering switch (+)
4	RH turn signal indicator	30	Pedestrian alert system
6	LH turn signal indicator	32	CAN communication line (-)
8	Auto headlight beam leveler warning light	33	CAN communication line (+)
15	Driver's seat belt switch	36	Ambient sensor GND
16	Passenger's seat belt switch	37	Fuel level sensor GND
20	Ignition power supply	38	GND
21	Washer fluid level sensor	39	Back-up ignition power supply
23	Brake fluid level switch	40	Battery power supply
25	Fuel level sensor	_	_

## **Control Module I/O Signal**

### INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS)

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1		
	Terminal No.	Item	Measuring condition	Standard
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 ←→ Chassis ground	Voltage	Security/immobilizer indicator light off $ ightarrow$ on	$0 \text{ V} \rightarrow 10 - 14 \text{ V}$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 ←→ Chassis ground	Voltage	Charge warning light off $\rightarrow$ on	$0 \text{ V} \rightarrow 10 - 14 \text{ V}$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	3 ←→ Chassis ground	Voltage	Oil pressure warning light off $\rightarrow$ on	$0~\text{V} \rightarrow 10 - 14~\text{V}$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4 ←→ Chassis ground	Voltage	RH turn indicator off $\rightarrow$ on	$0~\text{V} \rightarrow 10 - 14~\text{V}$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6 ←→ Chassis ground	Voltage	LH turn indicator off $\rightarrow$ on	$0~\text{V} \rightarrow 10 - 14~\text{V}$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8 ←→ Chassis ground	Voltage	Auto headlight beam leveler warning light off $\rightarrow$ on	$0 \text{ V} \rightarrow 10 - 14 \text{ V}$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	15 ←→ Chassis ground	Resistance	Driver's seat belt switch ON	Less than 1 $\Omega$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	16 ←→ Chassis ground	Resistance	Passenger's seat belt switch ON	Less than 1 $\Omega$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20 ←→ Chassis ground	Voltage	IG OFF $\rightarrow$ ON	$0 \text{ V} \rightarrow 10 - 14 \text{ V}$
$25 \longleftrightarrow 37$ ResistanceFuel level sensor $10-600 \Omega$ $27 \longleftrightarrow 36$ ResistanceAmbient sensor $1-35 \text{ k}\Omega$ $28 \text{ (UART)} \longleftrightarrow \text{ Chassis ground}$ —Cannot be measured— $32 \text{ (CAN-)} \longleftrightarrow \text{ Chassis ground}$ —Cannot be measured— $33 \text{ (CAN+)} \longleftrightarrow \text{ Chassis ground}$ —Cannot be measured— $34 \longleftrightarrow \text{ Chassis ground}$ ResistanceAlwaysLess than $1 \Omega$ $35 \longleftrightarrow \text{ Chassis ground}$ ResistanceAlwaysLess than $1 \Omega$ $36 \longleftrightarrow \text{ Chassis ground}$ ResistanceAlwaysLess than $1 \Omega$ $37 \longleftrightarrow \text{ Chassis ground}$ ResistanceAlwaysLess than $1 \Omega$ $38 \longleftrightarrow \text{ Chassis ground}$ ResistanceAlwaysLess than $1 \Omega$ $39 \longleftrightarrow \text{ Chassis ground}$ ResistanceAlwaysLess than $1 \Omega$ $39 \longleftrightarrow \text{ Chassis ground}$ ResistanceAlwaysLess than $1 \Omega$	21 ←→ Chassis ground	_	Washer fluid level sensor	_
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	23 ←→ Chassis ground	_	Brake fluid level switch	_
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	25 ←→ 37	Resistance	Fuel level sensor	10 — 600 Ω
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	27 ←→ 36	Resistance	Ambient sensor	1 — 35 kΩ
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	28 (UART) ←→ Chassis ground	_	Cannot be measured	_
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	32 (CAN–) ←→ Chassis ground	_	Cannot be measured	_
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	33 (CAN+) ←→ Chassis ground	_	Cannot be measured	_
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	34 ←→ Chassis ground	Resistance	Always	Less than 1 $\Omega$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	35 ←→ Chassis ground	Resistance	Always	Less than 1 $\Omega$
$38 \longleftrightarrow$ Chassis groundResistanceAlwaysLess than 1 $\Omega$ $39 \longleftrightarrow$ Chassis groundResistanceAlwaysLess than 1 $\Omega$	36 ←→ Chassis ground	Resistance	Always	Less than 1 $\Omega$
39 ←→ Chassis ground Resistance Always Less than 1 $\Omega$	37 ←→ Chassis ground	Resistance	Always	Less than 1 $\Omega$
	38 ←→ Chassis ground	Resistance	Always	Less than 1 $\Omega$
40 ←→ Chassis ground Voltage Always 10 — 14 V	39 ←→ Chassis ground	Resistance	Always	Less than 1 $\Omega$
	40 ←→ Chassis ground	Voltage	Always	10 — 14 V

#### • MFD



Terminal No.	Description	Terminal No.	Description
1	Battery power supply	7	_
2	GND	8	_
3	Ignition power supply	9	UART (Meter)
4	Switch communication line (-)	10	Passenger's airbag ON
5	CAN communication line (-)	11	Passenger's airbag OFF
6	CAN communication line (+)	12	Switch communication line (+)

Terminal No.	Item	Measuring condition	Standard
1(+B) ←→ Chassis ground	Voltage	Always	10 — 14 V
2 (GND) ←→ Chassis ground	Resistance	Always	Less than 1 $\Omega$
3 (IGN) ←→ Chassis ground	Voltage	IG OFF $\rightarrow$ ON	$0 \text{ V} \rightarrow 10 - 14 \text{ V}$
4 (STR-) ←→ Chassis ground		Cannot be measured (switch communication line)	_
5 (CAN-) ←→ Chassis ground		Cannot be measured (CAN communication line)	_
6 (CAN+) ←→ Chassis ground	_	Cannot be measured (CAN communication line)	_
9 (UART) ←→ Chassis ground	_	Cannot be measured (meter communication line)	_
10 ←→ Chassis ground	Voltage	Passenger's airbag ON indicator (when illuminating)	Less than 1 V
11 ←→ Chassis ground	Voltage	Passenger's airbag OFF indicator (when illuminating)	Less than 1 V
12 (STR+) ←→ Chassis ground	_	Cannot be measured (switch communication line)	_