

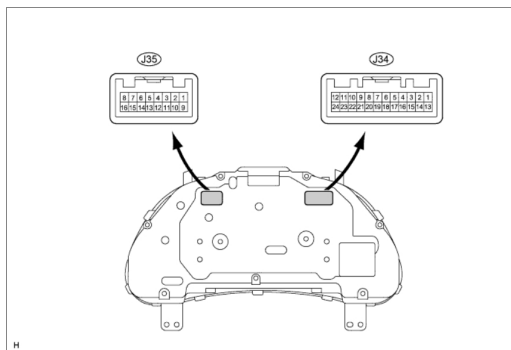
METER / GAUGE SYSTEM > TERMINALS OF ECU

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Combination Meter Assembly

*: for 2AD-FHV



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
E2 (J34-1) - Body Ground	W-B - Body ground	Ground	Always	Below 1 V
FE (J34-2) - Body ground	BR - Body ground	Ground (Fuel ground)	Always	Below 1 V
FSLH (J34-3) (*) - Body ground	BR - Body ground	Ground (Fuel ground)	Always	Below 1 V
+S (J34-5) - Body ground	P - Body ground	Speed signal (Output)	Turn the wheel slowly	Pulse generation (See waveform 1)
MPX+ (J34-6) - Body ground	BR - Body ground	Multiplex communication signal	-	-
FSRH (J34-7) - Body ground	SB - Body ground	Fuel signal	Engine switch on (IG), fuel level is FULL Engine switch on (IG), fuel level is EMPTY	Below 1 V 4 to 7 V
TC (J34-8) - Body ground	P - Body ground	Light control rheostat signal	Engine switch on (IG), the light control rheostat knob is in the MAX. position (turned fully clockwise) Engine switch on (IG), the light control rheostat knob is in the MIN. position (turned fully counterclockwise)	4 to 6 V Below 1 V
ILL+ (J34-9) - Body ground	V - Body ground	Light control rheostat signal	Engine switch on (IG), combination switch is not OFF	4 to 6 V
B (J34-11) - Body ground	G - Body ground	Turn indicator light signal	Engine switch on (IG), turn signal LH indicator light OFF Engine switch on (IG), turn signal LH indicator light ON	Below 1 V 10 to 14 V
EFI (J34-12) - Body ground	O - Body ground	Ignition switch signal	Engine switch off Engine switch on (IG)	Below 1 V 10 to 14 V
ES (J34-13) - Body ground	W-B - Body ground	Ground (Signal ground)	Always	Below 1 V
ET (J34-14) - Body ground	Y - Body ground	Ground (Rheostat ground)	Always	Below 1 V
S (J34-16) - Body ground	W - Body ground	Tachometer signal	Engine switch on (IG), engine idle speed	Pulse generation (See waveform 2)
SI (J34-17) - Body ground	V - Body ground	Speed signal (Input)	Engine switch on (IG), turn the wheel slowly	Pulse generation (See waveform 1)
MPX- (J34-18) - Body ground	BR - Body ground	Multiplex communication signal	-	-
FR (J34-19) - Body ground	SB - Body ground	Fuel signal	Engine switch on (IG), fuel level is FULL Engine switch on (IG), fuel level is EMPTY	Below 1 V 4 to 7 V
MSSL (J34-20) - Body ground	V - Body ground	Steering pad switch signal	Engine switch on (IG), DISP switch off Engine switch on (IG), DISP switch ON	4 to 6 V Below 1 V
TR (J34-21) - Body ground	B - Body ground	Light control rheostat signal	Engine switch on (IG), the light control rheostat knob is in the MIN. position (turned fully counterclockwise) Engine switch on (IG), the light control rheostat knob is in the MAX. position (turned fully clockwise)	Below 1 V 4 to 6 V
B (J34-23) - Body ground	L - Body ground	Battery	Always	10 to 14 V
B (J34-24) - Body ground	LG - Body ground	Battery	Always	10 to 14 V
PBLT (J35-3) - Body ground	P - Body ground	Passenger seat belt warning light signal	Sit in the passenger seat, engine switch on (IG), passenger seat belt fastened Sit in the passenger seat, engine switch on (IG), p- belt warning light blinks	10 to 14 V Pulse generation (See waveform 3)
P/SB (J35-4) - Body ground	L - Body ground	Passenger seat inner belt signal	Engine switch on (IG), passenger seat belt unfastened Engine switch on (IG), passenger seat belt fastened	10 to 14 V Below 1 V
RSEL (J35-5) - Body ground	GR - Body ground	Satellite switch RH signal	Engine switch on (IG), satellite switch RH off Engine switch on (IG), satellite switch RH ON	4 to 6 V Below 1 V
LSEL (J35-6) - Body ground	O - Body ground	Satellite switch LH signal	Engine switch on (IG), satellite switch LH off Engine switch on (IG), satellite switch LH ON	4 to 6 V Below 1 V
SET (J35-7) - Body ground	V - Body ground	Satellite switch ON/OFF signal	Engine switch on (IG), satellite switch ON/OFF off Engine switch on (IG), satellite switch ON/OFF ON	4 to 6 V Below 1 V
ILL- (J35-9) - Body ground	W - Body ground	Illumination signal	Engine switch on (IG)	10 to 14 V
B (J35-10) - Body ground	R - Body ground	Turn indicator light signal	Engine switch on (IG), turn signal RH indicator light OFF Engine switch on (IG), turn signal RH indicator light ON	Below 1 V 10 to 14 V
EFI (J35-11) - Body ground	LG - Body ground	Check engine indicator light signal	Engine switch on (IG), CHECK ENGINE warning light ON Engine switch on (IG), CHECK ENGINE warning light OFF	Below 1 V 10 to 14 V
J35-13 (OIL) (*) - Body ground	BR - Body ground	Engine oil level signal	Engine switch on (IG), engine oil level is full Engine switch on (IG), engine oil level is low	Below 1 V 10 to 14 V
J35-14 (S) (*) - Body ground	O - Body ground	Engine oil pressure signal	Engine switch on (IG), engine oil pressure is high Engine switch on (IG), engine oil pressure is low	Below 1 V 10 to 14 V
SW (J35-15) - Body ground	LG - Body ground	Brake fluid level warning light signal	Engine switch on (IG), BRAKE warning light OFF Engine switch on (IG), BRAKE warning light ON	10 to 14 V Below 1.5 V
J35-16 (*) - Body ground	BR - Body ground	Fuel sedimenter warning switch signal	Engine switch on (IG), SEDIMENT warning light ON Engine switch on (IG), SEDIMENT warning light OFF	10 to 14 V Below 1 V

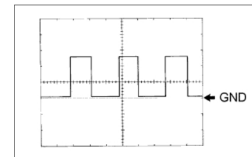
a. Waveform 1 (Reference) : Using an oscilloscope:

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Item	Condition
Tool setting	5 V/DIV., 20 ms./DIV.
Vehicle condition	Driving at approx. 20 km/h (12 mph)

HINT:

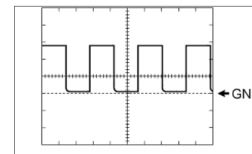
As vehicle speed increases, the cycle of the signal waveform narrows.



b. Waveform 2 (Reference) : Using an oscilloscope:

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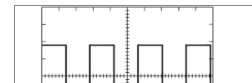
Item	Condition
Tool setting	5 V/DIV., 10 ms./DIV.
Vehicle condition	Engine idle speed

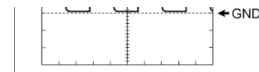


c. Waveform 3 (Reference) : Using an oscilloscope:

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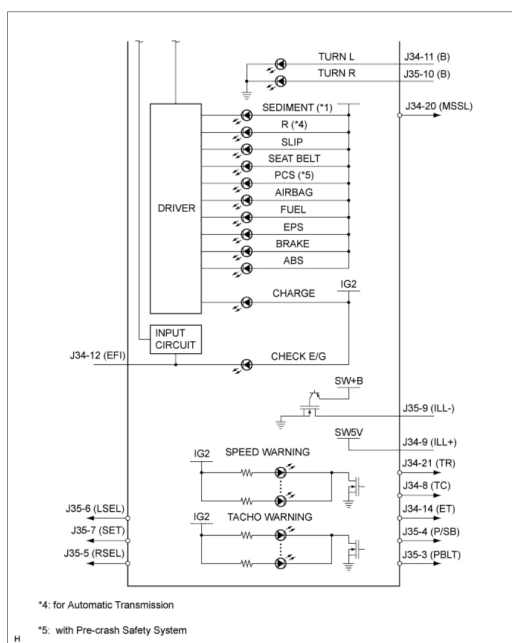
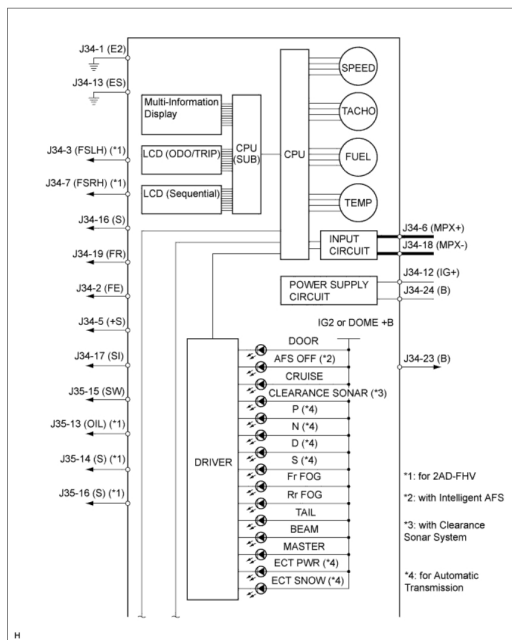
Item	Condition
Tool setting	5 V/DIV., 200 ms./DIV.
Vehicle condition	Engine switch on (IG), p-belt warning light blinks





COMBINATION METER INNER CIRCUIT

*1: for 2AD-FHV
*2: without Navigation System
*3: with Navigation System



*4: for Automatic Transmission
*5: with Pre-crash Safety System

Terminals No.	Wire harness side
1	Ground
2	Ground (FE)
3	Ground (FSLH) (*1)
4	-
5	Each part that uses speed signal
6	Multiplex Communication Line (MPX+)
7	Fuel Sender Gauge Assembly (FSRH) (*1)
8	Light Control Rheostat (TC)
9	Light Control Rheostat (ILL+)
10	-
11	Turn Signal Flasher (B)
12	MET Fuse
13	Ground (Signal Ground)
14	Light Control Rheostat (ET)
15	-
16	ECM (S)
17	ABS & Traction Actuator Assembly
18	Multiplex Communication Line (MPX-)
19	Fuel Sender Gauge Assembly (FR)
20	Steering Pad Switch (DISP)
21	Light Control Rheostat (TR)
22	-
23	DOME Fuse
24	MPX-B Fuse
1	-
2	-
3	Integration Control & Panel Assembly (*2)/Multi-display (*3)
4	Passenger Side Front Seat Inner Belt Assembly
5	Satellite Switch (RSEL)
6	Satellite Switch (LSEL)
7	Satellite Switch (SET)
8	-

J35

9	Illumination Parts
10	Turn Signal Flasher (B)
11	-
12	ECM (EFI)
13	Engine Oil Level Sensor (*1)
14	Engine Oil Pressure Switch (*1)
15	Brake Fluid Level Warning Switch
16	Fuel Sedimenter Warning Switch (*1)

TC (J34-8) - Body ground	P - Body ground	Light control rheostat signal	Engine switch on (IG), the light control rheostat knob is in the MAX. position (turned fully clockwise) Engine switch on (IG), the light control rheostat knob is in the MIN. position (turned fully	4 to 6 V
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