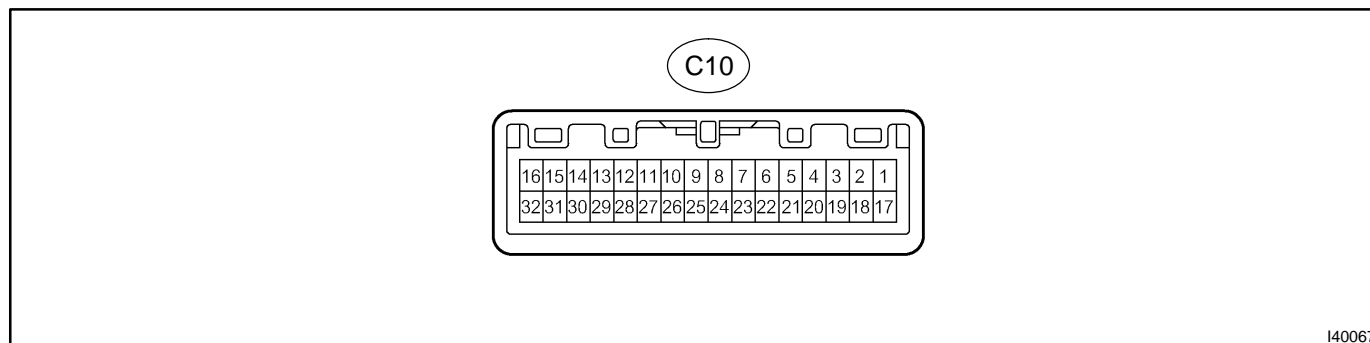


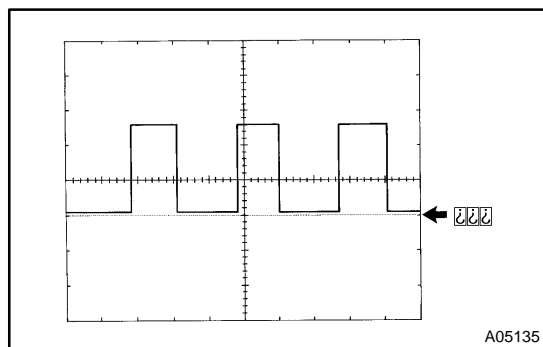
TERMINALS OF ECU COMBINATION METER ASSY:



I40067

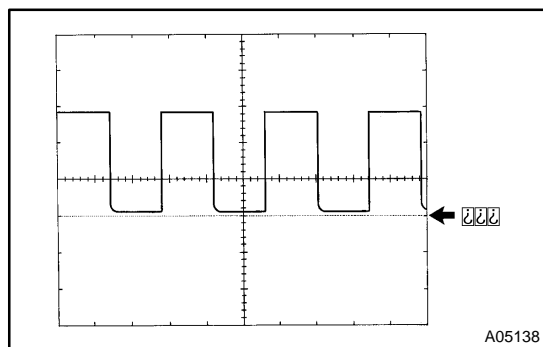
Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
km/h or mph (C10-1) – Body ground	L – Body ground	km/h or mph signal	Power switch ON (ACC or IG) and km/h or mph switch ON → OFF	Below 1 V → 4 to 5.5 V
TRIP EARTH(C10-2) – Body ground	B – Body ground	GND signal FOR ODO/ TRIP SWITCH	Always	Below 1 Ω
ODO/TRIP/RESET (C10-3) – Body ground	R – Body ground	ODO/TRIP/RESET signal	ODO/TRIP/RESET switch ON → OFF	Below 1 V → 4 to 5.5 V
IG2 (C10-4) – Body ground	O – Body ground	Power switch signal	Power switch OFF → ON	10 to 14 V
D-BELT SW (C10-6) – Body ground	LG – Body ground	Driver seat belt condition	D-BELT indicator light ON → OFF	Below 1 V → 10 to 14 V
P-BELT SW (C10-7) – Body ground	R – Body ground	Passenger seat belt condition	P-BELT indicator light ON → OFF	Below 1 V → 10 to 14 V
SECURITY (C10-8) – Body ground	R – Body ground	SECURITY signal	Key is inserted → Not inserted	Below 1 V ↔ 10 to 14 V → Below 1 V
SPEED IN (C10-9) – Body ground	V – Body ground	Speed signal (Input)	Power switch ON (ACC or IG) and turn the wheel slowly	Pulse generation (See waveform 1)
AUTO LVL (C10-10) – Body ground	L – Body ground	Headlight automatic leveling signal	Malfunction in headlight leveling System is normally → Malfunction	Below 1 V → 10 to 14 V
AIRBAG (C10-11) – Body ground	B – Body ground	AIRBAG signal	AIRBAG indicator light ON → OFF	Below 1 V → 8 to 14 V
TEMP SSR- (C10-12) – Body ground	L – Body ground	Outside temperature signal	Always	Below 1 V → 4 to 5.5 V
4P OUT (C10-13) – Body ground	V – Body ground	Speed signal (Output)	Power switch ON (ACC or IG) and turn the wheel slowly	Pulse generation (See waveform 2)
SIGNAL EARTH (C10-14) – Body ground	BR – Body ground	GND signal	Always	Below 1 Ω
FUEL IN (C10-15) – Body ground	B – Body ground	Fuel signal	Power switch ON (ACC or IG) and fuel level is FULL → EMPTY	4.0 Ω → 110 Ω
TURN R (C10-18) – Body ground	G – Body ground	Turn signal right	Turn signal RH indicator light OFF → ON	Below 1 V → 10 to 14 V
TURN L (C10-19) – Body ground	Y – Body ground	Turn signal left	Turn signal LH indicator light OFF → ON	Below 1 V → 10 to 14 V
TEMP SSR+ (C10-20) – Body ground	R – Body ground	GND	Always	Below 1 Ω
+B (C10-21) – Body ground	Y – Body ground	Power switch signal	Always	10 to 14 V
IG2 (C10-22) – Body ground	V – Body ground	Power switch signal	Power switch OFF → ON	Below 1 V → 10 to 14 V

BACK-UP LP (C10-23) - Body ground	P - Body ground	BACK-UP light signal	Power switch ON (ACC or IG) and Shift is except R position → Shift is R position	Below 1 V → 10 to 14 V
MPX+ (C10-24) - Body ground	B	Communication signal	Communication circuit	-
MPX- (C10-25) - Body ground	GR	Communication signal	Communication circuit	-
CHECK E/G (C10-26) - Body ground	G - Body ground	CHECK ENGINE signal	Power switch ON (ACC or IG) and CHECK ENGINE warning light ON → OFF	Below 1 V → 10 to 14 V
TC (C10-28) - Body ground	SB - Body ground	Tail cancel (light condition) signal	Power switch ON (ACC or IG)	Pulse generation (See waveform 3)
TR (C10-29) - Body ground	R - Body ground	Rheostat (light control) signal	Light control dimmer switch is OFF → TAIL/HEAD	Below 1 V → 10 to 14 V
P-BELT LP (C10-30) - Body ground	Y - Body ground	Passenger seat belt signal	Power switch ON (ACC or IG) and sit on the passenger seat, seat belt unfastened → fastened	Below 1 V → 10 to 14 V
FUEL EARTH (C10-31) - Body ground	BR - Body ground	GND for fuel sender gauge	Always	Below 1 Ω



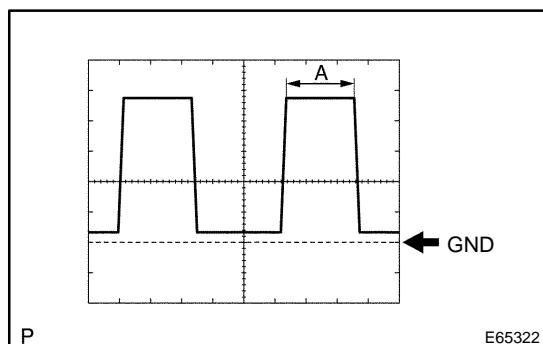
Waveform 1 (Reference):

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



Waveform 2 (Reference):

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



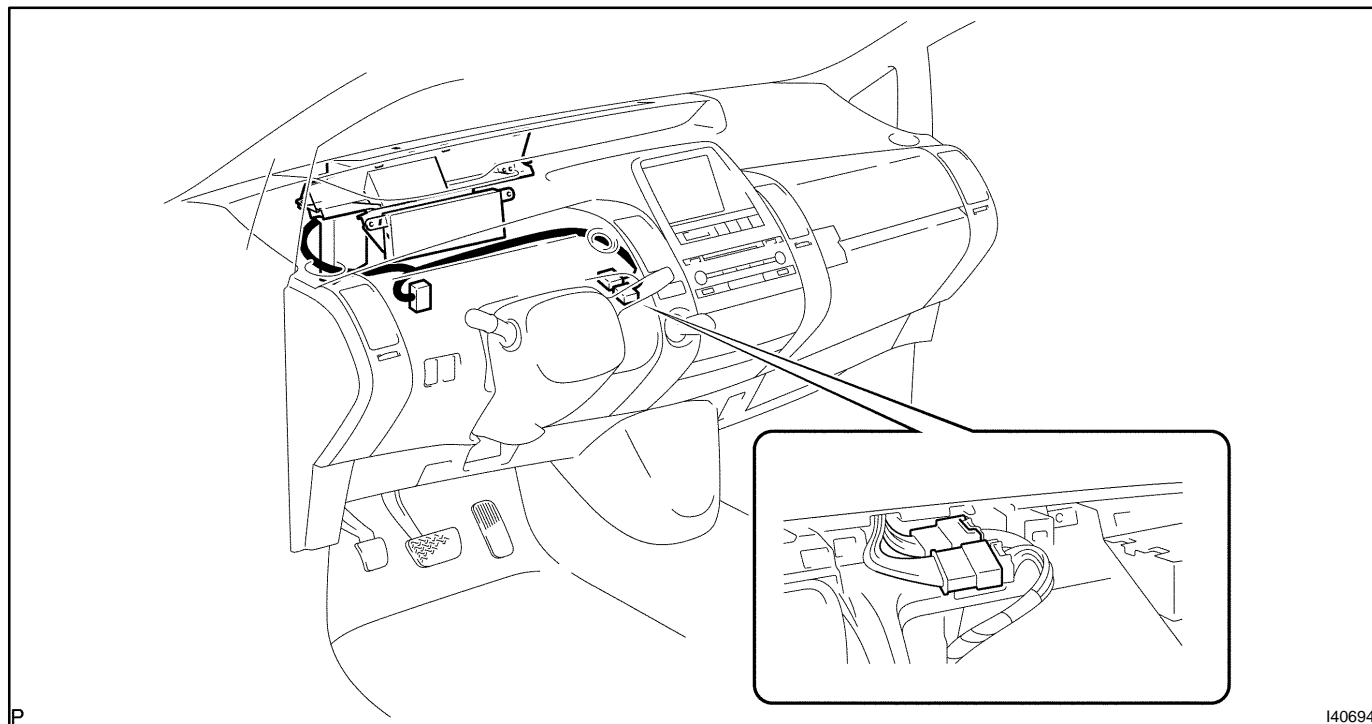
Waveform 3 (Reference):

Item	Contents
Tool setting	2 V/DIV, 1 ms/DIV
Vehicle condition	Ignition switch ON

HINT:

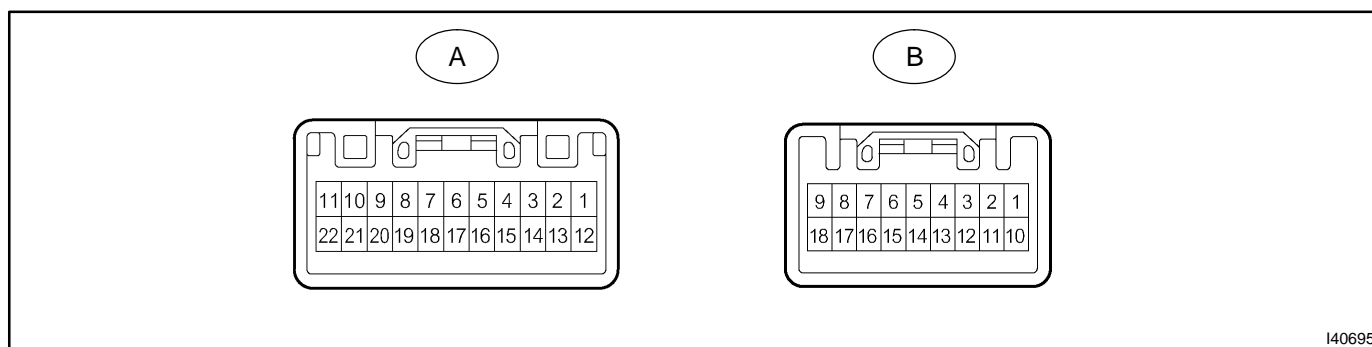
Duty ratio changes as illumination becomes darker ("A" becomes longer).

SUB WIRE HARNESS CONNECTOR:



P

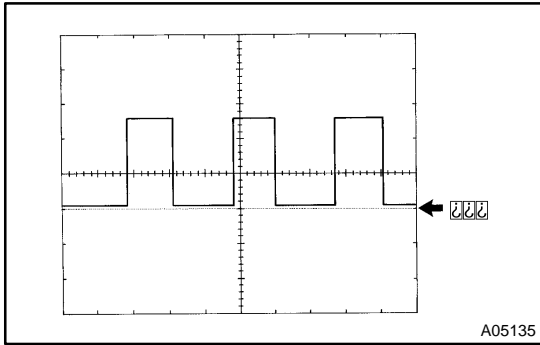
I40694



I40695

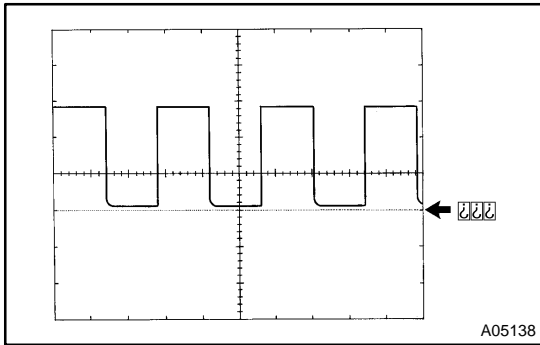
Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
SECURITY (A-1) – Body ground	R – Body ground	SECURITY signal	Key is inserted → Not inserted	Below 1 V ↔ 10 to 14 V → Below 1 V
MPX+ (A-2) – Body ground	B	Communication signal	Communication circuit	–
D-BELT SW (A-3) – Body ground	LG – Body ground	Driver seat belt condition	D-BELT indicator light ON → OFF	Below 1 V → 10 to 14 V
SIGNAL EARTH (A-4) – Body ground	BR – Body ground	GND signal	Always	Below 1 Ω
TRIP EARTH (A-5) – Body ground	B – Body ground	GND signal FOR ODO/ TRIP SWITCH	Always	Below 1 Ω
km/h or mph (A-6) – Body ground	L – Body ground	km/h or mph signal	Power switch ON (ACC or IG) and km/h or mph switch ON → OFF	Below 1 V → 4 to 5.5 V
IG2 (A-7) – Body ground	O – Body ground	Power switch signal	Power switch OFF → ON	10 to 14 V
ODO/TRIP/RESET (A-8) – Body ground	R – Body ground	ODO/TRIP/RESET signal	ODO/TRIP/RESET switch ON → OFF	Below 1 V → 4 to 5.5 V
SPEED IN (A-9) – Body ground	V – Body ground	Speed signal (Input)	Power switch ON (ACC or IG) and turn the wheel slowly	Pulse generation (See waveform 1)

CHECK E/G (A-10) – Body ground	G – Body ground	CHECK ENGINE signal	Power switch ON (ACC or IG) and CHECK ENGINE warning light ON → OFF	Below 1 V → 10 to 14 V
TURN L (A-11) – Body ground	Y – Body ground	Turn signal left	Turn signal LH indicator light OFF → ON	Below 1 V → 10 to 14 V
TURN R (A-12) – Body ground	G – Body ground	Turn signal right	Turn signal RH indicator light OFF → ON	Below 1 V → 10 to 14 V
BACK-UP LP (A-13) – Body ground	P – Body ground	BACK-UP light signal	Power switch ON (ACC or IG) and Shift is except R position → Shift is R position	Below 1 V → 10 to 14 V
AIRBAG (A-14) – Body ground	B – Body ground	AIRBAG signal	AIRBAG indicator light ON → OFF	Below 1 V → 8 to 14 V
TR (B-2) – Body ground	R – Body ground	Rheostat (light control) signal	Light control dimmer switch is OFF → TAIL/HEAD	Below 1 V → 10 to 14 V
MPX- (B-3) – Body ground	GR	Communication signal	Communication circuit	–
P-BELT SW (B-4) – Body ground	R – Body ground	Passenger seat belt condition	P-BELT indicator light ON → OFF	Below 1 V → 10 to 14 V
AUTO LVL (B-5) – Body ground	L – Body ground	Headlight automatic leveling signal	Malfunction in headlight leveling System is normally → Malfunction	Below 1 V → 10 to 14 V
TEMP SSR+ (B-8) – Body ground	R – Body ground	GND	Always	Below 1 Ω
+B (B-9) – Body ground	Y – Body ground	Power switch signal	Always	10 to 14 V
TEMP SSR- (B-10) – Body ground	L – Body ground	Outside temperature signal	Always	Below 1 V → 4 to 5.5 V
IG2 (B-11) – Body ground	V – Body ground	Power switch signal	Power switch OFF → ON	Below 1 V → 10 to 14 V
FUEL IN (B-12) – Body ground	B – Body ground	Fuel signal	Power switch ON (ACC or IG) and fuel level is FULL → EMPTY	4.0 Ω → 110 Ω
FUEL EARTH (B-13) – Body ground	BR – Body ground	GND for fuel sender gauge	Always	Below 1 Ω
4P OUT (B-14) – Body ground	V – Body ground	Tachometer signal (Output)	Power switch ON (ACC or IG) and turn the wheel slowly	Pulse generation (See waveform 2)
TC (B-15) – Body ground	SB – Body ground	Tail cancel (light condition) signal	Power switch ON (ACC or IG)	Pulse generation (See waveform 3)



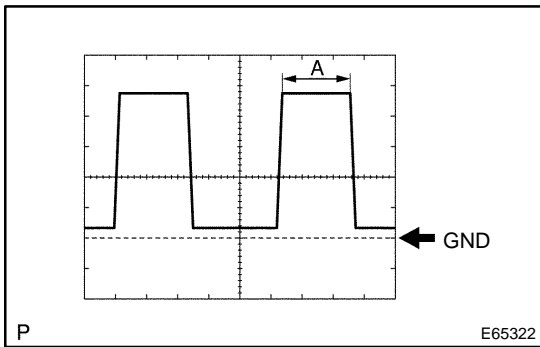
Waveform 1 (Reference):

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



Waveform 2 (Reference):

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



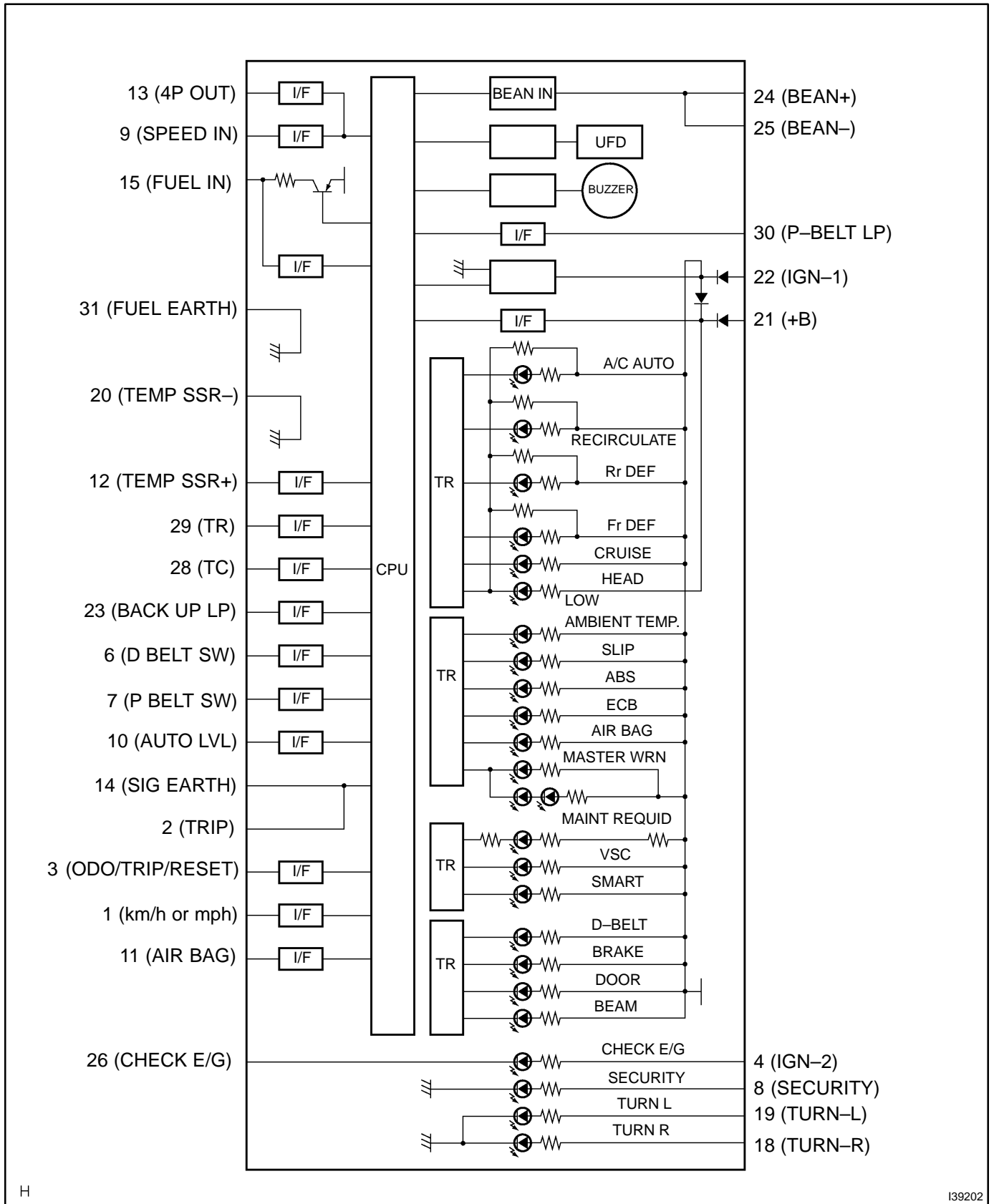
Waveform 3 (Reference):

Item	Contents
Tool setting	2 V/DIV, 1 ms/DIV
Vehicle condition	Ignition switch ON

HINT:

Duty ratio changes as illumination becomes darker ("A" becomes longer).

COMBINATION METER INNER CIRCUIT



H

139202

DIAGNOSTICS - COMBINATION METER

Terminal No.	Wire harness side	
C10	1	ODO/TRIP Switch
	2	ODO/TRIP Switch
	3	ODO/TRIP Switch
	4	IGN Fuse
	5	-
	6	Front Seat Inner Belt Assy LH
	7	Front Seat Inner Belt Assy RH
	8	Security ECU
	9	Skid Control ECU
	10	Headlight Beam Level Control ECU
	11	Airbag Control Assy Center
	12	Fuel Sender Gauge Assy
	13	4P OUT
	14	GND
	15	Fuel Sender Gauge Assy
	16	-
	17	-
	18	Flasher Relay
	19	Flasher Relay
	20	Fuel Sender Gauge Assy
	21	DOME Fuse
	22	GAUGE Fuse
	23	Back-up Light Relay
	24	Smart Key ECU
	25	Ignition Control ECU
	26	ECM
	27	-
	28	Light Control Rheostat
	29	PANEL Fuse
	30	Passenger Seat Belt Warning Light
	31	Fuel Sender Gauge Assy
	32	-