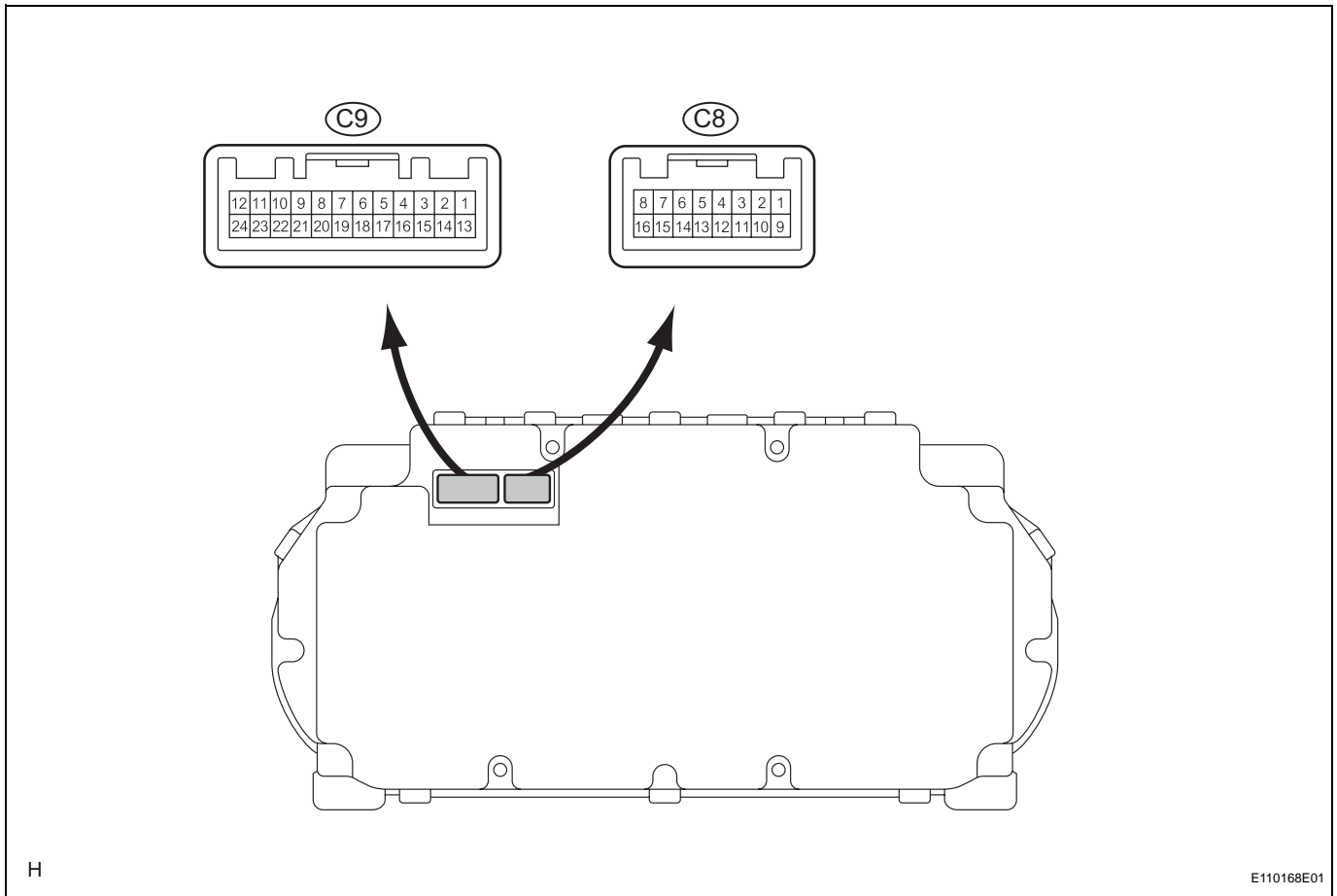


TERMINALS OF ECU

1. Combination Meter Assembly



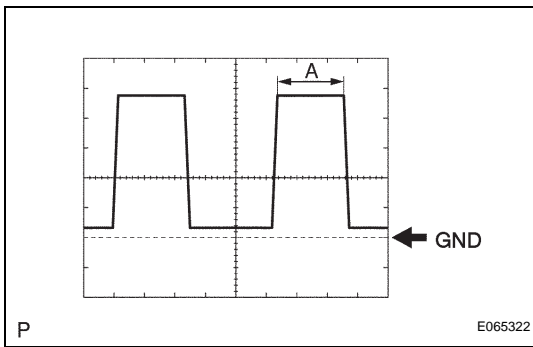
H

E110168E01

ME

| Symbols (Terminal No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
|---|-------------------|------------------------|--|-----------------------------------|
| POWER GND (C8-1) - Body ground | W-B - Body ground | Ground | Always | Below 1 V |
| ILL- (C8-2) - Body ground | L - Body ground | Illumination signal | Headlight switch ON, Light control rheostat position MIN → MAX | Pulse generation (See Waveform 1) |
| AIR SUS LOADING MODE (C8-3) - Body ground | G - Body ground | AIR SUS signal | Ignition switch ON, AIR SUS LOADING MODE indicator ON → OFF | Below 1 V → 10 to 14 V |
| CHECK ENGINE (C8-4) - Body ground | BR - Body ground | CHECK ENGINE signal | Ignition switch ON, CHECK ENGINE warning light ON → OFF | Below 1 V → 10 to 14 V |
| MPX + (C8-5) | Y | Communication signal | Communication circuit | - |
| 4P (C8-6) - Body ground | LG - Body ground | Speed signal (Output) | Ignition switch ON and turn the wheel slowly | Pulse generation (See waveform 2) |
| TACH (C8-7) - Body ground | W - Body ground | Tachometer signal | Engine running | Pulse generation (See waveform 3) |
| IG2 (C8-8) - Body ground | GR - Body ground | Ignition switch signal | Ignition switch OFF → ON | Below 1 V → 10 to 14 V |
| AIR SUS OFF (C8-9) - Body ground | W - Body ground | AIR SUS signal | Ignition switch ON, AIR SUS OFF indicator ON → OFF | Below 1 V → 10 to 14 V |
| AIR SUS LO (C8-10) - Body ground | GR - Body ground | AIR SUS signal | Ignition switch ON, AIR SUS LO indicator ON → OFF | Below 1 V → 10 to 14 V |
| AIR SUS N (C8-11) - Body ground | R - Body ground | AIR SUS signal | Ignition switch ON, AIR SUS N indicator ON → OFF | Below 1 V → 10 to 14 V |

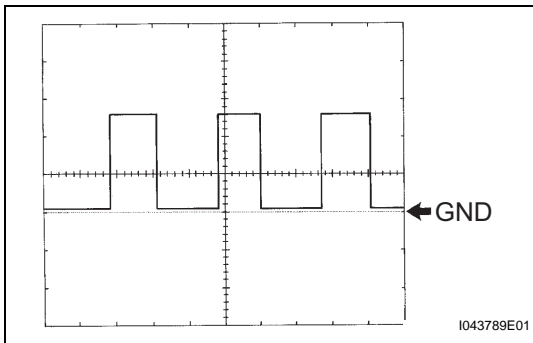
| Symbols (Terminal No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
|------------------------------------|-------------------|--|---|-----------------------------------|
| AIR SUS HI (C8-12) - Body ground | V - Body ground | AIR SUS signal | Ignition switch ON, AIR SUS HI indicator ON → OFF | Below 1 V → 10 to 14 V |
| TURN R (C8-13) - Body ground | P - Body ground | Turn signal right | Turn signal RH indicator light OFF → ON | Below 1 V → 10 to 14 V |
| TURN L (C8-14) - Body ground | B - Body ground | Turn signal left | Turn signal LH indicator light OFF → ON | Below 1 V → 10 to 14 V |
| ECU+B (C8-15) - Body ground | SB - Body ground | Battery | Always | 10 to 14 V |
| DOME+B (C8-16) - Body ground | O - Body ground | Battery | Always | 10 to 14 V |
| SIGNAL GND (C9-1) - Body ground | W-B - Body ground | Ground | Always | Below 1 V |
| FE (C9-2) - Body ground | SB - Body ground | Fuel ground | Always | Below 1 V |
| MPX - (C9-4) | V | Communication signal | Communication circuit | - |
| ABS (C9-6) - Body ground | R - Body ground | ABS signal | Ignition switch ON, ABS warning light ON → OFF | 6.7 to 12 V → Below 1 V |
| BRAKE (C9-7) - Body ground | P - Body ground | Brake signal | Ignition switch ON, BRAKE warning light ON → OFF | 6.7 to 12 V → Below 1 V |
| BRAKE LEVEL (C9-8) - Body ground | W - Body ground | Brake fluid level signal | Ignition switch ON, brake fluid level (LO) → NORMAL | Below 1 V → 10 to 14 V |
| VSC (C9-9) - Body ground | O - Body ground | VSC signal | Ignition switch ON, VSC warning light ON → OFF | Below 1 V → 10 to 14 V |
| H-LP LEVEL (C9-10) - Body ground | B - Body ground | Headlight level signal | Ignition switch ON, H-LP LEVEL indicator ON → OFF | Below 1 V → 10 to 14 V |
| AFS OFF (C9-12) - Body ground | L - Body ground | AFS OFF signal | Ignition switch ON, AFS OFF indicator light ON → OFF | Below 1 V → 10 to 14 V |
| RE (C9-13) - Body ground | W - Body ground | Rheostat trip switch signal (RE) | Always | Below 1 V |
| VR (C9-14) - Body ground | O - Body ground | Rheostat trip switch signal (VR) | Ignition switch OFF → ON | Below 1 V → 4 to 6 V |
| RL (C9-15) - Body ground | B - Body ground | Rheostat trip switch signal (RL) | Ignition switch OFF → ON | Below 1 V → 4 to 6 V |
| TCAN SW (C9-16) - Body ground | Y - Body ground | Rheostat trip switch signal (Tail cancel switch) | Ignition switch ON, rheostat trip switch (TCAN SW) OFF → ON | Below 1 V → 4 to 6 V |
| ODO/TRIP SW (C9-17) - Body ground | L - Body ground | Rheostat trip switch signal (ODO/TRIP switch) | Ignition switch ON, rheostat trip switch (ODO/TRIP SW) OFF → ON | Below 1 V → 4 to 6 V |
| SPEED SIGNAL (C9-18) - Body ground | BR - Body ground | Speed signal (Input) | Ignition switch ON and turn the wheel slowly | Pulse generation (See waveform 2) |
| FUEL SENDER (C9-19) - Body ground | V - Body ground | Fuel signal | Fuel sender gauge is F position → E position | Below 1 V → 4.5 to 6.7 V |
| P-SEAT BELT (C9-22) - Body ground | R - Body ground | Passenger seat belt signal | Ignition switch ON, sit on the passenger seat, belt unfastened → fastened | Below 1 V → 10 to 14 V |
| RR LIGHT (C9-23) - Body ground | G - Body ground | Rear light failure signal | Ignition switch ON, RR light failure indicator light ON → OFF | Below 1 V → 10 to 14 V |
| WASHER LEVEL (C9-24) - Body ground | LG - Body ground | Washer level signal | Ignition switch ON, washer level warning light ON → OFF | Below 1 V → 10 to 14 V |



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

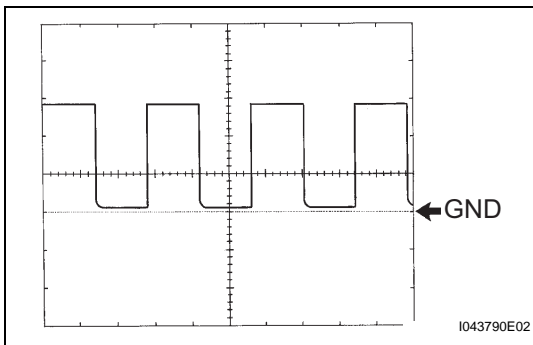
| Item | Condition |
|-------------------|--------------------|
| Tool setting | 2 V/DIV., 1ms/DIV. |
| Vehicle condition | Ignition switch ON |

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



(b) Waveform 1 (Reference): Using oscilloscope:

| Item | Condition |
|-------------------|----------------------------|
| Tool setting | 5 V/DIV., 20 ms/DIV. |
| Vehicle condition | Driving at approx. 20 km/h |

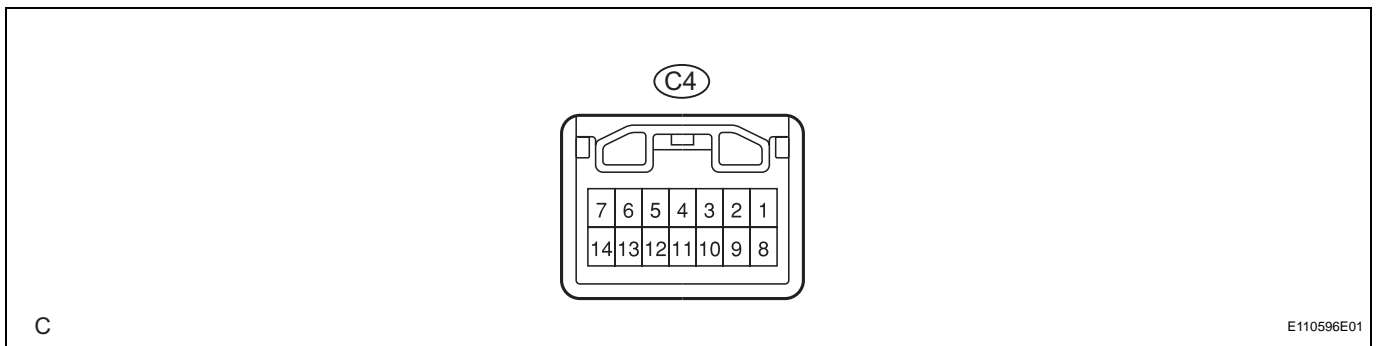


(c) Waveform 1 (Reference): Using oscilloscope:

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

2. Multi-Display Assembly (w/o Navigation System)

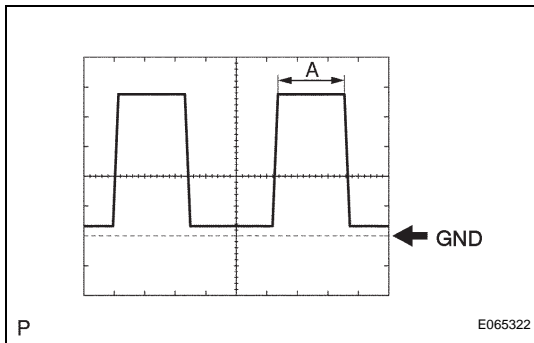
ME



| Symbols (Terminal No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
|--------------------------|--------------|----------------------------------|--|---|
| +B (C4-1) - GND (C4-7) | O - W-B | Battery | Always | 10 to 14 V |
| ACC (C4-2) - GND (C4-7) | GR - W-B | Ignition switch signal | Ignition switch OFF → ACC | Below 1 V → 10 to 14 V |
| LP (C4-4) - GND (C4-7) | P - W-B | Theft deterrent indicator signal | Put ignition key IN → OUT from ignition key cylinder | Below 1 V → Pulse generation (Below 1 V → 10 to 14 V) |
| MPX+ (C4-5) | L | Communication signal | Communication circuit | - |
| P-AB (C4-6) - GND (C4-7) | BR - W-B | Airbag signal | Ignition switch ON, Airbag indicator ON → OFF | Below 1 V → 10 to 14 V |

| Symbols (Terminal No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
|--------------------------|-------------------|------------------------|--|---------------------------------|
| GND (C4-7) - Body ground | W-B - Body ground | Ground | Always | Below 1 V |
| ILL+ (C4-8) - GND (C4-7) | G - W-B | Illumination signal | Headlight switch OFF → ON | Below 1 V → 10 to 14 V |
| IG+ (C4-9) - GND (C4-7) | LG - W-B | Ignition switch signal | Ignition switch OFF → ON | Below 1 V → 10 to 14 V |
| F (C4-11) - GND (C4-7) | V - W-B | Turn signal | Turn signal indicator light OFF → ON | Below 1 V → 10 to 14 V |
| MPX- (C4-12) | GR | Communication signal | Communication circuit | - |
| ILL (C4-14) - GND (C4-7) | W - W-B | Illumination signal | Headlight switch ON, Light control rheostat position MIN → MAX | Pulse generation (See Waveform) |

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

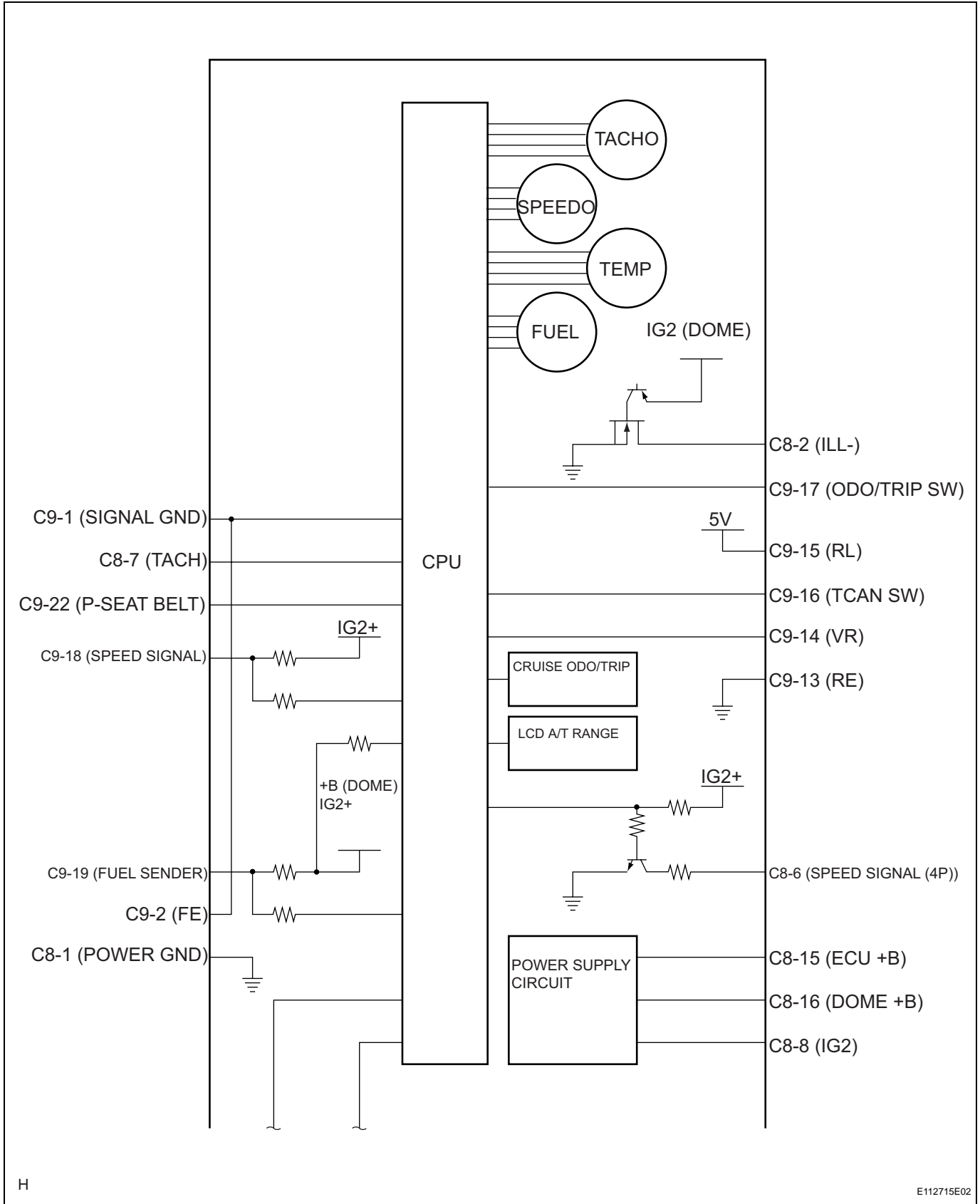


| Item | Condition |
|-------------------|---------------------|
| Tool setting | 2 V/DIV., 1 ms/DIV. |
| Vehicle condition | Ignition switch ON |

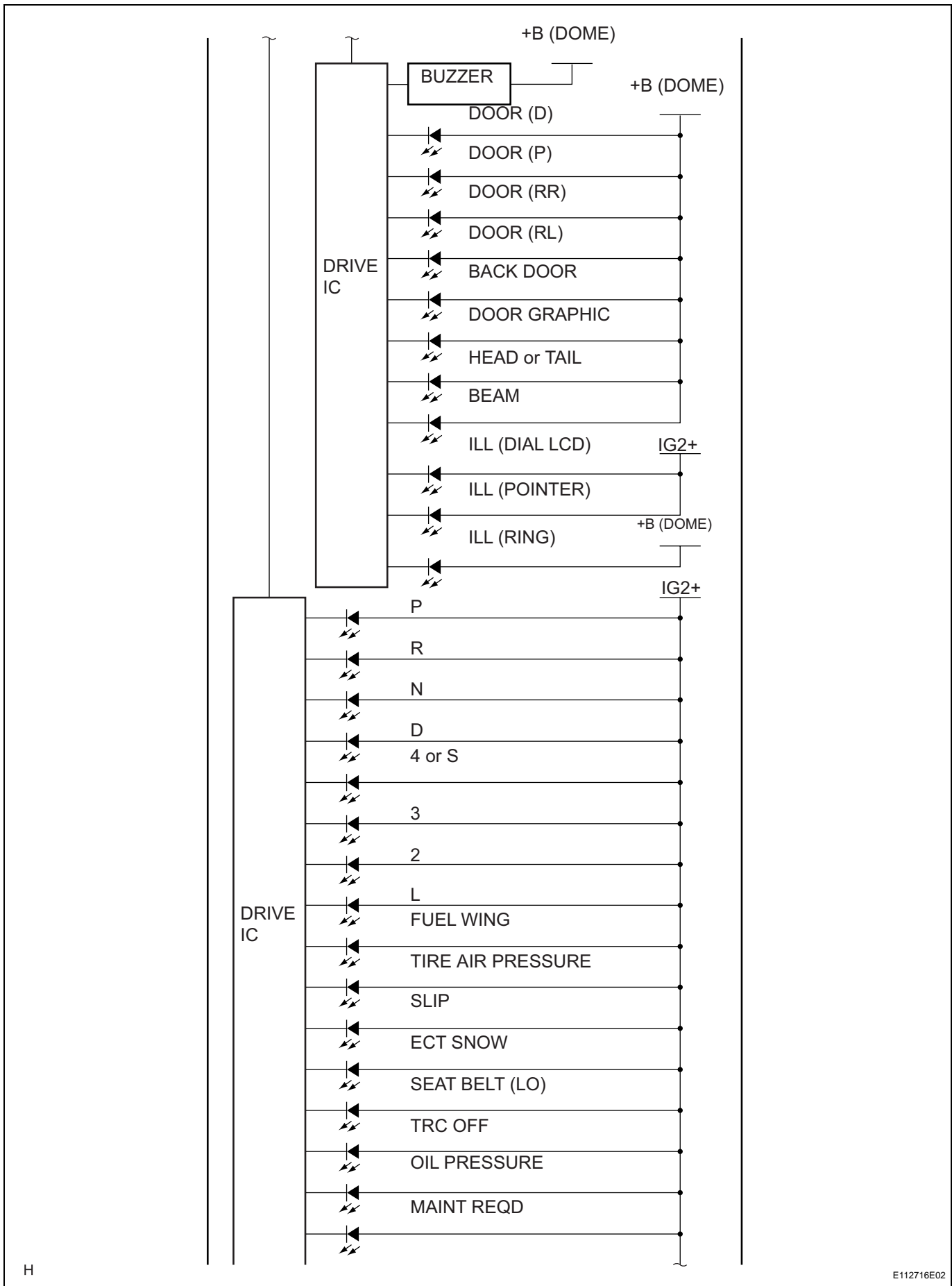
HINT:

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

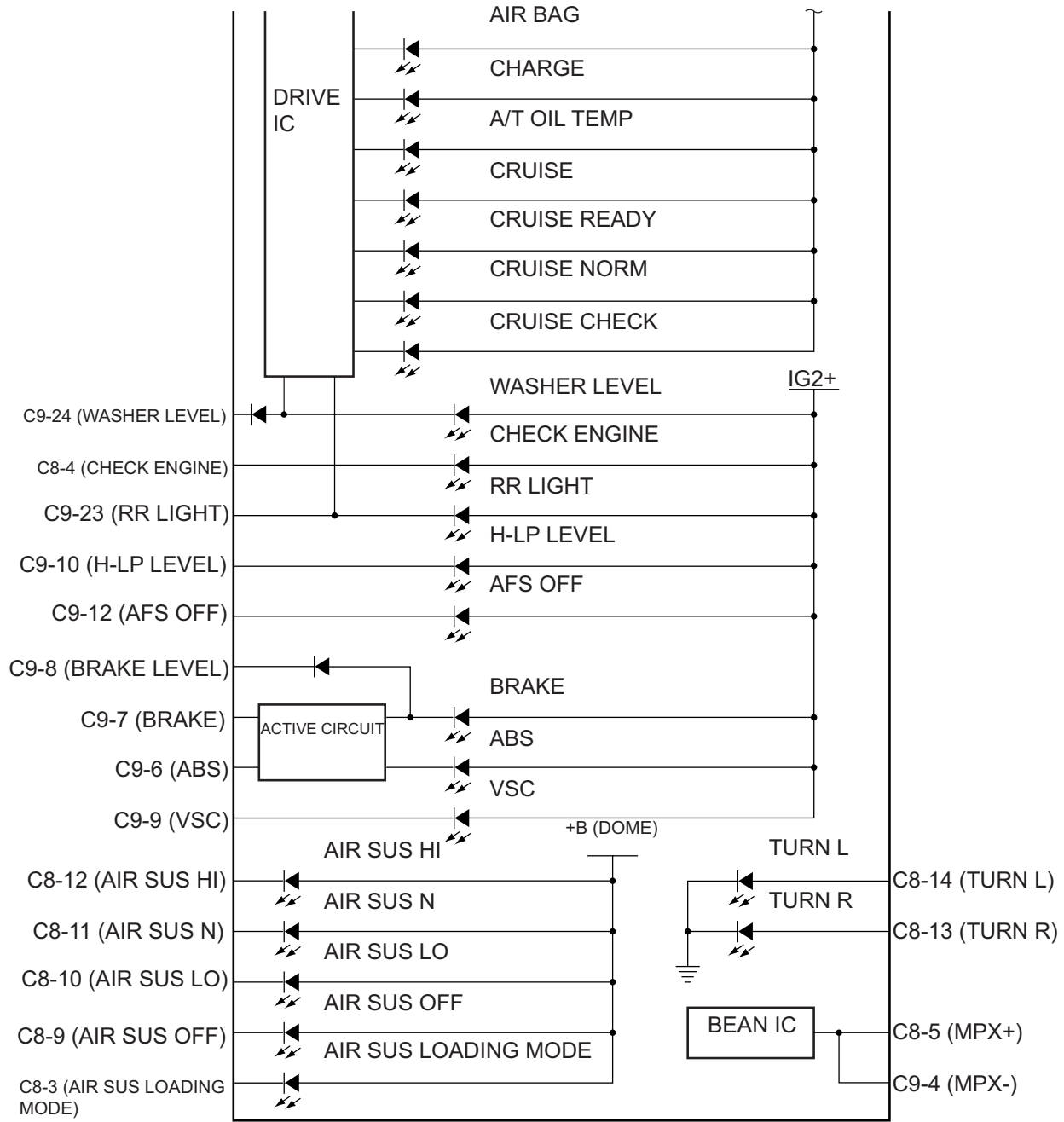
3. COMBINATION METER INNER CIRCUIT



ME



ME



ME

| Terminal No. | Wire harness side |
|--------------|-------------------------------------|
| C8 | 1 Ground (Signal Ground) |
| | 2 PANEL Fuse |
| | 3 Suspension Control ECU |
| | 4 ECM |
| | 5 Airbag Sensor Assembly Center |
| | 6 4P OUT (Other Parts) |
| | 7 ECM |
| | 8 GAUGE2 Fuse |
| | 9 Suspension Control ECU |
| | 10 Suspension Control ECU |
| | 11 Suspension Control ECU |
| | 12 Suspension Control ECU |
| | 13 Turn Signal Flasher Relay |
| | 14 Turn Signal Flasher Relay |
| | 15 ECU-B Fuse |
| | 16 DOME Fuse |
| C9 | 1 Ground (Signal Ground) |
| | 2 Fuel Ground |
| | 3 - |
| | 4 Power Window Master Switch |
| | 5 - |
| | 6 Skid Control ECU with Actuator |
| | 7 Skid Control ECU with Actuator |
| | 8 Brake Fluid Level Warning Switch |
| | 9 Skid Control ECU with Actuator |
| | 10 Headlight Beam Level Control ECU |
| | 11 - |
| | 12 AFS ECU |
| | 13 Rheostat Trip Switch |
| | 14 Rheostat Trip Switch |
| | 15 Rheostat Trip Switch |
| | 16 Rheostat Trip Switch |
| | 17 Rheostat Trip Switch |
| | 18 Skid Control ECU with Actuator |
| | 19 Fuel Sender Gauge Assembly |
| | 20 - |
| | 21 - |
| | 22 Multi-Display |
| | 23 Luggage Room J/B ECU |
| | 24 Washer Level Warning Switch |