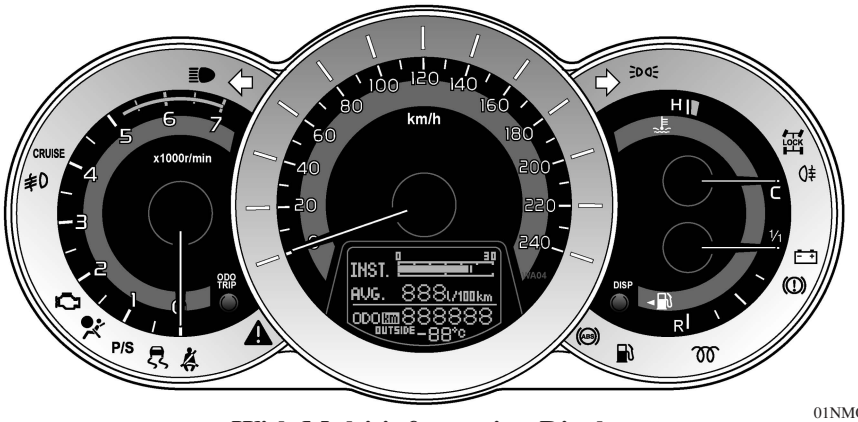
METER

■COMBINATION METER

1. General

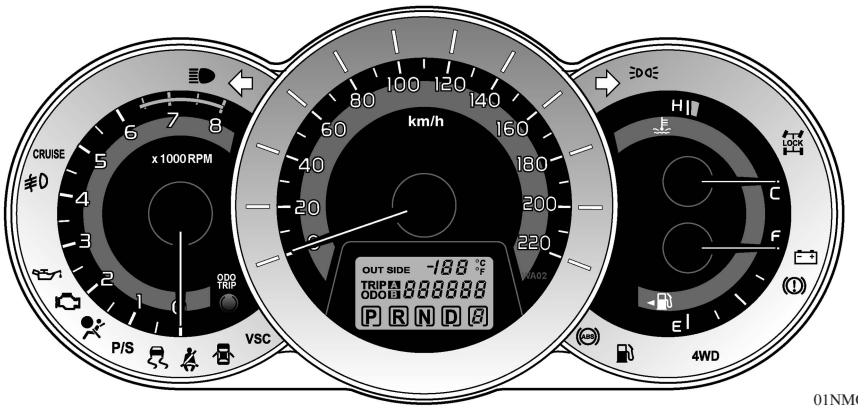
The combination meter in the new model has the following features:

- The Optitron display type combination meter is used.
- The Optitron display type combination meter realizes excellent visibility through the use of smoke acrylic in the protective panel, and LEDs (Light Emitting Diodes) that are very bright and have high contrast for illuminating the indicator and the dial.
- The step-motor is used to actuate the indicator of the speedometer, the tachometer, the fuel gauge and the water temperature gauge.
- LCDs (Liquid Crystal Displays) are used for the odometer, trip meter, and shift position indicator light.
- A meter ECU and multi buzzer are enclosed in the combination meter. This ECU maintains communication with other ECUs through the CAN (Controller Area Network).
- The multi-information display, which uses an LCD, is standard equipment on the models for Europe.
- The multi-information display has been located in the center of the combination meter.



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With Multi-information Display



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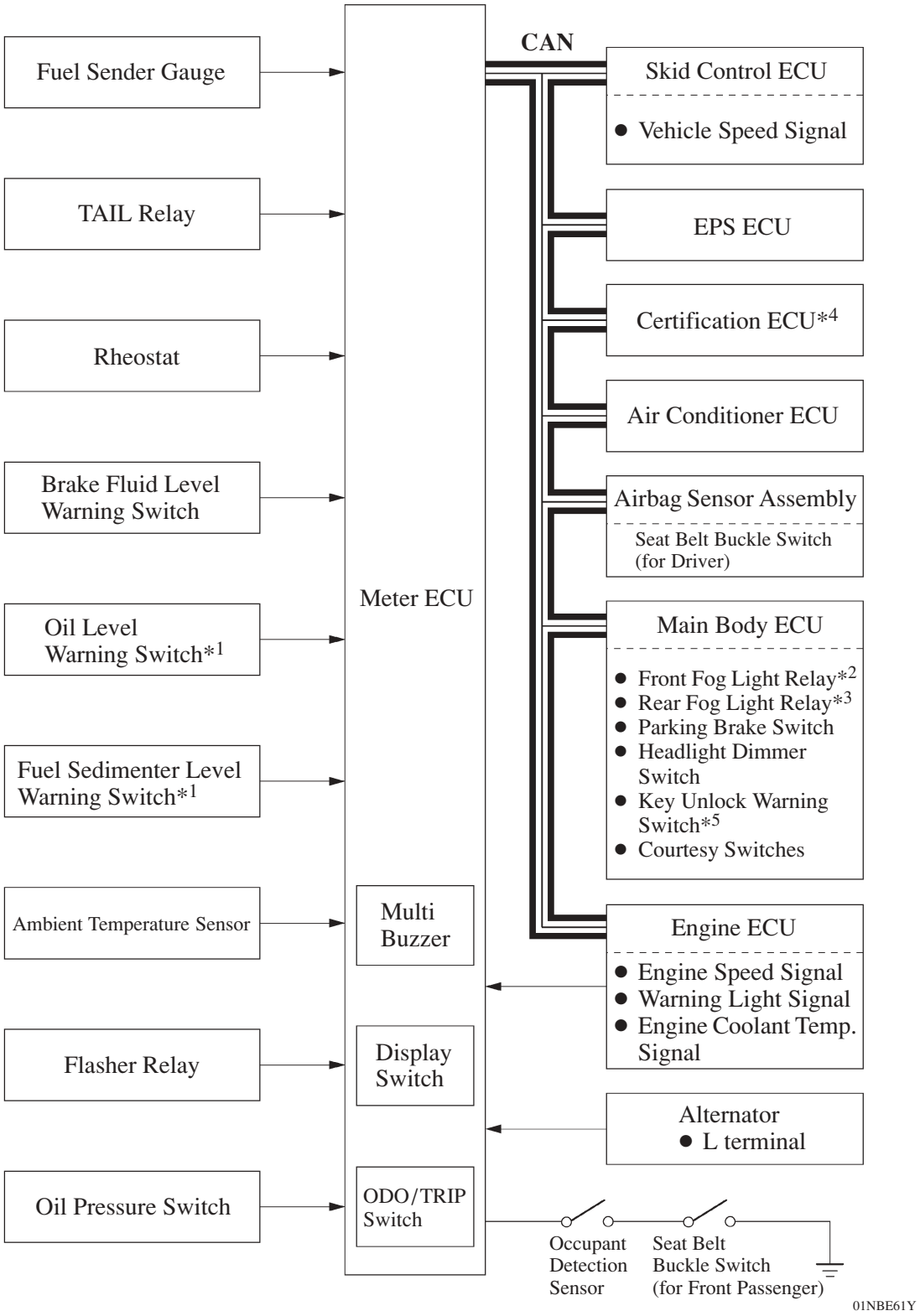
Without Multi-information Display

Service Tip

If the LEDs have a malfunction, it must be replaced as a combination meter assembly. Refer to the RAV4 Repair Manual (Pub. No. RM01N0E).

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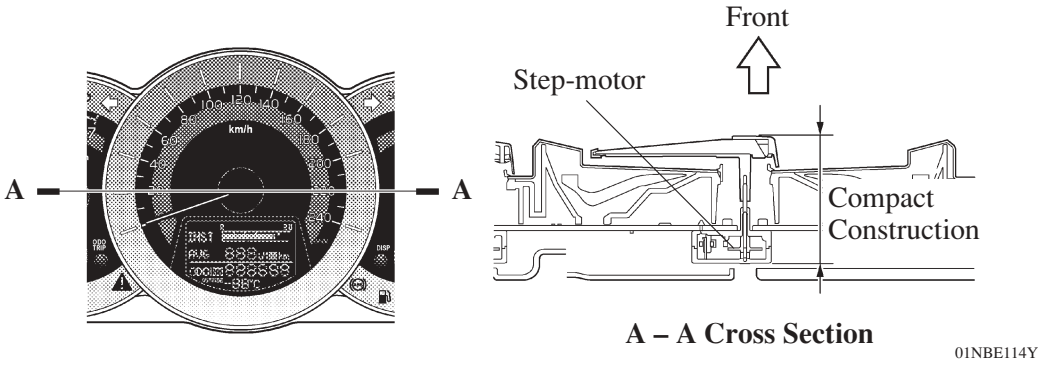
2. System Diagram



*1: Diesel Engine Models
*2: Models with Front Fog Light
*3: Models with Rear Fog Light
*4: Models with Smart Entry & Start System
*5: Models without Smart Entry & Start System

3. Construction

- The step-motor is used to actuate the indicator of the speedometer, the tachometer, the fuel gauge and the water temperature gauge.
- This has resulted in a thinner pointer movement, thus achieving a lightweight and compact construction.
- In the step-motor type, when the power to the combination meter is turned on through the reconnection of the battery terminal, the step-motor initializes once to recognize the zero point of the indicator in relation to the step-motor. However, if the power source mode is changed to IG-ON after 60 seconds or more have elapsed after the initialization, the step-motor initializes again.



A – A Cross Section

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4. Engine Oil Change Reminder Light (2AD-FTV and 2AD-FHV Engine Models)

- An engine oil change reminder light is used to the combination meter. The master warning light and engine oil change reminder light will illuminate to remind the driver to change the engine oil and oil filter, depending on one of the following signals: the accumulated mileage/kilometrage or the soot volume calculated in the engine ECU.
- After the engine oil and oil filter have been changed, the accumulated mileage/kilometrage and soot volume memorized in the engine ECU should be reset. At this point, the accumulated mileage/kilometrage and soot volume are reset to 0 and the cycle begins again.
- For details on the illumination conditions of the master warning light and engine oil change reminder light, or on the procedure for resetting the lights, see page EG-105 in the EG section.

