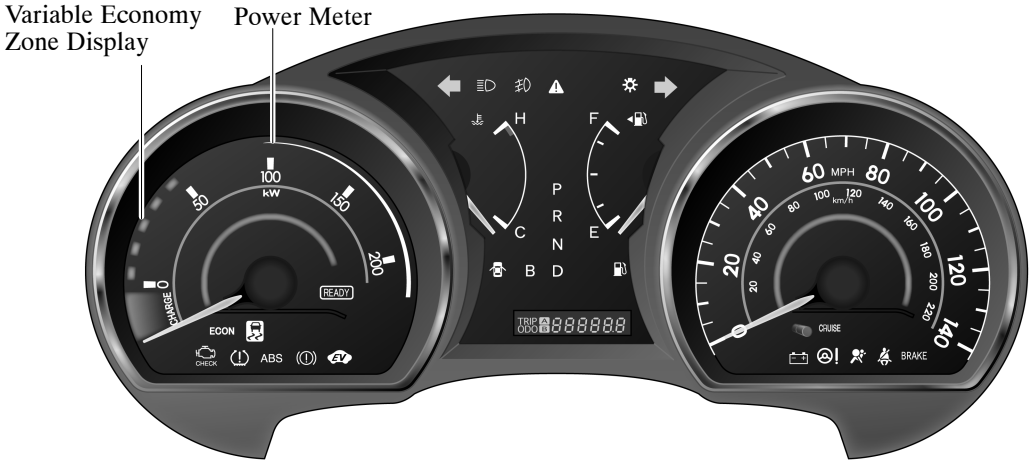
METER

■COMBINATION METER ASSEMBLY

1. General

The combination meter assembly has the following features:

- The combination meter assembly is used an optitron display type. This type realizes excellent visibility through the use of smoke acrylic in the protective panel, and bright LEDs (Light Emitting Diodes) that have high contrast to illuminate the indicator and the dial.
- All the meters, gauges, indicator lights and warning lights use LEDs to reduce consumption of electrical energy.
- The combination meter assembly has a built-in meter ECU and buzzer.
- A power meter with a variable economy zone display is adopted in place of the tachometer. For details, see page BE-37.
- An LCD (Liquid Crystal Display) combined odometer and trip meter is used.
- The oil replacement reminder function is adopted for the model for U.S.A. For details, see page BE-48.



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Models for U.S.A.



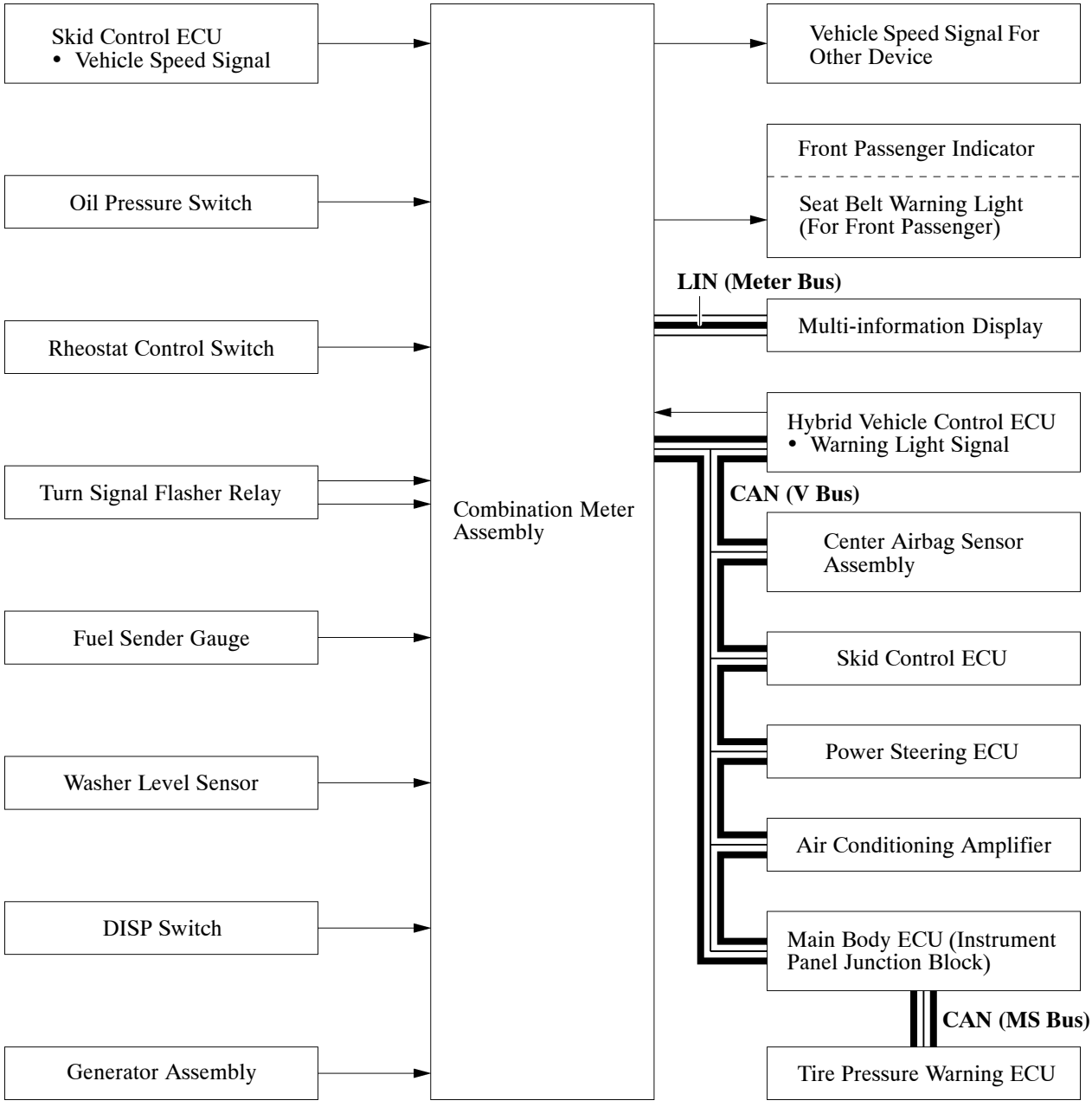
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Models for Canada

Service Tip

If the LEDs malfunction, the entire combination meter assembly must be replaced. For details, see the 2008 HIGHLANDER HYBRID VEHICLE Repair Manual (Pub. No. RM07V0U).

2. System Diagram



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BE

3. Input Communication Signals to Combination Meter

Input Communication Signal	Transmitting ECU
• Starter Signal • Engine Type Signal • Cruise Control Signal • Power Signal • Fuel Injection Information Signal • Engine Coolant Temperature Signal • Charging Warning Signal • Shift Position Signals (P, R, N, D, B) • ECON Indicator Signal • EV Indicator Signal	Hybrid Vehicle Control ECU
• Outside Temperature Signal • A/C Operation Signal	Air Conditioning Amplifier
• SRS Warning Signal • Occupant Classification Signal • Seat Belt Buckle Switch Signal (For Front Passenger)	Center Airbag Sensor Assembly
• Vehicle Speed Sensor Signal • Brake System Warning (Red Indicator) Signal • Brake System Warning (Yellow Indicator) Signal • ABS Warning Signal • Slip Indicator Signal • Brake Fluid Level Warning Signal	Skid Control ECU
• EPS Warning Signal	Power Steering ECU
• Tire Pressure Warning Signal • Tire Pressure Signal	Tire Pressure Warning ECU
• Courtesy Switch Signals • Seat Belt Buckle Switch Signal (For Driver) • Key Unlock Warning Signal • Light Control Switch Signal • Automatic Dimmer Signal • Parking Brake Signal • Sliding Roof Open Warning Signal	Main Body ECU (Instrument Panel Junction Block)

4. Buzzer

The table below shows the warning and reminder functions of the buzzer.

Function	Item
Warning	•Multi-information Display Warning Display (See page BE-42) •Seat Belt Warning (See page BE-212)
Reminder	Key Reminder

5. Variable Economy Zone Display

The variable economy zone display is designed to inform the driver of the zone recommended for fuel-efficient driving according to the driving conditions.

- The number of LEDs that are illuminated to display the recommended economy zone varies according to the vehicle speed and accelerator pedal depression amount.
- The variable economy zone display can be customized. For details, see page BE-19.
- The variable economy zone display appears if all of the following conditions are met:
  - The READY indicator is ON.
  - The shift position is D.
  - Vehicle speed is 2.5 mph (4 km/h) or more.
- The display pattern switches between the following 2 patterns according to the accelerator pedal depressed volume.

Pattern	Outline
Normal Pattern	The power necessary to maintain driving speed is displayed, encouraging driving at a constant speed.
Acceleration Pattern	When the accelerator pedal is pressed further, the maximum power that can be used without significantly reducing fuel economy is displayed.

Variable Economy Zone Display

