METER

■ COMBINATION METER

1. General

The combination meter has the following features:

- A multi-information display is provided on the Optitron display type combination meter to enhance product appeal.
- All the meters, gauges, indicator lights and warning lights use Light Emitting Diodes (LEDs) to reduce consumption of electrical energy.
- The combination meter has a built-in meter ECU and buzzer.
- A Liquid Crystal Display (LCD) comprising an odometer and a trip meter is used.

●: Standard —: Not available

Grade	SR5	Limited	Platinum
Optitron Display Type	—	●	●
Analog Display Type	●	—	—

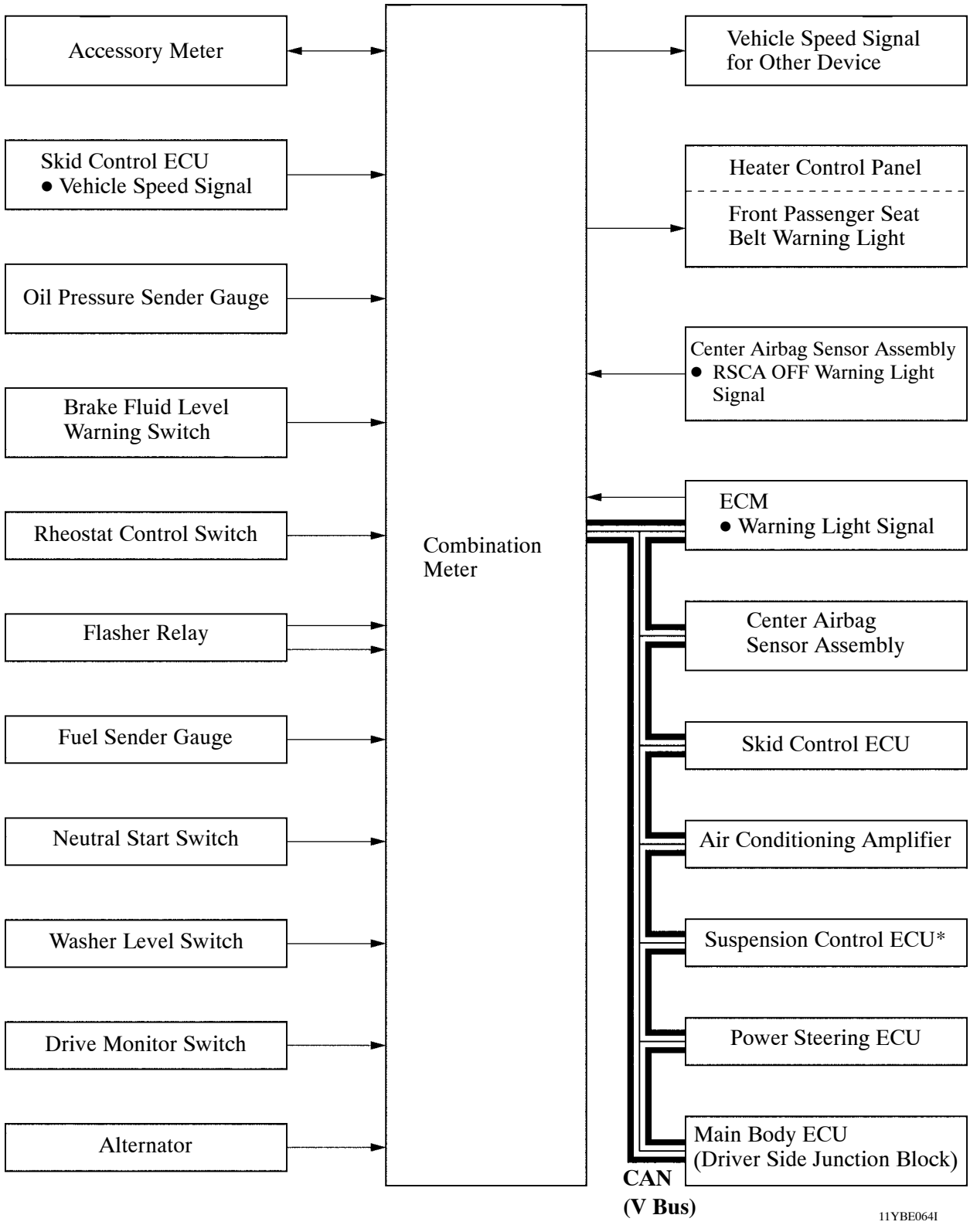


Optitron Display Type Combination Meter 11YBE013Y



Analog Display Type Combination Meter 11YBE014Y

2. System Diagram



*: Models with rear air suspension system

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3. Input Communication Signals to Combination Meter

Input Communication Signal	Transmitting ECU
● Starter Signal ● Engine Type Signal ● Cruise Control Signal ● TACH Signal ● Fuel Injection Information Signal ● Engine Coolant Temperature Signal ● ATF Temperature Signal ● Current Gear Position Signal ● Shift Position Signals (P, R, N, D) ● Reject Buzzer Signal ● Sport Mode Signal	ECM
● Outside Temperature Signal	Air Conditioning Amplifier
● SRS Warning Signal ● Occupant Classification Signal ● Front Passenger Seat Belt Buckle Switch Signal	Center Airbag Sensor Assembly
● Vehicle Speed Sensor Signal ● Brake Warning Signal ● ABS Warning Signal ● VSC OFF Signal ● Slip Indicator Signal	Skid Control ECU
● Height Control Indicator Signal*1 ● Height Control Manual Indicator Signal*1	Suspension Control ECU*1
P/S Warning Signal	Power Steering ECU
● Courtesy Switch Signal ● Driver Seat Belt Buckle Switch Signal ● Key Unlock Warning Signal ● Light Control Switch Signal ● Automatic Dimmer Signal ● Parking Brake Signal ● Sliding Roof Open Warning Signal*2	Main Body ECU (Driver Side Junction Block)

*1: Models with rear air suspension system

*2: Models with sliding roof system

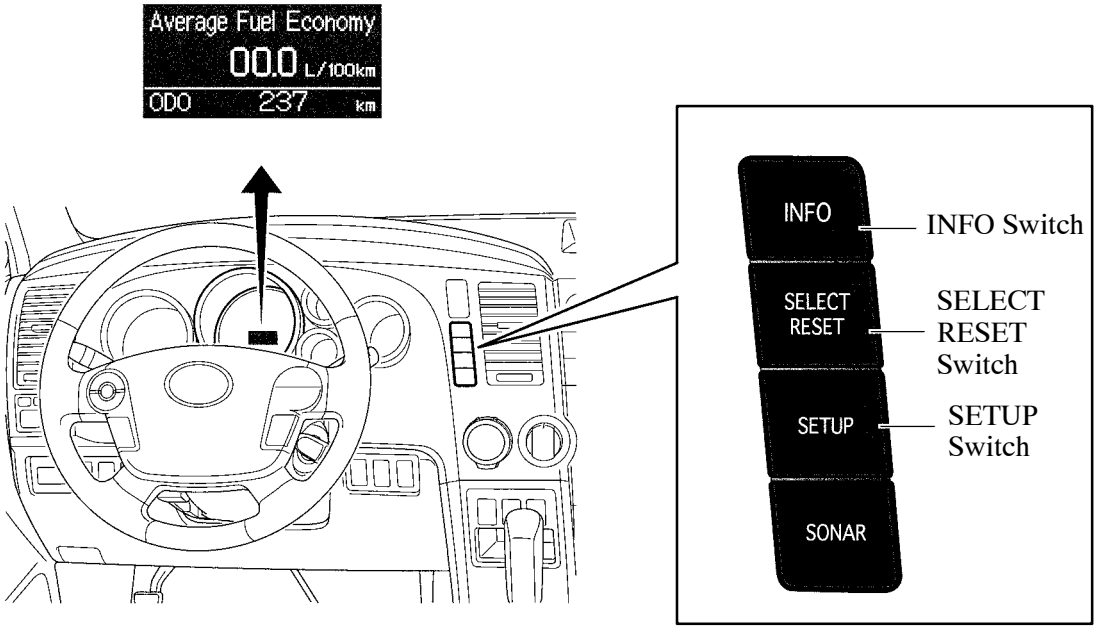
4. Multi-information Display

General

- The multi-information display has following displays:

Display		Outline
Cruise Information		● In the cruise information display, 5 types of information (average fuel economy, current fuel economy, distance to empty, trip timer, and average speed) can be displayed. ● The display can be switched by using the INFO switch in the drive monitor switch.
	Odometer	Displays a zoom-in view of the odometer.
Warning		The warning display will interrupt the multi-information display immediately when a warning occurs.
Customize		● The settings of 6 items can be changed on the customize display. ● The display can be switched by using the SETUP switch. ● The customizing value can be selected by using the SELECT RESET switch.

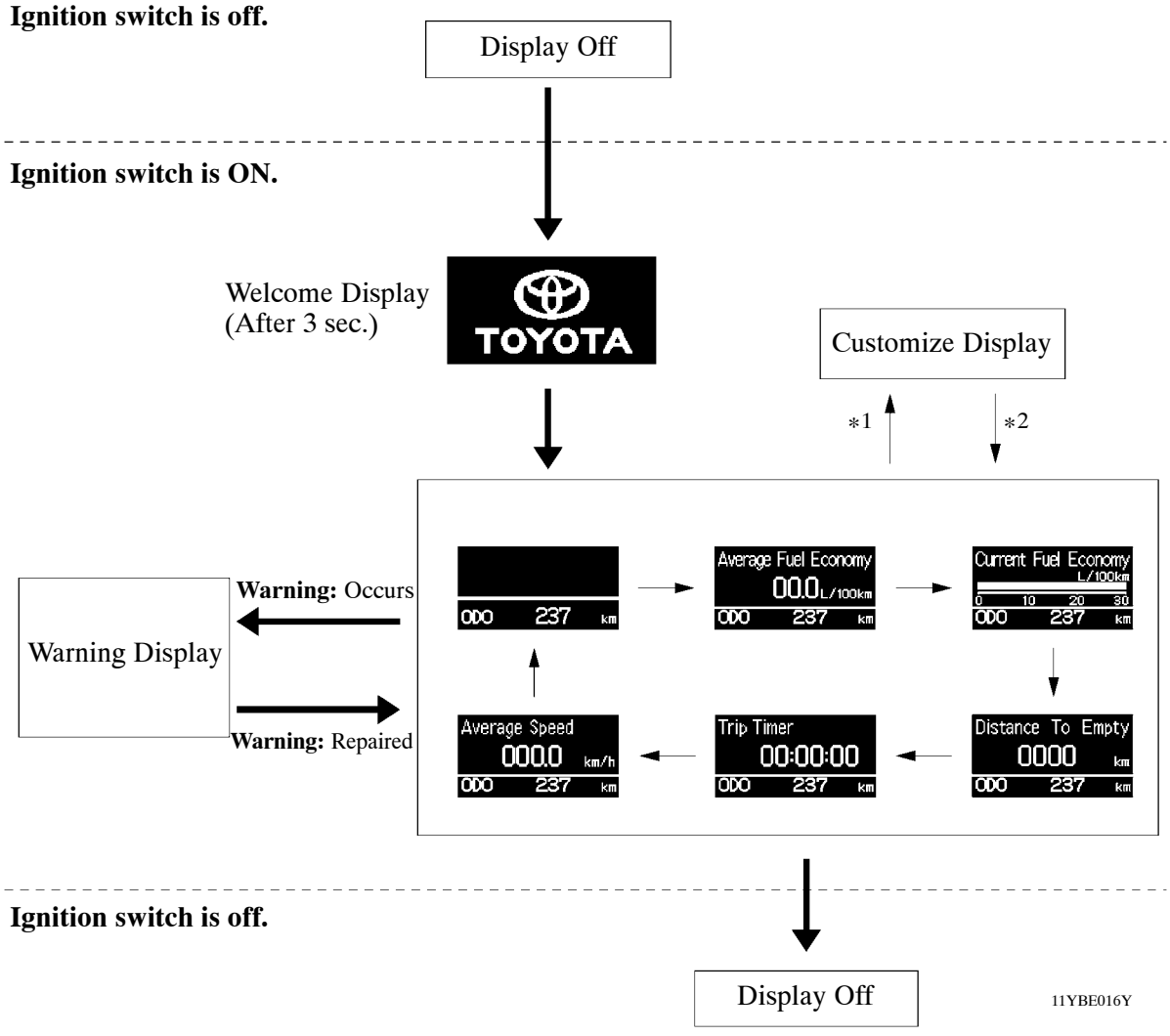
Multi-information Display



Drive Monitor Switch

11YBE015Y

- The multi-information display modes can be switched as shown in the flow chart below:

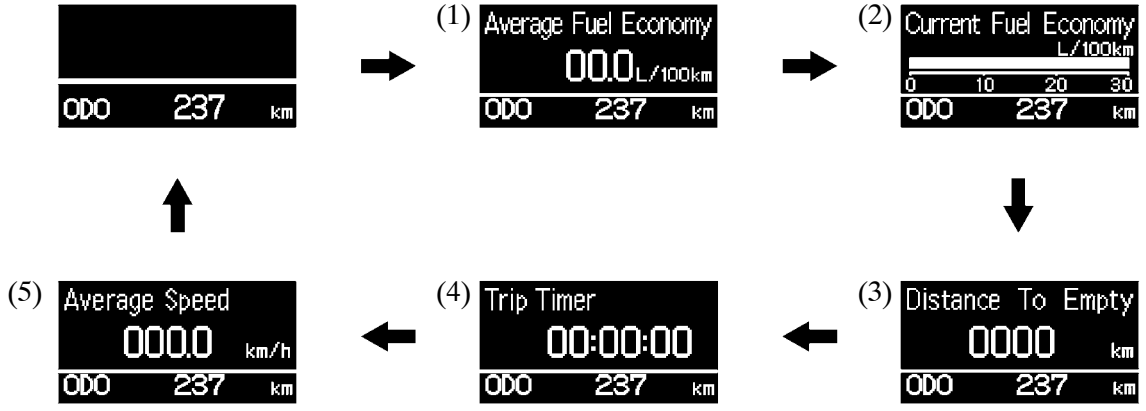


*1: The display changes to the customize display when all of the following conditions are met:
– Ignition switch is ON.
– Vehicle speed is 0 km/h.
– SETUP switch is pressed.

*2: The display returns to the previous display when either of the following conditions is met:
– INFO switch is pressed.
– 10 seconds have elapsed after the SETUP or SELECT RESET switch was pressed.

Cruise Information Display

The cruise information is displayed in the following order each time the INFO switch is pressed:



11YBE017Y

Information		Outline
(1)	Average Fuel Economy	● Displays a value that has been calculated by the combination meter, which is based on the distance driven and the fuel consumption volume (fuel injection signal from the No. 1 cylinder). ● This display is updated every 10 seconds.
(2)	Current Fuel Economy	● Displays a value that has been calculated by the combination meter. When the ignition switch is turned ON, the combination meter calculates this value based on the distance driven and the fuel consumption volume (fuel injection signal from the No. 1 injector). ● This display is updated every 0.5 seconds.
(3)	Distance to Empty	● Displays the value that has been calculated by the meter ECU. This calculation is based on the fuel consumption data that the meter ECU continuously monitors and stores in its memory and the residual fuel volume data, provided that the ignition switch is turned ON. ● The display is updated every 1 km.
(4)	Trip Timer	● Calculates and displays the elapsed time since the engine start signal was input into the meter ECU. ● The display is updated every second.
(5)	Average Speed	● Calculates and displays the elapsed time since the engine start signal and vehicle speed signal were received by the combination meter. ● This display is updated every 10 seconds.

Warning Display

When a warning is necessary, the warning display interrupts the multi-information display.

- The master warning light may illuminate or blink and the buzzer may sound depending on the item in the multi-information display.

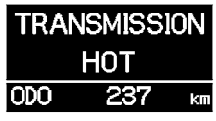
<table>
<tr><th>Warning</th><th>Detail</th><th>Warning</th><th>Detail</th></tr>
<tr><td rowspan="3">

: Blinks*
: Illuminates
Buzzer: Sounds*
11YBE018Y</td><td rowspan="3">Any door is open.
*: The vehicle has reached a speed of 5 km/h.</td><td>

: Blinks
Buzzer: Sounds
11YBE020Y</td><td>Parking brake is still engaged when the vehicle has reached a speed of 5 km/h.</td></tr>
<tr><td>

: Illuminates
Buzzer: Sounds
11YBE021Y</td><td>Washer fluid level is low.</td></tr>
<tr><td>

Buzzer: Sounds
11YBE022Y</td><td>Fuel level is low.</td></tr>
<tr><td>

: Blinks
Buzzer: Sounds
11YBE019Y</td><td>Engine coolant temperature is more than 120°C.</td><td>

Buzzer: Sounds
11YBE023Y</td><td>ATF temperature is high.</td></tr>
</table>

Customize Display

The customize display is displayed in the following order each time the SETUP switch is pressed. 6 items can be set.

- A customizing value for each item will be set when any of the following conditions is met after the customizing value is selected using the SELECT RESET switch:
  - The screen of the customizable item is changed by operating the SETUP switch.
  - The customize display shifts to cruise information display or odometer.
  - The ignition switch is turned off.
- The items and the default settings are as follows:

Item	Default	Customizing Value
Keyless Entry Feedback	Both (Lamps and Tone)	Both (Lamps and Tone) → Lamps → Tone → Off
Keyless Entry Relock Timer	30 seconds	30 seconds → 60 seconds → 120 seconds
Door Auto Locking	Above 20 km/h	Above 20 km/h → Off → Shift Out of Park
Door Auto Unlocking	Shift to Park	Shift to Park → Driver Door Open → Off
Courtesy Light Off Timer	15 seconds	15 seconds → 30 seconds → 8 seconds
Default Setting	—	—

- A warning message will appear if the SETUP switch is pressed when the vehicle speed is more than 5 km/h.
- An error message will appear if the customizing value setting is not completed.



Warning Message 04E0BE25C



System Error 04E0BE26C

- The customize display can be switched as shown in the flow chart below:

