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 LEDs (Light Emitting Diodes) to reduce consumption of electrical energy.
- The combination meter has a built-in meter ECU and buzzer.
- An LCD (Liquid Crystal Display) comprising odometer and a trip meter is used.
- The oil replacement reminder light is used.

●: Standard OP: Option —: Not Available

Destination		U. S. A.			Canada		
Grade		SR5	Limited	Platinum	SR5	Limited	Platinum
Optitron Display Type	Mph + (Km/h) + ATF Temperature Gauge	—	●	●	—	—	—
	Km/h + (Mph) + ATF Temperature Gauge	—	—	—	—	●	●
Analog Display Type	Mph + (Km/h)	●	—	—	—	—	—
	Mph + (Km/h) + ATF Temperature Gauge	OP*	—	—	—	—	—
	Km/h + (Mph)	—	—	—	●	—	—
	Km/h + (Mph) + ATF Temperature Gauge	—	—	—	OP*	—	—

Destination		Mexico	
Grade		SR5	Limited
Optitron Display Type	Mph + (Km/h) + ATF Temperature Gauge	—	—
	Km/h + (Mph) + ATF Temperature Gauge	—	●
Analog Display Type	Mph + (Km/h)	—	—
	Mph + (Km/h) + ATF Temperature Gauge	—	—
	Km/h + (Mph)	●	—
	Km/h + (Mph) + ATF Temperature Gauge	OP*	—

*: Set Option with Towing Package

BE



08LBE44Y

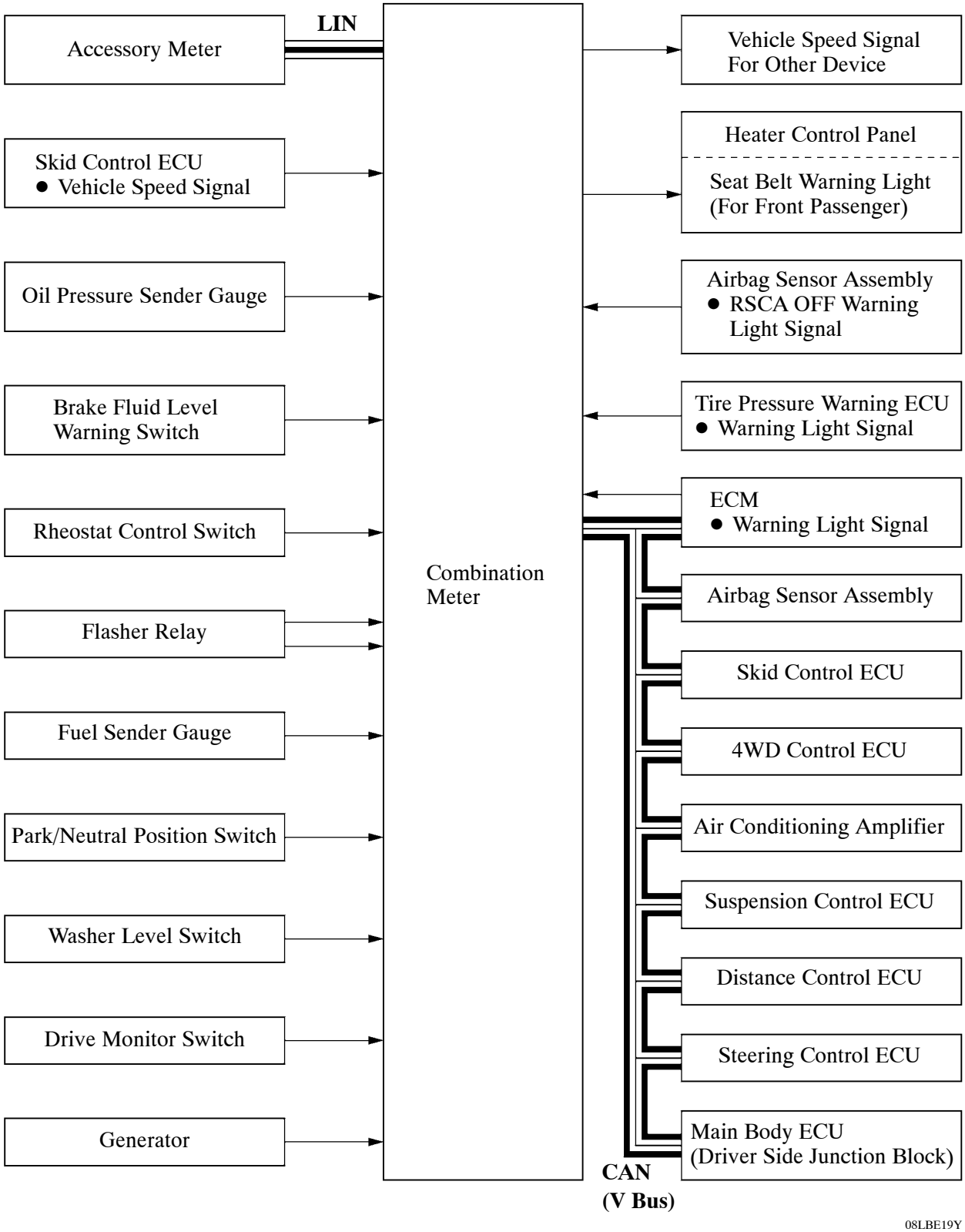
Optitron Display Type Combination Meter for U. S. A. Models



08LBE45Y

Analog Display Type Combination Meter for U. S. A. Models

2. System Diagram



08LBE19Y

BE

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 ● TOW HAUL Indicator Signal*1 ● Display Data Signal*2	ECM
● Outside Temperature Signal	Air Conditioning Amplifier
● SRS Warning Signal ● Occupant Classification Signal ● Seat Belt Buckle Switch Signal (For Front Passenger)	Airbag Sensor Assembly
● Vehicle Speed Sensor Signal ● Brake Warning Signal ● ABS Warning Signal ● AUTO LSD Indicator Signal ● Slip Indicator Signal ● VSC OFF Indicator Signal	Skid Control ECU
● 4WD Switching Signal ● 4Hi Indicator Signal ● 4Lo Indicator Signal ● Reminder Buzzer Signal	4WD Control ECU
● Height Control Indicator Signal ● Height Control Manual Indicator Signal	Suspension Control ECU
● Warning Light Signal ● Laser Cruise Low Speed Limit Cancel Buzzer Signal ● Laser Cruise Warning Buzzer Signal	Distance Control ECU
P/S Warning Light Signal	Steering Control 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*3	Main Body ECU (Driver Side Junction Block)

*1: Models with 3UR-FE Engine
*2: Models with Dynamic Laser Cruise Control System
*3: Models with Sliding Roof System

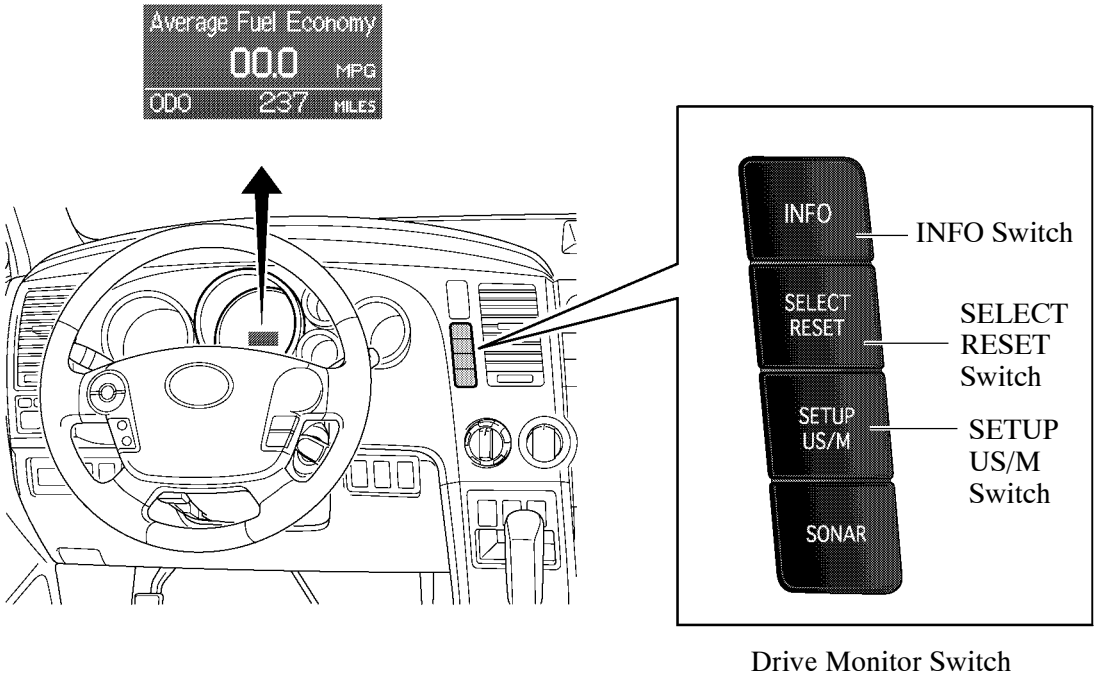
4. Multi-information Display

General

- The multi-information display has four displays.

Display		Outline
Cruise Information		● In the cruise information display, five 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.
Dynamic Laser Cruise Control		Display the operating condition of the dynamic laser cruise control.
Warning		The warning display will interrupt the multi-information display immediately when a warning occurs.
Customize		● The settings of nine items can be changed on the customize display. ● The display can be switched by using the SETUP US/M switch. ● The customizing value can be selected by using the SELECT RESET switch.

Multi-information Display

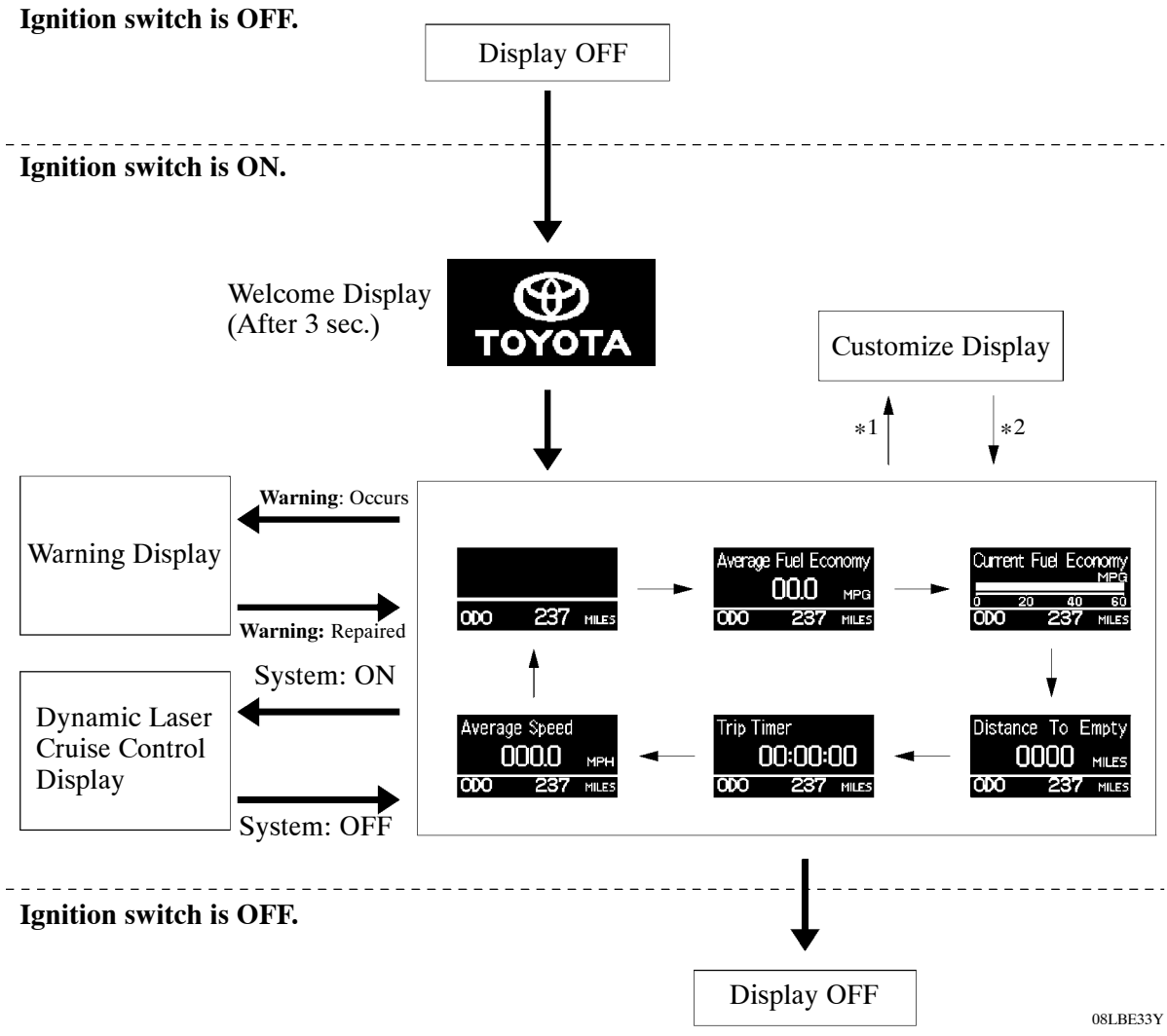


Drive Monitor Switch

04E0BE14Z

BE

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

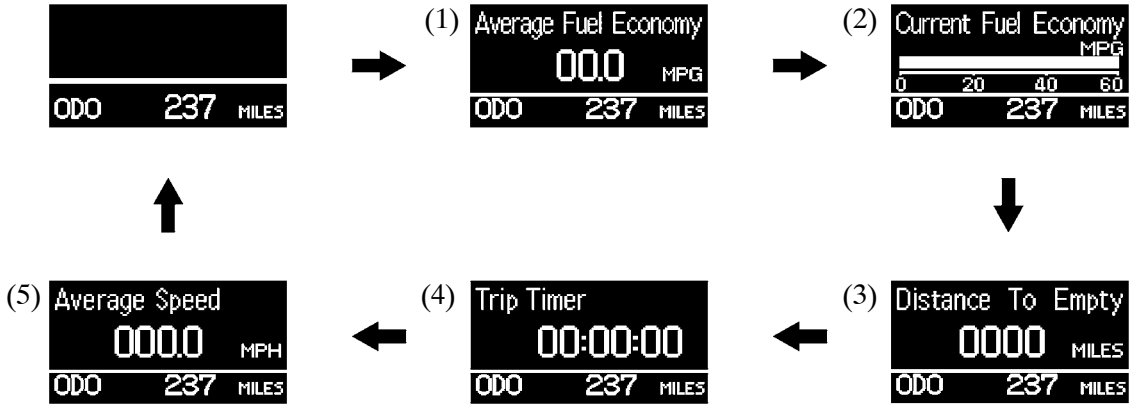


*1: The display changes to the customize display when all of the following conditions are met:
- Ignition switch is ON.
- Vehicle speed is 0 km/h (0 mph).
- SETUP US/M switch is pressed.

*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 US/M 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.



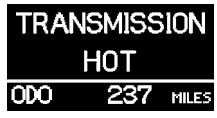
08LBE34Y

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.
(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.

Warning	Detail	Warning	Detail
 : Blinks* : Illuminates **Buzzer:** Sounds* 04E0BE17C	Any door is open. *: The vehicle has reached a speed of 5 km/h (3 mph).	 : Blinks **Buzzer:** Sounds 04E0BE18C	Parking brake is still engaged when the vehicle has reached a speed of 5 km/h (3 mph).
		 : Illuminates **Buzzer:** Sounds 04E0BE19C	Washer fluid level is low.
		 **Buzzer:** Sounds 04E0BE20C	Fuel level is low.
 : Blinks **Buzzer:** Sounds 04E0BE21C	Engine coolant temperature is more than 120°C (248°F).	 **Buzzer:** Sounds 04E0BE22C	ATF temperature is high.
 : Illuminates **Buzzer:** Sounds 04E0BE23C	Comes on approximately 4500 miles after the engine oil is changed.	 : Illuminates **Buzzer:** Sounds 04E0BE24C	Comes on approximately 5000 miles after the engine oil is changed.

Customize Display

The customize display is displayed in the following order each time the SETUP US/M switch is pressed. Nine 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 US/M switch.
  - The customize display shifts to cruise information display or ODO meter.
  - The ignition switch is turned OFF.
- The items and the default settings are as follows:

Item	Default	Customizing Value
Units	US (English)	US (English) → Metric
Keyless Entry Feedback	Both (Lamps and Tone)	Both (Lamps and Tone) → Lamps → Tone → OFF
Keyless Entry Relock Timer	60 seconds	60 seconds → 120 seconds → OFF → 30 seconds
Keyless Entry All Doors Unlock	2 press	2 press → 1 press
Door Auto Locking	Above 12 mph	Above 12 mph → OFF → Shift Out of Park
Door Auto Unlocking	Shift to Park	Shift to Park → Driver Door Open → OFF
Headlight Auto Off Timer	30 seconds	30 seconds → 60 seconds → 90 seconds → 0
Courtesy Light Off Timer	15 seconds	15 seconds → 30 seconds → 8 seconds
Default Setting	—	—

- A warning message will appear if the SETUP US/M switch is pressed when the vehicle speed is more than 5 km/h (3 mph).
- An error message will appear if the customizing value setting is not completed.

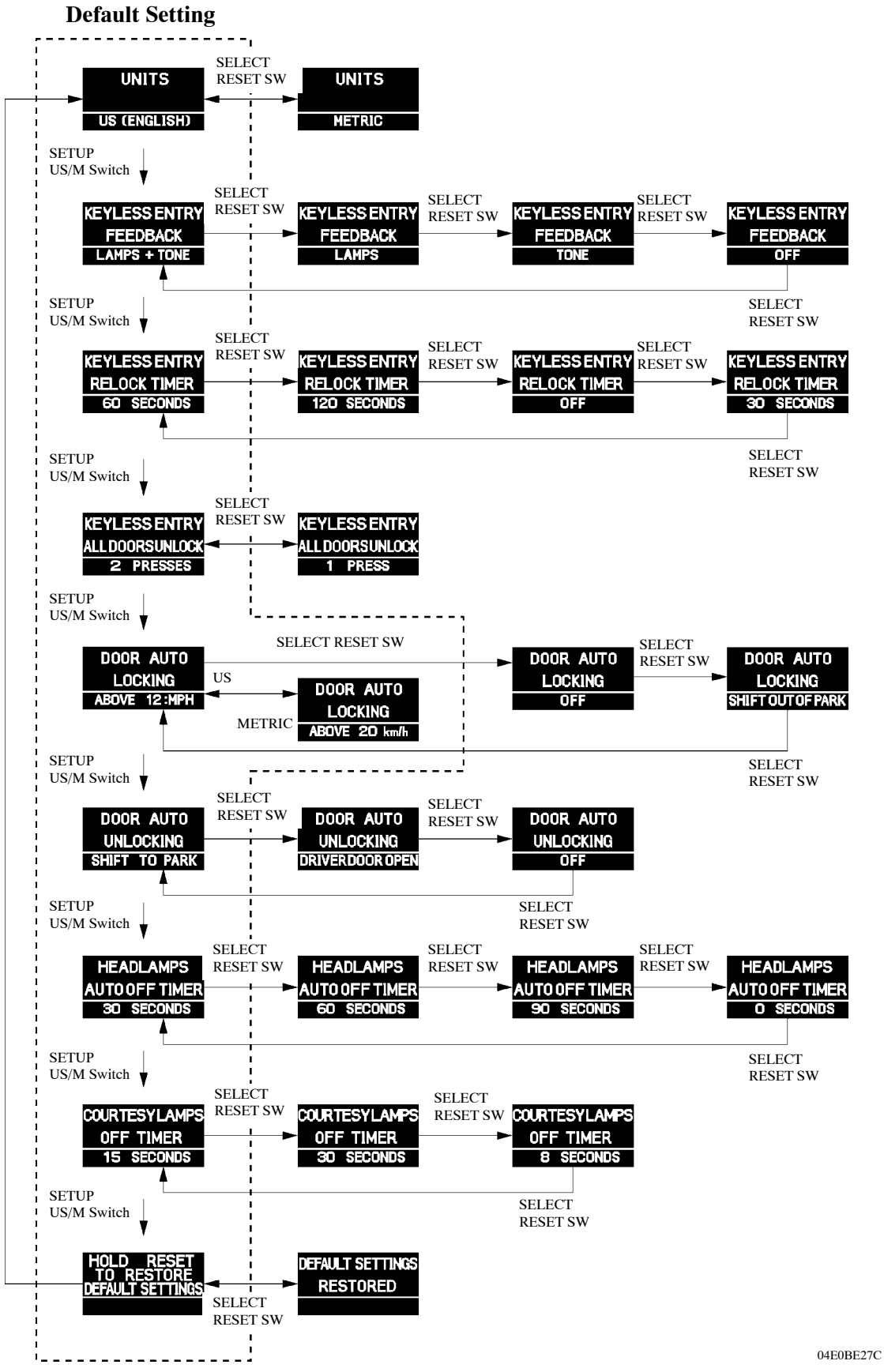


Warning Message 04E0BE25C



System Error 04E0BE26C

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



04E0BE27C