

LIQUID CRYSTAL DISPLAY (LCD)

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Outline

- The LCD displays vehicle information in the instrument cluster.

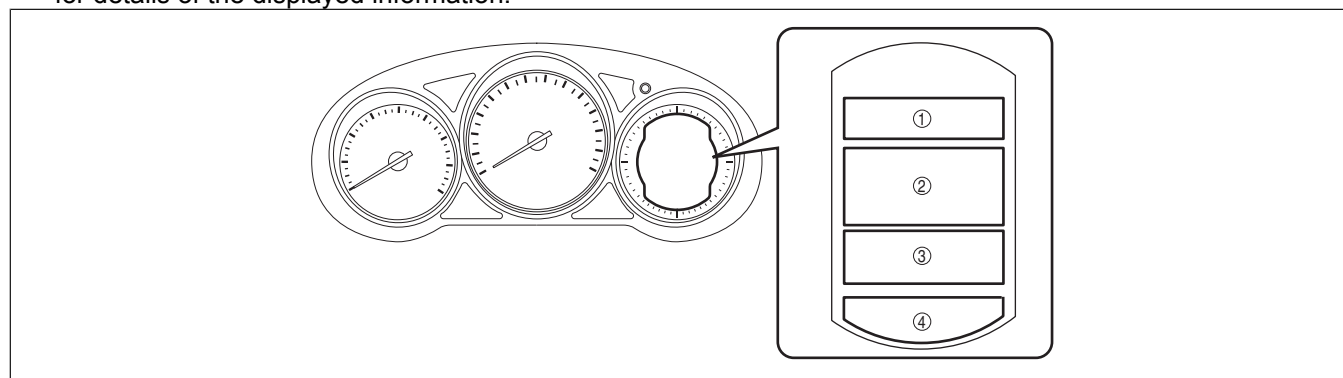
Function/Construction

- The instrument cluster configures the indication of the LCD based on the CAN signals sent from the related modules and displays it.
- Two types of LCDs, LCD and TFT LCD, are available.

LCD indication table

Without TFT LCD (Type B)

- The information and display positions indicated in the LCD display are as follows: Refer to the referenced section for details of the displayed information.

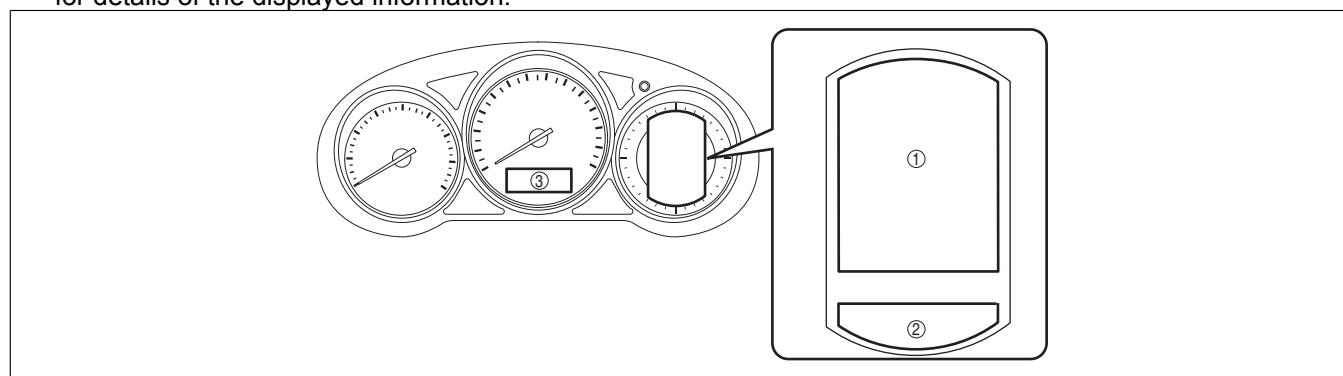


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Display area	Display content	Reference
1	Ambient temperature	(See AMBIENT TEMPERATURE DISPLAY.)
2	Instantaneous fuel economy, average fuel economy, remaining distance to empty, average vehicle speed, vehicle speed alarm	(See TRIP COMPUTER INFORMATION SYSTEM.)
3	Total traveled distance/traveled distance over a specific interval	(See ODOMETER/TRIPMETER.)
4	Amount of remaining fuel	(See FUEL GAUGE.)

With TFT LCD (Type A)

- The information and display positions indicated in the LCD display are as follows: Refer to the referenced section for details of the displayed information.



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Display area	Display content	Reference
1	Instantaneous fuel economy, average fuel economy, remaining distance to empty, average vehicle speed, vehicle speed alarm	(See TRIP COMPUTER INFORMATION SYSTEM.)
	Personalization settings display	(See INSTRUMENTATION/DRIVER INFO. PERSONALIZATION.)
	Messages, warning display	(See Message table.)
	Maintenance monitor	(See MAINTENANCE MONITOR.)
2	Amount of remaining fuel	(See FUEL GAUGE.) (See FUEL TANK LEVEL WARNING DISPLAY.)

Display area	Display content	Reference
3	Ambient temperature	(See AMBIENT TEMPERATURE DISPLAY.)
	Total traveled distance/traveled distance over a specific interval	(See ODOMETER/TRIPMETER.)

Message table

- The instrument cluster displays the following messages:
- If the instrument cluster receives message display requests from multiple units, the messages are displayed at certain intervals.

Applied VIN (assumed): JMZ KE19760# 100001—120304, JMZ KE19780# 100001—120237, JMZ KE89780# 100001—120237, JMZ KEC9760# 100001—120304, JMZ KEF9160# 100001—133074, JMZ KEF9180# 100001—133074, JMZ KEK9760# 100001—120304, JMZ KEK9780# 100001—120237, JMZ KEN9160# 100001—133074, JMZ KEN9180# 100001—133074, JMZ KEN9260# 100001—133074, JMZ KEN9280# 100001—133074

—:Not applicable

Screen display	Master warning light	Related unit	Reference/function
Engine Inspection Required	On	PCM	(See CHECK ENGINE LIGHT [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See CHECK ENGINE LIGHT [SKYACTIV-D 2.2].)
Engine Oil Pressure Inspection Required	On	PCM	(See ENGINE OIL WARNING LIGHT.)
Engine Coolant Temperature High	On	Instrument cluster	(See LOW ENGINE COOLANT TEMPERATURE INDICATOR LIGHT (BLUE)/HIGH ENGINE COOLANT TEMPERATURE WARNING LIGHT (RED).)
Stop Vehicle at safe area	On		
Vehicle System Inspection Required	On	PCM	(See ON-BOARD DIAGNOSTIC SYSTEM TEST MODE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See ON-BOARD DIAGNOSTIC SYSTEM TEST MODE [SKYACTIV-D 2.2].)
Soot Accumulation in DPF too high	On	PCM	(See DIESEL PARTICULATE FILTER INDICATOR LIGHT [SKYACTIV-D 2.2].)
DPF Inspection Required	On		
Drain Water from Fuel Filter	On	PCM	(See WRENCH INDICATOR LIGHT [SKYACTIV-D 2.2].)
Brake Override System Inspection Required	On	PCM	(See DRIVE-BY-WIRE CONTROL [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See FUEL INJECTION AMOUNT CONTROL [SKYACTIV-D 2.2].)
BRAKE	On	PCM	(See DRIVE-BY-WIRE CONTROL [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See FUEL INJECTION AMOUNT CONTROL [SKYACTIV-D 2.2].)
Charging System Inspection Required	On	PCM	(See CHARGING SYSTEM WARNING LIGHT [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See CHARGING SYSTEM WARNING LIGHT [SKYACTIV-D 2.2].)
Battery Management System Inspection Required	On	PCM	(See GENERATOR CONTROL [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See GENERATOR CONTROL [SKYACTIV-D 2.2].)

Screen display	Master warning light	Related unit	Reference/function
Ready Apply more Brake Pressure	—	PCM	(See i-stop GUIDANCE DISPLAY.)
Can't be activated Turn Steering Wheel to Neutral	—		
Can't be activated Air Conditioning has Priority	—		
Can't be activated Steering wheel Brake Air Conditioning	—		
Please Restart Engine	—		
Power Steering System Inspection Required	On	EPS CM	(See POWER STEERING MALFUNCTION INDICATOR LIGHT.)
Check Tyre Pressure	On	DSC HU/CM	(See TIRE PRESSURE MONITORING SYSTEM WARNING LIGHT.)
TPMS Inspection Required	On		
Tyre Pressure Monitor Initialized	—		
Brake Fluid Level Low	On	Front body control module (FBCM)	(See BRAKE SYSTEM/ABS WARNING LIGHT.)
Brake Inspection Required	On	DSC HU/CM	
SCBS Automatic Brake	—	Laser sensor	(See SMART CITY BRAKE SUPPORT (SCBS).)
SCBS Inspection Required	On		
SCBS Clear windshield completely	On		
Auto trans System Inspection Required	On	TCM	(See AUTOMATIC TRANSAXLE WARNING LIGHT [FW6A-EL, FW6AX-EL].) (See AUTOMATIC TRANSAXLE WARNING LIGHT [GW6A-EL, GW6AX-EL].)
4WD System Inspection Required	On	4WD control module	(See 4WD WARNING LIGHT.)
Stop Vehicle at safe area	On		
Keyless System Inspection Required	On	Start stop unit	(See KEYLESS ENTRY SYSTEM.) (See ADVANCED KEYLESS ENTRY SYSTEM.)
Set Power to OFF	On		
Key not found	On		
Key Battery is low	—		
Depress the Brake Pedal and Touch the Key to the Start Button	—	Start stop unit	(See PUSH BUTTON START SYSTEM [KEYLESS ENTRY SYSTEM].) (See PUSH BUTTON START SYSTEM [ADVANCED KEYLESS ENTRY SYSTEM].)
Depress the Clutch Pedal and Touch the Key to the Start Button	—		
Set Shift Lever to "P"	—		
To start, step on Brake Pedal and press Start Button	—		
To start, step on Clutch Pedal and press Start Button	—		
Turn the Steering Wheel left and right and press the Start Button	—		
HBC Inspection Required	On	Forward sensing camera (FSC)	(See HIGH BEAM CONTROL (HBC) SYSTEM.)
FSC Inspection Required	On		
HBC, LDWS Defog windshield completely	On		
HBC, LDWS Clear windshield completely	On		
Refill w/screen washer	On	Front body control module (FBCM)	(See WASHER FLUID-LEVEL SENSOR.)
LDWS Inspection Required	On	Forward sensing camera (FSC)	(See LANE DEPARTURE WARNING SYSTEM (LDWS).)
FSC Inspection Required	On		
HBC, LDWS Defog windshield completely	On		
HBC, LDWS Clear windshield completely	On		
LDWS warning	On		
Headlights On	On	Instrument cluster	(See LIGHTS-ON REMINDER WARNING ALARM.)
Release Parking Brake	On	Instrument cluster	(See PARKING BRAKE WARNING DISPLAY.)

Screen display	Master warning light	Related unit	Reference/function
Refill Fuel Tank	On	Instrument cluster	(See LOW FUEL WARNING LIGHT.)
Ambient temperature warning	On	Instrument cluster	(See AMBIENT TEMPERATURE WARNING ALARM.)
Vehicle speed warning	On	Instrument cluster	(See TRIP COMPUTER INFORMATION SYSTEM.)
Door ajar warning	On	Instrument cluster	(See DOOR-AJAR WARNING LIGHT.)

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—:Not applicable

Screen display	Master warning light	Related unit	Reference/function
Engine Inspection Required	—	PCM	(See CHECK ENGINE LIGHT [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See CHECK ENGINE LIGHT [SKYACTIV-D 2.2].)
Engine Oil Pressure Inspection Required	On	PCM	(See ENGINE OIL WARNING LIGHT.)
Engine Coolant Temperature High	—	Instrument cluster	(See LOW ENGINE COOLANT TEMPERATURE INDICATOR LIGHT (BLUE)/HIGH ENGINE COOLANT TEMPERATURE WARNING LIGHT (RED).)
Stop Vehicle at safe area	—		
Vehicle System Inspection Required	On	PCM	(See ON-BOARD DIAGNOSTIC SYSTEM TEST MODE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See ON-BOARD DIAGNOSTIC SYSTEM TEST MODE [SKYACTIV-D 2.2].)
Soot Accumulation in DPF too high	—	PCM	(See DIESEL PARTICULATE FILTER INDICATOR LIGHT [SKYACTIV-D 2.2].)
DPF Inspection Required	On		
Drain Water from Fuel Filter	—	PCM	(See WRENCH INDICATOR LIGHT [SKYACTIV-D 2.2].)
Brake Override System Inspection Required	On	PCM	(See DRIVE-BY-WIRE CONTROL [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See FUEL INJECTION AMOUNT CONTROL [SKYACTIV-D 2.2].)
BRAKE	—	PCM	(See DRIVE-BY-WIRE CONTROL [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See FUEL INJECTION AMOUNT CONTROL [SKYACTIV-D 2.2].)
Charging System Inspection Required	On	PCM	(See CHARGING SYSTEM WARNING LIGHT [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See CHARGING SYSTEM WARNING LIGHT [SKYACTIV-D 2.2].)
Battery Management System Inspection Required	On	PCM	(See GENERATOR CONTROL [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See GENERATOR CONTROL [SKYACTIV-D 2.2].)

Screen display	Master warning light	Related unit	Reference/function
Ready Apply more Brake Pressure	—	PCM	(See i-stop GUIDANCE DISPLAY.)
Can't be activated Turn Steering Wheel to Neutral	—		
Can't be activated Air Conditioning has Priority	—		
Can't be activated Steering wheel Brake Air Conditioning	—		
Please Restart Engine	—		
Power Steering System Inspection Required	On	EPS CM	(See POWER STEERING MALFUNCTION INDICATOR LIGHT.)
Check Tyre Pressure	—	DSC HU/CM	(See TIRE PRESSURE MONITORING SYSTEM WARNING LIGHT.)
TPMS Inspection Required	—		
Tyre Pressure Monitor Initialized	—		
Brake Fluid Level Low	—	Front body control module (FBCM)	(See BRAKE SYSTEM/ABS WARNING LIGHT.)
Brake Inspection Required	—	DSC HU/CM	
SCBS Automatic Brake	—	Laser sensor	(See SMART CITY BRAKE SUPPORT (SCBS).)
SCBS Inspection Required	On		
SCBS Clear windshield completely	—		
Auto trans System Inspection Required	On	TCM	(See AUTOMATIC TRANSAXLE WARNING LIGHT [FW6A-EL, FW6AX-EL].) (See AUTOMATIC TRANSAXLE WARNING LIGHT [GW6A-EL, GW6AX-EL].)
4WD System Inspection Required	On	4WD control module	(See 4WD WARNING LIGHT.)
Stop Vehicle at safe area	—		
Keyless System Inspection Required	On	Start stop unit	(See KEYLESS ENTRY SYSTEM.) (See ADVANCED KEYLESS ENTRY SYSTEM.)
Set Power to OFF	—		
Key not found	—		
Key Battery is low	—		
Depress the Brake Pedal and Touch the Key to the Start Button	—	Start stop unit	(See PUSH BUTTON START SYSTEM [KEYLESS ENTRY SYSTEM].) (See PUSH BUTTON START SYSTEM [ADVANCED KEYLESS ENTRY SYSTEM].)
Depress the Clutch Pedal and Touch the Key to the Start Button	—		
Set Shift Lever to "P"	—		
To start, step on Brake Pedal and press Start Button	—		
To start, step on Clutch Pedal and press Start Button	—		
Turn the Steering Wheel left and right and press the Start Button	—	Forward sensing camera (FSC)	(See HIGH BEAM CONTROL (HBC) SYSTEM.)
HBC Inspection Required	—		
FSC Inspection Required	—		
HBC, LDWS Defog windshield completely	—		
HBC, LDWS Clear windshield completely	—		
Refill w/screen washer	—	Front body control module (FBCM)	(See WASHER FLUID-LEVEL SENSOR.)
LDWS Inspection Required	—	Forward sensing camera (FSC)	(See LANE DEPARTURE WARNING SYSTEM (LDWS).)
FSC Inspection Required	—		
HBC, LDWS Defog windshield completely	—		
HBC, LDWS Clear windshield completely	—		
LDWS warning	—		
Headlights On	—	Instrument cluster	(See LIGHTS-ON REMINDER WARNING ALARM.)
Release Parking Brake	—	Instrument cluster	(See PARKING BRAKE WARNING DISPLAY.)

Screen display	Master warning light	Related unit	Reference/function
Refill Fuel Tank	—	Instrument cluster	(See LOW FUEL WARNING LIGHT.)
Ambient temperature warning	—	Instrument cluster	(See AMBIENT TEMPERATURE WARNING ALARM.)
Vehicle speed warning	—	Instrument cluster	(See TRIP COMPUTER INFORMATION SYSTEM.)
Door ajar warning	—	Instrument cluster	(See DOOR-AJAR WARNING LIGHT.)

LCD display switch

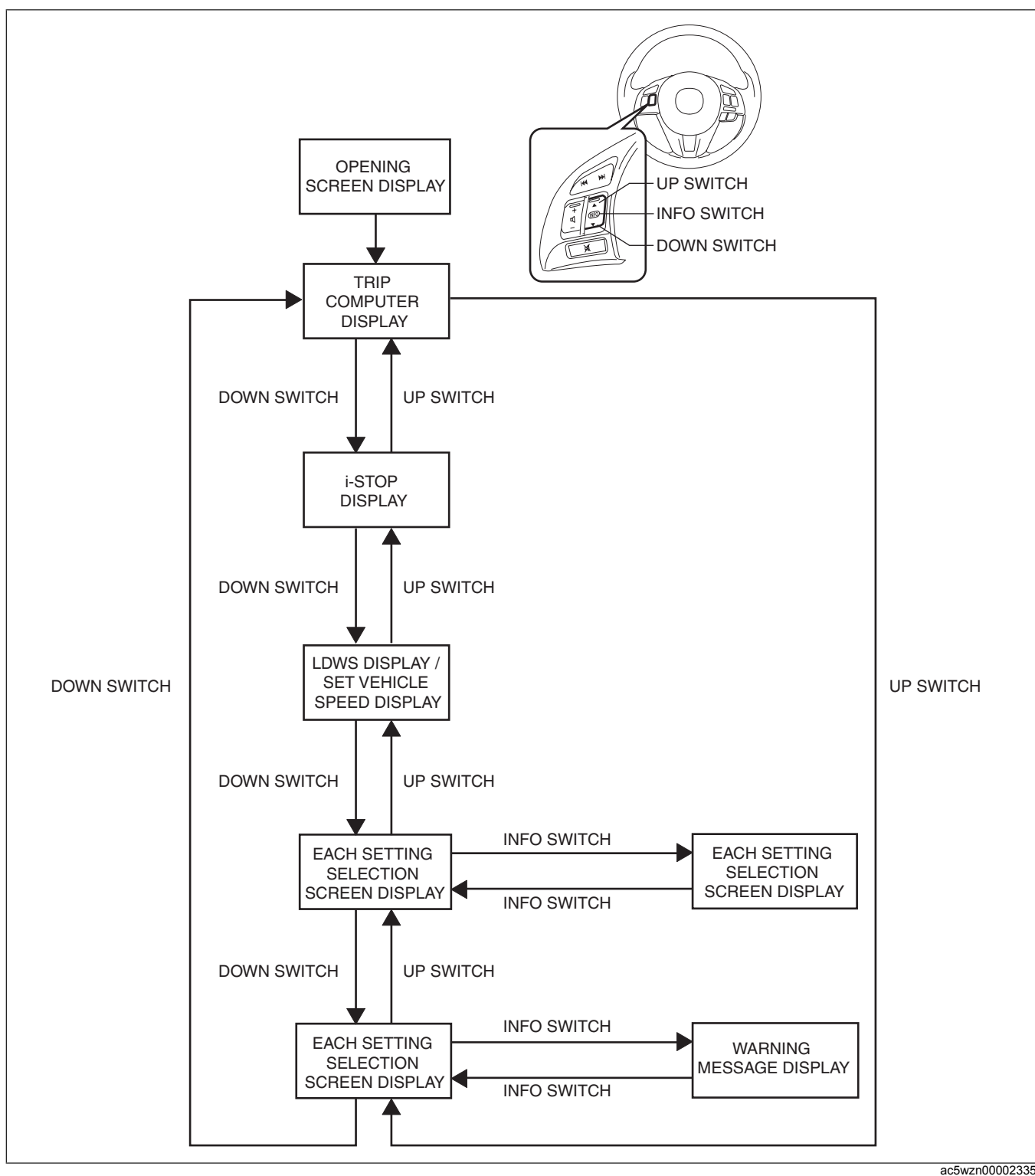
- The instrument cluster switches the LCD display content as follows based on the steering switch operation signal from the start stop unit.

Without TFT LCD (Type B)

- Trip computer display is switched. Refer to TRIP COMPUTER INFORMATION SYSTEM for details.

With TFT LCD (Type A)

- Display is changed as follows:



TFT LCD display content data reset

Caution

- The reset data cannot be recovered. When resetting data, explain the reset items to the customer and reset data after obtaining their consensus.
- The following information displayed on the TFT LCD can be reset all at once. Refer to the Workshop Manual for the detailed resetting procedure.
 - i-stop-related information**
 - i-stop total time
 - i-stop time
 - Trip computer-related information**

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- Average fuel economy
 - Average vehicle speed
 - TRIP value