YAMAHA

Command Link Plus Multifunction Color Gauge

OWNER'S MANUAL

⚠Read this manual carefully before using the Command Link Plus Multifunction Color Gauge.

U.S.A.Edition
LIT-18626-09-13
6Y9-2819U-E0●

Read this manual carefully before using the Command Link Plus Multifunction Color Gauge. Keep this manual onboard in a waterproof bag when boating. This manual should stay with the Command Link Plus Multifunction Color Gauge if it is sold.

To the owner

Thank you for selecting the Command Link Plus Multifunction Color Gauge (hereinafter called the Multi-Display). This Owner's Manual contains information needed for proper operation. A thorough understanding of these simple instructions will help you obtain maximum enjoyment from your new Yamaha. If you have any question about the operation of the Multi-Display, please consult a Yamaha dealer.
In this Owner's Manual particularly important information is distinguished in the following ways.

⚠ This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠WARNING

A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

NOTICE

A NOTICE indicates special precautions that must be taken to avoid damage to the outboard motor or other property.

TIP:
A TIP provides key information to make procedures easier or clearer.

Information about the owner's manual
Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your machine and this manual.

Command Link Plus Multifunction Color Gauge
OWNER'S MANUAL
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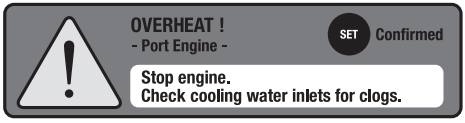
Safety information

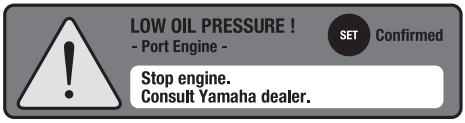
The Multi-Display will notify the operator when engine abnormalities occur by displaying a pop-up window and alert icons. A pop-up window will also be displayed when specific alert conditions occur.
When events requiring multiple pop-up windows occur, the pop-up window with the highest priority is displayed first. Press the “SET” button to display pop-up windows in order of priority.
There are 3 types of pop-up windows, “Alert Notifications,” “Maintenance Notifications,” and “Other Notifications,” each displayed with its own color.
Alert Notifications: Red
Maintenance Notifications: Yellow
Other Notifications: Sky blue

Alert Notifications

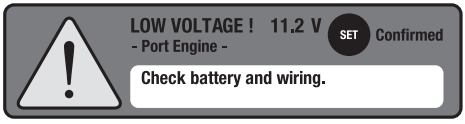
Follow the following instructions for responding to each specific alert. For further information, see page 11.



Overheat alert
Displayed when the engine temperature rises too high. Stop the engine and check the cooling water inlet.



Low oil pressure alert
Displayed when the oil pressure drops too low. Stop the engine and consult a Yamaha dealer.



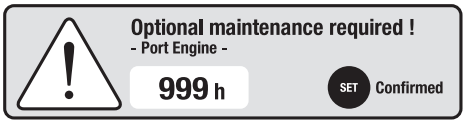
Low battery voltage alert
Displayed when the battery voltage drops too low. Check the battery and battery connections.

Water in fuel alert
Displayed when water has accumulated in the water separator (fuel filter). Consult a Yamaha dealer.

Engine trouble alert
Displayed when the engine malfunctions. Consult a Yamaha dealer.

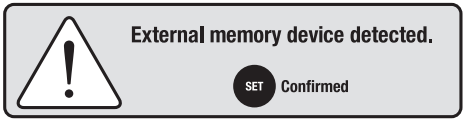
Maintenance Notifications

Displayed when scheduled maintenance is overdue.
Carry out the maintenance and reset the maintenance schedule.

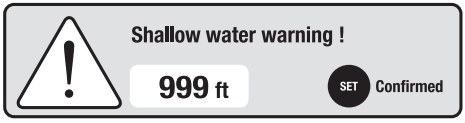


You can also specify individual maintenance intervals. For further information, see page 20.

Other Notifications



Displayed when an external memory (USB memory) is connected.



Displayed when water depth falls below a preset threshold. For further information, see page 6.

Displayed when water depth exceeds a preset threshold. For further information, see page 6.

List of abbreviations

List of abbreviations

The following are abbreviations displayed on this meter or used in this manual.

Abbreviation	Description
ABYC	American Boat and Yacht Council
AVAL	Available fuel
CL	Command Link
C PORT	Center Port side
C STBD	Center Starboard side
ECO, ECON	Fuel Economy
Eng	Engine
EUR	Europe
Ex.	Exhaust
F	Forward
FW	Fresh Water tank
GNRTR, GT	Generator fuel tank
GPS	Global Positioning System
INT	Intake
LAN	Local Area Network
Mfg./Dlr.	Manufacturer/Dealer
N	Neutral
NMEA	National Marine Electronics Association
No.	Number
Num.	Number
OPT	Optional
R	Reverse
R/C	Remote Control
STATS	Status
STD	Standard
SYNC	Synchronization
Temp	Temperature
TFT	Thin Film Transistor
USB	Universal Serial Bus
WASTE, WS	Waste Water tank

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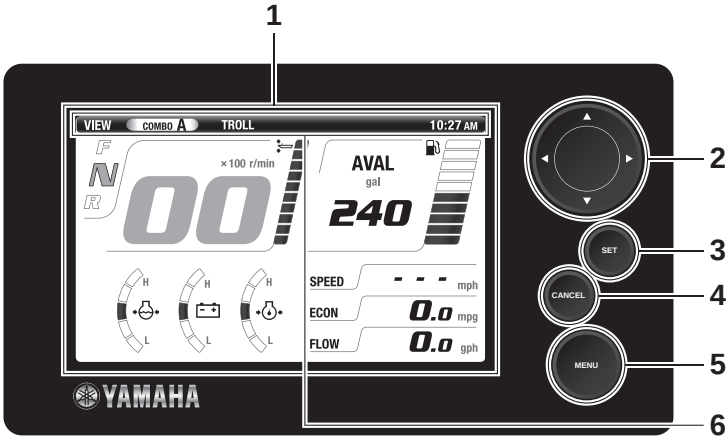
Specifications

Field	Specification
Power source	Rated voltage: 12 V Operating voltage range: 8–16 V
Communications specification	Information system LAN interface: The Multi-Display conforms to J1939-based Yamaha Network specifications. GPS Interface: The Multi-Display conforms to NMEA0183.
Other interfaces	Fuel sensor interface x 4 USB interface (Ver.1.1, 2.0) x 1
Display	5-inch color TFT

Names and functions of parts



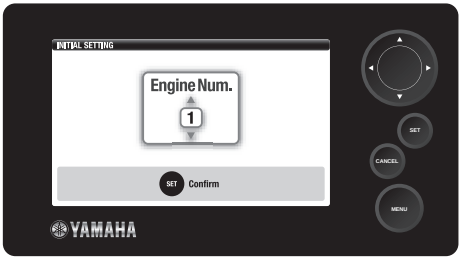
	Name	Explanation of function
1	Display	Displays engine information, boat/environment information, setting menus, and so on.
2	Directional keypad	"▲▼" (Up/Down) buttons • Switches main screen • Moves cursor (selects) on the menu screen • Adjusts engine speed during trolling "◀▶" (Left/Right) buttons • Switches main screen • Moves cursor (selects) on the menu screen
3	"SET" button	• Set • Moves the menu screen cursor to the right • When on the main screen, moves to the "BRIGHTNESS" screen
4	"CANCEL" button	• Cancel • Moves from any setting screen to the menu screen • Moves from the menu screen to the main screen • Moves the menu screen cursor to the left • Cancels trolling mode • When on the main screen, moves to the "TRIP" screen
5	"MENU" button	• Moves from any screen to the top menu screen
6	Status bar	Displays the time and name of the main screen selected. Time will not be displayed if time information is not received from the network.

Initialization

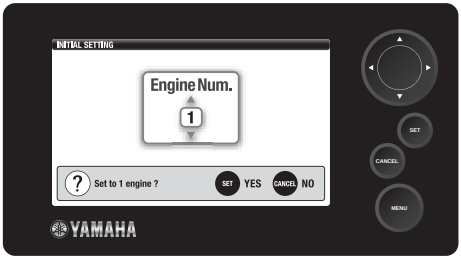
The initialization screen is not normally displayed, except during installation.

TIP:
If it does appear, consult a Yamaha dealer.

Configuring the number of outboard motors



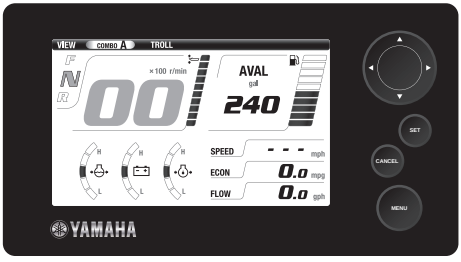
1. Turn the engine switch to “ON.” The initialization screen is displayed.



2. Use “▲▼” (Up/Down) buttons on the directional keypad to select the number of outboard motors on your boat.

1: Single-engine type 2: Twin-engine type 3: Triple-engine type 4P: Quadruple-engine type (PORT side) 4S: Quadruple-engine type (STBD side)

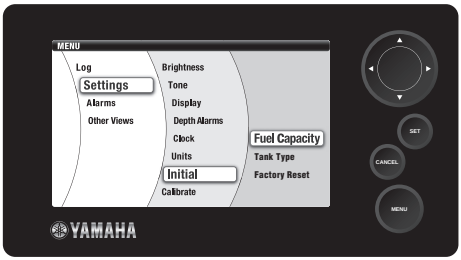
3. Set using the “SET” button.



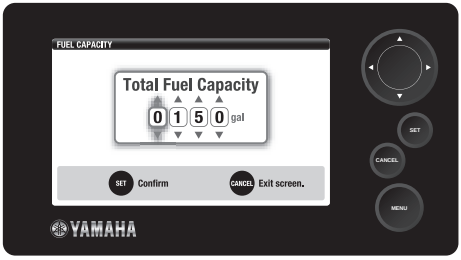
4. The main screen is displayed.

Initialization

Configuring fuel tank parameters

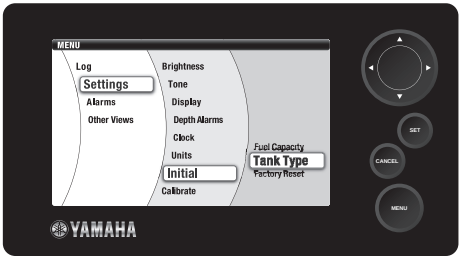


1. Use the directional keypad and the “SET” button to display the “Fuel Capacity” in the menu screen.

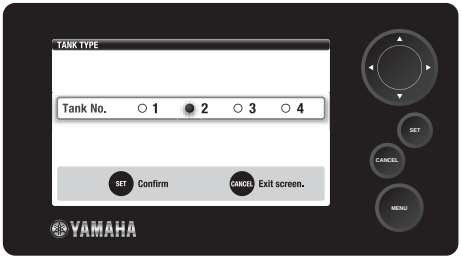


2. Use the directional keypad to configure the total fuel capacity on your boat.
3. Set using the “SET” button.

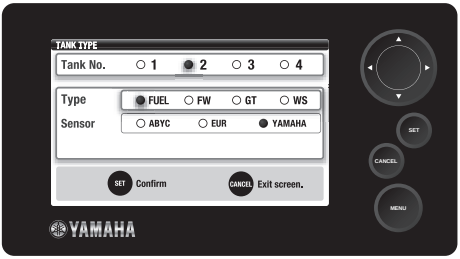
Configuring the tank sensors



1. Use the directional keypad and the “SET” button to display the “Tank Type” in the menu screen.

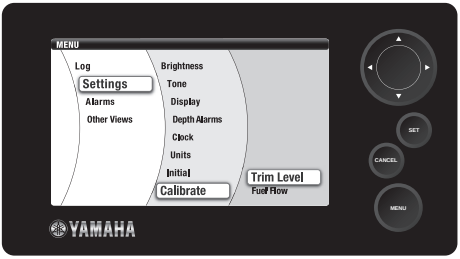


2. Use the “◀▶” (Left/Right) buttons on the directional keypad to select the “Tank No.”
3. Set using the “SET” button.

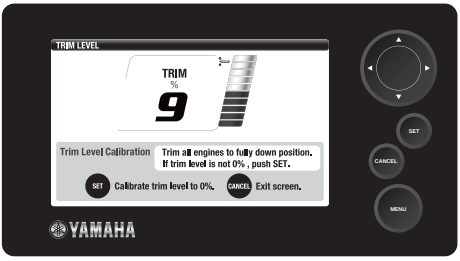


4. Use the directional keypad to select the sensor from the “Sensor” list.
5. Set using the “SET” button.

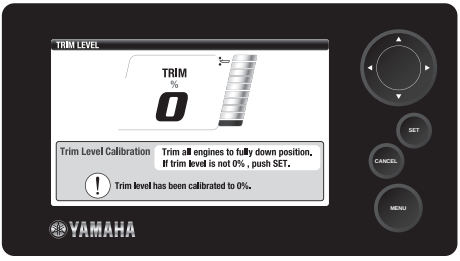
Initializing trim angle



1. Fully trim the outboard motor down.
2. Use the directional keypad and the “SET” button to display the “Trim Level” in the menu screen.



3. Check that the value displayed on the screen shows “0 %.”



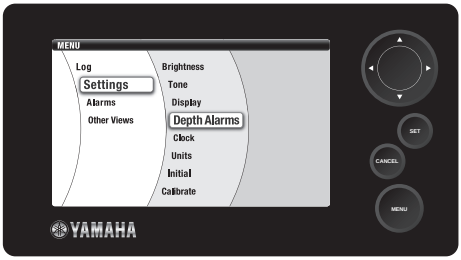
4. Use the “SET” button to reset the value if any value other than “0 %” is displayed.

Initialization

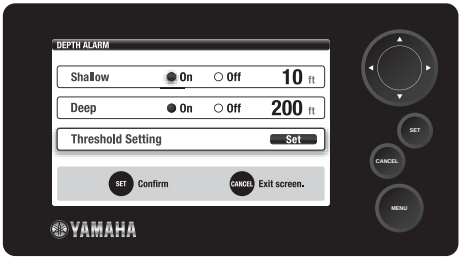
Configuring the depth alarm

NOTICE

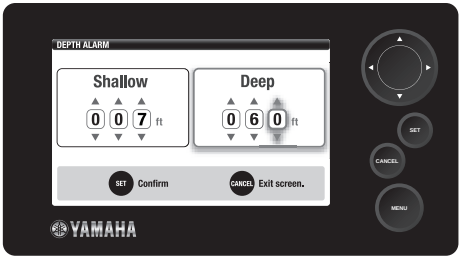
Make sure to configure water depth before turning on the depth alarm.



1. Use the directional keypad and the “SET” button to display the “Depth Alarms” in the menu screen.



2. Use the directional keypad and the “SET” button to select “Threshold Setting.”



3. Use the directional keypad to configure the water depth.
4. Set using the “SET” button.

NOTICE

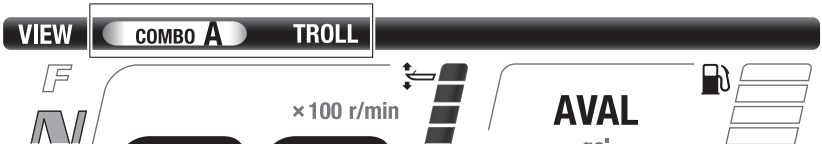
Make sure to press the “SET” button to complete the setting.

Meter display

Main screens

The layouts of main screen differ depending on the number of outboard motors on your boat. Display can be switched between digital and analog displays.

Single-engine type



Twin-, Triple-, Quadruple-engine types

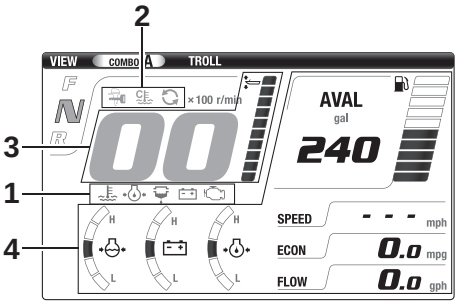
Number of outboard motors	Main screen
Single-engine type	COMBO/TROLL
Twin-, Triple-, Quadruple-engine types	COMBO/ENGINE/BOAT STATS/TROLL

COMBO:	Displays engine information and boat/environment information.
ENGINE:	Displays engine information.
BOAT STATS:	Displays boat/environment information.
TROLL:	Adjusts the trolling engine speed. For further information, see page 25.

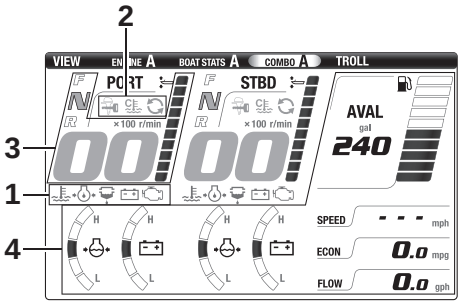
Meter display

■ COMBO

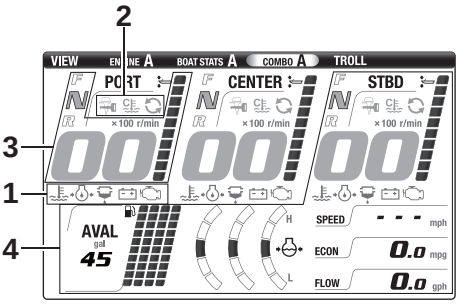
Single-engine type



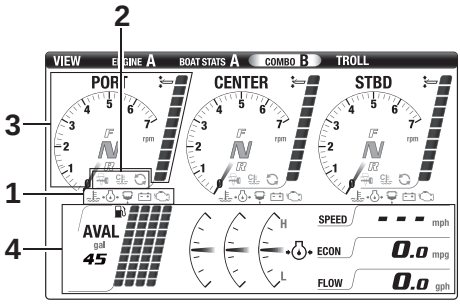
Twin-, Quadruple-engine type



Triple-engine type



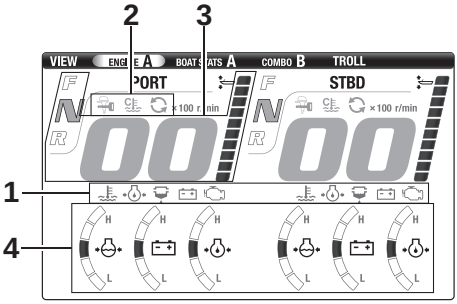
Analog display



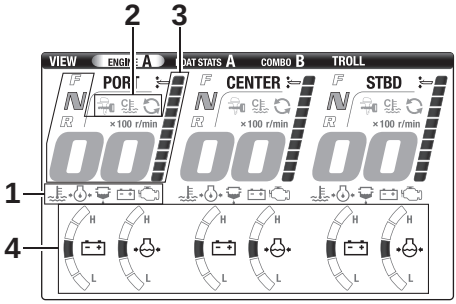
1: Alert display area
2: Condition display area
3: Basic display area
4: Specific selection area

■ ENGINE

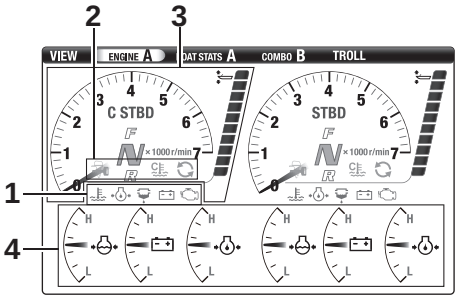
Twin-, Quadruple-engine types



Triple-engine type



Analog display

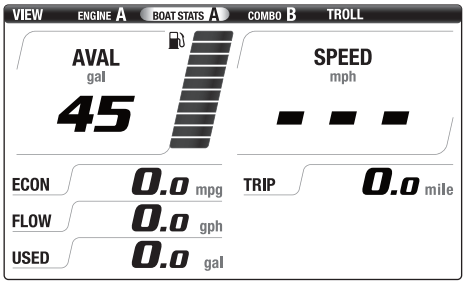


1: Alert display area
2: Condition display area
3: Basic display area
4: Specific selection area

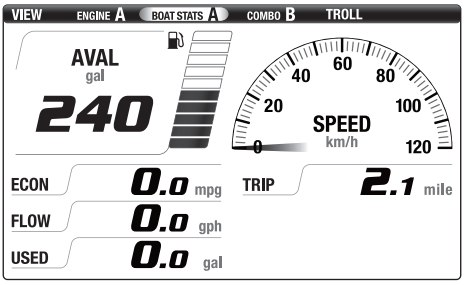
Meter display

■ BOAT STATS

Digital display

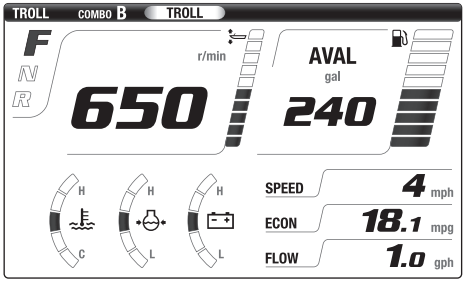


Analog display

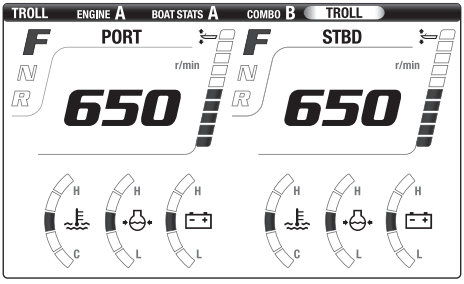


■ TROLL

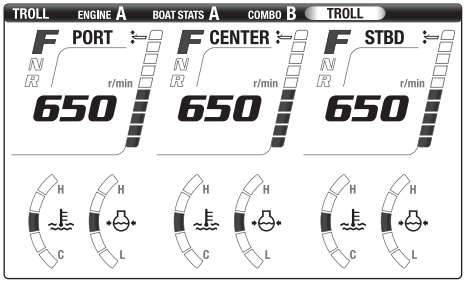
Single-engine type



Twin-, Quadruple-engine types



Triple-engine type



Alert display

Red-colored alert indicators will be displayed in the alert display area for “Overheat alert,” “Low oil pressure alert,” “Low battery voltage alert,” “Water in fuel alert,” and “Engine trouble alert.”

Overheat alert

NOTICE

Do not operate the outboard motor when the overheat alert is displayed. Otherwise, severe engine damage could result.

Blinks when the engine temperature rises too high.
If the overheat alert blinks, stop the engine and check that the cooling water inlet on the lower case is not blocked. Consult your Yamaha dealer if the problem cannot be located and corrected.

Low oil pressure alert

NOTICE

Do not operate the outboard motor when the low oil pressure alert is displayed. Otherwise, severe engine damage could result.

Blinks when the oil pressure drops too low.
Stop the engine and check the engine oil level. If the oil level is below the specified level, add engine oil up to the proper level. For further information, see the Owner's Manual of the outboard motor.
Consult your Yamaha dealer if the alert continues to blink even though the oil level is at the proper level.

Low battery voltage alert

⚠WARNING

Do not stop the engine when the low battery voltage alert is displayed. Otherwise, the engine may not restart.

Blinks when the battery voltage drops too low.
Take the engine to a Yamaha dealer and have it checked immediately.

Meter display

Water in fuel alert

NOTICE

Water in fuel can cause engine malfunction.

Blinks when water has accumulated in the water separator (fuel filter) during cruising.
Stop the engine and drain the water from the water separator (fuel filter). For further information, see the Owner's Manual of the outboard motor.

Engine trouble alert

NOTICE

Engine is not controlled properly. Consult a Yamaha dealer.

Blinks when the engine malfunctions.
Take the engine to a Yamaha dealer and have it checked immediately.

Condition display

Orange signals are displayed in the condition display area for “Engine warming up,” “Engine synchronization controlling,” and “Yamaha Security System Y-COP is locked.”

Displayed when the Yamaha Security System Y-COP is locked. (Not displayed when your engine is not equipped with the Yamaha Security System Y-COP.)

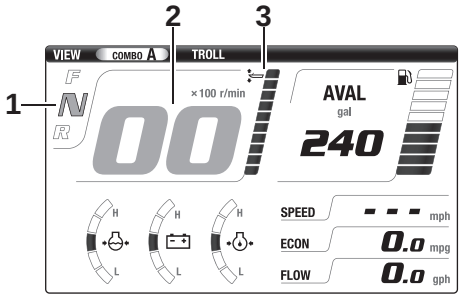
Displayed when the engine is warming up. Goes off when engine warm-up is finished.

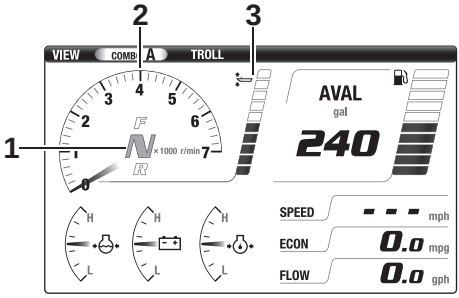
Displayed when engine is under synchronization controlling. Goes off when synchronization controlling is deactivated.
(Not displayed for single- and quadruple-engine types.)

Basic display

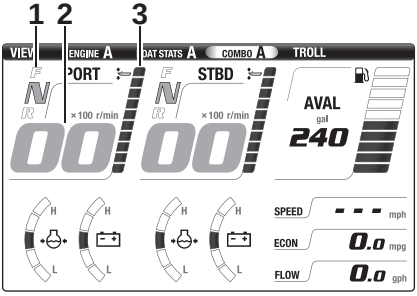
“Shift position,” “Tachometer,” and “Trim angle” are displayed in the basic display area.

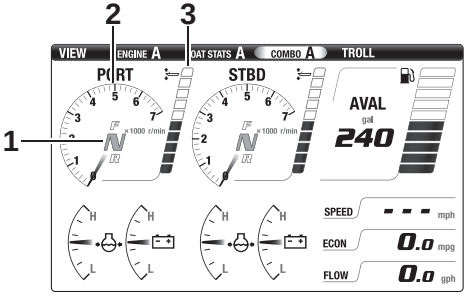
Single-engine type



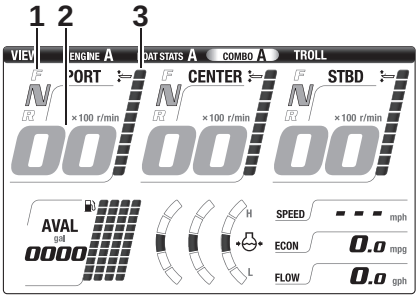


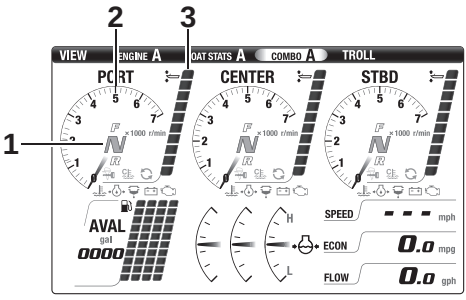
Twin-engine type





Triple-engine type

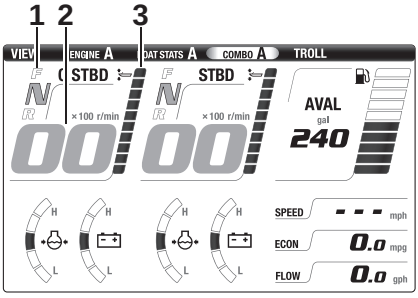


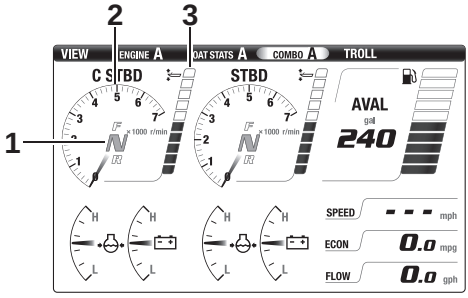


1: Shift position area
2: Tachometer area
3: Trim angle area

Meter display

Quadruple-engine type





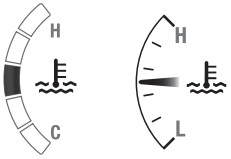
1: Shift position area
2: Tachometer area
3: Trim angle area

Specific selection

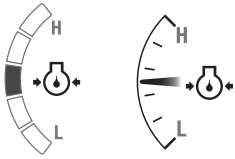
You can select the following meter displays for display in the specific selection area. You can combine the displayed meters and register up to 4 different types of settings.

■ Engine information

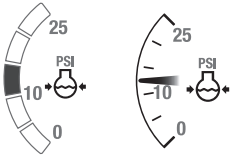
Cooling water temperature



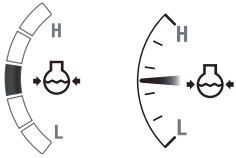
Engine oil pressure



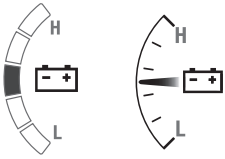
Cooling water pressure (with scale)



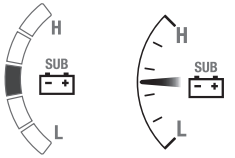
Cooling water pressure (without scale)



Battery voltage 1



Accessory battery voltage 1

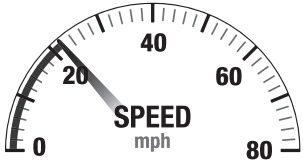


Battery voltage 2

Accessory battery voltage 2

■ Boat/Environmental information

Boat speed



Meter display

Fuel economy

Sailing distance

Fuel consumption

Total fuel flow

PORT fuel flow

STBD fuel flow

CENTER fuel flow

C PORT fuel flow

C STBD fuel flow

PORT hour meter

STBD hour meter

CENTER hour meter

C PORT hour meter

C STBD hour meter

Water Depth

Water temperature

Available fuel

Meter operation

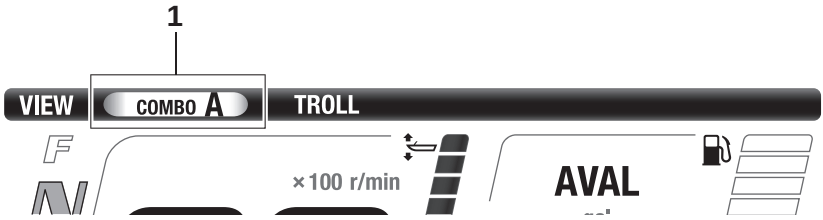
You can switch main screens to suit your preferences. Adjust the trolling engine speed from the main screen.

Switching the meter display

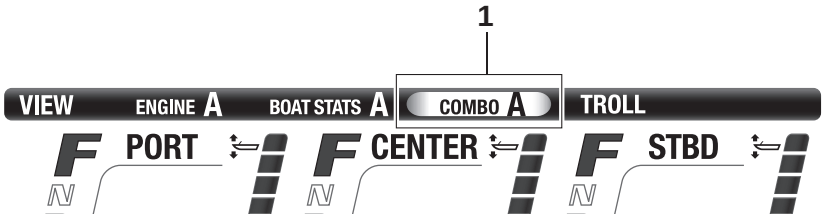
■ Switching the main screen

Press the "◀▶" (Left/Right) buttons on the directional keypad to switch the main screen.

Single-engine type



Twin-, Triple-, Quadruple-engine types



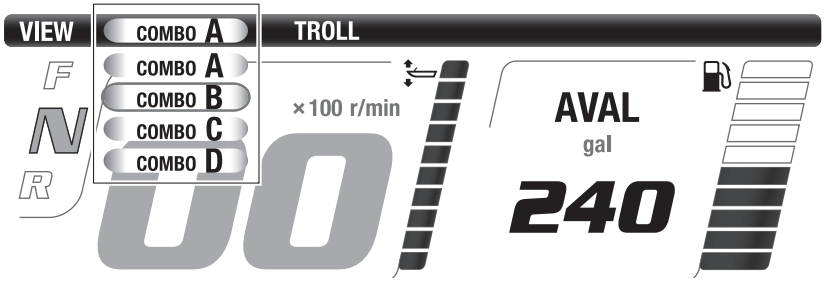
1: The main screen currently displayed.

Meter operation

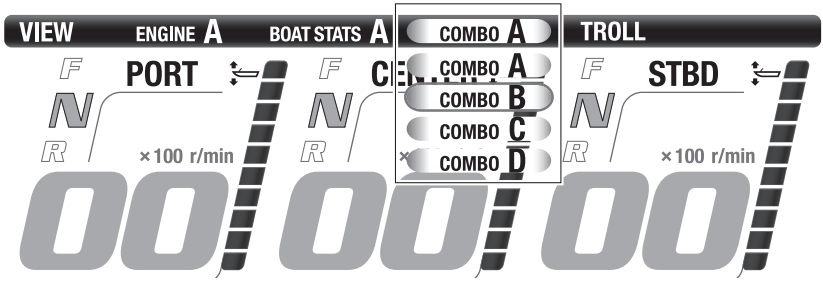
■ **Switching the registered screens**

Press the "▲▼" (Up/Down) buttons on the directional keypad to select a display from 4 screen types (A, B, C, D).

Single-engine type



Twin-, Triple-, Quadruple-engine types



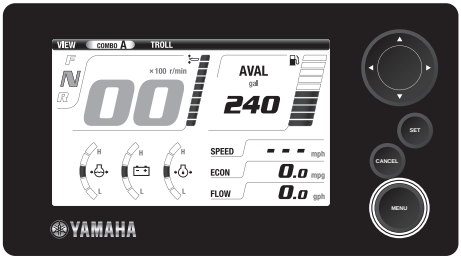
■ **Customizing the registered screen**

Use the menu screen to customize the specific selection area. For further information, see page 21.

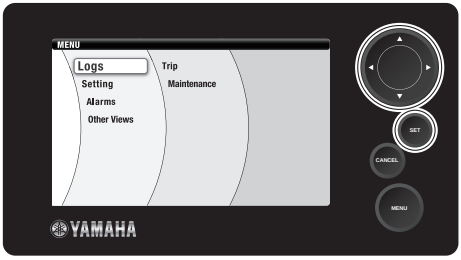
Menu screen

Operating the menu screen

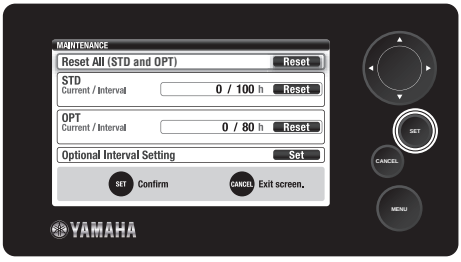
You can configure and reset the settings on the menu screen.
You can also check information recorded on the outboard motor.



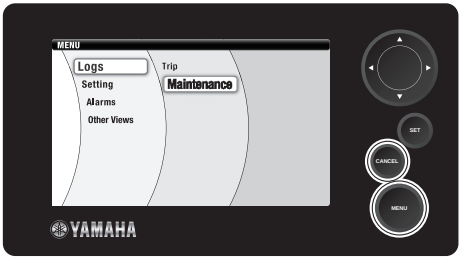
1. Press the “MENU” button.
   The menu screen is displayed.



2. Use the directional keypad buttons and the “SET” button to display the desired menu.



3. Use the directional keypad and the “SET” button to set the applicable fields.

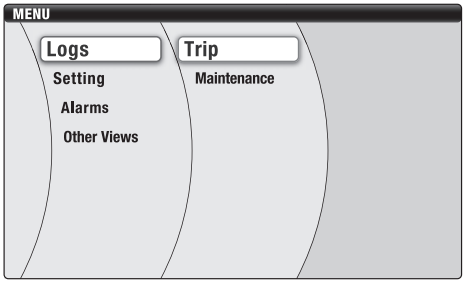


4. Press the “CANCEL” button to return to the previous menu.
   Press the “CANCEL” button one more time to return to the main screen.
   Pressing the “MENU” button will also return you to the main screen.

Menu screen

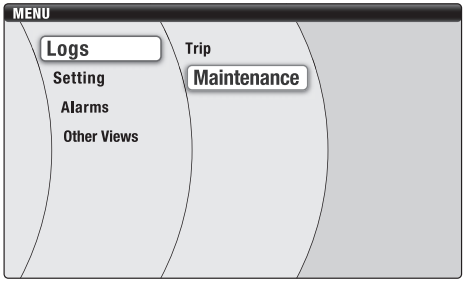
Menu items and functions

■ Logs



Trip

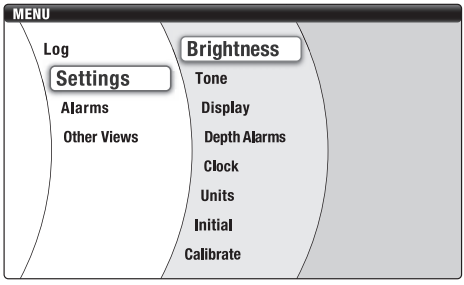
- Reset fuel consumption
- Reset sailing distance
- Reset designated driving time



Maintenance

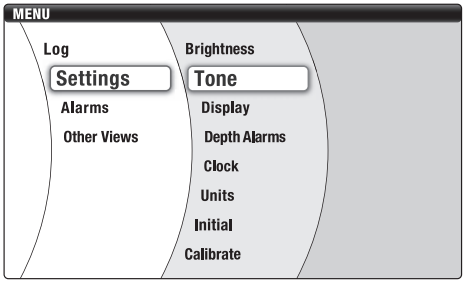
- Reset time elapsed since previous maintenance (reset time)
- Setting maintenance intervals

■ Settings



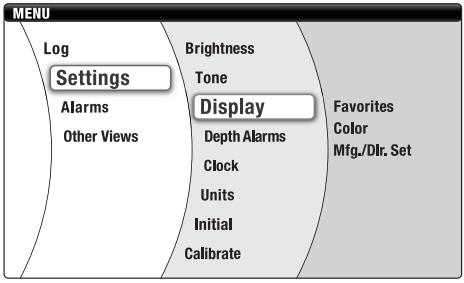
Brightness

- Turning on and off the backlight, and adjusting brightness
- Changing the Multi-Display settings individually/in a batch
- Day-night screen change
- Time settings for automatic day-night screen change
  (Day screen is always displayed even when the automatic day-night screen change is on, if time information is not received.)



Tone

- Adjusting button operation sounds
- Changing the Multi-Display settings individually/in a batch



Display

Favorites

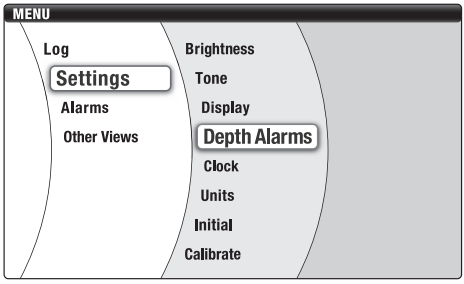
- Setting display fields for ENGINE, BOAT STATS and COMBO screens
- Switching between digital and analog displays (You can only switch some displays)

Color

- Setting backgrounds and text display colors

Mfg./Dlr. Set

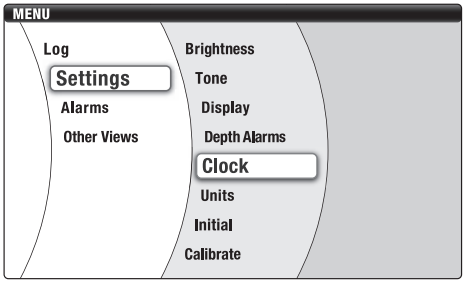
- Input and output of Multi-Display setting information
- Reading/deleting designated images for startup screen



Depth Alarms

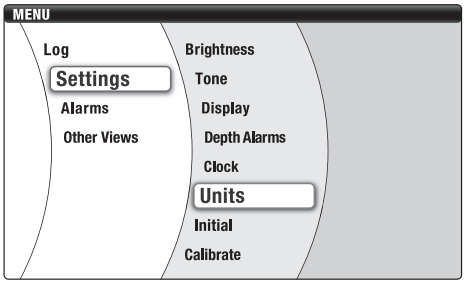
- Water depth alarm On/Off settings
- Water depth alarm threshold setting

Menu screen



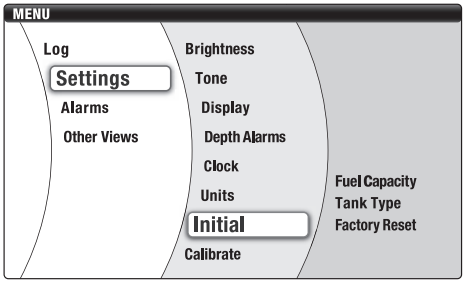
Clock

- Time offset setting



Units

- Changing display units



Initial

Fuel Capacity

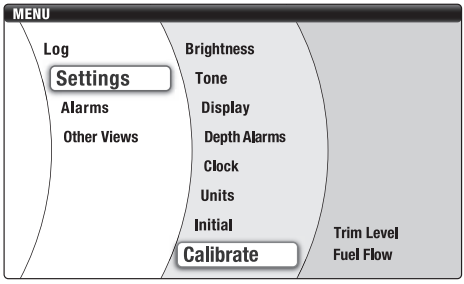
- Setting the total volume of the fuel tanks connected to the Multi-Display

Tank Type

- Setting types for tanks connected to the Multi-Display (Fuel, fresh water, generator fuel, and sewage)
- Setting sensor type (ABYC/EUR/YAMAHA)

Factory Reset

- Initializing the Multi-Display
- Initializing the connected Command Link Plus Gateway



Calibrate

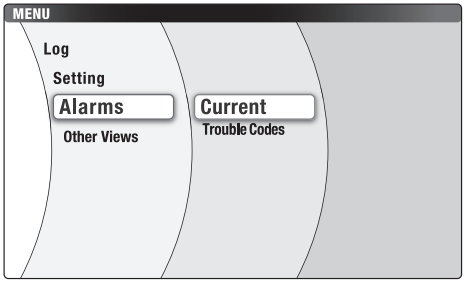
Trim Level

- Zero-setting the trim angle

Fuel Flow

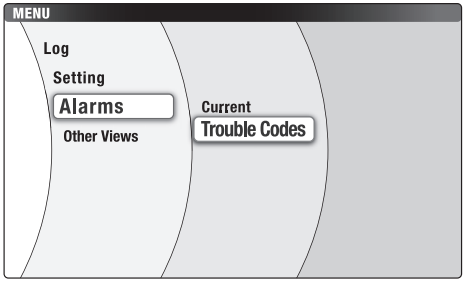
- Adjusting the fuel consumption figure

■ Alarms



Current

- Displays currently occurring alerts. For further information, see pages 11 and 12.



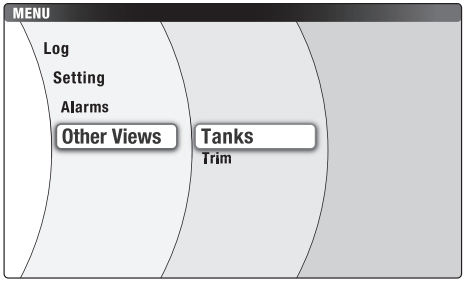
Trouble Codes

- Displays the trouble code and name of the alert. (Up to 5 displayed for each engine)

TIP:

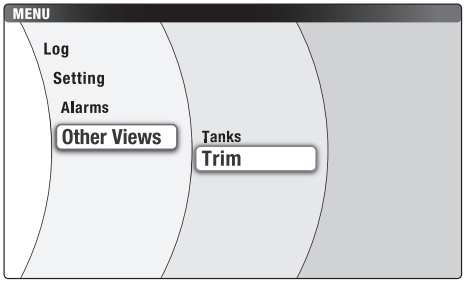
Please mention the trouble code when you contact a Yamaha dealer. For further information, see page 27.

■ Other Views



Tanks

- Can display the volume of any tanks.
- Each tank type is displayed in a predefined color.
  Fuel tanks: Navy blue
  Fresh water tanks: Blue
  Sewage tank: Orange
  Generator fuel tank: Green



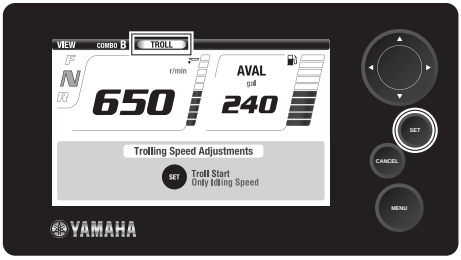
Trim

- Displays trim angle as a percentage.

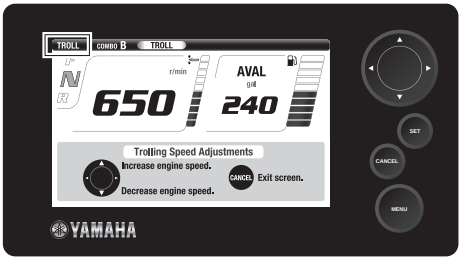
Adjusting trolling engine speed

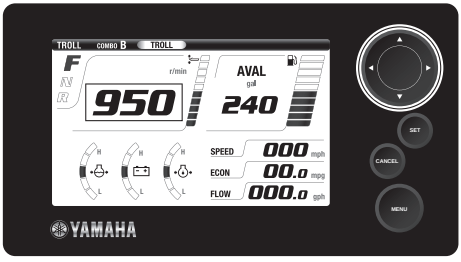
Adjust the trolling engine speed using “TROLL” on the main screen. You can adjust designated trolling speed in units of 50 r/min. The trolling engine speed is synchronized for all engines in a multi-engine configuration. You can switch to trolling mode when all the following conditions are satisfied:

Conditions for changing to trolling mode
• When the engine is running. • When the throttle lever is in the fully closed position. • When the gear shift is in the N position. • When “TROLL” is selected on the main screen.



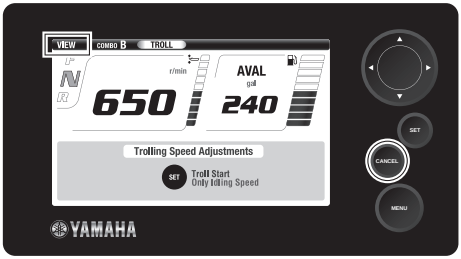
1. Select “TROLL” on the main screen. Press the “SET” button to switch to trolling mode.
   “VIEW” on the status bar will switch to “TROLL.”





2. Set the gear shift in the F or R position, and then use the “▲▼” (Up/Down) buttons of the directional keypad to adjust the designated trolling engine speed. (The parameters within which the engine speed can be adjusted depend on the outboard motor.)

Adjusting trolling engine speed



3. Set the gear shift in the N position, and then press the “CANCEL” button to cancel the trolling mode.
   “TROLL” on the status bar will switch to “VIEW.”

TIP:

- If the throttle lever is in the fully closed position, pressing the “CANCEL” button will cancel the trolling mode even when the gear shift is in the F or R position. However, if the throttle is open, pressing “CANCEL” button will not cancel the trolling mode.
- Trolling mode will be automatically canceled if the trolling speed exceeds a predetemined speed for each engine.

Trouble codes

Trouble code	Item	Cause
13	Pulser Coil	Pulser coil malfunction
15	Temp Sensor	Water temperature sensor malfunction (Thermo sensor malfunction)
19	Battery Voltage	Charging system malfunction
23	Intake Temp Sensor	Intake air temperature sensor malfunction
24	Cam Position Sensor	Cam position sensor (EXH) malfunction
27	Water in Fuel	Water in fuel
29	Intake Press Sensor	Air pressure sensor (INT) malfunction
37	Intake Air Passage	Intake air passage (Air leakage)
39	Oil Press Sensor	Engine oil pressure sensor malfunction
44	Engine Stop Lanyard	Engine shut-off switch on
46	Overheat Thermoswitch	Overheat thermoswitch malfunction
71	Cam Position Sensor (STBD INT)	Cam position sensor (STBD INT) malfunction
72	Cam Position Sensor (PORT INT)	Cam position sensor (PORT INT) malfunction
73	Oil Control Valve (STBD)	Oil control valve (STBD) malfunction
74	Oil Control Valve (PORT)	Oil control valve (PORT) malfunction
83	Trim & Tilt Sensor	Trim/tilt sensor malfunction (PTT sensor malfunction)
85	ION Detection Module	ION detection module malfunction
86	Immobilizer	immobilizer malfunction
112-119	Electronic Throttle System	Electronic throttle system malfunction
121-123	Electronic Throttle System	Electronic throttle system malfunction
124-128	Throttle Position Sensor	Throttle position sensor malfunction
129	Electronic Throttle System	Electronic throttle system malfunction
136-139	Electronic Throttle System	Electronic throttle system malfunction
141-145	Electronic Throttle System	Electronic throttle system malfunction
146-150	Shift Position Sensor	Shift position sensor malfunction
153-155	Shift Position Sensor	Shift position sensor malfunction
156-157	Eng-R/C Communication	Engine–Remote control communication error
160-181	Remote Control System	Remote control system malfunction (Digital Electronic Control)
183-184	Remote Control System	Remote control system malfunction (Digital Electronic Control)

Trouble codes

Trouble code	Item	Cause
186-187	Remote Control System	Remote control system malfunction (Digital Electronic Control)

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