

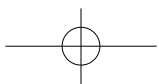
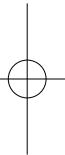
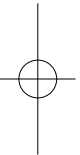
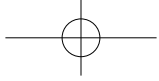
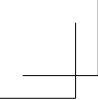


 Read this manual carefully before operating the system.
This manual should stay with this system if it is sold.

OWNER'S MANUAL

PW-LINK Integrated Display

- * This owner's manual is original instruction.
- * Product and specifications are subject to change without notice.



Introduction

These original instructions have been prepared for your Display Unit.

TIP

This manual is not intended as a comprehensive use, service, repair or maintenance manual. Please see your dealer for all service, repairs or maintenance. Your dealer may also be able to refer you to classes, clinics or books on bicycle use, service, repair or maintenance.

**PW-LINK Integrated Display
OWNER'S MANUAL
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1st edition, January 2026
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1 General information

FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.

Particularly important information is distinguished in this manual by the following notations:

	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.
	A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.
TIP	A TIP provides key information to make procedures easier or clearer.



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Featuring certified wireless ANT+™ connectivity.
Visit www.thisisant.com/directory for compatible products.

1.1 Use of your data

This is a brief summary of how Yamaha Motor (Yamaha Motor Co., Ltd., and Yamaha Motor Europe N.V.) uses your data from e-Bike Systems (Drive Unit, Battery Pack, Display Unit). For details for the use of your personal data, please go to the specific URL below for the Privacy Policy:

Country	Language	URL
Austria	German	https://www.yamaha-motor.eu/at/de/privacy/privacy-policy/
Belgium	Dutch	https://www.yamaha-motor.eu/be/nl/privacy/privacy-policy/
Belgium	French	https://www.yamaha-motor.eu/be/fr/privacy/privacy-policy/
Bulgaria	Bulgarian	https://www.yamaha-motor.eu/bg/bg/privacy/privacy-policy/
Czech Republic	Czech	https://www.yamaha-motor.eu/cz/cs/privacy/privacy-policy/
Denmark	Danish	https://www.yamaha-motor.eu/dk/da/privacy/privacy-policy/
Finland	Finnish	https://www.yamaha-motor.eu/fi/fi/privacy/privacy-policy/
France	French	https://www.yamaha-motor.eu/fr/fr/privacy/privacy-policy/
Germany	German	https://www.yamaha-motor.eu/de/de/privacy/privacy-policy/
Greece	Greek	https://www.yamaha-motor.eu/gr/el/privacy/privacy-policy/
Hungary	Hungarian	https://www.yamaha-motor.eu/hu/hu/privacy/privacy-policy/
Italy	Italian	https://www.yamaha-motor.eu/it/it/privacy/privacy-policy/
Ireland	English	https://www.yamaha-motor.eu/ie/en/privacy/privacy-policy/
Netherlands	Dutch	https://www.yamaha-motor.eu/nl/nl/privacy/Privacybeleid/
Norway	Norwegian	https://www.yamaha-motor.eu/no/nb/privacy/privacy-policy/
Poland	Polish	https://www.yamaha-motor.eu/pl/pl/privatnosc/polityka-privatnosci/
Portugal	Portuguese	https://www.yamaha-motor.eu/pt/pt/privacy/privacy-policy/
Romania	Romanian	https://www.yamaha-motor.eu/ro/ro/privacy/privacy-policy/
Spain	Spanish	https://www.yamaha-motor.eu/es/es/privacy/privacy-policy/
Sweden	Swedish	https://www.yamaha-motor.eu/se/sv/privacy/privacy-policy/
Switzerland	German	https://www.yamaha-motor.eu/ch/de/privacy/privacy-policy/
Switzerland	French	https://www.yamaha-motor.eu/ch/fr/privacy/privacy-policy/
Turkey	Turkish	https://www.yamaha-motor.eu/tr/tr/privacy/privacy-policy/
U.K.	English	https://www.yamaha-motor.eu/gb/en/privacy/privacy-policy/

What data Yamaha Motor collect? and how?

The PW-LINK Integrated Display collects following data:

- (1) Component identification number
- (2) live data showing the performance of the bicycle such as PW-LINK Integrated Display operating state, mileage and
- (3) other data showing the status of the bicycle such as PW-LINK Integrated Display error code

The collected data will be uploaded to server at Yamaha Motor Co., Ltd. only when special Yamaha diagnostic tool is connected to the bicycle at the time of maintenance check or service.

How will Yamaha Motor use your data?

Yamaha Motor use collected data from your PW-LINK Integrated Display for the following purpose:

- (1) to conduct adequate maintenance service including diagnostics
- (2) to implement proper warranty claim judgement
- (3) to conduct research and development
- (4) to provide and improve quality of products, features, and services
- (5) to ensure our business purpose and
- (6) to comply with requirements of laws and regulations

How Yamaha Motor share your data?

Yamaha Motor may share your data with: (1) our subsidiaries, affiliates, and business partners; (2) dealers in your country or region, and (3) contractors within the scope necessary to achieve the purpose of use described above.

How to contact us

Yamaha Motor Co., Ltd., and Yamaha Motor Europe N.V. are joint data controller regarding your data collected. Any questions or complaints regarding the processing of your Personal Data can be submitted in writing to:

Yamaha Motor Europe N.V./Digital Marketing & CRM
– PO Box 75033 – 1117 ZN Schiphol – The Netherlands.

Email: dpo@yamaha-motor.nl

The SOLE PURPOSE of above provided contact information is TO RESPOND DATA PROCESSING INQUIRY AND OTHER KINDS OF INQUIRIES WILL NOT BE RESPONDED. Please provide the following information for the proper handling of your inquiry: **(1) Your Name; (2) Your Email Address; (3) Your Country of Residence; and (4) Your component identification number.** Yamaha Motor will use your personal information provided only for the purpose of supporting your data processing inquiry.

1.2 ⚠ Safety information

Do not modify or disassemble the e-Bike Systems. Do not install anything other than genuine parts and accessories. Doing so could result in product damage, malfunction, or increase your risk of injury.

When stopped, be sure to apply the front and rear brakes and keep both feet on the ground. Placing one's foot on the pedal when stopped may unintentionally engage the power assist function, which could result in loss of control and serious injury.

Do not ride the bicycle if there is any irregularity with the Battery Pack or e-Bike Systems. Doing so could lead to loss of control and serious injury.

Be sure to check the residual battery capacity before riding at night. The headlight powered by the Battery Pack will turn off soon after the residual battery capacity has decreased to where power assisted riding is no longer possible. Riding without an operating headlight can increase your risk of injury.

Do not start off by running with one foot on a pedal and one foot on the ground and then mounting the bicycle after it has reached a certain speed. Doing so could result in loss of control or serious injury. Be sure to start riding only after you are seated properly on the bicycle seat.

Do not use the walk assist if the rear tire is off the ground. Otherwise, the tire will turn at high speed in the air and you could be injured.

For Display Unit with detachable display, do not remove the display while riding the bicycle. Doing so will turn off the power assist, and could result in the bicycle falling over.

Do not use the wireless communication functions in areas such as hospitals or medical institutions where use of electronic equipment or wireless communication devices are prohibited. Otherwise, this could affect the medical equipment, etc. and cause an accident.

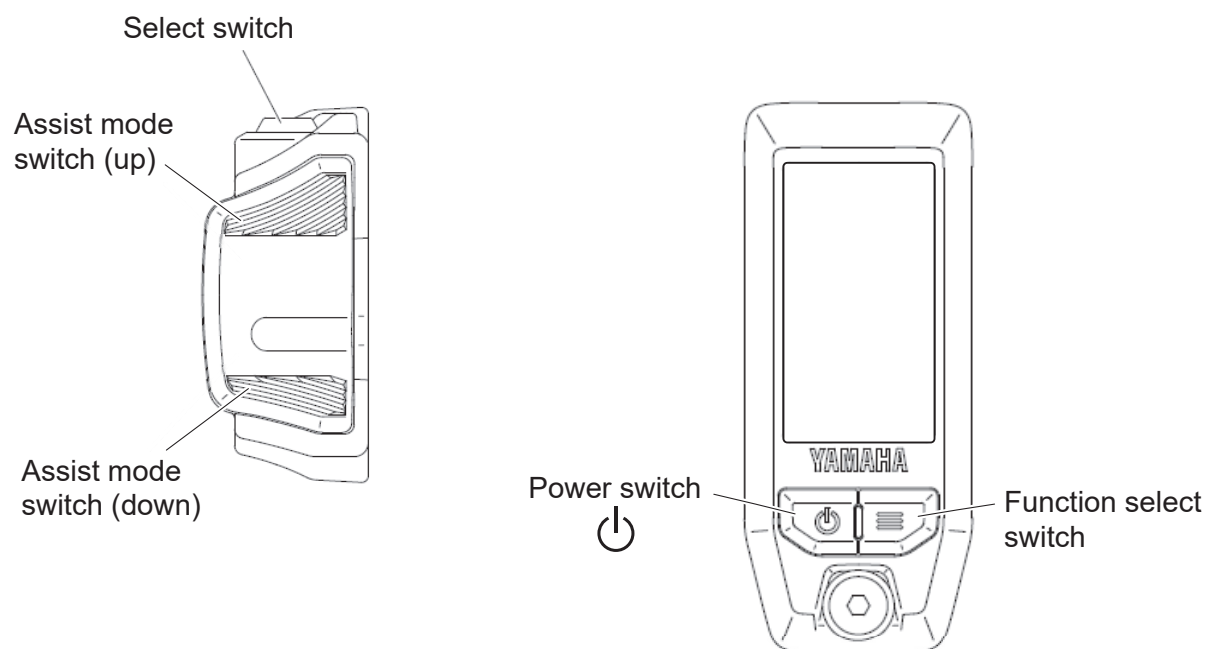
When using the wireless communication functions, keep the display at a safe distance from heart pacemakers in use. Otherwise, the radio waves could affect the heart pacemaker function.

Do not use the wireless communication functions near automatic control equipment such as automatic doors, fire alarms, etc. Otherwise, the radio waves could affect the equipment and cause an accident through possible malfunction or unintentional operation.

If any part of the battery or e-Bike Systems becomes submerged in water due to flooding etc., immediately have your bicycle inspected and maintained by a dealer.

Do not put fingers or hands into the rotating parts such as wheels and chain. Also keep children away from the wheels and chain. They could be seriously injured.

2 Description



2.1 Function select switch

The function select switch on the side of the screen can be configured to perform different functions.

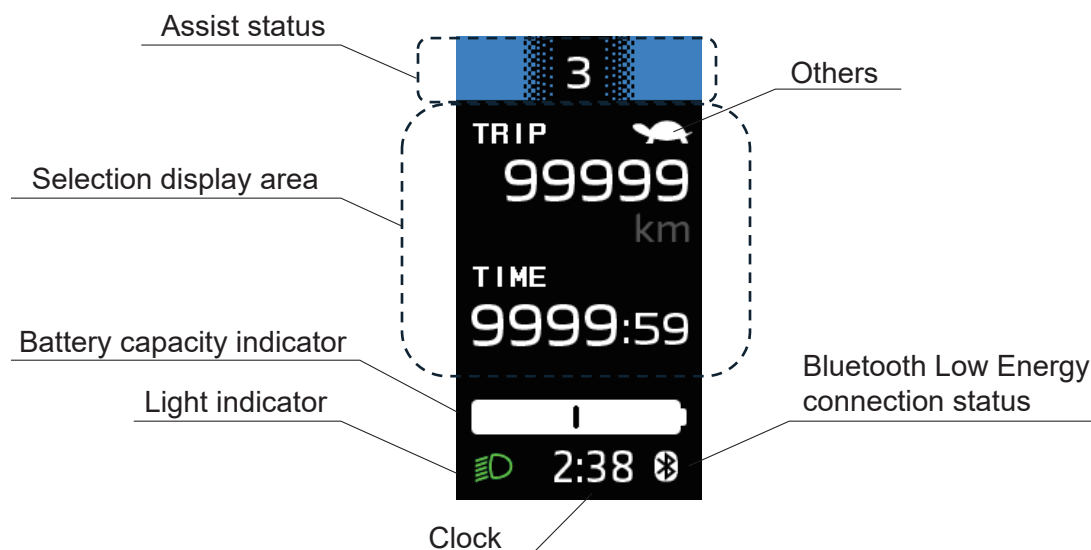
For instructions on setting functions, see Settings. → (4.5.5 FUNC Button)

3 Operating vehicle systems

The following describes how to operate the vehicle systems while riding, with the vehicle systems powered on.

3.1 Display overview

This section provides a display overview of the vehicle systems in operation. The displayed contents are described in detail along with corresponding operations.



Assist status

This area displays the current assist status.
For assist mode switching and display details
→ (3.4 Switching assist modes)

Selection display area

This area displays the vehicle status. The displayed content can be switched and selected.
For screen switching and display details →
(3.5 Selection display area)

Battery capacity indicator

The battery capacity indicator displays an estimate of how much capacity is left in the Battery Pack.
For display details → (3.6 Battery capacity indicator)

Light indicator

This area displays the headlight on/off status.
For headlight switching and display details
→ (3.7 Headlight and screen brightness settings)

Clock

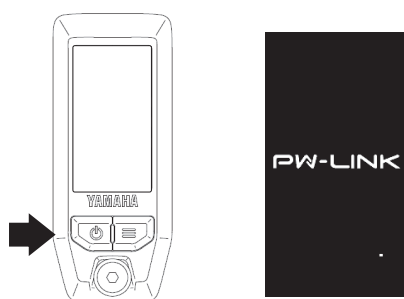
This area displays the current time.
For how to adjust the clock and display details
→ (4.5.2 Clock Adjust)

Bluetooth Low Energy connection status

This area displays the connection status of Bluetooth Low Energy devices.
For how to connect devices and display details
→ (4.4.5 Communication)

Others

This area displays notifications related to the vehicle system status as necessary.
For notification details → (5 Vehicle system status notifications)



3.2 Starting the vehicle system

When the vehicle system is OFF, press the power switch to start the vehicle system.

Restarting the system before the vehicle system completely shuts down may cause the system to not start properly.

During initialization, “PW-LINK” is displayed.
(A dot will appear in the lower right corner depending on the processing stage.)
Once the display is ready, the ride screen is shown.

TIP

Keep your feet off the pedals when turning on the Display Unit. Also, do not start riding immediately after turning on the Display Unit. Doing so could weaken the assist power. (Weak assist power in either of these cases is not a malfunction.) If you did either of the above by accident, remove your feet from the pedals, turn on the power again, and wait a moment (approximately two seconds) before starting to ride.



3.2.1 Owner authentication

Owner authentication is enabled only when configured in advance.

If not configured, authentication is not implemented and this screen does not appear.

Owner authentication is initiated when you turn the power on. This screen is displayed until authentication is complete.

Owner authentication requires a smartphone configured in advance.

For how to configure your smartphone, refer to the YAMAHA app manual.

Once authentication is completed and you are identified as the owner, the display switches to the riding screen. If this screen remains displayed, authentication is not complete.

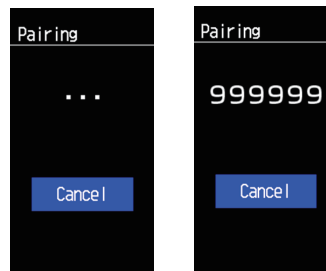


Hold down the select switch and the assist mode switch (down) simultaneously.

Keep pressing until the display changes. Release after the display changes.

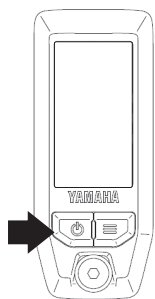
3.2.1.1 Executing pairing on the owner authentication screen

To perform owner authentication with an unpaired smartphone, you must first pair the device. To transfer from the owner authentication screen to the pairing standby screen, perform the operation shown on the left.



For operations after transitioning to pairing standby screen, see Pairing. → (4.4.5.2 Pairing)

Once the device is paired, the screen returns to the owner authentication screen.



3.3 Exiting the vehicle system

Press the power switch while the vehicle system is ON to exit the vehicle system.

The system displays “PW-LINK” during the shutdown process and turns off the display once shutdown is complete. In certain situations, such as when the motor is running, the power may not turn off immediately.

3.4 Switching assist modes

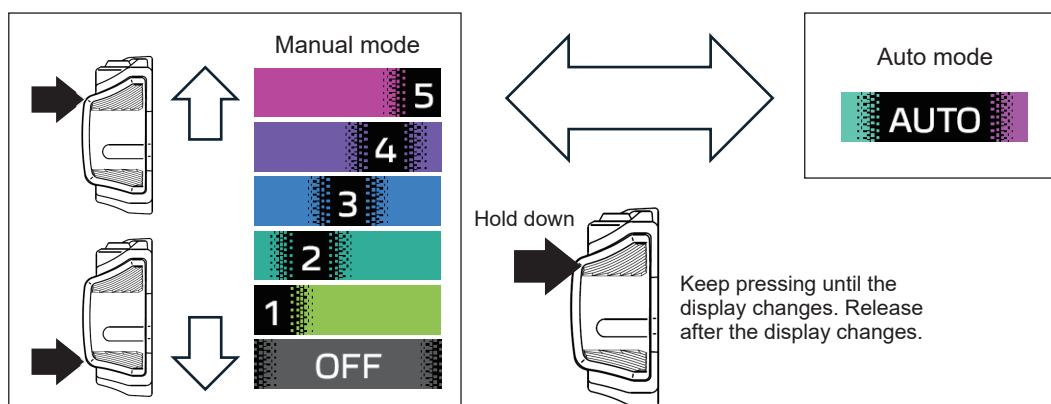
You can switch the motor assist mode of the vehicle system by operating the device.

The currently selected mode is displayed on the screen.

Available modes vary by Drive Unit. You cannot switch to modes not supported by your Drive Unit.

For information on the modes supported by your Drive Unit and the assist details of each mode, refer to the Drive Unit manual.

The assist modes include Manual and Auto, and you can switch between these modes.



After you turn on the power, the system starts in the mode previously selected at power off.

Depending on your Drive Unit specifications, the mode at power-on may be fixed.

When the Drive Unit is in a state that does not offer assist, the assist mode is not displayed.

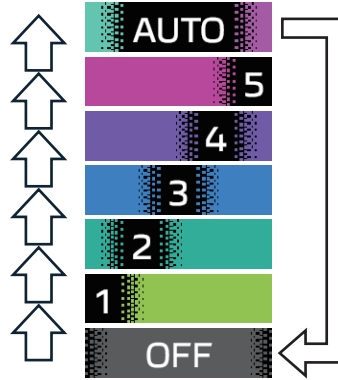
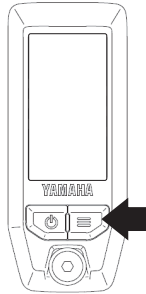
TIP

- Further pressing of the assist mode switch will not cycle the assist mode selections.
- When the power is turned on, the e-Bike Systems will be activated with the same assist mode as when the power was last turned off.
- Even if you press the assist mode switches (up) or (down) while in Automatic Support Mode, the assist mode cannot be changed.
- The Automatic Support Mode is saved when the power is turned off. When you turn on the power again, the e-Bike Systems will be activated with the Automatic Support Mode.

3.4.1 Operation by function select switch

When assist mode switch is assigned as the function of the function select switch, press the function select switch to switch the mode.

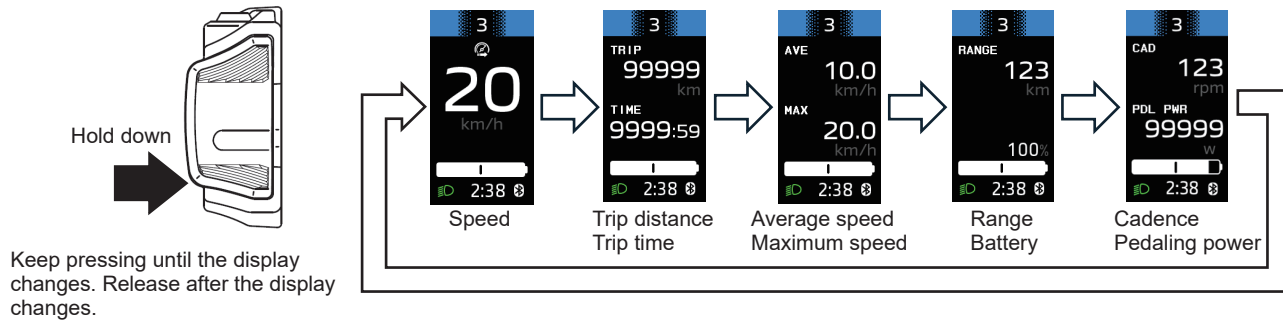
The modes cycle in order starting from OFF.



For how to assign a function to the function select switch
→ (4.5.5 FUNC Button)
This operation can also be performed from “Settings”.

3.5 Selection display area

There are five selectable display types available while driving, and you can switch between them.



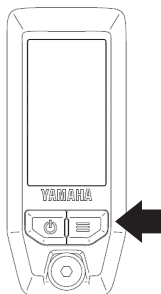
3.5.1 Operation by function select switch

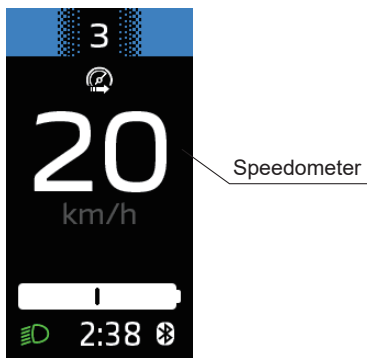
When screen switch is assigned to the function select switch, press the function select switch to switch the screen.

The display cycles through the modes in order, starting from Speed.

For how to assign a function to the function select switch
→ (4.5.5 FUNC Button)

This operation can also be performed from “Settings”.





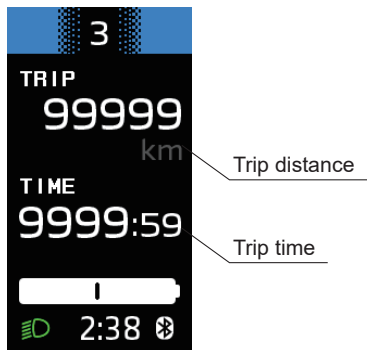
3.5.2 Speedometer

This screen displays the speed.
The speed is displayed in the unit you specify in settings (km/h for km, MPH for miles) → (4.5.3 Distance Unit)

km/h mph

TIP

If your bicycle speed is less than 2.0 km/h or 1.2 MPH, the speedometer displays “0 km/h” or “0 MPH”.



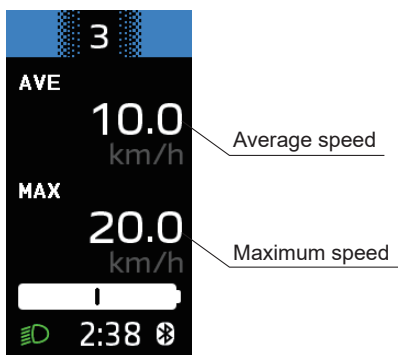
3.5.3 Trip distance/Trip time screen

This screen displays the trip distance and trip time accumulated since the last reset.
When you perform a reset while this screen is displayed, both items are reset together (3.5.7 Reset operation).
The value is displayed in the unit specified in settings (4.5.3 Distance Unit).

km mile

TIP

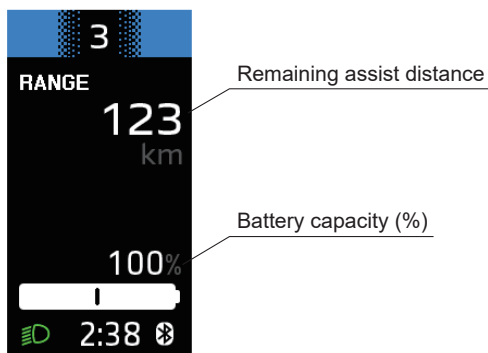
If your bicycle speed is less than 2.0 km/h or 1.2 MPH, the trip time will not be accumulated.



3.5.4 Average speed/Maximum speed screen

This screen displays the average bicycle speed and maximum bicycle speed since last reset.
When you perform a reset while this screen is displayed, both items are reset together (3.5.7 Reset operation).
The value is displayed in the unit specified in settings (4.5.3 Distance Unit).

km/h mph



3.5.5 Range/Battery screen

This screen displays the remaining assist distance and battery capacity.

TIP

- Actual range (remaining assist distance) changes depending on the riding situation (hills, headwind, etc.) and as the Battery Pack runs down.
- If in Off Mode, “- - -” is displayed.

3.5.5.1 Remaining assist distance

This screen displays the estimated distance that can be assisted based on the battery level in the selected assist mode.

The distance is calculated from past riding performance in each assist mode.

Each assist mode learns distance per unit of energy consumption.

Pedaling under the following conditions will reduce the travelling range.

- carrying heavy load
- climbing the hill
- pedaling on unpaved roads or in strong winds
- repeatedly starting and stopping
- battery degradation or low temperature

In assist modes not yet used, calculations are based on manufacturer standard values.

If the riding environment differs from past performance, there may be a discrepancy from the displayed value.

The value is displayed in the unit specified in settings (4.5.3 Distance Unit)

3.5.5.2 Battery capacity (%)

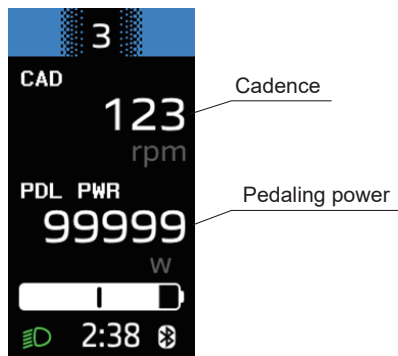
This screen displays a percentage in accordance with the remaining battery capacity.

3.5.6 Cadence/Pedaling power screen

This screen displays the cadence and pedaling power.

TIP

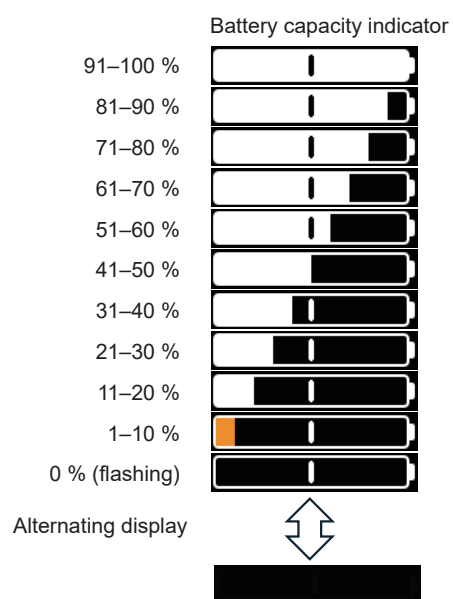
If you pedal backwards, “0” is displayed.



Hold down the select switch and the assist mode switch (down) simultaneously.



Keep pressing until the display changes. Release after the display changes.



3.6 Battery capacity indicator

This screen displays a battery capacity indicator in accordance with the remaining battery capacity.

3.6.1 Charging status

Above the battery capacity indicator, the charging status of each battery is displayed.

The charging status is displayed during charging or when charging is not occurring but the battery charger is connected.

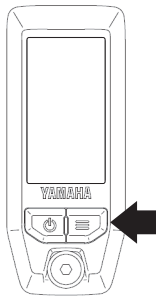


During charging



When battery charger is connected

After battery charger connection, the charging icon appears after the battery status check is complete. This may take some time.



3.7 Headlight and screen brightness settings

When headlight switch is assigned to the function select switch, press the function select switch to switch the setting.

For vehicles with variable headlight settings, this screen allows you to switch the headlight ON/OFF setting and adjust the synchronized screen brightness.

For vehicles with a fixed headlight setting, you can toggle between the two preset screen brightness levels.

With variable headlight settings	Headlight ON Screen brightness level (setting 1) Icon on the screen 	↔	Headlight OFF Screen brightness level (setting 2) No icon is displayed on the screen 
With fixed headlight setting	Screen brightness level (setting 1)	↔	Screen brightness level (setting 2)
	The headlight status is fixed and does not change. The icon is displayed when the headlight is fixed to ON, and remains hidden when the headlight is fixed to OFF.		

Whether the headlight setting is variable or fixed depends on the specifications of your Drive Unit and cannot be changed.

You can set the initial headlight state after turning on the power. For the setting method → (4.5.6 Start Headlight)

For how to assign a function to the function select switch → (4.5.5 FUNC Button)

This operation can also be performed from “Settings”.
→ (4.4.2 Headlight)

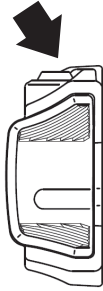
3.8 Walk assist

The walk assist function is enabled if supported by your Drive Unit.

3.8.1 Assigning switch functions

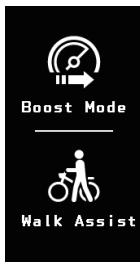
On the riding screen, press the select switch and assign the walk assist function to the assist mode switch (down). At the same time, assign the boost function to the assist mode switch (up).

For operations during boost mode, see Boost. → (3.9 Boost)

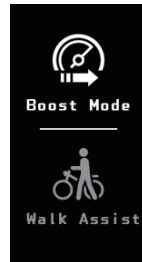


The Drive Unit supports both walk assist and boost

(Walk assist enabled state)



(Walk assist disabled state)

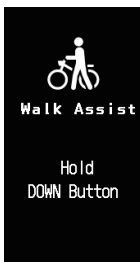


While the screen is switching, you cannot change the assist level using the assist mode switch (up)/(down).

If no operation is performed within 5 seconds, the screen will return to the riding screen, and the assist mode switch (up)/(down) can once again be used for switching the assist level.

The Drive Unit supports walk assist but not boost

(Walk assist enabled state)



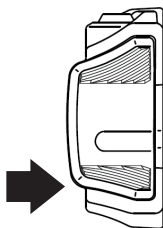
(Walk assist disabled state)



Unsupported functions will not be displayed if the Drive Unit does not support them.

If neither walk assist nor boost is supported, pressing the select switch will not change the display.

Available functions are displayed in white. If the function is unavailable, the display is grayed out. (The same applies to boost)



On this screen, pressing and holding down the assist mode switch (down) activates motor assistance for walk assist for as long as the switch is held down.

In the following cases, the display is grayed out and pressing the assist mode switch (down) will not activate walk assist:

- If you select Assist Off Mode
- When you start to pedal
- If you are connecting the charger to the battery
- When battery capacity is zero
- If the malfunction occurs in one of the devices
- When the temperature of the Battery Pack or the Drive Unit is too high

If the maximum allowable speed for walk assist is exceeded during walk assist, motor assist will stop. Once your bicycle speed falls below that speed, motor assist is enabled again. For this reason, even when the maximum speed is exceeded, the display remains white and continues to accept walk assist input.

3.8.2 While walk assist is active

While walk assist is active, the screen on the right is displayed.

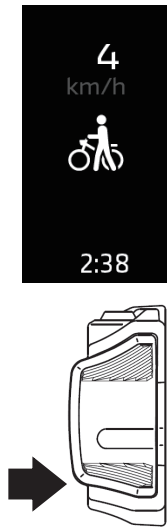
To continue walk assist, hold down the assist mode switch (down).

To stop walk assist, release the assist mode switch (down).

If any walk assist unavailable conditions (excluding maximum speed) occurs while walk assist is active, motor assist stops and the screen switches.

To resume motor assist, press the assist mode switch (down) with the switch function assigned.

If the screen switches while the assist mode switch (down) is pressed, release the switch once and then press the assist mode switch (down) again.



3.9 Boost

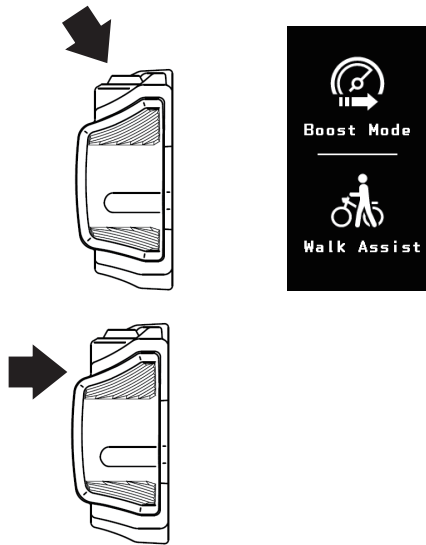
The boost function is enabled if supported by your Drive Unit.

Boost is a function that temporarily increase maximum power.

So, when you are pedaling with strong power, you can feel the effect.

3.9.1 Assigning switch functions

Similar to walk assist, use the select switch to switch screens.



Press and release the assist mode switch (up) to start boost.

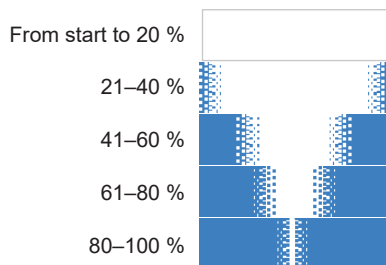
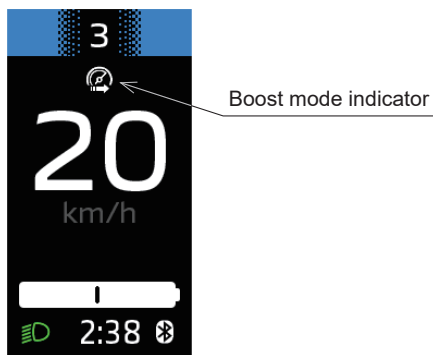
If Boost Mode is grayed out, boost input will not be accepted.

In the following cases, the display is grayed out and pressing the assist mode switch (up) will not activate boost:

- If you select Assist Off Mode
- If you are connecting the charger to the battery
- When battery capacity is zero
- If the malfunction occurs in one of the devices
- When the temperature of the Drive Unit is high

3.9.2 During boost mode

When the Drive Unit is in the boost state, the boost mode indicator is displayed.



The assist status shows the elapsed time relative to the boost time limit across 5 levels.

The color displayed for the assist status depends on the selected assist mode.

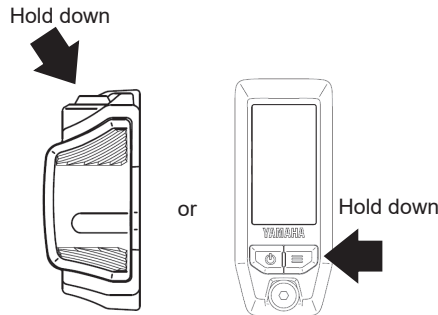
When boost ends, the boost mode indicator disappears, and the assist status returns to mode display.

4 Settings

In Settings, you can select various operating conditions for the vehicle system and configure information displays.

4.1 Start settings

Settings is started from the riding screen. Press and hold down the select switch or function select switch for 2 seconds.



Keep pressing until the display changes.
Release after the display changes.

⚠ WARNING

For all setting procedures, be sure to stop the bicycle and perform the required settings in a safe location. Otherwise, lack of attention to surrounding traffic or other hazards could cause an accident.

4.1.1 Settings conditions

The Settings screen is available only when the vehicle is stationary.

If the vehicle is moving, the screen will not change to Settings screen even if you start Settings.

Additionally, if the vehicle starts moving while in Settings, the display will automatically return to the riding screen.

In this case, any unconfirmed settings will not be applied.

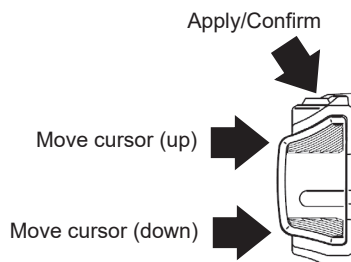
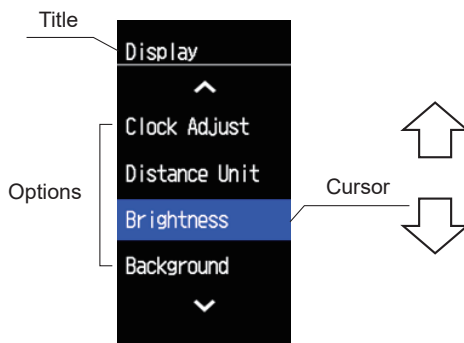
4.2 Displaying and operating settings

Most settings are configured by selecting an item from a list of options.

Move the cursor to the desired item and confirm selection.

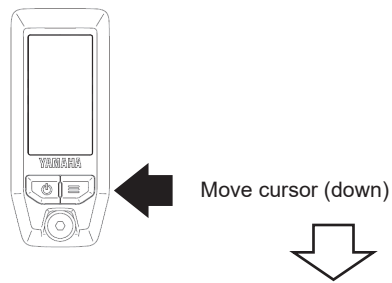
If there are many options, scroll to display the items.

Unless otherwise specified, the following operations apply to the Settings screens:

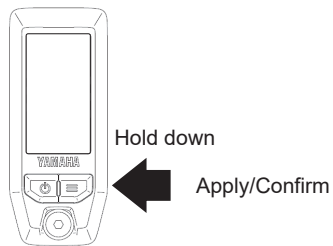


4.2.1 Operation by function select switch

Use the function select switch to move the cursor through the options and make a selection.



(Same as the assist mode switch (down) on the remote unit)



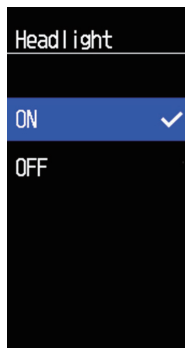
(Same as the select switch on the remote unit)

4.2.2 Current settings

On the Settings screen, the current setting is indicated by a checkmark.

To return to the previous screen without changing the setting, select the checked item.

For Communication menu only, the checkmark indicates enabled or disabled status. → (4.4.5.1 Wireless)



4.3 Settings structure

The menu is organized hierarchically. Select an item to proceed.

Settings	4.4	Other Settings	4.5
Assist Mode	4.4.1	Brightness	4.5.1
Headlight	4.4.2	Clock Adjust	4.5.2
Main Screen	4.4.3	Distance Unit	4.5.3
Record Reset	4.4.4	Language	4.5.4
Communication	4.4.5	FUNC Button	4.5.5
Other Settings	●	Start Headlight	4.5.6
Information	●	Batt. Priority	8.2

Information	4.6
Drive Info	4.6.1
Certificates	4.6.2
Factory Reset	4.6.3

4.4 Settings

Takes you to the second-level screen where various settings can be configured. Select an item as described in “4.2 Displaying and operating settings”.

To return to the riding screen, select [EXIT].

[Headlight] is not displayed if the headlight is fixed by the Drive Unit specifications.

Any item among [Assist Mode], [Headlight], and [Main Screen] that is assigned to the function select switch is not displayed.

Settings
Assist Mode
Headlight
Main Screen
Record Reset
Communication
Other Settings
Information
[EXIT]

Settings
Assist Mode
Headlight
Main Screen
Record Reset
▼

4.4.1 Assist Mode

Select Assist Mode to open the Assist Mode screen. During screen changes, the cursor appears on the currently selected item. Select an item as described in “4.2 Displaying and operating settings”. The selectable modes vary depending on the specifications of your Drive Unit.

Assist Mode
OFF
Mode 1
Mode 2
Mode 3
Mode 4
Mode 5
Auto

Assist Mode
OFF
Mode 1
Mode 2
Mode 3
▼

4.4.2 Headlight

Select Headlight to switch the headlight setting.

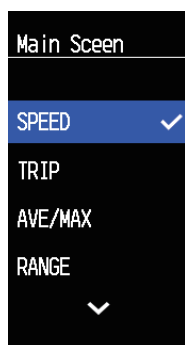
Select ON to turn on the headlight. Select OFF to turn off the headlight.

If the ON/OFF state is fixed by the specifications of your Drive Unit, Headlight option is not displayed.

Headlight
ON
OFF

Headlight
ON
OFF

Main Screen
SPEED
TRIP
AVE/MAX
RANGE
CAD/PDL PWR



4.4.3 Main Screen

Use Main Screen to select the riding screen initially displayed after vehicle system startup.

Screen displayed for each selection

SPEED → (3.5.2 Speedometer)

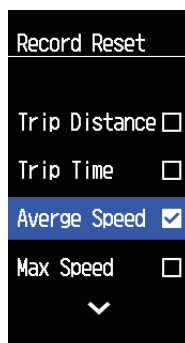
TRIP → (3.5.3 Trip distance/Trip time screen)

AVE/MAX → (3.5.4 Average speed/Maximum speed screen)

RANGE → (3.5.5 Range/Battery screen)

CAD/PDL PWR → (3.5.6 Cadence/Pedaling power screen)

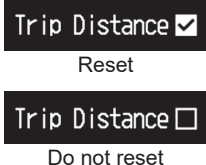
Record Reset
Trip Distance
Trip Time
Average Speed
Max Speed
[EXIT] or [RESET]



4.4.4 Record Reset

Use Record Reset to reset the items displayed based on cumulative values on the riding screen.

Move the cursor to an item and press the select switch to toggle the checkmark for the highlighted item.



Check the items you want to reset.

If one or more items are checked, [EXIT] changes to [RESET].

Move the cursor to [RESET] and press the select switch to reset the checked items.

To exit without performing a reset, move the cursor to [EXIT] and press the select switch.

Communication
Wireless
Pairing
[EXIT]

Communication
Wireless ✓
Pairing
[EXIT]

4.4.5 Communication

This screen allows you to configure wireless settings. You can enable or disable the wireless function and pair a device.

4.4.5.1 Enabling/disabling the wireless function



Move the cursor to [Wireless], and press the select switch to toggle between enabled and disabled.

Wireless is enabled when the item is checked. Wireless is disabled when the item is not checked.

TIP

- Keep the distance between the display and wireless communication device within 1 m. The maximum communication distance of this wireless communication device is 1 m.
If the wireless communication device is kept in a bag, etc., the actual communication distance might be shorter.
- Do not use the wireless communication device in places with magnetic fields, static electricity, or electromagnetic interference.
If the wireless communication device is used near transmitters, broadcasting stations or the following type of equipment, wireless communication may not be possible.
 - Microwave ovens
 - Digital cordless phones
 - Wireless communication devices
 - Near other wireless communication device using the 2.4 GHz band.
- Do not cover the display with objects such as aluminum sheets that block the radio waves. Otherwise, wireless communication may not be possible.
- For the output power level of each profile, see the "Specifications". → (12 Specifications)
- Note that if pairing of the Display Unit and application is correctly established, the display might automatically change to the display layout for the application.

4.4.5.2 Pairing

Select [Pairing] to start pairing with a Bluetooth Low Energy device.

Move the cursor to [Pairing], and press the select switch to go to the pairing standby screen.

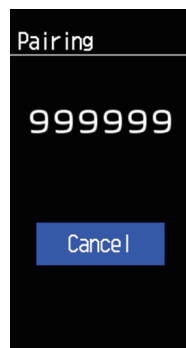
Pairing with devices enables various functions.

If wireless function is disabled, you cannot move the cursor to [Pairing].



If there is no device available for pairing, PIN codes will not be displayed.

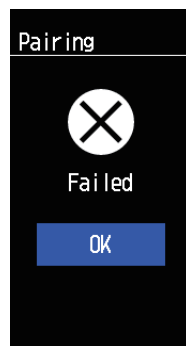
If you want to exit the screen without pairing, select [Cancel] with the select switch.



When a response is received from a device that can be paired, a PIN code will be displayed.

The PIN code is used for the pairing operation on the device side.

If you want to exit the screen without pairing, select [Cancel] with the select switch.



Once pairing is completed on the device side, the display shows [Connected].

After selecting [OK] with the select switch, the system returns to Communication settings.

When pairing fails on the device side, the display shows [Failed].

If no operation is performed within 30 seconds on the pairing standby screen, the display also shows [Failed].

After selecting [OK] with the select switch, the system returns to Communication settings.

This device can store connection information for up to 5 wireless devices. If pairing is performed with the connection information of 5 devices already stored, the new device will be saved and one existing device will be removed.

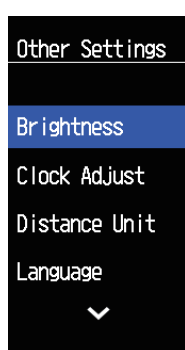
This device can connect to only one Bluetooth Low Energy wireless device at a time.

-  (White: Connected)
-  (Blank: The function is enabled but not connected)
-  (Gray: Bluetooth function disabled)

4.4.5.3 Bluetooth Low Energy connection status display

The Bluetooth Low Energy device connection status on the riding screen is one of the following: For the screen layout → (3.1 Display overview)

The ANT+ device connection status is not related to this display.



4.5 Other Settings

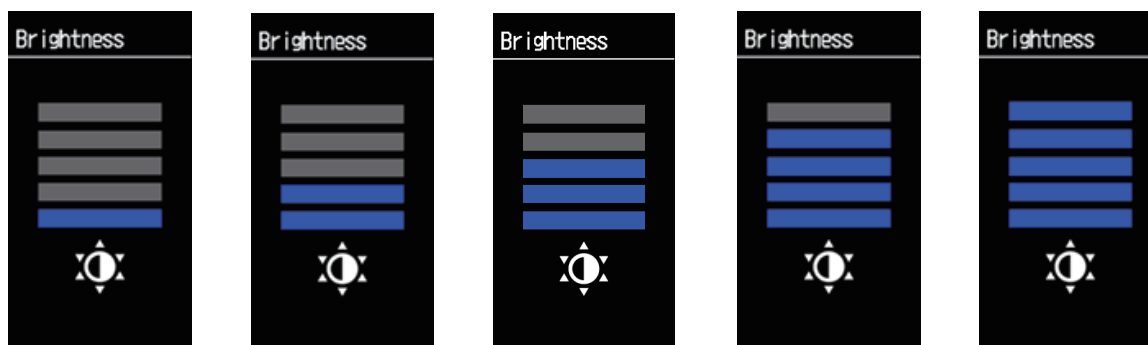
Select [Other Settings] to configure vehicle operation. With a two-battery configuration, a battery switch setting is added. → (8.2 Setting battery switching)

4.5.1 Brightness

Select [Brightness] to adjust the screen brightness across 5 levels.

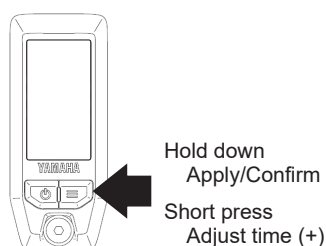
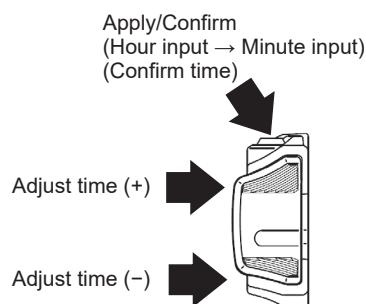
There are two screen brightness modes. You can switch between them using the switch (3.7 Headlight and screen brightness settings).

Select the one you want to change.



Move the cursor (up) to make the screen brighter. Move the cursor (down) to make the screen darker.

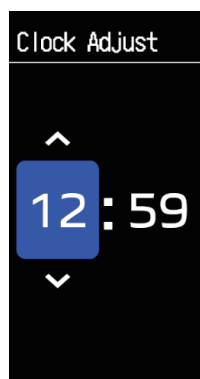
Once confirmed, the currently selected screen brightness level will be applied.



4.5.2 Clock Adjust

[Clock Adjust] is used to set the displayed time. The time is displayed in 24-hour format on the riding screen.

[Clock Adjust] opens with the cursor stopped on the hour. Press the (+/-) time adjustment buttons to set the hour. Once confirmed, the cursor will move to the minutes. Press the (+/-) time adjustment buttons to set the minutes. Once confirmed, the time is set.



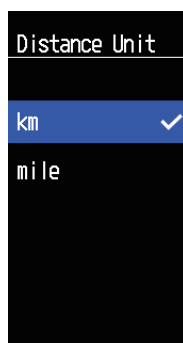
In addition to this screen, the clock may be set automatically when connected to the smartphone app.

4.5.3 Distance Unit

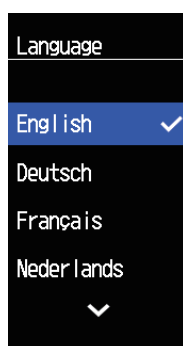
[Distance Unit] allows you to set units for distance and speed.

This setting is applied to each riding screen.

Distance Unit
km
mile



Language
English
Deutsch
Français
Nederlands
Italiano
Español

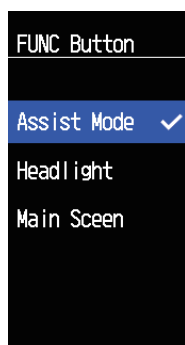


4.5.4 Language

Select the language you want to display.

Screen labels and other text will appear in the selected language.

FUNC Button
Assist Mode
Headlight
Main Screen



4.5.5 FUNC Button

Select the function you want to assign to the function select switch.

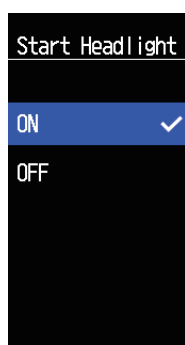
The selected operation is performed when you press the function select switch on the riding screen.

Select [Assist Mode] to assign the operation described in Section 3.4.1.

Select [Headlight] to assign the operation described in Section 3.7.

Select [Main Screen] to assign the operation described in Section 3.5.1.

Start Headlight
ON
OFF



4.5.6 Start Headlight

Select [Start Headlight] to set the headlight state at startup after the vehicle system is turned on.

ON: Turns on the headlight after startup.

OFF: Turns off the headlight after startup.

This item will not be displayed if the headlight setting of the vehicle system is fixed.

After the system is powered on, the system applies the configured headlight setting after confirming that all devices are functioning properly. This may take some time.

Information
Drive Info
Certificates
Factory Reset
[EXIT]



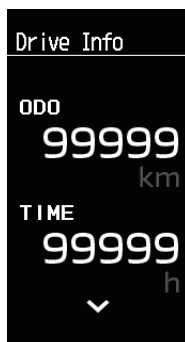
4.6 Information

Select [Information] to open the information screen.

4.6.1 Drive Info

Select [Drive Info] to display the vehicle's odometer and driving time.

Move the cursor (down) and select [EXIT] to return to [Information].



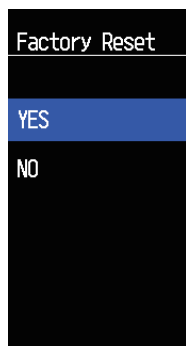


4.6.2 Certificates

Select [Certificates] to display the regulatory certification information for this model.

Move the cursor (down) and select [EXIT] to return to [Information].

Factory Reset
YES
NO



4.6.3 Factory Reset

Select [Factory Reset] to restore all UI settings to default.

Item	Factory settings
Bluetooth Low Energy pairing information	No paired devices
Maximum bicycle speed and average bicycle speed → (3.5.4) Trip distance and trip time → (3.5.3)	0
Start Headlight → (4.5.6)	OFF
Main Screen → (4.4.3)	SPEED
FUNC Button → (4.5.5)	Headlight
Brightness → (4.5.1)	A:3 B:5
Language → (4.5.4)	English
Wireless → (4.4.5.1)	Enabled

5 Vehicle system status notifications

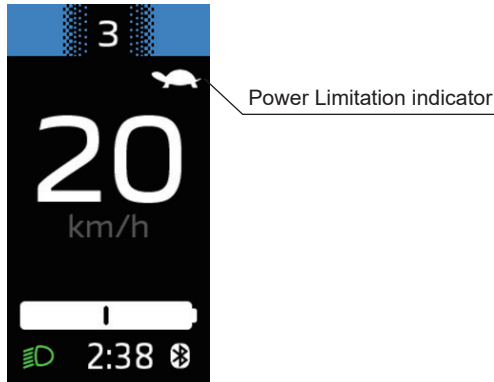
Various notifications may be provided through your vehicle system.

5.1 Power Limitation indicator

This icon indicates that power output is being suppressed due to normal operation conditions.

The Power Limitation function is activated under certain conditions, such as high temperature. When the cause is resolved, power output resumes and the icon disappears.

When the vehicle system is in “Information indicator” status, the Information icon is displayed with priority.



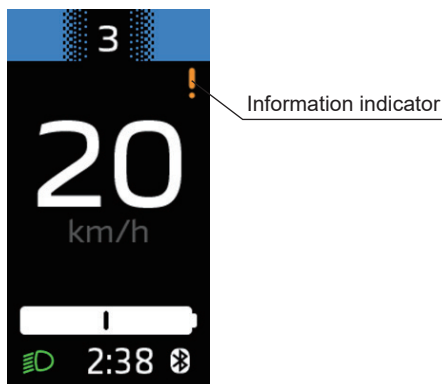
5.2 Information indicator

When this icon appears at the top of the screen, unusual behavior has been detected and the system is operating with adjustments.

You can continue your ride safely. Motor output may be suppressed.

When the condition is cleared, the icon disappears.

This icon is prioritized over Power Limitation indicator.



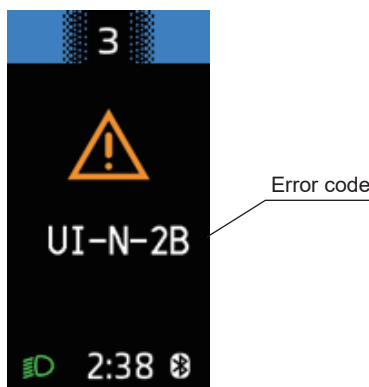
5.3 Error indication (Notice)

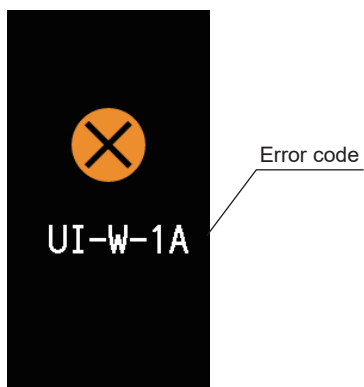
Among “Information indicator” notifications, those that particularly cause operational restrictions display a specific number for 10 seconds.

After the number is displayed for 10 seconds, the same display as that for “Information indicator” appears. When the condition is cleared, the icon disappears.

Displayed in the format: [Affected device]-N-[Number].

The affected devices include the following:
DU: Drive Unit, BT: Battery, UI: This product
(BT1/BT2 with a multiple-battery structure)
The number is determined for each device.





5.4 Error indication (Warning)

This display indicates that an event that could prevent the normal use of the vehicle system has occurred. Stop riding, turn off the power, and then turn the power back on again.

Displayed in the format: [Affected device]-W-[Number].

The affected devices include the following:
DU: Drive Unit, BT: Battery, UI: This product
(BT1/BT2 with a multiple-battery structure)
The number is determined for each device.

WARNING

If the problem cannot be solved, have your bicycle inspected by a dealer as soon as possible.

6 Connecting with external devices

6.1 Wireless

This product can connect with external devices via wireless communication.

When the wireless function is enabled in settings, Bluetooth Low Energy apps with proprietary profiles and ANT+ external devices can be used.

6.2 USB

The USB port on this product is for service purposes. The port is not for supplying power.

7 Function select switch configuration

Minimal operations can be performed through the function select switch with just the display and not the handlebar buttons.

However, the function select switch alone cannot be used for the walk assist and boost functions that require handlebar buttons.

8 Two-battery configuration

Depending on the vehicle configuration, two batteries may be installed, allowing the vehicle to run using the capacity of both batteries.

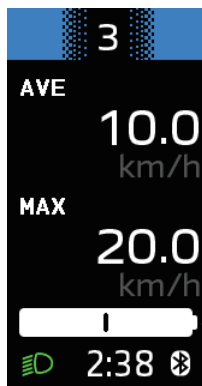
8.1 Display

With a two-battery configuration, the display is slightly different.

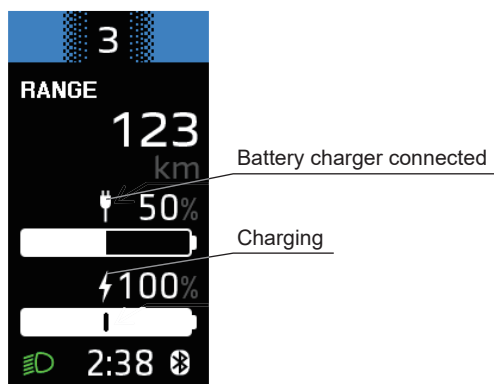
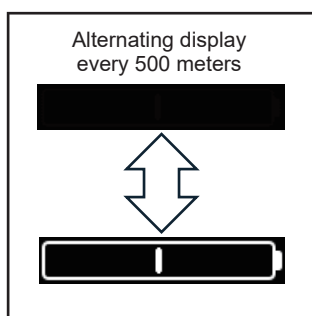
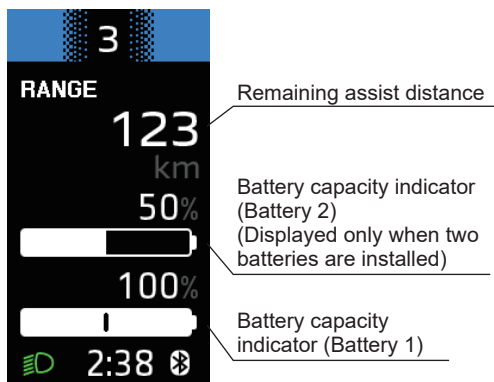
8.1.1 Riding screens other than battery screen

The battery indicator on riding screens other than the battery screen displays the remaining battery level of both batteries combined.

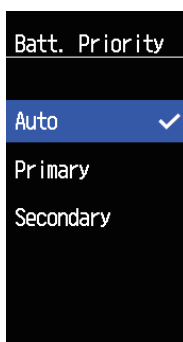
The system takes into account that Battery 1 and Battery 2 may have different capacities.
(Remaining battery level of Battery 1 + Battery 2) ÷ (Capacity of Battery 1 + Battery 2)



Battery capacity indicator



Batt. Priority
Auto
Primary
Secondary



8.1.2 Battery screen

On the battery screen, the remaining assist distance and the battery capacity indicator are displayed.

The remaining assist distance is calculated from the combined remaining battery level of both batteries.

The battery capacity indicators are displayed separately for each battery.

8.1.3 When switching batteries

One of the two batteries is active and supplies power to the vehicle system.

While batteries are being switched, motor assist is not available.

When it is time to switch batteries during assist mode, the battery capacity indicators will blink. The switch is automatically made when motor assist is not active. Once battery switching is complete, the blinking ends and the normal display resumes.

8.1.4 During charging

When the battery charger is plugged in, the batteries charge one at a time.

The order depends on battery settings.

The charging icon appears on the battery being charged. The battery charger connection icon appears on the battery in standby or fully charged.

8.2 Setting battery switching

Under Other Settings (4.5), you can set the order of battery usage when using multiple batteries.

Auto: Automatically switches.

Primary: Prioritizes the use of Battery 1

Secondary: Prioritizes the use of Battery 2

This item is displayed only when multiple batteries are installed.

The timing for switching batteries is controlled by the battery, and thus varies depending on the model of the installed battery.

9 Troubleshooting

9.1 Wireless communication

Symptom	Check	Action
Cannot connect Bluetooth wireless device with the vehicle	Check the connection status on the screen. → (4.4.5.3 Bluetooth Low Energy connection status display)	 (Gray: Bluetooth function disabled) The device cannot be connected because the Bluetooth function is disabled. Enable the function. → (4.4.5.1)  (Blank: The function is enabled but not connected) The system is waiting for pairing. Pair with the wireless device you want to connect. → (4.4.5.2)  (White: Connected) Another device is already connected. Turn off the power, move away from other devices, and turn the power back ON again.
Cannot pair with Bluetooth wireless device.	Refer to the manual of the application you are using.	Turn on the device and perform pairing in a location away from other wireless devices.
ANT+ wireless device cannot connect to the vehicle.	Check the connection status on the screen. → (4.4.5.3 Bluetooth Low Energy connection status display)	 (Gray: Bluetooth function disabled) The device cannot connect to the vehicle because the wireless function is disabled. Enable the function. → (4.4.5.1) The enable/disable status of Bluetooth Low Energy and the enable/disable status of the ANT+ function are synchronized.

9.2 Certification

Symptom	Check	Action
After powering on, the owner authentication screen remains displayed, and the vehicle is not operated. 	Check the Bluetooth connection status in the display at the bottom center of the screen. → (4.4.5.3 Bluetooth Low Energy connection status display) In the following cases  (Gray: Bluetooth function disabled)  (Blank: The function is enabled but not connected)	Follow the instruction in “Executing pairing on the owner authentication screen”, → (3.2.2.1) pair with a wireless device that supports owner authentication. → (4.4.5.2)
	In the following cases  (White: Connected) Owner authentication for this vehicle cannot be performed with the connected smartphone. A device other than the one you intended for owner authentication may be connected.	Turn off the power, move away from other devices, and turn the power back ON again.
	There is no device that can perform owner authentication for this vehicle.	Refer to the app manual and configure the owner authentication settings.

9.3 e-Bike Systems

Symptom	Check	Action
Pedaling is difficult.	Is the Display Unit's power on?	Press the power switch on the Display Unit to turn the power on.
	Is the Battery Pack installed?	Install a charged Battery Pack.
	Is the Battery Pack charged?	Charge the Battery Pack.
	Has the bicycle remained not operated for 5 minutes or longer?	Turn the power on again.
	Are you riding on a long inclined road or carrying a heavy load during summertime?	This is not a malfunction. It is a safeguard engaged when the temperature of the Battery Pack or the Drive Unit is too high. Power assist will be restored once the temperature of the Battery Pack or the Drive Unit has decreased. Also, you can make this less likely to occur by shifting to a lower gear than you would usually use (for example, by shifting from second to first gear).
	Is the air temperature low (roughly 10 °C or below)?	During the wintertime, store the Battery Pack indoors before use.
	Are you charging the Battery Pack while it is mounted on the bicycle?	Stop charging the Battery Pack.
The Drive Unit turns on and off while riding.	Is the Battery Pack correctly installed?	Check to make sure the Battery Pack is locked in place. If this problem still occurs with the Battery Pack firmly locked in place, there may be a loose connection with the Battery Pack terminals or wires. Have a bicycle dealer inspect your bicycle.
Strange rumbling or crunching noises come from the Drive Unit.		There could be a problem inside the Drive Unit. Have a bicycle dealer inspect your bicycle.
Smoke or unusual odor comes from the Drive Unit.		There could be a problem inside the Drive Unit. Have a bicycle dealer inspect your bicycle.

Symptom	Check	Action
Traveling range has decreased.	Are you fully charging the Battery Pack?	Charge the Battery Pack until full (F).
	Are you using the system under low temperature conditions?	Normal traveling range will be restored when the ambient temperature rises. Additionally, storing the Battery Pack indoors (in a warm location) before use will improve traveling range under cold conditions.
	Is the Battery Pack worn out?	Replace the Battery Pack.

9.4 Walk assist function

Symptom	Check	Action
The walk assist function turns off.	Is the tire locked for a few seconds?	Release your finger from the assist mode switch (down) for a moment, and after making sure that the tires turn, and then start over the walk assist function from the beginning.
	Did you pedal while the walk assist function was running?	Take your feet off the pedals and remove your finger from the assist mode switch (down) for a moment, and then start over the walk assist function from the beginning.
	Has the screen changed to the walk assist screen (3.8.2)?	Remove your finger from the assist mode switch (down) for a moment, and then start over the walk assist function from the beginning.

10 Cleaning, storage and disposal

10.1 Cleaning

NOTICE

Do not use high-pressure washers or steam jet cleaners since they can cause water seepage, resulting in property damage or malfunction of the Display Unit. Should water get inside one of these units, have a bicycle dealer inspect your bicycle.

10.2 Storage

Store the system in a place that is:

- Flat and stable
- Well ventilated and free from moisture
- Sheltered from the elements and from direct sunlight

10.3 Disposal

The Display Unit and packaging should be sorted for environmental-friendly recycling. Do not dispose of the bicycle or its components as household waste.

According to the European Directive 2012/19/EU, Regulation (EU) 2023/1542 and related national laws, electrical devices/tools that are no longer usable, defective or used Battery Packs/batteries, must be collected separately and disposed of in an environmentally correct manner. Please return Battery Packs that are no longer usable to a bicycle dealer.



! WARNING

Do not dispose of the Battery Pack in a fire or expose it to a heat source. Doing so could cause fire, or explosion, resulting in serious injury or property damage.

11 Simplified declaration of conformity

Hereby, YAMAHA MOTOR CO., LTD. declares that the radio Equipment type [X5W] is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:
<https://global.yamaha-motor.com/business/e-bike-systems/document/>

12 Specifications

USB	USB port type	Communication for Service tool (No power supply)	
Wireless communication portion	Communication range	Line-of-sight distance approx. 1 m (3 ft) without interference	
	Frequency band	2.4 GHz band (2.400–2.4835 GHz)	
	Modulation method	GFSK	
	Communication system	Bluetooth version 5.0 (Bluetooth low energy technology)	ANT+
	Output power	–4.36 dBm (e.i.r.p.)	–5.36 dBm (e.i.r.p.)
	Supported profiles	YEP2.0*1	S&C*2 PWR*3 LEV*4
Temperature	Operating range	–5–40 °C (23–104 °F)	
Product Information	Model No.	X5W	
	Manufacturer	YAMAHA MOTOR CO., LTD. 2500 Shingai, Iwata, Shizuoka 438-8501, Japan	
	Importer (Except for UK)	YAMAHA MOTOR EUROPE N.V. Koolhovenlaan 101, 1119 NC Schiphol-Rijk, 1117 ZN, Schiphol, the Netherlands	
	Trade mark/ Trade name		

*1 YEP2.0

The e-Bike profile for PW-LINK system preset by YAMAHA MOTOR CO., LTD.

*2 S&C (Speed and Cadence)

Corresponds to the wheel revolution data and crank revolution data.

*3 PWR (Power)

Corresponds to the crank revolution data, accumulated power, and instantaneous power.

*4 LEV (Light Electric Vehicle)

Commands from the display are not supported.

Send the following data to the display.

(Travel mode, Temperature (Battery, Motor), Speed, Odometer, Remaining range, Fuel consumption, Battery %, Wheel circumference, Error code)

- Communication is not necessarily guaranteed with all wireless communication devices that have the same profiles as this system.
Even when a device complies with the specification for Bluetooth low energy technology, there may be cases where the characteristics, specifications, or communicative environment of the device with this technology make it impossible to connect, or may result in different control methods, display or operation.
- YAMAHA MOTOR CO., LTD. can not be held liable in any way for damages or other loss resulting from information leaks during the communication via wireless communication functions.

