

# Display Unit (LED type)

# ORIGINAL INSTRUCTIONS

# **DESCRIPTION**

1



1. Display unit (LED type)

## **E-BIKE SYSTEMS**

# The e-Bike Systems are designed to give you the optimal amount of power assist.

It assists you within a standard range based on factors such as your pedaling strength, bicycle speed, and current gear.

The e-Bike Systems do not operate in the following situations:

- When the display unit's power is off.
- · When you are moving 25 km/h or faster.
- · When you are not pedaling.
- When there is no residual battery capacity.
- When the automatic power off function\* is operating.
  - \* Power turns off automatically when you do not use the e-Bike Systems for 5 minutes.
- · When the assist mode is set to Off mode.

## Three types of "assist mode" are available.

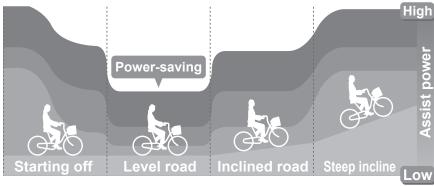
Choose from High-Performance mode, Standard mode, Eco mode and Off mode to suit your riding conditions. See "Displaying and switching the assist mode" for information on switching between assist modes.

High-Performance mode	Use when you want to ride more comfortably, such as when climbing a steep hill.	
Standard mode	Use when riding on flat roads or climbing gentle hills.	
Eco mode	Use when you want to ride as far as possible.	
Off mode	Use when you want to ride without power assist. You can still use the other display unit functions.	

## **E-BIKE SYSTEMS**

#### Power assist chart





# High-Performance mode

A mode that can be counted on to provide powerful assist at all times.

# Standard mode

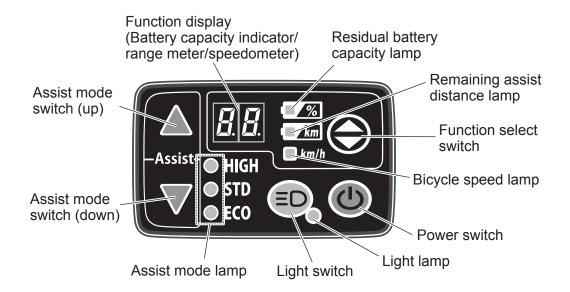
The recommended mode, balancing assist power and remaining assist distance.

#### Eco mode

A mode for saving assist power to travel longer remaining assist distances.

- This illustration is for reference purposes only. Actual performance may vary depending on road conditions, wind, and other factors.
- In Off mode, power assist is not provided.

### **Display unit (LED type)**





D ECO

Power switch

#### Display unit (LED type)

The display unit (LED type) offers the following operations and information displays.

#### O Power "On/Off"

Each time you press the power switch, the power switches between "On" and "Off". When the power turns on, all the lamps on the display unit light up for approximately 2 seconds and then turn off again. After that, the "STD" assist mode lamp, battery capacity indicator, and the residual battery capacity lamp (range meter and remaining assist distance lamp, or the speedometer and bicycle speed lamp) light up again.

#### TIP

- · When you turn on the power, the assist mode is automatically set to Standard mode.
- · 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 2 seconds) before starting to ride.

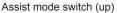
#### O Displaying and switching the assist mode

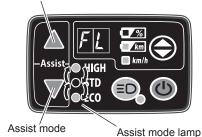
The assist mode lamp displays the selected assist mode.

- When you press the assist mode switch (up), the mode changes from "OFF" to "ECO" to "STD", or from "STD" to "HIGH".
- When you press the assist mode switch (down), the mode changes from "HIGH" to "STD", or from "STD" to "ECO", or "ECO" to "OFF".

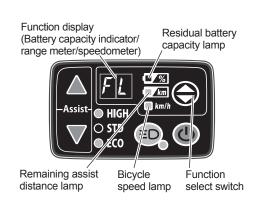
#### TIP

Further pressing of the assist mode switch (up) or (down) will not cycle the assist mode selections. In the Off mode, the assist mode lamp does not light.





switch (down)



# O Displaying and switching the battery capacity indicator, range meter, speedometer

You can display either the battery capacity indicator, range meter or speedometer.

The battery capacity indicator displays an estimate of how much capacity is left in the battery pack, the range meter displays an estimate of the remaining assist distance (kilometers) on the residual battery capacity (In assist off mode, the speedometer displays, the remaining assist distance meter is not displayed.)

Each time you press the function select switch, the function display is switched, and either the residual battery capacity lamp, remaining assist distance lamp or bicycle speed lamp lights up.

See "CHECKING THE RESIDUAL BATTERY CAPACITY" for information on estimating the residual battery capacity.

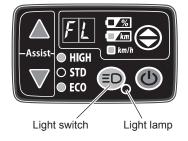
#### TIP \_

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When you turn on the power, the items that have been selected last time are displayed on the function display. When the speedometer is displayed, if the residual battery capacity decrease to 20 %, 10 %, or 0 %, the meter's display automatically switches to the battery capacity indica-

O Headlight "On/Off" (Applies only to models equipped with a headlight powered by the battery pack. The taillight, which is powered by the battery pack, is switched on/off with the headlight.)

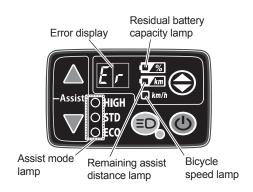
Each time you press the light switch, the headlight switches between "On" and "Off". When the headlight is lit, the light lamp also lights up.



#### TIP

When pressing the light switch, the back light of the display unit become dimmer.

For the "HIGH", only "HI" lights up on the display with the back light.



#### O Display of faults detected by diagnosis mode

The e-Bike Systems are equipped with a diagnosis mode. When you turn on the display unit's power, if there is a malfunction or fault in the e-Bike Systems, the systems notify you of the fault by flashing the assist mode lamp, residual battery capacity lamp, remaining assist distance lamp, and bicycle speed lamp alternately, and displaying "Er" in the function display. See "TROUBLESHOOTING" regarding symptoms and remedies for abnormal displays and abnormal flashing.

## **WARNING**

If a fault is displayed, have your bicycle inspected at a dealer as soon as possible.

## CHECKING THE RESIDUAL BATTERY CAPACITY

You can check the estimate of how much capacity is left in the battery and to what extent it is charged. The check can be performed using either the display unit's residual battery capacity indicator or the battery's residual battery capacity indicator lamps.

#### TIP \_\_

- Even if the battery's capacity reaches 0 (zero), you can still ride the bicycle as a regular bicycle.
- If you are using an old battery pack, the residual battery capacity indicator may suddenly display very little power when you start moving. This is not a malfunction. Once riding stabilizes and the load is reduced, the proper value is displayed.

# Residual battery capacity indicator display and estimate of residual battery capacity for display unit (LED type)

Residual battery capacity indicator display	Estimate of residual battery capacity	Applicable situation
	100–71 %	
	70–41 %	When the battery capacity is between 100 % (FL) and 21 %, the display decreases in increments of 10 %.
	40–21 %	
	20–11 %	When the battery capacity is between 20 % and 1 %, the display decreases in increments of 1 %.
Slow flashing of numbers <0.7 second interval>	10–1 %	There is very little battery capacity left. Please charge the battery soon.
Fast flashing of numbers <0.3 second interval>	0 %	The battery capacity has reached 0 (zero). Please charge the battery pack.

# **TROUBLESHOOTING**

# **E-Bike Systems**

Symptom	Check	Action
The assist mode lamps, residual battery capacity lamp, remaining assist distance lamp are flashing in an alternating pattern (at intervals of roughly 0.2 seconds). Or, the assist mode indicator and battery capacity indicator are flashing in an alternating pattern (at intervals of 0.5 seconds).		There could be a problem inside the Drive Unit is malfunctioning. Turn on the power to the display unit and then leave it alone for 5 minutes. All lamps will turn off automatically. Turn the power on again.
The display unit shuts down immediately (approx. 4 seconds later) after switching the power on.	Are the bicycle's battery pack connection terminals dirty?	Remove the battery pack, clean the bicycle's terminals with a dry cloth or cotton swab, and then install the battery pack again.
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.
The assist mode lamps are flashing.  Assist HIGH RATE ASSIST MODE LOO LOO LOO LOO LOO LOO LOO LOO LOO LO		These lamps will flash when the speed sensor is unable to detect a correct signal.  Turn off the power to the display unit and then turn it on again, select the assist mode and then ride for a short distance. Also, make sure the magnet is mounted correctly on the spokes of the wheels.