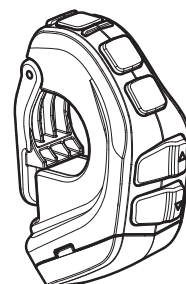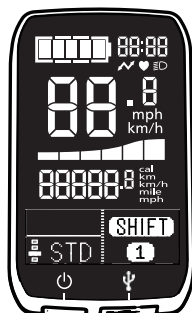# Operating Instructions

Display Unit
Operation unit

- Before operating this product, please read the instructions carefully and save this manual for future use.
- Before using this product, be sure to read "Read this first!"
- Electric bicycles (Electric Power Assisted Cycles) as used in this manual mean Pedelec.

Read this first!

For Your Safety
To reduce the risk of injury, loss of life, electric shock, fire, malfunction, and damage to equipment or property, always observe the following safety precautions.

Explanation of symbols
The following symbols are used to classify and describe the level of hazard, injury, and property damage caused when the warning is disregarded and improper use is performed.

⚠	**DANGER**	Denotes a potential hazard that will result in serious injury or death.
⚠	**WARNING**	Denotes a potential hazard that could result in serious injury or death.
⚠	**CAUTION**	Denotes a hazard that could result in minor injury or damage to the unit or other equipment.

The following symbols are used to classify and describe the type of instructions to be observed.

🚫	This symbol is used to alert users to a specific operating procedure that must not be performed.
❗	This symbol is used to alert users to a specific operating procedure that must be followed in order to operate the unit safety.

⚠ WARNING

■ Console

🚫	**Do not modify or disassemble the console.**
	Do not use or leave the console lying around in high temperatures. ● This may cause damage or heat, which may lead to fire.
	Do not use the bicycle mark button (Walk assistance) when the wheels of the electric bicycles are not in contact with the ground. ● It may cause injury.

⚠ CAUTION

■ Console

❗	**When the electric bicycle is walked along while the Bicycle mark button (Walk assistance) is pressed, the pedals will still rotate.** ● Please be careful as injuries can occur.
	Please make sure to turn the power off before removing the Display Unit. ● Removing it while the power is on could damage the unit.

Names and functions of parts

Console

The console comprises a display unit and operation unit.
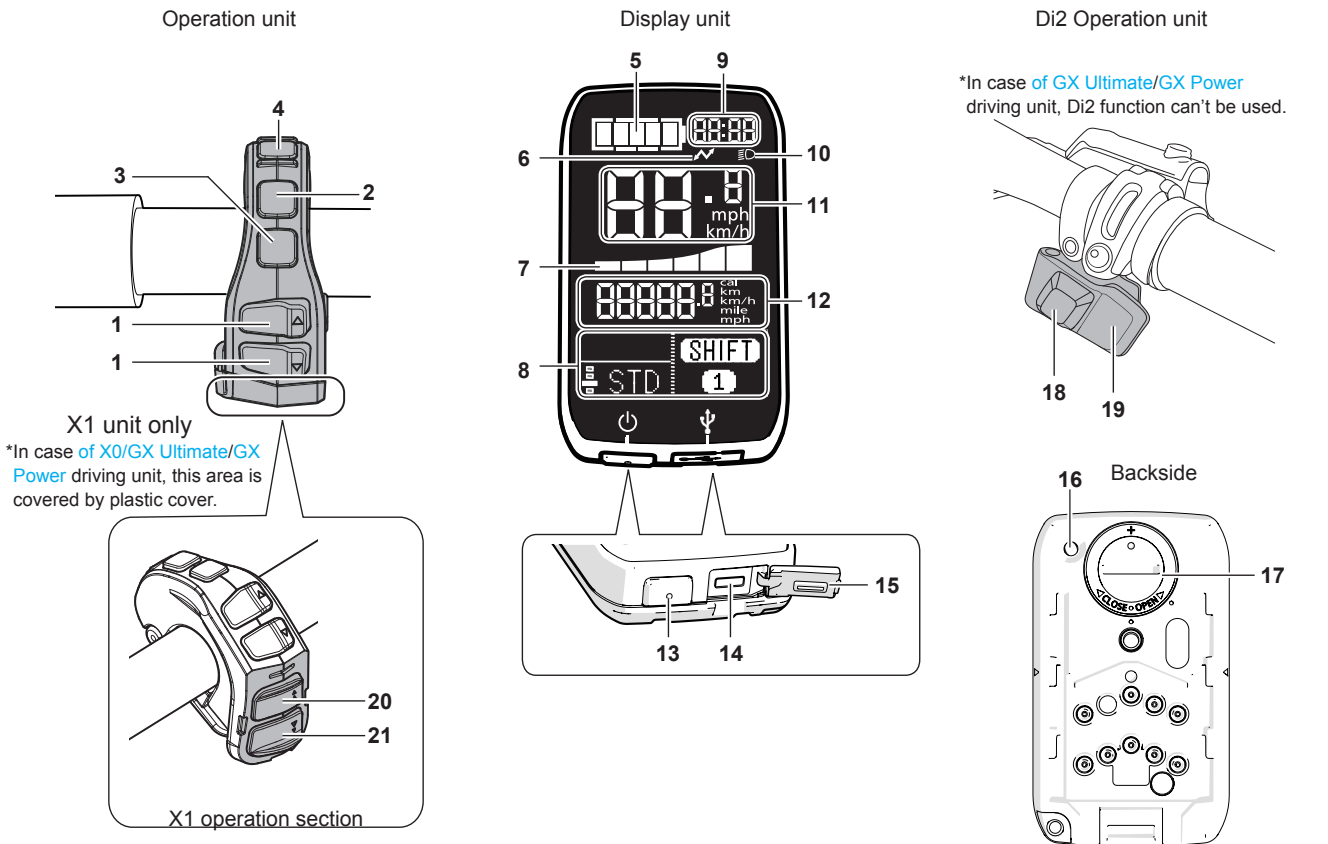(For the Di2 Operation Unit and related devices, separate components must be purchased.)

Operation unit

4
3
2
1
1

X1 unit only
*In case of X0/GX Ultimate/GX Power driving unit, this area is covered by plastic cover.

X1 operation section

20
21

Display unit

5 9
6 10
11
7
12
8
SHIFT
STD 1

13 14 15

Di2 Operation unit

*In case of GX Ultimate/GX Power driving unit, Di2 function can't be used.

18 19

16 Backside

17

---

1 Assist mode select buttons (▲/▼)
Selects the assist mode from [HIGH], [STANDARD], [ECO], [NO ASSIST] and [AUTO].
* If [AUTO] mode is not installed, [AUTO] is not indicated on the display unit.

2 Night mode button
* Lights the backlight of the display unit.
When power is supplied to the head light or tail lamp from the battery on the electric bicycle, the head lamp or tail lamp lights. It depends on local regulation. (➡ page 14)

3 [information] button
Switches display items such as distance travelled. (➡ page 8)

4 Bicycle mark button (Walk assistance)
Drive can be assisted up to 6 km/h when pushing the electric bicycle with a heavy load on it.

5 Battery level display
Displays the battery remaining capacity.

6 USB connection mark
Displayed when an external device (e.g. mobile phone) is connected to the display unit for charging.

7 Assist power indicator
Displays in the form of a graph how much the rider is being assisted. The larger the number on the graph, the more the rider is being assisted.

8 Text indication
Displays the current assist mode, etc.

9 Time display
Displays the current time.

10 Night mode indicator
Lights when the night mode button is pressed.

11 Speed indication
Displays the current travel speed.

12 Value indication
Displays distance travelled, total distance travelled, maximum speed, etc.

13 Power button
Turns on and off the electric bicycle system.

14 Micro USB port
Used to charge an external device (e.g. mobile phone). (➡ page 15)

15 Rubber cap
Protects the Micro USB port.

16 Reset button
Used to set the total distance travelled to "0". (➡ page 8)

17 Coin-type battery compartment
A coin-type battery is housed here for the time display of the display unit.

18 Di2 Shifting button (up)
Each time this switch is pressed, the gear ratio shifts up.

19 Di2 Shifting button (down)
Each time this switch is pressed, the gear ratio shifts down.

20 X1 Shifting button (up)
Each time this switch is pressed, the gear ratio shifts up.

21 X1 Shifting button (down)
Each time this switch is pressed, the gear ratio shifts down.

Using the display unit for the first time

The display unit has a built-in coin-type battery (3 V) to maintain time display memory. Before the display unit is shipped, the battery compartment contains a plastic plate to prevent the coin-type battery from discharging. Before using the display unit for the first time after purchase, remove the plastic plate by the following procedure.

Coin-type battery compartment
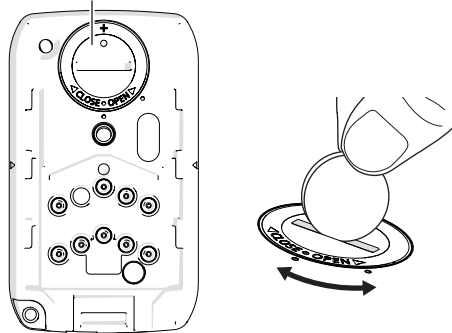
1) **Turn the lock cover on the coin-type battery compartment on the backside of the display unit counterclockwise with a coin, etc.**

   ● The coin-type battery compartment opens.

2) **Remove the coin-type battery and pull out the plastic plate on the minus side.**

   ● After removing the plastic plate, dispose of it appropriately.

3) **Insert the coin-type battery into the coin-type battery compartment, and turn the lock cover clockwise to lock the coin-type battery compartment.**

4) **Set the time. (➔ page 13)**

   Attention

● If the lock cover is not firmly locked, the display unit may not operate properly due to malfunctions such as water seeping in.

   Note

● When the time display "0:00" is blinking, this indicates that the coin-type battery has reached the end of its service life.
  The procedure for replacing the coin-type battery (part No.: CR2032X1) is the same as the steps 1) to 4).
● When the coin-type battery has reached the end of its service life, only clock functions stop.
  Since liquid leakage may cause a malfunction, immediately replace the coin-type battery that are no longer usable with a new one.
  Dispose of coin-type batteries that are no longer usable in accordance with the regional recycle laws.

Mounting the display unit of the console

Mount the display unit on the cradle with the cradle mounted on the handlebar of the electric bicycle and a fully charged battery mounted on the electric bicycle.
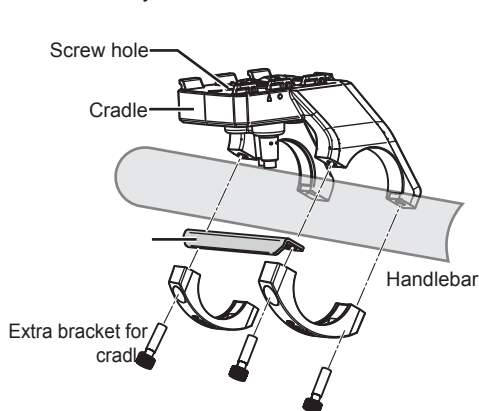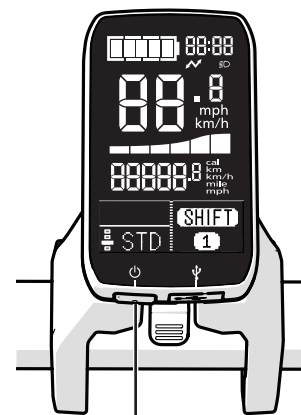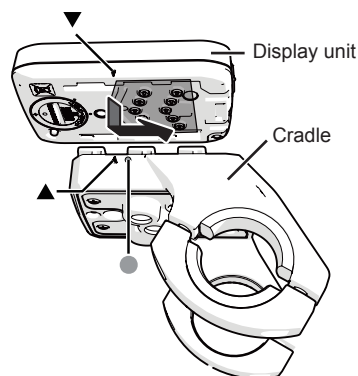

Fig. 1

Fig. 2

1) **Align ▼ of the display unit and ▲ of the cradle, and slide the display unit in the direction of the arrow in the illustration until the display unit snaps into the holder. (Fig. 1)**

2) **Press the power button on the display unit. (Fig. 2)**
   - Make sure that power is supplied to the display unit from the battery and that the LCD display lights.

Note

- Before mounting the display unit, wipe the contact surface on the top of the cradle or the contact surface on the rear of the display unit with a soft, dry cloth if it is wet or dirty.

Fixing the display unit in place

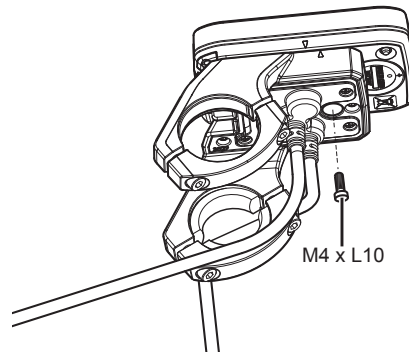If the display unit is not to be removed, it can be fixed in place on the cradle.

M4 x L10

Fig. 3

1) **Mount the display unit on the cradle.**

2) **Fix the display unit in place on the rear of the cradle using the screw (M4 x L10) in the screw hole on the cradle. (Fig. 3)**

Removing the display unit of the console

Remove the display unit from the cradle after turning the electric bicycle system off.

Display unit

Lock latch
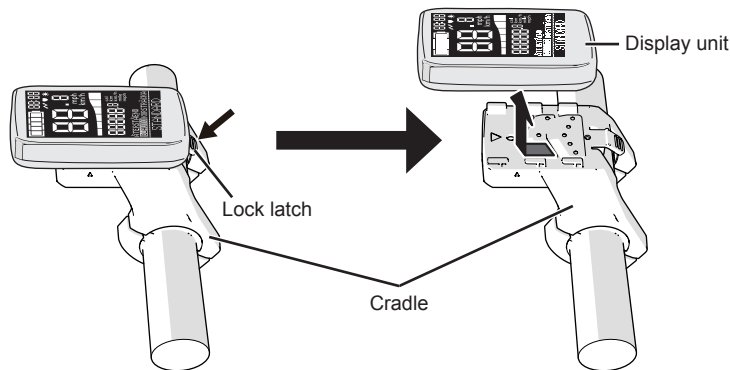
Cradle

Fig. 4

1) **Press the power button on the display unit to turn off the electric bicycle system.**
   - If the electric bicycle system is already turned off, proceed to step 2).
   - When the display unit is fixed in place on the cradle using the setscrew, confirm that the setscrew is removed, and proceed to step 2).

2) **Slide the display unit in the direction of the arrow in the illustration with the lock latch on the cradle pressed down to remove the display unit. (Fig. 4)**

Note

- If the display unit is removed with the electric bicycle system still turned on, the screen display goes out, and the assist function also stops after about three seconds.
- Do not remove the display unit while you are riding.
- When mounting the removed display unit on the cradle again to use it, confirm that the display unit operates properly.

Methods of Use

To enable the assist function or display the various indications, press the power button on the console to turn on the electric bicycle system.
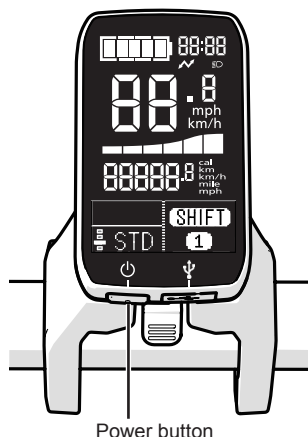
Power button

Turning on the electric bicycle system

Press the power button on the display unit.

● The battery level indication lamps, etc. light.
When you start pedalling, the assist function starts to work.

Attention

● Before pressing the power button, do not place your feet on the pedals of the electric bicycle. Otherwise, this will result in a torque sensor error or less of an assisted sensation.
Press the power button again without placing your feet on the pedals.
● While pressing the power button, do not press any other buttons, otherwise an error may be displayed.
In this case press the power button again without your feet on the pedals.
● When the battery is being charged while still mounted on the electric bicycle, the system will not turn on. Accordingly the motor unit will not start.
● Do not turn on/off the power button during riding. If the assist function is not required, press the assist mode select buttons (▲/▼) to select [NO ASSIST].

Note

● The assist function of the electric bicycle will not work in the following cases:
– When you stop pedalling
– When a speed of 25 km/h is reached (The assist function starts to work by starting pedalling again at 25 km/h or less.)
– When there is no remaining battery power

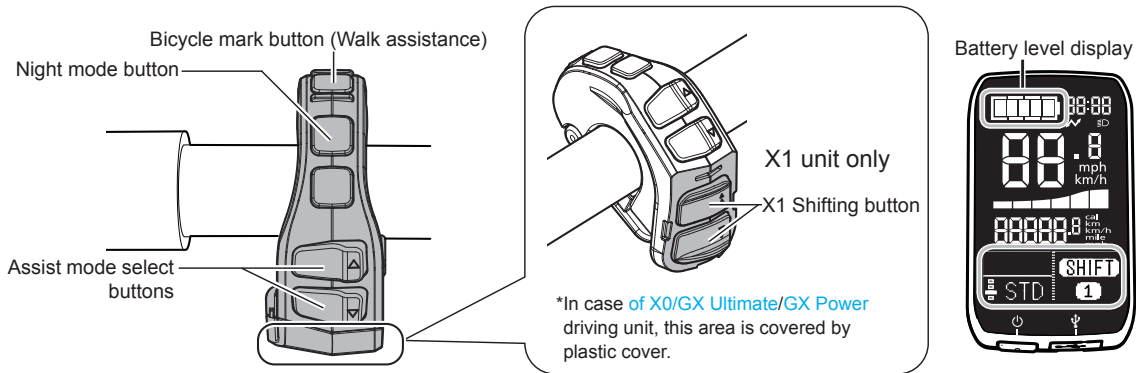## Turning off the electric bicycle system

Press the power button on the console when the electric bicycle system is turned on.

Note

● Even if the power button is not pressed to turn off the electric bicycle system, the power automatically turns off to save energy if the electric bicycle is not used for about ten minutes (for example, when the electric bicycle is parked).

Console

Use the buttons on the operation unit to change the assist mode. This is shown as well as the remaining capacity of the bicycle battery in the display unit.

Night mode button

Bicycle mark button (Walk assistance)

Assist mode select buttons

X1 unit only

X1 Shifting button

*In case of X0/GX Ultimate/GX Power driving unit, this area is covered by plastic cover.

Battery level display

Battery level display

The battery charge status indicates the remaining capacity of the battery in the electric bicycle (not the status of coin-type battery inside the display unit).
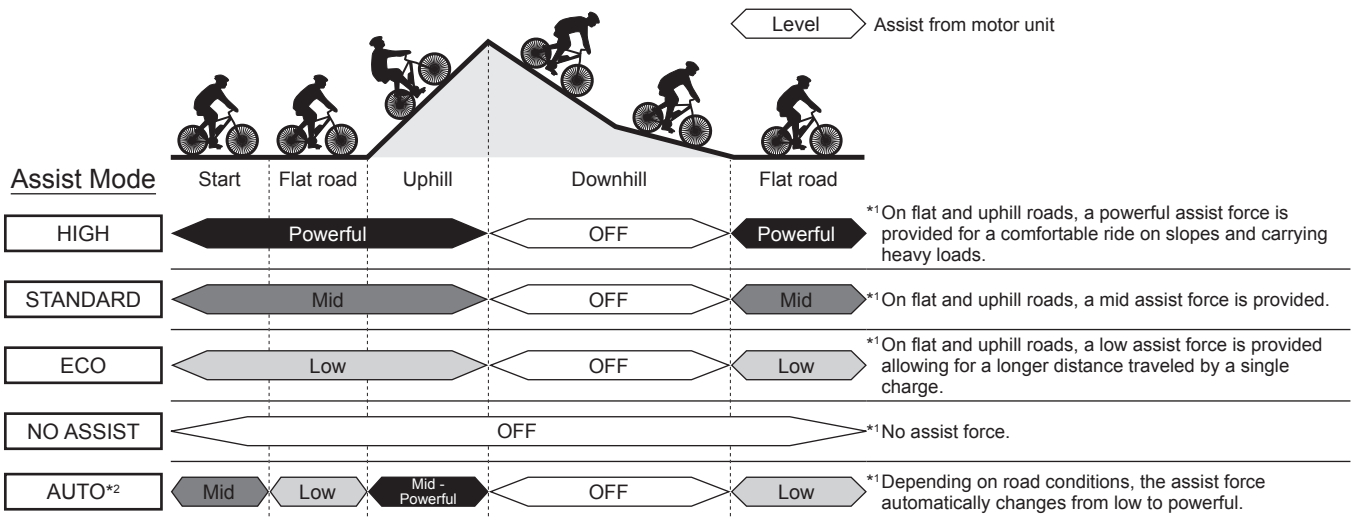The charged state of the battery on the electric bicycle can also be checked by the battery LED. (➡ page 14)

Battery level display						
	5 lit	4 lit	3 lit	2 lit	1 lit	1 blinking*1
Remaining capacity of the battery in the electric bicycle	81% to 100%	61% to 80%	41% to 60%	21% to 40%	11% to 20%	1% to 10%

*1 The display changes as follows when there is no longer any remaining battery power.
● Display unit on the console: One battery level indication lamp blinks and then goes out (hidden).

Assist mode select buttons

The five assist modes can be selected by pressing the assist mode select buttons.

Level   Assist from motor unit

Assist Mode	Start	Flat road	Uphill	Downhill	Flat road	
HIGH		Powerful		OFF	Powerful	*1On flat and uphill roads, a powerful assist force is provided for a comfortable ride on slopes and carrying heavy loads.
STANDARD		Mid		OFF	Mid	*1On flat and uphill roads, a mid assist force is provided.
ECO		Low		OFF	Low	*1On flat and uphill roads, a low assist force is provided allowing for a longer distance traveled by a single charge.
NO ASSIST		OFF				*1No assist force.
AUTO*2	Mid	Low	Mid - Powerful	OFF	Low	*1Depending on road conditions, the assist force automatically changes from low to powerful.

*1 The assist force may change depending on weather conditions, road conditions, bicycle conditions, or riding styles.
*2 Auto mode is not available on all versions.

Press the assist mode select buttons (▲/▼) until the desired assist mode is displayed.

● Display unit on the console: The assist mode selected in the assist mode display is displayed.

Bicycle mark button (Walk assistance)

This is the push-assistance function that assists you by providing drive up to 6 km/h, for example, when you are carrying a heavy load.
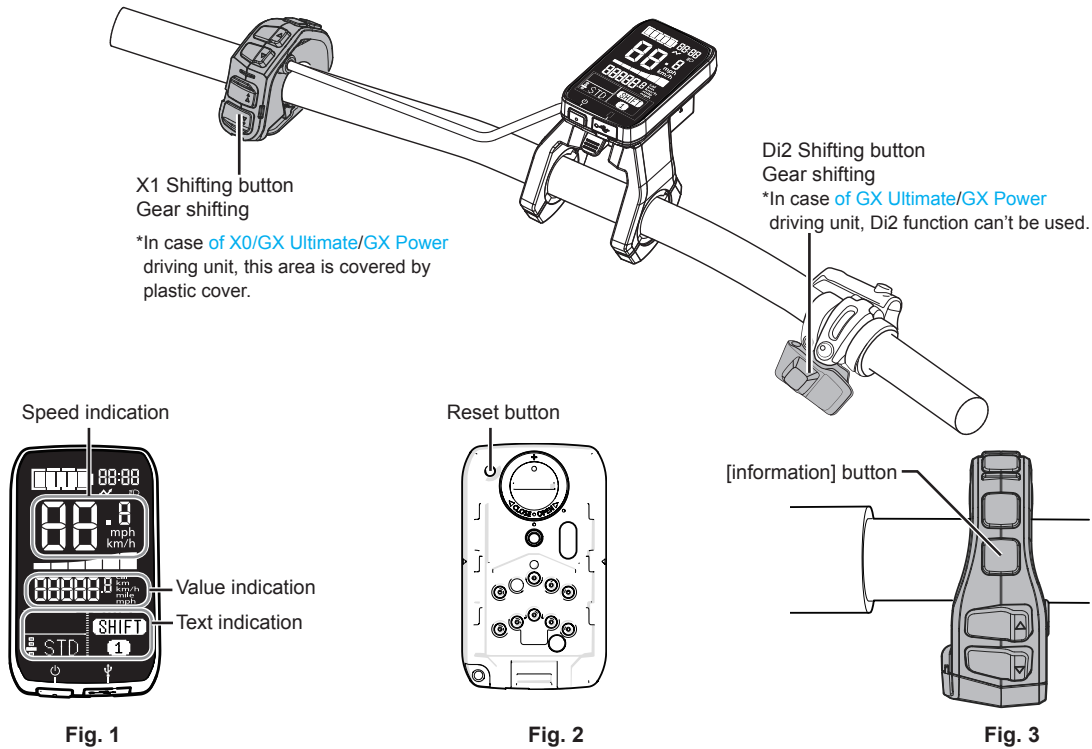
Hold down the bicycle mark button (Walk assistance).

● When you release your finger from the bicycle mark button (Walk assistance), or the electric bicycle exceeds a speed of 6 km/h, the function will not be activated.

Note

● When the pedals hit the curb or other objects and the push-assist function stops, hold down the bicycle mark button (Walk assistance) again.

Indication of speed, distance and gear position

X1 Shifting button
Gear shifting

*In case of X0/GX Ultimate/GX Power driving unit, this area is covered by plastic cover.

Di2 Shifting button
Gear shifting

*In case of GX Ultimate/GX Power driving unit, Di2 function can't be used.

Speed indication

Reset button

[information] button

Value indication

Text indication

Fig. 1   **Fig. 2**   **Fig. 3**

The current speed is displayed at Speed indication at all times. (Fig. 1)
For the distance display and battery level, items and numerical values are displayed at Text indication and Value indication, respectively. (Fig. 1) Items can be switched.

Item	2 display mode*3	4 display mode*4	Description
[TRIP]	TRIP	TRIP	Displays the distance travelled.
[AVG]	AVG	AVG	Displays the average speed.
[MAX]	MAX	MAX	Displays the maximum speed during travel so far.
[ODO]	ODO	ODO	Displays the total distance travelled. The total distance travelled is set to "0" by holding down the reset button on the rear of the display unit and the [information] button on the operation unit at the same time. (Fig. 2 and 3)
[RANGE]	RANGE		Displays how far the electric bicycle can travel (estimated distance) on the remaining battery power under fixed conditions (e.g. assist mode, route profile).*1
Remaining battery capacity	100%	100%	Displays the battery level.
Gear position	Not applicable	SHIFT STD 1	Displays the gear position (X0 with Di2, X1 with or without Di2).*2

*1 This is a rough value because the remaining battery capacity is calculated using the amount consumed.
*2 If X1 and Di2 related devices are not installed, there is no gear position display.
*3 "2 display mode": GX Power, GX Ultimate and X0 without Di2
*4 "4 display mode": X1 and X0 with Di2
*5 When using X1 motor, "4 display mode" is always applied (with or without Di2).
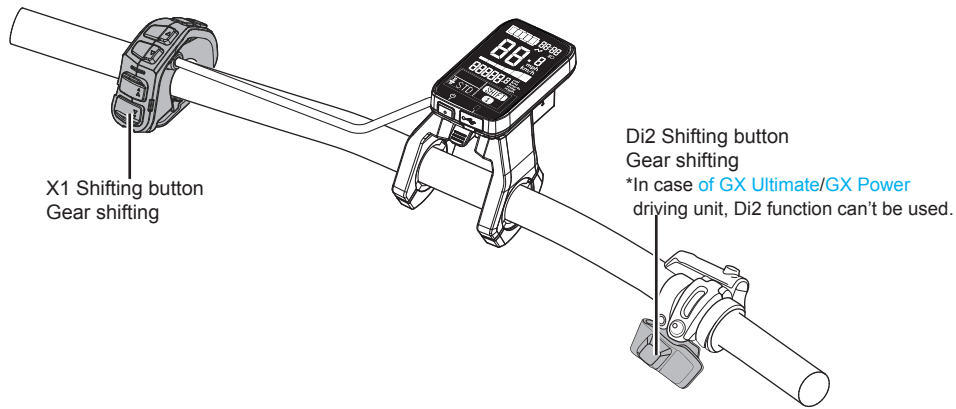*6 GX Power/GX Ultimate with this display and operation unit cannot be connected with Di2.

Press the [information] button on the operation unit. (Fig. 3)

● Each press of the button switches the item.

Note

● The values for [TRIP], [AVG] and [MAX] are reset together.
● To reset, press the [information] button, display [TRIP], [AVG] or [MAX], and hold down the [information] button until "0" is displayed.Gear position display (Compatible products only)

Di2 Shifting button
Gear shifting
*In case of GX Ultimate/GX Power
driving unit, Di2 function can't be used.

X1 Shifting button
Gear shifting

The gear position is displayed at Text indication. (For the Di2 Operation Unit and related devices, separate components must be purchased.)

Gear position display *1	Normal	During shifting	No operation	Connection error	No connection	Maintenance instructions	Maintenance mode
						*2	*2
Details	Normal display	During shifting	Empty or low capacity of the main battery.	This is the abnormality caused by motor due	Check the connection	Maintenance request	During maintenance connection

*1   The gear position indication shown on the gear position display differs with connected products. For details, check the Compatibility parts.
*2   If "Maintenance instructions" is displayed, connect the PC and bicycle (system or components) using the PC connected device, use E-tube Project that is published by SHIMANO INC. to update and customize the firmware of each individual component and the system.
    ● PC connected device: SM-PCE1/SM-BCR2
    ● E-tube Project: PC application
    ● Firmware: software for each component

Press the shifting button on the operation unit.

● Each press of the button shifts gears.

Note

● A "Di2 Ready" label is affixed to the motor unit of models compatible with SHIMANO Di2.
● Shifting multiple gears at once is not possible.
● The derailleur operation is limited after the assist function stops if the remaining battery level becomes low.
● If there is no remaining battery power, the derailleur will stop functioning and the gear will remain fixed in the last position it shifted to. We recommend charging the battery as soon as possible.

Basic settings

Basic settings such as the language displayed on the display unit, adjustment of backlight brightness and time can be changed.
Access the basic setting menu, and change the settings as desired. In the basic setting menu, the following items can be switched and set.

Item	Description
[LANGUAGE]	The language displayed on the display unit can be switched. The language can be selected from the following ten languages: English, German, Dutch, French, Italian, Spanish, Finnish, Swedish, Norwegian, Danish
[CONTRAST]	The contrast of the display unit LCD can be adjusted in ten stages.
[BRIGHTNESS]	The brightness of the backlight of the display unit LCD can be adjusted in five stages. The brightness can be set separately for when the night mode indicator is turned on and when it is turned off.
[UNIT]	The display unit for speed and distance can be toggled between kilometers and miles.
[WHEEL]	The tire circumference matched to the electric bicycle currently in use can be set.
[ODO INPUT]	The display of the total distance travelled can be changed.
[CLOCK]	The time can be adjusted.

Setting of [LANGUAGE]

e.g. You want to change the language to German.

| Fig. 1 | Fig. 2 | Fig. 3 |

1) **Hold down the [information] button and the assist mode select button (▼) on the operation unit until [LANGUAGE] is displayed at Text indication on the display unit. (Fig. 1)**

2) **Press the [information] button to set [LANGUAGE].**

3) **Press the assist mode select buttons (▲/▼) to select the language you want to change. (Fig. 2)**
   ● When holding down the assist mode select buttons (▲/▼) for two seconds, the display will change fast.

4) **Press the [information] button to fix the language. (Fig. 3)**

5) **Press the night mode button.**
   ● The changed setting is stored in memory on the display unit.

Setting of [CONTRAST]

The contrast can be adjusted in ten stages between level 1 to level 10. At the level 1, no bar is displayed. When the level rises by one, the number of bars also increases by one. At level 10, nine bars are displayed.
e.g. You want to change the contrast from the level 4 to level 8.

| Fig. 1 | Fig. 2 | Fig. 3 |

1) **Hold down the [information] button and the assist mode select button (▼) on the operation unit until [LANGUAGE] is displayed at Text indication on the display unit. (Fig. 1)**

2) **Press the assist mode select buttons (▲/▼) to select [CONTRAST] and press the [information] button to set [CONTRAST]. (Fig. 2)**
   ● The screen for level 4 is displayed.

3) **Press the assist mode select buttons (▲/▼) to select the contrast you want to change, and press the [information] button to fix the contrast. (Fig. 3)**
   ● The screen for level 8 is displayed.
   ● When holding down the assist mode select buttons (▲/▼) for two seconds, the display will change fast.
   ● The set contrast is reflected on the display unit.

4) **Press the night mode button.**
   ● The changed setting is stored in memory on the display unit.

Setting of [BRIGHTNESS]

The brightness can be adjusted in five stages from OFF (no backlight), and level 1 to level 4. One bar is displayed at level 1, three bars are displayed at level 2, six bars at level 3, and nine bars at level 4.
e.g. You want to change the brightness from the level 4 to level 2.

LANGUAGE ENGLISH	BRIGHTNESS	BRIGHTNESS
Fig. 1	**Fig. 2**	**Fig. 3**

1) **Hold down the [information] button and the assist mode select button (▼) on the operation unit until [LANGUAGE] is displayed at Text indication on the display unit. (Fig. 1)**

2) **Press the assist mode select buttons (▲/▼) to select [BRIGHTNESS] and press the [information] button to set [BRIGHTNESS]. (Fig. 2)**
   - The screen for level 4 is displayed.

3) **Press the assist mode select buttons (▲/▼) to select the brightness you want to change, and press the [information] button to fix the brightness. (Fig. 3)**
   - The screen for level 2 is displayed.
   - When holding down the assist mode select buttons (▲/▼) for two seconds, the display will change fast.
   - The set brightness is reflected on the display unit.

4) **Press the night mode button.**
   - The changed setting is stored in memory on the display unit.

Note

- Backlight setting has a normal mode and night mode. The corresponding backlight setting will change depending on whether the light turns on or off. (➡ page 14)

Setting of [UNIT]

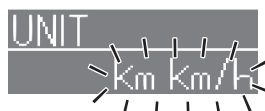e.g. You want to change the unit display from kilometers to miles.

LANGUAGE ENGLISH	UNIT Km Km/h	UNIT mile mph
Fig. 1	**Fig. 2**	**Fig. 3**

1) **Hold down the [information] button and the assist mode select button (▼) on the operation unit until [LANGUAGE] is displayed at Text indication on the display unit. (Fig. 1)**

2) **Press the assist mode select buttons (▲/▼) to select [UNIT] and press the [information] button to set [UNIT]. (Fig. 2)**

3) **Press the assist mode select buttons (▲/▼) to select the mile display, and press the [information] button to fix the mile display. (Fig. 3)**

4) **Press the night mode button.**
   - The changed setting is stored in memory on the display unit.

Setting of [WHEEL]

e.g. You want to change the wheel circumference to 2,200 mm.

LANGUAGE	WHEEL	WHEEL
ENGLISH	2180	2200
Fig. 1	**Fig. 2**	**Fig. 3**

1) **Hold down the [information] button and the assist mode select button (▼) on the operation unit until [LANGUAGE] is displayed at Text indication on the display unit. (Fig. 1)**

2) **Press the assist mode select buttons (▲/▼) to select [WHEEL] and press the [information] button to set [WHEEL]. (Fig. 2)**

3) **Press the [information] button to select the digit to change, and press the assist mode select buttons (▲/▼) to change the number.**
   - Each time you press the [information] button, you can select the digit in order of the thousands place, hundreds place, tens place, and one place.
   - Available setting value is between 1,000 mm to 2,499 mm.
   - When holding down the assist mode select buttons (▲/▼) for two seconds, the display will change fast.

4) **Set the value of the one place, and press the [information] button to fix the number. (Fig. 3)**

5) **Press the night mode button.**
   - The changed setting is stored in memory on the display unit.

Setting of [ODO INPUT]

e.g. You want to change the total distance travelled to 560.5 km.

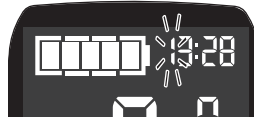| LANGUAGE	00000.0 km	560.5 km
ENGLISH	ODO INPUT	ODO INPUT
Fig. 1	**Fig. 2**	**Fig. 3**

1) **Hold down the [information] button and the assist mode select button (▼) on the operation unit until [LANGUAGE] is displayed at Text indication on the display unit. (Fig. 1)**

2) **Press the assist mode select buttons (▲/▼) to select [ODO INPUT] and press the [information] button to set [ODO INPUT]. (Fig. 2)**

3) **Press the [information] button to select the digit to change, and press the assist mode select buttons (▲/▼) to change the number.**
   - Each time you press the [information] button, you can select the digit in order of the ten-thousands place, thousands place, hundreds place, tens place, one place, and first decimal place.
   - Available setting value is between 0.0 km to 99,999.9 km.
   - When holding down the assist mode select buttons (▲/▼) for two seconds, the display will change fast.

4) **Set the value of the one place, and press the [information] button to fix the number. (Fig. 3)**

5) **Press the night mode button.**
   - The changed setting is stored in memory on the display unit.

Setting of [CLOCK]

Fig. 1

Fig. 2

Fig. 3

1) **Hold down the [information] button and the assist mode select button (▼) on the operation unit until [LANGUAGE] is displayed at Text indication on the display unit. (Fig. 1)**

2) **Press the assist mode select buttons (▲/▼) to select [CLOCK] and press the [information] button to set [CLOCK]. (Fig. 2)**

3) **Press the [information] button to select the hours or minutes to change, and press the assist mode select buttons (▲/▼) to change the number.**
   ● The time is displayed in 24-hour format.
   ● Each time you press the [information] button, you can select the number in order of the tens place for the hours, the one place for the hours, the tens place for the minutes, and the one place for the minutes.
   ● When holding down the assist mode select buttons (▲/▼) for two seconds, the display will change fast.

4) **Set the value of the one place for minutes, and press the [information] button to fix the time. (Fig. 3)**

5) **Press the night mode button.**
   ● The changed setting is stored in memory on the display unit.
   ● When the night mode button is pressed, the clock starts to tick from the time changed.

Night mode button

Change the backlight brightness of the display unit. Backlight setting has a normal mode and night mode. Five stages of brightness can be set for each mode.
In night mode, the brightness is lowered compared to normal mode so that glare can be reduced while travelling at night.

Night mode button

Night mode indicator
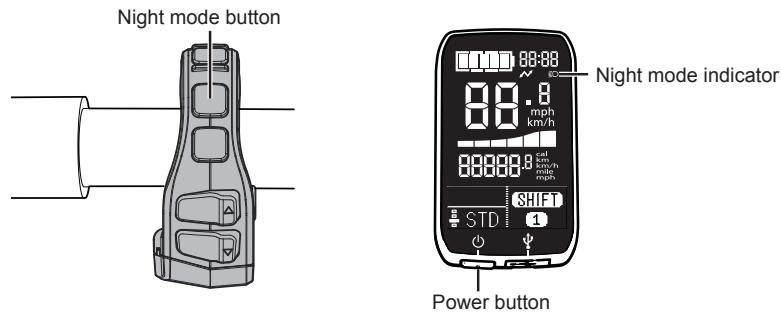
Power button

1) **Press the power button.**
   ● The electric bicycle system is turned on and the backlight of the display unit lights in normal mode.

2) **Press the night mode button.**
   ● The night mode indicator is displayed on the display unit and the backlight changes to night mode. To change to normal mode, press the night mode button again.

Note

● If you set the same brightness for both normal mode and night mode, the brightness does not change even when the mode is switched.
● Set the brightness of the normal mode while the night mode indicator is not displayed. Set the brightness of the night mode while the night mode indicator is displayed. (➡ page 10)
● Depending on the specifications of the completed bicycle, if the electric bicycle battery-powered head light or tail lamp is equipped, it will light in night mode.

Charging external devices

Charging external devices using the USB cable (optional)

You can charge external devices (e.g. mobile phones) that can be connected to the console via the USB cable. Connect the exclusive USB cable to charge for three hours.
External devices can be charged only when the display unit of the console, and a charged battery are mounted on the electric bicycle.
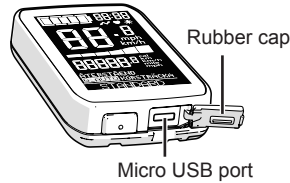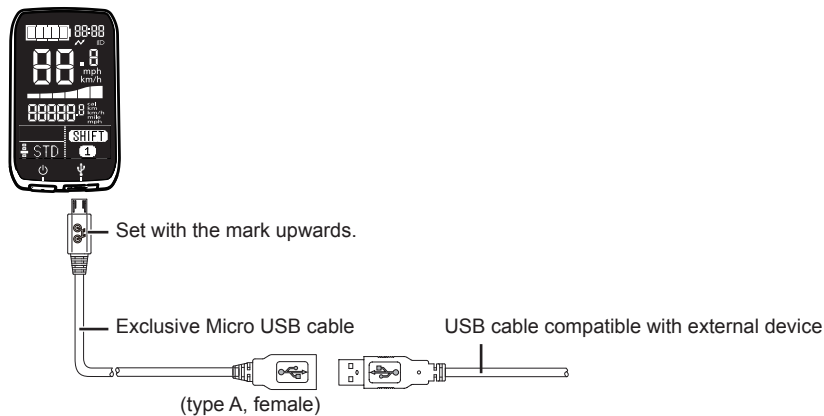Also, the USB cable (commercially available) compatible with the external device is required.

Rubber cap

Micro USB port

Fig. 1

Set with the mark upwards.

Exclusive Micro USB cable   USB cable compatible with external device

(type A, female)

Fig. 2

1) **Open the cover of the Micro USB port on the display unit of the console. (Fig. 1)**

2) **Connect the exclusive USB cable (optional, Micro USB side: Type B, USB side: male) to the corresponding Micro USB port on the display unit of the console. (Fig. 2)**

3) **Connect the USB cable (commercially available) compatible with the external device to the external device and the exclusive USB cable (optional).**
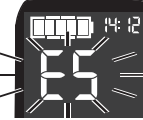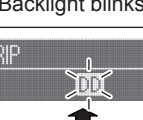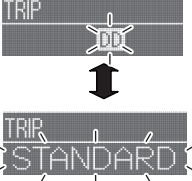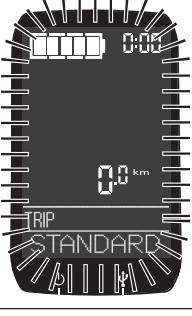
Attention

● Do not place the external device on a tilted or unstable place while charging. Doing so may cause the device to fall and result a malfunction.
● Some external devices cannot be charged.
● Back up the internal data on the external device since there is the risk that it may disappear.
● Operation has only been verified with some external devices using the exclusive USB cable. There is no guarantee that your external device will work correctly.
● Do not connect the exclusive USB cable (optional) to any devices other than the console. The devices may be damaged.
● Do not charge external devices while travelling. This is dangerous.
● Do not charge external devices in rainy weather or connect a wet USB cable. Doing so may cause a malfunction.
● After using the Micro USB port, firmly close the rubber cap. Otherwise, water may seep in and cause malfunction.

Error codes

The parts of the electric bicycle system are monitored at all times during use and charging. If an error is detected, an error code will be displayed on the console. To return the console to the standard display, press any button on the operation unit of the console. Depending on the error code, motor unit drive is automatically stopped as necessary. The assist function will no longer be activated, though travel can be continued.
When an error is displayed, remedy it according to the remedy described in the following table. Console-related error code

Console*	Description	Remedy	Page
C1	**Cradel compatibility error** ● The cradel cannot be recognized as an authentic cradel (one provided at purchase).	Mount the authentic cradel (one provided at purchase).	—
E4	**Switch authentication error** ● The console cannot be authenticated.	Update the console software to the newest version. Take the electric bicycle to your dealer.	—
E5 Backlight blinks.	**Switch authentication error** ● The console cannot be authenticated.	Check the cable connections between the console and the motor unit. Check the cradle contacts or display contacts for dirt.	4
	Switch authentication error ● The console provided at purchase cannot be authenticated.	Mount the console provided at purchase. If this does not remedy the problem, take the electric bicycle to your dealer.	—
(display blinking STANDARD)	**Bicycle mark button (Walk assistance) error** ● Either the bicycle mark button (Walk assistance) is pressed or short-circuited.	Check that the bicycle mark button (Walk assistance) is not pressed, and press the power button to turn the power back on again. If this does not remedy the problem, take the electric bicycle to your dealer.	8
E km/h	**Average speed error** ● There is not enough data to calculate the average speed.	Reset the average speed. * Measurement data such as distance travelled is not recorded while [E] is still displayed, though the power assist function is active.	8
(display) TRIP STANDARD Entire display blinks.	**EEPROM error** ● The console has an error.	Take the electric bicycle to your dealer.	—
(display 14:12)	**Protective function active** ● The protective function against the continuous charging is activated.	Turn the power off and on. If the display does not disappear even when the power is turned off and on, your device is the unsupported USB device.	15
(display 0:00)	**Coin-type battery out of power** ● The coin-type battery has run out of power.	Replace the coin-type battery and set the time.	4, 10

Daily care

The parts of the electric bicycle system are precision parts and must be cared for daily.

Daily care

● Prevent all parts of the electric bicycle system from getting dirty. If parts are dirty, wipe off the dirt with a soft, moist cloth.
  (Battery terminals and corresponding connectors, and terminals on the cradle and on the display unit of the console)
● Before and after use, wipe any dirt or water from the terminals on the console or cradle.

Specifications

■ **Console**

Operating temperature	−10°C to 40°C
Storage temperature	−20°C to 50°C
Weight	Approx. 0.4 kg
Waterproofing level	IPX5
USB output	5 V DC, Max. 1 A

After-sales service

Check with an authorized bicycle dealer if you have any questions about the electric bicycle system and its components.

Disposal of Old Equipment and Batteries
Only for European Union and countries with recycling systems

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.
For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation.
End-users in Germany are legally obliged to return used batteries to appropriate collection points. Batteries can be returned to retailers free of charge.
In Spain, users are required to deliver batteries to the appropriate collection points. In all cases, this will be free of charge for users. The cost of environmental management of waste batteries and accumulators is included in the sale price.
By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.
For more information about collection and recycling, please contact your local municipality.
Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

Note for the battery symbol (bottom symbol):
This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

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