

LEADER FOX



Electric Bicycle Operating Instructions

Under the law, the dealer is obliged to attach the LEADER FOX Electric Bicycle Operating Instructions to every product



E – BIKE

POWER RIDE

Creek



Introduction

Dear users,

Please read carefully all the information regarding your E-LF product to ensure optimal functioning of your e-bike. The following text containing a comprehensive description will provide you with information on all aspects and details (including installation, setting up and general use of the display) regarding the use of our display. This instruction document will also help you solve potential problems and failures.

What is an electric bicycle?

Electric bicycle is a conventional bicycle with an electric drive added to assist the rider. The motor function is actuated by pedalling, which is scanned by a special sensor installed in the pedal hub. Therefore, you have to keep pedalling on an e-bike, the motor is there only to help you. You can set an electric bicycle in motion also using a control button or an accelerator but only up to the maximum permitted speed of 6 KMPH (e.g. for walk assistance). The maximum speed of an e-bike with motor assistance is 25 KMPH, with a 10% tolerance (when this speed limit is reached, the motor switches off and you need to pedal just like with a regular bicycle). When your battery runs out of power or your motor is off, you can ride your electric bicycle as a conventional bike, without any resistance at all.

From the point of view of the Road Traffic Act, an electric bicycle whose features conform to European standard EN 15194-1 is regarded as a regular bicycle, i.e. you can ride on bike trails, do not need a driver's license and a helmet is mandatory only up to 18 years of age.

Description



Factors influencing the electric bicycle range

- 1. Rolling resistance of the tyres.** Leader Fox e-bikes are fitted with tyres with low rolling resistance and increased resistance to puncture. It is also important that the tyres are inflated properly. Therefore, if the tyres of your electric bicycle are underinflated, the range will decrease.
- 2. Weight of the electric bicycle.** The lower the weight of the electric bicycle, the greater the range.
- 3. Battery status.** It depends on whether the battery was fully charged before your trip. It is also to be expected that the higher the number of discharge cycles the battery has undergone, the smaller capacity it has.
- 4. Profile and surface of the track.** The higher the elevation difference and the steeper hills you negotiate and the worse surface, the shorter the range.
- 5. Riding mode.** It depends on which of the three riding modes you have set.
- 6. Continuity of riding.** The more braking and acceleration, the shorter the range.
- 7. Air resistance.** For example, it depends on whether we ride a bicycle with low frame and sitting upright or whether we ride sporty bicycle with seat set to the same height as the handlebars.
- 8. Wind strength.** The stronger the wind we have back, the longer the range and vice versa.
- 9. Weight of the rider and load.** The greater the weight, the shorter the range.
- 10. External temperature.** The lower the temperature, the less battery capacity can be used while riding.

SHIMANO

Clamp Band Type Cycle Computer

Check our website for the latest manuals.

<https://si.shimano.com>



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IMPORTANT NOTICE

- Contact the place of purchase or a distributor for information on installation, adjustment, and replacement of the products which are not found in the user's manual. A dealer's manual for professional and experienced bicycle mechanics is available on our website (<https://si.shimano.com>).
- Please observe the appropriate rules and regulations of the country, state or region in which you conduct your business as a dealer.
- The Bluetooth[®] word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by SHIMANO INC. is under license.

Other trademarks and trade names are those of their respective owners.

For safety, be sure to read this user's manual thoroughly before use, and follow it for correct use.

The following instructions must be observed at all times in order to prevent personal injury and physical damage to equipment and surroundings.

The instructions are classified according to the degree of danger or damage which may occur if the product is used incorrectly.

	DANGER	Failure to follow the instructions will result in death or serious injury.
	WARNING	Failure to follow the instructions could result in death or serious injury.
	CAUTION	Failure to follow the instructions could cause personal injury or physical damage to equipment and surroundings.

Important safety information

WARNING

- Do not disassemble or modify the product. This may cause the product to not operate correctly, and you may suddenly fall and be seriously injured.
- Riding precautions
- Do not pay excessive attention to the cycle computer display while riding. Doing so may result in an accident.
 - Ensure that head and tail lights can turn on before riding the bicycle.
- Safety precautions
- Be sure to remove the battery and charging cable before wiring or attaching parts to the bicycle. Failure to do so may cause an electric shock.
 - Be sure to follow the instructions provided in the manuals when installing the product. Only use SHIMANO genuine parts. If a component or replacement part is incorrectly assembled or adjusted, it can lead to component failure and cause the rider to lose control and crash.

CAUTION

- Riding precautions
- Observe the instructions in the manual for the bicycle in order to ride safely.
- Safety precautions
- Never modify the system. Doing so may cause a system error.
 - Use the product under the supervision of someone responsible for safety, and only as instructed. Do not allow anyone (including children) with reduced physical, sensual, or mental capacity, or those without experience or knowledge, to use the product.
 - Do not allow children to play near the product.

SHIMANO STEPS battery management systems and compatibility

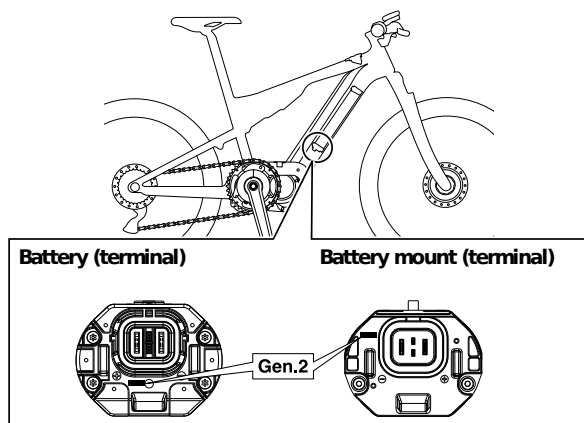
There are two generations of the SHIMANO STEPS battery management system: first generation and second generation (Gen.2).

This manual only describes products compatible with Gen.2.

With some exceptions, first-generation and Gen.2 products of SHIMANO STEPS components are not compatible with each other. For details, refer to the compatibility information on the SHIMANO product website (<https://productinfo.shimano.com/#/com>).

The Gen.2 battery and compatible battery mount are marked "Gen.2" as indicated in the figure.

Location of terminals



Notice

■ Safety precautions

- If any malfunction or trouble occurs, consult the place of purchase nearest you.
- For any questions regarding methods of installation and maintenance, please contact your place of purchase.
- Be sure to attach dummy plugs to any unused E-TUBE ports.
- For installation and adjustment of the product, consult the place of purchase.
- The components are designed to be fully waterproofed to withstand wet weather riding conditions; however, do not deliberately place them into water.
- Do not clean the bicycle in a high-pressure wash. If water gets into any of the components, operating problems or corrosion may result.
- Do not turn the bicycle upside down. There is a risk of damage to the cycle computer and switch unit.
- Handle the components carefully, and avoid subjecting them to strong shock.
- Although the bicycle still functions as a normal bicycle even when the battery is removed, the light will not turn on if it is connected to the electric power system. Be aware that using the bicycle under these conditions will be considered non-observance of the road traffic laws in Germany.
- Contact the place of purchase for updates of the component software. The most up-to-date information is available on the SHIMANO website.
- Products are not guaranteed against natural wear and deterioration from normal use and aging.
- For maximum performance we highly recommend SHIMANO lubricants and maintenance products.

■ Care and maintenance

- Do not use the thinners or harsh solvents to clean the products. Such solvents may damage the surface. When cleaning the products, use a cloth moistened with a neutral detergent diluted with water.

■ Labels

- Some of the important information contained in this manual is also indicated on the device label.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Notice

	This symbol on your product, literature, or packaging reminds you that this product must be taken to separate collection at the end of its working life. Do not dispose of this product as unsorted municipal waste but instead take it for recycling. By ensuring the product is disposed correctly, you will help to prevent potential negative consequences for the environment and human health. For info on your nearest recycling point, check with your local waste authority.
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Regular inspections before riding the bicycle

Before riding the bicycle, check the following items. If any problems are found, consult your place of purchase or a distributor.

- Does the drivetrain perform gear shifting smoothly?
- Is there any looseness or damage in the component parts?
- Are the components securely installed to the frame/handlebar/stem, etc.?
- Do any abnormal noises occur while riding?
- Is there sufficient charge remaining in the battery?

Booklet structure

SHIMANO STEPS user's manuals are split among several booklets, as described below.

Be sure to read these user's manuals thoroughly before use, and follow them for correct use. Store the user's manuals so that they can be referenced at any time.

The latest user's manuals are available on our website (<https://si.shimano.com>).

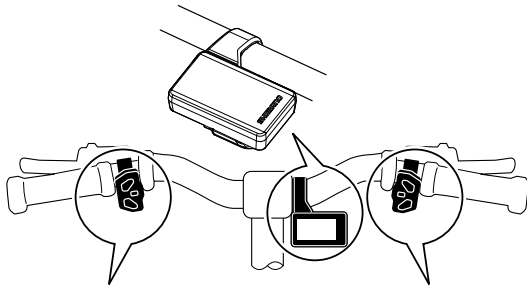
Name	Details
SHIMANO STEPS User's Manual	This is the basic user's manual for SHIMANO STEPS. It contains the following content: • SHIMANO STEPS quick guide • Basic operations when riding • How to operate assist bicycles that use flat handlebars, such as city, trekking, or MTB type bicycles
SHIMANO STEPS User's Manual for Drop Handlebar Bicycles (separate booklet)	This booklet describes how to operate assist bicycles that use a drop handlebar and are controlled using dual control levers. This should be read along with the SHIMANO STEPS User's Manual.
SHIMANO STEPS Special Battery and Parts User's Manual (Gen.2)	It contains the following content: • How to charge and handle the SHIMANO STEPS special battery • How to attach and remove the SHIMANO STEPS special battery to the bicycle • How to read the battery LEDs when charging or during an error
SHIMANO STEPS Cycle Computer User's Manual (clamp band type / bracket installation type / switch unit integrated type)	It contains the following content: • Method for configuring settings via the main body buttons and switch unit • Wireless communication method (supported models only)
Switch Unit User's Manual (with LED indicator function / without LED indicator function)	This is the assist switch and shift switch user's manual. It describes switch unit handling and operations.
Satellite System ON/OFF Switch User's Manual	It describes the handling and operations of the satellite system ON/OFF switch.

Names and functions of parts

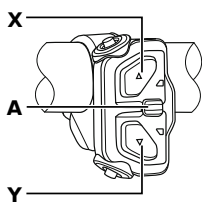
Names and functions of parts

This product is secured to the handlebar with a clamp band or incorporated in the handlebar, depending on the bicycle. This product is operated with the switch unit included in the assist bicycle.

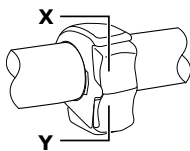
Clamp band type cycle computer



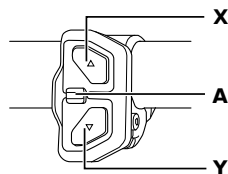
5-switch type switch unit (left)



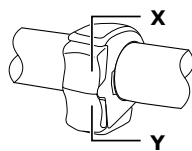
2-switch type switch unit (left)



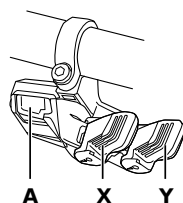
3-switch type switch unit (right)



2-switch type switch unit (right)



MTB type switch unit (right)



The operation for each switch is indicated below.

Switch unit (left)

Names and functions of parts

Notation method for operations

X	When riding : Increase the level of assistance When setting : Move cursor or change setting
Y	When riding : Decrease the level of assistance When setting : Move cursor or change setting
A	When riding : Switch between the main screen / sub screen When setting : Switch screen / confirm setting changes

Switch unit (right)

X	When riding : Shifting up (3-switch / 2-switch type) Shifting down (MTB type)
Y	When riding : Shifting down (3-switch / 2-switch type) Shifting up (MTB type)
A * 1	When riding : Switch between automatic and manual gear shifting

* 1 Only enabled when the assist bicycle supports automatic gear shifting.

TECH TIPS

- When connected to the E-TUBE PROJECT, you can change the functions assigned to each switch on the switch unit. Please contact your place of purchase for details.
- Also refer to the "Switch Unit User's Manual (with LED indicator function / without LED indicator function)."

Notation method for operations

Subsequent operations of this product are indicated using the following notation.

Notation	Operation
< ↑ >	Indicates an operation for pressing the X of the assist switch.
< ↓ >	Indicates an operation for pressing the Y of the assist switch.
<A>	Indicates an operation for pressing the A of the assist switch.
[Clock] (Example) Time setting	Items displayed on the cycle computer screen are enclosed in square brackets in this manual. When this notation is used in a procedure, it indicates an operation for selecting a display on the screen with < ↑ > or < ↓ > and pressing the A of the assist switch to switch the screen or confirm the setting.

Installing and removing the cycle computer

Installing and removing the cycle computer

For the installation/removal procedure, contact your place of purchase or a distributor.

Basic operation

Turning the power ON/OFF

This product does not have a function for turning the power ON/OFF. The power of this product is linked with the main power of the assist bicycle. When the main power is turned ON, all components connected to the drive unit of the assist bicycle are also turned ON (such as assist driving, the power of this product, the electronic gear shifting mechanism, and the lights).

The main power can be turned ON/OFF using the power switch of a component included in the assist bicycle. Refer to the " SHIMANO STEPS User's Manual " or the user's manual of the component with a power switch.

NOTICE

- Before turning the power ON, please refer to the " SHIMANO STEPS Special Battery and Parts User's Manual (Gen.2) " to check the following:
 - The battery is firmly attached to the battery mount.
- The power cannot be turned ON while charging.

TECH TIPS

- If the bicycle is left unused for 10 minutes or more after turning the power ON, the power automatically turns OFF (auto power OFF function).

When the main power is turned ON, the screen shown below is displayed, then switches to the main screen.



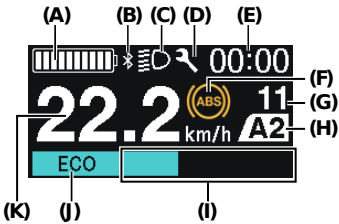
Viewing the screen

The items displayed on the main screen differ according to the assist bicycle.

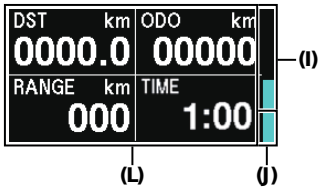
Basic operation

Viewing the screen

Main screen



Sub screen



Basic operation

Viewing the screen

(A)	Battery level indicator * ₁ Displays the level of the battery mounted on the bicycle in 10 levels. Displayed in red when the level is at 10% or less.
(B)	Bluetooth® LE icon Displayed when a SHIMANO STEPS component connected with this product is communicating with an external device via Bluetooth® LE.
(C)	Light icon Displayed when the light connected to the drive unit is ON.
(D)	Maintenance alert Indicates that maintenance is required. Contact your place of purchase or a distributor if this icon is displayed.
(E)	Current time
(F)	ABS warning * ₂ For a bicycle with an ABS, indicates that ABS is not operating.
(G)	Gear position Displays the current gear position for electronic gear shifting.
(H)	Automatic / manual gear shifting * ₃ [M]: Displayed for manual gear shifting. [A1]: When two automatic gear shifting settings are registered, indicates that the product has switched to automatic gear shifting due to the first setting. When there is only one automatic gear shifting setting, indicates that the product has switched to automatic gear shifting. [A2]: When two automatic gear shifting settings are registered, indicates that the product has switched to automatic gear shifting due to the second setting.
(I)	Bar display Displays the current assist mode or the state of the output from the drive unit. Can also be displayed from the sub screen. (Refer to " Assist mode and bar display .")
(J)	Assist mode display Displays the current assist mode. On the sub screen, the assist mode is displayed using the color of the bar only. (Refer to " Assist mode and bar display .")
(K)	Current speed
(L)	Four-division display Refer to the " Switching to the sub screen " section.

*₁ This battery level display uses zero to indicate a battery level where assistance can no longer be performed. SHIMANO STEPS provides an amount of battery separate from the assist function for additional equipment such as lights and ABS. Therefore, the battery level may differ from that which can be checked with the battery LED.

*₂ For a bicycle with an ABS, ABS warning is always displayed when the power is turned ON. For information on enabling the ABS, refer to the " ABS User's Manual ."

*₃ Refer to the " SHIMANO STEPS User's Manual " for information on the operation for switching between automatic and manual gear shifting.

TECH TIPS

- For information on the sub screen, refer to “ Switching to the sub screen .”

Turning the light ON/OFF

If a light is connected to the drive unit, this product can be used to operate the light. Refer to “ Turning the light ON/OFF [Light] .”

TECH TIPS

- The light power is linked with the main power. The light cannot be turned ON when the main power is OFF.

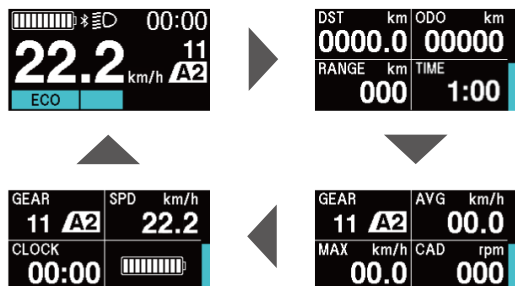
Switching to the sub screen

This product enables up to three sub screens to be registered in addition to the main screen, and can switch between them. A sub screen is divided into four parts and can display lists of various information.

1. Press <A>

The screen switches as indicated below each time <A> is pressed.

Example: When three sub screens are registered



You can register sub screens in E-TUBE PROJECT and freely edit their layout. For the sub screen registration and editing procedure, contact your place of purchase.

TECH TIPS

- When the switch unit (left) is the 2-switch type, the screen can be switched by pressing < ↑ > + < ↓ > (simultaneously).
- When a component compatible with Bluetooth[®] LE is connected to your bicycle, you can register and edit sub screens in E-TUBE PROJECT Cyclist. For details, refer to the " E-TUBE PROJECT Cyclist User's Manual ."

Traveling data displayable on the sub screen

Traveling data	Explanation
[DST]	Traveling distance
[ODO]	Cumulative distance
[RANGE]	Traveling range * ₁
[TIME]	Riding time
[AVG]	Average speed
[MAX]	Maximum speed
[CAD]	Cadence
[CLOCK]	Current time
[GEAR]	Gear position and automatic / manual gear shifting
[SPD]	Current speed
[Assist Profile]	Current assist profile (Refer to " Dynamically changing the riding comfort [Assist Profile] .")
[Battery]	Battery level indicator The same as the icon displayed on the main screen.

* ₁ The value is not displayed when the assist mode is set to [OFF] or when the walk assist mode is enabled.

Setting menu

Switching to the setting menu

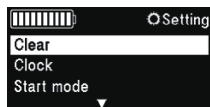
The items that can be set differ according to the assist bicycle. If assist switch is not connected, the setting menu cannot be displayed.

1. Stop the bicycle ⇒ <A> (continue to press and hold until the screen switches)

Main screen



Setting menu screen



TECH TIPS

- You can also perform the above operation from a sub screen to switch to the setting menu.
- When the switch unit (left) is the two-switch type, E-TUBE PROJECT is required to change settings. Contact the place of purchase.

Exiting the setting menu [Exit]

When you exit the setting menu, the previous screen (the main screen or sub screen) is displayed.

1. On setting menu screen: [Exit]

Setting the time [Clock]

1. Setting menu screen ⇒ [Clock] ⇒ change the "Hour" number with <↑> or <↓> ⇒ <A>

The cursor moves to the "Minute" number.



2. Change the “Minute” number with < ↑ > or < ↓ > ⇒ <A>

The display will automatically return to the setting menu screen.

TECH TIPS

- Continue to press and hold < ↑ > or < ↓ > to change the number quickly.

Dynamically changing the riding comfort [Assist Profile]

The riding comfort of the assist bicycle is determined by the relationship between the force applied to the pedals and the drive unit output, and the maximum output of the drive unit. This product enables you to select two assist profiles, [BASIC] and [Fine tune], that determine the riding comfort. The setting item names in [Assist Profile] and their content depend on your bicycle. In addition, by connecting to E-TUBE PROJECT, you can perform a wider range of customization than before.

1. Setting menu screen ⇒ [Assist Profile] ⇒ [BASIC] / [Fine tune]

[BASIC]

One of the following two combinations of assist modes is set by default:

- [BOOST] / [TRAIL] / [ECO]: A combination of assist modes for sport riding.
- [HIGH] / [NORMAL] / [ECO]: A combination of assist modes for comfortable riding in urban settings.

[Fine tune]

Supports a wide range of riding conditions with a maximum of 15 levels.

- The number of settings registered by default depends on the bicycle.
- The settings and gear position can be customized in E-TUBE PROJECT.

NOTICE

- Depending on the setting, battery consumption may increase and the assisted traveling range may greatly decrease.

Assist mode and bar display

When the assist mode is set to [OFF]

The assist mode display and bar display are white.

Main screen



Sub screen

Setting menu
Dynamically changing the riding comfort [Assist Profile]



When the assist mode is set to the minimum level of assistance

- The assist mode display and bar display are light blue.
- With the [Fine tune] mode, the assist mode is displayed as a numeric value. For example, when 15 levels are set, 1/15 is displayed for the mode with the minimum level of assistance and 15/15 is displayed for the mode with the maximum level of assistance.

Main screen

Assist profile: [BASIC]



Assist profile: [Fine tune]

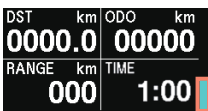


Sub screen

Assist profile: [BASIC]



Assist profile: [Fine tune]

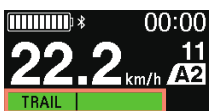


When the assist mode is set to the intermediate level of assistance

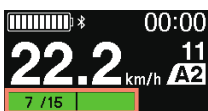
- The assist mode display and bar display are green.
- With the [Fine tune] mode, they are displayed in green except when the level of assistance is at the minimum or maximum.
- When two or fewer assist modes are set with the [Fine tune] mode, this color display is not available.

Main screen

Assist profile: [BASIC]

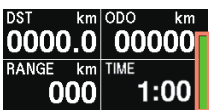


Assist profile: [Fine tune]

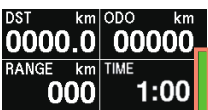


Sub screen

Assist profile: [BASIC]



Assist profile: [Fine tune]



Setting menu

Dynamically changing the riding comfort [Assist Profile]

When the assist mode is set to the maximum level of assistance

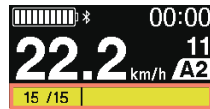
- The assist mode display and bar display are yellow.
- When one assist mode is set with the [Fine tune] mode, yellow indicates that assist is ON.

Main screen

Assist profile: [BASIC]



Assist profile: [Fine tune]



Sub screen

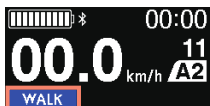


When the walk assist mode is set

The assist mode display and bar display are blue.

Main screen

Walk assist mode (standby)

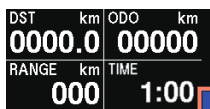


Walk assist mode (assistance functioning)

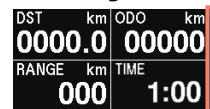


Sub screen

Walk assist mode (standby)



Walk assist mode (assistance functioning)



TECH TIPS

- Refer to the " SHIMANO STEPS User's Manual " for details on the walk assist mode.
- An animation with the drive unit output indicated by the length of a bar can also be displayed. The method for displaying the bar can be set with E-TUBE PROJECT.

Setting the display

Setting the screen brightness [Brightness]

1. **Setting menu screen ⇒ [Brightness] ⇒ <↑> or <↓> to adjust the brightness ⇒ <A>**

The display will automatically return to the setting menu screen.



Switching the display language [Language]

1. **Setting menu screen ⇒ [Language] ⇒ select the display language ⇒ <A>**

The display will automatically return to the setting menu screen.

Changing the unit of the speed and distance [Unit]

Select the unit for displaying the speed and distance.

1. **Setting menu screen ⇒ [Unit] ⇒ [km] / [mile]**

The display will automatically return to the setting menu screen.

Matching the displayed speed with another device [Display speed]

You can adjust the displayed value when there is a difference between the speed displayed on this product and the speed indicator of another device.

Setting menu

Setting the assist bicycle function

1. **Setting menu screen ⇒ [Display speed] ⇒ <↑> or <↓> to adjust the value ⇒ <A>**

The display will automatically return to the setting menu screen.



Increase value

Increases the displayed speed value.

Decrease value

Decreases the displayed speed value.

TECH TIPS

- This setting only changes the displayed value. It does not change the power assist function.

Resetting the traveling distance [Clear]

Resets the traveling distance. When the traveling distance is reset, [TIME] (riding time), [AVG] (average speed), and [MAX] (maximum speed) will also be reset.

1. **Setting menu screen ⇒ [Clear] ⇒ [DST] ⇒ [OK]**

The display will automatically return to the setting menu screen.

Setting the assist bicycle function

Turning the light ON/OFF [Light]

Turns the light connected to the drive unit ON/OFF.

1. **Setting menu screen ⇒ [Light] ⇒ [ON] / [OFF]**

The display will automatically return to the setting menu screen.

Setting the gear position when starting from a stop [Start mode]

Automatically shifts to the set gear position when the bicycle starts from a stop. [Start mode] can only be set when the bicycle has a Di2 internal geared hub.

Setting menu

Setting the assist bicycle function

1. **Setting menu screen** ⇒ **[Start mode]** ⇒ <↑> or <↓> to select the gear position ⇒ <A>

The display will automatically return to the setting menu.



[OFF]

Do not set the start mode.

[1], [2], ...

Select the gear position when starting from a stop. A gear position up to the maximum gear position of the shifting unit installed to the assist bicycle can be selected.

TECH TIPS

- [Start mode] can also be set for manual gear shifting.
- [Start mode] can only be set to [OFF] for manual gear shifting.
- This setting overwrites the automatic gear shifting settings configured at the time of purchase. It can be set when switched to [M], [A1] or [A2].

Adjusting automatic gear shifting [Shift timing]

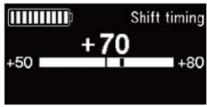
Adjusts the gear shifting timing during automatic gear shifting.

Setting menu

Setting the assist bicycle function

1. **Setting menu screen** ⇒ **[Shift timing]** ⇒ **<↑> or <↓>** to adjust the value ⇒ **<A>**

The display will automatically return to the setting menu.



Increase value

Increase the value when pedaling feels too heavy.

Decrease value

Decrease the value when pedaling feels too light.

TECH TIPS

- This setting overwrites the automatic gear shifting settings configured at the time of purchase. It can be set when switched to [A1] or [A2].

Troubleshooting

Gear shifting adjustment with the electronic gear shifting unit [Adjust]

If gear shifting feels abnormal, contact the place of purchase.

When gear shifting is impossible

If you are unable to change gears using the electronic gear shifting, check the cycle computer display for the following. Also refer to " Error/warning indication ."

When [Adjust] is displayed

The system has switched to adjustment mode. Perform the following operations to cancel it.

1. < ↑ > < ↓ > (select [Cancel]) ⇒ < A >

The system returns to the setting menu screen.



2. On setting menu screen: [Exit]

The system returns to the main screen or sub screen, and gear shifting is available.

Error/warning indication

Error indication

If an error code "E***" (where *** is letters or numbers) is displayed on the entire screen, the product may have malfunctioned.

Even when the setting screen or sub screen is displayed, the error code is displayed on the entire screen if an error occurs.

Refer to the " SHIMANO STEPS Special Battery and Parts User's Manual " and follow one of the procedures below to reset the display:

- Press the battery power button to turn the power OFF.

Troubleshooting

When a problem occurs

- Remove the battery from the battery mount.



NOTICE

- If the situation does not improve even after turning the power back ON, stop using the bicycle and consult with the place of purchase or a distributor as soon as possible.

Warning indication

If a warning code “W***” (where *** is letters or numbers) is displayed on the screen, the product may have a temporary problem. Functionality may be limited while the code is displayed.

If the situation is improved, this indication will disappear. If the situation does not improve, contact the place of purchase as soon as possible.



For details on error/warning codes, check the latest versions below:



<https://si.shimano.com/error>

When a problem occurs

The FAQ for the SHIMANO STEPS series can be accessed with the following:



<https://bike.shimano.com/faq/STP0A>

Safety instruction

Motor:

Waterproof IPX5, do not expose to high-pressure, heavy sprays of water.

Do not submerge the motor in water.

In the case of motor submersion in water, switch the unit off and stop using it.

Do not put the motor near magnetic field, it can tamper with sensors setting.

Battery:

Waterproof IPX5, do not expose to high-pressure, heavy sprays of water.

Do not submerge the battery into water.

Do not expose the battery to fire.

Do not use the battery for other appliances. It has been made specifically for this model.

Do not dismantle or modify the battery.

Do not connect the positive and negative poles of the battery.

Charger:

Do not dismantle or modify the charger.

Do not use the charger for other appliances. It has been made specifically for this model.

Do not throw the charger into fire or water.

Do not touch the charger with wet hands.

Keep the charger from animals or children.

Do not cover the charger.

Do not use the charger if it is broken

Charging set



Battery

Battery charging and maintenance:

Charge the battery in a dry environment to avoid short-circuit damage.

Charge the battery to at least 60% of the capacity once every 3 months even when the bicycle is not used.

Do not cover the battery or the charger.

Do not leave the battery constantly connected to the power source.

Do not use the battery for other appliances. It has been made specifically for this model.

Do not disassemble or modify the battery pack.

Do not throw the battery into fire or expose it to extreme temperatures.

Recharging time from zero to 100% is 1-7 hours.

Drive warranty:

The warranty applies to those drive parts that are not sensitive to improper handling (pack, electronics, charger, etc.); such parts are covered by a 24-month warranty.

The warranty does not apply to chemical parts of the battery and to capacity reduction due to normal use (39% after the expiry of two years); those parts are covered by a 12-month warranty.

Charging:

The battery is the most expensive part of an electric bicycle; therefore, pay increased attention during handling, charging and storage. The battery is sensitive to precise charging. Therefore, it is necessary to charge Li-Ion rechargeable batteries using only a charger supplied by us. Connect the charger to 220-240 V power outlet. 5A protected circuit is sufficient. The charger will automatically suspend charging when full capacity of all cells is reached.

We recommend discharging the battery in full after each ride to ensure that your battery will be up to its full capacity for your next ride. Charging the battery may last 1 to 5 hours depending on the condition of the battery cells. Charge it exclusively in covered dry areas (moisture and dripping water can damage the charger) at a temperature of 5 to 40°C.

The charging process is indicated by a red glowing LED. It will turn green when the battery is charged and the charging process is complete. The battery contains a charge-monitoring indicator (when the charge indicator button is pressed, the light indicator will come on).

Normal battery behaviour:

If the motor stops running smoothly and switches to intermittent operation, it could be a sign of low battery capacity. In that case switch off the electric drive system and continue without motor assistance, as if riding a conventional bicycle.

Battery warming is normal and does not indicate any defect. The battery is protected by a temperature sensor and switches off automatically in case of excessive overheating. Wait until the battery cools down to its normal operating temperature and then ride on.

If you feel your total battery capacity has dropped, it could be caused by charging or operation in suboptimal climatic conditions. Carry out 3 full charging cycles. Fully discharge the battery while riding and then charge to its full capacity at room temperature.

If the charge indicator shows that the battery is discharged, there is still a minimum voltage level in it which protects it against damage but is not enough to power the electric bicycle. Recharge the battery as soon as possible. Never leave the battery fully discharged, it could result in its damage.

In the case, that the battery will be turned on more than 30 min and bike will not be used, the battery will be automatically switched off.

Battery is fully shutdown after 48h. After that time period you have to first activate the battery by switch button or connect battery with charger.

Proper care of the battery prolongs its life.

Maintenance

Regular maintenance:

- maintain all components of the electric bicycle clean
- use only the recommended and tested cleaning materials
- regularly lubricate the chain with suitable oils
- in winter, clean the electric bicycle after each ride and pay increased attention to removing salt from battery contacts and other connectors
- while handling the electric bicycle, make sure the cables of the electric system are not damaged. Damaged cables pose a risk of electric shock
- regularly check all connections for correct tightening and brakes for correct function. Check also individual parts of the electric bicycle for damage. For example: cracks on the frame, fork, handlebars, stem, damage to cables, damage to battery pack, etc.

Battery transport:

Battery transport is subject to the requirements of regulations on dangerous goods. Private users may transport undamaged batteries on roads without having to conform to other conditions.

In case of transport by commercial users or by third parties it is necessary to comply with special packaging and marking requirements (e.g. ADR regulations)

Batteries should only be sent if the battery pack is undamaged. Plug loose contacts and pack the battery to prevent its movement in the packaging. Notify the forwarding service that the transport concerns dangerous goods.

Battery storage:

Store the battery in a dry and well-ventilated place, out of reach of direct sunlight and other heat sources. In case of cold storage it is necessary to let the battery warm up to normal room temperature (20°C) before putting into operation.

Never leave the battery fully discharged. It could result in its permanent damage. For long-term storage keep the battery fully charged. However, do not store it while permanently connected to the charger or installed in the electric bicycle.

Li-Ion batteries are fully recyclable. After expiry of the battery life you can return it at any collection point or your dealer.

If you use an e-bike in hard conditions (long-term use of the maximum assistance), for longer ride at higher temperatures (30 °C or above), in direct sunlight or when the battery is partially discharged and a combination of these situations is it possible that bike will automatically switch off. This is a fuse protecting the control unit against burning. We recommend stop the ride and let the bike (control unit) cool down a little bit. This is not a defect.

Electric set warranty

Complaint procedure:

Submit any complaints concerning the electric set or the battery to your dealer.

When filing a complaint, submit a proof of purchase and a warranty certificate with the registered serial number of the battery and indicate the reason for the complaint and a description of the defect.

Warranty conditions:

24 months for electric bicycle components – applies to manufacturing and material defects beyond normal wear and tear caused by use.

12 months for battery life – the nominal battery capacity does not drop below 70 % of the total capacity over 12 months from the sale of the electric bicycle.

Warranty conditions:

The electric set must be used exclusively for the purposes it is intended for.

The electric set must be used, stored and maintained in accordance with these Operating Instructions.

A warranty claim shall expire:

If it is found out that the damage to the product is due to the user's fault (accident, inexpert handling beyond the framework of these Operating Instructions, tampering with the structure of the electric bicycle or connection of the electric system, improper storage etc.).

Expiry of the warranty period.

The warranty only applies to the first owner

Warning

If you do not understand any of the points in these Operating Instructions, please contact the dealer for explanation. Please read the whole manual!

Do not lend the e-bike to persons not briefed in its use and operation. Complaints resulting from improper handling will not be accepted.

The LF Energy electric bicycle is not intended for use by children under 15 years of age. Likewise, the electric bicycle cannot be used by persons unable to pedal or handle it independently. The manufacturer is not to be held responsible for any potential injuries or damage to the bicycle!

Ideal weather conditions for using an electric bicycle are dry days, when the outdoor temperature is above 10°C. When used at lower temperatures, the battery discharges faster due to physical phenomena. Using the electric bicycle at temperatures below 0°C is not recommended.

Do not expose the bicycle to direct sunlight as it is fitted with a protective temperature sensor for the electric motor.

Never submerge the battery, the charger and other electric components in water or another liquid.

Never wash the electric bicycle in a pressure washer (WAP) and always remove the battery before washing

It is forbidden to tamper with the connections of the electric motor, the control unit and the battery. Violating this section may result in the warranty not being acknowledged or in irreversible damage to the electric bicycle.

DO NOT USE chargers and components other than the ones included with the electric bicycle.

We cannot be held responsible for damage caused by use of other non-approved goods

LEADER FOX



Enjoy many pleasant and safe kilometres on your new electric bicycle.

Your Leader Fox Team



**Czech brand of electric bicycles.
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