

B-COCKPIT



Operating Manual

BC-18 Model

Revision: EN-20171014

Important Information Regarding Safe Operations:

1. Turn OFF the main power of the E-bike before plug / unplug the HMI, or it may lead to permanent electrical damage to the HMI and the E-bike.
2. Do Not overtighten the bolts when installing the HMI to the E-bike, a torque of 0.2N.m is sufficient to secure the HMI to the handlebar, overtightening the bolts may cause damage to the HMI.
3. Do not immerse the unit in water or clean it with pressurized water. Clean the unit using a soft cloth dampened only with water. Do not use any detergents.
4. The USB port, when exposed, does not provide water protection. When riding in the rain, an external device must not be connected and the USB Cap must be completely closed and sealed.
5. Do not dispose HMI or any other e-bike components into house-hold wastes, follow your local regulations and dispose them in an environmental-friendly manner.
6. Damage / malfunction caused by improper installation or usage are not covered by after-sales service.

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■ Frequent Asked Questions

Q: What riding modes does B-COCKPiT Support?

A: B-COCKPiT Supports up to 9 levels of pedal assist, as well as level 0 (zero assist), this can be customized base on customer requirements. 6km/h Startup/Push assist mode is supported by default, and is activated by pressing and holding the "-" key. Throttle control is also supported, but B-COCKPiT kit does not include a throttle.

Q: Can end user customize or tune the pedal assist parameters by themselves via B-COCKPiT?

A: No, without proper knowledges the end user may set the e-bike to behave strangely or even lead to dangerous situations, so we don't recommend to have end users be able to adjust the Pedal Assist Level, Motor Output Curves or other PAS system parameters, these parameters should be pre-loaded into B-COCKPiT by e-bike makers and not be adjusted by end users.

Q: How does B-COCKPiT Interact with Bikewise APP?

A: Most of the time they communicate via bluetooth, unlike many products, they don't keep a constant communication which drains smart phone battery rather quickly, instead they use on-demand data transfer. Only when you open the Bikewise APP, it will download your e-biking activities data from B-COCKPiT automatically via bluetooth so keep the ebike close. You can sync the data manually too. Once synced, all your tour data will be securely stored in the clouds for you to review at any time.

Keep in mind the B-COCKPiT HMI has limited data storage space, so it is recommended to sync it to Bikewise on a timely basis, there might be extreme situations (like riding for a year without sync with Bikewise) causing insufficient data storage space in B-COCKPiT, in such case, the oldest data will be dumped in order to make space for new data.

Q: Is Bikewise APP mandatory to use B-COCKPiT HMI?

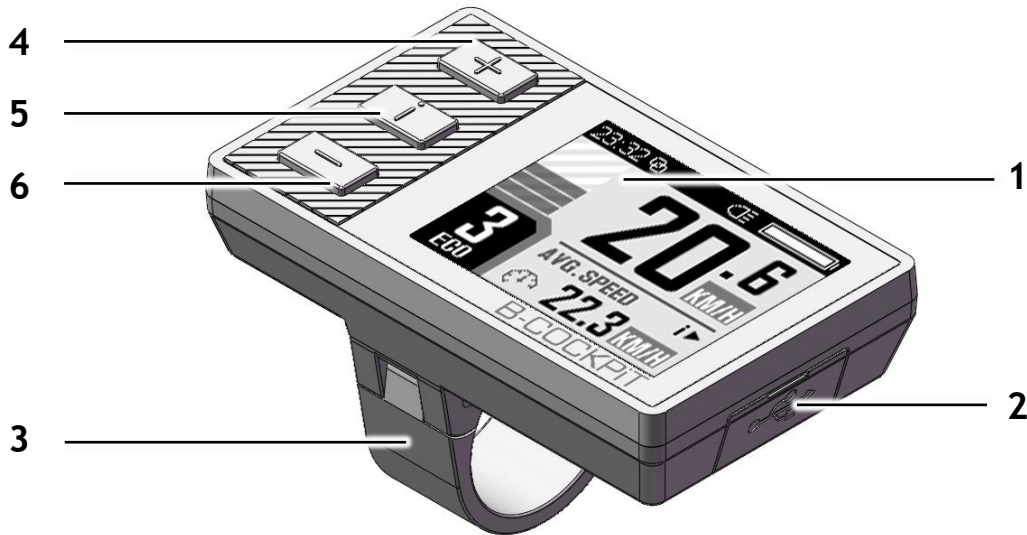
A: No, B-COCKPiT can be used alone without Bikewise APP at all, but Bikewise does provide a good managing hub for your E-biking activities and your e-bike itself. Also phone call notification and anti-theft options are not available without Bikewise support. And the APP is free, so why not ^_^?

Q: Can one B-COCKPiT E-bike pair with multiple Bikewise APPs?

A: No, it becomes "personal property" once bonded with an Bikewise account, but in case if you want to lend the bike to your friend and your friend also wants to use Bikewise APP to track his/her tours, simply un-bond the E-bike in your APP, then your friend will be able to bond it to his/her APP, then bond it back when the e-bike is returned to you. All your own personal tour record will be preserved, and other people's data will not invade your space. Trust us this is much simpler and straight forward than a complicated "authorization control".

■ Product Description and Specifications

● Parts Description

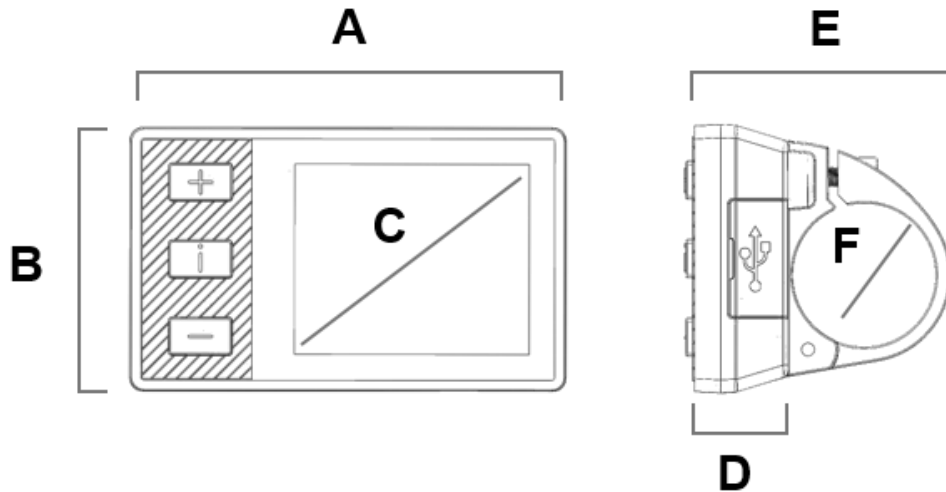


1. 1.77" 160x128 color TFT display
2. USB Port with protective cap
3. Mounting Bracket
4. "+" Button
5. "i" Display function button
6. "-" Button

● Technical Data

Rated operating voltage	24V / 36V / 48 V DC
Rated operating current	?? mA
Max operating current	?? mA (36V, USB Charging)
Off-state leakage current	?? mA
Output current to controller	?? mA
USB port output	5V, 1000mA
Operating temperature	-20 °C ~ +45 °C
Storage temperature	-20 °C ~ +45 °C

● Dimensions and Features



Core Data

Display Type	160x128 Color TFT LCD
Nominal Voltage	24 / 36 / 48 VDC
Supported Modes	0 - N with Walk Assist
Bus System	UART / CAN
Connectivity	Bluetooth*
Peripheral Port	USB x1

Dimensions

Dimension A	67 mm
Dimension B	40 mm
Dimension C	1.77 inch
Dimension D	14 mm
Dimension E	39 mm
Dimension F	22.2 mm

Keypad

No. of Buttons	3
Button Functions	+ / - / i

* Available for BC-18S

Displayed Information

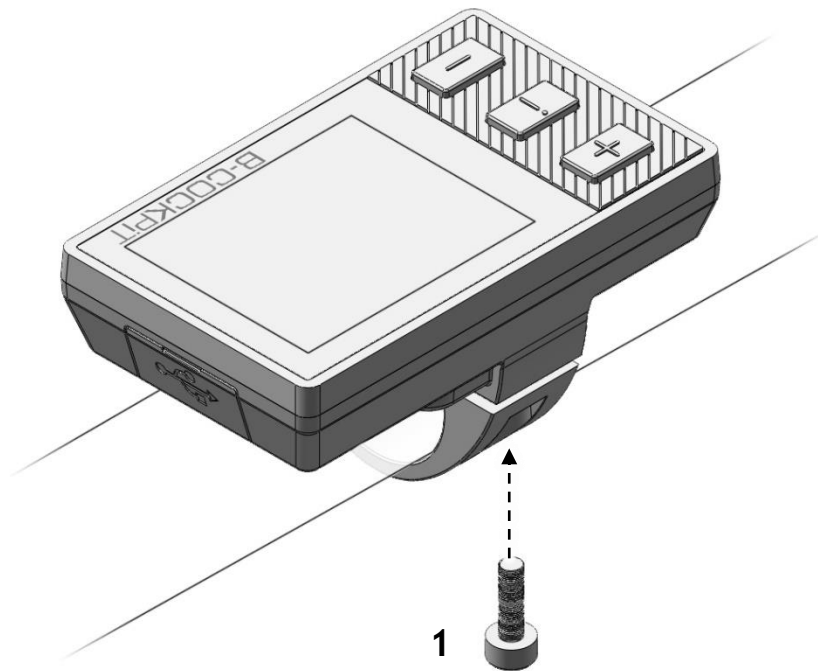
Real Time Speed	Yes
Real Time Motor Power	Digital and Graphical
Battery Level	Graphical
Pedal Assist Level	Yes
Max Speed	Yes
Average Speed	Yes
Single Trip Duration	Yes
Single Trip Distance	Yes (Reset-able)
Total Distance	Yes
Calories Burnt	Yes
Phone Call Notification	Yes
Maintenance Notification	Optional
Light Indication	Yes
Error Code	Yes
Setup Menu	Yes

Conformities

IP-Level	IPX5 (USB Cap Closed)
Certifications	CE / EN15194 / RoHS

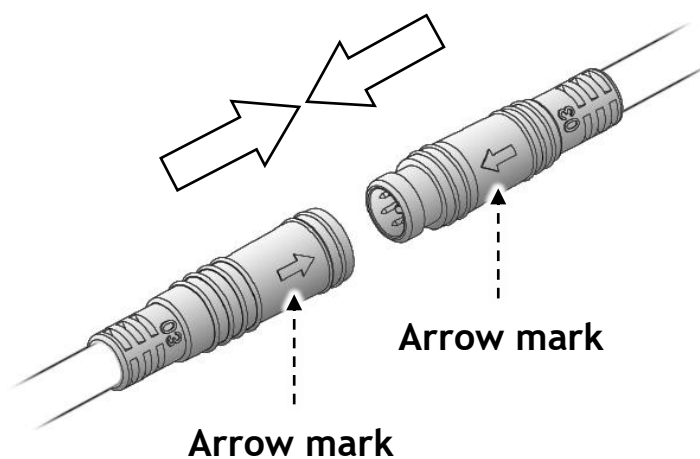
■ Installation

● Install the BC-18 Unit



1. Use M3 Hex Socket Screw 1 to secure the mounting bracket to the left side of the handle bar. **Tightening torque: 0.2N.m.** Do Not Overtighten or it may cause damage to the HMI

● Connect the cables



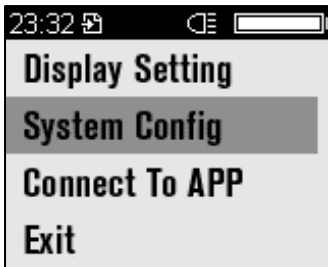
1. Securely connect the cables of B-COCKPiT with E-bike controller by aligning the 2 arrow marks.

■ System Operations

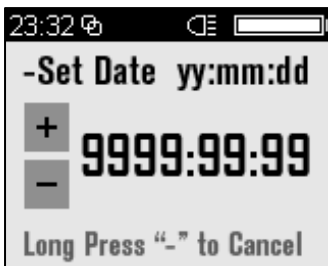
● Initial Operations

Set System Time

1. Press and hold “+” and “-” together for 2 seconds to enter the system menu.
2. Use “+” / “-” to navigate to the “Display Setting” line and press “i”.
3. Select “Set Date & Time” and following items using the same method.



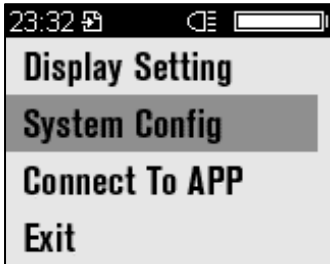
4. In each page, use “+” / “-” to adjust the parameters,
5. The parameters being adjusted are shown as flashing numbers.
6. When finished, press “i” to proceed to the next parameter until all parameters are set.



* *Setting the date and time manually is not mandatory if planning to pair the B-COCKPiT with Bikewise APP, by using Bikewise APP the system time of B-COCKPiT will be synced to the date and time of user’s mobile phone automatically.*

Connect to Bikewise APP

1. Press and hold “+” and “-” together for 2 seconds to enter the system menu.
2. Use “+” / “-” to navigate to the “Connect To APP” line and press “i”.
3. Scan the QR-Code displayed on the screen with Bikewise APP.



● Button Functions

1. **+** “+” button:

	Short Press	Long Press	Long Press & Hold
Meter Interface	Assist level Up	E-bike Lights On/Off	----
Menu Interface	Cursor Up / Increase	----	----

2. **-** “-” button:

	Short Press	Long Press	Long Press & Hold
Meter Interface	Assist level Down	----	6km/h Start-up Mode
Menu Interface	Cursor Down / Decrease	Cancel and Go Back	----

3. **i** “i” button:

	Short Press	Long Press	Long Press & Hold
Meter Interface	Change Info Display	System On/Off	----
Menu Interface	Ok / Confirm	----	----

4. **+ & -** Press “+” and “-” buttons together:

	Short Press	Long Press	Long Press & Hold
Meter Interface	----	Enter Menu Interface	----
Menu Interface	----	Save Changes and Exit	----

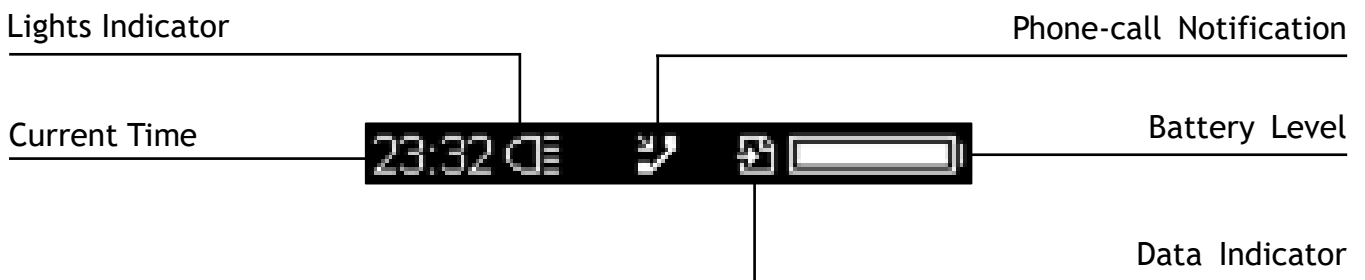
● **Meter Interface**

Meter Interface is the default interface of B-COCKPiT.



Meter Interface

* Various information can be shown in the “Info Display” area

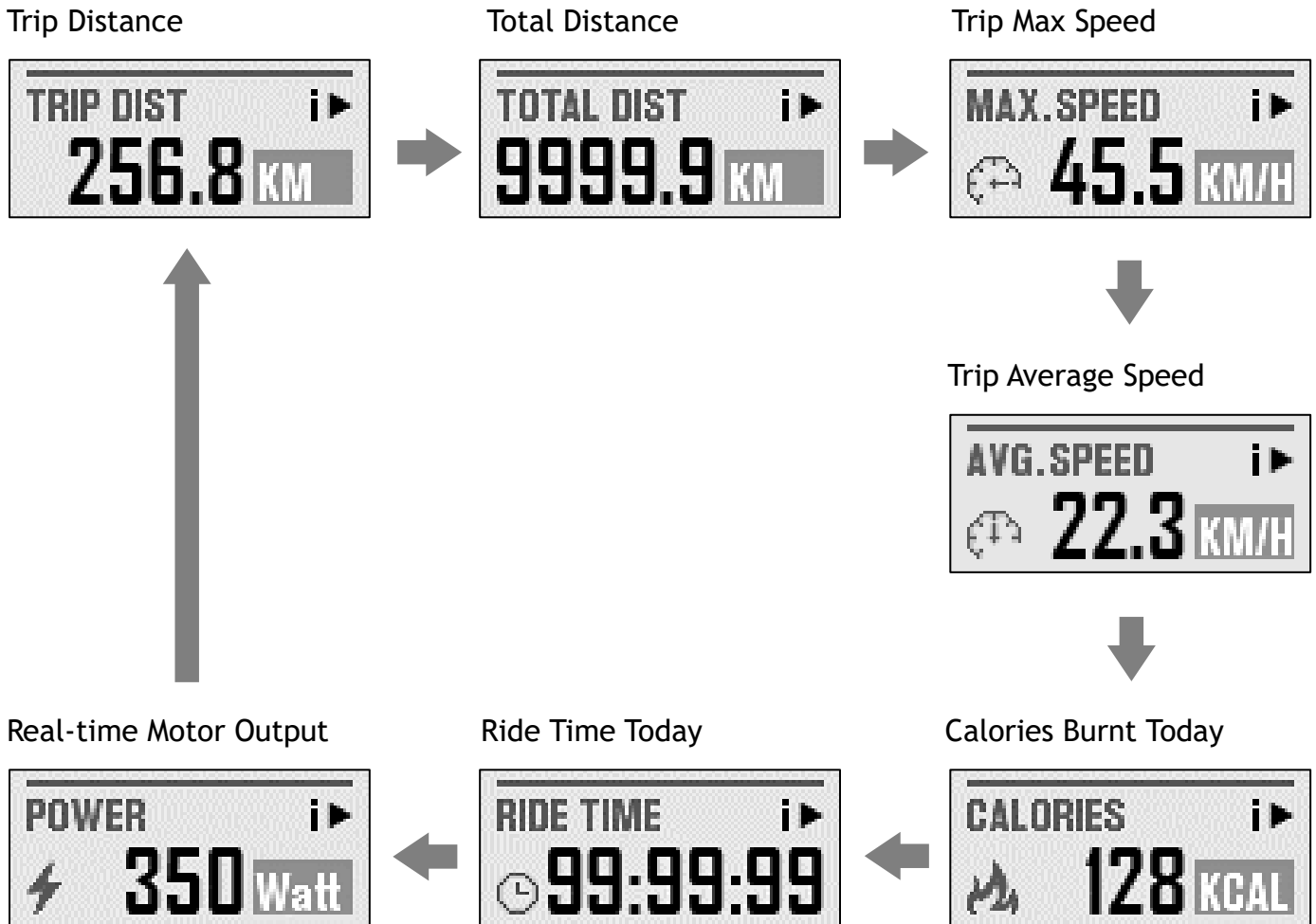


The Status Bar

* All interfaces share a common status bar, Phone-call notification is enabled by Bikewise APP. The “Data Indication” is only available on S model, it will appear if the HMI has riding data in its own storage and ready to be synced with Bikewise APP.

Info Display Area

In Meter Interface, short press “i” to cycle through various riding and e-bike information



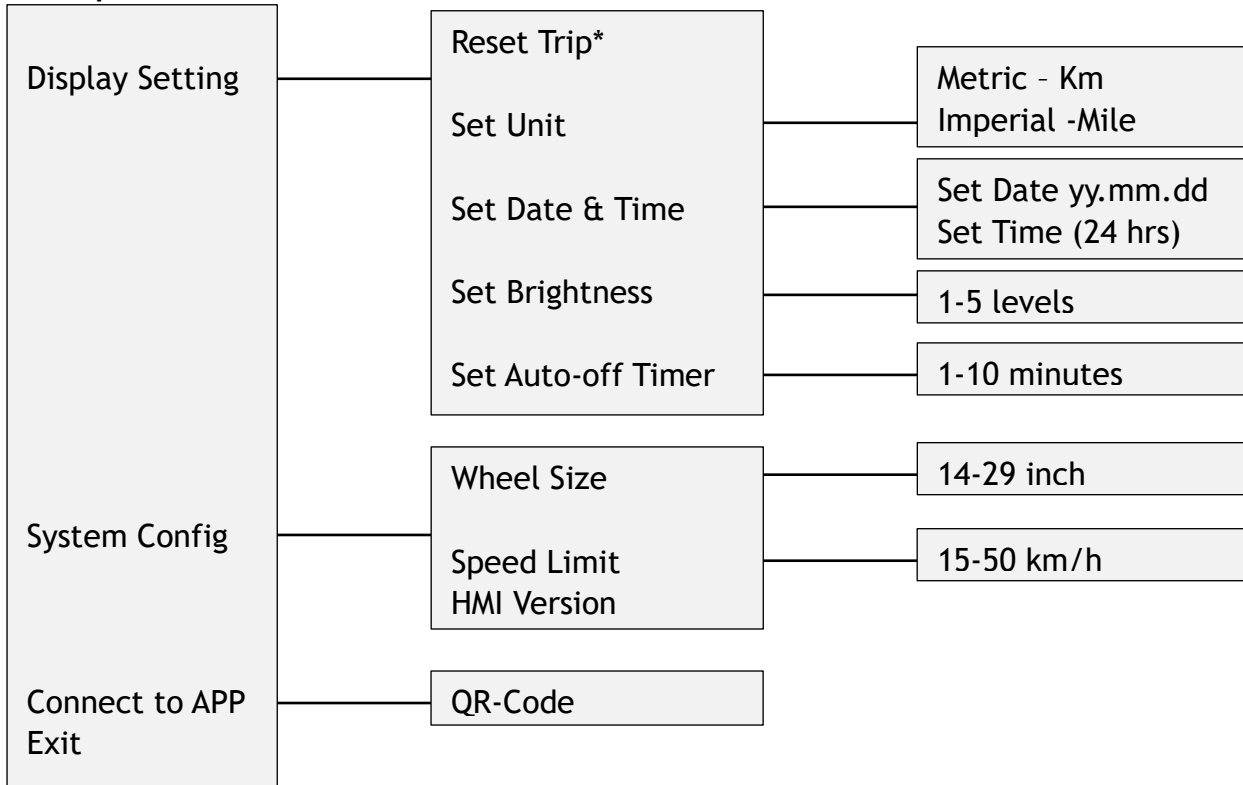
* Ride time will pause if the e-bike is not moving, and will reset at 00:00 every day.

* Calories and Ride Time will reset at 00:00 every day.

● Menu Interface

In Meter Interface, Press and hold “+” and “-” together for 2 seconds to enter the system menu. The Menu is only accessible when the E-bike is stationary.

Menu Map



* “Reset Trip” will reset the “Trip Dist”, “Avg. Speed” and “Max. Speed”

CAUTIONS REGARDING SYSTEM CONFIG

Changing the parameters in “System Config” without proper knowledge may cause abnormal behaviors of the E-bike. And may even lead to unsafe situations. Consult with the manufacturer first before making any changes on your own.

■ Miscellaneous Interfaces

● Error-Code Notification



Error-Code Table (example only, customer dependent)

Error-Code	Description	Corrective Measure
21	Controller Protection	Check if 3-phase power lines are properly connected
22	Throttle Error	Check throttle connection, replace motor if necessary
23	Motor Phase Error	Check motor connection, replace motor if necessary
24	Speed Sensor Error	Check sensor connection, replace sensor if necessary
25	Brake Error	Check Brake connection, replace brakes if necessary
30	Communication Error	Check connectors and contacts between each components

■ Maintenance and Service

● Maintenance and Cleaning

Do not immerse the unit in water or clean it with pressurized water.

Clean the unit using a soft cloth dampened only with water. Do not use any detergents.

! The USB port, when exposed, does not provide waterproof protection. When riding in the rain, an external device must not be connected and the USB Cap must be completely closed and sealed.

● After-sales Service

Please contact support@riding-evolved.com for inquiries and after-sales services.

● Disposal



Follow your local regulations and dispose the B-COCKPiT unit in an environmental-friendly manner. Do not dispose B-COCKPiT or any other e-bike components into house-hold wastes!