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IFA BERLIN C086 Ebike Control and Display Smart Ring GPS Cycle Computer

IFA BERLIN C086 Ebike Control and Display Smart Ring GPS Cycle Computer Instruction Manual

Contents

IFA BERLIN C086 Ebike Control and Display Smart Ring GPS Cycle Computer

Product Information

Specifications:

- **Display:** 1.44-inch BOE LCD screen
- **Features:** Speed display, Power assist gear display, 4G signal, Bluetooth connection display, Riding display mode

Product Usage Instructions

1. **Installation Method:**
    1. Install the instrument in the center of the car faucet and fix it with glue. Excessive torque can damage the instrument and is not covered by the warranty.
    2. Connect the instrument manual control and motor controller docking connector according to the markings.
2. **Display Interface:**
    1. **Boot Interface:**

        When starting up, the startup logo interface is displayed for 3 seconds. After the communication connection is established, the instrument enters the main interface display state.
3. **Basic Interface and Operation Buttons:**

    The instrument adopts a 3-button form: power button, UP adjustment button, and DOWN adjustment button
4. **Introduction to Functional Interface:**
    - Speed display
    - Power assist gear display
    - 4G signal
    - Bluetooth connection display
    - Riding display mode
5. **Other Functional Interfaces:**

- Promote assistance display interface: Press and hold the adjustment button to enter the push assist mode.
- Fault code display interface: Displays fault code information returned by the controller.

Button Definition:

- Power Button: Long press to turn on and off, short press to confirm.
- Adjustment Keys (UP key & DOWN key): Adjust the power assist gear during riding and perform setting operations with the function switching key.

Basic Function Operation:

FAQ:

- **Q: How do I adjust the power assist gear?**
  A: Use the UP and DOWN adjustment buttons to change the power assist gear during riding.
- **Q: What should I do if a fault code is displayed?**
  A: If a fault code is displayed, refer to the relevant electrical system fault information and take appropriate action as needed.

C086 Operation Manual

FCC 15.19 warning: 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.

FCC Compliance Statements
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.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

- If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure Compliance
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

1. **Installation method**
   1. Install the instrument in the center of the car faucet and fix it with glue.
      Instrument damage caused by excessive torque is not covered by the warranty.
   2. Connect the instrument manual control and motor controller docking connector according to the markings.

2. **Display interface**
   1. Boot interface

When starting up, the startup logo interface is displayed for 3 seconds. After the communication connection is established, the instrument enters the main interface display state. The instrument uses the information obtained from the controller communication for actual display. (The displayed data information is executed according to the communication protocol provided by the customer)
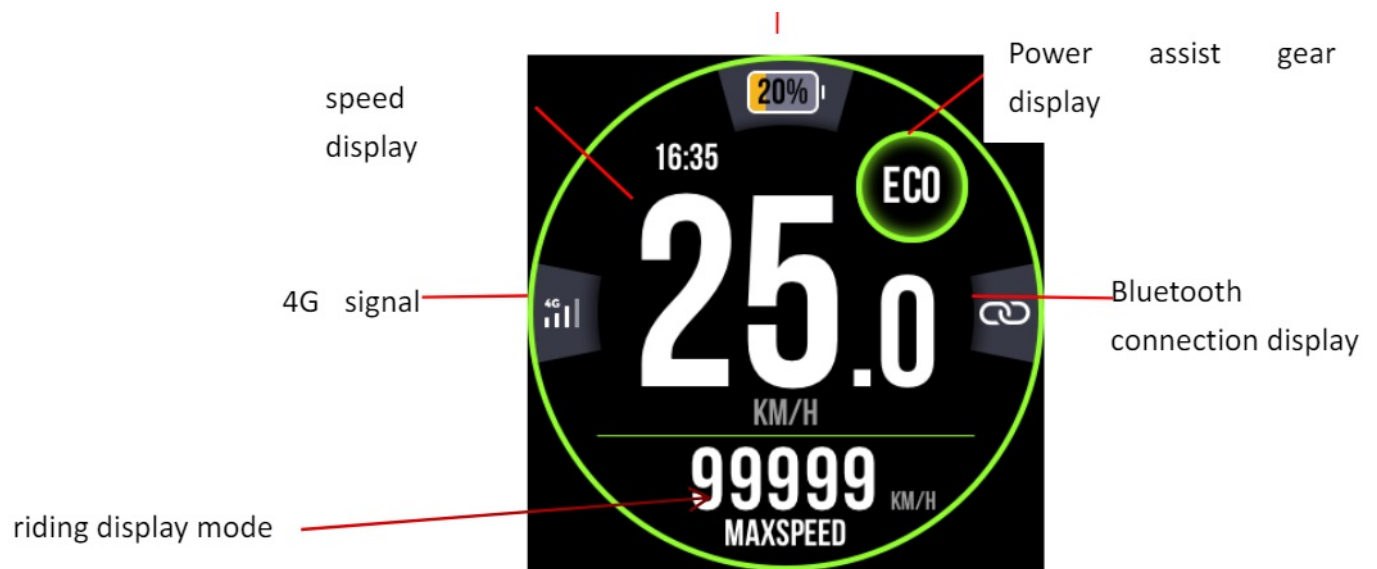
Basic interface and operation buttons

1. The instrument adopts 3-button form, power button, , adjustment button
2. The handle hides the cable outlet method.
3. The screen uses a 1.44-inch BOE LCD screen to meet the customization needs of the startup interface.

Introduction to functional interface

- After powering on, the boot logo interface is displayed for 3 seconds. The instrument establishes communication and obtains information normally before entering the normal riding display interface. The instrument reads the relevant information stored in the controller according to the communication protocol for display, and reads the battery BMS information for display (system instruments without BMS information do not display the battery percentage), and the remaining information is displayed in real time.

Other functional interfaces

The functional interface mainly displays speed information, including average speed, maximum speed and single mileage. The single mileage information TRIP is the same as the main interface. The speed display value is 3 digits, the maximum value is 99.9KM/H, including one decimal place. The subtotal mileage value is usually 4 digits including one decimal point. If it exceeds 9999.9KM, the decimal point will not be displayed and it will be directly displayed with 5 digits. The maximum value is 99999KM. After exceeding the maximum value, the displayed number is the actual mileage value divided by 100,000. The function interface can clear data through key operations.

speed display

Power assist gear display

4G signal

Bluetooth connection display

riding display mode

Fault code display interface

After receiving the fault information returned by the controller, the instrument will display the fault code interface on the instrument side to prompt the user with relevant electrical system fault information. The fault code will be displayed in a full-screen pop-up box in numerical form.

Button definition
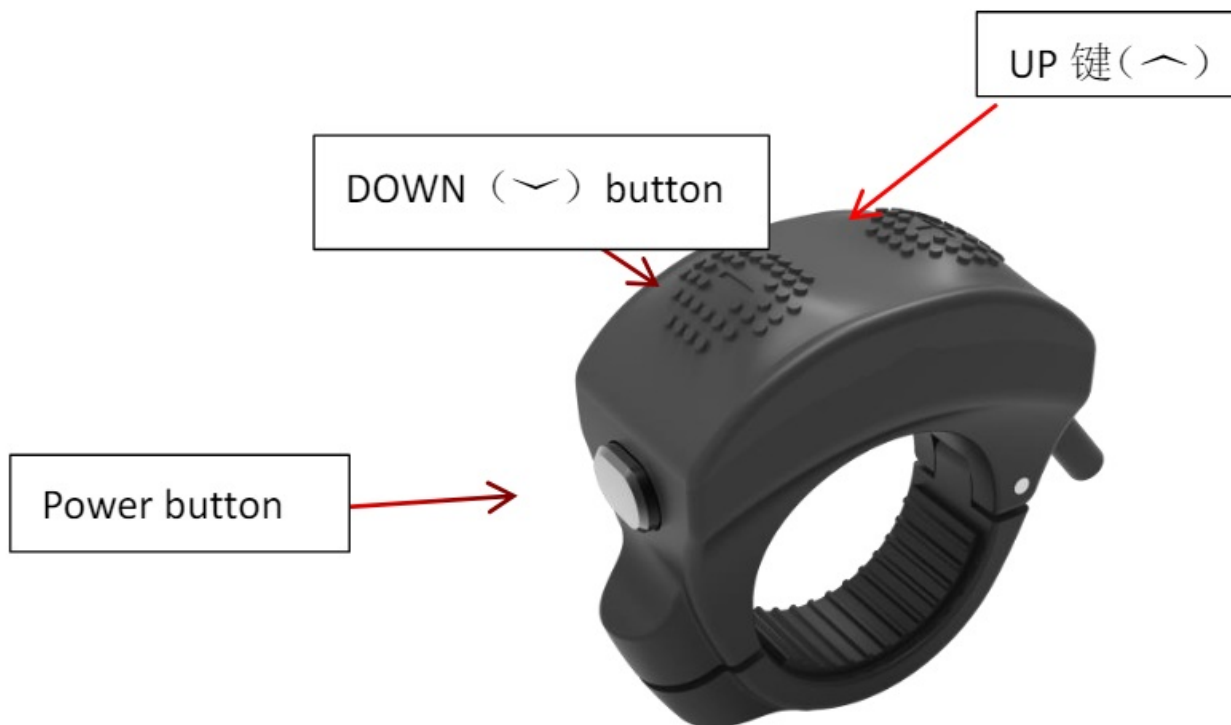
1. **Button name definition**

   Power button: long press to turn on and off, short press to confirm Adjustment keys (UP key & DOWN key): Adjust the power assist gear during riding and perform setting operations with the function switching key. Press and hold the adjustment key to perform corresponding specific function operations.

2. **Key operation definition**

Operation type	Describe
Short press	Short press refers to pressing the button and then releasing the button immediately. When the button pops up, the corresponding function is triggered.
Long Press	Long press refers to pressing the button and keeping it pressed. When the duration of pressing the button exceeds the long press setting time (usually 2s) to trigger the corresponding function.

Basic Function Operation

1. **Turn on/off**

   - Keep the normal connection between the instrument and the controller, and press and hold when the instrument is turned off.
   - Press the power button, and then enter the basic interface normally and start working; press and hold the button when the instrument is turned on, and the instrument will display the startup LOGO when it is turned on, and there will be no LOGO when it is turned off. The set shutdown time will automatically turn off if the rider does not perform any operation on the instrument within 5 minutes. The shutdown time can be customized by the user as on or off. As shown below: First, quickly click the power button twice to enter the setting mode, select UNIT, select KM/H, and confirm with the power button.
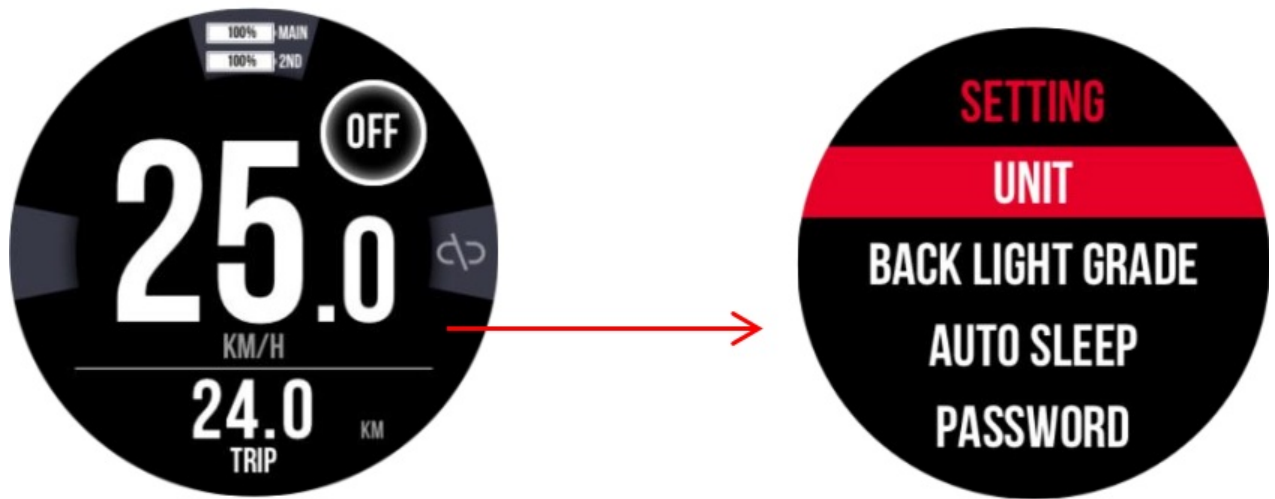
2. **Power assist gear switching**

- In the power-on working state, long press the DOWN button to switch to the power assist position.
- The power assist display has one mode by default. You can indicate the requirements in the order, or you can modify the selection by yourself through the advanced setting function and auxiliary tools of the instrument.
- Power assist display mode: WALK mode, long press DOWN key to switch; there are also OFF, ECO, SPORT, BOOST modes, press DOWM/UP key to switch WALK walking mode
- OFF :No enter boost mode
- ECO: Energy saving mode
- SPORT: Sport Mode
- BOOST: Overclocking mode

3. **Display information switch**

- When the phone is powered on, enter the function display interface and switch the display information. Quickly click the power button twice to enter the setting mode.
- If the user does not perform any key operations for more than 30 seconds in the setting mode, it will automatically return to the main display interface.
- The function display interface displays a single riding time, average speed, maximum speed, single riding mileage, remaining mileage and total mileage.
- The switching process of each interface is shown in the figure below:

| riding time | average speed | Max Speed | Single mileage | Remaining mileage |

total mileage
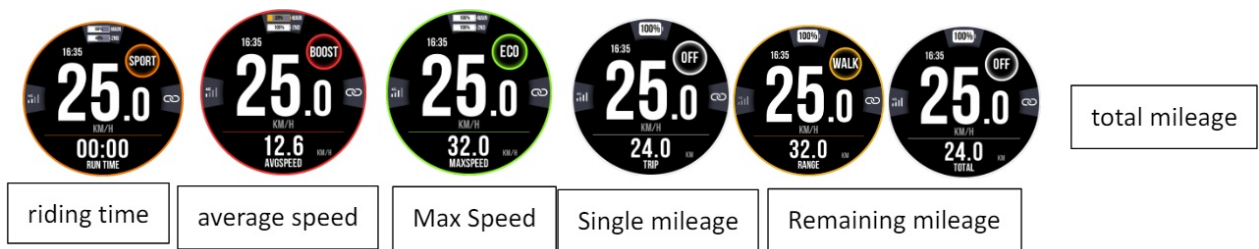
- If the system does not support the BMS communication function, the instrument cannot obtain accurate RANGE information, and the RANGE item value on the instrument is displayed as —KM.

4. **Speed display switching**

- The instrument provides a speed display function. Under normal conditions, the instrument interface displays real-time speed, average speed AVG and maximum speed MAX. The user can choose to switch through the power button. For details, refer to 6.3 Display Information Switching.

5. **Battery display and corresponding power output**

- Battery information indication and remaining percentage indication. When the battery power is normal, it changes according to the battery capacity.
- Before establishing communication with the controller during power-on, the percentage is not displayed. If the communication is not successful after 10 seconds of power-on, an 08 fault will be reported.
- The corresponding table of battery capacity percentage and power display icon is as follows (BMS or controller is required to provide power percentage):
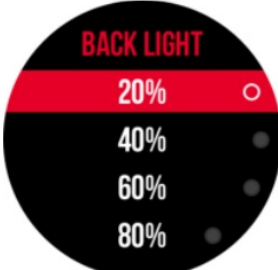
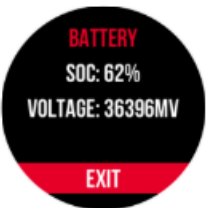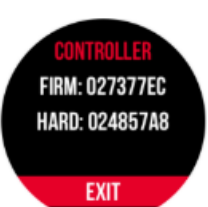| Remaining percentage information	Battery bar indicator
SOC = 100%	**100%**
20% ≤ SOC ≤ 100%	**20%**
1% ≤ SOC ≤ 20%	**5%**
SOC = 0%	**0%**

Basic setting function

Quickly click the power button twice to enter the setting interface, and short press the adjustment button   to cycle through the setting interface. In any setting interface, short press the power button to enter the parameter editing state. When entering the parameter editing and setting state, the selected parameter will be displayed with white characters on a red background. as the picture shows:

- At this time, short press , to modify parameters. Short press the power button to confirm parameter selection and edit status. Switch to EXIT again and confirm to exit the current configuration interface and return to the upper menu interface.
- After turning on the computer, quickly click the power button twice to enter the setting mode setting interface. The parameter setting interfaces are described in order as follows:

Setup items	Interface content	Parameter value definition	instruction manual
Unit settings	UNIT KM/H MPH ○ EXIT	Value=KM/H MPH	• default value Value=KM/H • KM/H—Metric • MPH—imperial
Backlight intensity setting	BACK LIGHT 20% ○ 40% 60% 80%	20% 40% 60% 80% 100%	Default Value= 60%
clear data	CLEAR DATA EXCEPT FOR THE TOTAL MILEAGE, OTHER CYCLING DATA WILL BE CLEARED YES NO	Select yes or no	Clear all data except total mileage
hibernate	AUTO SLEEP OFF ○ 5MIN 10MIN 20MIN	read only	/

Power-on password setting	PASSWORD ON ○ OFF ● EXIT	Value= OFF and ON; When the parameter value is ON, the user is allowed to set a 4-digit password	4132
Information show	DISPLAY NAME: C086 MAC: CA690A33DAF6 VER: V1.00.02 EXIT	Select yes or no	/
Battery information	BATTERY SOC: 62% VOLTAGE: 36396MV EXIT	/	/
Controller information	CONTROLLER FIRM: 027377EC HARD: 024857A8 EXIT	/	/
Clear Data	CLEAR DATA EXCEPT FOR THE TOTAL MILEAGE, OTHER CYCLING DATA WILL BE CLEARED YES NO	Select YES to confirm, NO to exit	/
bluetooth link	RESET ALL THE DATA WILL BE RESET TO FACTORY SETTING YES NO	Select YES to confirm, NO to exit	/

Data clearing

Data clearing mainly focuses on clearing data information such as single mileage, average speed and maximum speed.
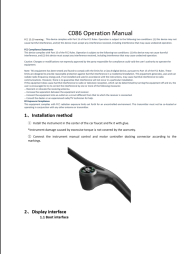
1. In the setting mode, select RESET and then select the YES option. Data clearing is mainly aimed at clearing data information such as single mileage, average speed, maximum speed, and riding time. The password settings will not be cleared. If there is no key operation for 30 seconds, it will return to the main interface.
2. After the data is cleared, the mileage, average speed, maximum speed, and riding time will also be reset to

zero; the accumulated mileage TOT value will not be cleared through any operation on the instrument side.

CLEAR DATA

EXCEPT FOR THE TOTAL MILEAGE, OTHER CYCLING DATA WILL BE CLEARED

YES

NO

- After the data is cleared, the subtotal mileage returns to zero, as does the average speed and maximum speed; the accumulated mileage ODO value is not cleared through any operation on the instrument side and requires professional maintenance tools to clear it.

Documents / Resources

C086 Operation Manual	**[IFA BERLIN C086 Ebike Control and Display Smart Ring GPS Cycle Computer](#)** [pdf] Instruction Manual C086, C086 Ebike Control and Display Smart Ring GPS Cycle Computer, Ebike Control and Display Smart Ring GPS Cycle Computer, Control and Display Smart Ring GPS Cycle Computer, Display Smart Ring GPS Cycle Computer, Smart Ring GPS Cycle Computer, GPS Cycle Computer, Cycle Computer, Computer

References

- **User Manual**