

Electric Bike Display

User's Manual

YL81F

TABLE OF CONTENTS

| | |
|--|----|
| 1. PRODUCT NAME AND MODEL NUMBER | 1 |
| 2. SPECIFICATION | 1 |
| 3. APPEARANCE AND SIZE | 1 |
| 4. FUNCTION OVERVIEW AND FUNCTIONAL AREAS | 3 |
| 4.1 FUNCTIONAL OVERVIEW | 3 |
| 4.2 FUNCTIONAL AREAS | 3 |
| 4.3 BUTTON DEFINITIONS | 3 |
| 5. ROUTINE OPERATION | 3 |
| 5.1 POWER ON/OFF | 3 |
| 5.2 DISPLAY INTERFACE SWITCHING | 4 |
| 5.3 WALK BOOST MODE | 5 |
| 5.4 PAS LEVEL SELECTION | 5 |
| 5.5 BATTERY LEVEL DISPLAY | 6 |
| 5.6 ERROR CODE DISPLAY | 6 |
| 6. PERSONALIZED PARAMETER SETTINGS | 7 |
| 6.1 BACKLIGHT LUMINANCE SETTING | 7 |
| 6.2 METRIC AND IMPERIAL SETTING | 8 |
| 6.3 RATED VOLTAGE SETTING | 8 |
| 6.4 AUTO SLEEP TIME SETTING | 9 |
| 6.5 PAS LEVEL SETTING | 9 |
| 6.6 WHEEL DIAMETER SETTING | 10 |
| 6.7 NUMBER OF SPEED SENSOR MAGNETS SETTING | 10 |
| 6.8 SPEED LIMIT SETTING | 11 |
| 6.9 START-UP SETTING | 11 |
| 6.10 DRIVE MODE SETTING | 12 |
| 6.11 PEDAL ASSIST SENSITIVITY SETTING | 12 |
| 6.12 PEDAL ASSIST STRENGTH SETTING | 13 |
| 6.13 NUMBER OF PEDAL ASSIST SENSOR MAGNETS SETTING | 13 |
| 6.14 CONTROLLER CURRENT LIMIT SETTING | 14 |
| 6.15 BATTERY UNDER VOLTAGE VALUE SETTING | 14 |
| 6.16 ODO RESETS SETTING | 15 |
| 6.17 6KM/H WALK BOOST SETTING | 15 |
| 6.18 POWER-ON PASSWORD SETTING | 16 |
| 7. SHORTCUT OPERATION | 17 |
| 7.1 RESTORE FACTORY DEFAULT PARAMETER SETTINGS OPERATION | 17 |
| 7.2 TRIP ODOMETER RESET OPERATION | 17 |
| 8. QUALITY ASSURANCE AND WARRANTY | 18 |
| 8.1 WARRANTY INFO | 18 |
| 8.2 WARRANTY DOES NOT COVER | 18 |

| | |
|--|-----------|
| 9. WIRE CONNECTION DIAGRAM | 18 |
| 9.1 STANDARD WIRE CONNECTION SEQUENCE | 18 |
| 10. PRECAUTIONS | 18 |
| SCHEDULE 1: ERROR CODE DEFINITION | 19 |

1. Product Name and Model Number

Smart LCD display for electric bicycle; Model: YL81F.

2. Specification

- 48V power supply
- Display rated current 15mA
- Display maximum current 30mA
- Shutdown leakage current <1uA
- Supplied current to the controller 50mA
- Operating temperature -20~60°C
- Storage temperature -30 to 70° C

3. Appearance and Size



Figure 3-1 Physical picture of the YL81F display



图 3-2 Customized gear button physical image

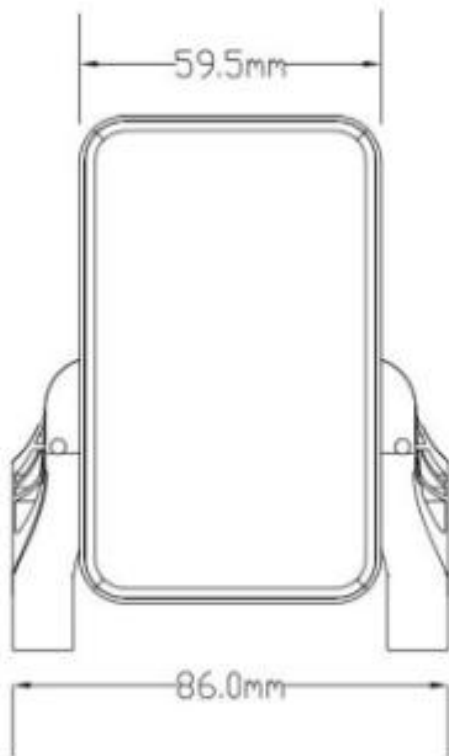


Figure 3-3 YL-81F Front View Dimension

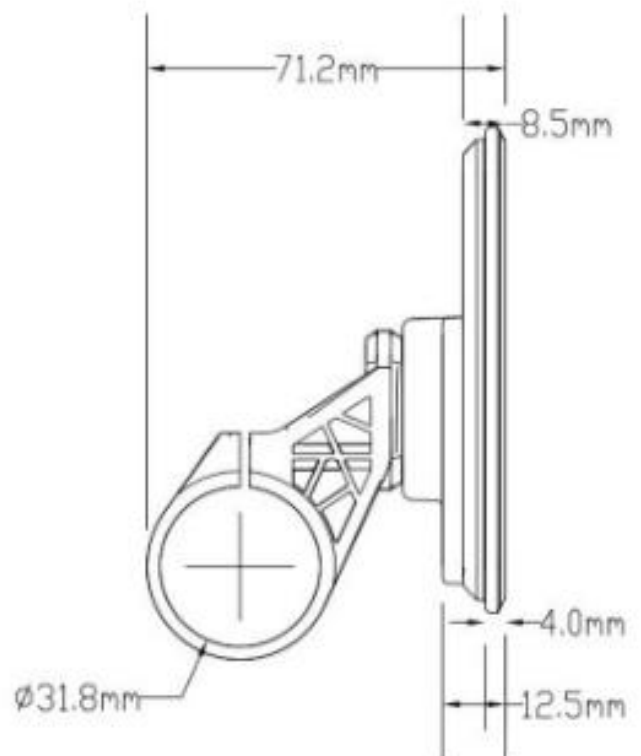


Figure 3-4 YL-81F Side View Dimension

4. Function overview and Functional areas

4.1 Functional overview

The YL81F display offers a variety of features to suit your riding needs, including:

- Battery level indicator
- Pedal assist (PAS) level indicator
- Speed (current speed, maximum speed, average speed)
- Mileage display (single and total mileage)
- Walk boost mode
- Error code indicator
- Personalized parameter settings (e.g. wheel diameter, speed limit, etc.).
- Factory default parameter recovery function

4.2 Functional areas

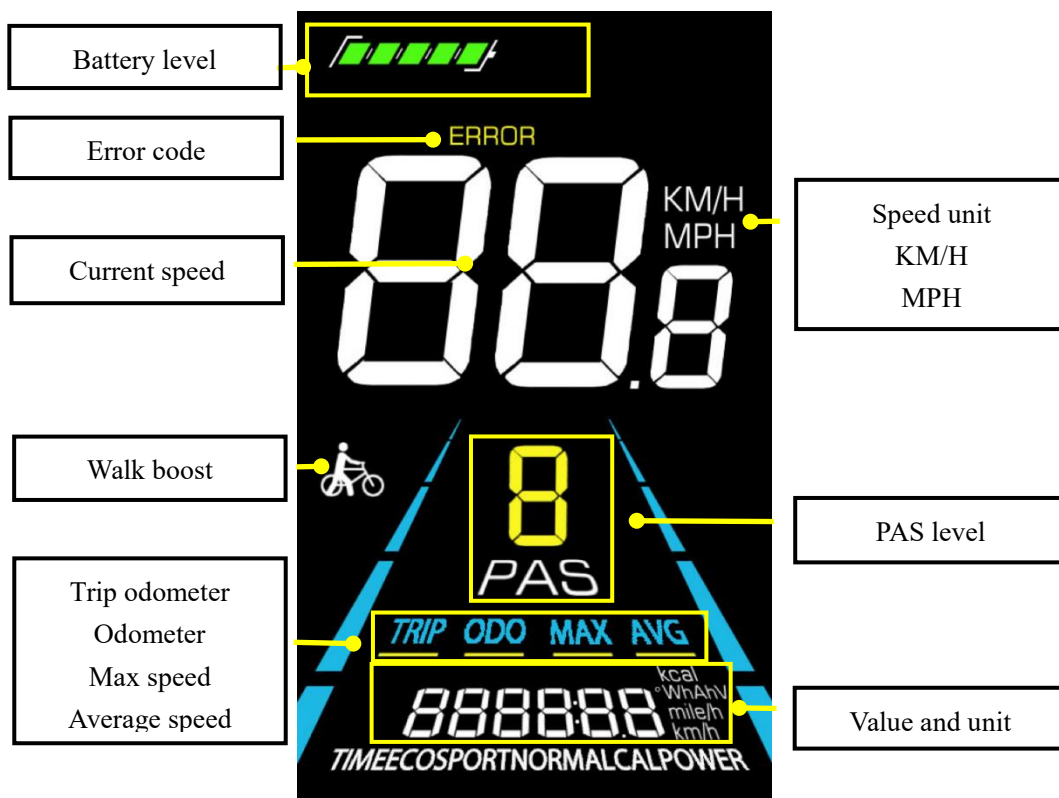








Figure 4-1 YL90T-V functional area distribution interface

4.3 Button definitions

The YL81F display is equipped with five buttons on the corresponding operating unit: power on/off , plus , minus ,  button and toggle .

5. Routine operation

5.1 Power on/off

Long press  to power on/off the display. When the display is off, it will not use the battery power and the leakage current is less than 1uA.

⚠ The display will automatically shut off if it is not used for more than 10 minutes.

5.2 Display interface switching

When the display is powered on, it will show the Current Speed (km/h) and Trip Odometer (km) by default. Short press **i** to switch between Trip Odometer(km), Odometer (km), Maximum Speed (km/h), and Average Speed (km/h).

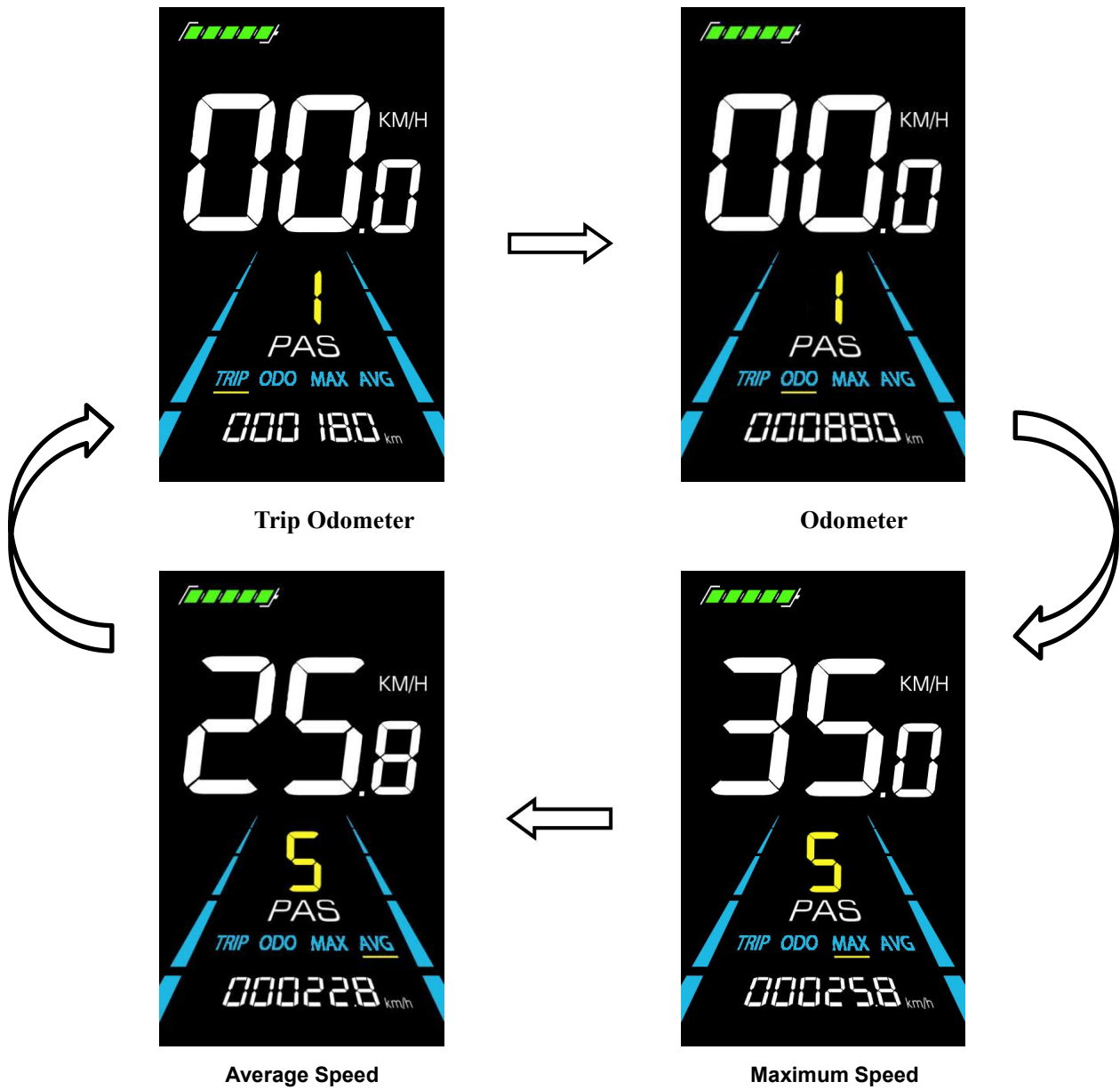


Figure 5-1 Display Interface Switching

5.3 Walk boost mode




Long Press and hold , the electric bicycle enters the walk boost mode. Your e-bike will run at the constant speed at the promoted speed and the display shows . Release  to stop the power output immediately and restore to the state before walk boost.



Figure 5-2 Helping to implement the display screen

 The walk boost mode can only be used when pushing the electric bicycle, please do not use it while riding.

5.4 PAS level selection



Press  /  to switch PAS level of electric bicycle, thus changing the motor output power.(The following pictures are only for illustration of different speeds in different gears. The specific speed is subject to the actual product)



Figure 5-3 PAS level display interface

5.5 Battery level display

The Battery level is shown as 5 bars. When the battery is full charged, all of the 5 bars lighten up. When the battery is fully depleted, the bar will begin to flash, warning the user to charge the battery as soon as possible.

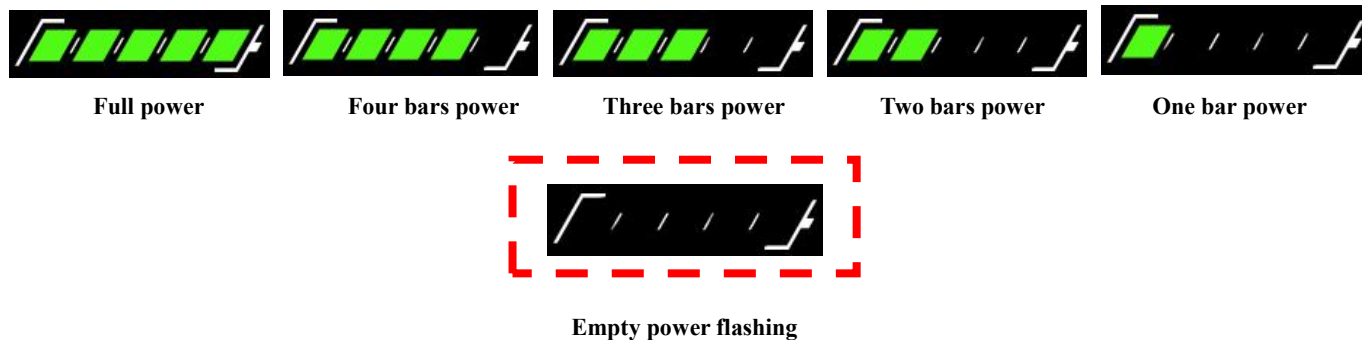


Figure 5-4 Battery Level Display Interface

5.6 Error code display

If there is a fault occurs in the electronic system of the electric bicycle, the display will automatically show an error code, see **Schedule 1** for a detailed definition of the error code.



Figure 5-5 Error Code Display

⚠ When the error code appears on the display, please troubleshoot the problem in time, the electric bicycle will not be able to drive normally after the problem occurs.

Schedule 1: Error Code Definition

| YL-02 Error codes | | | | |
|-------------------|-----------------------|--|------------|---------------------|
| Error code | Definition | | Error code | Definition |
| E001 | Controller failure | | E004 | Throttle failure |
| E002 | Communication failure | | E005 | Brake failure |
| E003 | Hall failure | | E006 | Motor phase failure |