# **USERS GUIDE**

## **VD618**



**E-Bike Display** 

Model: VD618

**Protocol: Bafang CAN** 

Version: V6.09

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## I . Safety Notes

PLEASE TAKE CAUTION WHEN USE, DO NOT PLUG OR UNPLUG THE DISPLAY WHILE YOUR E-BIKE IS POWERED ON.

- AVOID CLASHES OR BUMPS TO THE DISPLAY.
- AVOID USING IN HEAVY RAINS, SNOWS OR LONG EXPOSURE TO STRONG SUNLIGHT. DO NOT TEAR THE WATER-PROOF FILM ON THE SURFACE OF THE SCREEN, OTHERWISE THE WATER-TIGHT PERFORMANCE OF THE PRODUCT MAY BE DEGRADED.
- DO NOT PLUG OR UNPLUG THE DISPLAY WHILE THE SYSTEM IS POWERED ON. UNAUTHORIZED ADJUSTMENT TO DEFAULT SETTINGS IS NOT SUGGESTED, OTHERWISE NORMAL USE OF YOUR E-BIKE CAN NOT BE GUARANTEED.
- WHEN THE DISPLAY PRODUCT DOES NOT WORK PROPERLY, PLEASE SEND THE IT FOR AUTHORIZED REPAIR IN TIME.

## **II.** Overview

#### 1. Product Name and Model

Product Name: E-Bike Display

Product Model: VD618

### 2. Product Introduction

VD618 features high-brightness anti-glare color LCD and minimalist interface, working as an ideal HMI solution for EN15194 electric bikes.

## 3. Specifications

Working Voltage: DC 36V/48V/52V/60V/72V

■ Rated Working Current: 12mA

■ Leakage current: <1uA

■ Screen Size: 3.5"LCD

Communication Type: Bafang CAN

■ Working Temperature: -20°C ~ 60°C

■ Storage Temperature: -30°C ~ 70°C

■ Waterproof Rating: IP66

#### 4. Function

■ Assist Level Control and Display (6 modes available)

■ Battery indication: battery level percentage, low voltage indication

■ Speed display: (in km/h or mph)
real-time speed (SPEED), max speed (MAX), average speed (AVG)

■ Distance: single-trip distance (TRIP), total travel distance (ODO)

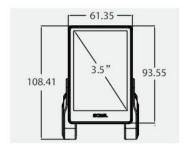
Walk assist mode

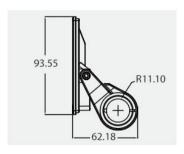
■ Front light indication

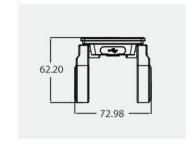
Error code indication

■ Riding Info: Braking Status, Front Light Status, Low Voltage.

#### 5. Size



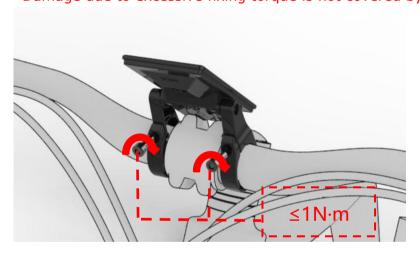




## 6. Assembly

① Open the holder ring/rubber spacer of the display and fix the display on the handlebar, adjust it to a proper facing angle. Use a M4 Hex Wrench to fix and tighten the screws. Standard fixing torque: **1N·m**.

\*Damage due to excessive fixing torque is not covered by warranty.



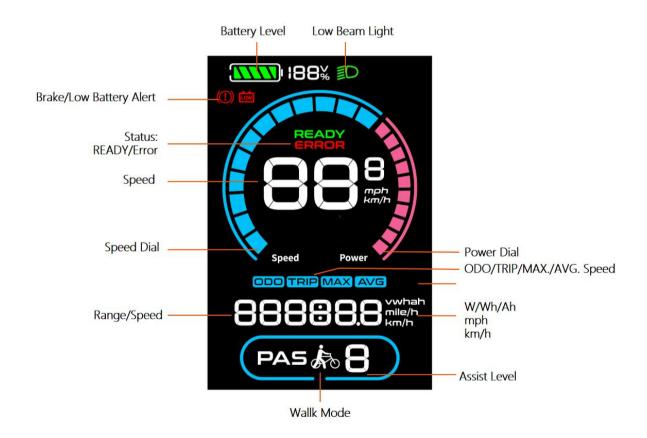
- ② Open the holder ring/rubber spacer of the keypad and fix it on the handlebar, adjust it to a proper facing angle. Use a M3 Hex Wrench to fix and tighten the screws. Standard fixing torque: **1N·m**.
- \*Damage due to excessive fixing torque is not covered by warranty.
- ③ Plug the 5-pin connector of the display to the coupling connector of the Controller.

## **Ⅲ.** Operation

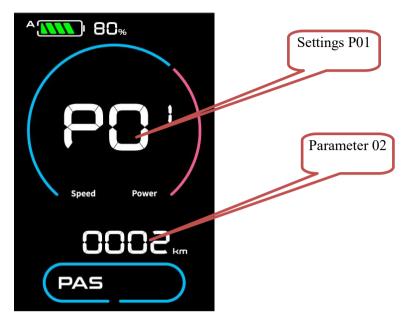
## 1. Display Interface

## 1.1 Riding Interface

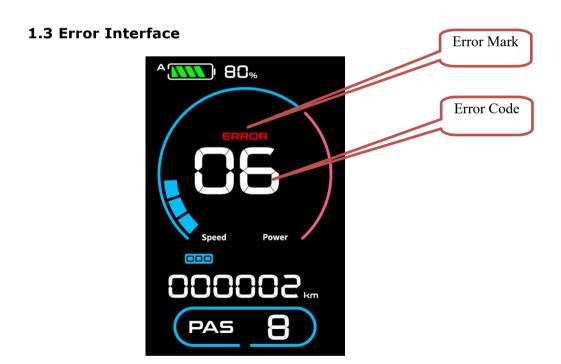
- Status: Real-time Riding Status: Front Light, Brake, Low Voltage, etc.
- Battery Status: Residual Battery Percentage
- Multi-Function Section: ODO (total range), TRIP (single ride range), MAX (max. speed), AVG (average speed), TIME (riding time), VOL (battery voltage), Wh (motor power), CUR (current), etc.
- Assist Level Mode: 5 Levels by default, 6 modes available.



## 1.2 Setting Interface



In the above interface: Setting Item: P01, Parameter Value: 02



In the above interface: Error Indicator: ERROR, Error Code: 06

## 2. Key Pad

Keypad Illustration:



There are 5 keys on the keypad, in the following instructions:

+ is called Plus Key;

**U** is called On/Off Key;

■ is called Minus/Walk Assist Key;

is called Light Key;

i is called Info Key;

## 3. Key Operation

Key operation guide as follows:

**Press and Hold:** means press and hold the key(s) for more than 2s.

**Press:** means press the key(s) for less than 0.5s.

**Double Tap:** means double tap the key(s) within 0.3s

## 3.1 On/Off

**Turn on the Display:** When the display is off, press and hold the On/Off Key to turn on the display, it will show boot interface and then enter riding interface. (If boot password is activated, enter the boot password at start).

**Turn off the Display:** When the display is on, press and hold the On/Off Key, the display will be turned off. If no operation is engaged for 5min

(0km/h), the display will be auto-off. Auto-off time can be set in the Settings.

#### 3.2 Assist Level

Press the Plus Key or Minus/Walk Assist Key to switch assist levels. There are 5 levels by default: 0/1/2/3/4/5. 0 means no assist power.

### 3.3 Toggle Displays

When the display is on, press the Info Key to toggle among ODO (total range), Trip (single trip range), TIME (riding time) etc.

## 3.4 Light On/Off

**Turn on the Front Light:** when the front light is off, press the Light Key to turn it on, and the light icon will be shown on the riding interface (to remove this functions, please reconfigure the controller).

**Turn off the Front Light:** when the front light is on, press the Light Key to turn it off, and the light icon will be off on the riding interface.

#### 3.5 Walk Assist Mode

**Engage Walk Assist Mode:** On the riding interface, press and hold the Minus/Walk Assist Key to enter walk assist mode. Hold the Minus/Walk Assist Key to engage walk assist mode, the walk mode icon will be shown on the riding interface, the real-time speed will be shown in the speed section.

**Disengage Walk Assist Mode**: release the Minus/Walk Assist Key to disengage the walk assist mode, the icon will off on the riding interface.

## 3.6 Speed Limit Switch

**Disable Speed Limit:** On the riding interface, when in speed limit mode, press and hold the Plus Key and the Minus/Walk Assist Key to disable speed limit mode.

**Enable Speed Limit:** On the riding interface, when in limitless speed mode, press and hold the Plus Key and the Minus/Walk Assist Key to enable speed

limit mode.

## 4. Settings

## 4.1 Setting Operations

- ① **Enter the Settings:** when the display is on, double tap the On/Off key to enter the Settings. Available setting items include: wheel size (inch), speed limit etc (please refer to 4.2 Setting Items).
- ② **Adjust Settings:** on the Settings interface, press the On/Off key to enter the setting item, and press Plus Key or the Minus/Walk Assist Key to set values for items. The value will blink after change. Press the On/Off Key to save the set value and switch to next item.
- ③ **Save and Exit Settings**: double tap the On/Off key to exit the Settings and save the set value. The system will save and exit automatically if there's no operation for 10s.

#### 4.2 Setting Items

- **P01: Backlight Brightness**. 1: darkest; 5: brightest.
- **P02: System Unit.** 0: km (metric); 1: mile (imperial).
- P03: Auto-Off Time

0: never, other value means auto-off time interval. Unit: minute. Range: 1-60.

#### ■ P04: Pedal Assist Level

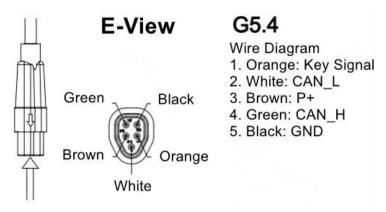
- 0-3 Level Mode; 1-3 Level Mode (no Level0)
- 0-5 Level Mode; 1-5 Level Mode (no Level0)
- 0-9 Level Mode; 1-9 Level Mode (no Level0)
- **P05: Wheel Size** (Password 1919 Protected). Unit: inch; Increment: 0.1. Range: 0.1~50.0.
- **P06: Speed Limit**(Password 1919 Protected). Range: 0-100km/h,

- communications status (controller-controlled). The max speed will be kept constant at the set value (applicable to both the PAS/throttle mode)
- P07: Trip/ODO Clearance. Press the Plus Key or Minus/Walk key to select TRIP/ODO, then press and hold the Plus key for 5s and ODO or Trip value will be cleared. Press and hold the Minus/Walk Assist Key for 5s to restore factory settings.
- P08: Auto-Light. 0: auto-light deactivated, 1: auto-light activated.
- **P09: Sensitivity of Light Sensor.** Range: 20-100
- **P10: Boot Password.** By default, none password. To remove boot password, enter 0000.

## 5. Error Code

| Error Code (decimal) | Status  | Note |
|----------------------|---|------|
| 0x01                 | Normal  |      |
| 0x04                 | Throttle Not Return ( stall at high-<br>level ) |      |
| 0x05                 | Throttle Error                                  |      |
| 0x06                 | Low-Volt Protection                             |      |
| 0x07                 | Over-Volt Protection                            |      |
| 0x08                 | Hall Signal Error of Motor                      |      |
| 0x09                 | Phase Wire Error of Motor                       |      |
| 0x10                 | Overheat Protection of Motor                    |      |
| 0x11                 | Motor Temperature Sensor Error                  |      |
| 0x12                 | Current Sensor Error                            |      |
| 0x21                 | Speed Sensor                                    |      |
| 0x30                 | Communications Error                            |      |

## 6. Connection



## IV. Warranty

In compliance with local laws, Sciwil provides limited warranty period covering **24 months** after the date of manufacturing (as indicated by the serial number), applies to quality issues during normal operations.

The limited warranty shall not be transferred to a third party other than as specified in the agreement with Sciwil.

## **Warranty Exclusions:**

- 1. Sciwil products that have been opened, modified or repaired without authorization.
- 2. Damage on the connectors.
- 3. Damage to the surface after leaving factory, including shell, screen, buttons, or other appearance parts.
- 4. Damage to wiring and cables after leaving factory, including breaks and exterior scratch.
- 5. Damage or loss due to force majeure (e.g. fire or earthquake) or natural disaster (e.g. lightening).
- 6. Out of the warranty period.