EVELO

DISPLAY UNIT MANUAL

Important Safety and Product Information

TABLE OF CONTENTS

WELCOME!

Congratulations on your purchase of an EVELO Electric Bike!

To ensure optimal performance of your electric bike and a safe ride, please read through this manual carefully prior to the first ride on your bike. This manual has instructions on installing the controller display unit, making adjustments to the factory settings, and use of the display unit itself.

CONTACT INFORMATION

Your enjoyment of — and satisfaction with — your new bike is important to us. For after-sales service, please contact us by email at contact@evelo.com or call our toll-free tech support at 1-877-991-7272.
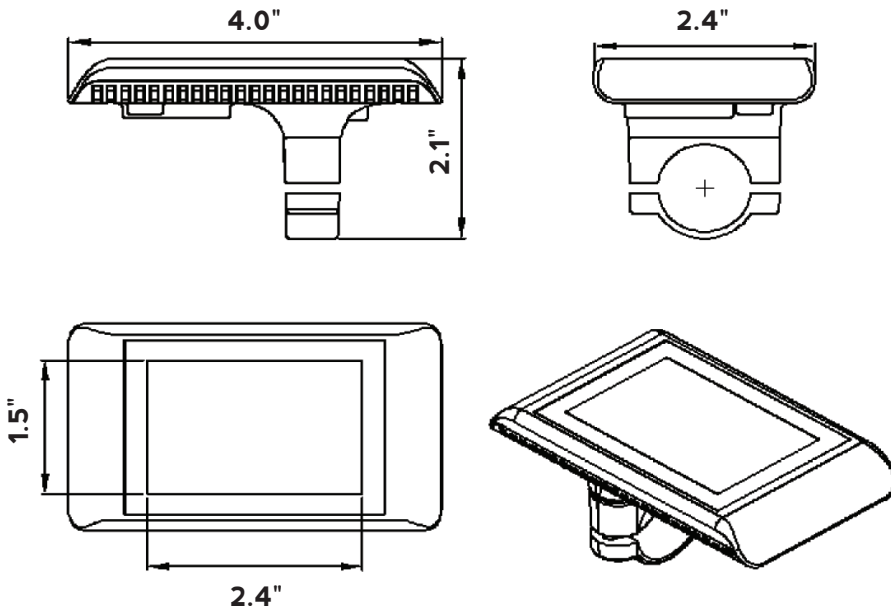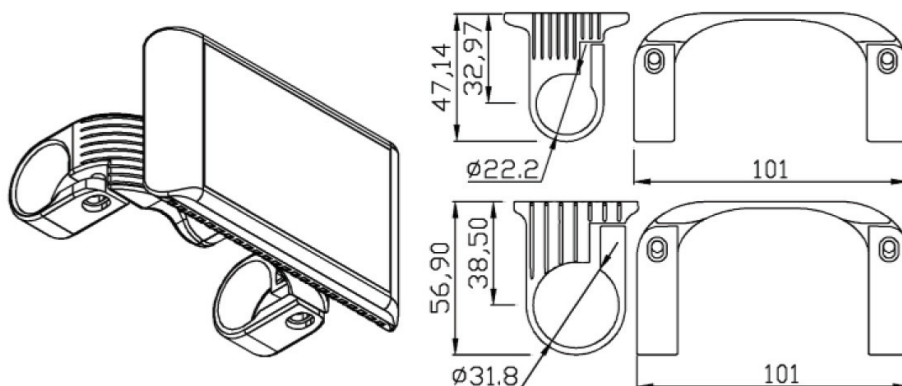
2 | DESCRIPTION OF DISPLAY UNIT

2.1   Composition and Temperature Restrictions

The display unit is made of polycarbonate plastic and is black in color. The unit is designed to operate in temperatures ranging from -4°F to +140°F (-20°C to +60°C). Within this temperature range, the unit will function and perform as intended. If the temperature is lower or higher than these limits, the unit may not function properly and/or the plastic casing may be damaged.

NOTE: At temperatures below 14°F (-10°C), the LCD screen of the display may appear blank. The screen will return to normal when the temperature rises.

2.2   Display Size

The graphic above shows the size in inches of the various parts of the display unit. It has been designed to fit well on EVELO bikes, and can be placed at any comfortable horizontal position on the handlebars.
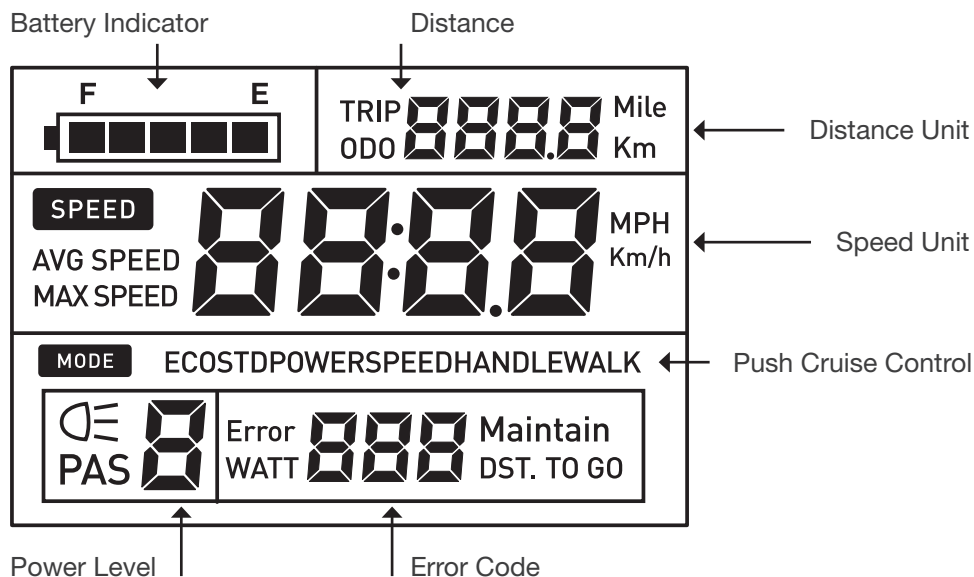
3 USER SETTINGS & BUTTON FUNCTIONALITY

3.1 Factory Settings

Your EVELO bike's controller has factory default settings for the following four options: wheel diameter (from 18-28 inches); maximum speed; LCD backlight brightness; and units of measurement. Instructions for changing these default settings are found below in section 5.

3.2 Display Unit Settings

A number of items may show on the display at any one time: battery charge level, power assist level, speed display, low-speed cruise control enabled, distance travelled, and/or error codes. Information on these settings is found in under *"Operating the Display"* in section 6.

Battery Indicator — Distance

F   E   TRIP **888.8** Mile
                ODO   Km   ← Distance Unit

SPEED   MPH
AVG SPEED   **88:8.8**   Km/h   ← Speed Unit
MAX SPEED

MODE   ECO STD POWER SPEED HANDLE WALK   ← Push Cruise Control

PAS **8**   Error **888** Maintain
             WATT   DST. TO GO

Power Level   Error Code

3.3   Controller Buttons

Changes to the display's defaults and features are made via the 3-button unit that ships with it. This part can be installed on either side of the handlebars to accommodate left- or right-handed use.

The 3-button unit is connected to the bottom of the display itself through the lead cable.

The three buttons on the unit are:

MODE – Pressing the Mode button moves you through the list of available functions and acts as the OK/Save command.

UP – Pressing this button advances along the list of available settings for that function.

DOWN – Pressing this button reverses along the list of available settings for that function.

4   INSTALLATION

The display and the 3-button units are installed on the handlebars at the factory. If needed, adjust the angle so that you can clearly see the display, and tighten the clamps on both. Connect the display and button unit with the controller connector.

5   STARTING THE DISPLAY & ADJUSTING DEFAULT SETTINGS
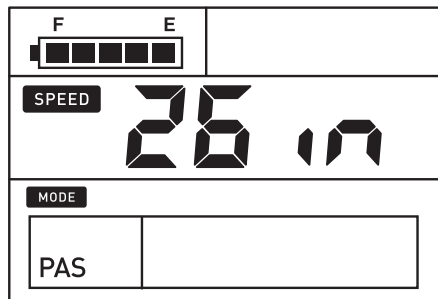
5.1   Start Up the Display Unit

Make sure the display unit is connected securely to the bike's motor controller and turn on the bike's power supply. Press and hold down the **MODE** button for 2 seconds to start the display.

5.2   Changing Factory-Default Display Settings

After the display appears, hold both the **UP** and **DOWN** buttons for 3 seconds at the same time. You can now make changes to any of the four default factory settings. The first setting to be changed — wheel diameter — will flash on the display.

5.2.1   Wheel Diameter

The factory default setting is 26 inches, which is the diameter of EVELO wheels for all models except the Orion. If you have an Orion model, press the **UP** button once to move to a 27 inch diameter setting.
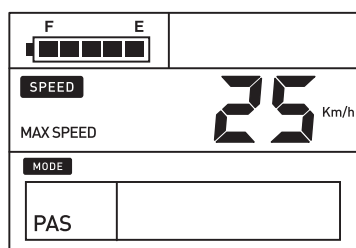
*NOTE: With any setting that is adjusted by pressing the **UP** or **DOWN** buttons, the maximum and minimum (or beginning/end) choices are sequential. For example, if you are at the maximum setting of an option, pressing the **UP** button will take you back to the beginning (or minimum) of the option's settings.*

Once you have the correct wheel diameter showing in the display window, press the **MODE** button to save this setting and move to the next.

5.2.2 Maximum Speed

The factory default setting for Maximum Speed is 20 miles per hour (MPH)

The maximum speed can be set anywhere from 7.5 MPH to 24.8 MPH [or 12 kilometers per hour (KPH) to 40 KPH].

NOTE: Federal law sets a maximum speed of 20 MPH. Any setting of maximum speed higher than this limit is for off-road use only.
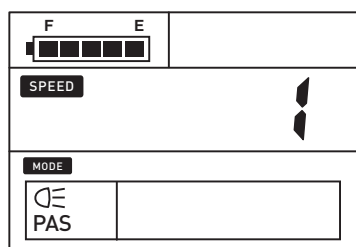
If the speed of the bike ever exceeds the maximum you have set, the controller will automatically cut power to the motor to ensure rider safety.

Set the maximum speed by pressing the **UP** or **DOWN** buttons to move from the default setting. Confirm your choice by pressing the **MODE** button, which also brings up the next setting.

5.2.3 Backlight Brightness

The factory default setting for the brightness of the display is also the minimum setting — Level 1.

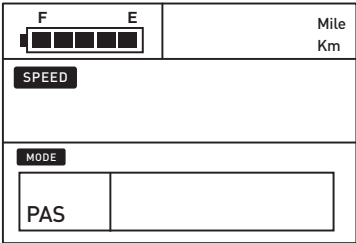You can select from three levels of brightness for your display — level 1 (minimum) to level 3

(maximum). Press the **UP** or **DOWN** button to modify the backlight brightness to the desired level. Press the **MODE** button to confirm your selection and move to the next setting.

5.2.4   Units of Measurement

The final factory setting is to choose between the metric or the British system of unit measurement (i.e., miles or kilometers).

Press the **UP** or **DOWN** button to choose the measurement unit you wish to use for the display of both distance travelled and the speed range.

5.3   Exit Setup

To exit setup, hold down the **MODE** button for 3 seconds to confirm the final parameter's setting and exit the initial setup process.
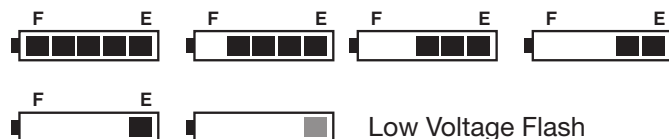
6 OPERATING THE DISPLAY

6.1 On / Off

Press **MODE** to turn on the display and electric controller. To turn it off, hold down the **MODE** button until the display turns off.

When the display is turned off, the display and controller no longer consume battery power.
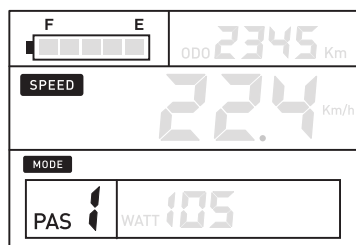
6.2 Battery Charge Level

The battery's charge level is shown as a bar with five segments. When fully charged, all five segments are lit. When the battery charge is severely low, the last battery segment will begin to flash, indicating that you need to recharge the battery immediately. Allowing the battery to drain completely or storing an uncharged battery is not recommended.
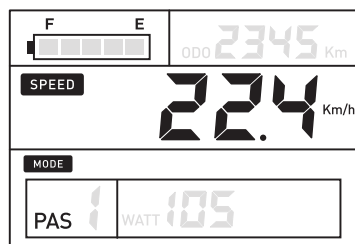

Low Voltage Flash

6.3 Power Assist Level

When the display is turned on, pressing the **UP** or **DOWN** button changes the output power of the motor and hence the degree of power assist. The range is from Level 1 to Level 5. Level 1 (the default) is the minimum assist, and Level 5 is maximum assist.
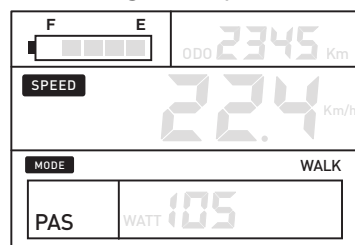
6.4 Speed Display

The display shows the current speed you are travelling on the electric bike, in the units of measurement you have set as the default.

6.5 Low-Speed Cruise Control Setting

The bike has a low-speed "cruise control" setting available for times you do not want to pedal the bike but still continue travelling. This setting ONLY produces a fixed speed of 3.7 MPH or 6 KPH — it is not a true cruise-control setting. To engage this fixed speed, press the **DOWN** button for a few seconds and continue to hold it down as the bike moves. If you release the button, the bike will stop.
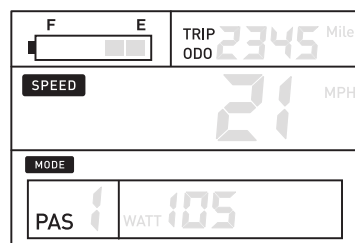
WARNING
It is extremely dangerous to use this setting while walking the bike, as the fixed speed is much too fast for the average person to keep up with the bike. This will result you losing control of the bike, causing damage to the bike and possible physical injury to you and others close by.
DO NOT USE THIS SETTING unless you are riding on the bike.

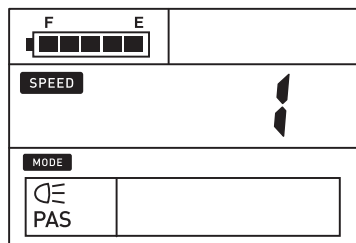## 6.6 Distance Display (Riding Distance/Total Distance)

The display shows the distance travelled by the bike, either as the distance on the current trip (TRIP) or the total distance ever travelled (ODO) on the bike. To switch between the two, press the **MODE** button.

6.7   Backlight and Headlight Operation

Aries and Aurora Models:

To turn on the display backlighting and the bike headlight, hold both the **UP** and the **MODE** buttons at the same time for 3 seconds. Hold down both the **UP** button and the **MODE** button for another 3 seconds to turn them off.
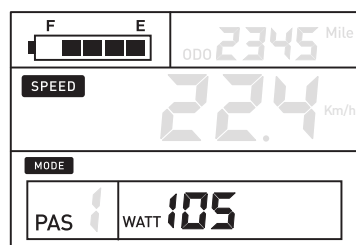
Luna and Orion Models:

Press the red switch located on the handlebars to turn the lights on or off.

6.8   USB Operation

On the left-hand edge of the unit is a small rubber door that covers a USB plug, that can be used to charge accessories. Once a USB cable is plugged into the display, pressing the **UP-MODE-DOWN** buttons together and holding for 3 seconds will start charging whichever device is connected.
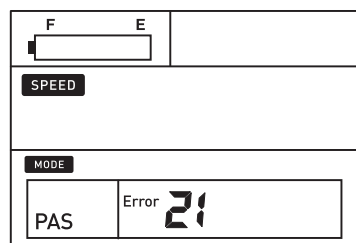
6.9   Power Consumption Tracking

The display shows the real-time power consumption while you are riding the electric bike.

6.10   Error Code Display

If a malfunction occurs in the electronic control system, an error code is shown to assist you in identifying and fixing the problem. The following table shows each error code and its definition.

Code	Definition
21	Current abnormality
22	Throttle fault
23	Motor phase problem
24	Motor hall defect
25	Brake failure or abnormality

The display will only return to normal after the problem has been fixed. In addition, the bike will not function until the problem has been fixed.

7   ADDITIONAL USE WARNINGS

Always ride your bike with an attention to safety.

Avoid hitting or knocking the display unit or button controller. If damaged, they will no longer function properly.

Avoid riding your bike and using the controller display unit in bad weather such as heavy rain or snow or in extremely hot and sunny conditions.
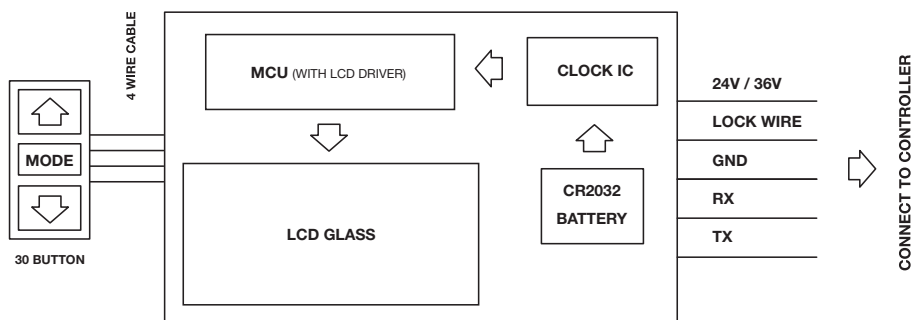
8   FAQS

Q Why can't I turn on the display?

A Please make sure that the cable is securely connected to the controller unit. Contact customer service if the display is still unresponsive.

Q How do I deal with an error code display?

A Contact the store from which you purchased your EVELO bike or a bike mechanic they recommend for assistance. If you purchased your bike online, please contact customer service for assistance.

9 WIRING DIAGRAM

MCU (WITH LCD DRIVER)

CLOCK IC

4 WIRE CABLE

MODE

30 BUTTON

LCD GLASS

CR2032 BATTERY

24V / 36V

LOCK WIRE

GND

RX

TX

CONNECT TO CONTROLLER

Red: 24V/36V; Blue: lock wire; Black: GND; Green/Yellow: RX/TX wire.

To maintain the waterproof nature of the display unit, no user access to the internal wiring is provided. Unauthorized access to the wiring without prior approval of EVELO's customer service department will void the warranty.

Please contact customer service for assistance.

EVELO

ELECTRIC BICYCLES

Questions? Get In Touch:

Email: **contact@evelo.com**

Call: **877-991-7272**

EVELO.COM