

Optibike Pioneer LCD Display Programming Guide V1.2



Overview

This manual describes the function and programming of the LCD display that comes on the Optibike Pioneer Allroad and City electric bikes. The display has both user changeable settings and regular display of information, such as speed and motor power.

User Changeable Settings

The Pioneer LCD has 4 settings that are changeable by the user.

1. **Wheel Diameter** (Range from 18-28inch). This setting is used by the speedometer to determine bike speed.
2. **Max Motor Assist Speed** (Range from 24-40 KMPH) This is speed limit at which the motor will shut off and no longer assist the rider.
3. **LCD Backlight Contrast.** This changes the brightness of the LCD
4. **Choice of Display Unit** (Metric or English). This changes the units from miles to kilometers.

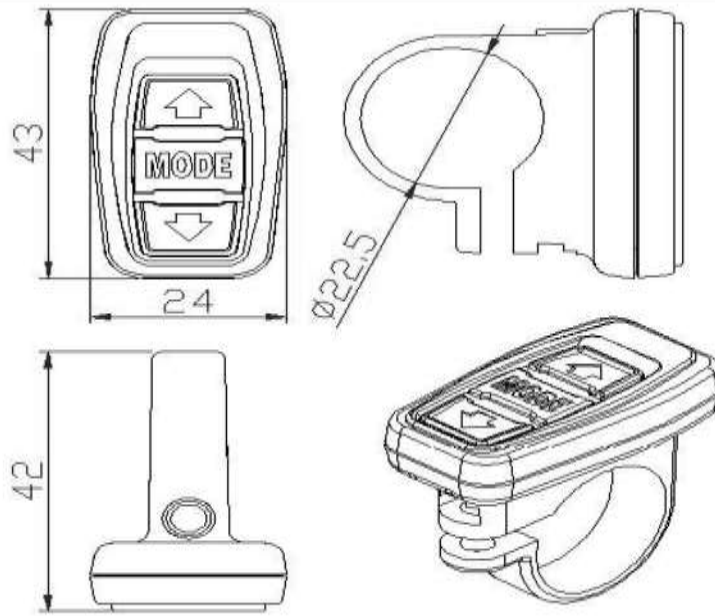
Display Parameters

The LCD displays the following information for use during riding.

1. **Battery Capacity**
2. **Motor Power Ratio**
3. **Current Speed**
4. **Max Speed**
5. **Average Speed**
6. **Riding Distance**
7. **Power**
8. **Error Code**



The LCD is equipped with special 3-button unit that is attached to the left handlebar. There are three buttons: 1) **MODE** 2) **Up Arrow** and 3) **Down Arrow**.



Programming Mode

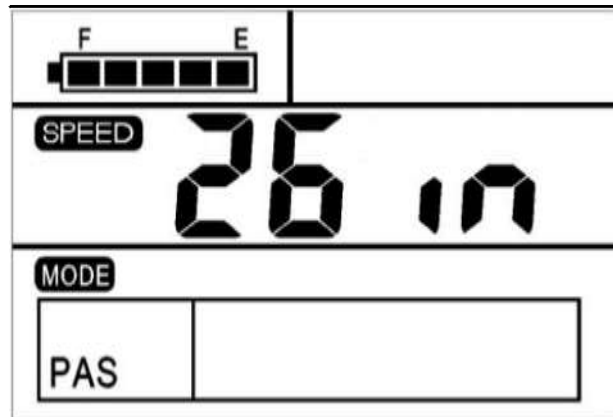
To turn on the display, press the **MODE** button for 1.5 seconds until the display lights up.

To enter program mode, hold both **UP** and **DOWN** for 2.5 seconds at the same time, LCD will enter into the setting state and the settable parameter will flash.

Wheel Diameter

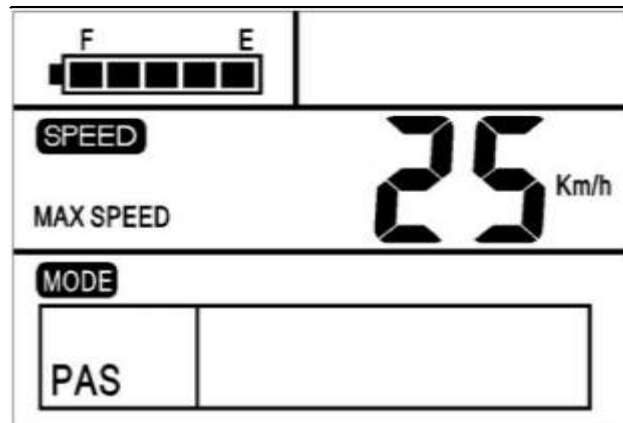
The first setting parameter is wheel diameter. Press **UP** or **DOWN** to choose a the right wheel diameter from 18-28 inch for the Bike. Default setting is 26 inch. After selection of wheel size, press **MODE** to confirm it. This will enter into the max speed setting screen.

The wheel size is used for speedometer calibration. If the wheel size is incorrect the speedometer reading will be off. The standard setting for the Pioneer Allroad is 26 inch.



Max Speed

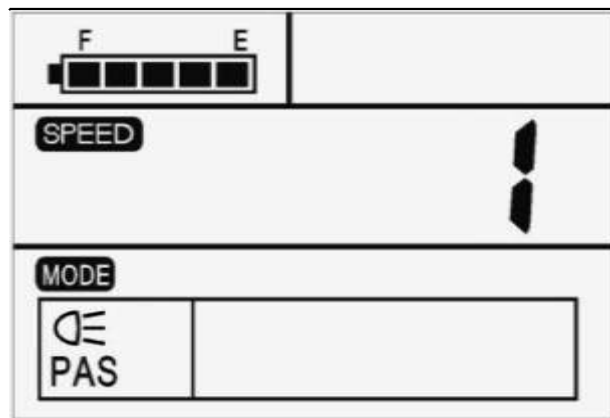
The second setting parameter is Max Speed. The Max Speed is the speed at which the motor will no longer provide assistance. The interface is as below:



The max speed should be in accordance with local regulation speed. The max speed range is between 12-40 KPH, (7.2 -24 MPH). Use **UP** or **DOWN** button to select the maximum speed and then confirm by **MODE**. You will then enter into the backlight brightness setting screen.

Backlight Brightness

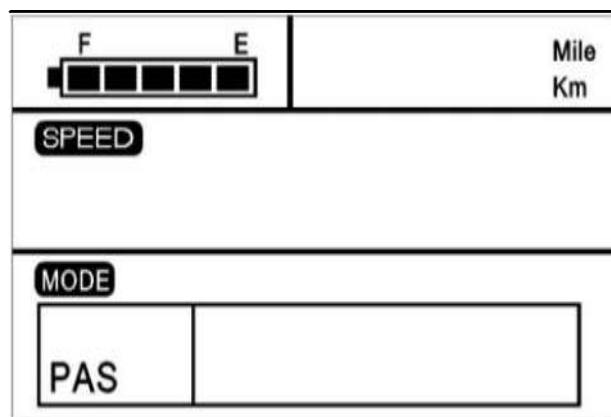
The third setting parameter is backlight brightness. The interface is as below:



Press **UP** or **DOWN** to modify the backlight brightness. You can choose from level 1 to level 3. Level 1 is the minimum brightness. Level 3 is the maximum brightness. The default value of the backlight brightness is level 1. Press the **MODE** to confirm the backlight brightness. You will then enter into the Display Unit setting screen.

Choice of Display Unit (Metric system / British system)

The fourth setting parameter is Choice of Display Unit. The interface is as below:



Press **UP** or **DOWN** to choose a display unit.
The unit can be MPH or KPH.

Quit from set up

To exit the setup mode, press **MODE** for 3 seconds to confirm the input, save current setting and exit.

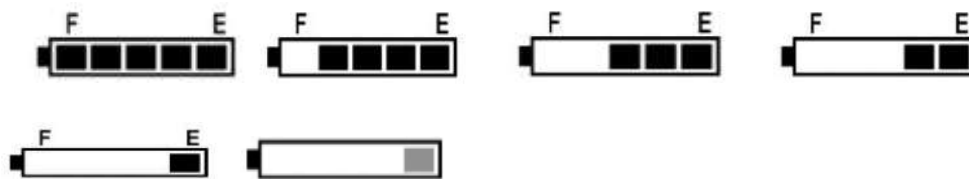
Standard Operation

ON / OFF

Press **MODE**, then the display starts to work and supply power to controller, long press **MODE** then switch off power. In the status of OFF, display and controller no longer consume battery power.

Capacity Display

When the battery capacity is high, the five battery segments are all light. When the battery is in low voltage, the last battery segment will flash at 1 Hz. It indicates that the battery is severely low in voltage condition and needs to be recharged immediately.

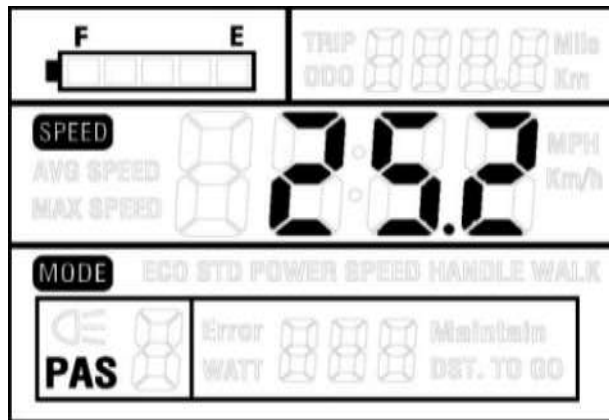


Low Voltage Flash

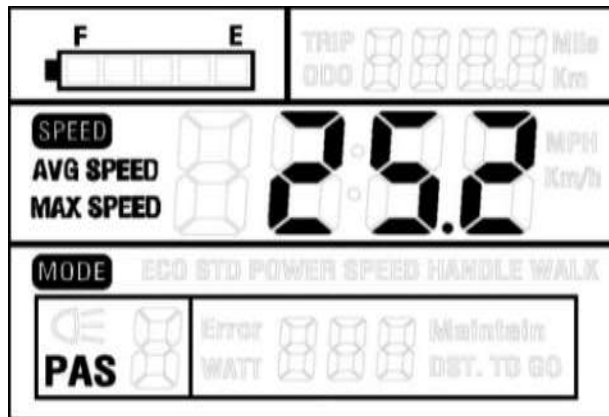
Speed Display

(Current Speed/Average Speed/Max Speed)

When the e-bike starts, the display will automatically show the current speed.



Hold **UP** and the display will show the MAX speed during this ride. Hold **UP** again and the display will show the AVG speed during this ride. Hold **UP** again and the display will turn to the current speed display.



Assisted Power Select or Throttle Level Select

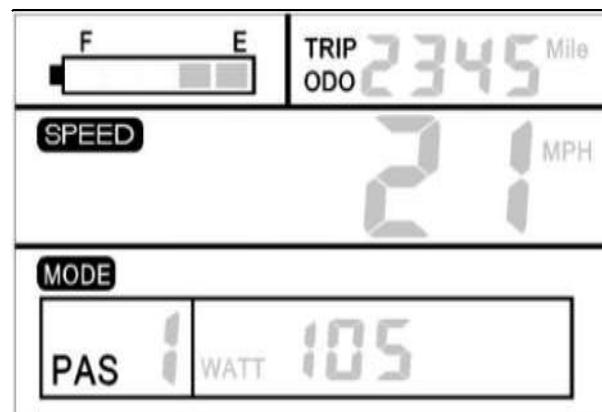
Press **UP** or **DOWN** to change the output power of the motor. The power ranges from Level 1 to Level 5. Level 1 is the minimum power. Level 5 is the maximum power. Power Level “0” will give no power.

The default level is always Level 1 when the LCD is first turned on.



Distance Display (Riding Distance / Total Distance)

Press MODE to switch between riding distance and total distance. This function is convenient for users to check the riding distance (TRIP) and the total distance (ODO).



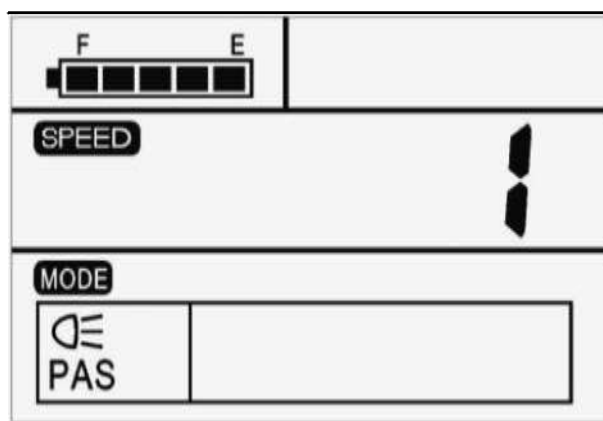
Push Cruise Control

The Push Cruise Control can be used to walk your bike at a slow speed. This can be good for walking the bike up a hill. It is not recommended to be used while riding. Press **DOWN** for a while to get into power assist mode, and the bike will travel at fixed speed 6Km/h.



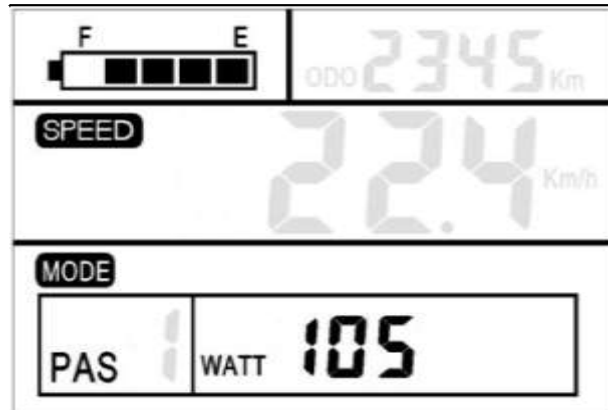
Turn On and Turn Off the Backlight

Hold both **UP** and **MODE** for 3 seconds and turn on the SW-LCD backlight, when the surrounding light is not enough or it is in the evening. Hold both **UP** and **MODE** for 3 seconds again and you can turn off the SW-LCD backlight.



Motor Power

Display the real time motor power. The interface is below:

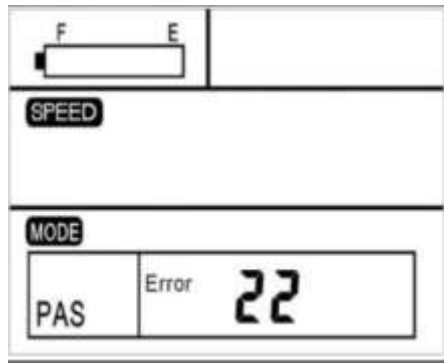


Error Code Display

If there is something wrong with the electronic control system, the display will show the error code automatically.

The following is the definition of the error code.

Error Code Definitions	
Code	Definition
21	Abnormal current
22	Throttle fault
23	Motor phase
24	Motor Hall defect
25	Brake Failed
30	Abnormal



Error Code Display

The Display will return to normal only after problem has been fixed and bike will not run before fixing the problem.

