

Product Specification

5/2021

Product TFT LCD Display

Mode TFT-500C-H

Abbreviation 500C-H

Supplier Accolmile Co., Ltd.

1. Product Name

- ✧ TFT LCD display
- ✧ Model : APT TFT 500C-H

2. Suppliers

- ✧ Accolmile Co., Ltd.

3. Electrical Parameters

- ✧ 2.2inch TFT screen
- ✧ 24V/36V/48V battery supply
- ✧ Rated operating current : 40mA
- ✧ Off leakage current < 1uA
- ✧ Max output current to controller : 100mA
- ✧ Operating temperature : -20~70℃, Storage temperature : -30~80℃

4. Dimensions & Material

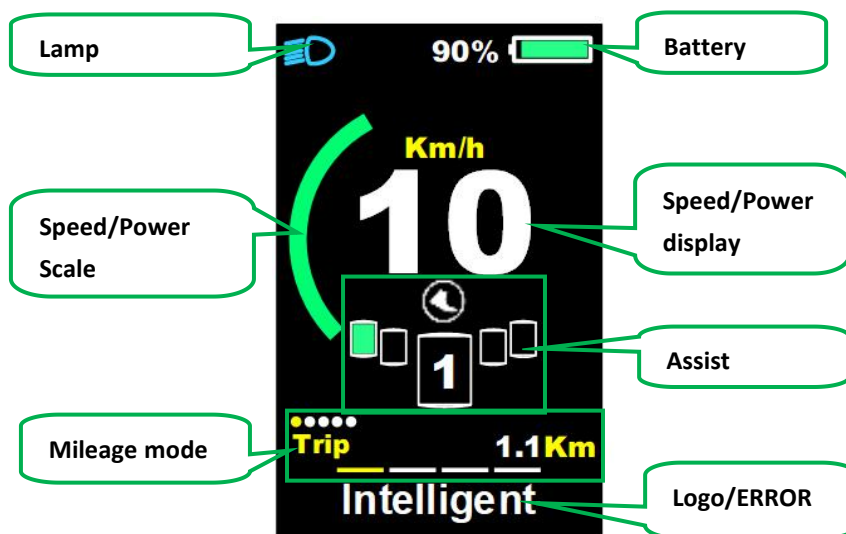
- ✧ Product shell is ABS, transparent window is made with high strength Acrylic.
- ✧ Dimensions : host/L79mm*W40mm*H18mm



5. Features

- ✧ Suitable for low temperature, Max -20°C.
- ✧ High-contrast 2.2inch IPS colorful matrix screen.
- ✧ Ergonomic external button design, easy to operate.
- ✧ **Speed display** : AVG SPEED, MAX SPEED, SPEED(Real-time).
- ✧ **Kilometer / Mile** : Can be set according to customers' habits.
- ✧ **Smart battery indicator** : Provide a reliable battery indicator.
- ✧ **5-level Assist**.
- ✧ **Mileage indicator** : Odometer/Trip distance/Riding time/ Range/Power.
- ✧ **Power indicator** : real time power indicator.
- ✧ **Speed limit value indicator**
- ✧ **Error code indicator**.
- ✧ **Software upgraded** : Software can be upgraded through UART.

6. TFT screen instructions



7. Functional Description



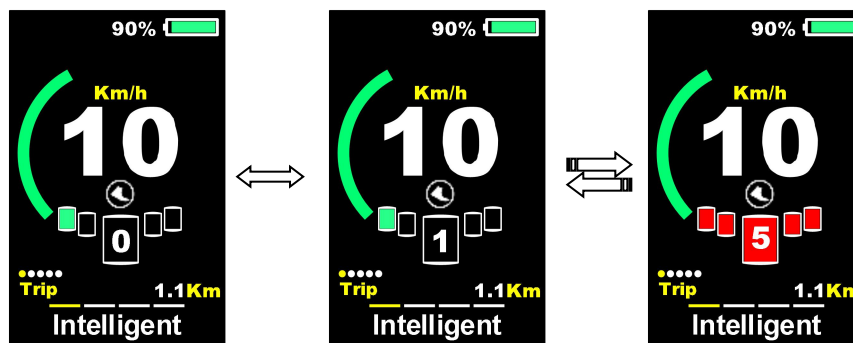
7.1 Power On/Off

Press and hold **Power** button for 2 seconds can turn on/off the display. The Display can automatically shut down when there is no operate & ride for X minutes (X could be 0~9) .

*If the display has been set password power on, you need to input the right password before start.

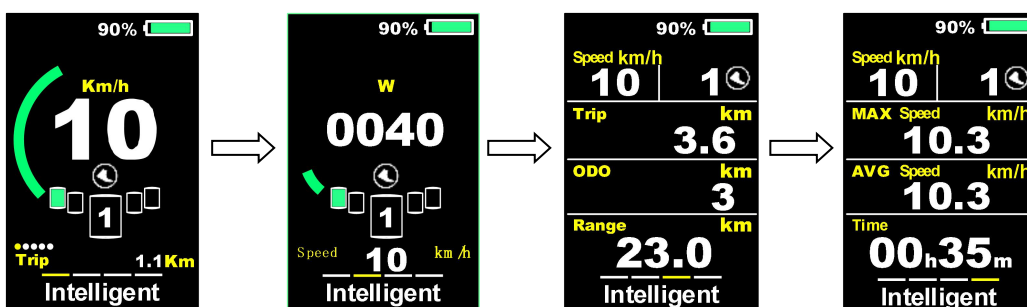
7.2 Assist level operating

Short press **UP/DOWN** button can change the assist level. Top assist level is 5, 0 for neutral.



7.3 Speed mode switch

Short press **POWER** button can change interface , such as the power, speed and mileage mode.



**If there is no operation for 5 seconds, display will return Speed (Real-Time) display automatically.

7.4 Mileage mode switch

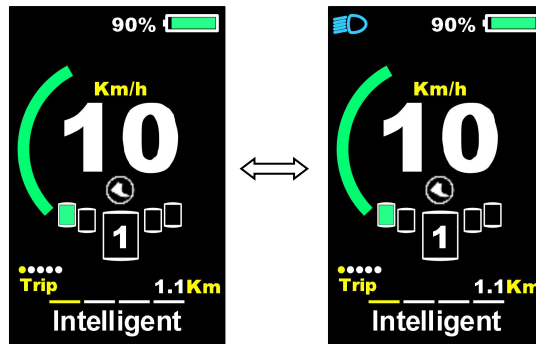
Short press **MODE** button can change mileage mode, Trip→ODO→Time→Range→Time→Power.



7.5 Headlight/backlight On/Off

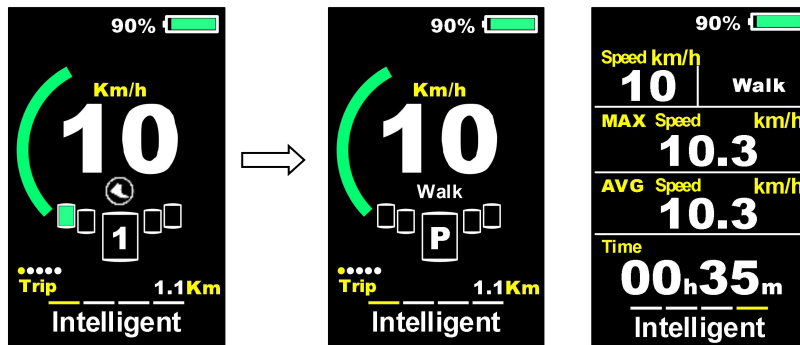
Press and hold **UP** button for 2 seconds can turn on/off the headlight.

*The motor does not work when the battery voltage is low, Display still can keep the headlight on for a while when E-bike is in riding.



7.6 Walking mode (6km)

Press and hold **DOWN** button for 2 seconds can get into walking mode, out of the mode when release the button.

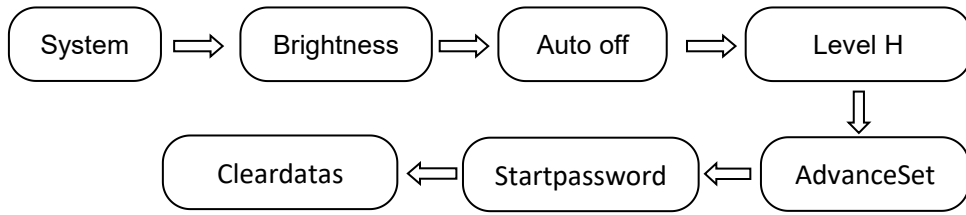


* This feature needs to be supported by controller.

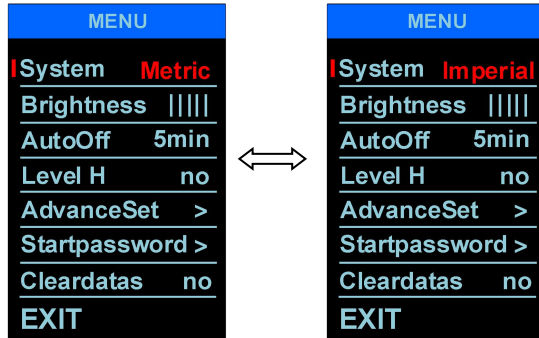
8. Parameter setting

Press **M** button (press no less than 2 seconds) can get into setting menus, press **UP/DOWN** buttons to change the parameter setting, press **POWER** button can switch to next item. Press **M** (press no less than 2 seconds) button will exit from menu.

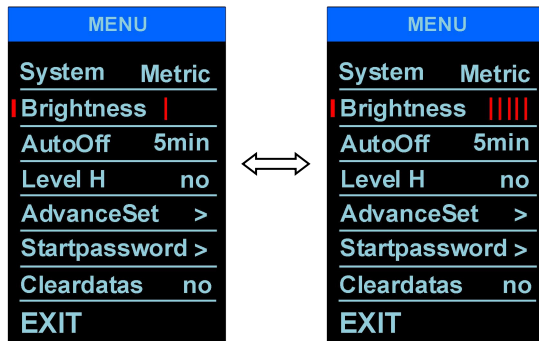
The order of parameters are as follow.



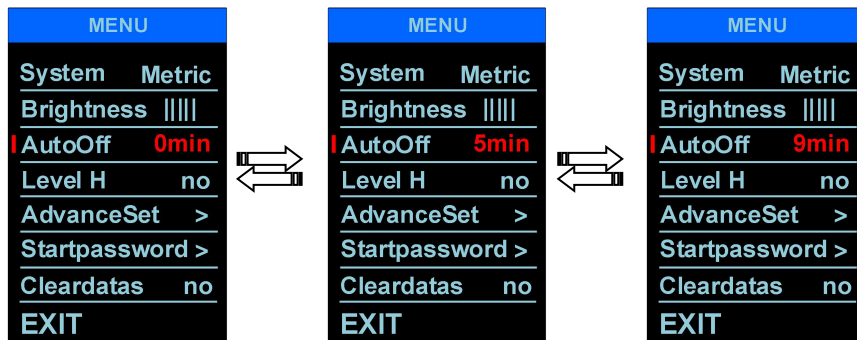
8.1 System : Press **Up / Down** button to switch between **Metric / Imperial**.



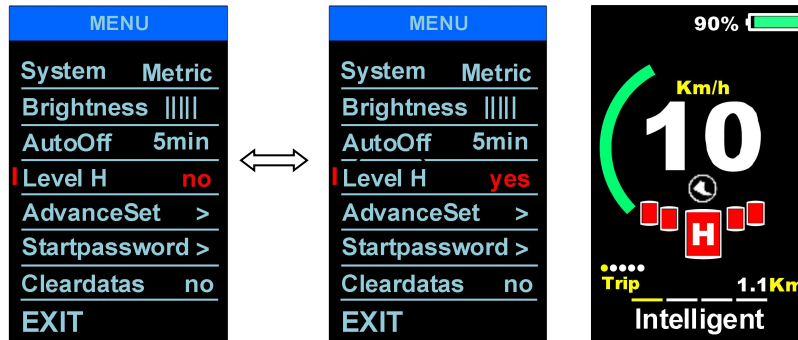
8.2 Brightness : Press **Up / Down** button to change the brightness of the backlight, | is darkness, ||||| is brightness.



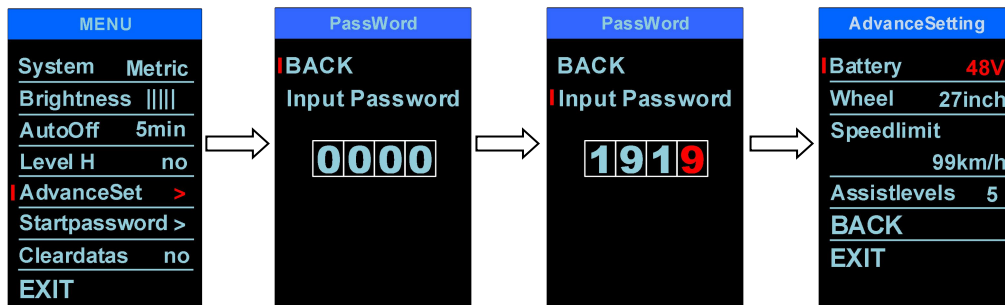
8.3 Auto off : Press **UP/DOWN** button to change the auto power off time, from 0 to 9, the number represent time (minutes) to shutdown, 0 means disable auto off function, default value is 5 minutes.



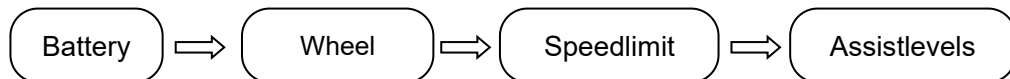
8.4 **Level H:** Press **UP/DOWN** button can remove speed limit settings.



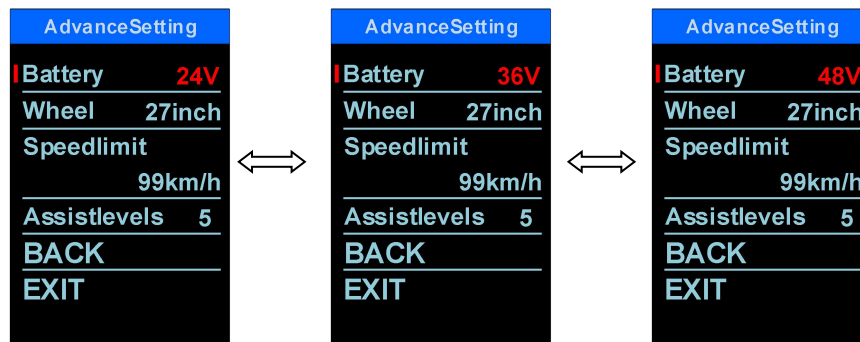
8.5 **Advance setting :** Press **POWER** button can get into the advance setting menu, default password is '1919'.



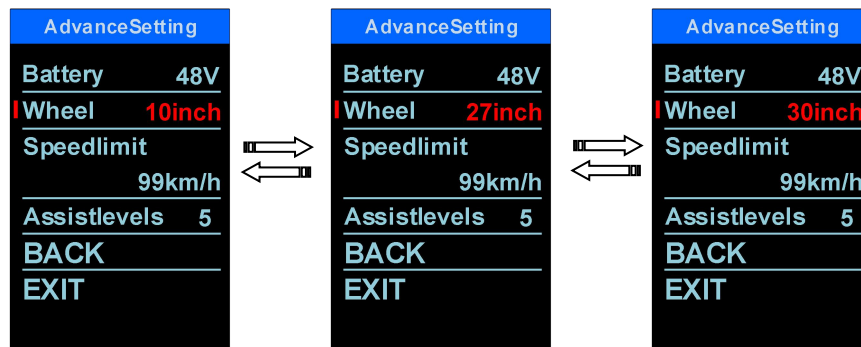
■ **Advance setting:**



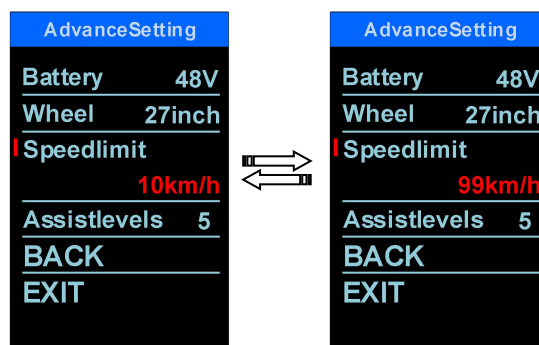
8.6 **Battery:** Press **Up/Down** button will change battery voltage setting, optional value is **24V/36V/48V**.



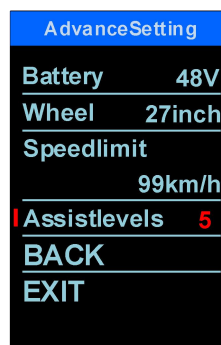
8.7 **Wheel:** Press **Up/Down** button can change the wheel setting, optional wheel diameter is **10 ~ 30 inch**.



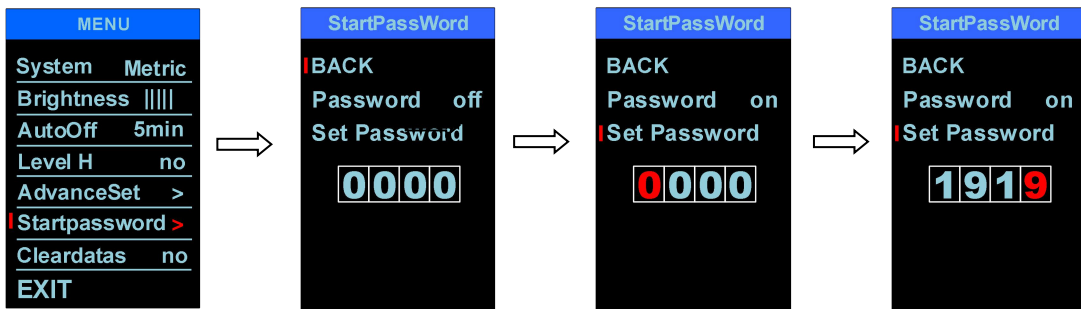
8.8 Speed limit: Press Up/Down button will change speed limit, range 10km/h~99km/h.



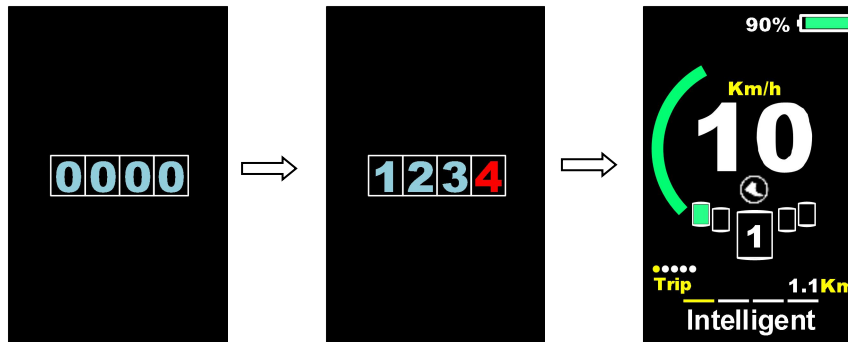
8.9 Assist levels: Option is only 5.



8.10 Start password: Press POWER button get into the Sartpassword setting menu. You can input right password before power on, password is accorded to your setting.

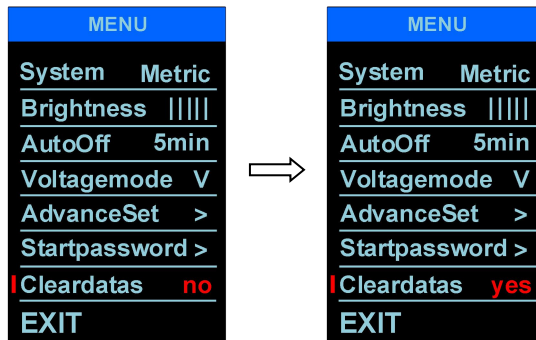


You need to input the password to enter the working display interface of the instrument.



8.11 Clear data: Several temporary data can be reset in MENU, temporary data include **AVG Speed / MAX Speed / Trip / Time**. Press **Up/Down** button to select no or yes.

* These temporary data can't be erased by power off.

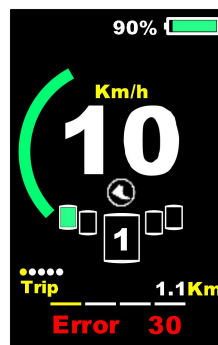


9. Error Code define

500C-H can show warning message, show error code at the bottom of the screen, definition see the table below.

Error Code	Error description	Error diplay
0x01	Normal	No error
0x03	Brake signal	No error
0x04	Throttle on high position	Display 04H on speed position

0x05	Throttle error	Display 05H on speed position
0x07	High voltage protection	Display 07H on speed position
0x08	Motor's hall sensor error	Display 08H on speed position
0x09	Phase line of motor error	Display 09H on speed position
0x10	Controller over temperature	Display 10H on speed position
0x11	Motor over temperature	Display 11H on speed position
0x12	Current sensor error	Display 12H on speed position
0x13	Battery's temperature sensor error	Display 13H on speed position
0x14	Motor's temperature sensor error	Display 14H on speed position
0x21	Speed sensor error	Display 21H on speed position
0x22	BMS communication error	Display 22H on speed position
0x23	Head light error	Display 23H on speed position
0x24	Head light sensor error	Display 24H on speed position
0x25	Torque sensor error-Torque	Display 25H on speed position
0x26	Torque sensor error-speed	Display 26H on speed position
0x30	Communication error	Display 30H on speed position



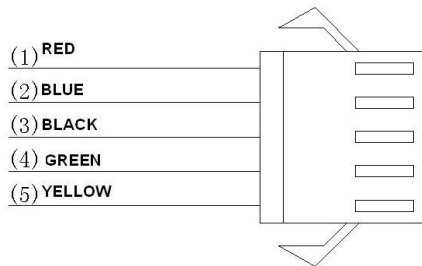
10. Assembly instructions

Please pay attention to the screw's torque value, damaged caused by excessive torque is not within the scope of the warranty.



M4*8
 STD=0.50 N.M
 MAX=0.70 N.M

11. Connector descriptions



- 1、 Red wire : Anode(24v/36v/48V)
- 2、 Blue wire : Power cord to the controller
- 3、 Black wire : GND
- 4、 Green wire : RxD (controller -> display)
- 5、 Yellow wire : TxD (display -> controller)

12. Certification

CE / IP65 (water proof) / ROHS.