1. Product Name

✧ TFT LCD display

✧ Model : DPC14

2. Electrical Parameters

✧ 3.2 inch IPS screen

✧ 24V/36V/48V battery supply

✧ Rated operating current : 40mA

✧ Max operating current : 100mA (36V battery, with USB equipment changed)

✧ USB changing port : 5V 500mA

✧ Off leakage current < 1uA

✧ Max output current to controller : 100mA

✧ Operating temperature : -20～70℃, Storage temperature : -30～80℃

3. Dimensions & Material

✧ Product shell is ABS, transparent window is made with high strength Acrylic.

✧ Dimensions : host/L92mm*W60mm*H14mm

4. Features

- ✧ Suitable for low temperature，Max -20℃.

- ✧ High-contrast 3.2inch 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.

- ✧ **9-level Assist :** 3-level/5-level/9-level optional.

- ✧ **Mileage indicator :** Odometer/Trip distance/ Clock/ Riding time.

- ✧ **Power/Current indicator :** real time power indicator, digital or analog or Current.

- ✧ **Error code indicator.**

- ✧ **Software upgraded :** Software can be upgraded through UART.

- ✧ **USB charging port :** 5V/500mA

## 5. TFT screen instructions
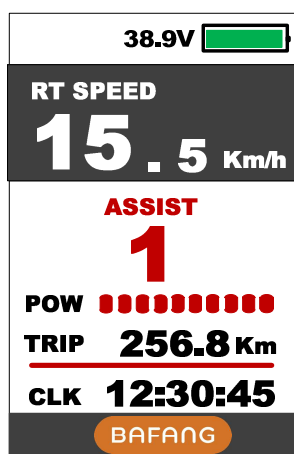
6. Functional Description
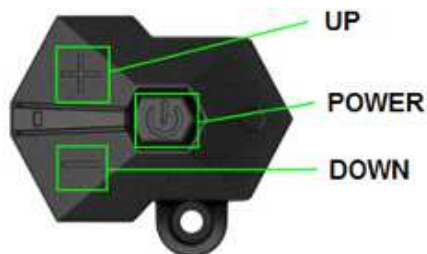
7.1 Power On/Off

Press and hold Power button for 1 second 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 9, 0 for neutral. Level quantities can be adjusted according to the customer requirements.
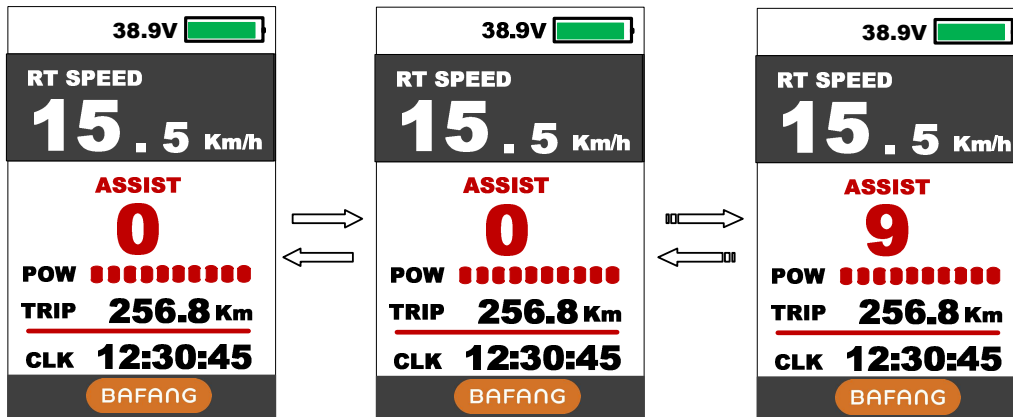
7.3 Speed & Mileage mode switch

Short press POWER button can change the speed and mileage mode, AVG SPEED->MAX SPEED->RT SPEED->ODO->RANGE->TIME->TRIP.
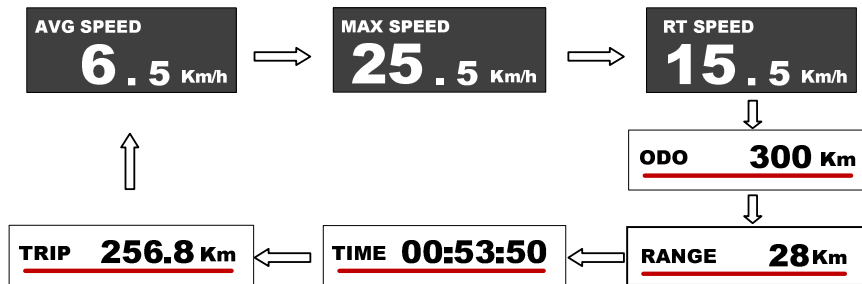
**If there is no operation for 5 seconds, display will return Speed (Real-Time) display automatically.

7.4 Headlight/backlight On/Off

Press and hold UP button for 1 second can turn on/off the headlight, and the scree will switch to the corresponding mode.

*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.

Daytime mode   night mode
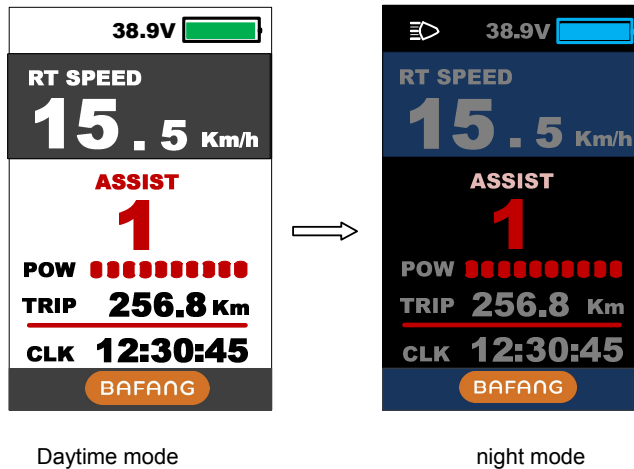
7.5 Walking mode (6km)

Press and hold DOWN button for 2 second can get into walking mode, out of the mode when release the button.
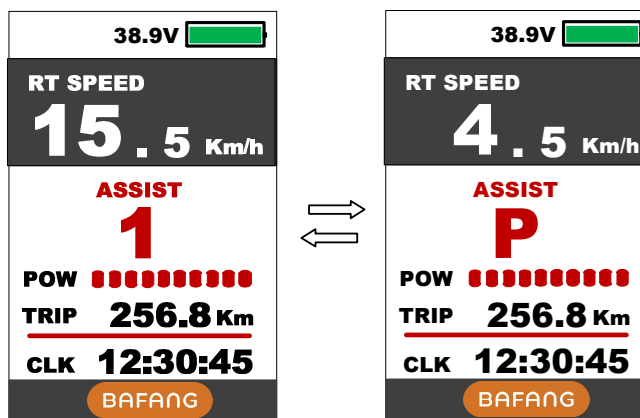
* This feature needs to be supported by controller.

7.6 Data cleanup

Press and hold UP & DOWN buttons together for 1 second can reset several temporary data, temporary data include **AVG Speed / MAX Speed / Trip / Time**.

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

7. Parameter setting

Double press POWER button (press interval less than 0.3 second) can get into setting menus, press UP/DOWN buttons to change the parameter setting, press POWER button can switch to next item. Double press POWER button will exit from menu.

* Display will automatically quit menu when there is no operation for 30 seconds.

* For safety reasons, display can't get into MENU when riding.

* Display will quit MENU when start riding.

The order of parameters are as follow.
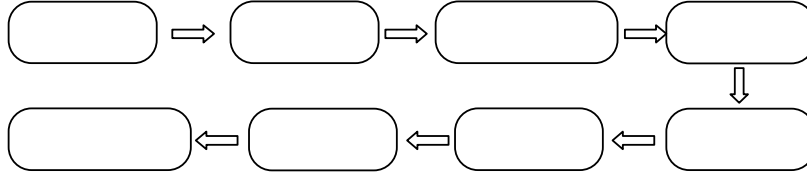
8.1 System : Press Up / Down button to switch between Metric / Imperial.
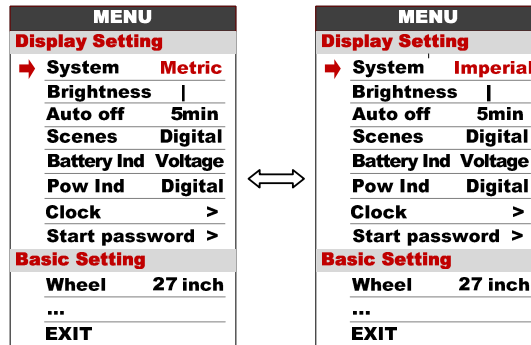
8.2 Brightness : Press Up / Down button to change the brightness of the backlight, I is darkness，IIIII is brightness, default value is I.
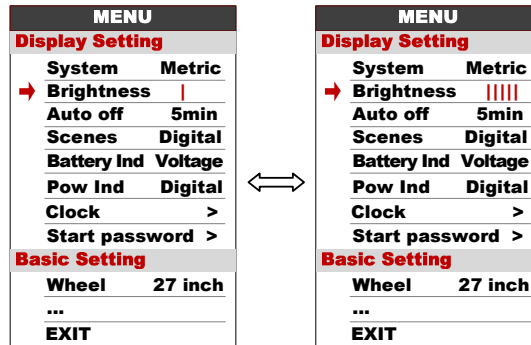
8.3 Auto off : Press UP/DOWN button to change the auto power off time, from 1 to 9 or OFF, the number represent time (minutes) to shutdown, default value is 5 minutes.

MENU	MENU	MENU
Display Setting	**Display Setting**	**Display Setting**
System　　　Metric	System　　　Metric	System　　　Metric
Brightness		Brightness		Brightness	
➡ Auto off　　**1min**	➡ Auto off　　**9min**	➡ Auto off　　**OFF**
Scenes　　Digital	Scenes　　Digital	Scenes　　Digital
Battery Ind　Voltage	Battery Ind　Voltage	Battery Ind　Voltage
Pow Ind　　Digital	Pow Ind　　Digital	Pow Ind　　Digital
Clock　　　　>	Clock　　　　>	Clock　　　　>
Start password　>	Start password　>	Start password　>
Basic Setting	**Basic Setting**	**Basic Setting**
Wheel　　27 inch	Wheel　　27 inch	Wheel　　27 inch
...	...	...
EXIT	EXIT	EXIT

8.4 Scenes : Press UP/DOWN button to change the scenes, Digital / Analog.

*Display only support Digital scenes for now, Analog scenes will be supported for future.

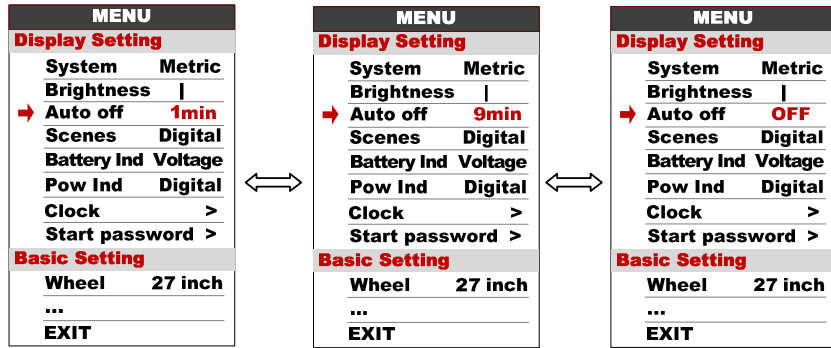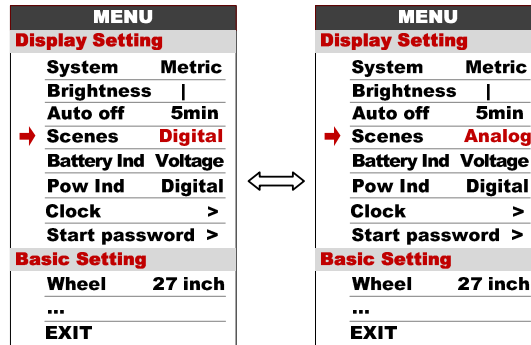| MENU	MENU
Display Setting	**Display Setting**
System　　　Metric	System　　　Metric
Brightness		Brightness	
Auto off　　5min	Auto off　　5min
➡ Scenes　　**Digital**	➡ Scenes　　**Analog**
Battery Ind　Voltage	Battery Ind　Voltage
Pow Ind　　Digital	Pow Ind　　Digital
Clock　　　　>	Clock　　　　>
Start password　>	Start password　>
Basic Setting	**Basic Setting**
Wheel　　27 inch	Wheel　　27 inch
...	...
EXIT	EXIT

8.5 Battery Ind : Press UP/DOWN button to change the battery indicator, Voltage / Percentage / OFF.

*Accurate percentage needs communication with battery.

MENU	MENU	MENU
Display Setting	**Display Setting**	**Display Setting**
System　　　Metric	System　　　Metric	System　　　Metric
Brightness		Brightness		Brightness	
Auto off　　5min	Auto off　　5min	Auto off　　5min
Scenes　　Analog	Scenes　　Analog	Scenes　　Analog
➡ Battery Ind　**Voltage**	➡ Battery Ind　**Percent**	➡ Battery Ind　**OFF**
Pow Ind　　Digital	Pow Ind　　Digital	Pow Ind　　Digital
Clock　　　　>	Clock　　　　>	Clock　　　　>
Start password　>	Start password　>	Start password　>
Basic Setting	**Basic Setting**	**Basic Setting**
Wheel　　27 inch	Wheel　　27 inch	Wheel　　27 inch
...	...	...
EXIT	EXIT	EXIT

Voltage	Percentage	OFF

8.6 Pow Ind : Press UP/DOWN button to change the Power indicator, Analog / Digital/Current.

* This data represent power output of the battery (not motor).
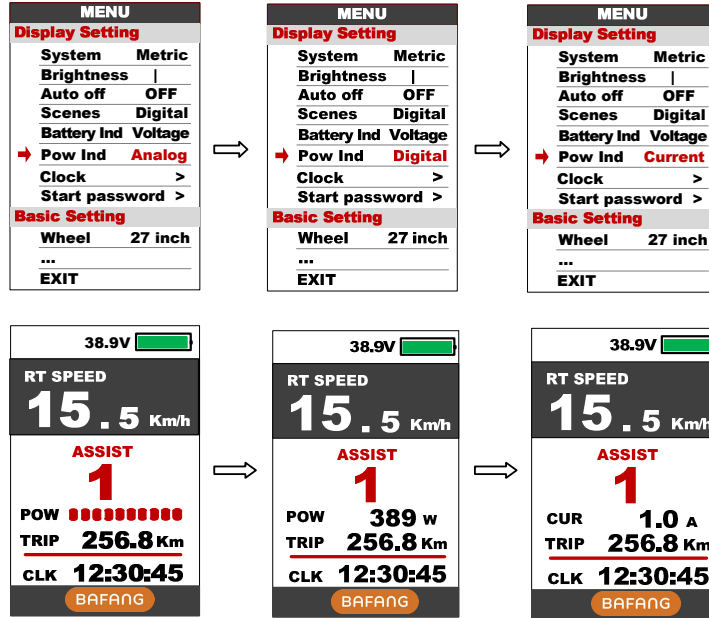
8.7 Clock : Clock setting, press POWER button get into the clock setting menu, press UP/DOWN button to set Year/Month/Day/Hour/Min/Sec.
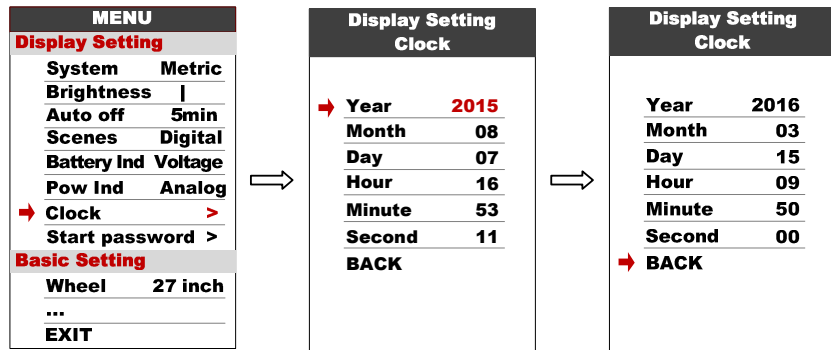
8.8 Start password : Press POWER button get into the password setting menu. If you had set Start input ON, you must input right password before power on, password is accorded to your setting.
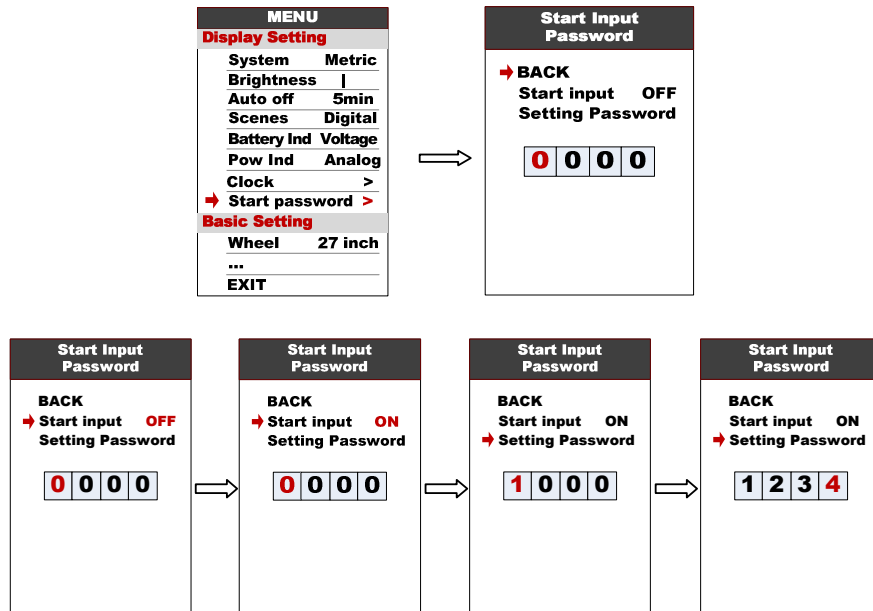
You need to input the right password before start with 30 seconds, display will power off automatically if the password was wrong.
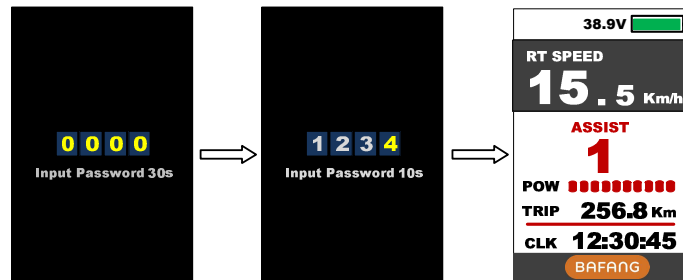
Basic Setting

*Press DOWN button to move the red arrow to Wheel ···, press POWER button can show all items of the Basic Setting.

8.9 Wheel : Press UP/DOWN can change the wheel setting, optional wheel diameter is 16/18/20/22/24/26/27/27.5/28/29/30/31 inch, 51cm~255cm represent wheel circumference (this needs controller support).

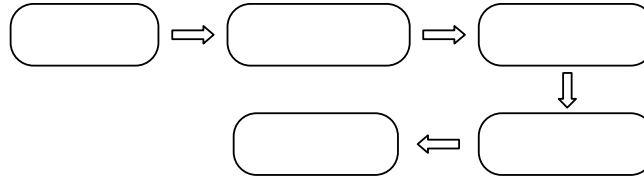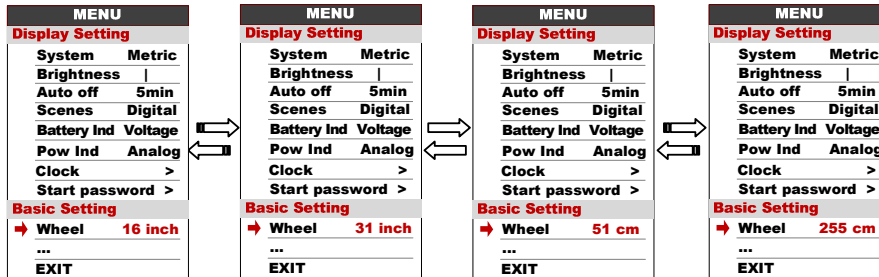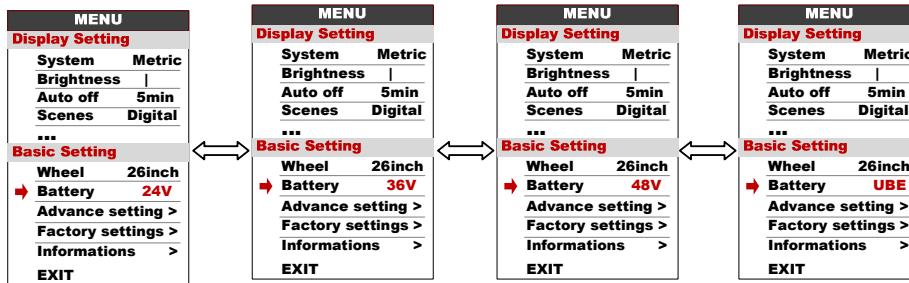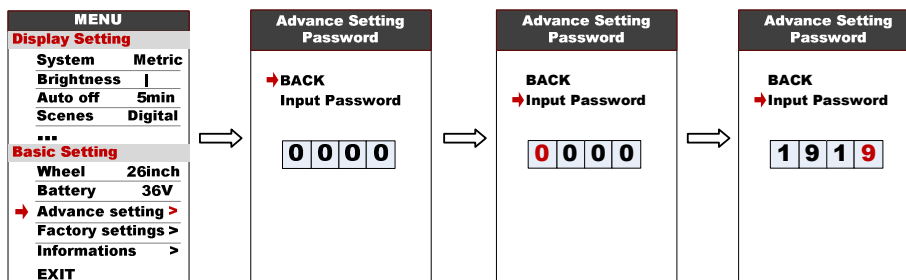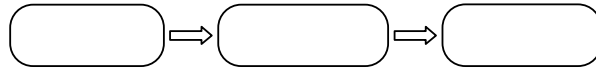| MENU	MENU	MENU	MENU
Display Setting	**Display Setting**	**Display Setting**	**Display Setting**
System Metric	System Metric	System Metric	System Metric
Brightness |	Brightness |	Brightness |	Brightness |
Auto off 5min	Auto off 5min	Auto off 5min	Auto off 5min
Scenes Digital	Scenes Digital	Scenes Digital	Scenes Digital
Battery Ind Voltage	Battery Ind Voltage	Battery Ind Voltage	Battery Ind Voltage
Pow Ind Analog	Pow Ind Analog	Pow Ind Analog	Pow Ind Analog
Clock >	Clock >	Clock >	Clock >
Start password >	Start password >	Start password >	Start password >
Basic Setting	**Basic Setting**	**Basic Setting**	**Basic Setting**
➡ Wheel 16 inch	➡ Wheel 31 inch	➡ Wheel 51 cm	➡ Wheel 255 cm
...	...	...	...
EXIT	EXIT	EXIT	EXIT

8.10 Battery : Press UP/DOWN will change battery voltage setting, optional value is 24V/36V/48V/UBE，UBE means user define value.

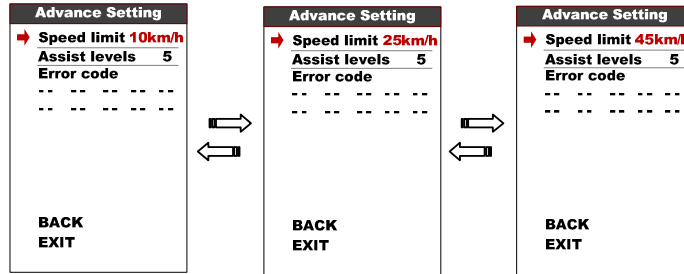| MENU	MENU	MENU	MENU
Display Setting	**Display Setting**	**Display Setting**	**Display Setting**
System Metric	System Metric	System Metric	System Metric
Brightness |	Brightness |	Brightness |	Brightness |
Auto off 5min	Auto off 5min	Auto off 5min	Auto off 5min
Scenes Digital	Scenes Digital	Scenes Digital	Scenes Digital
...	...	...	...
Basic Setting	**Basic Setting**	**Basic Setting**	**Basic Setting**
Wheel 26inch	Wheel 26inch	Wheel 26inch	Wheel 26inch
➡ Battery 24V	➡ Battery 36V	➡ Battery 48V	➡ Battery UBE
Advance setting >	Advance setting >	Advance setting >	Advance setting >
Factory settings >	Factory settings >	Factory settings >	Factory settings >
Informations >	Informations >	Informations >	Informations >
EXIT	EXIT	EXIT	EXIT

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

MENU	Advance Setting Password	Advance Setting Password	Advance Setting Password
Display Setting			
System Metric			
Brightness |	➡ BACK	BACK	BACK
Auto off 5min	Input Password	➡ Input Password	➡ Input Password
Scenes Digital			
...			
Basic Setting			
Wheel 26inch			
Battery 36V	0 0 0 0	0 0 0 0	1 9 1 9
➡ Advance setting >			
Factory settings >			
Informations >			
EXIT			

8.12 Speed limit : Press UP/DOWN will change speed limit, range 10km/h~45km/h.
Default value is 25km/h.

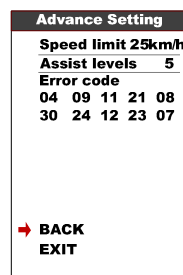| Advance Setting	Advance Setting	Advance Setting
➡ Speed limit **10km/h**	➡ Speed limit **25km/h**	➡ Speed limit **45km/h**
Assist levels　5	Assist levels　5	Assist levels　5
Error code	Error code	Error code
-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
BACK	BACK	BACK
EXIT	EXIT	EXIT

*Speed limit and current limit are restricted by controller and motor.

8.13 Assist levels : This parameter can customize assist levels, options are 3/5/9/UBE, UBE represent factory default settings.

Advance Setting	Advance Setting	Advance Setting	Advance Setting
Speed limit 25km/h	Speed limit 25km/h	Speed limit 25km/h	Speed limit 25km/h
➡ Assist levels　**3**	➡ Assist levels　**5**	➡ Assist levels　**9**	➡ Assist levels　**UBE**
Error code	Error code	Error code	Error code
-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
BACK	BACK	BACK	BACK
EXIT	EXIT	EXIT	EXIT
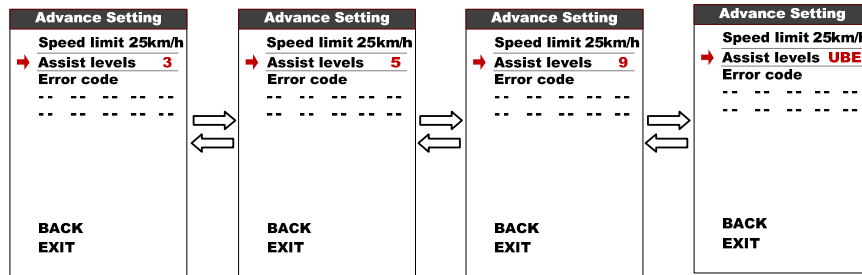
8.14 Error code :　Display the last 10 times error code.

| Advance Setting |
|---|
| Speed limit 25km/h |
| Assist levels　5 |
| Error code |
| 04　09　11　21　08 |
| 30　24　12　23　07 |
| ➡ BACK |
| EXIT |

8.15Factory setting : Press POWER button enter Restore Factory settings item, set
YES will restore all parameter to factory settings.

8. Error Code define

850C can show warning message, ⬚ icon shows on the screen, and show error code at the bottom of the screen, error code from 04~30, definition see the table below.

NO.	Error Code	Error description	Handle
3	0x04	转把没有归位（停在高位处） Turn to no homing	
4	0x05	转把故障 Turn error	Check turn to connect.
6	0x07	过电压保护 Overvoltage protection	
7	0x08	电机霍尔信号线故障 Motor hall signal wire error	
8	0x09	电机相线故障 three-phase power error	Check three-phase power line connection
9	0x10	控制器温度高已达到保护点 High controller temperature	
10	0x11	控制器温度传感器故障 Controller temperature sensor error	
11	0x12	Current sensor error	
12	0x13	电池内温度故障 Battery temperature error	Check the battery
13	0X14	电机内温度传感器故障 Battery temperature sensor error	
13	0x21	速度传感器故障 speed sensor error	
14	0x22	BMS 通讯故障 BMS error	
15	0x23	大灯故障 LAMP error	
16	0x24	大灯传感器故障 LAMP sensor error	
17	0x25	力矩传感器力矩信号故障 Torque sensor torque signal	

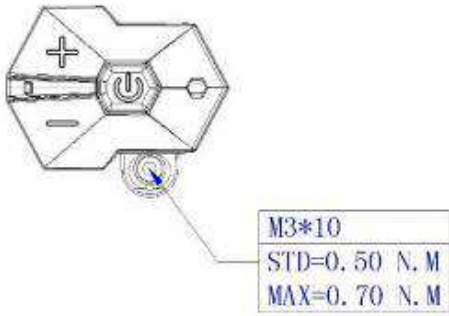|		error	
18	0x26	力矩传感器速度故障 Torque sensor speed error	
19	0x30	通讯故障 Communication error	
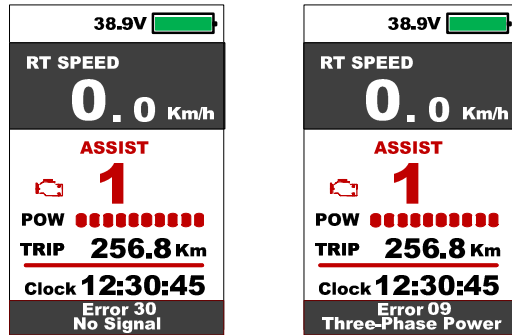
9. Assembly instructions

Please pay attention to the screw's torque value, damaged caused by excessive torque is not within the scope of the warranty.
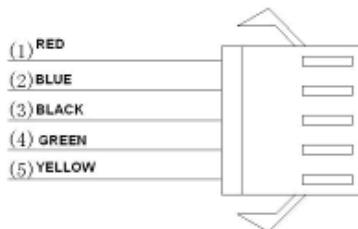
```
M3*10
STD=0.50 N.M
MAX=0.70 N.M
```
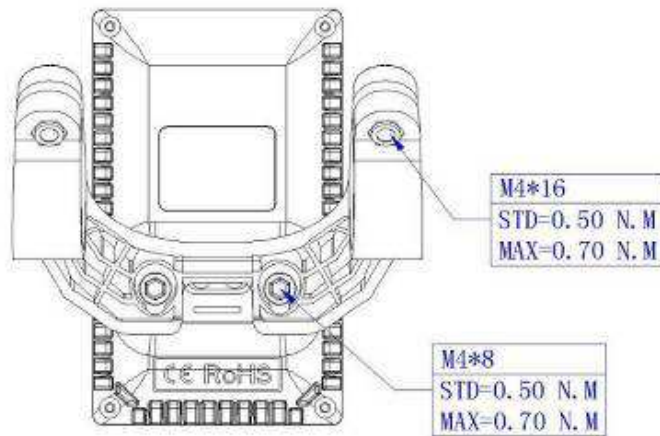
There are 2 directions for the clamp installation, forward or backward.

Clamps suit for 3 size of handlebar, 31.8mm, 25.4mm, 22.2mm, there are transfer rings for 25.4mm and 22.2mm, transfer ring must be assembled with the special directions, pay attention to the green arrow below.

10.Connector descriptions

(1) RED
(2) BLUE
(3) BLACK
(4) GREEN
(5) YELLOW

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)

11.Assist level instructions

Assist level can be customized, the highest level is 9, common used assist level see the table below:

3 level	5 level	9 level	
0		0	No power assist
	1	1	
		2	
1	2	3	
		4	
	3	5	
2		6	
	4	7	
		8	
3	5	9	

12.Certification

CE / IP65 (water proof) / ROHS.