

APT 750c Display

User's Guide





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Product Specifications

Electrical Parameters

- 3.2inch IPS screen
- 36V/48V/52V/72V battery supply
- Rated operating current : 40mA
- Off leakage current < 1uA
- Max output current to controller : 100mA
- Operating temperature : -20 – 70 °C
- Storage temperature : -30 – 80 °C

Dimensions & Materials

Materials

Product shell – ABS plastic

Transparent window – High strength Acrylic

Dimensions

L 110mm x W 68.2mm x H 68mm



Features

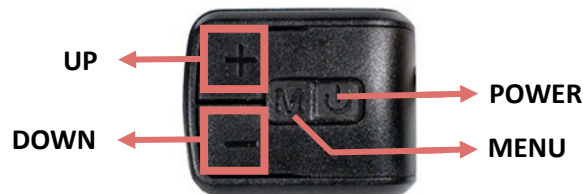
- Suitable for low temperature : Max -20°C.
- High-contrast 3.2inch IPS colourful matrix screen.

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- Ergonomic external button design, easy to operate.
- Speed display : AVG SPEED, MAX SPEED, SPEED (Real-time).
- Kilometre / Mile : Can be set according to user's preference.
- Smart battery indicator : Provide a reliable battery indication.
- 9-level Assist : 3-level/5-level/9-level optional.
- Mileage indicator : Odometer/Trip distance/ Clock/ Riding time.
- Power indicator : Real time power indication; digital or analog.
- Error code indicator.

Main Functionalities

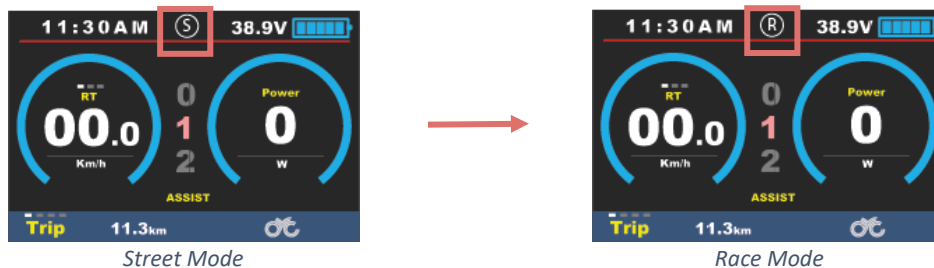


Power On/ Off

Press and hold the POWER button for 1 second to turn the display on/ off. The display will automatically shut down when there is no operation for a period of time.

Mode Switch

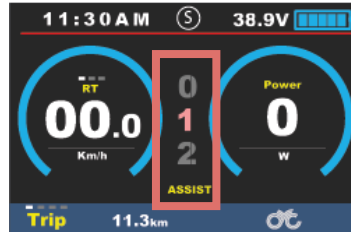
Double press the POWER button to change between Race Mode & Street Mode. Note that this will not change the mode in real-time but rather set the start-up mode (Street Mode recommended). Change the mode in real-time via mobile app.





Assist Level Operating

Short press the UP/ DOWN button to change the assist level. The top assist level is 9 where 0 is neutral. The amount of assist levels can be adjusted according to the user's preference.



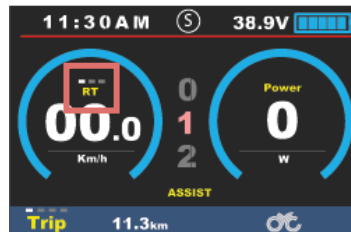
Speed Display Switch

Short press MENU button to change the speed mode: Speed->AVG Speed->MAX Speed.

RT = Real time speed

AVG = Average speed

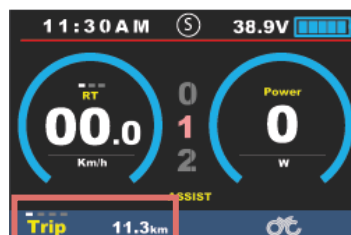
MAX = Maximum speed



*If there is no operation for 5 seconds, the display will return to real-time speed automatically.

Mileage Display Switch

Short press the POWER button to change the mileage mode: Trip->ODO-> Time-> Range.





Parameter Settings

Button Navigation

Double press the MENU button to get into the settings menu. The press interval must be less than 0.3 seconds.

Press the POWER button to change between the Display Settings & Basic Settings.



Press the UP/DOWN buttons to change between the parameters, MENU button to select, & UP/DOWN to change the selected parameter.

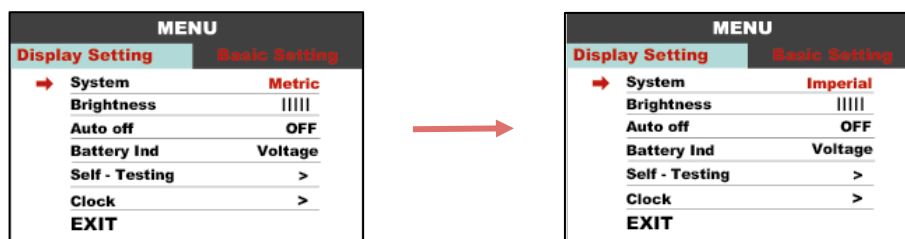
Press the MENU button to deselect parameters & to set changes made.

- * The display will automatically quit the settings menu when there is no operation for 30 seconds.
- * For safety reasons, the display cannot get into the settings menu when riding.
- * The display will quit the settings menu when the user starts riding.

Display Settings

System

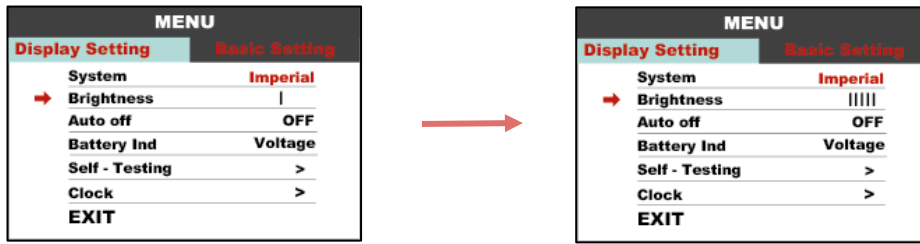
Press the UP/ DOWN button to change between Metric & Imperial.





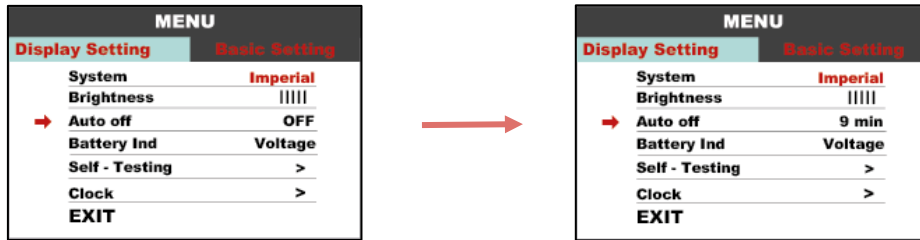
Brightness

Press the UP/ DOWN button to change the brightness of the display's backlight. "I" is the darkest & "IIII" is the brightest.



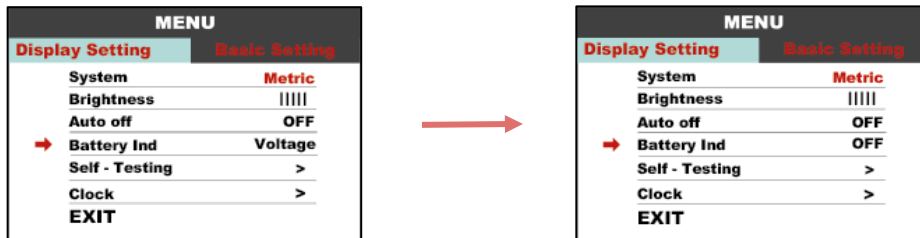
Auto off

Press the UP/DOWN button to change the auto power off time. This can be set between 1 to 9 minutes or off.



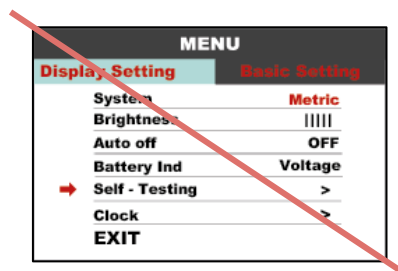
Battery Ind

Press the UP/DOWN button to change your battery indication. This can be set to Voltage, Capacity, Percentage, or off.



Self – Testing

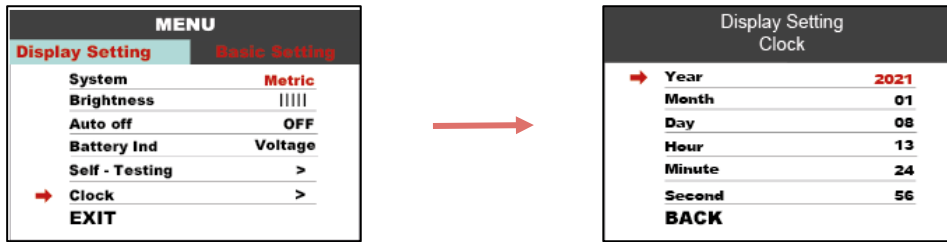
Please ignore! This setting is for CYC Motor Ltd use only. DO NOT attempt to change these settings as you risk corrupting display settings.





Clock

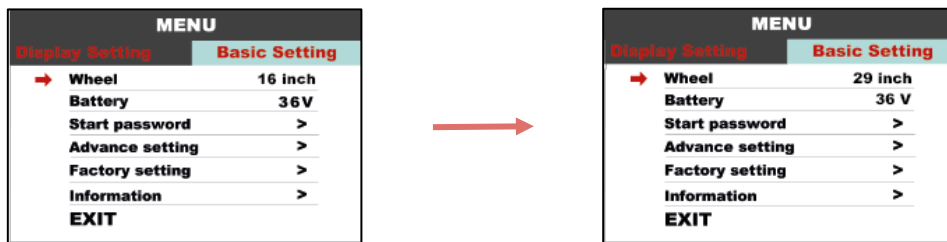
Press the MENU button get into the clock setting menu. Then, press the UP/DOWN button to set Year/ Month/ Day/ Hour/ Min/ Sec.



Basic Settings

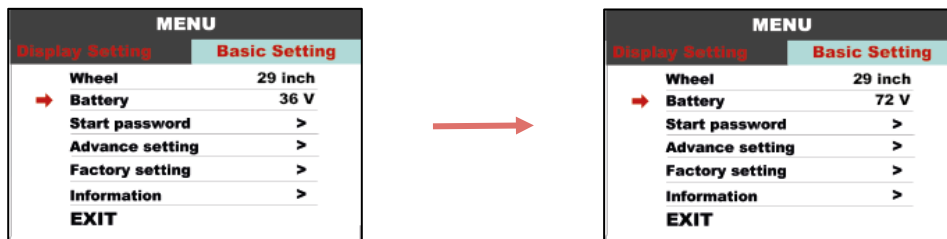
Wheel

Press the UP/DOWN button to change the wheel settings. The optional wheel diameter is 16 to 29 inch.



Battery

Press the UP/DOWN button to change battery voltage settings. The optional battery voltages are 36V to 72V. Kindly note that some older 750c displays might not have the 36V setting.

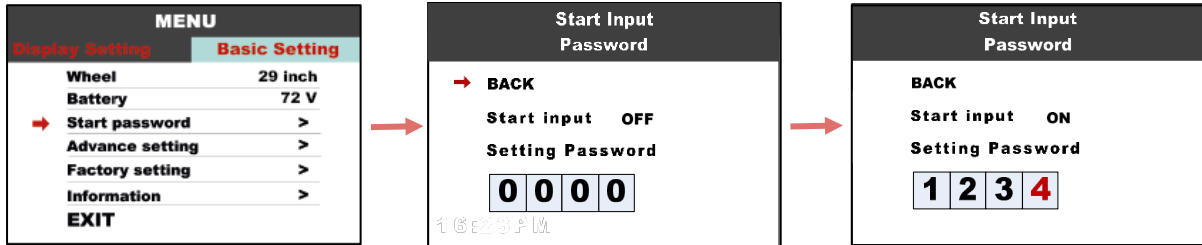




Start password

Press the MENU button to get into the password setting menu. Start input ON will switch on password upon start-up.

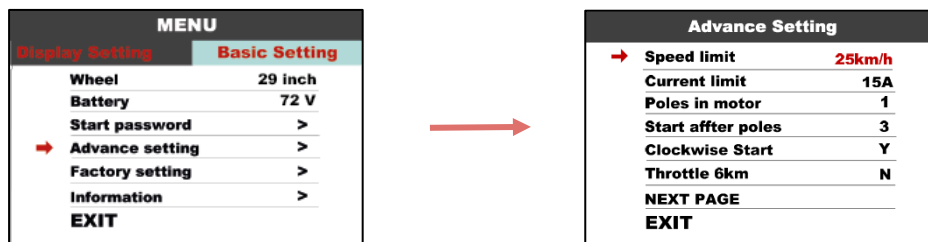
You need to input the right password before start within 30 seconds. The display will power off automatically if the password is entered incorrectly three times.



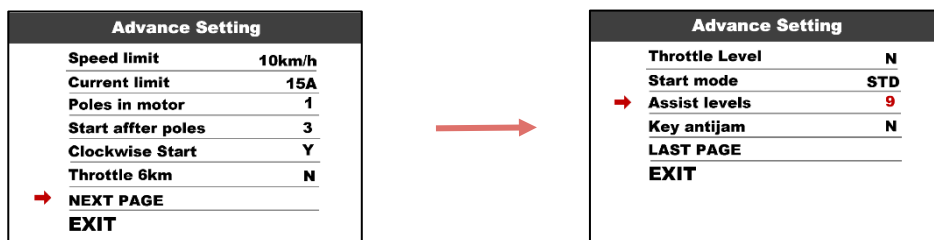
Advance setting

Press the MENU button to get into the advance settings menu. You will need to enter your Start Input Password. The default password is **1919**.

There is only 1 parameter which needs to be set as all others should be neglected and will not affect your system: Assist levels.



Go to the NEXT PAGE on the display. Here, you can choose the number of assist levels (or gears) accordingly. The available options are 3, 5, or 9 assist levels.





The power output will be distributed evenly across the chosen number of assist levels (*or gears*) according to the Assist Level Configuration and Speed Limit Assist settings on your CYC Motor (BAC) mobile app:

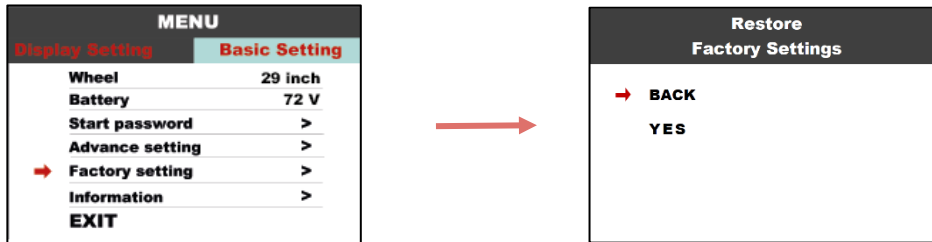
Note that the App Assist Level shown below can be customized in the app.

Street Mode - PAS				
Rated Motor Power	750	Watts		
Vehicle Maximum Speed	25	km/h		
Assist Level Configuration				
Assist Gain 1	0.3	PU		
Assist Gain 2	0.601	PU		
Assist Gain 3	1	PU		
Speed Limit Assist				
Assist Speed 1	0.3	PU		
Assist Speed 2	0.601	PU		
Assist Speed 3	1	PU		
Others				

App Assist level	3 Assist Levels	5 Assist Levels	9 Assist Levels
	0 (Neutral)	0 (Neutral)	0 (Neutral)
1 = 0.3 (30% by default)	1	1	1
			2
		2	3
			4
2 = 0.6 (60% by default)	2	3	5
			6
		4	7
			8
3 = 1 (100% by default)	3	5	9

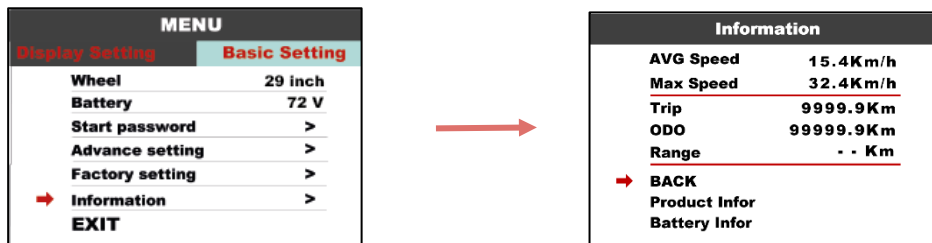
Factory setting

Press the MENU button to enter the factory settings menu. Selecting YES will restore all parameters on the display to factory settings. Note that this will not affect your app settings.



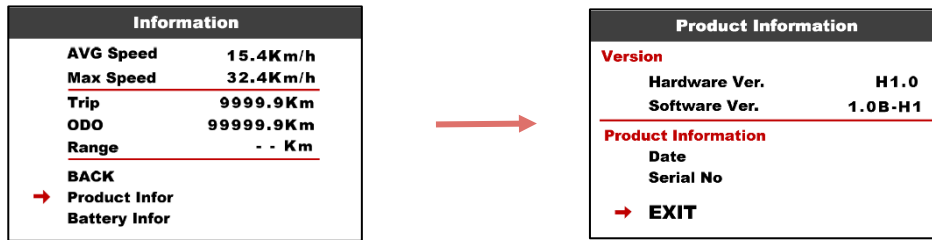
Information

Press the MENU button to show information of the eBike, including the average and maximum speeds, the current trip distance, ODO, and range.

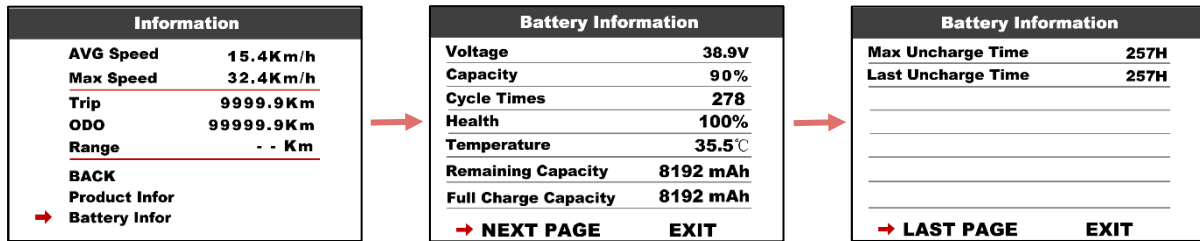




Press the MENU button to select Product Infor. This menu will show you the display's information including its hardware and software versions as well as the display's serial number.



Press the MENU button to select Battery Infor. This menu will show you all the battery information provided that the information is supported by the battery communication system.



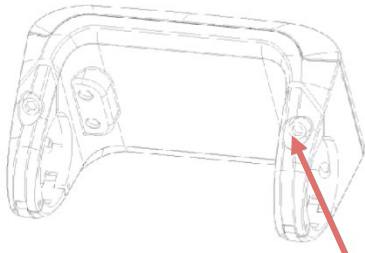
Error Codes

In certain circumstances, an error code may appear on your display. Refer to the CYC Motor (BAC) mobile application user guide for instructions on how to clear the errors and for further details on what these errors entail. Contact technical_support@cycmotor.com for assistance.

Error Code	Description
Error 21H	Instant resume not enabled
Error 22H	Throttle error
Error 24H	Hall sensor error
Error 30H	Communication error



Assembly Information



M4*10
Torque requirements:
STD = 0.1 N.m.
MAX = 0.2 N.m



M3*8
Torque requirements:
STD = 0.25 N.m.
MAX = 0.4 N.m

Note the torque requirements described above as excessive torque can cause damage.

Compatibility

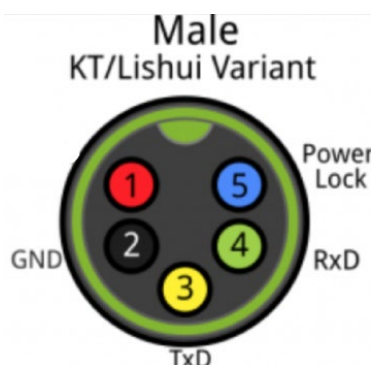
The clamps are suitable for 3x different handlebar sizes: 31.8mm, 25.4mm, and 22.2mm.

There are transfer rings included for 25.4mm and 22.2mm (marked with L or R) as shown below. Be sure to pay attention to the directions below to insert the transfer rings correctly.





Pin Layout



1. Red wire : Anode(36V to 72V)
2. Black wire : GND
3. Yellow wire : TxD (display -> controller)
4. Green wire : RxD (controller -> display)
5. Blue wire : Power cord to the controller

Certification

CE / IP65 (waterproof) / ROHS.

Quick start guide

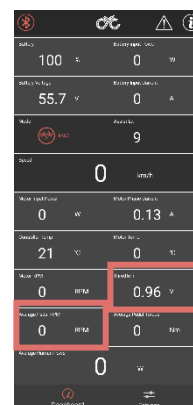
After unboxing and installing your X1 Pro or X1 Stealth, there are a few things you need to set up and check.

STEP 1

Ensure that all wires are properly connected and that your system can switch on by pressing the display's power button. Check that the display shows your battery voltage and level. Should your display briefly show error 30H upon start-up, this is normal as the system takes a moment to connect. Should your battery voltage and level not display refer to step 3.

STEP 2

Ensure that your pedal assist and throttle are working correctly. To test this, connect to the CYC Motor (BAC) mobile app and change to Assist Level 0 on your display. You can test the PAS by looking at the app's dashboard and turning the crank set. If your Average Pedal RPM reading changes, then your PAS is working. To test the throttle, open your throttle and check that your Throttle In voltage changes. Ensure that you test the PAS and throttle in Assist Level 0 as to not make the bike thrust forward.



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STEP 3

Set up the correct information on your display. You will need to enter your wheel diameter, battery voltage (if incorrect), & your preferred number of assist levels.

Be sure to contact technical_support@cycmotor.com if further assistance is needed.

THANK YOU!