

CYC MOTOR LTD

X1 PRO GEN 2 USER MANUAL

36-72V Controller Version

00 TABLE OF CONTENTS



01 SAFETY

- General Safety
- Before the Ride
- Proper Use
- Disclaimer

02 SPECIFICATION

- General Specification
- Parts list
- Variants and Dimensions
 - 68 - 83mm Version
 - 100mm Version
 - 120mm Version
- Motor & Controller

03 INSTALLATION

- Required tools
- Adjusting the Width of the Bottom Bracket
- Mounting the BSA Versions
- Mounting the BB92 version
- Installing the tensioner
- Mounting the X1 PRO to your bike
- Wiring and Connection

04 MAINTENANCE

- General Maintenance

05 MOBILE APP

- Getting Started
 - (I) Dashboard
 - (II) Map
 - (III) Data Logger
 - (IV) Settings

06 DISPLAY

07 DEFAULT SETTINGS

08 TERMS AND CONDITIONS



General Safety

Please read through the entire user manual. The manual contains important information to reduce user risk as well as instructions for the X1 PRO's proper use. Keep the manual for reference.

Your personal safety is your own responsibility. If you have any questions or misunderstanding, please contact your X1 PRO dealer or component manufacturer.

Never interfere with the movable parts when the drive unit is connected to a power supply. This could result in serious injury if the system is accidentally engaged.

X1 PRO is a very powerful motor system that is dangerous for children. Small X1 PRO accessories also present a choking hazard to children. Keep the motor system and accessories out of reach from children.

All components attached to the drive unit may be replaced only with identical components or components specifically approved by the bicycle manufacturer. This protects the drive unit against overload and damage.

The X1 PRO does not comply with EU or US e-bike regulations, it is for off-road and private-track use only. User please follow all local, state and federal regulations when registering and using the drive unit.

RIGHT-HAND and LEFT-HAND sides are determined by the bike handle, RIGHT-HAND corresponds to the right handle.

Before the Ride

Check that the drive unit chain has the proper tension. Incorrect tension could cause jamming of the system and result in injury while riding. Check the chains regularly for proper tension.

Ensure that the chains are properly lubricated.

When connecting a power supply, make sure the power supply is completely connected. Faulty connection could result in a short circuit and damage the controller or batteries.

Check electrical wires and plugs to see if there is any damage.

Secure all wires properly. Make sure that no loose wire is dangling from the bike that could be jammed into any moving parts.

Before turning on the system, ensure that the throttle can be twisted freely without friction and that the throttle can return to its ORIGINAL POSITION.

This is to prevent throttle jamming and uncontrolled response of the system.



Proper Use

Do not install anything other than the parts and accessories that came with the drive unit, doing so could damage the product.

The drive system can be activated and deactivated by holding down the on/off button on the display.

Do not change the bike gear (note: this is different from the electronic gear in your app) when the drive unit is powering the bike, this will lead to excessive wear on chain and chain rings leading to chain or other gear related failure.

When changing gear, only use your own pedaling power. After the gear is changed, you may accelerate again with the throttle.

Take off with the appropriate gear; choose a gear you can power at take-off using your own pedaling power, then slowly twist the throttle to reach the desired power.

Overloading the drive unit for an extended period of time will damage the materials used.

The X1 PRO is splash proof, rain proof but NOT WATER PROOF, do not submerge it underwater or ride through streams.

Disclaimer

If you require any more information or have any questions about the user manual disclaimer, please feel free to contact us via email at joncycmotor@gmail.com or call (insert office number).

All the information contained in this user manual is published in good faith and for general information purpose only. CYC Motor does not make any warranties about the completeness of this information and encourages further inquiries as stated above if needed. CYC Motor will not be held liable for any losses and/or damages in connection with the use of this product.

Notice: Please contact CYC Motor if unsure about the assembly instructions or for any further assistance as CYC Motor will not be held liable for any losses and/ or damages caused by the assembly.



General

Rated Voltage	36 - 72V DCV (nominal) (10s-20s Batteries)
Max. rpm (at Crank)	> 300 rpm
Rated Power	3500W(52V)-5000W(72V)
Max Torque (at Crank)	≥ 190 N.m
Overall efficiency	≥ 88%
Bottom bracket interface	Square taper
Color	Anodized Black
Weight (Motor and controller only)	3.5kg
Total weight with crankset and BB	< 5kg
Bracket Materials	7075-T6
Crank Arm	7075-T6 170mm
Q Factor	190mm - 208mm (Fat Bike)
Compatibility	Bike frame with standard BB thread and width of 68/73/ 83 / 100, or press fit frames with 41mm diameter withwidth of 92mm or less
Bike Chainring included	(11/53 option) 32T Bike Chainring (11/63 option) 38T Bike Chainring (12/72 option) 42T Bike Chainring

Gearbox

First-stage	1:6 hardened steel planetary
Second-stage	219H Chain
Overall reduction ratio from motor to crank	1:28.9 (11/53T) 1:34.4 (11/63T) 1:36 (12/72T)

Accessories

E-Brake Cut-off	Magnetic sensor for hydrolic brakes
Wiring	Waterproof wire (Julet connector)
Display	Color round display with BLE
Throttle	Thumb Throttle or Half twist throttle
Torque sensor	Integrated in the BB



Parts List

Common Parts

Motor body (includes controller)

Chainring

Display

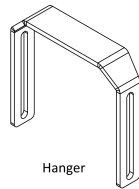
Thumb Throttle

1 to 4 Wire Harness/ 1 to 2 Wire Harness

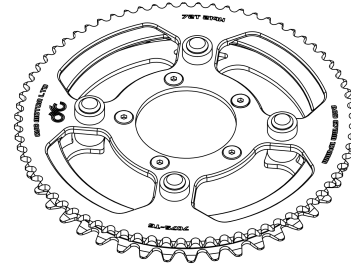
E-Brakes (Optional)

219H Chain

Bike Hanger



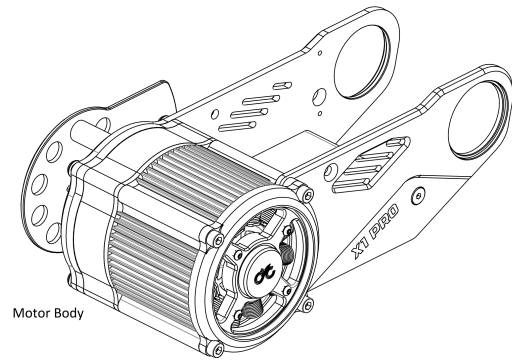
Hanger



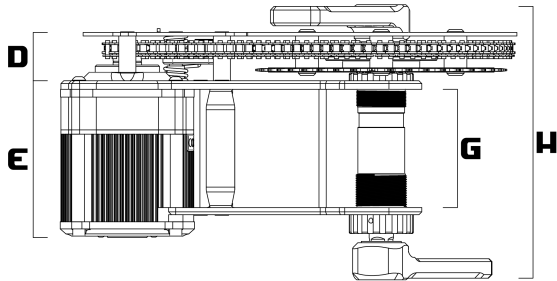
Chain Ring



Display



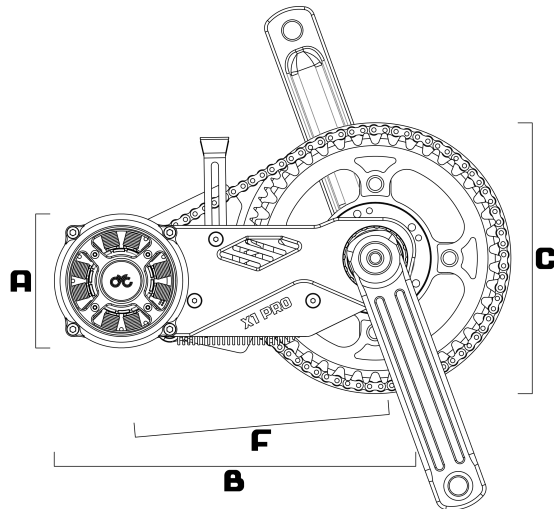
Motor Body



68-83mm BSA Torque Sensing Version

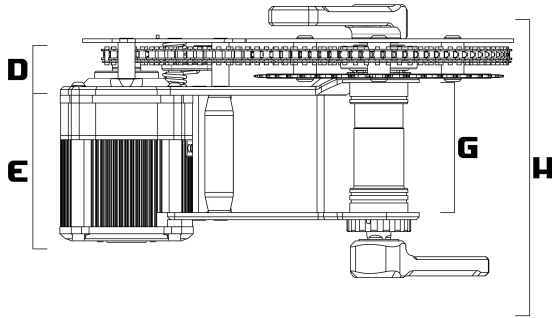
Dimensions

- A: 94mm
- b: 253mm
- c: 190mm
- D: 34mm
- e: 110mm
- F: 178.6mm
- G: 83mm
- H: 190mm



68-83mm BSA Torque Sensing Version Extra Parts

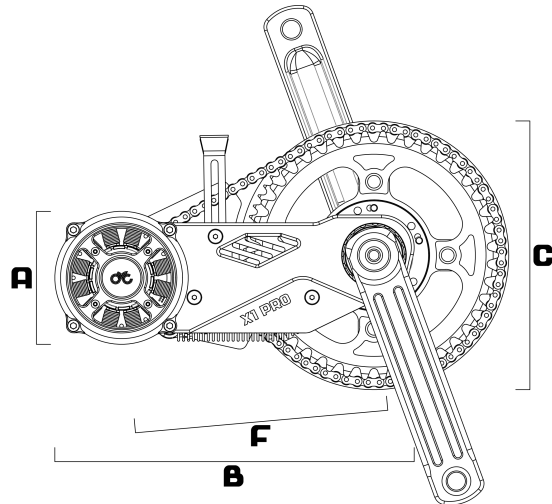
- 83mm BSA Torque Sensing Version Crank Set
- 3mm, 5mm, 7mm Spacers



BB92 PressFit Torque Sensing Version

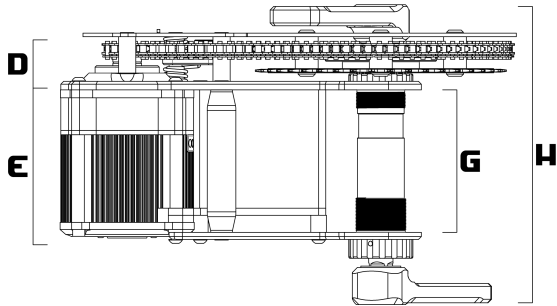
Dimensions

- A: 94mm
- b: 253mm
- c: 190mm
- D: 34mm
- e: 110mm
- F: 178.6mm
- G: 92mm
- H: 190mm



92mm PressFit Torque Sensing Version Extra Parts

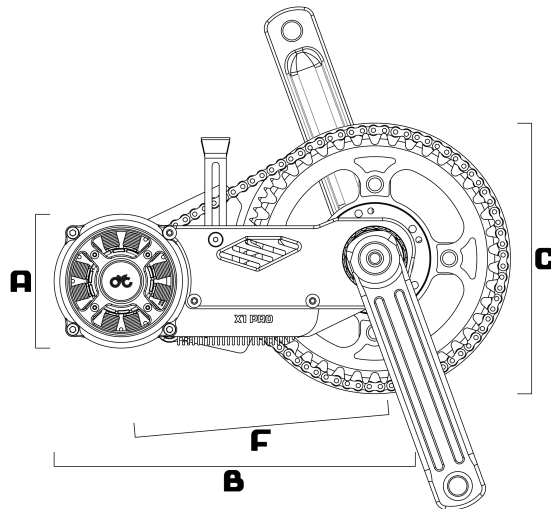
- 92mm PressFit Torque Sensing Version Crank Set
- 1mm, 2mm Spacers



100/ 120mm BSA Torque Sensing Version

Dimensions

- A: 94mm
- b: 253mm
- c: 190mm
- D: 34mm
- e: 110mm
- F: 178.6mm
- G: 100mm(100mm version)/ 120mm (120mm version)
- H: 210mm (100mm version)/ 230mm (120mm version)



100/ 120mm BSA Torque Sensing Version Extra Parts

- 100/120mm BSA Torque Sensing Version Crank Set
- Extra Plate & Spacers



Motor

Motor type	In-runner
Stator O.D.	80mm
Stator I.D.	46.4mm
Thickness	40mm
Stator lamination	0.2mm
Magnet	N45SH (>150°C)
Wiring	0.7mm
Efficiency	≥ 93%
Maximum RPM	≥ 12000rpm
Rated Torque	≥ 5N.m
Transparent cover	Tempered glass
Epoxy sealed	Black Epoxy Potted

Controller

Chipset	Spintrol
Rated Voltage	36-72V DCV
Max. input current	65A
Bluetooth	BLE
Mobile App	IOS / Android
Throttle Control mode	Speed / Current / Power / RPM
PAS Torque simulation	9-Axis gyroscope
Mounting position	Integrated between bottom bracket / mounted separately



Hex Keys

3mm hex key for screws
&
10mm hex key for crank screws



Wrench



Wire Cutter



Press Fit Bottom Bracket Removal Tools (For BB92 option)



Crank Puller

for removing the crank arms



Cutter



Bottom Bracket Tool

for installing and removing the 20
splined cover caps



Bottom Bracket Tool

for installing and removing
the bottom bracket caps,
the tool needs to have an
opening on its end as shown



Mounting Options for Controller

The controller can be mounted right below the bottom bracket or mounted under the seat.

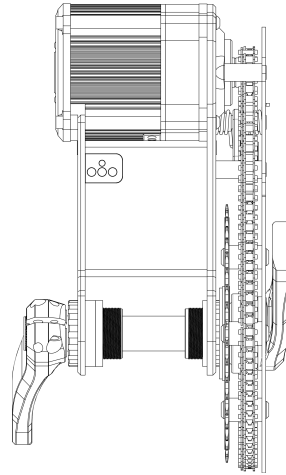
NOTE: The controller comes pre-assembled below the bottom bracket.

Adjusting the Width of the Bottom Bracket (For BSA68-83mm version)

In order for the X1 PRO to fit on all different widths of bottom brackets, there are several spacers that come with the pack, these spacers are designed to provide the 68mm and 73mm bottom brackets with necessary spacing between the X1 PRO brackets.

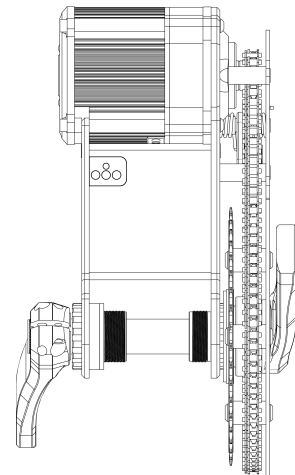
The preferred mounting set-ups are shown on the right for 68mm and 73mm bottom brackets.

Before mounting the motor body to your bike frame, the existing crank system and bottom bracket must be removed.



68mm bottom bracket requires a 7mm and a 5mm spacer on the left and a 3mm spacer on the right as shown

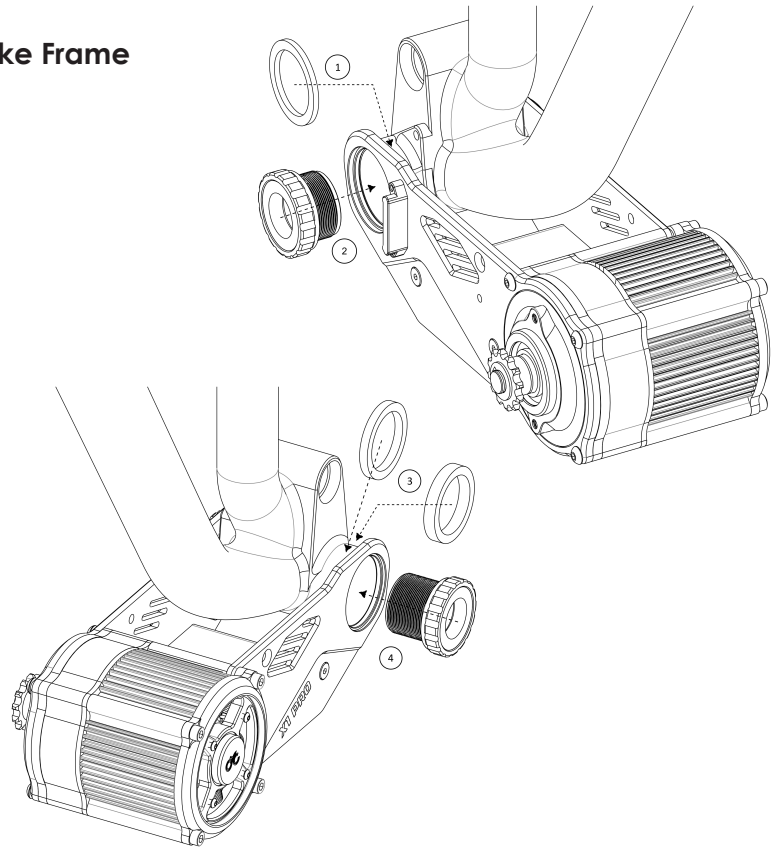
73mm bottom bracket requires a 7mm spacer on the left and a 3mm spacer on the right as shown





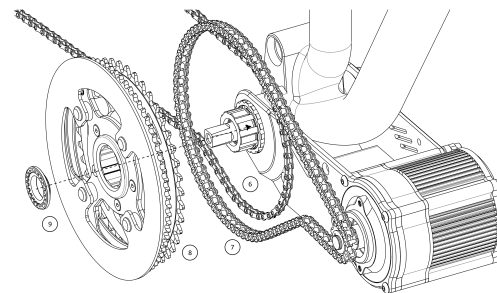
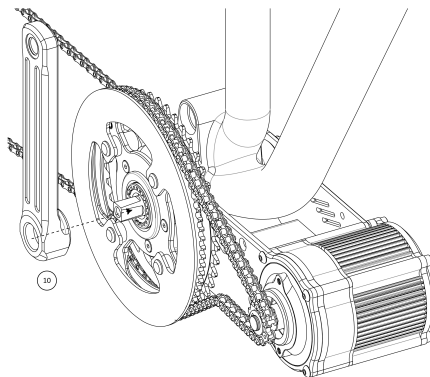
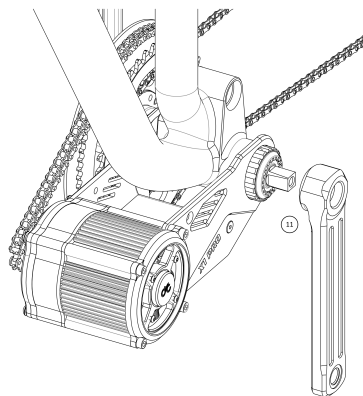
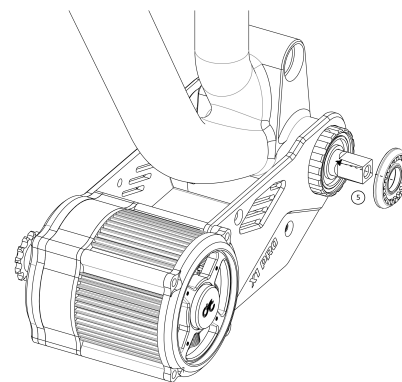
Mounting the BSA Crank Versions to the Bike Frame

1. Line up the motor body with your bike at the bottom bracket. (Place a 3mm spacer between the right mounting plate and the bottom bracket if you have a 68mm wide bottom bracket)
2. Thread in the right mounting bracket through the rear hole on the right mounting plate (and the 3mm spacer if required) into the bike's bottom bracket. Note that the thread is in reverse.
3. If you have a 68mm wide bottom bracket, use a 5mm and a 7mm spacer, if you have a 73mm wide bottom bracket, use a 3mm and a 7mm spacer. Place the spacers between the left side of the bike's bottom bracket and the left mounting plate.
4. Thread in the left mounting bracket through the rear hole on the LEFT mounting plate (and the spacers) into the bike's bottom bracket. And Insert the spindle from the RIGHT side of the rear mounting bracket hole through to the LEFT side of the rear mounting bracket hole.





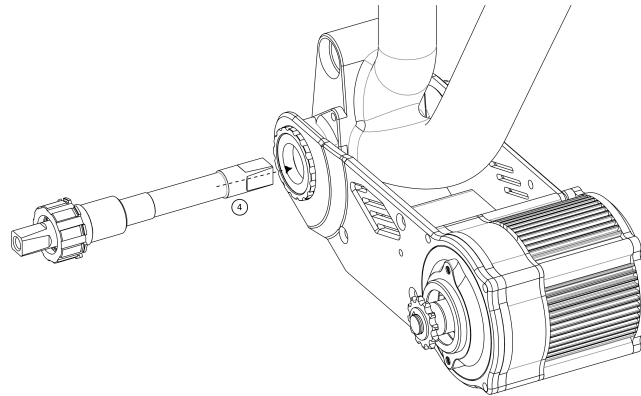
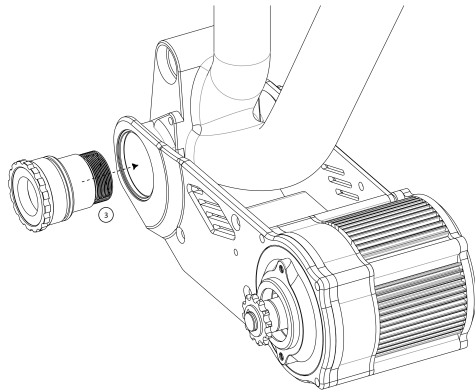
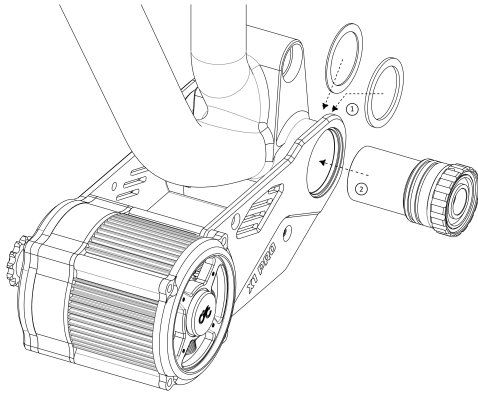
5. Screw on the left cap.
6. Hang your bike chain on the spindle.
7. Put on the golden chain, it lies on the outside of the bike's chain.
8. Put on the crank. Your bike chain should go on the inner chainring and the golden chain should go on the outer chainring. (If you find it difficult to install the golden chain, please unscrew the 5 countersunk screws on the chainring, put on the golden chain and then screw on the screws again.)
9. Screw on the right cap.
10. Put on the right crank arm and screw on with crank bolt.
11. Put on the left crank arm and screw on with crank bolt.





Mounting the PressFit Versions to the Bike Frame

1. Line up the motor with your bike at the bottom bracket. (Place the necessary spacers between the LEFT mounting plate and the bottom bracket if there is a gap between the two parts.)
2. Insert in the LEFT mounting bracket (The one with a wire coming out) through the rear hole on the LEFT mounting plate into the bike's bottom bracket. Please use the pressfit installation tools.
3. Thread in the RIGHT mounting bracket through the rear hole on the RIGHT mounting plate into the bike's bottom bracket.
4. Insert the spindle from the RIGHT side of the rear mounting bracket hole through to the LEFT side of the rear mounting bracket hole.

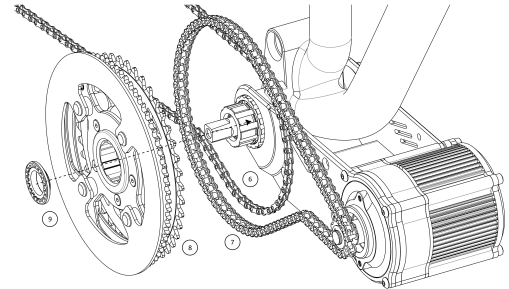
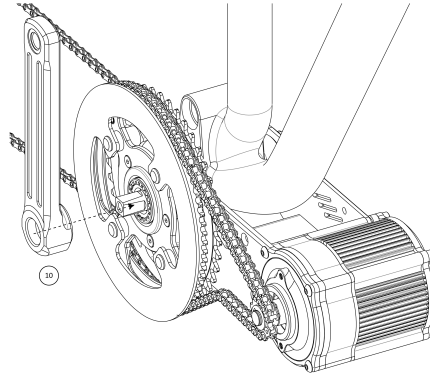
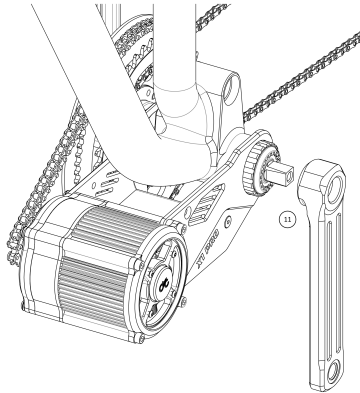
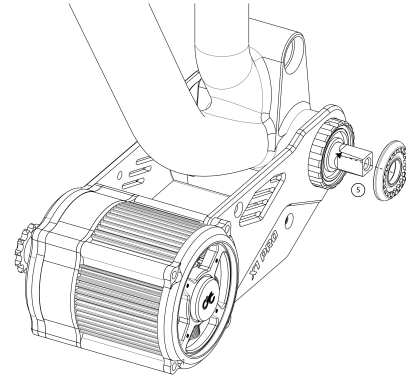


03 INSTALLATION

Mounting the BB92 version



5. Screw on the left cap.
6. Hang your bike chain on the spindle.
7. Put on the golden chain, it lies on the outside of the bike's chain.
8. Put on the crank. Your bike chain should go on the inner chainring and the golden chain should go on the outer chainring. (If you find it difficult to install the golden chain, please unscrew the 5 countersunk screws on the chainring, put on the golden chain and then screw on the screws again.)
9. Screw on the right cap.
10. Put on the right crank arm and screw on with crank bolt.
11. Put on the left crank arm and screw on with crank bolt.





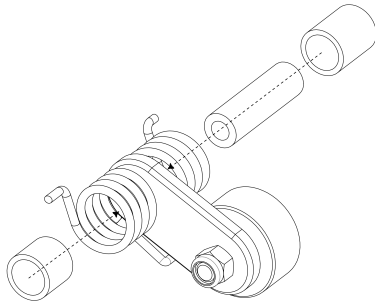
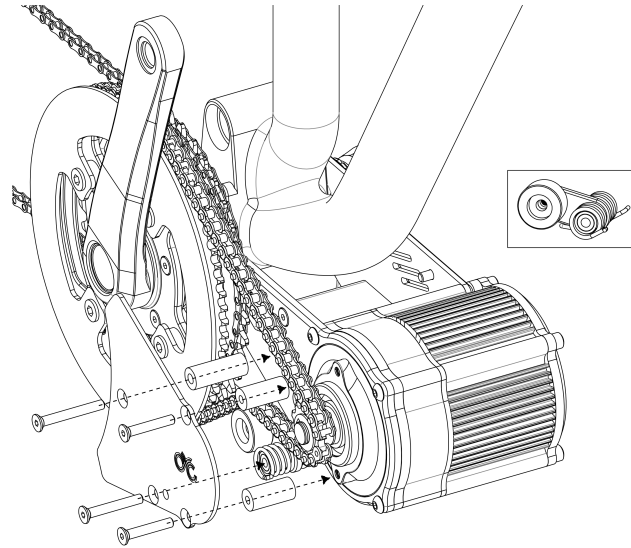
Install the Tensioner on to the X1 PRO

The spacers next to the sprocket should measure 25.5mm, use a M5*30mm countersunk screw for the spacer.

The spacer for the full carbon cover should measure 31.35mm, use a M5*40mm countersunk screw for the spacer.

Assemble the tensioner as shown on the right.

Make sure that the arm of the spring faces downwards. Should the tensioner ever come apart during installation, reassemble it according to the diagram below.

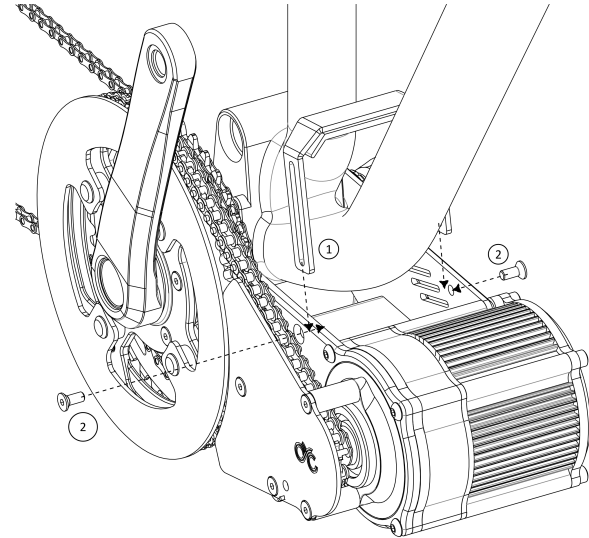




Mounting the X1 PRO to your bike with the Hanger

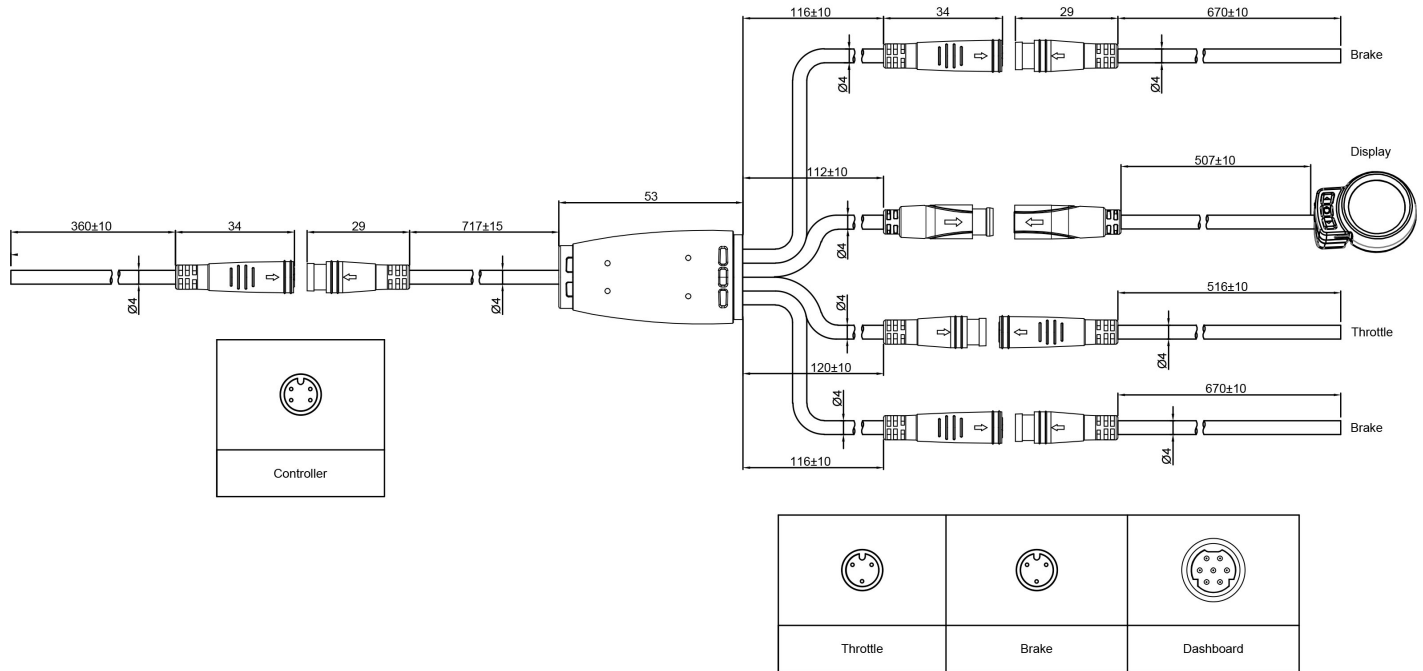
The X1 PRO comes with a hanger (83mm, BB92 or 100mm), it is used to securely fasten the X1 PRO to your bike at the down tube. You may also use the included strap which will make the installation easier. The installation procedures are shown on the diagram.

1. Take out the rubber mouting tape and stick it on the inner surface of the hanger, then insert the hanger from the top of the downtube to the the X1 PRO. Make sure that the hanger securely clamps to the downtube.
2. Use a M5*14 countersunk screw and a M5 lock nut to fasten the hanger to each of the side plates.





Wiring Diagram





You are advised to regularly maintain, clean and check the status of the bike and motor system as dirt will accumulate throughout the rides and additional strain will be taken by the drivetrain due to the powerful motor system. We recommend that users should inspect the bike and motor condition before and after each ride.

Disconnect all power supplies from the drive unit before starting any work (e.g. inspection, repair of the bike, maintenance work etc.) on the bike, transportation or storage.

Unintentional activation of the drive unit could lead to serious damage or injury.

Never reach into the chains, gears or any moving parts while the bike is still in operation.

The drive unit can get quite hot after use, be sure to give it some time to cool down before doing any maintenance.

Store the bike in a cool and dry place, sheltered from direct sunlight and potential rain.

Do not attempt to disassemble or modify the drive unit. The drive unit may only be repaired and maintained by qualified expertise and only repaired with original spare parts. This will ensure that the safety/warranty of the drive unit is maintained.

However, the active moving parts (e.g. chain, gear, speed reducer etc.) should be regularly lubricated to maintain desired performance. In case of any abnormal activity, stop using the drive unit immediately and contact your X1 PRO dealer.

Do not attempt to replace the X1 PRO parts with the parts you found at your local store as the materials used in the drive unit are specifically selected for their purposes.

All bolts, nuts and screws are required to be tightened to the correct torque, if there is anything loose, stay off the bike. Torque specifications for each bolt and nut is provided below.



The CYC Motor App

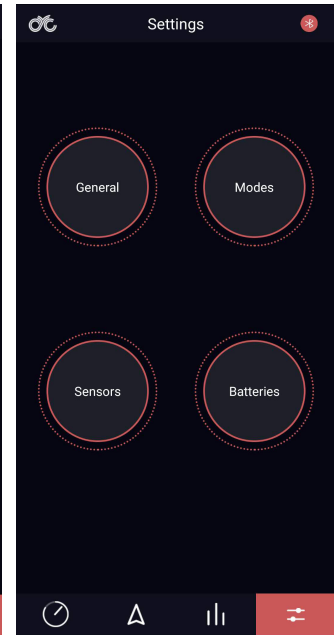
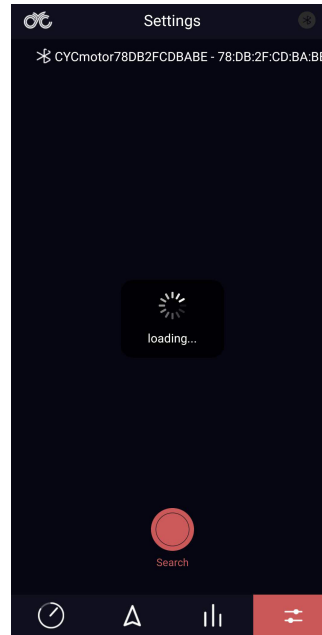
The CYC Motor App is an app designed to control the controller via smart phones, users can connect their smart phone to the controller using Bluetooth and change the settings according to their preference. The smart phone can also become a dashboard when riding the bike. Users can find the mobile app by searching "CYC Motor" in the App Store or Google Play Store.

First Things First

Download the application and install.

Once you have installed the application, make sure your Bluetooth is turned on and open the application. The application will open with the dashboard on the display. If the bike is turned on you can go to the Settings tab on the right bottom corner. This will display Bluetooth connections > Tap on the search button to locate your controller and connect your phone to your drive unit. After you have successfully connected the 4 major categories of settings will be displayed.

Now you can tap the button at the left bottom corner to enter the dashboard.

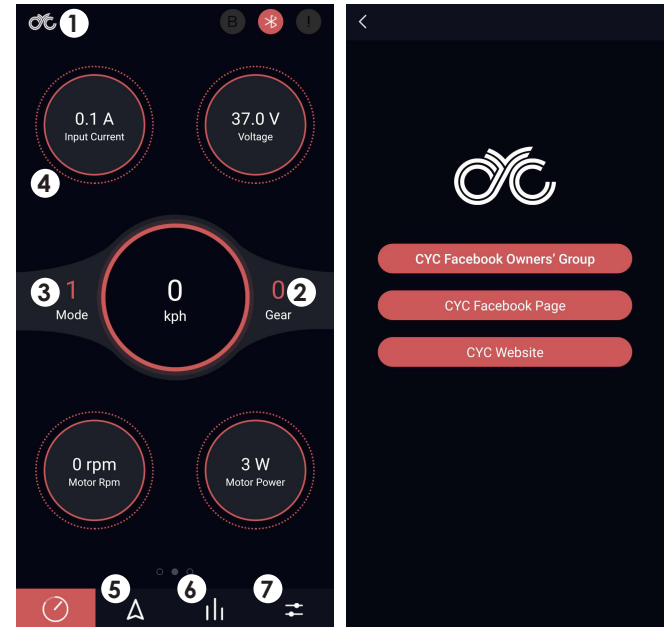




(I) The Dashboard

The dashboard is the main user interface of the app, it is a real time display of your bike status; the mode, electronic gear of your bike and 17 other parameters of your own choice. By selecting different modes, you can have a number of preset options of your choice.

1. **CYC Badge:** CYC Motor website and social links.
2. **Electronic Gear:** Displays your current gear setting. Users may choose your gear preference by pressing up and down on the display.
3. **Mode:** Displays your current preset mode. There are three modes: Ludicrous, US legal, EU legal. Users can change their mode settings in the settings menu. Parameters that can be changed includes throttle settings, power limit, speed limit, PAS config etc.
4. **Dashboard toggle:** Displays a maximum of 17 parameters of your choice, your preferences can be changed by holding down each display parameter for 3 seconds. choose a different parameter and toggle the available data at the top of the screen.
5. **Map:** Allows you to mark out a route that you desire, track GPS and mark waypoints.
6. **Data Logger:** Allows you to set and record multiple parameters of the bike's performance during the ride. Users may review the records after their journey.
7. **Settings:** This opens four main settings parameters namely: General, Modes, Sensors and Batteries.



1. CYC Motor website and social links.



(II) Map

The GPS tab is GPS trip planner. This entails that trails can only be up loaded into the GPS function and not created within the GPS function.

The GPS function does have a variety of other useful functions such as GPS Location and Tracking. This way the GPS function is able to track your position and orientation throughout completion of the track.

Follow GPS; Rotate Map:

By selecting Follow GPS in options, the screen will centre your position even when accidentally moving the map. Selecting Rotate Map, the GPS will maintain the correct orientation to face the same direction as your mobile device is. It is advised to use these two functions together when going on a trail ride

Toggle Topographic Map: There is also a Topographic Map option which will outline the surface of the terrain. This is also helpful to see the change in altitude throughout the route





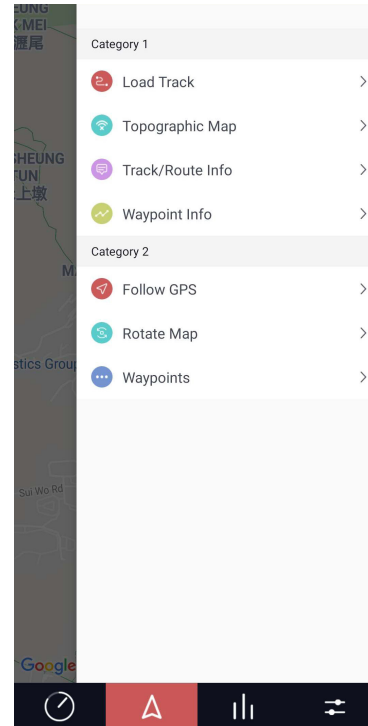
Load Track: A route can be uploaded to the GPS by tapping on the options button just below the CYC badge in the top right corner. Here you can select a saved route from your internal storage. It is advised to use the "GPSies" App to generate different routes. Once a route has been uploaded you will see the route displayed on the map.

Waypoints: In options you can toggle the Waypoint option to display a pin location on the route as well as a progress bar at the bottom of the screen. The status bar can be dragged left to right to shift the pin location on the route.

Waypoint Info: Once a desired pin location is selected you can view Waypoint Info within settings to see what the coordinates and altitude of the waypoint is.

Track/Route Info: Within options † you can view track/route info which will display the:

1. File Name
2. Description
3. Creator
4. Author
5. And link





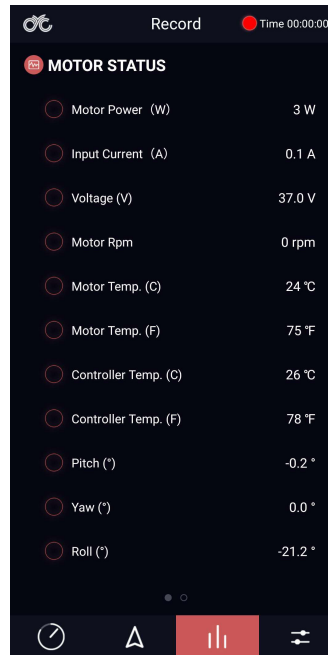
(III) Data logging:

Under the Record Tab there are a number of parameters that can be selected to be recorded and logged.

At the top right of the screen there is a red record icon. This is the button interface for starting and stopping the recording of data.

Note: Some parameters automatically appear in the Summary of the ride and can thus not be unselected from the Record parameter list.

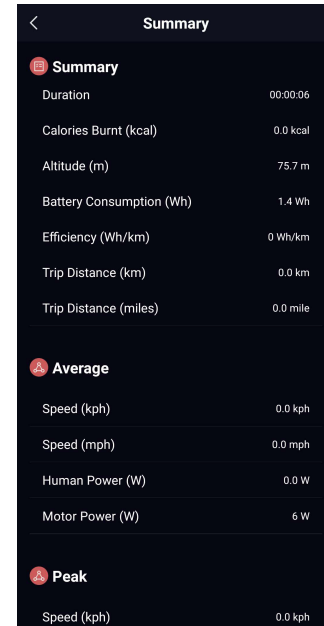
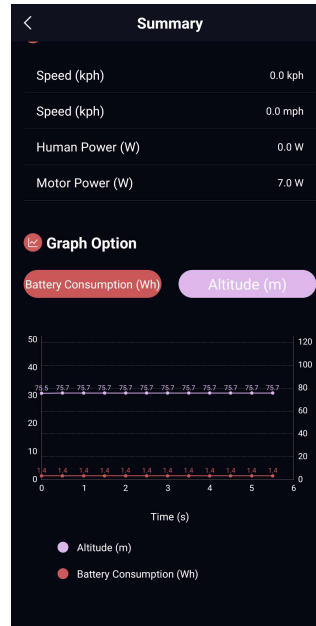
After recording of data, a Record file will be created under the Load Tab if you toggle to the right. Each load file is displayed with a duration time and date created. There is the option to Share, Rename or Delete this file if you press down on it and hold for 3 seconds.





The load files can be opened and viewed by tapping on it once. The initial data displayed will be a summary of your recorded data. This includes an overall Summary, Average values as well as peak values of important parameters.

At the bottom of the Summary Tab there is a Graph Option. Here you can select any two of the logged parameters to be displayed on the graph together. Here their values will be shown together over the logged time period. The parameters can be changed by tapping on the two colour coded badges above the graph.





(IV) Settings

There are 4 major categories of settings, namely general, modes, sensors, and batteries.

General settings

Display rate: Refresh rate of the display

Display units: Option of Km or Mile

Lifetime statistics: Shows the overall statistic of certain parameters since the initial day of use. These parameters can be reset if need be.

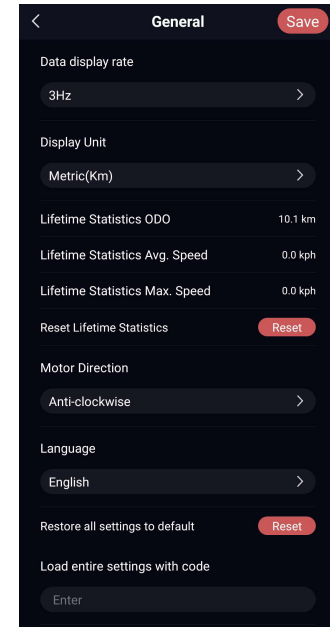
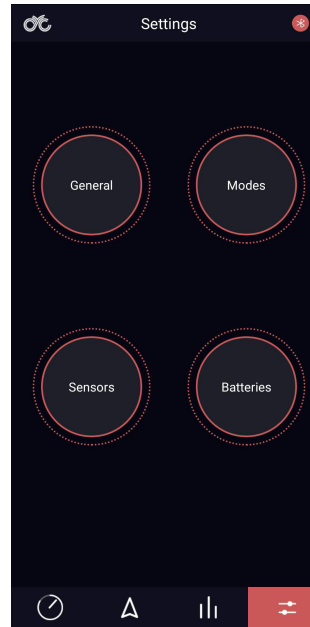
Motor direction: Sets motor operating direction. Either clockwise or anti-clockwise

Language: Select preferred language (English, French, German, Russian, Italian, Spanish)

Load settings code: Different standard settings files are available that can be uploaded to the app to change controller settings

Generate settings code: A settings code file can be generated from personal settings and shared to someone else.

Controller version: Displays the current version of the controller





You may change Settings to your preference

Users may go to **Settings > Modes** to change the mode settings.

Mode Name

Users are able to select one of the three modes that they desire to change and rename.

Throttle Settings

- **Input Throttle Mode:** Allows user to select the desired function when turning the throttle.
- **Throttle power limit:** Limits achievable power from throttle input
- **Throttle speed limit:** Limits achievable speed from throttle input
- **Throttle RPM limit:** Limits achievable motor RPM from throttle input
- **Throttle acceleration:** Determines throttle acceleration from throttle input

PAS Settings

Assis General

- **Pedal assist:** On or off toggle function
- **Assist speed limit:** Cut-off speed for PAS

Assist power:

- **Assist Start Current:** The amount of current supplied from the controller when the PAS is engaged
- **Assist power factor:** Determines the amount of current supplied by the controller depending on the torque imposed on the crank
- **Assist power limit:** Limits achievable power from torque sensor input

Assist sensitivity

- **Assist start torque:** Amount of torque required to engage PAS
- **Cadence threshold:** Cadence required to engage PAS



Gearing Settings

Maximum gear number: The number of electronic gears you would like to have.

Gear: Select the gear you would like to modify.

- **Throttle RPM limit:** Limits achievable motor RPM from throttle input for a selected gear to a percentage of initially set value
- **Throttle Power limit:** Limits achievable motor power for a selected gear to a percentage of initially set value
- **Throttle Phase current limit:** Limits phase current to a percentage of the maximum achievable value

Throttle automatic gear

Degree of Pitch: Select a degree of pitch threshold for automatic gearing

- **Throttle RPM limit:** Limits achievable motor RPM from throttle input for automatic gear to a percentage of initially set value
- **Throttle Power limit:** Limits achievable motor power for automatic gear to a percentage of initially set value
- **Throttle Phase current limit:** Limits phase current to a percentage of the maximum achievable value

Pedal Assist gear

Gear: Select the gear you would like to modify

- **Assist Phase Current Limit:** Limits phase current to a percentage of the maximum achievable value
- **Assist Start Power:** Sets the PAS starting power for the selected gear to a percentage of the initially set value
- **Assist Power Factor:** Sets the Power Factor for the selected gear to a percentage of the initially set value

Pedal Assist Automatic Gear

Degree of Pitch: Select a degree of pitch threshold for automatic gearing

- **Assist Phase Current limit:** Limits phase current for automatic gearing to a percentage of the maximum achievable value
- **Assist Start Power:** Sets the PAS starting power for automatic gear to a percentage of the initially set value
- **Assist Power Factor:** Sets the Power Factor for automatic gear to a percentage of the initially set value



Sensors

Advanced settings: Toggle On or Off

Sensor settings restore to default: Reset button option

Gyroscope: Restore position when you have finished installation.

Speedometer

- No. of Poles: Number of magnets within the wheel diameter
- Wheel Diameter: Diameter of wheel including the tire (In mm)

Pedal assist sensor

- PAS Poles (Poles/Revolution): Number of magnets in the PAS sensor per revolution. (Torque sensor default 18, Cadence sensor version: 36)
- PAS motor start rpm: Initial Motor RPM when the PAS is engaged. The final motor rpm = PAS motor start rpm + (Measured cadence rpm * Motor RPM / Cadence rpm)
- Motor RPM/Cadence RPM: Motor rpm to cadence rpm ratio as you pedal. The final motor rpm = PAS motor start rpm + (Measured cadence rpm * Motor RPM / Cadence rpm)

Motor Temperature

- Threshold Temperature (deg C): The controller starts to limit power when you exceed this temperature. In degree Celsius.
- Maximum Temperature: The controller will cut off the motor power when you exceed this temperature. In degree Celsius.

Throttle

- Zero throttle threshold: The throttle signal voltage when it is at 0% position. CAUTION: Dangerous to set when it is under 950mV, the motor may engage itself even at zero throttle position.
- Full throttle threshold: The throttle signal voltage when it is at 100% position.
- Fault threshold: Throttle fault Throttle Threshold(mV) (0-5000). The range of throttle shift without any output change. To provide a more stable throttle response.



Batteries

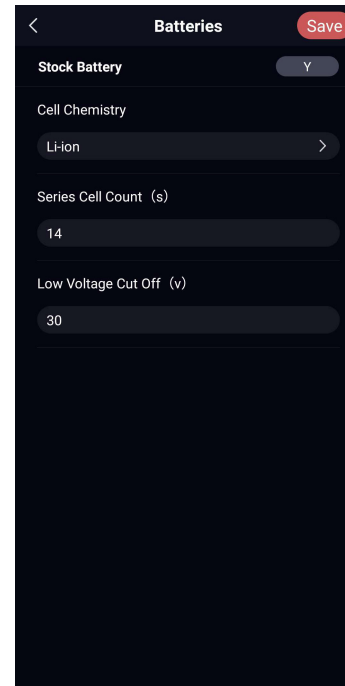
Stock battery: Yes or No toggle option. Stock Battery has a communication port to connect to the controller. If you are not using the stock battery, click no and enter the advanced battery settings.

Cell Chemistry: Select your cell chemistry for the calculation of the battery percentage. Most bike batteries are Li-ion.

Series cell count: The number of battery cells connected in series, in which 10s means 36V, 13s means 48V, 14s means 52V and 20s means 72V.

Low Voltage Cut off (V): The lower limit of the battery voltage that the motor starts to cut off in order to protect the battery from being over discharged.

Having the correct battery setting will enable the red battery status bar on the display.



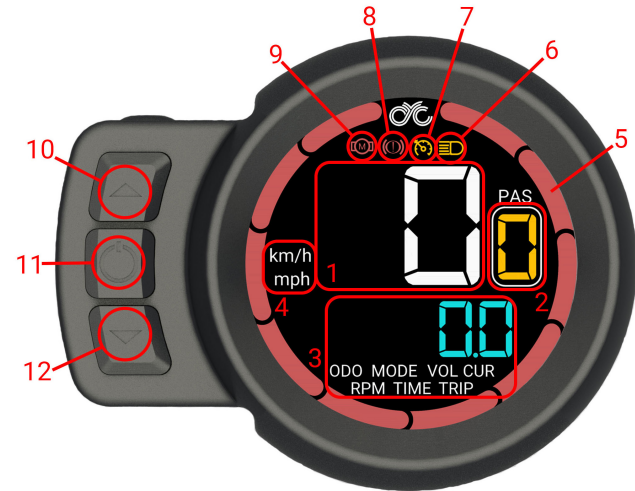
06 DISPLAY

Display layout



After installation, you can turn on the display by holding down the power button until the display turns on.

1. **Speed Meter:** Shows the speed of your rear wheel in km/h or mph.
2. **Gear:** Shows the current gear you are engaged in.
3. **Modes:** shows the current mode you are in:
ODO: Total distance travelled since kick-off.
MODE: Shows the current preset level you are in.
RPM: Shows the current motor RPM.
TIME: Shows the time since display is turned on.
CUR: Shows the current output from controller.
VOL: Shows the battery voltage.
TRIP: Shows the total distance travelled since the display is turned on.
4. **Speed Unit:** The unit of speed to be displayed, the unit is in either km/h or mph. (The unit can be changed via mobile app)
5. **Voltage Level:** Shows the current voltage level, the default setting is for 13s 48V battery.
6. Head Light: Coming Soon
7. **Cruise Mode:** When cruise mode is turned on, it activates when the throttle is pressed and hold for a set time interval. It is default to OFF.
8. **Break Indicator:** Turns on when electronic break is activated.
9. **Motor Error:** Activates if motor malfunctions.
- 10/12. **Up/ down button:** To change electronic gear
11. **Power button:** Press to change mode; press and hold to turn on and off the device.



To change the preset mode, **press and hold the up button for 3 seconds** on the display until the number of the mode changes.

To change gear, **press the up or down button**.

To change mode, **press the power button** on the display.

07 DEFAULT SETTINGS



After initial installation, you can turn on the display by holding down the power button until the display turns on and your X1PRO is ready for a ride!

From the factory settings, the controller has 3 Modes. To change the mode, press and hold the up button for 3 seconds on the display until the number of the mode changes, the numbers correspond to the following preset settings.

Press the up or down button on the display to change the gear to your preferred setting.

The control of the X1PRO controller is fully flexible, by using our CYC Motor App, you can change the output settings according to your preference. To change the preset settings, please refer to Section 6 Mobile App for details.

Mode 1, Ludicrous: This preset unlocks the full potential of the motor and is designed for more experienced users. There are maximum five gears, with unlimited power, speed, and fastest throttle ramp up rate. Pedal assist power is set at around 1500W.

Mode 2, US Legal: This preset is set to limit the motor to satisfy with the US laws. Maximum five gears. 1000W power and medium throttle ramp up rate. Pedal assist set at around 1000W. Maximum motor cut off speed is 32km/hr.

Mode 3, EU Legal: This preset is set to limit the motor to satisfy with the EU laws. Maximum three gears. 500W power and slow throttle ramp up rate. Pedal assist set at around 500W. Maximum motor cut off speed is 25km/hr.



Major parameters of the default settings

Series cell	10	13	14	16	18	20
Model 1						
Max Rpm	6000	7500	8500	9000	10000	12000
Power limit (W)	3000	4000	4500	4500	5000	5500
Throttle acceleration (max:70)	55	55	55	55	55	55
Model 2						
Max Rpm	5500	6000	6000	7000	8000	9000
Power limit (W)	1000	1000	1300	1300	1300	1300
Throttle acceleration (max:70)	40	40	40	40	40	40
Model 3						
Max Rpm	5000	5000	5000	5000	7000	7500
Power limit (W)	500	500	500	500	500	500
Throttle acceleration (max:70)	20	20	20	20	20	20

08 TERMS AND CONDITIONS



We offer a 1-year warranty to our motor, gear box and controller. Man-made failure and other parts are excluded from our warranty.

For any replacement parts, please visit your X1 PRO dealer or the CYC Motor online store, www.cycmotor.com

