## INSTALLATION USERS MANUAL

# E-Cells Super Monarch AWD 26" 1500 Crown Edition



This manual describes how to complete the final assembly safely and includes operating and maintenance advice. This manual was designed for the CROWN models. But most tips apply to all our models.

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Thank you for purchasing your new E-Cells Super Monarch AWD 1500 Crown E-Bike pictured above our Golden Night edition. We are committed to 100% customer satisfaction and should you need assistance please don't hesitate to call us. All warranty concerns should be sent to:

ecellswarranty@gmail.com. Safety is always a major concern of mine, so please remember to always wear your helmet and be sure to obey all local and federal laws.

David Cleveland, President, ECELLS INC 702-960-2015 ecellsebikes@gmail.com

# PLEASE READ THIS DOCUMENT CAREFULLY BEFORE USING OR FINALIZING THE ASSSEMBLY OF YOUR ELECTRIC BIKE

## **SECURITY**

#### **WARNING:**

Do not attempt to use this electric bike before reading and understanding the owner's manual. Wearing a helmet is mandatory. The use of this e-bike is at the owner's risk and E-Cells cannot be held responsible for damages of any kind, whether materials, immaterial or bodily that could result from its use. These electric bicycles are regulated by laws particular to the rider's locality and it is your responsibility to know the local laws before operating. This vehicle contains a throttle and a pedal assist system. It is classified as a CLASS TWO e-bike not to exceed 20 mph on roads and many parks.

**EXCEEDING 20 MPH IS NOT PERMITTED.** 

- Your Electric Assist Bike is designed for a total weight of 400lbs(including equipment, rider and luggage) on flat ground. Extreme climbing should always be with pedal assist by the rider.
- Do not leave your electric bike or its electrical components within the reach of children and animals.
- Do not dispose of the used battery in the trash.
- Do not apply pressure on the charger wire or plug. Do not stretch the thread, do not pinch it and do not put a heavy object on it. (Risk of electrocution or fire)
- Be sure to insert the plug into the wall outlet when charging.
- Do not touch the plug with wet hands.
- Do not use the plug or socket if they are dusty. Unplug and clean them with a dry cloth.
- To remove the power cord from the wall outlet, do not pull on the cord but on the plug. Always gently pull on the charging cord.

- Do not turn the pedals while the battery is charging and installed on the bike. The cord may wrap around the pedals or pedals and damage the plug with the risk of electric shock or fire.
- Do not use outlets, connectors, or other wiring devices with a different power source than recommended.
- Do not use items such as the charger housing, power cord, or plug if they are damaged. Replace them with original elements.
- When charging is complete, unplug the charger and then disconnect the battery from the charger.
- Respect the rules of the road. Some rules are different for ordinary bicycles and electric bicycles and may differ from one state to another.
- Wear a properly fitted helmet always.
- The use of long clothing or shoulder bag is dangerous (risk of contact withthe wheels)
- The bike is not designed to support 2 people, nor to make jumps.
- Caution: on wet or snowy ground braking distances increase.

## ITEMS VERIFICATION

Each electric bike is assembled according to the strictest quality control standards. Each electric bike is tested by a technician inside the assembly plant to verify that the setting and each function of the bike are perfect.

## **INCLUDED IN THE BOX:**

- Electric bike with front wheel, handlebars, front fender and light light and pedals which will be required to be assembled by the owner on the bike. Please note that the left and right pedals are not identical.
- Box containing a 5amp charger to plug directly into bike frame. This allows to charge both batteries simultaneously.
- Front and rear Batteries
- Any other boxes that may contain other parts such as a light, a front basket rack, or any other parts that were purchased separately. Check all packaging carefully.

Free included accessories (may vary) to include: Helmet, 2 Custom Panniers, 2 Mirrors, 2 Cargo nets, and a Tool Kit with air pump, a small flashing tail light to attach to the seat post, and 2 heat sinks that attach to the sides of the controller

## **FINAL ASSEMBLY**

Your bike is fully assembled in our factory and tested to our high standards.

To be shipped in a box of appropriate size to comply with different delivery networks, some basic parts of the bike are temporarily removed. Each part of the bike is packed properly so that it fits into the box safely and is delivered in perfect condition.

These simple instructions will show you how to do the final assembly. Your bike may arrive in a more assembled state than what is shown here. These are the steps required for most customers. Packaging and final assembly may vary.

Here are the main steps

- 1- Unpacking;
- 2- Identification of the parts that the final assembly requires;
- 3- Handlebar fixing by attaching to adjustable stem
- 4- Front wheel installation;
- 5- Fender and Front Light
- 6- Pedals

Necessary tools:

Pair of scissors

Allen key (4mm,5mm).

Allen Wrench (10mm, 15mm, 19mm)

Tool Kit 1 set

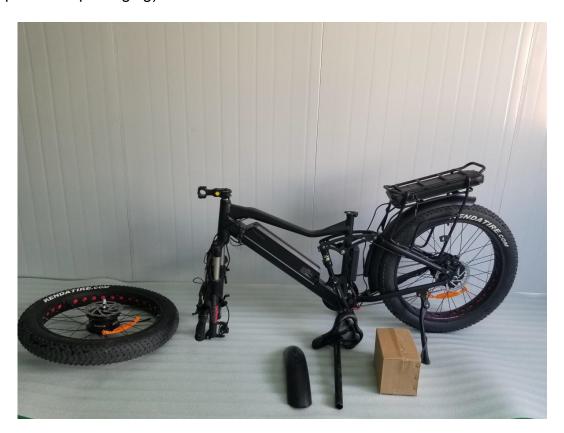


We recommend using the E-Cells Electric Bike Tool Kit. It will facilitate your installation and maintenance.

## **UNPACKING**

You will probably be very excited to unpack your brand new bike, but it is important to act with care because it is possible to accidentally damage the bike or to install some crucial parts badly. It can also be much easier to unpack and assemble the bike with the help of another person.

Remove the protective packaging from the bike carefully with a pair of scissors or a knife. Make sure you do not lose the components in the packaging (there may be a lot of protective packaging).





#### To note

The keys will be securely attached to the frame or handlebars of your bike. Make sure you do not lose them as they are coded, and a replacement set can not be provided by E-cells.

# **Main parts**

After removing your bike from its shipping box, you should end up with these parts:

## 1. The electric bike



## 2. The front wheel



## 3. The handlebar



4. 5<sub>amp</sub> Charger with Y cord



5. Pedals



6. Seat



Note: The pedals can be in the same box as the charger. The saddle mounted on a pole can be in the box or attached to the bike.

# Seat post and saddle

This is the easy part! Simply insert the seat post at the desired height (approximately so that the saddle reaches you at the height of the hips) Go ahead and remove the battery with key to facilitate turning bike over for easy wheel insertion onto fork dropouts.



The post is inserted into the frame hole and set to the desired height. Then the clamp must be closed to lock the seat in position.



#### Warning

Be careful, you will find on the seat post an indication of the minimum insert. Failure to follow this indication may break the bike frame.

# **HANDLEBAR**

The handlebar will already be connected by cables and wires, all that is necessary for the final assembly is to put the handlebar in good position.



Reverse the handlebar correctly. When putting the handlebar in the correct position, make sure no cables are bent or too tight.



Align the handlebar so that the wheel and handlebar stem are perpendicular and attach the rod to the head tube. Tighten both sides equally.

## FRONT WHEEL AND FRONT FENDER

Its best to **turn the bike over** resting on the handle bars and rear rack to insert the front wheel into the front forks. You may find the front brake caliper was shipped loose to facilitate attaching after wheel has been inserted into the fork. (See instructional video for proper installation.) Tighten the screw to adjust the torsion of the axle level. Close the lever to secure the wheel to the front forks. You may have a piece of plastic to remove from the fork.



Piece of plastic in place



piece of plastic removed



Attach the hub motor axle into the front fork.



disc brake aligned



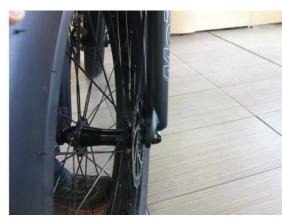
#### **Note**

It may be easier to do this step with the help of another person to align the disc in the brake caliper.

Make sure the disk brake is well aligned to fit in the calipers and lock the lever to secure the wheel to the front fork.







Step 2



Tight the left screws by allen wrench



Tight the right screws by Allen wrench

### FRONT FENDER ASSEMBLY







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Note: The recommended tire pressure for the Vee tires is a minimum of 8 PSI. For general road travel set tire pressures to 25-30 lbs for lower rolling resistance and increased cornering stability.

## **PEDALS**

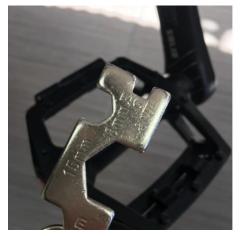
All bikes (including electric bikes) have left and right pedals. Make sure to identify each one of them. This image shows how to identify each pedal. The "R" (right) written on the pedal indicates that this is the right pedal to install on the right side of the bike (if you are sitting on the bike).



Pedals are identified "L" (left) and "R" (right).

The right pedal is installed on the crank which is to the right of the bike (if you are sitting on the bike). It is necessary to tighten the right pedal by turning in the direction of the clockwise. The left pedal is installed on the left-handed crank by turning counterclockwise.

The pedals are designed this way so that when pedaling, they do not loosen over time.





Screw the pedals as described above using the tool shown (included in your tool kit).



#### Note

It is essential not to confuse the pedals and not to force too much to tighten the pedal. If you must force, you could have made a mistake.

## **BATTERY INSTALLATION**

The battery of your bike is the most expensive and most important part. It can be removed by following these steps. Use the supplied key to unlock the battery.







It is necessary to turn on the battery by pushing the red button when using the battery.



The keyhole and support are on the frame above the battery.

Place the key in the keyhole and turn clockwise to unlock the battery. The key is then in the unlocked position, pull the handle to remove the battery.







Remove the battery by pulling on the handle after unlocking it with the key

You can remove the battery from the frame to charge it, you can also charge it directly to the frame. For transport by car, we recommend that you remove the battery from the bike and store it indoors in a safe place.

To install the battery on the frame, insert it in the same way it was removed. It is necessary to use the key to install the battery. The base of the battery should be inserted first and pushed into the bike frame.

It is very important to make sure the battery is locked before using the bike. Gently pull on the battery handle to make sure it is locked.







#### Warning

The battery must be locked when using the bike. Make sure it is by pulling lightly on the handle.

#### OPERATION OF THE LCD DISPLAY AND MOTOR POWER PAD.

ONLINE MANUAL: https://ecells.com/wp-content/uploads/2020/06/750C-Specifications-2018-Bluetoothdisplay-manual.pdf

#### **BASIC FUNCTIONS**

Turn on the screen

Press " Power button " and hold for 3 seconds

Turn on Front Light	Press + and hold for 3 seconds
Increase the level of pedal assistance	Press "+" on power pad
Decrease the level of pedal assistance	Press "– "on power pad
To Activate Walking Mode	Press and hold - the engine will activate and maintain a speed of approximately 3.75 mph until you release the - button
Reset trip counter to zero	Hold + and - simultaneously for 3 seconds



MOTOR POWER SWITCH: RED TOGEL SWITCH ON LEFT HANDLEBAR

When the togel switch is on "1": FWD:FRONT WHEEL DRIVE
When the switch is at "2": AWD: ALL WHEEL DRIVE dual motor drive. This is the
best performance and recommended for max power and efficiency.(The motors and
batteries run cooler, thus increasing efficiency.)

When the switch is at "3", RWD: REAR WHEEL DRIVE ONLY

#### **Programming functions on APT 750-C Bluetooth Dashboard Display**

The advanced programming instructions are available on VIDEO and PDF on E-Cells.com

## **IMPORTANT POINTS**

For optimal use, please consider that important information.

#### Mechanical safety check:

Check the condition of your bike regularly. Make sure that nothing has become loose. Make a visual inspection of the entire bicycle before each ride. Make sure the tires are properly inflated (about 8-30 PSI for the Super Monarch AWD 1500 Crown models). Also check your brakes.

#### First ride:

To test your new electric bike, choose a place away from cars, cyclists and other potential dangers to safely familiarize yourself with the controls and features of the bike. Starting is much easier and faster than with a regular bike. Be careful these bikes are very powerful.

#### Damage to the chain:

It is important not to change the speed of your bike on the derailleur when you are on the high power assist mode. You must first choose your speed on the mechanical derailleur and then you can use the electric assist mode. Changing the gear mechanically while the power assistance mode is high may cause serious damage to your bike chain.

#### **Battery indicator:**

The battery indicator light is only an estimate of the battery charge. The battery charge level appears on the LCD screen. The best way to know that the bike is 100% charged is by charging it until the charger light indicates that it is fully charged (see next page). Inversely, the only way to know that the battery is dead is to use the bike until the LCD screen turns off and does not turn back on. You can continue to pedal with assistance even after the last battery indicator bar begins to flash. You will not damage the battery by using it until the bike is completely shut down, but you will need to quickly charge the battery. Cells that remain empty can suffer irreparable damage. **So be sure to charge the battery after each ride.** 

#### Keys:

The keys are attached to your handlebars. You will have two keys of each battery so please keep one of each as spare part separately and carefully. Key replacement is only done in the factory and to replace is costly.

#### Autonomy:

The battery life is influenced by various factors. It is difficult to predict precisely the number of miles that can be traveled with your full batteries. By using it you will learn to know the capabilities of your bike. Pay attention to the following factors that can influence the distance you will travel with a battery charge:

- Weight (including weight of rider and load)
- Resistance (wind force, tire pressure, frequent braking or rubbing brakes)
- The conditions of the road (the floor covering, the climbs and descents)
- Driving (choosing the right speed, frequent changes in speed)
- The level of the pedal assist
- The temperature (intense cold or extreme heat can decrease the autonomy of the battery)
- The age of the battery

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## **CHARGING THE BATTERY**

The battery can be charged on the bike or off the bike by following these steps:

- 1. Plug the charger into the wall outlet just like a laptopor phone charger.
- 2. Check that the charger LED is green.
- 3. Plug the charger into the battery plug carefully. Do not force it if there is an obstruction.
- 4. The charger LEDs should be red while charging.
- 5. Once the charger LED indicator changes from red to green, the battery is fully charged.

The charger stops charging the battery when it is full. There is no risk of overcharge.

Charging time can vary from 1 to 5 hours.

The battery should be charged at least once a month to keep the cells healthy.

The best way to charge your battery is to plug it in after each use and let it charge until the LED indicates that the battery is fully charged.















#### WARNING

At the risk of creating a short circuit and making your battery inoperative, use only the charger supplied by the seller. Do not insert anything else into the battery plug.

## **MAINTENANCE**

A little extra maintenance is needed unlike a regular bike. One of the main things you may encounter is that your spokes need to be tightened more often than a non-electric wheel. Our wheels use 12Guage spokes that are very powerful, but more sensitive to vibration.

In addition to paying attention to the tension of your spokes, it is important to periodically check all your screws and bolts, especially your rear suspension pivot points. Checking and tightening if necessary will allow you to have a bike safe and secure.

Keep your bike clean! There is nothing worse than having to work on a dirty bike ...

Do not forget the usual maintenance of bicycles, such as tire pressure, chain oiling, replacement of brake pads, etc.

The motor is a well sealed part and requires no maintenance during its service life.

Finally, it is important to charge the battery at least once a month to ensure that it maintains a safe level of storage. Charge the battery at least once a month if you are not using it and before each race if you have not charged it for more than a week. Leaving the battery pack flat can completely deplete the cells, which could lead to premature battery failure.

#### \*General maintenance program

	- Check the tire pressure (about
	10-30psi) fat bike models)
Before each ride	- Lightly oil the chain, being careful not
	to splash the disc brakes which could
	damage them
After 500 miles	- tighten the spokes
	- Change brake pads
	- Adjust the derailleur
After 1000 miles	- Change the rear tire
	- Change brake pads
	- Adjust the derailleur
After 1500 miles	- Change front tire
	- Change chain
	- Change brake pads

<sup>\*</sup> This program is indicative and depends on the actual use.

# **ASSISTANCE**

Troubleshooting tips will help you logically diagnose most problems that may occur during installation and use. BEFORE ANYTHING, make sure that:

- the bike is CLEAN;
- all electrical connectors on the bike are properly connected;
- the battery is charged;
- the tires are inflated;
- take knowledge of apparent physical damage.

Component	Situation	Solution
LCD screen	The engine is intermittent and code H30 appears	The H30 code is an indicator that your engine has been shut down by the controller to prevent it from overheating. This cut is used to protect your engine and occurs during heat, intense cold, steep slope to climb, overweight, etc. If the problem persists without the presence of these factors, contact E-Cells team.
	The screen just does not turn ON	Check the connectors of the cables connected to the screen
Battery	The four battery indicator lights do not come on when you press the " power " but the battery is charged and working	This problem is related to a short circuit (ex: the battery has been connected to the wrong charger, a metal instrument has been inserted into the battery charging socket, etc.) The battery fuse may have prevented the battery from being damaged by this short circuit. This problem does not prevent the proper functioning of the battery. The fuse can then be changed.
	The battery will not charge anymore or not	The problem is either the charger or a short circuit of the battery

Lumière avant LED	Front light no longer lights	If inadvertently or by accident the front light has been disconnected, be sure to reconnect the wires in the correct plugs: the negative wire in the negative plug and the positive wire in the positive plug. A bad connection can cause a short circuit of the controller
	The light remains constantly lit	A short circuit could be caused by the inversion of the wires. This does not affect the operation of the bike. To solve the problem you have to change the controller
	The engine is intermittent and code H30 appears	Refer to the LCD Screen assistance
Motor	The throttle does not work, but the pedal assist works	Check the connectors. The twisting of the handlebar can sometimes cause a slight pull of the plug and disconnect
	The pedal assist does not work but the engine responds to the accelerator	Check that the black washer with magnets (located at the bottom of the chain behind the chain) is clean and close enough to the sensor. Turn off your bike. Move closer and clean the washer and turn on your screen.
	Electrical performance decreases	Make sure the battery is fully charged. Make sure tires are inflated to at least 10 PSI (25 psi recommended). Make sure the cadence washer is clean and close to the speed sensor
Autres	A sound is heard by accelerating	The electric motor emits a certain vibration that can make the screws, bolts or spokes loosen in the long run. Identify the loose part and screw it back, it is usual for
	Derailleur does not work well during gear changes	The derailleur may need adjustment after a certain period of use or after receiving a shock. We recommend having the derailleur adjusted at a professional repair shop.

## **USEFUL TIPS**

- 1. This User Manual is only explain the vehicle's use and functions.
- 2. The images shown may differ from the actual model presented.
- 3. We reserve the right to change the model without prior notice due to technical improvements.
- **4.** This vehicle has a top speed limiter. For security reasons, **its removal is strictly prohibited.**