



X-Treme™ Electric Moped

**Operation and Maintenance
Instructions
XM-5000Li**

Revised 11/09/08



We strongly recommend that you read this entire manual before using your vehicle for the first time

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General Instruction Before Riding

- 1) Tire check - Check the tires for correct inflation pressure and for any signs of physical damage.
- 2) Brake check - Squeeze the brake lever (Front then Rear) as hard as you can, push the scooter forward and check the braking resistance.
- 3) **Safety Circuit Breaker** (P. 6) When the key is inserted and turned to the "ON" position, the power indicator will illuminate. If instant current is over 1000A, the power will be automatically cut off to avoid over-heating and damage. Wait for one minute and then reset the circuit breaker located under the seat to restart your scooter. This circuit breaker is switched off before delivery, please switch on before riding.
- 4) Battery Check - Make sure your scooter is sufficiently charged and always check the battery gauge while you are riding and be sure that it does not get too low too often.
- 5) Steering - Inspect the handlebar for any damage. Apply the front brake and push the handlebar up and down to check for any unusual noises. Move the handlebar in all directions to check for any loose parts or obstructions. Any problems should be corrected before use.
- 6) SAFETY NOTICE
 - 6.1. To prevent the scooter moving away unexpectedly, always turn the key to the "OFF" position before dismounting or leaving the scooter unattended.
 - 6.2. Always engage the rear brake when mounting or dismounting the scooter. Ensure that you are seated on the scooter and check that the stands are clear of the ground, before touching the throttle. If you twist the throttle before you are ready to go or while you are mounting the scooter it may move away from you and could lead to an accident.
- 7) Water and Cleaning - Your scooter can be ridden in wet and rainy conditions. When riding in rain, do not ride through deep puddles or muddy areas as excessive water will cause the motor and other electrical components to suffer damage. During cleaning, as with any motor vehicle, be sure to avoid soaking any electrical component during cleaning to avoid serious damage.
NEVER USE A HIGH PRESSURE WASHER WHEN CLEANING THE BIKE
- 8) Parking - Your scooter should not be left in strong, direct sunlight or heavy rain for extended long periods as this will prematurely age and damage paintwork and the general finish of the scooters appearance and some of the electric components may overheat.
- 9) Riding - Never overload and ride your scooter. Prolonged use with excessive weight could cause serious damage to the electronic and mechanic parts and void your warranty. It is recommended that all new scooter riders enroll in rider training for safety reasons.
- 10) Road Rules - As with any vehicle, a scooter rider must always comply with the local road traffic rules and regulations. Before taking your scooter out on a public road, make sure you are familiar with traffic rules and regulations and any special requirements for motorcycles & scooters.
- 11) **Never drink and ride** - Alcohol slows reflexes and greatly limits your ability to operate a scooter. Even a very small amount of alcohol will reduce your ability to operate a scooter safely.

Point Inspection before every use (pre-ride check)

The following checks/operations are necessary before riding and delivering.

ALWAYS:

- 1) Always Charge the batteries (observing battery guidelines) before using and after every use.
- 2) Check the action of the front and rear-wheel suspension.
- 3) Check the functionality of all controls.
- 4) Check the screws, nuts and fastening parts; check the main and side kick stands, suspension strut, yoke and steering-head bearing.
- 5) Check the lights/headlight.
- 6) Check all main screws.
- 7) Check the tire pressure.
- 8) Check the function of the front and rear brakes
- 9) Perform a final inspection of the following elements: steering, brakes, instruments, indicator lights, lights and signal system, as well as the tires and wheels.

Assembly Instructions

Installing the rear view mirrors

1. Rear view mirrors can be easily fixed to the handle bars between the grips and the brake handle.
2. Screw in the rear view mirror clockwise. The rear view mirror that goes on the left controller is curved to the left and the rear view mirror that goes on the right controller curves to the right.
3. Fasten the rear view mirrors by tightening the nuts.
4. Clean and adjust both rear view mirrors before you ride. Adjust each mirror so you can see the lane behind you and as far as possible the lane next to you. When the rear view mirrors is properly adjusted you can see the edge of your arm and shoulder while in the normal seated riding position.

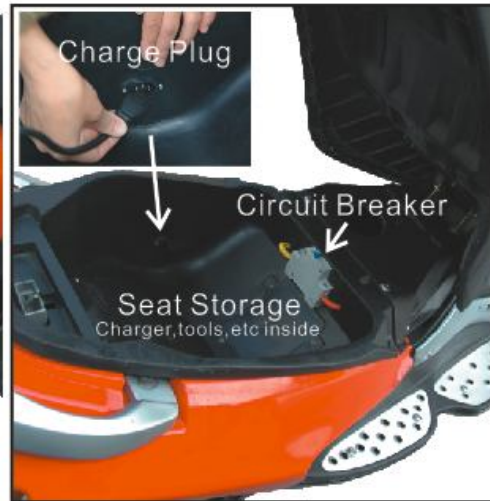
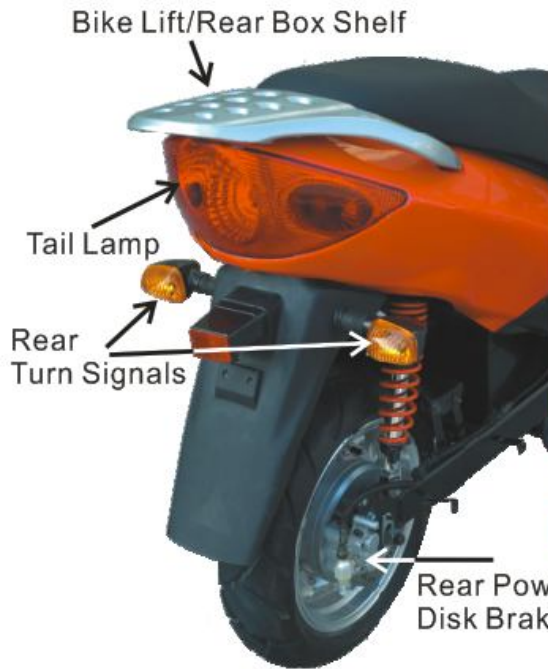
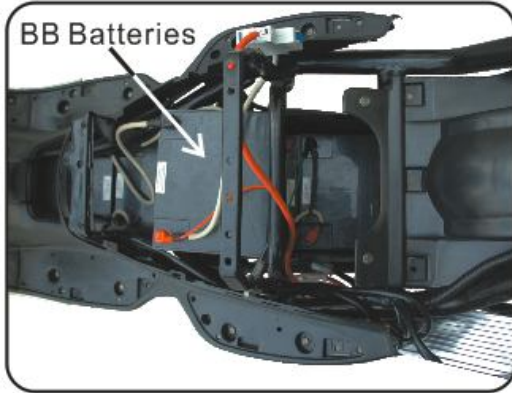


Equipment Location





- 1 Turn Signal Indicators
- 2 Speedometer
- 3 Odometer
- 4 High Beam Indicator
- 5 Battery Gauge
- 6 Diagnosis Light

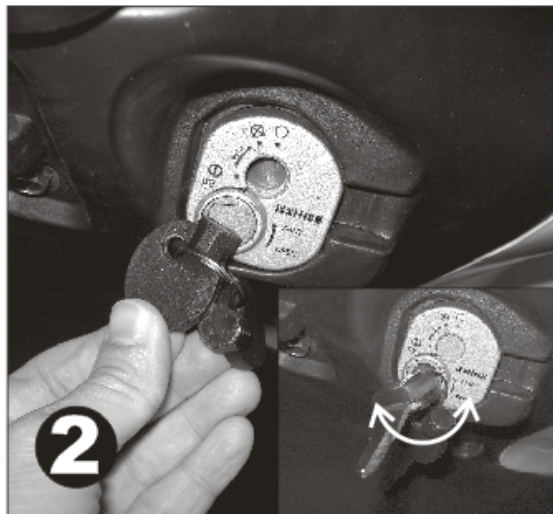


Ignition Key Positions

Key Position	Description
On	Key cannot be removed when power is on.
Off	Key can be removed when power is off.
Using the steering lock	To prevent theft, turn the handle bar to the far left and turn the key to the lock position. The key can now be removed while the handle bar is in the locked position.
Opening the seat	Use the key in the slot on the side of of the bike to release the locking mechanism of the seat.



- 1.Lock handle bar
- 2.Cover the keylock



HOW TO OPEN SEAT STORAGE

Left Handle Bar Controls

Headlights Switch	High Beam--Push switch up Low Beam-- Push switch down
Horizontal Switch	Left Turn Signal--Slide switch to the left Right Turn Signal--Slide switch to the right Turning off Signal--Press the central release button
Horn Button	Sound the Horn--Push the yellow button on both handles.
Rear Brake Lever	When Brake Handle is compressed the rear wheel will slow to a stop and power will be cut off. Power will flow again once the lever has been released.

Right Handle Bar Controls

Front Brake Lever	When brake handle is compressed the front wheel will slow to a stop and power will be cut off. Power will flow again once the lever has been released.
Throttle	Turn throttle counter clockwise to increase speed.
Parking Lights	The dashboard lights,headlight and taillight will turn on when the switch is in the middle position.
Head Lights	The dashboard lights,headlight and taillight will turn on when the switch is in the upper position.

Accelerating and Braking

Throttle Tips

1. Turn the key to the 'ON' position, then turn the Throttle gradually to accelerate.
2. To avoid losing control of your scooter, please turn the Throttle slowly until the speed increases.
3. Do not turn the throttle until you are ready to ride.
4. After braking, make sure the throttle has been released back to the start position, release the brake levers and turn the throttle gradually to move off again.
5. The brushless motor makes a small electromagnetic noise when turning the throttle to start. This is normal.
6. Please, for your safety and security, take the key out when you are not riding.

Braking Tips

1. To stop, release the throttle and apply the front and rear brakes simultaneously.
2. For safety, this scooter has a circuit brake system. When the front and rear brake is applied, the controller will disable the circuit; release the throttle back to the start position then accelerate again.

Tips for better economy (range)

1. Accelerate slowly and smoothly. Avoid hard acceleration.
2. Avoid sudden braking by attempting to anticipate your need to brake ahead of time.
3. Release the throttle and just roll along without using any power where possible.

Battery Gauge and Charging Instructions

Marks	Description
H	When the battery is fully charged(over 90%). The needle will point to the upper section of the dial.
Middle Position	When the battery is around 50% charged, The needle will point to the middle section of the dial.You should charge if possible now.
Red Bar	When the battery is at 10% or less charge, the needle will point to the red Bar section of the dial. At this level the battery has less voltage And the scooter will not move.

Charging

- The batteries in your scooter are TS=LFP 60AHA Lithium Batteries. You must use the factory supplied charger with an 110V (or 240V) power outlet.
- Turn off all switches while charging the battery. Plug one end to a 110V (or 240V) outlet and the other end into the charging plug on the scooter (located under the seat).
- The average charging time is 4 hours (90%) using the supplied LFP Charger. To fully charge battery, charging time will be 8 hours.
- To keep the batteries in good condition, charge them when they reach 70% discharge. Always fully charge them after each use. If the scooter is to be stored, fully charge the batteries and store them in a dry place.
- Your batteries do not develop a memory (i.e. you do not need to run it down completely to achieve a good charge) and the batteries can be charged at any time in the discharge cycle of the battery. In fact the reverse is true, regular charging will lengthen the life of the batteries.

Battery Longevity

The driver should always charge the scooter when it reaches 70% discharge. Do not over discharge the LFP batteries. The average life of the 60AHA LFP battery is around 2000 cycles.

Easy Maintenance

Good maintenance will play a major role in keeping your scooter in good working condition and prolong the life of the batteries and scooter. Please follow these recommendations:

◆ Rust prevention

- ★ Always keep your scooter dry and clean.
- ★ Avoid parking your scooter in high humidity and corrosive areas.

◆ Tires

- ★ Regularly check the tires for signs of damage, excessive wear whether normal or abnormal. Any damaged or worn tire must be replaced before riding.

◆ Body

- ★ Always check your scooter's body parts and frame for correct fit and any sign of damage.
- ★ Check and tighten all nuts and bolts.

◆ Water

- ★ Always check for excessive moisture in or around electrical components. If water is found, please dry the area first and then apply a suitable water dispersant according to directions. Remember to avoid contact with water where possible.

◆ Electronics

- ★ Due to the complex nature of the electronic components of this scooter, you should never attempt to take out any of the parts, or attempt major maintenance without first consulting with the supplier (this will invalidate the warranty).
- ★ To avoid damage to the electrical parts of this vehicle, especially the controller, do not park the vehicle in direct sunlight or in heavy rain.

For customer safety, perform routine maintenance on your vehicle. This will lower the potential for damage.

Remember... Prevention is always better than Cure.

Maintenance Schedule

Regular Service Intervals - kilometres

Kilometres	400	1,000	2,000	3,000	4,000	5,000	6,000
Battery			C				C
Charger			C				C
Tire Pressure	C	C	C	C	C	C	C
Tire Wear							C
Brake System	C		C				C
Brake Pad							A
Nuts and Bolts	T		T	T	T	T	T

Kilometres		7,000	8,000	9,000	10,000	11,000	12,000
Battery			C				C
Charger			C		C		C
Tire Pressure		C	C	C	C	C	C
Tire Wear			C				C
Brake System			C				C
Brake Pad			A	A	A	A	A
Nuts and Bolts			T	T	T	T	T

A: Adjust

C: Check, refill, repair or replace if needed

T: Tighten

Diagnostics Indicators

If your scooter fails to function properly, please check the diagnostic indicators on the display panel.



Sympton: Light 1 on

Diagnostics: Faulty brake switch, kickstand down or missing, or motor overheating can cause light 1 to illuminate.

Solution: *Please take the following steps:*

- Step 1. Apply the brake lever and release it . The scooter will go back to normal if light 1 goes off. If light 1 remains on, please do step 2.
- Step 2. Kick up the side stand. The scooter will go back to normal if light 1 goes off. If light 1 remains on, please do step 3.
- Step 3. Wait a few minutes until the motor cools off. The scooter will go back to normal if light 1 goes off.

Symptom: Light 2 on.

Diagnostics: Controller overheat protection

Solution: Wait a moment until this light goes off automatically and the scooter will go back to normal.

Sympton: Light 3 flashes

Diagostics: This only applies to lithium powered scooters. The flashing light indicates low voltage.

Solution: Please reduce the speed to obtain extra running miles and recharge the scooter immediately.

Frequently Asked Questions

1. Fully charged, what is the range of the electric vehicle?

A. The Range is affected by the weight of rider, the type of terrain and the speed in which the vehicle is driven. A range of 60 miles at full throttle and 90 miles at cruising speed of 25mph has been recorded on a single charge, but is not guaranteed.

B. See the specification sheet for the full range and speed of the models.

2. Is riding an electric vehicle a comfortable riding experience?

A. Riding an electric vehicle is indescribably more comfortable than riding a gasoline motor vehicle. The silence and the smoothness of a direct drive electric-motor-powered vehicle are incomparable.

B. Quick accelerating-speed from 0 to 50mph (80km/H) takes only 10 seconds.

3. Do you have to warm-up the electric vehicle before riding it?

There is absolutely no warm-up time needed. Just turn the key and you are ready to go. It cannot be any easier.

4. What about maintenance?

This motor bike is designed for minimum maintenance. Considering the fact that this vehicle has no combustion engine, no transmission, no belts, no chains, no gasoline, no ignition plugs, no carburetor, etc. Modular designed components are practically maintenance free. The unique design of the direct drive system and the total absence of belts or chains make this vehicle much easier to maintain than other electric scooters. Practically any scooter dealer can do most of the maintenance that may be required. The brushless motor is precise that so there is never a need to change the brushes.

5. What about parts, is it a problem getting parts for the scooter?

I. ALL parts can be purchased directly from the supplier including batteries, tires, bulbs, seats etc.

6. Can the electric scooter be cleaned or washed with water without any concern?

A. As with any electric vehicle, care should always be taken when washing. NEVER USE A HIGH PRESSURE WASHER WHEN CLEANING THE BIKE.

B. One should be careful never to pour water directly into the charger outlet, the controller and the internal battery set when washing or cleaning.

7. Do you need to wear a helmet to ride the electric vehicle?

For safety reasons we always advise the use of a helmet. However, local law dictates whether or not riding vehicle law obligates a helmet.

8. Is it easy to recharge the batteries?

Yes, it is very easy. The user just needs to insert the input plug of the Battery Charger into any regular wall outlet of AC110V (or AC220V) and the output plug into the inlet on the right rear side of the vehicle, which is clearly marked. This will start to recharge the batteries.

9. How can I know the battery condition and energy level?

The display panel includes a battery gauge on the right, which clearly indicates the power level of the batteries in your vehicle.

I. FULL: upper gauge close to letter "H".

II. 75% FULL: second wide line.

III. 50% LEFT: middle gauge. (At this level, charging is highly recommended.)

IV. 10% LEFT: close to red bar gauge, scooter cannot move. (Immediate charging is necessary).

10. Can a rider get burned while riding the electric vehicle?

Riders will not get burned from riding the electric vehicle. The vehicle does not have an exhaust pipe like in gasoline scooters. Nothing heats up.

11. Why is this product the best available in the world today?

It has a Brushless motor. We emphasize "brushless" not just because this is the latest technology, but because these permanent magnet motors are supremely reliable! These more expensive motors produce high torque at low speeds, keeping an acceptable balance of torque and energy across the whole speed range. In addition, electric scooters do not waste energy at an idle state. Often other types of electric vehicles on the market today will still use sealed brush-type motors that are dependant upon brush life that build up brush dust (residue) and susceptible to wear over time which may affect maximum speed and electrical noise or become problematic in other ways. Because these brush-type motors are sealed, it often takes an expensive motor replacement to get them working again.

12. What is the Manufacturer Warranty?

Go to www.x-tremescooters.com/support for warranty information on this model. This warranty is subject to the customer/rider/owner taking due care and maintenance of the vehicle at all times. Eventual transport expenses are at charge of the customer.

13. How to store in winter?

Take the following precaution to prevent storage damage or problems when taking the vehicle out on the road again in the spring:

1). The vehicle should be cleaned thoroughly (not with high-pressure cleaning equipment!). Then treat all metal parts with corrosion-protection agent. Use a suitable cleaning agent on all painted and unpainted trim parts and on rubber.

2). The batteries should be stored where they are protected against frost. Ensure battery voltage is checked monthly and recharged if necessary while stored.

3). Lubricate all cables and the joints of all levers.

4). Increase the tire pressure to prevent flat tires as a result of storage.

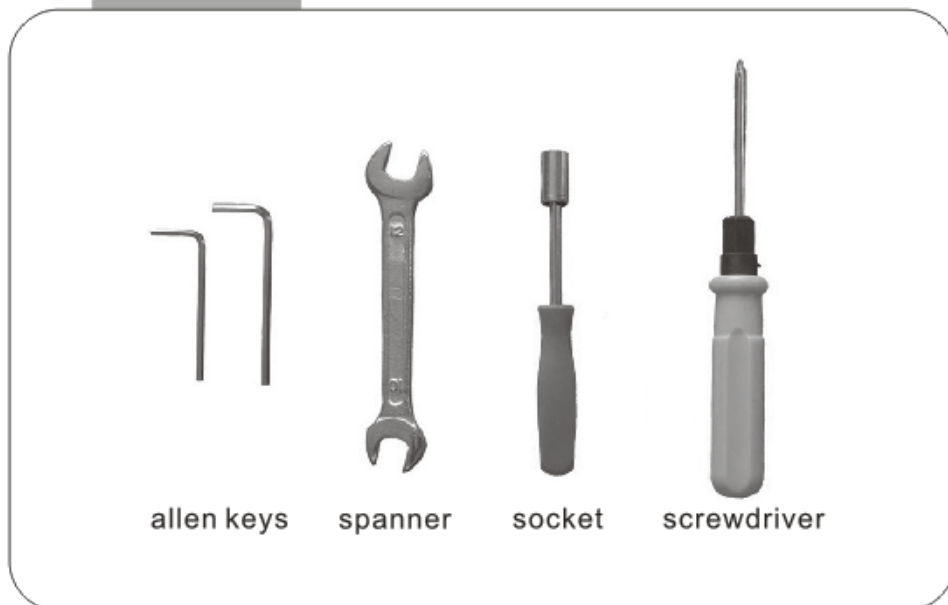
5). The vehicle should be stored in a dry room and be covered with a weather resistant tarpaulin.

Technical Specifications

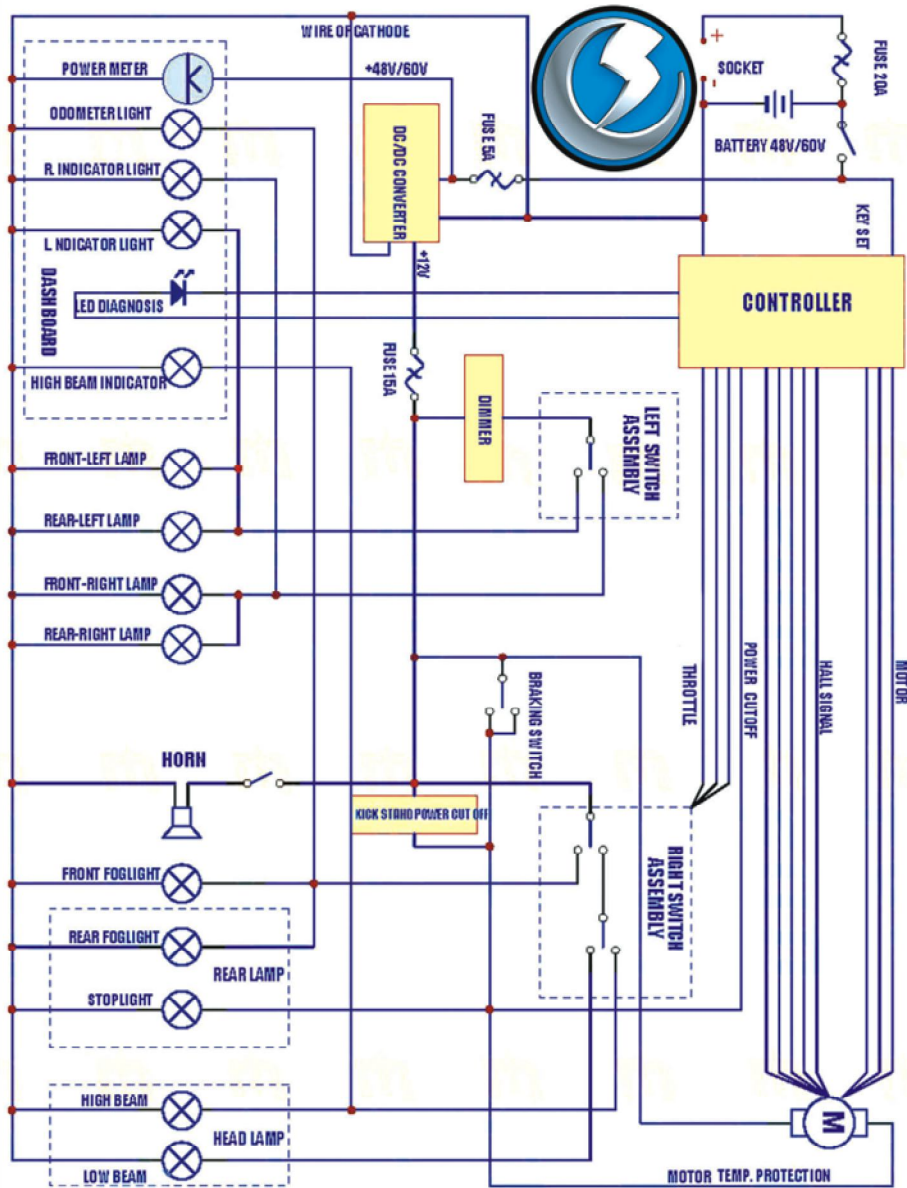
Technical Specifications

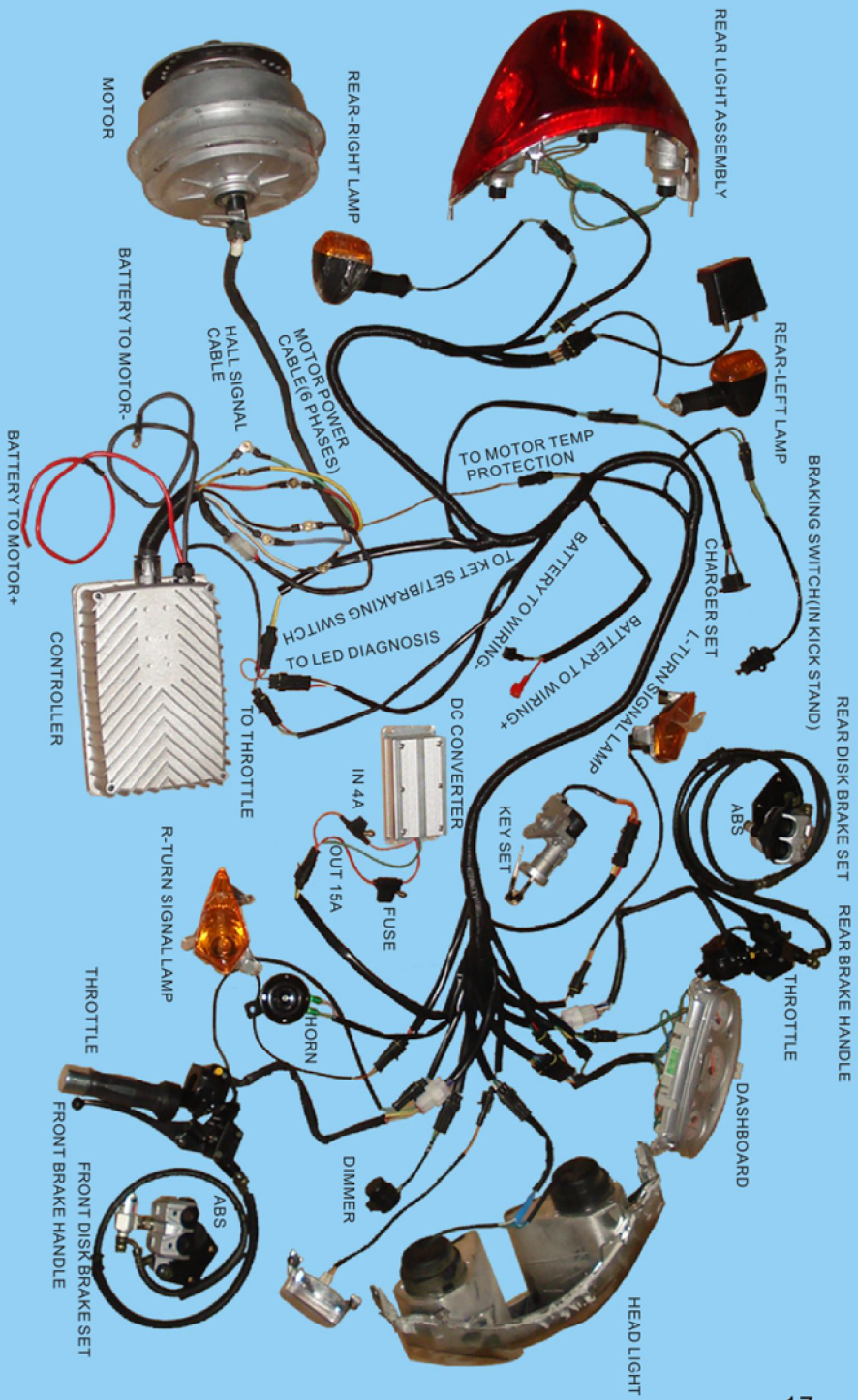
Motor	High efficiency 5000W Brushless Hub Motor
Battery	60Ah Lithium Battery
Charger	110V-250V/50Hz-60Hz
Charging Time	Up to 4 Hours
Expected Life of Battery	2000 Deep Cycles
Tire	130/60-13
Max Torque	180N.m
Max Speed	55-60mph based on 60AH Lithium Batteries
Single Charge Range	60 miles at 45mph based on 60AH Lithium Batteries Up to 85 miles at cruising speed (25mph) based on 60AH Lithium Batteries Terrain, load & weather may affect results.
Climbing Capacity	25-30% grade
Maximum Load Capacity	440 Lbs(200kgs)
Gross Weight	313 Lbs including 60AH Lithium Batteries
Net Weight	216 Lbs (excluding the batteries)
Battery Weight	97 Lbs
Dimensions	L79" x W23" x H47"
Brake System	Front/ Rear: Disk

Tools



EV Schematic Circuit Diagram





EV Schematic Wiring Diagram

For General Information or Parts Visit

www.x-tremescooters.com

For Technical Support or Assistance Visit

www.x-tremescooters.com/support/