

# Zapino



# ZAP!



## OWNER'S MANUAL

Operation and Maintenance Instructions

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

[www.zapworld.com](http://www.zapworld.com)

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# WARNING! Read Before Riding



1) To ensure the vehicle is functioning correctly, do a quick check of the vehicle's tires and check that the brakes are working. (For more detailed maintenance instructions see the Maintenance Schedule). Your vehicle has been thoroughly checked by our engineers before delivery but on the spot checks are equally important.

2) When the key is inserted and turned to the "ON" position, the power indicator will illuminate. If current drain is over 60A, the power will be automatically cut off to avoid over-heating. Wait for one minute and then press the red button (see pg.7) to restart the vehicle.

3) To avoid unplanned acceleration, always turn the key to the "OFF" position before dismounting or leaving the bike unattended.

**4) SAFETY NOTICE: Be sure that you are seated on the bike and kick stands are clear of the floor before touching the throttle handle. If you twist the throttle before you are ready to go or while you are mounting the bike it may run away from you and could lead to an accident.**

5) This vehicle may be ridden in wet conditions, but be sure to avoid soaking it during cleaning to avoid damaging any of the electric components.

6) The vehicle should not be left in strong, direct sunlight for long periods as some of the electric components may overheat.

7) Motorcyclists and moped users must abide by the same traffic rules and regulations as other motorists. Before taking your motorcycle/moped on a public road, be familiar with DMV traffic rules and regulations and any special requirements for motorcycles/mopeds. **Note:** *Some states may classify ZAPINO as a moped, others a motorcycle.*

**8) Never drink and ride.** Alcohol slows reflexes and greatly limits your ability to operate a motorcycle/moped. Even a very small amount of alcohol will reduce your ability to operate a motorcycle/moped safely.

**9) ALWAYS wear an approved safety helmet!**

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying ZAP.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or ZAP.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

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 engine fixing, 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.
- 10) Explain the terms and conditions of the warranty to the customer, and have them return the registration card.



Item	Action
Front Brake	Squeeze right hand brake and push the vehicle to see whether it rolls easily. If it does, then the brake must be tightened. Tighten the bolt until the vehicle will no longer move with the brakes applied.
Rear Power/Disc Brake	Listen for any noticeable grinding or squealing from the tires while the brake is applied. If so, contact the dealer to adjust.
Brake Fluid	Check fluid gauge on the left handlebar to ensure that the brake fluid is above the indicated level. If not, top it up with a good brand of brake fluid.
Electric Switch Handle	Turn Throttle counter clockwise then release; the Throttle should spring back to stop position. If not, contact your supplier.
Tires	Check the tire pressure is 36 PSI
Controller/ Motor	Check the usage and condition
Battery	Check the power level by looking at the gauge or with a voltage meter.
Signal	Check to make sure your lights are working.
Nuts and Bolts	Check to make sure that all nuts and bolts are tightened and secured.
Speed Switch	Normal Moped operation is <u>DOWN</u> or 1 off-road, or high speed motorcycle operation is <u>UP</u> or <u>0</u> .

## Important Notes

1. Regularly perform a routine maintenance check. Doing so will help protect yourself and your vehicle.
2. If any parts are damaged, whether normal or abnormal, please check with the dealer before riding.

## Installing the mirrors

1. Mirrors need to be attached to the handle bars between the grips and the brake handle.
2. Screw in the mirror clockwise. The mirror that goes on the left side is curved to the left and the mirror that goes on the right side curves to the right.
3. Secure mirrors by tightening the bolts.
4. Clean and adjust both 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 mirror is properly adjusted you can see the edge of your arm and shoulder.

# Technical Specifications



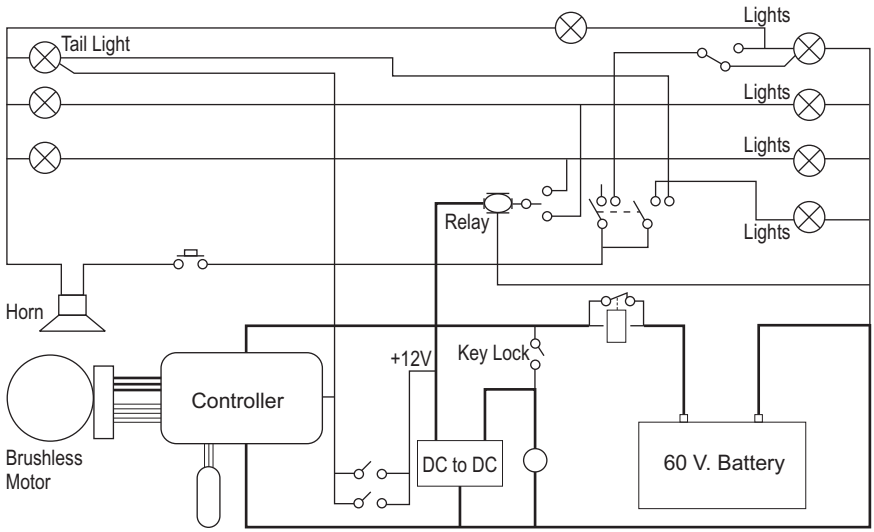
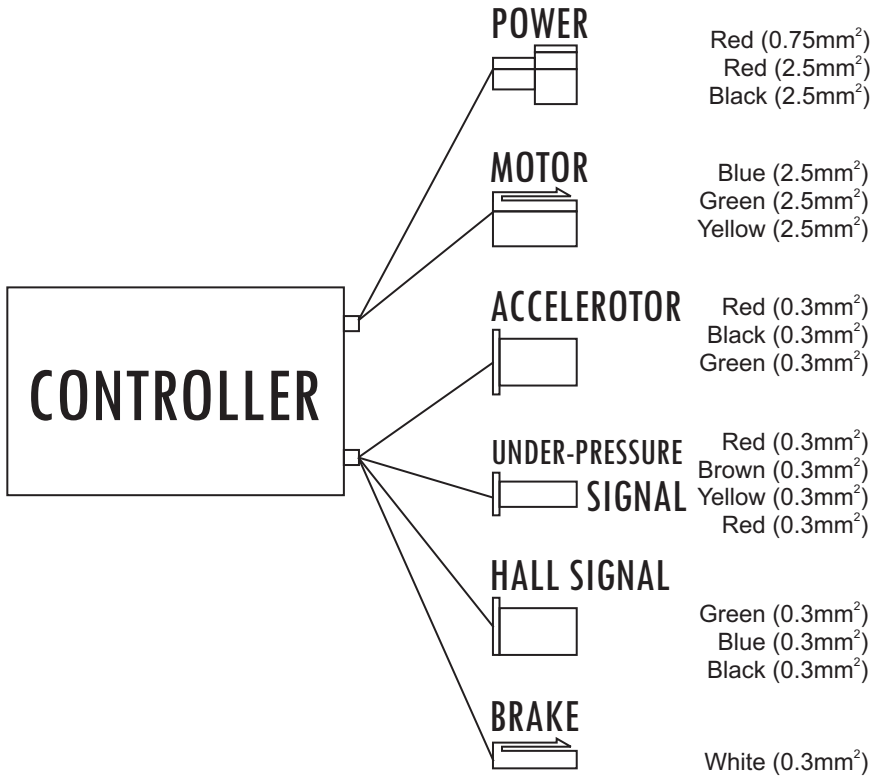
Motor Power	3000W Brushless Hub Motor
Battery	DC 60V, 38AH with the green saver ( silicone power) batteries
Charger	5A, 110V~250V/50 Hz ~60Hz
Charging Time	6~10 Hours
Life of Battery	400 Deep Cycles
Wheelbase	10 Inches
Torque	103Nm (76 ft-lb)
Top Moped Speed	30 mph (50km/H) for 3000W motor
Single Charge	30Mile (50km) based on 38AH battery
Climbing Capacity	1:4 Gradient for a 155 lb. (70kg) Rider
Maximum Weight Capacity	282 lbs (128kg)
Tire	Front:3.50-10.00 Inch 8PR Rear:3.5-10.00 Inch 8PR, tubeless tires
Gross Weight	297 lbs (135kgs) with 38AH60V battery
Net Weight	178 lbs (81kgs) (not include battery)
Battery Weight	128lbs (58kgs)
Product Size	L 70" x W 27" x H47"
Brake System	Front and Rear Disc brake

## OPTIONS

- Solar Panel
- Fast Charger
- Extended Range Battery
- Luggage Boxes
- 220V Charger

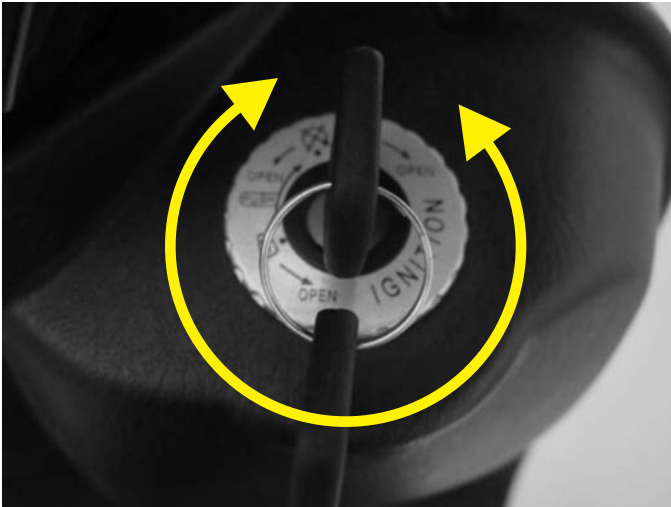


# Wiring Diagram



# Ignition Key Positions

Key Position	Description
On	Key cannot be taken out when power is on
Off	Key can be taken out when power is off
Lock Handlebar	To prevent theft, turn the Handle Bar to the far left and turn the key into the lock position. The key can be taken out when handle bar is in the lock position.
Opening the seat	Turn the key in the slot to release the locking mechanism of the seat, and to access Charge port.





# Handle Bar Controls

## LEFT HANDLE BAR

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

- 1 High/Low Beam
- 2 Turn Signals
- 3 Rear Brake
- 4 Horn



## RIGHT HANDLE BAR

<b>Speed Switch</b>	Economical speed switch can ensure longer range and high speed switch provides bigger AMP for accelerating, climbing and higher speed.
<b>Front Brake Lever</b>	When brake handle is compressed the front wheel will slow to a stop and power will be cut off. Power will flow once lever has been released. To start, turn the throttle counter clockwise.
<b>Throttle</b>	Turn throttle counter clockwise to increase speed.
<b>Parking Lights</b>	The dashboard lights, headlight, and taillight will turn on when the switch is in the middle position.
<b>Head Light</b>	The dashboard lights, headlight, and taillight will turn on when the switch is in the left position.

- 1 Lights -On/Off
- 2 Throttle
- 3 High/Low Speed



## THROTTLE TIPS

1. Turn the key to the 'ON' position, and turn the Throttle gradually to accelerate.
2. To prevent losing control of the vehicle, please turn the Throttle slowly until the speed increases.
3. Do not turn the Throttle until you are in the position to drive.
4. To stop, release the throttle and apply the front and rear brake simultaneously.
5. To move, release the brakes and turn the Throttle gradually.
6. The Brushless motor makes a small electromagnetic noise when turning the Throttle to start. This is normal.
7. Please, for your safety and security, take the key out when you are not riding.

## BRAKING TIPS

1. For safety, this vehicle has a circuit cut-out brake system. When the front and rear brake is applied, the controller will disable the circuit; to run, release the throttle back to the start position then accelerate again.
2. Less sudden braking will increase range entirely. **If running under top speed, don't always full throttle. Frequently releasing the throttle and running with inertia will longer increase range too. This motor has good torque and the inertia momentum is enough to run an automatic distance without electric power.**

# Battery Gauge and Charging Instructions



Color	Description
Green	While riding, when the battery is fully charged the gauge light will be green.
Green (2nd)	This light indicates that the battery is 75% of full charge
Yellow	When power is low (around 50%) the battery gauge will turn to yellow.
Red	When the battery is discharged the motor will be automatically cut off. This means that there is less than 25% charge remaining. <b>Switch to “Economical speed” and find the nearest charging point asap.</b>

## CHARGING

- The battery for this vehicle is a sealed, maintenance free D/C battery. The owner must use the factory-supplied charger with an 110V (or 240V) outlet.
- Turn off all switches while charging the battery. Plug one side to an 110V (or 240V) outlet and the other to charging plug on the vehicle (located under the seat).
- The average charging time is 8 hours (90%). To fully charge battery, charging time will be 4 to 10 hours.
- After charging, turn the ignition to the 'On' position and unplug the charger from both sides.
- To keep the battery in good condition, charge it after each use. Please charge the battery fully once a month, even when the vehicle has not been ridden.
- The range with standard battery is 30miles.

## BATTERY LONGEVITY

The driver should ALWAYS charge the scooter after every trip as this will help the battery's life. The life of the Green saver battery is 400 deep cycles (100% discharged), but if you charge the battery every time or when its capacity falls below 50%, the battery life will be greatly increased. Therefore we advise the rider to charge the bike as often as possible.

1. A range of up to 55M (90km) has been recorded, yet the distance and speed depend upon various elements of the rider's style and the road conditions. A 20mph constant speed will ensure the longest range but our figures include going flat out too. Other factors include weather, vehicle condition, and battery charge. Drivers must be cautious when driving on rough roads, in poor weather, or when the battery charge is low.

2. This vehicle has a power-cut circuit brake system to protect the vehicle when the brake is applied;

3. After each trip, the driver should turn off the vehicle, take out the key and charge the battery. This battery does not have memory (i.e. you do not have to run it down completely to achieve a good charge. On the contrary, regular charging will lengthen the life of the battery) and can be charged at any time in the cycle of the battery.

4. Always check the battery gauge while you are riding and be sure that it does not get too low too often.



This electric motor bike represents a new generation of environmentally friendly two-wheeled transportation. Therefore, good maintenance will play a major role in keeping your vehicle in good working condition and prolonging the life of the batteries. Please follow these suggestions:

- To prevent rust always keep your vehicle dry and clean.
- Regularly check the front and rear tires, suspension and body frame and all fasteners.
- When riding in rain do not go through deep puddles or muddy areas; excessive water may harm the motor and other electrical components.
- To prevent rust from forming on the vehicle, avoid parking your vehicle in high humidity and corrosive areas.
- To avoid damage to the electrical parts of this vehicle, especially the controller, do not store the vehicle in direct sunlight or in heavy rain.
- Customers should NEVER attempt to take out any of the parts, or attempt major maintenance without consulting the supplier/dealer (this will invalidate the warranty).
- Never overload and ride the vehicle for an extended period of time, prolonged use with excessive weight could cause damage to the electronic and mechanical parts.
- Always check your vehicle and perform necessary maintenance - tires, brakes, nuts and bolts.
- For your safety, perform routine maintenance on your vehicle. This will lower the potential for damage.

# Maintenance Schedule



Mileage	400	1000	2000	3000	4000	5000	6000	Maintenance
Battery			C				C	
Charger			C				C	
Tire Pressure	C	C	C	C	C	C	C	A
Tire Wear							C	
Brake System	C		C		C		C	A
Brake Pad							A	
Nuts and Bolts	T		T				T	
Mileage		7000	8000	9000	10,000	11,000	12,000	Maintenance
Battery			C				C	
Charger			C				C	
Tire Pressure		C	C	C	C	C	C	A
Tire Wear			C				C	
Brake System			C		C		C	A
Brake Pad			A				A	
Nuts and Bolts			T				T	

**A: Adjust    C: Check    T: Tighten**

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

I. The Range is affected by the weight of rider, the type of terrain and the speed at which the vehicle is driven. Under optimal conditions (push red button and keep a steady 20mph rate speed), a range of (50 miles) has been recorded on a single charge.

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

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

I. 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.

II. Quick accelerating---speed from 0 to 30 mph (50km/H) takes only 4 seconds.

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

I. When the driver turns the ignition key, three beeps will immediately follow telling the driver that the vehicle is ready to drive. There is absolutely no warm-up time needed. Just turn the key and you are ready to go.

## **4. What about maintenance?**

I. 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 lubricants, no ignition plugs, no carburetor, etc. 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 motor is brushless so there is never a need to change brushes.

## **5. What about parts, is it a problem getting parts for the Zapino?**

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

II. We supply a 6 month warranty for all parts (subject to normal care from the driver) excluding batteries, tires and other normal wear parts. (See warranty)

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

I. One should be careful not 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 drive the ZAPINO?**

I. For safety reasons we always advise the use of a helmet. ALWAYS follow local laws.

**8. Is it easy to recharge the batteries?**

I. Yes. 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. Daily charge of the battery will lengthen its life cycle, up to 1000 deep charges from 400 occasional charges.

**9. How long will the batteries last, what is the batteries life cycle?**

I. The battery's life cycle will be reduced or damaged if an insufficient charge level is retained for a long period of time. Depending on the user's operation, between 400 and 1000 cycles. Normally the batteries should last between one and three years if the user charges it regularly.

**10. How can I know the batteries condition and energy level?**

I. The display panel includes a row of LED lights, which clearly indicate the power level of the batteries in your vehicle. FULL: First green light is on.

● 75% FULL: Second green light is on.

● 50% LEFT: Yellow light is on and you also hear a Warning Beep (At this level, charging is highly recommended).

● Low 25% LEFT : Red light is on (Immediate charging is necessary).



**11. If one of the batteries has a problem do I need to change all the four batteries?**

I. Not necessarily. Simply check the condition of all batteries and only replace the battery which shows lack of charge.

**12. Why is this product UNIQUE?**

It has a Brushless wheel motor. We emphasize "brushless" not just because this is the latest technology, but because these permanent magnet motors are extremely efficient! These motors produce high torque at low speeds, keeping an acceptable balance of torque and energy across the whole speed range. In addition to not wasting energy at idle, the motors offer the advantage of using the permanent magnet motor's energy recovery capability during deceleration (regenerative braking), so the batteries recharge during deceleration. 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.



# Troubleshooting

Problem	Condition	Check	Solution
When I turn my vehicle on nothing happens.	1. Power indicator light is off while riding.	1. Check power connection and battery level.	1. Fasten connections.
	2. Indicating light on motor is not illuminated.	2. Check battery and motor connection.	2. Recharge battery.
		3. Assess the weather for humidity.	3. Loosen connection and wipe down with a damp rag and dry and fasten again. Contact the supplier.
		4. Check regulator.	4. If there is any corrosion replace. Contact the supplier.
		5. Battery level is low.	5. Change or replace damaged part. Contact the supplier.
The Throttle does not work or switch on, the vehicle moves without acceleration.	The Throttle does not return to stop position.	1. Check the grip for damage	1. Use a flat head screwdriver to adjust the gap between the rubber handle and the cover.
		2. Check the Throttle spring.	2. Readjust the Throttle spring position. Contact the supplier.
		3. The Throttle handle is loose.	3. Lubricate the Throttle spring. Contact the supplier.
The batteries do not take a charge.	Charger light is off	1. Check the charger plug position.	1. Check by unplugging charger and plugging in again.
		2. Check the fuse in the charger box.	2. Unplug the charger and replace the fuse. Contact the supplier to order a new charger fuse/charger.
		3. Charger has blown a fuse.	3. Replace the charger fuse. The fuse box is located on the floorboard, unscrew the two screws and open the fuse case, and replace scooter. Contact the supplier to order a new fuse.
		4. A bad connection exists between the charger and the battery.	4. Unplug and plug in again. Otherwise contact the supplier.
Horn	No Noise	1. Check Connection.	1. Fasten Connection.
		2. Adjustment Screw.	2. Turn for desired sound.

If the ZAPINO is not working, check the diagnostic light (break down lights) above the speedometer, the signals are as follows:

- First flash 3 and after a pause flash 3 times again:  
*problem with throttle spring, it didn't come back to normal position.*
- Flash 1 time and after a pause then 1 time again:  
*problem with brake, check brake level for kick stand released or not.*
- First flash 1 time and after a pause then 2 times again:  
*problem with connection of throttle, broken wire is loosened.*
- First flash 1 and after a pause 4 times again:  
*problem with voltage, battery too low (charge).*
- First flash 1 and after a pause 5 times again:  
*battery too high voltage.*
- First flash 3 times and after a pause 1 time again:  
*problem with motor, overloaded.*
- First flash 0 and after a pause 3 times again:  
*problem with motor, overloaded.*
- First flash 0 and after a pause 2 times again:  
*the battery overload can't release enough current to motor.*
- First flash 0 and after a pause 10 times again:  
*motor thermal sensor problem.*
- First flash 2 and after a pause 3 times again:  
*overheat protection, leave to cool.*
- First flash 3 and after a pause 2 times again:  
*problem on controller current sensor. Restart the key or repair controller.*
- First flash 2 and after a pause 1 time again:  
*Motor rotated hold back. Release the motor.*
- First flash 2 times:  
*Brake light on, brake stuck on, or broken circuit.*

## 1. WARRANTY COVERAGE PERIOD

ZAP (ZAP) warrants from the date of delivery to the first consumer, that each ZAPINO Electric Vehicle sold as "NEW" and "UNUSED" in 2008 and pre-delivered by an authorized ZAP dealer, and a copy of the bill of sale and registration-warranty card has been presented to ZAP will be free from any defect in material and/or workmanship for a period of:

SIX (6) MONTHS WARRANTY

NINETY (90) DAYS, for rental use owners

PRORATED WARRANTY on the batteries

### All-Inclusive Coverage

ZAP will repair or replace, as its option, all genuine ZAP parts found faulty in material and/or workmanship, under normal use, maintenance and service, with genuine ZAP parts without charge for parts and labor, at any authorized ZAPINO dealer during warranty coverage period.

All genuine ZAP accessories are warranted with respect to parts and labor against defects in materials and workmanship for a period of 90 days from the date of purchase to original retail purchaser. Except as otherwise provided herein:

## 2. WHAT IS NOT COVERED

- Normal wear and tear items such as the charger plug and receptacle, seats, windshield wiper blades, trim pieces, fuses, decals (except safety decals), brake pads, brushes, bushings, light bulbs, mats and pads, cosmetic deterioration, and items which deteriorate or fail due to exposure;
- Damage caused by failure to provide proper service, maintenance and/or storage, as described in the ZAP Owner's Manual.
- Damages resulting from improper repairs, modifications or use of non-approved parts or repairs done by a non-authorized ZAP dealer;
- Damage resulting from continued use of the vehicle after a defect is or should have been discovered.
- Damage resulting from accident, fire, explosion, theft, vandalism, riot or any act of God.
- Damages to batteries resulting from lack of maintenance, too deep of discharge, or from freezing condition.
- Misusing the ZAP vehicle, such as driving over curbs, overloading or racing.
- Tampering with the ZAP vehicle.
- Altering or modifying the ZAP vehicle, including the body, chassis, mechanical or electrical.
- Customer applied chemicals or accidental spills.
- Using contaminated or improper fluids.
- Non - ZAP parts installed after the vehicle leaves the ZAP factory or control.
- Transportation expenses for warranty services (covered under the On-Site Program).
- Damages related to plastic and finish on plastic, including but not limited to scratches, cracks, and discoloration.
- Driving through water deep enough to cause electrical system damage.
- This warranty does not cover such tires that have failed as a result from

normal wear, road hazards such as: (cuts, bruises, impacts, punctures, etc.); overloading, excessive speed, spinning on slippery surfaces, improper inflation, tire chains, wheel misalignment; improper application, damage caused by abuse, collision, accident, fire or vandalism. Any damage caused by a puncture or tire repair also is not covered.

- Parts and labor needed to maintain the ZAP vehicle, and the replacement of parts due to normal wear and tear.
- Surface rust and deterioration of paint, trim, upholstery, and other appearance items that result from use and/or exposure to the elements.
- Using the ZAP to tow other vehicles, trailers etc., may void warranty.

## **2(a) SEPARATE MANUFACTURER'S WARRANTY**

Batteries, Controller, and Charger are covered under separate manufacturer's warranty.

## **3. VOIDING OF WARRANTY**

THIS AND ANY OTHER WARRANTY SHALL BE VOID IF THE VEHICLE IS ABUSED OR USED IN AN UNINTENDED MANNER OR SHOWS INDICATIONS THAT IT HAS BEEN ALTERED IN ANYWAY, INCLUDING, BUT NOT LIMITED TO, USE OF NON-GENUINE ZAP PARTS, MODIFICATION OF THE SPEED GOVERNOR, BRAKING SYSTEM, STEERING, TRANS-AXLE, OR OTHER OPERATING SYSTEMS OF THE VEHICLE TO CAUSE IT TO PERFORM OUTSIDE ZAP SPECIFICATIONS. THE WARRANTY IS LIKE WISE VOID IF THE VEHICLE SHOWS INDICATIONS THAT REASONABLE OR NECESSARY MAINTENANCE AS OUTLINED IN THE OPERATION AND MAINTENANCE SECTION OF THE OWNER'S MANUAL WAS NOT PERFORMED AT THE TIME AND IN THE MANNER SPECIFIED IN SUCH MANUALS.

FAILURE OF DEALER TO PROVIDE A PDI, BILL OF SALE AND REGISTRATION-WARRANTY CARD MAY VOID WARRANTY.

## **4. INTERNATIONAL SALES**

All inclusions and exclusions of the ZAP Warranty apply, except for reimbursement for shipping of parts outside the United States.

## **5. HOW TO MAKE A WARRANTY CLAIM**

Customer must give ZAP or authorized ZAPINO dealer notice of any claim within a reasonable period of time, not to exceed thirty days. ZAP will not repair any condition or replace any part if a claim is not made in a timely manner. Customer must present the vehicle or defective part to an authorized ZAPINO dealer. Prior to the beginning of repair or replacement of defective parts a repair/work order must be signed, and the ZAPINO Warranty Registration Card and/or proof of purchase must be presented to the dealer. Dealer must have returned the PDI to ZAP. All parts replaced under this warranty become the property of ZAP.

## **6. DISCLAIMER**

THIS WARRANTY IS EXCLUSIVE. ZAP MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS OR TIME LIMITS STATED IN THIS WARRANTY

ARE HEREBY DISCLAIMED BY ZAP AND EXCLUDED FROM THIS WARRANTY. THE PURCHASER AND ZAP EXPRESSLY AGREE THAT THE REMEDY OF REPAIR OR REPLACEMENT OF THE DEFECTIVE VEHICLE OR COMPONENT THEREOF IS THE EXCLUSIVE AND SOLE REMEDY OF THE PURCHASER. ZAP MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, AND NO REPRESENTATIVE, EMPLOYEE, OR DEALER OF ZAP HAS THE AUTHORITY TO MAKE OR IMPLY ANY REPRESENTATION, PROMISE, OR AGREEMENT WHICH IN ANY WAY VARIES THE TERMS OF THIS WARRANTY. ZAP RESERVES THE RIGHT TO MODIFY THIS WARRANTY AT ANY TIME, BEING UNDERSTOOD THAT SUCH MODIFICATION WILL NOT ALTER WARRANTY CONDITIONS APPLICABLE TO THE ZAPINO SOLD WHILE THIS WARRANTY IS IN EFFECT.

## **7. SOLE REMEDY**

ZAP'S ONLY LIABILITY UNDER THIS WARRANTY, OR IN ANY ACTION WHETHER BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, STRICT PRODUCT LIABILITY OR OTHERWISE, IS LIMITED TO THE REPAIR OR REPLACEMENT, AT ZAP'S OPTION, OF A VEHICLE OR COMPONENT THEREOF THAT ZAP DEEMS TO BE DEFECTIVE. REPLACEMENT SHALL MEAN FURNISHING, DURING THE APPLICABLE WARRANTY PERIOD, A NEW VEHICLE OR FACTORY RECONDITIONED VEHICLE OR COMPONENT THEREOF WHICH IS IDENTICAL OR REASONABLY EQUIVALENT TO THE WARRANTED PRODUCT OR COMPONENT AT NO COST TO THE PURCHASER. REPAIR SHALL MEAN REMEDYING A DEFECT IN THE VEHICLE OR COMPONENT THEREOF AT NO COST TO THE PURCHASER DURING THE APPLICABLE WARRANTY PERIOD. IF ZAP ELECTS TO REPAIR THE VEHICLE, IT MAY PROVIDE FACTORY RECONDITIONED PARTS OR COMPONENTS. ALL PARTS AND COMPONENTS REPLACED UNDER WARRANTY SHALL BECOME THE PROPERTY OF ZAP.

## **8. NO CONSEQUENTIAL DAMAGES**

IN NO EVENT SHALL ZAP BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, SHIPPING COST TO DEALER, LOSS RELATED TO PROPERTY OTHER THAN THE VEHICLE, LOSS OF USE, LOSS OF TIME, INCONVENIENCE, OR ANY OTHER ECONOMIC LOSS.

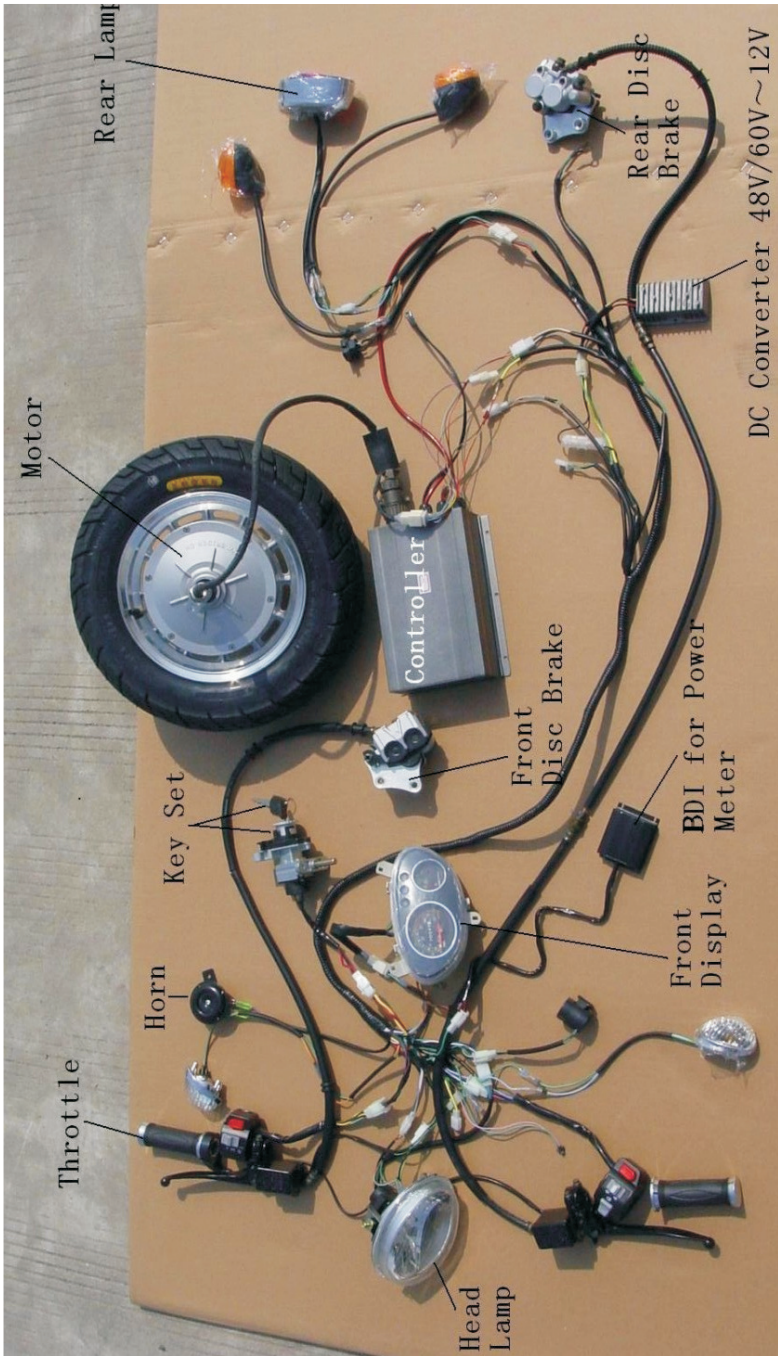
Some states allow neither limitation on the duration of an implied warranty nor exclusions or limitation of incidental or consequential damages. Therefore, the above limitations or exclusions may not apply to you.

## **9. CUSTOMER ASSISTANCE**

In the event of a controversy or a dispute arising in connection with this ZAP Warranty, ZAP suggests that you try to resolve the issue at the dealership level. We recommend discussing the issue with your authorized dealer's service manager or owner. If further assistance is required, please submit your complaint in writing to:

ZAP, Customer Service Department, 501 Fourth Street, Santa Rosa, CA 95401  
USA. Zap@zapworld.com (707) 525-8658.





# Equipment Location

## Front Panel



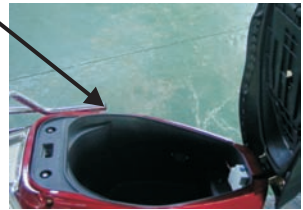
- 1** DBI "Digital Battery Indicators" System
- 2** Diagnosis Light
- 3** High Beam Indicator
- 4** Turn Signal Indicators
- 5** Speedometer
- 6** Odometer

## Rear View Mirrors



## Seat Storage and Charge Port

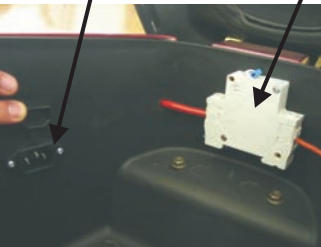
Room for helmet, charger and tools inside.



## Charge Plug

Located under seat

## Safety Circuit Breaker



## Kick Stand

(This automatically cuts off the power so the scooter will remain stationary)



## Maintenance Tools



## BATTERY CHARGER





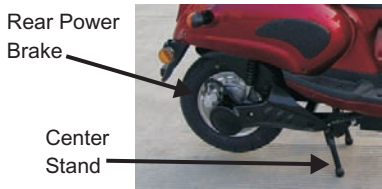
# Equipment Location



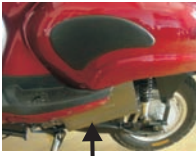
Rear Rack  
Rear Turn Signals  
Tail Lamp



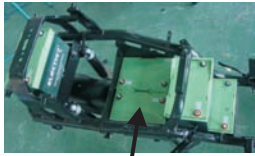
Head Lamp  
Turn Signal Lamps  
Front Mud Fender  
Front Wheel  
Front Disk Brake



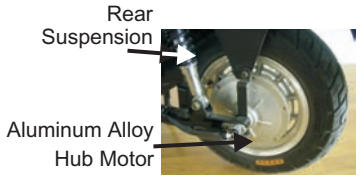
Rear Power Brake  
Center Stand



Digital Controller

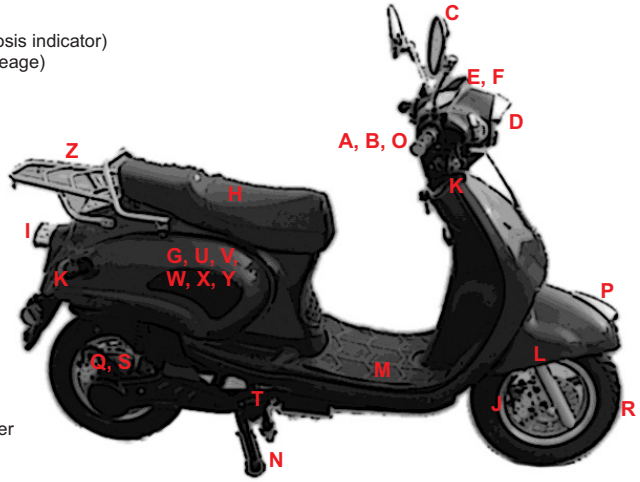


Batteries



Rear Suspension  
Aluminum Alloy Hub Motor

- A. Horn
- B. Throttle and Front Brake Handle
- C. Rear View Mirror
- D. Head Lamp
- E. Dash Board (DBI,Diagnosis indicator)
- F. Odometer (Kilometer/Mileage)
- G. Under seat storage
- H. Rubber Blanket
- I. Tail Lamp
- J. Front Disk Brake
- K. Turning Signal Lamp
- L. Front Shock Absorber
- M. Center Stand
- N. Kick Stand
- O. Speed switch
- P. Front Mud Fender
- Q. Rear Disc Brake
- R. Front Wheel
- S. Hub motor
- T. Controller
- U. Charging Plug
- V. Circuitry braker (inside)
- W. Battery Box
- X. DC /DC Voltage converter
- Y. Charge plug (inside)
- Z. Rear Rack



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