FROM ALL OF US AT MASSIMO ELECTRIC, THANK YOU FOR YOUR PURCHASE.

THIS MANUAL COVERS THE MAIN DATA, BASIC STRUCTURE, AND MAIN PROCEDURES OF OPERATION, ADJUSTMENT, MAINTENANCE AND TROUBLESHOOTING FOR YOUR NEW E-SPIDER. IT WILL HELP YOU FAMILIARIZE YOURSELF THE VEHICLE FOR OPTIMAL OPERATION, MINIMIZED ISSUES, AND A LONG SERVICE LIFE. PRODUCTS ARE SUBJECT TO FURTHER IMPROVEMENT, WHICH MAY SHOW SOME DIFFERENCE BETWEEN THE VEHICLE AND THIS MANUAL.
# CONTENTS

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>PAGE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIDING SAFETY</td>
<td>1-2</td>
</tr>
<tr>
<td>SPECIFICATION</td>
<td>3-4</td>
</tr>
<tr>
<td>PARTS VISUAL REFERENCE</td>
<td>5-6</td>
</tr>
<tr>
<td>SUSPENSION SETUP</td>
<td>7-10</td>
</tr>
<tr>
<td>MAIN AND CENTER DASH</td>
<td>11-12</td>
</tr>
<tr>
<td>VIN AND ENGINE NUMBER</td>
<td>13</td>
</tr>
<tr>
<td>BATTERY SAFETY</td>
<td>14</td>
</tr>
<tr>
<td>PRE-RIDE BRAKE CHECK</td>
<td>15</td>
</tr>
<tr>
<td>TIRE INFORMATION</td>
<td>16</td>
</tr>
<tr>
<td>PRE-RIDE INSPECTION</td>
<td>17-19</td>
</tr>
<tr>
<td>BRAKING &amp; PARKING</td>
<td>20-22</td>
</tr>
<tr>
<td>MAINTENANCE &amp; STORAGE</td>
<td>23-27</td>
</tr>
</tbody>
</table>
RIDING SAFETY

WARNING

Vehicle riding requires special efforts on your part to ensure your safety. Know these requirements below before you ride. For on-road use, this vehicle is designed to be operated only on level, on-road surface, free of obstacles. Do not operate this vehicle while under the influence of alcohol or drugs. That can impair judgment and result. Keep a safe distance between your vehicle and other vehicle.

Do not allow your child to ride without your supervision. The rider must read this manual before operating.
SAFETY ADVISORY

1. Most vehicle accident fatalities are due to head injuries. Always wear a helmet. You should also wear a face shield and protective clothing.
2. Do not wear loose clothing that could catch on the control levers, footrests or other parts of the vehicle.

REFITTING

WARNING

Refitting of the vehicle or removal of original parts may make the vehicle dangerous or illegal. Obey all national and local equipment regulations.

ACCESSORIES

Genuine accessories by our Co. have been specifically designed and tested on the atv. Because our Company won't test accessories manufactured by other companies, you are personally responsible for selection, installation, and use of them. Always follow the guidelines below:

1. Carefully inspect the accessory to make sure that it does not obscure any lights, reduce ground clearance and banking angel, or limit suspension travel, steering travel or control operation.
2. Accessories may increase the time that hands or feet operate controls, resulting in increased reaction time in an emergency.
3. Do not add electrical equipment that will exceed the vehicle's electrical system capacity.
4. Do not add devices for cooling the motor.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>E-Spider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (in)</td>
<td>113</td>
</tr>
<tr>
<td>Battery Capacity</td>
<td>72V50A</td>
</tr>
<tr>
<td>Width (in)</td>
<td>66</td>
</tr>
<tr>
<td>Battery Type</td>
<td>3.7V ternary lithium battery</td>
</tr>
<tr>
<td>Height (in)</td>
<td>33</td>
</tr>
<tr>
<td>Charging Time</td>
<td>4-6Hr via 220V, 8-12Hr via 110V</td>
</tr>
<tr>
<td>Ground Clearance (in)</td>
<td>4.9</td>
</tr>
<tr>
<td>Range (mi)</td>
<td>+ / - 90</td>
</tr>
<tr>
<td>Wheelbase (in)</td>
<td>67.5</td>
</tr>
<tr>
<td>Tire size (front &amp; rear)</td>
<td>185/30-14; 270/30-14</td>
</tr>
<tr>
<td>Dry weight (lb)</td>
<td>652</td>
</tr>
<tr>
<td>Start mode</td>
<td>Electric</td>
</tr>
<tr>
<td>Max speed (mph)</td>
<td>49</td>
</tr>
<tr>
<td>Front brake type</td>
<td>Disc</td>
</tr>
<tr>
<td>Rear brake type</td>
<td>Disc</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------------</td>
</tr>
<tr>
<td>Rated power (watts)</td>
<td>3000</td>
</tr>
<tr>
<td>Voltage (V)</td>
<td>60/72/84</td>
</tr>
<tr>
<td>Idle current/A</td>
<td>4.2-7.8</td>
</tr>
<tr>
<td>Motor Rotate speed/RPM</td>
<td>3000-6000</td>
</tr>
<tr>
<td>Rated torque/ft-lb</td>
<td>7.3</td>
</tr>
<tr>
<td>Rated current/A</td>
<td>50/42/36</td>
</tr>
<tr>
<td>Motor Efficiency</td>
<td>90/%</td>
</tr>
<tr>
<td>Primary Speed Ratio</td>
<td>2:1</td>
</tr>
<tr>
<td>Gear Speed Ratio</td>
<td>3.27:1 1.94:1 1.35:1 1.04:1</td>
</tr>
<tr>
<td>Motor Phase Angle</td>
<td>120°</td>
</tr>
</tbody>
</table>
DESCRIPTION

- Headlight
- Front Tire
- Seat Slider adjustment
- Rear Tire
- Turn Signal
Camber adjustment method, Front wheel camber standards values is $\alpha - 1^\circ$
Front toe adjustment method, Front wheel toe Standard value is 4MM (A + 4MM = B)
The height of chassis is adjustable. (Warning: the screw of bearing joint must be tighten, tighten the screws can’t less than 15mm.)
Push the front frame to reach the lowest position, adjust the limit screw beside right front shock absorber. Make sure the minimum distance between the tie rod linkage and frame is 10mm or greater.
IGNITION SWITCH

The ignition switch is located at the right of the center dash.
VIN RECORD

Please enter the VIN and engine code of your E-Spider in the blank below. These will assist with any future parts, service, or maintenance items needed, and can also aid in recovery of a stolen vehicle.

1. VIN

2. ENGINE CODE

NOTES

1. The VIN is stamped on the rear fork.
2. The engine code is stamped on the bottom-left of the engine.
Lithium battery storage instructions

1. Lithium-ion batteries should be stored in a relatively cool, dry, and ventilated environment, and should be kept away from water, fire and high temperatures. The storage temperature of the battery must be within the range of -10°C~45°C, and the humidity should be 65±20%RH.

2. Storage voltage and power: voltage is 3.7V~3.9V (4.2V lithium battery standard voltage system, multiple string combinations * corresponding multiples); power: between 30% and 70%. To

3. Long-term storage batteries (more than 3 months) must be placed in an environment with a temperature of 23±5°C and a humidity of 65±20%RH .

4. The battery should be stored in accordance with the storage requirements, and the battery should be fully charged and discharged once in 3 months and recharged to 70% of the power.

5. Do not transport the battery when the ambient temperature is higher than 65°C.
Warning

Before turning on the power switch, please depress the brake pedal to ensure safe operation of the braking system. Do not drive until all instrument indicators are in normal condition.
CAUTION

For new or inexperienced riders, change the speed and power levels to a low settings to prevent accidents.

TIRES

Proper air pressure will provide maximum stability, riding comfort and tire life. Check tire pressure frequently and adjust if necessary.

Select the right replacement tires in accordance with the specifications shown in the table 1.

<table>
<thead>
<tr>
<th>Pressure(psi)</th>
<th>Front: 25</th>
<th>Rear: 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire size</td>
<td>Front:185/30-14</td>
<td>Rear:270/30-14</td>
</tr>
</tbody>
</table>

NOTE

Tire pressure should be checked before you ride while the tires are cold. Check the tire for cuts, embedded nails, or other sharp objects.

Check the rims for dents or deformation. See Yom dealer for change of damaged tires or punctured inner babes.

WARNING

● Do not attempt to patch a damaged tire or inner tire, otherwise wheel balance and tire reliability may be impaired.
● Improper tire inflation will cause abnormal tread wear and create a safety hazard. The tire pressure less than the rated value may result in the tire slipping on the ground, or coming off from the rim, even the vehicle being out of control.
● Operation with excessively worn tires is hazardous and will adversely affect traction and handling.
● The use of tires other than those listed on the table 1 may adversely affect handling.

When the tread depth in the middle section of tires reaches the limits in table 2 below, please replace tires.

<table>
<thead>
<tr>
<th>Tread depth limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front tire 6.0mm</td>
</tr>
<tr>
<td>Rear tire 6.0mm</td>
</tr>
</tbody>
</table>
OPERATION GUIDE

PRE-RIDE INSPECTION

WARNING

If the Pre-ride Inspection is not performed, severe injury to personnel or damage to equipment may occur. Inspect your ATV every day before you ride it. The item listed here will only take a few minutes to inspect, and in the long run they can save time, expense, and you life.

1. Whether the power is sufficient for battery life, charge it in time as needed. Front and rear brakes-check operation and if necessary, adjust free play.
2. Tires-check condition and pressure.
3. Fastener-check that all nuts screw and bolts are fixed securely.
4. Steering system-check for its smoothness and reliability. Correct any discrepancy before you ride. Contact you dealer for assistance if you cannot correct the problem.
STARTING THE VEHICLE

Always follow the proper starting procedure described below.

STARTING PROCEDURE BY THE STARTER BUTTON

1. Insert the ignition key into the ignition switch and turn to (ON).
2. Set the emergency switch to “ON”.

BREAK-IN

Help assure your vehicle's future reliability and performance by paying extra attention to how you ride during the first two-week riding period.

During this period, avoid full-throttle riding and loading the engine heavily; be sure to keep changing speed.

NOTE

After the break-in period, be sure to conduct maintenance according to the maintenance schedule so as to keep the vehicle in a sound condition, which will extend the service life of the vehicle.
RIDING

CAUTION

Review Vehicle Safe Riding, before you ride.

1. After the main switch has been turned on, ensure all gauges and lighting are functional before riding.

2. Open the throttle gradually so the vehicle moves forward.

3. To slow down the vehicle, reduce the throttle while applying pressure to the brake pedal. Coordinate the throttle with brakes for smooth deceleration.

4. Drive with both hands on the wheel. Riding with only one hand may cause loss of control.
PARKING

1. Close the throttle while applying the brakes to slow down the vehicle until it stops.
2. Turn the ignition key to (OFF), and remove the key.
3. Pull up to activate the Parking Brake lever between the seats of the vehicle.

FRONT AND REAR HYDRAULIC DISC BRAKE

The ATV is equipped with a set of 2 IN 1 single cylinder disc brake. The front and rear hydraulic disc brake are controlled by a single brake switch synchronously.

NOTES

- Make sure the curved slot in the adjusting nut is seated on the brake ann. pin after making final free play adjustment.
- If such adjustment is still unsatisfactory, see your dealer for help.
CHECK OF BRAKE SYSTEM

The brake system should be checked every day before you ride the vehicle.
1. Check the brake master cylinder for proper brake fluid level.
2. Check to see there is no leakage from the system
3. Check the brake hose and master cylinder for cracks
4. Check the brake pads & discs for wear or damage
5. Check the brake lever for proper free play

CAUTION

The hydraulic disc brake is designed to operate under high pressure.
For the sake of safety and reliability, the service life of brake hose, master cylinder and brake fluid must not be beyond the limit specified in the manual.

Brake system repairs should only be performed by a qualified technician.

BRAKE FLUID

Ensure the brake fluid in the master cylinder is at a proper level, and add the specified liquid if necessary. As the brake pads wear, the brake fluid level drops. The brake hardware and fluid should be inspected periodically.
WARNING

Brake fluid is a strong irritant, avoid contact with skin or eyes. In case of contact, flush thoroughly with water and consult a doctor if your eyes were exposed.

- Keep out of reach of children
- Replacement Brake fluid must be DOT3 or DOT4 standard. Never mix with other types of fluid, serious damage to brake system may occur.

CAUTION

- Never use Brake fluid from an open container
- Handle brake fluid with care, it can damage plastic and painted surface.
**WARNING**

- Keep sparks, flames, and cigarettes away from the vehicle.
- Provide adequate ventilation when charging or using the battery in an enclosed space.

**TROUBLESHOOTING**

For troubleshooting assistance, please contact your dealer.

**CAUTION**

Do not dismantle the vehicle. The E-Spider is powered by a high voltage system that can cause injury.

**CLEANING**

Clean your vehicle regularly to protect the surface finish and inspect for damage, wear, and oil or break fluid leakage.

**CAUTION**

High-pressure water (or air) can damage certain of the ATV.
Avoid spraying high-pressure water at the following areas: Wheel Hubs batteries, controllers, and electronic components.
1. Please do not use a large amount of water to wash the exterior paint of the vehicle, which will cause damage to the paint.
2. After cleaning the vehicle, you can use the air gun to dry the water on the vehicle before connecting the power supply.
3. Please drive the vehicle carefully above the moderate rainfall to avoid electric leakage and vehicle failure.
WARNING

Braking efficiency may be temporarily impaired just after washing the vehicle. Leave a longer stopping distance to avoid a possible accident.

1. Test the brakes before riding the vehicle. Several applications may be necessary to restore normal braking performance.
2. Lubricate the drive chain immediately after washing and drying the vehicle.

STORAGE GUIDE

Storage measures should be taken when the vehicle is subjected to long term storage so as to reduce negative influence on its performance. Before storage, perform regular maintenance to ensure the vehicle's performance after-storage.

STORAGE

1. Clean and dry the vehicle and wax its surface.
2. Clean and lubricate the drive chain.
3. Lubricate all cables.
4. Cover the vehicle (don't use plastics or other coated materials) and store in a cool dry area away from direct sunlight.

REMOVAL FROM STORAGE

1. Take off the cover shielding the vehicle and clean it.
2. Charge the battery as required.
3. Perform all Pre-ride Inspection checks. Try the vehicle at low speeds in a safe riding area away from traffic.
MAINTENANCE

MAINTENANCE SCHEDULE

The following Maintenance Schedule specifies all maintenance required under normal conditions to keep your vehicle in optimal condition. Riding under unusually dusty or wet conditions, service of the vehicle should be made more often than specified in the schedule. Maintenance work should be performed by a properly trained technician.

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY C: CLEAN 1: LUBRICATE

<table>
<thead>
<tr>
<th></th>
<th>First week</th>
<th>Every 30-day, s ride</th>
<th>Every year</th>
</tr>
</thead>
<tbody>
<tr>
<td>battery</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation of throttle</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Controller</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>charger</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>accelerator pedal</td>
<td>I</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Drive chain</td>
<td>I&amp;L</td>
<td>I&amp;L</td>
<td></td>
</tr>
<tr>
<td>Brake shoe wear</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake system</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Nuts, bolts and fasteners</td>
<td>I</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Wheel</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Steering system</td>
<td></td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>Suspension system</td>
<td></td>
<td>I</td>
<td>I</td>
</tr>
</tbody>
</table>
Lithium battery storage and use instructions

I. Description of lithium battery storage
1. Lithium-ion batteries should be stored in a cool, dry and ventilated environment, away from water sources, fire sources and high temperatures. The battery storage temperature must range from -10 °C to 45 °C, and the humidity must be 65± 20% RH.
2. Storage voltage and power: 3.7V~3.9V (4.2V lithium battery standard voltage system, multi-string combination * the corresponding multiple); Power: between 30% and 70%.
3. The battery for long-term storage (more than 3 months) must be placed in an environment with a temperature of 23±5 °C and a humidity of 65± 20% RH.
4. The battery should be stored according to storage requirements. Complete charge and discharge once every 3 months and recharge to 70% power.
5. Do not transport batteries when the ambient temperature is higher than 65 °C.
6. Use only an approved charger. Do not use a modified or damaged charger. The use of high current or high voltage charging may cause problems in the charging and discharging performance, mechanical properties and safety performance of the cell, and may lead to heating, leakage or swelling.
7. The battery must be charged at an ambient temperature ranging from 0 °C to 45 °C. Beyond this temperature range, the battery performance and life will be reduced.
8. Discharge the battery at an ambient temperature ranging from -20 °C to 60 °C.
9. Please note that in the long-term unused period of the battery (more than 3 months), it may be in a state of over-discharge with its self-discharge characteristics. To prevent overdischarge, the battery should be charged regularly to maintain its voltage between 3.7V and 3.9V. Over discharge will lead to the loss of cell performance, battery function, long-term lower than the protection panel voltage and may cause deep discharge cell damage.
1. Do not charge the battery near fire or in extremely hot conditions! Do not use or store batteries near heat sources such as fire or heaters.
2. Do not submerge the battery in water
3. Do not expose the battery to fire or heat the battery!
4. Do not connect the battery directly to the wall socket or vehicle cigarette lighter socket
5. Do not use wires or other metal objects to short-circuit the positive and negative terminals of batteries. Do not transport or store batteries with other metal objects!
6. Do not Pierce the battery shell with nails or other sharp objects, and do not hammer or puncture the battery!
7. Do not hit, throw or cause mechanical shock to the battery!
8. Do not dismantle or break down the battery in any way!
9. Do not put batteries in microwave ovens or pressure vessels!
10. Do not use with different capacity, model, or variety of battery combinations!
11. If the battery gives off peculiar smell, heat, deformation, discoloration or any other abnormal phenomenon, do not use it. If the battery is in use or charging, take it out from the electrical appliance or charger immediately and stop using it!