



E500S



OWNERS MANUAL

Read and understand this entire manual before riding!

Item Number
13114099

CONTENTS

Safety Warnings	1	Troubleshooting Guide	7-8
Before You Begin.....	2	E500S Scooter Parts.....	9-10
Assembly and Set-Up.....	3	Safety Reminders.....	Back Cover
Repair and Maintenance	4-5	Warranty	Back Cover

SAFETY WARNINGS

⚠ WARNING: Riding the E500S scooter can be a hazardous activity. Certain conditions may cause the equipment to fail without fault of the manufacturer. Like other electric vehicles, the E500S scooter can and is intended to move, and it is therefore possible to lose control, fall off and/or get into dangerous situations that no amount of care, instruction or expertise can eliminate. If such things occur you can be seriously injured or die, even when using safety equipment and other precautions. **RIDE AT YOUR OWN RISK AND USE COMMON SENSE.**

This manual contains many warnings and cautions concerning the consequences of failing to maintain, inspect or properly use your E500S scooter. Because any incident can result in serious injury or even death, we do not repeat the warning of possible serious injury or death each time such a possibility is mentioned.

APPROPRIATE RIDER USE AND PARENTAL SUPERVISION

This manual contains important safety information. It is your responsibility to review this information and make sure that all riders understand all warnings, cautions, instructions and safety topics and assure that young riders are able to safely and responsibly use this product. Razor recommends that you periodically review and reinforce the information in this manual with younger riders, and that you inspect and maintain your children's scooter to insure their safety.

The recommended rider age of 14 and older for the E500S scooter is only an estimate, and can be affected by the rider's size, weight or skills. Any rider unable to fit comfortably on the scooter should not attempt to ride it.

A parent's decision to allow his or her child to ride this product should be based on the child's maturity, skill and ability to follow rules.

Keep this product away from small children and remember that this product is intended for use only by persons who are, at a minimum, completely comfortable and competent while operating the scooter.

DO NOT EXCEED THE WEIGHT LIMIT OF 220 POUNDS.

Rider weight does not necessarily mean a person's size is appropriate to fit or maintain control of the E500S scooter.

Do not touch the brake or motor on your E500S scooter when in use as these parts can become very hot.

Refer to the section on safety reminders for additional warnings.

ACCEPTABLE RIDING PRACTICES AND CONDITIONS

Always check and obey any local laws or regulations which may affect the locations where the E500S scooter may be used.

Ride defensively. Watch out for potential obstacles that could catch your wheel or force you to swerve suddenly or lose control. Be careful to avoid pedestrians, skaters, skateboards, scooters, bikes, children or animals who may enter your path, and respect the rights and property of others.

Do not attempt or do stunts or tricks on your E500S scooter. The scooter is not made to withstand abuse from misuse such as jumping, curb grinding or any other type of stunts.

Maintain a hold on the handlebars at all times.

Never carry passengers or allow more than one person at a time to ride the E500S scooter.

Never use near steps or swimming pools.

Keep your fingers and other body parts away from the drive chain, steering system, wheels and all other moving components.

Never use headphones or a cell phone when riding.

Never hitch a ride with another vehicle.

Do not ride the E500S scooter in wet or icy weather and never immerse the scooter in water, as the electrical and drive components could be damaged by water or create other possibly unsafe conditions.

The E500S scooter is intended for use on flat, dry surfaces such as pavement or level ground without loose debris such as sand, leaves, rocks or gravel. Wet, slick, bumpy, uneven or rough surfaces may impair traction and contribute to possible accidents. Do not ride the E500S scooter in mud, ice, puddles or water. Avoid excessive speeds that can be associated with downhill rides. Never risk damaging surfaces such as carpet or flooring by use of an E500S scooter indoors.

Do not ride at night or when visibility is impaired.

PROPER RIDING ATTIRE

Always wear proper protective equipment such as an approved safety helmet (with chin strap securely buckled), elbow pads and kneepads. A helmet may be legally required by local law or regulation in your area. A long-sleeved shirt, long pants and gloves are recommended. Always wear athletic shoes (lace-up shoes with rubber soles), never ride barefooted or in sandals, and keep shoelaces tied and out of the way of the wheels, motor and drive system.

USING THE CHARGER

The charger supplied with the E500S scooter should be regularly examined for damage to the cord, plug, enclosure and other parts, and in the event of such damage, the bike must not be charged until the charger has been repaired or replaced.

Use only with the recommended charger.

The charger is not a toy.

Always disconnect from the charger prior to wiping down and cleaning your E500S scooter with liquid.

FAILURE TO USE COMMON SENSE AND HEED THE ABOVE WARNINGS INCREASES RISK OF SERIOUS INJURY. USE WITH APPROPRIATE CAUTION AND SERIOUS ATTENTION TO SAFE OPERATION.

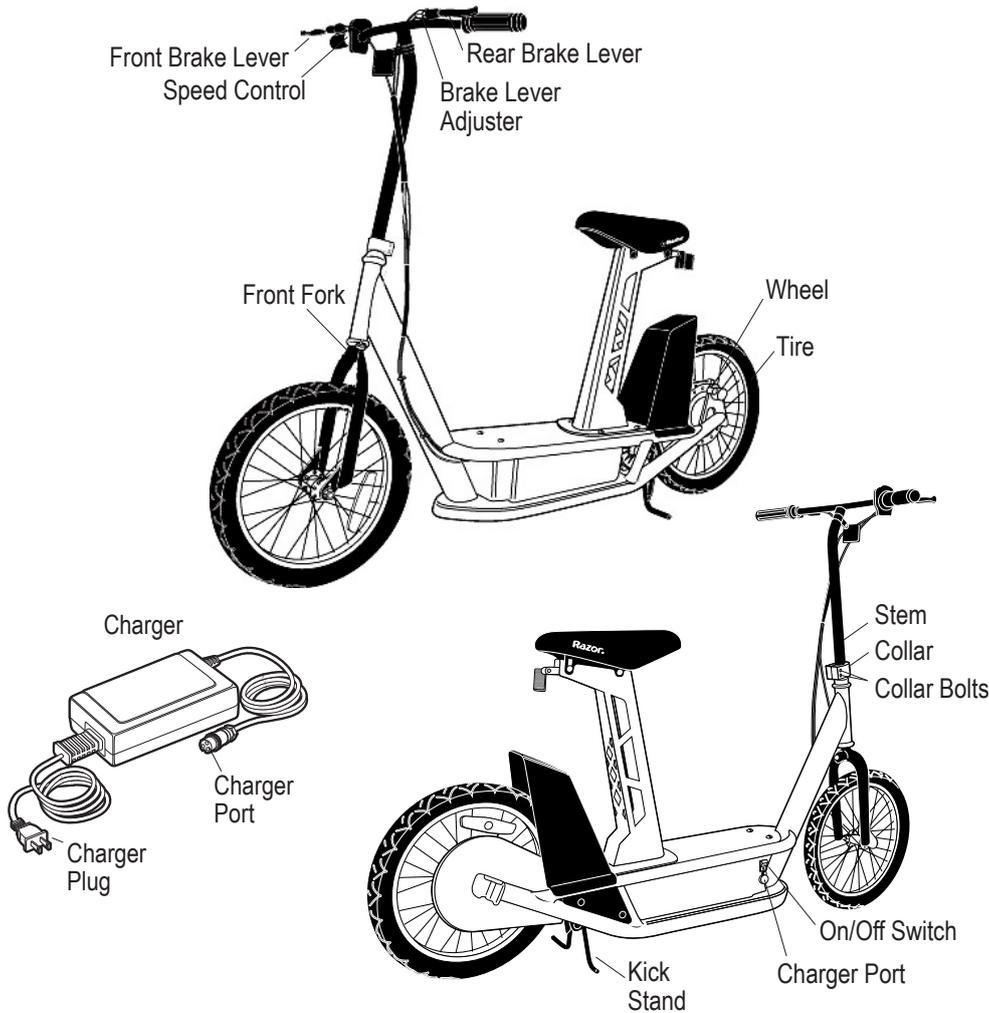
BEFORE YOU BEGIN

Remove contents from box. Remove the foam separators that protect the components from damage during shipping. Inspect the contents of the box for scratches in the paint, dents or kinked cables that may have occurred during shipping. Because the E500S scooter was 95 percent assembled and packed at the factory, there should not be any problems, even if the box has a few scars or dents.

Estimated Assembly and Set-Up Time

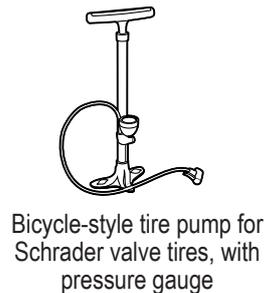
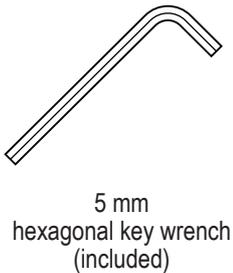
Razor recommends assembly by an adult with experience in bicycle mechanics. Allow up to 20 minutes for assembly, not including initial charge time. Allow up to 12 hours for initial charge (see page 3 for charging information).

WARNING:
DO NOT USE NON-RAZOR PRODUCTS WITH YOUR RAZOR E500S SCOOTER. The scooter has been built to certain Razor design specifications. The original equipment supplied at the time of sale was selected on the basis of its compatibility with the frame, fork and all other parts. Certain aftermarket products may or may not be compatible.



Required Tools

Some tools may be supplied; however, we recommend the use of mechanic's grade tools. Use the supplied tools only as a last resort.



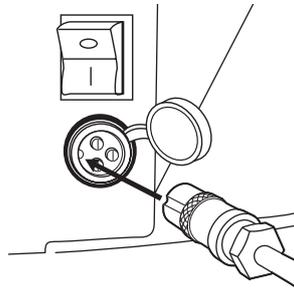
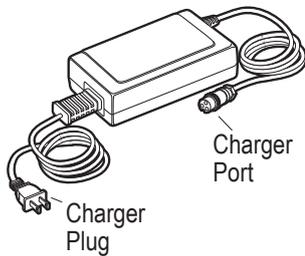
Need Help? Visit our web site for updates and a list of authorized service centers at www.razor.com or call toll-free at **866-467-2967** Monday - Friday 8:00 AM - 5:00 PM Pacific Time.

ASSEMBLY AND SET-UP

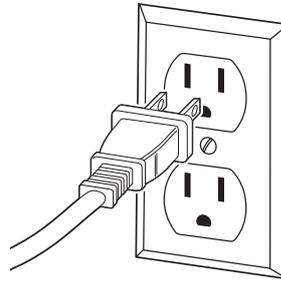
□ Charging the Battery

Your electric scooter may not have a fully charged battery. Therefore it is a good idea to charge the battery prior to use.

- Initial charge time: 12 hours
- Recharge time: up to 8 hours, depending on the level of depletion
- Run time: up to 40 minutes
- Average battery life: 250 charge/discharge cycles

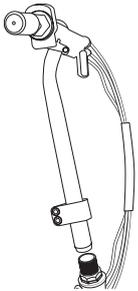


1 Plug the charger port into the port on the scooter. The charger works with the power switch in either the on or off position.

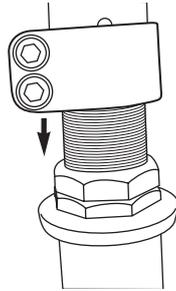


2 Plug the charger plug into a wall outlet.

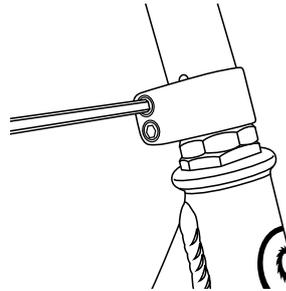
□ Attaching the Handlebars



1 Insert handlebar assembly into fork.

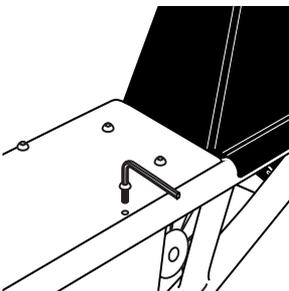


2 Handlebar assembly should be all the way in with the collar covering the threaded portion of the fork. Spin the handlebar stem clockwise down onto the fork to ease installation.

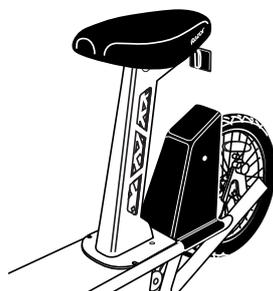


3 Once stem is all the way down and no more threads on fork are visible, tighten two collar bolts with 5 mm hexagonal key wrench.

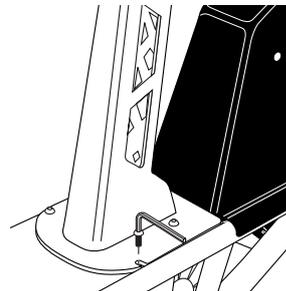
□ Attaching the Seat



1 Remove the four bolts from the frame with the 5 mm hexagonal key wrench.



2 Position seat onto frame and align holes.



3 Secure seat with the four bolts.

□ Riding Your Scooter

Testing the Brake – To use the brake, squeeze the brake lever to increase the pressure on the brake. The brake lever is fitted with a cable adjuster to compensate for cable stretch and/or to fine-tune the lever movement to brake engagement. If brake is not engaging properly, follow instructions for adjusting the brake on page 4.

⚠ WARNING:

Always disconnect your E500S scooter from the charger before cleaning with liquid.

Note: If your charger does not look like the one illustrated, your unit has been supplied with an alternative charger. The specifications and charging procedure would not change.

The charger has a small window with one LED or two LEDs to indicate the charge status. Refer to the illustration on the charger unit for the actual “charging” and “charged” status indications for your model charger.

Chargers have built-in over-charge protection to prevent battery from being over-charged.

Be sure to properly align the groove on the charger input plug with the corresponding socket on the case; otherwise, no charging action will occur.

⚠ WARNING:

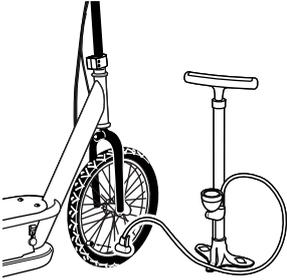
Failure to properly tighten the collar bolts may allow the handlebars to dislodge while riding and may cause you to lose control and fall. When correctly tightened, the handlebars will not rotate out of alignment with the front wheel under normal circumstances.

Note: The cable and wire assembly from the handlebar must be routed as shown in step 1, not wrapped around the steering tube or handlebar. Sharp bends or twisting of the brake cable can cause the brake to malfunction.

ASSEMBLY AND SET-UP

□ Inflating the Tires

Tires are inflated when shipped, but they invariably lose some pressure between the point of manufacturing and your purchase.

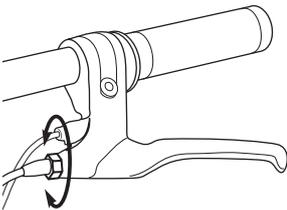


1 Using a bicycle style tire pump equipped for a Schrader-type valve, inflate the tire to the PSI indicated on the sidewall of the tire.

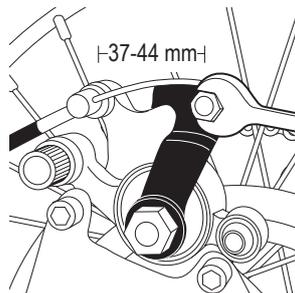
REPAIR AND MAINTENANCE

Check the Razor web site for any updates on the latest repair and maintenance procedures. Turn power switch off before conducting any maintenance procedures.

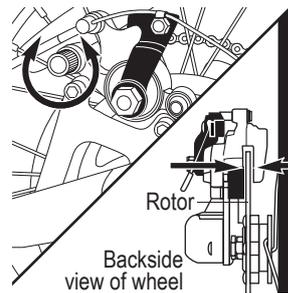
□ Adjusting the Brake



1 To adjust the brake cable play, thread the brake lever adjuster in or out 1/4 to 1/2 turn until the desired brake adjustment is attained. Most adjustments are complete at this step. If brake still needs further adjustment, proceed to step 2 for rear or step 4 for front.



2 If the brake has too much slack, loosen the rear anchor bolt and pull the brake wire tighter. The distance of the brake wire between the end of the cable and the anchor bolt should be between 37 and 44 mm.



3 If the brake rotor is dragging on the brake pads use your fingers to twist the caliper adjuster in either direction until rotor is centered between pads.

Note: The pressurized air supplies found at gasoline stations are designed to inflate high-volume automobile tires. If you decide to use such an air supply to inflate your scooter tires, first make sure the pressure gauge is working, then use very short bursts to inflate to the correct PSI. If you inadvertently over-inflate the tire, release the excess pressure immediately.

⚠ WARNING:

The brake is capable of skidding the tire and throwing an unsuspecting rider. Practice in an open area free from obstacles until you are familiar with the brake function. Avoid skidding to a stop as this can cause you to lose control or damage the rear tire.

REPAIR AND MAINTENANCE

□ Front Tire Replacement

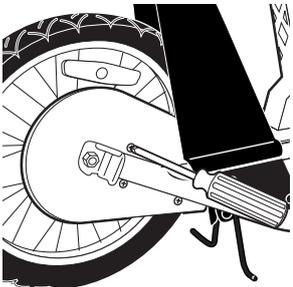


1 Loosen front axle by attaching 10/15 mm wrenches to both axle nuts and loosening counter-clockwise.

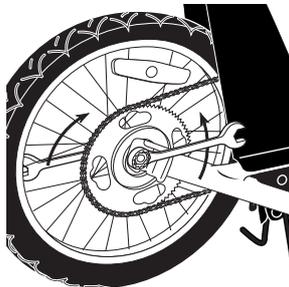


2 Remove wheel and replace tire. To reinstall wheel, reverse these steps.

□ Rear Tire/Chain Replacement



1 Remove chain guard with Phillips Screwdriver.



2 Loosen rear axle by attaching wrenches to both axle nuts and loosening counter-clockwise. Pull chain off sprocket and remove wheel from frame.



3 Remove wheel and replace tire or chain. To reinstall wheel, reverse these steps.

□ Battery Care and Disposal

Do not store the battery in temperatures above 75° or below -10° F.



CONTAINS SEALED LEAD BATTERY. BATTERY MUST BE RECYCLED.

Disposal: Your Razor product uses sealed lead-acid batteries which must be recycled or disposed of in an environmentally sound manner. Do not dispose of a lead-acid battery in a fire. The battery may explode or leak. Do not dispose of a lead-acid battery in your regular household trash. The incineration, land filling or mixing of sealed lead-acid batteries with household trash is prohibited by law in most areas. Return exhausted batteries to a federal or state approved lead-acid battery recycler or a local seller of automotive batteries. If you live in Florida or Minnesota, it is prohibited by law to throw away lead-acid batteries in the municipal waste stream.

□ Charger

The transformer/charger supplied with the scooter should be regularly examined for damage to the cord, plug, enclosure and other parts, and, in the event of such damage, the scooter must not be charged until it has been repaired or replaced.

Use ONLY with the recommended charger.

□ Replacement Parts

The most frequently requested replacement parts (wheels, tires, tubes, batteries and chargers) are available for purchase at some Razor retail partners or online at www.razorama.com. For other parts contact an authorized Razor repair center.

□ Repair Centers

For a list of authorized Razor repair centers:

- Check online at www.razor.com.
- Send e-mail to customerservice@razorusa.com or call 866-467-2967 for the center nearest you.

⚠ WARNING:

If a battery leak develops, avoid contact with the leaking acid and place the damaged battery in a plastic bag. Refer to the disposal instructions at left. If acid comes into contact with skin or eyes, flush with cool water for at least 15 minutes and contact a physician.

SB 1918 (CALIFORNIA) DECLARATION

YOUR INSURANCE POLICIES MAY NOT PROVIDE COVERAGE FOR ACCIDENTS INVOLVING THE USE OF THIS SCOOTER/ELECTRIC VEHICLE. TO DETERMINE IF COVERAGE IS PROVIDED, YOU SHOULD CONTACT YOUR INSURANCE COMPANY OR AGENT.

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
Scooter does not run	Undercharged battery	<p>Charge the battery. A new battery should have been charged for at least 12 hours before using the scooter for the first time and up to 8 hours after each subsequent use.</p> <p>Check all connectors. Make sure the charger connector is tightly plugged into the charging port, and that the charger is plugged into the wall.</p> <p>Make sure power flow to the wall outlet is on.</p>
	Charger is not working	You may check to see if your charger is working by using a volt meter or asking your local Razor authorized service center to test your charger for you.
	Loose wires or connectors	Check all wires and connectors to make sure they are tight.
Scooter was running but suddenly stopped	Burned out fuse	<p>The fuse will burn out and automatically shut off the power if the motor is overloaded.</p> <p>An excessive overload, such as too heavy a rider or too steep a hill, could cause the motor to overheat. Replace the fuse with a new one of equal amperage. Correct the conditions that caused the fuse to burn out and avoid repeatedly burning out fuse.</p>
	Motor or electrical switch damage	Contact your local Razor authorized service center for diagnosis and repair.
Short run time (less than 30 minutes per charge)	Undercharged battery	<p>Charge the battery. A new battery should have been charged for at least 12 hours before using the scooter for the first time and up to 8 hours after each subsequent use.</p> <p>Check all wires and connectors. Make sure the battery connector is tightly plugged into the charger connector, and that the charger is plugged into the wall.</p> <p>Make sure power flow to the wall outlet is on.</p>
	Battery is old and will not accept full charge	Even with proper care, a rechargeable battery does not last forever. Average battery life is 1 to 2 years depending on scooter use and conditions. Replace only with a Razor replacement battery.
	Brake not adjusted properly	Refer to adjusting the brake instructions on page 4.
Scooter runs sluggishly	Driving conditions are too stressful	Use only on solid, flat clean and dry surfaces such as pavement or level ground.
	Tires are not properly inflated	The tires are inflated when shipped, but they invariably will lose some pressure between the point of manufacturing and your purchase. Refer to instructions on page 5 of this manual to properly inflate tires.
	Scooter is overloaded	Make sure you do not overload the scooter by allowing more than one rider at a time, exceeding the 220 lb. maximum weight limit, going up a hill or towing objects behind the scooter. If the scooter is overloaded, the circuit breaker may trip and shut off power to the motor. Correct the driving conditions that caused the overload, wait a few seconds, and then push the breaker to reset the circuit. Avoid repeatedly tripping the circuit breaker.
	Brake rotor is dragging on pads	Use your fingers to twist the caliper adjuster in either direction until rotor is centered between pads.
	Brake not adjusted properly	Refer to adjusting the brake instructions on page 4.

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
Sometimes the scooter doesn't run, but other times it does	Loose wires or connectors	Check all wires around the motors and all connectors to make sure they are tight.
	Motor or electrical switch damage	Contact your local Razor authorized service center for diagnosis and repair.
Charger gets warm during use	Normal response to charger use	No action required. This is normal for some chargers and is no cause for concern. If your charger does not get warm during use, it does not mean that it is not working properly.
Scooter does not stop when applying the brake	Brake not adjusted properly	Refer to adjusting the brake instructions on page 4 .
Scooter makes loud noises or grinding sounds	Chain is too dry	Apply a lubricant such as 3 in 1™ or Tri-Flow™ to the chain.
	Brake rotor is dragging on brake pads	Use your fingers to twist the caliper adjuster in either direction until rotor is centered between pads.

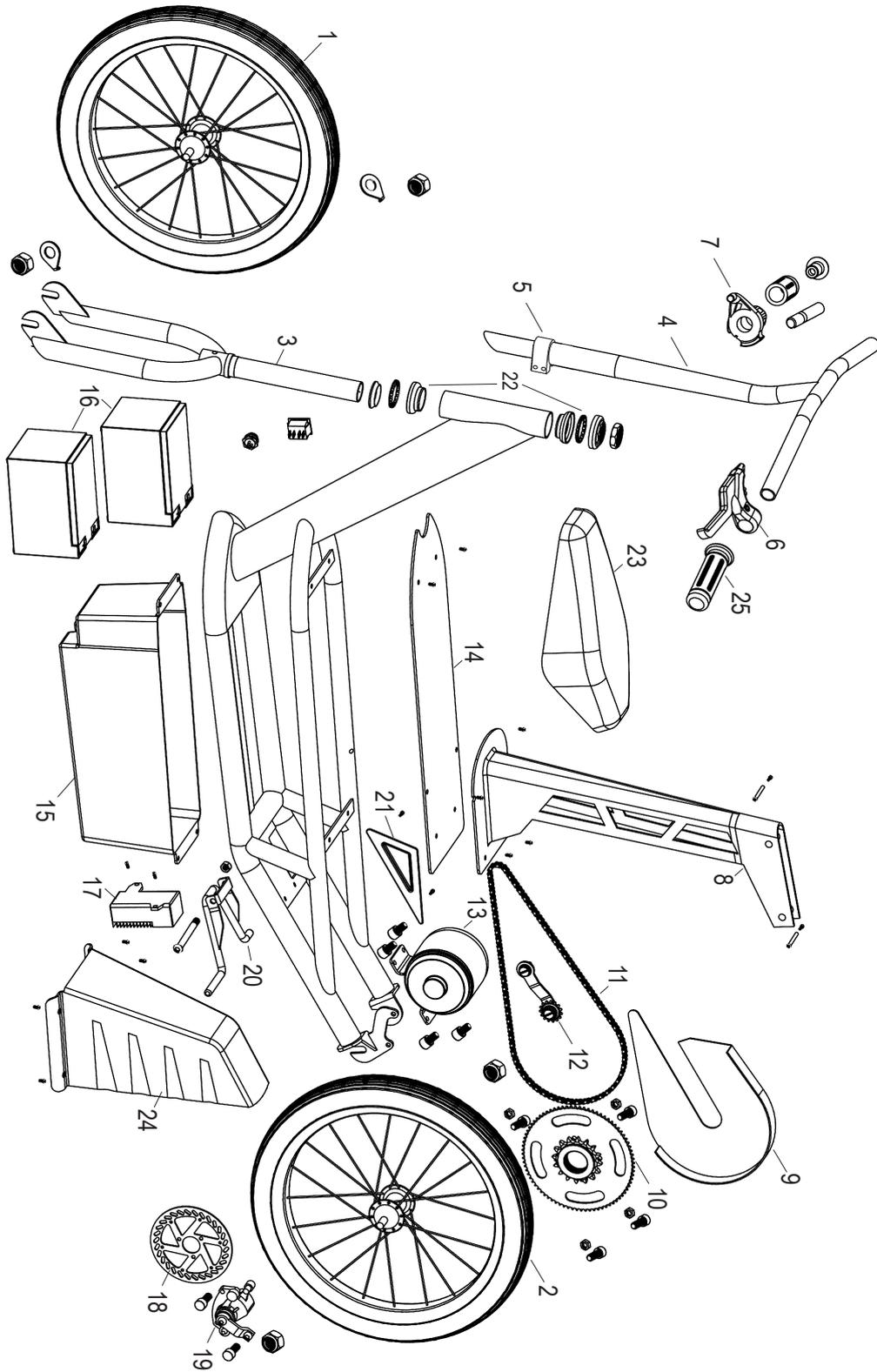
Need Help? Visit our web site for updates and a list of authorized service centers at www.razor.com or call toll-free at **866-467-2967** Monday - Friday 8:00 AM - 5:00 PM Pacific Time.

E500S PARTS

Keep your E500S scooter running for years with genuine Razor parts. Visit our web site or e-mail us for more information on spare part availability. (Specifications subject to change without notice.)

1. Front wheel with tire, tube, axle nuts
2. Rear wheel with tire, tube, sprocket, freewheel, axle nuts
3. Fork
4. Handlebar
5. Quill and handlebar clamp
6. Brake levers
7. Speed control
8. Seat mast w/screws
9. Chainguard w/screws
10. Sprocket and freewheel
11. Chain
12. Chain tensioner w/screws
13. Motor, 400 or 600 watt w/screws
14. Deck plate w/screws
15. Battery tray w/screws
16. 12V 10Ah battery x 2 (two)
17. Control module
18. Rotor for brake
19. Rear caliper w/screws
20. Kick stand w/screws
21. Right side cover w/screws
22. Headset bearing
23. Seat w/screws
24. Fender
25. Grips

E500S PARTS



SAFETY REMINDERS

PRE-RIDE CHECKLIST



Loose Parts

Check and secure all fasteners before every ride. Make sure steering stem clamp bolts are locked properly in place. There should not be any unusual rattles or sounds from loose parts or broken components. If you are not sure, ask an experienced mechanic to check.



Brake

Check the brake for proper function. When you squeeze the lever, the brake should provide positive braking action. When you apply the brake with the speed control on, the brake cut-off switch will stop the motor.



Frame, Fork and Handlebars

Check for cracks or broken connections. Although broken frames are rare, it is possible for an aggressive driver to bash into a curb or wall and wreck and bend or break a frame. Get in the habit of inspecting yours regularly.



Tire Inflation

Periodically inspect the tires for excess wear, and regularly check the tire pressure and re-inflate as necessary. If you get a flat tire, the inner tube can be patched or a new tube can be purchased from Razor or an authorized repair center.



Safety Gear

Always wear proper protective equipment such as an approved safety helmet, elbow pads and kneepads. Always wear athletic shoes (lace-up shoes with rubber soles), never drive barefooted or in sandals, and keep shoelaces tied and out of the way of the wheels, motor and drive system.

WARRANTY

Razor Limited Warranty

The manufacturer warrants this product to be free of manufacturing defects for a period of 90 days from date of purchase. This Limited Warranty does not cover normal wear and tear, tires, tubes or cables, or any damage, failure or loss caused by improper assembly, maintenance, or storage or use of the Razor electric chopper.

This Limited Warranty will be void if the product is ever

- used in a manner other than for recreation or transportation
- modified in any way;
- rented.

The manufacturer is not liable for incidental or consequential loss or damage due directly or indirectly to the use of this product.

Razor does not offer an extended warranty. If you have purchased an extended warranty, it must be honored by the store at which it was purchased.

For your records, save your original sales receipt with this manual and write the serial number below.

Item Number

13114099

Need Help? Visit our web site for updates and a list of authorized service centers at www.razor.com or call toll-free at **866-467-2967** Monday - Friday 8:00 AM - 5:00 PM Pacific Time.