



RS6 ULTRA

ROADRUNNER RS6 ULTRA ELECTRIC SCOOTER

Owner's Manual



RoadRunner RS6 ULTRA Scooter

Pictures in this manual are for reference only. Please read the full instruction manual before using your Scooter.

For instructional videos on how to: get your scooter ready to ride, maintain your scooter and make proper repairs to your scooter if needed. Scan this QR code with your camera phone and browse dozens of videos.





ROADRUNNER RS6 ULTRA ELECTRIC SCOOTER OWNER'S MANUAL

Congratulations on your purchase of the RoadRunner RS6 ULTRA electric scooter!

This manual contains important information regarding the setup, operation, and maintenance of your scooter. Please read this manual carefully before using your scooter to ensure safe and proper operation.



Table of Contents

GETTING STARTED

5	What's in the Box
6	Pre-Ride Checklist
7-8	Scooter Specs

INSTALLATION + OPERATION

9	Charging the Scooter
10	Battery and Charger Information
11	Battery Installation
12-13	How to lock and fold the stem
14	Handlebar Installation
15	Steering Damper Installation
16	Handlebar Controls and Instruments
17	LCD Display
18	Multi-Function Control Module
19	Parameter Settings (P-Settings)
20	Operating Instructions
21	Error Codes

PERFORMANCE FEATURES + CARE INSTRUCTIONS

23	Frame, Stem, and Locking Mechanism
24-26	4-Piston NUTT Hydraulic Brakes
27	Storage, Repair, Replacement
28-29	KKE Shocks
30-31	PMT Tires
32-33	RoadGlo Electroluminescent Lighting
34	Safety Instructions
35	Warranty Policy
36	Contact Us



What's in the Box

- **RS6 ULTRA Scooter**
- **Front and Rear Fenders**
- **Scooter keys (2)**
- **Decklid keys (2)**
- **Allen Wrench Tool**
- **Charger**



Pre-Ride Checklist

01

Check Battery Level

Ensure the battery is at a sufficient charge level for your trip. Avoid riding below 20% charge to maintain battery health and avoid performance issues.

02

Check Tire Pressure: 35 PSI (241 kPa)

Both tires should be inflated to 35 PSI (241 kPa). Low pressure increases

03

Inspect Motor Wire and Cables

Make sure the **motor wire is zip-tied and tucked away** from the suspension arm and moving parts. Check for any fraying or wear.

04

Test Brakes

Squeeze both brake levers and confirm firm resistance. Make sure the brake pads are not worn down.

05

Check Lights and Horn

Test headlight, brake light, turn signals (if equipped), and horn for proper function — especially before night riding.

06

Helmet and Gear On

Wear a certified helmet, closed-toe shoes, and gloves for better control and protection.



Scooter Specs

Product name	RoadRunner RS6 ULTRA Electric Scooter
Product model	RS6 ULTRA
Folded Dimensions	56" (l) x 9" (w) x 22" (h)
Upright Dimensions	56" (l) x 9" (w) x 53 (h)
Deck Plate	27" x 9"
Deck to Handlebars	42"
Ground to Deck	7"
Weight	98 lbs (with battery installed) 90 lbs (with battery removed)
Max load	375 lbs
Max speed	Up to 60 MPH (depending on environment, climb, weight and driving habits)
Range:	Up to 80 miles (depending on environment, climb, weight, and driving habits)
Max climb	38° incline



Scooter Specs

Suspension	Front and Rear KKE Custom Fender-adjust Hydraulic Spring Shocks
Tire	11" x 4.0" PMT Strelde Pneumatic Tubeless Hybrid Tire
IP Rating	IP67
Brake system	NUTT 4-Piston Hydraulic Disc Brakes
Ambient Lighting	ROADGLO Electroluminescent Lighting on Stem, Side Deck
LED display	Headlights, cruise, brake, gear, and battery level indicator
Light system	LED Headlight, Rear LED Brake Lights, Front and Rear Running Lights
Turn Signals	Rear and Side Deck Turn Signals
Battery:	60V 35Ah Samsung 21700 Cell Lithium
Speed Controller	2 x 60 amp Sine Wave
Charger	A Output: 67.2V -- 2.0A



Charging the Scooter

USING CHARGING PORTS ON SIDE DECK OF SCOOTER



01

Plug the charger into a 120V power supply (wall outlet, power strip, etc.)

02

Open the waterproof cover on the charging port on the side deck, then plug the charger into the scooter.

03

A red light means the scooter is charging; green means it is fully charged.

04

Cover the charging port once the charger is removed.

USING CHARGING PORTS ON BATTERY:

01

Open deck lid of scooter. Unplug the quick-connect plug attached to the battery and remove battery from scooter.

02

Plug the charger into a 120V power supply (wall outlet, power strip, etc.)

03

Open the waterproof cover on the charging port on the battery, then plug the charger into the charging port.

04

A red light means the Scooter is charging; green means it is fully charged.

05

Cover the charging port once the charger is removed.

For faster charging, a second 5 amp charger can be used in the second charging port to charge the battery at twice the rate.
Note: Dual fast (5A) charger support is available on the RS6 ULTRA and RX7 models.



Battery and Charger Information

Your RoadRunner RS6 ULTRA scooter comes with a Samsung Lithium-ion battery and a smart charger. Important: Only use the provided charger and battery with your RS6 ULTRA. Using non-approved chargers or batteries can cause damage, and RoadRunner is not responsible for such damages.

Maximum Voltage for Full Charge: 67.2 V

Minimum Voltage Before Battery Dies: 52 V

WARNING:
NEVER LEAVE THE SCOOTER UNATTENDED
WHILE CHARGING THE BATTERY!

Charger Details:

The smart charger automatically stops charging and the indicator light turns green when the battery is fully charged. Charging takes approximately 9-10 hours with one charger or 4-5 hours with two chargers. If the battery fails to charge, please contact RoadRunner Scooters for assistance. Note that damage caused by weather or improper handling is not covered under warranty.



Battery Installation

01

Use deck lid keys to unlock and open the deck lid.

02

Slide the quick connect plug inside the deck towards the front of the scooter to make room for the battery.

03

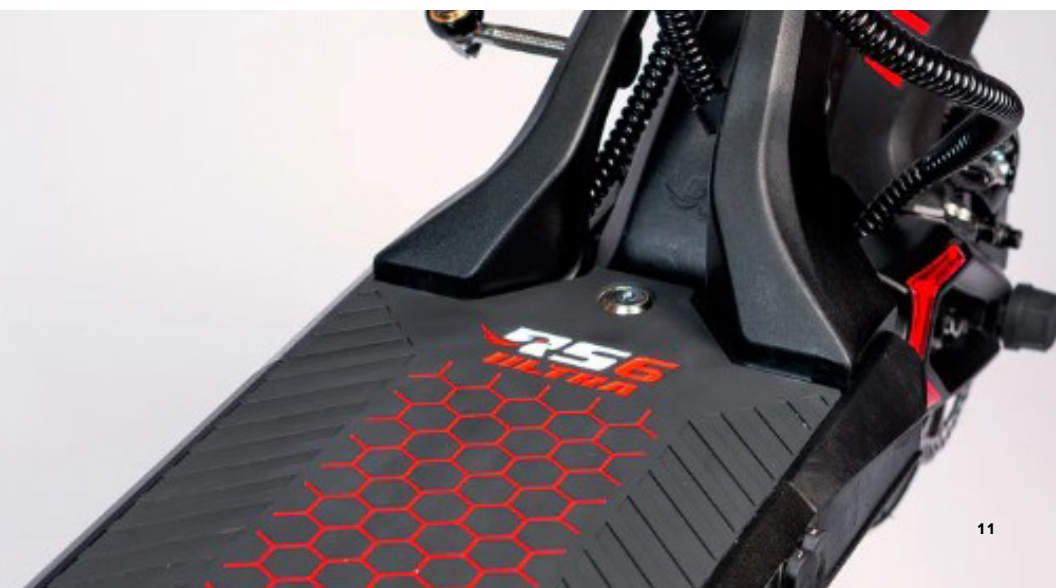
Position the battery directly above the compartment, ensuring it is aligned horizontally. Lower the battery straight down without angling it.

04

Connect the quick connect plug to the battery.

05

Close and lock the deck lid.





How to lock and fold the stem

HOW TO FOLD THE SCOOTER:

01

Unscrew the folding knob on the front of the stem until the silver clasp is clear of the stem.

02

Release the black safety pin on the side of the stem.

03

Fold the stem down towards the deck.

04

Insert the folding hook into the opening in the footplate.

05

Push the hook towards the front of the scooter until it latches securely under the footplate.





How to fold and lock the stem

HOW TO UNFOLD THE SCOOTER:

01

Release the folding hook from the latch under the footplate.

02

Pull out the black safety pin on the side of the neck and raise the stem to an upright position.

03

Push the black safety pin back in to lock the stem in place.

04

Screw the folding knob into the stem, ensuring the metal clasp is fully engaged.

05

Verify that the stem is secure and wobble-free.



Handlebar Installation

HOW TO:

01

Using a number 4 hex key, remove all four bolts from the handlebar bracket and set them aside with the top bracket.

02

Place the handlebar on the lower bracket, centering it properly.

03

Align the top piece of the handlebar bracket over the handlebar and bottom bracket. Reinsert the four bolts and tighten them evenly.

04

Adjust the handlebar angle for easy access to the brakes, control module, and throttle. Ensure the handlebar is secure and does not rotate or shift.

05

Adjust the display to the desired angle and tighten the display bracket.

06

Position the control module, brakes, and throttle to your preferred angles, then tighten all components securely.



Steering Damper Installation

HOW TO:

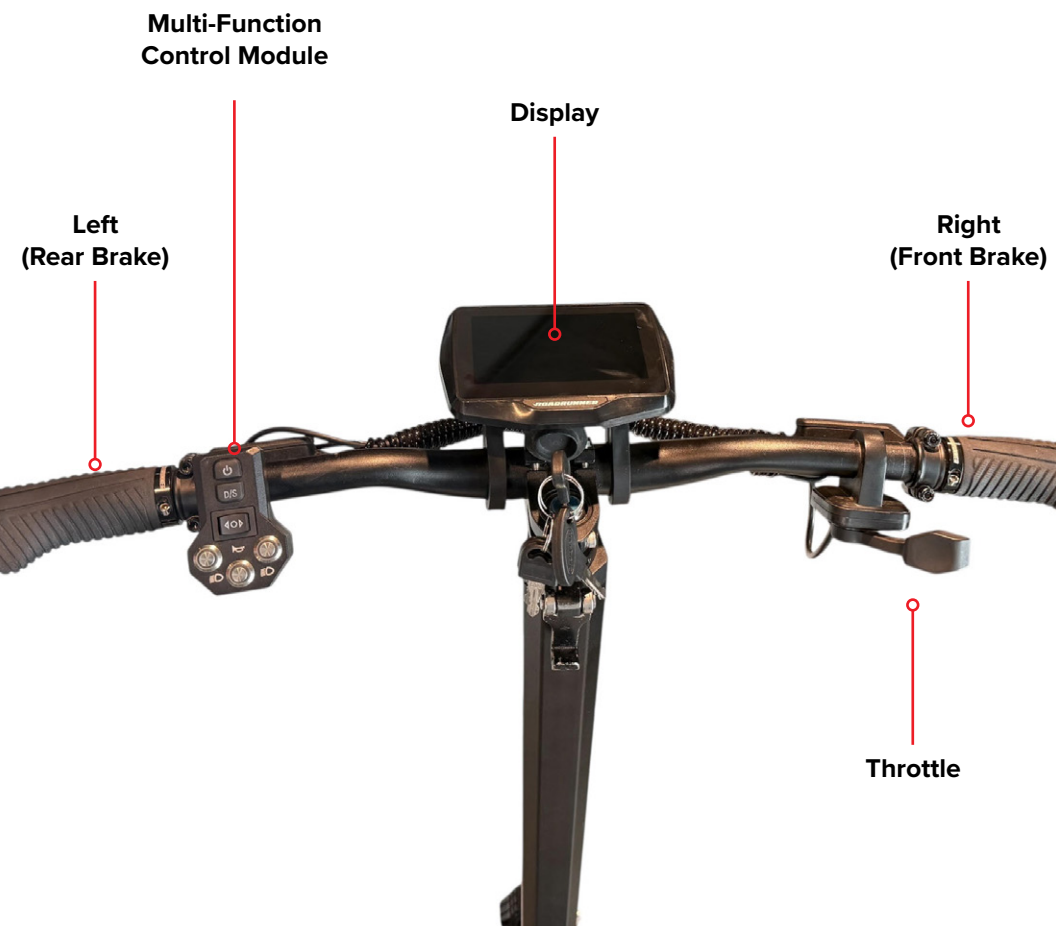
01

Visit our YouTube Channel for instructions on how to install the steering damper.





Handlebar Controls + Instruments





LCD Display





Multi-Function Control Module





Parameter Settings (P-Settings)

To make changes to any P-settings, press the power button quickly three times in row.

Once the selected values begin flashing, quickly press the power button just once to cycle through the options. Press the power button to exit the current P settings or to advance to the next P-setting. P-settings will automatically exit if there is no activity for 8 seconds.

Example: to modify KM vs. miles, press the power button quickly three times in row to enter P1. Once the selection flashes, press the power button once to select 0 (KM) and once more to select 1 (miles). Once you've made your selection, press the power button to proceed to the P2 setting.

P1	KM/Miles setting; default is miles
P2*	Voltage level setting (36V, 48V, 52V, 60V, 72V); default 60V. DO NOT CHANGE
P3*	Wheel diameter, in inches; default 11. DO NOT CHANGE
P4*	# of magnetic poles for speed measurement, 1-100 default 30. DO NOT CHANGE
P5	Cruise selection (0 means no cruise, 1 means cruising). default 0
P6	Zero startup (0) vs. non-zero startup (1) settings. When powering on, no icon will be displayed if zero startup; the display will show "NON" if zero startup. In non-zero startup mode, you will need to manually bring the scooter to 3 MPH and press the accelerator to start. default 0
P7	Speed limit setting, 1-100% default 100
P8	Sleep time setting, 1-60 minutes default 5
PA	Start strength setting, 1-5 (1 least starting power, 5 strongest) default 1
PB	Brake strength setting 1-5 (1 least stopping power, 5 strongest) default 1

Note: * Do not change P-settings: P2, P3, P4. These are preset factory settings and will disrupt the performance of your scooter if changed.



Operating Instructions

Power ON/OFF:

A: Turn your key to the right to turn on, turn your key to the left to turn off.

B: Long press the power button (~ approximately 1-2 second) to turn the LCD display on/off.

C: Press once quickly to switch gears (default is gear 1).

Gear Setting:

Press the button located on the throttle to switch gears.

GEAR 1: Slowest Speed

GEAR 2: Medium Speed

GEAR 3: Fastest Speed
(up to 60 mph)

Kick Start Mode:

The throttle system will work once the scooter reaches 3 MPH. Press the throttle smoothly to accelerate. Refer to P-6 setting on how to engage.

Headlights:

When the scooter is powered on, push the headlight button to turn on headlights, taillights, and sidelights. Push the headlight button to turn off the lights.

Cruise control:

When cruise control is turned on, it will automatically be activated when you reach a consistent speed. Release the thumb accelerator and the scooter will automatically move at the set speed. To cancel the cruise control, pull either brake lever and cruise control will automatically turn off.



Error Codes

E-001	Rear motor haul error - swap front and rear motor heads. If code still appears, replace the controller. If it does not appear, replace the motor.
E-003	Controller error - change the controller and try again
E-005	Voltage error - battery is low; charge the battery and try again
E-006	Receiver error - replace instrument/controller and try again
E-007	Sending error - replace instrument/controller and try again
E-009	Controller temperature error - Controller's temperature is too high
E-011	Front motor haul error - swap front and rear motor heads. If code still appears, replace the controller. If it does not appear, replace the motor.
E-013	Secondary controller failure - Change the controller and try again
E-017	Sub-controller receiving failure - replace instrument/controller and try again



Performance Features + Care Instructions



Frame, Stem, and Locking Mechanism

01
 With safety as the paramount design objective, the aerospace grade 6061 single cast aluminum frame to ensure structural integrity of the RS6 ULTRA.

02
 The RS6 ULTRA has an innovative stem with a dual locking mechanism. The stem is crafted to ensure stability even at high velocities, effectively eliminating wobble for a secure riding experience.



4-Piston NUTT Hydraulic Brakes

01

Proper care and maintenance of the NUTT hydraulic brakes on the RoadRunner RS6 ULTRA electric scooter is essential for ensuring optimal braking performance and safety. Here are some detailed care and maintenance tips:



4-Piston NUTT Hydraulic Brakes

01

Regular Maintenance

1. Brake Pad Inspection: Inspect the brake pads regularly for wear. Replace them if the thickness is less than 1.5mm or if they are visibly worn down.

Check for any debris or dirt on the brake pads and clean them with a soft brush or cloth.

2. Rotor Inspection: Inspect the brake rotors for any signs of warping, cracks, or excessive wear.

Ensure the rotors are clean and free of oil or grease.

3. Brake Lever Check: Check the brake levers for smooth operation. They should not feel spongy or too hard to pull.

Adjust the lever reach if necessary to ensure comfortable and effective braking.



4-Piston NUTT Hydraulic Brakes

02

Cleaning

Brake Components: Clean the brake calipers, rotors, and pads regularly to remove dirt and grime.

Use a brake cleaner or isopropyl alcohol to clean the brake components. Avoid using water or soap, which can leave residue.

Avoid Contaminants: Keep the brake components free from oil, grease, and other contaminants.

If any brake parts get contaminated, clean them immediately with brake cleaner.

03

Usage Tips

Brake Bedding: After installing new brake pads or rotors, perform a bedding-in process. This involves gradually increasing the braking force to create a smooth and even surface on the pads and rotors.

Perform several slow stops to medium stops to allow the brakes to adjust properly.

Brake Application: Apply the brakes smoothly and evenly to avoid sudden stops, which can cause excessive wear and heat buildup.

Use both front and rear brakes simultaneously for balanced stopping power.



Storage

1. Environment:

Store the scooter in a cool, dry place away from direct sunlight and extreme temperatures.

Avoid storing the scooter in places with high humidity or where it can come into contact with chemicals.

2. Position:

If storing for an extended period, elevate the scooter to take the weight off the brakes.

Ensure the brake levers are not engaged during storage to prevent pressure build-up in the hydraulic system.

Repair and Replacement

1. Bleeding the Brakes:

Bleed the brakes if you notice a loss of braking power or if the brake lever feels spongy. This involves removing air bubbles from the hydraulic system.

Follow the manufacturer's instructions or seek professional help for bleeding the brakes.

2. Professional Service: For significant brake issues or if you're unsure about performing maintenance, check with a professional service provider.

3. Replacement: Replace brake pads and rotors as needed based on wear and tear.

Use original or compatible parts recommended by the scooter manufacturer to ensure safety and performance.

By following these care and maintenance tips, you can ensure that the NUTT hydraulic brakes on your RoadRunner RS6 ULTRA electric scooters remain in top condition, providing reliable and safe braking performance.



KKE Shocks

01

The RoadRunner RS6 ULTRA electric scooter features custom-built*, high-performance KKE shocks, engineered to deliver a smooth and comfortable ride across various terrains. These shocks are easily adjustable with a two-finger dial, allowing you to tailor the suspension to your riding preferences. Designed to absorb shocks and vibrations, they ensure a stable and controlled ride.



KKE Shocks

02

Care Instructions for KKE Shocks

1. Cleaning: Use a soft, damp cloth to clean the shocks. Avoid using harsh chemicals or abrasive cleaners, as these can damage the shock's finish.

2. Inspect Regularly: Check the shocks regularly for signs of damage, such as leaks or excessive wear. If you notice any issues, contact customer support assistance.

3. Adjustment: Incorrect adjustment can affect the performance of your scooter.

*Please note that the KKE shocks on the RS6 ULTRA are custom-built specifically for this scooter. Off-the-shelf shocks will not be compatible with the RS6 ULTRA.

To purchase replacement shocks, visit www.roadrunnerscooters.com



PMT Tires

01

The RoadRunner RX7 electric scooter is fitted with PMT 11" x 4" Stradale 100% rubber tires, which are specially designed for electric scooters. These tires offer excellent grip and traction, providing a safe and stable ride. The PMT tires are also durable and long-lasting, ensuring that you can enjoy your scooter for years to come with minimal maintenance.



PMT Tires

01

Care Instructions for PMT Tires

1. Tire Pressure:

Check tire pressure regularly and inflate to the recommended pressure of 35 PSI (241 kPa). Underinflated tires can affect

2. Tire Tread:

Inspect the tire tread regularly for signs of wear or damage. Replace the tires if the tread is worn down to ensure safe riding.

3. Avoiding Hazards: Avoid riding over sharp objects or debris that could puncture the tires.



RoadGlo Electroluminescent Lighting

01

RoadGlo is a patented electroluminescent coating that emits light when an electrical current is applied. The coating is applied to the surface of the scooter and is powered by a separate power source. RoadGlo is flexible, durable, and energy-efficient, making it ideal for use on the RoadRunner RS6 ULTRA electric scooter for a sleek look and enhanced safety.



01

Care Instructions

No sharp objects: Do not use sharp objects anywhere close to RoadGlo. Doing so will result in damage to the RoadGlo.

No adhesive: Do not put any adhesive, such as tape, stickers, or glue on the RoadGlo decals. Doing so will result in damage to the RoadGlo.

Cleaning: Use a soft, damp cloth to clean the RoadGlo lighting. DO NOT use abrasive cleaners or scrubbing the surface, as this can damage the coating.

Avoiding Impact: To prevent damage to the RoadGlo lighting, avoid impact or sharp objects that could scratch or puncture the coating. If transporting when stem is folded down it is advisable to wrap the stem with something protective such as a towel to prevent damage to vinyl.

Storage: Store your scooter in a cool, dry place when not in use. Avoid exposing the scooter to extreme temperatures or moisture, as this can damage the RoadGlo coating.

Inspect Regularly: Check the RoadGlo lighting regularly for any signs of damage, such as cracks, peeling, or discoloration. If you notice any damage, contact our customer support team for assistance.

Professional Maintenance: For any repairs or maintenance involving the RoadGlo lighting contact RoadRunner Scooters customer service.

By following these care instructions, you can help ensure that the RoadGlo electroluminescent lighting on your RoadRunner RS6 ULTRA electric scooter remains in optimal condition.

TECHNICAL SPECIFICATIONS



RS6 ULTRA

MOTOR

3000W (1500×2) Brushless Dual Drive

SPEED CONTROLLER

One Sine Wave controller per motor

TOP SPEED

Up to 60 mph (97 km/h)

MAX RANGE

Up to 80 miles (129 km)

BATTERY

60V nominal (67.2V full charge)

35Ah · 21700 Samsung · removable

CHARGING PORTS

2 ports (1× 2A charger included)

TIRES

11" × 4" PMT Stradale Italian Racing

SUSPENSION

KKE Hydraulic Spring EZ-Adjust, front & rear

BRAKES

NUTT 4-Piston Hydraulic Disc

AMBIENT LIGHTING

RoadGlo EL — stem, side deck

FUNCTIONAL LIGHTING

Dual Projector LED, LED brake & turn signals

DISPLAY

TFT Multi-Function Digital

SHIPPING WEIGHT

118 lb (54 kg)

SHIPPING DIMENSIONS

56" (L) × 13" (W) × 26" (H)

LOW-VOLTAGE PROTECTION

52V

WEIGHT

98 lb (44 kg)

RIDER CAPACITY

375 lb (170 kg)

FOLDED DIMENSIONS

56" (L) × 9" (W) × 22" (H)

UPRIGHT DIMENSIONS

56" (L) × 9" (W) × 53" (H)

CLIMBING ANGLE

38° incline

WATER RATING

IP67

COLORS

Black, Crimson Red



i ABOUT VOLTAGE

Batteries are identified by their nominal voltage. A fully charged battery measures higher — this is normal. 52V=58.8V · 60V=67.2V · 72V=84.0V fully charged. The BMS prevents over-charge and over-discharge.

! DUAL MOTOR OPERATION

Engineered to run both motors in normal riding. Extended single-motor use loads one motor and controller unevenly (heat + accelerated wear). Use Dual Motor Mode whenever practical.

✓ BATTERY PROTECTION

The BMS protects against over-charge, over-discharge, over-current and short circuit. At minimum safe voltage, power is reduced or shut off. Always charge with the supplied charger; never modify or bypass the BMS.



Safety Instructions

- This scooter is for use by one adult rider at a time.
- The RS6 ULTRA is designed for experienced riders only.
- When riding, wear safety gear including a helmet.
- Always keep both hands on the handlebar and both feet on your scooter while riding.
- Do not ride your scooter anywhere unsafe or illegal.
- Practice riding in an open space first, and only ride on the road once you're comfortable and competent.
- Always use lights when riding in dark conditions.
- Please ride slowly if you encounter an uneven surface or poor road conditions.
- Do not ride on a slippery surface (i.e. ice, excessive water, and oil)
- Do not exceed the weight limit of 400 lbs.
- Avoid storing your scooter in extremely high or low temperatures, and do not store it near flammable items.
- Do not immerse your scooter in water higher than 1/2".
- Avoid riding in extreme weather conditions such as heavy rain, snow, and high winds.
- Avoid potholes.
- Always ride in accordance with local traffic laws and regulations.



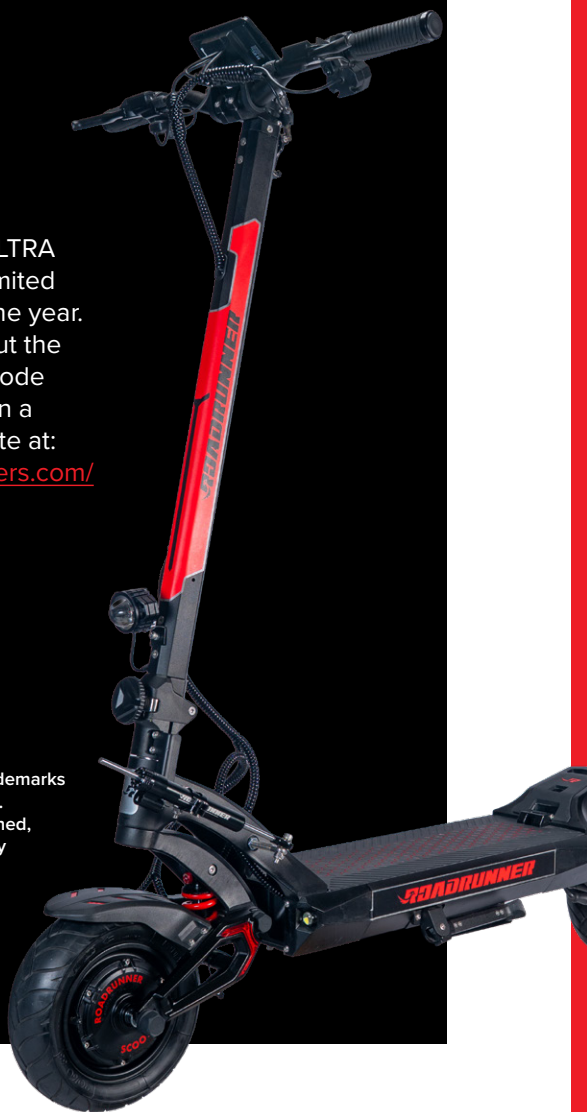
Warranty Policy



The RoadRunner RS6 ULTRA Scooter comes with a limited warranty that lasts for one year. To get more details about the warranty, scan the QR Code below using a camera on a phone or visit our website at: <https://roadrunnerscooters.com/pages/warranty-policy>

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Contact Us

Product Support

Need technical or mechanical assistance
with your RoadRunner Scooter?

<https://roadrunnerscooters.com/pages/contact-us>

Phone:

720.664.4456

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