

# ORION

THE ULTIMATE ALTERNATIVE



## OPERATING INSTRUCTION MANUAL

### eSeries Electric Balance Bikes 2024

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e12 Xtreme | e16 Xtreme | e20 Xtreme

# OWNER'S MANUAL

## Orion eSeries Electric Balance Bike, FOR AGES 2-12

### IMPORTANT: READ MANUAL CAREFULLY BEFORE OPERATING

We care about the safety and comfort of our customers. This manual will guide you through proper techniques in operating your Orion balance bike.

For any additional information, please visit: <https://orionmoto.com>

**WARNING:** Failure to assemble and maintain your electric balance bike properly poses a serious risk of injury or death to the rider.

This manual includes crucial safety, performance, and service information. The purpose of this Owner's Manual is to guide you in using your bike safely as intended, ensuring you derive benefits from it for many years.

Please read it thoroughly before embarking on the initial ride with your new bike, and keep it for future reference. If you encounter any uncertainties or have questions, prioritize your safety and contact Orion Moto customer service at 817-350-4520 or [info@orionmoto.com](mailto:info@orionmoto.com).

**IMPORTANT: YOUR INSURANCE POLICIES MAY NOT EXTEND COVERAGE TO ACCIDENTS INVOLVING THE UTILIZATION OF THIS BICYCLE. TO VERIFY COVERAGE AVAILABILITY, PLEASE REACH OUT TO YOUR INSURANCE COMPANY OR AGENT.**



**WARNING**

Always wear protective gear (helmet, knee and elbow pads, shoes).  
Don't ride in low visibility or at night.  
Max rider weight: 120 lbs./65 kgs to avoid bike damage.  
For ages 3 and up.  
Adult supervision needed, avoid roads, steep areas, and swimming pools; no multi-riders.  
Never ride near traffic or on streets/sidewalks.

**OPERATION MANUAL**  
Read and understand the Operation Manual and all safety labels before operating this machine.

**ALWAYS WEAR A PROPERLY FITTED HELMET WHEN YOU RIDE YOUR BICYCLE. DO NOT RIDE AT NIGHT. AVOID RIDING IN WET CONDITIONS.**

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## VIDEO TUTORIALS

VISIT [HTTPS://ORIONMOTO.COM/SUPPORT](https://orionmoto.com/support) FOR SETUP VIDEO

# INTRODUCTION

## Congratulations of your new Orion eSeries Balance Bike!

When correctly assembled and well maintained, it will provide many years of exciting riding experiences.


This manual has information regarding three (3) models. Please read and understand each section before riding and/or performing maintenance. Each section and/or picture will have information about the type of model that you have with a model number or name as **e12**, **e16**, or **e20**. You must be certain that you are following the instruction(s) and/or information pertaining to the model that you own.

### Important

Please take the time to thoroughly review and adhere to the instructions provided in this manual (as well as any additional materials supplied with the bike) before embarking on your ride. Keep this manual for future reference. If the bike was acquired for a child, it is the consumer's responsibility to ensure that the bike has been correctly assembled and that the user has received appropriate training and guidance on how to use the bike.

This manual is to provide assistance and is not meant to serve as an exhaustive guide encompassing all facets of electric balance bike maintenance and repair. The electric balance bike must be assembled and maintained correctly to ensure safe riding.

The user or consumer accepts full responsibility for any potential personal injuries, electric balance bike or system malfunction, as well as any other losses, damages to themselves, others, or property that may occur as a result of using the electric balance bike.

 **WARNING:** Failure to follow instructions **MAY RESULT IN DEATH** or **SERIOUS INJURY**. Your personal safety, and the safety of those around you, is extremely important. Operating Xtreme balance bikes safely is an important responsibility. Orion has provided operating procedures and other information on labels and in this manual to help you make informed decisions about safety. This information will alert you to some potential hazards that could harm you or others. Orion cannot foresee every potential situation that may result in harm or fatality during operation or maintenance. Hence, it is crucial for the consumer and end user to exercise their discretion and make informed decisions.

## A FEW WORDS ABOUT SAFETY

Your safety, and the safety of others, is very important and operating this electric balance bike safely is an important responsibility.

 **DANGER!:** You could be **SERIOUSLY HURT** if you don't follow instructions.

 **CAUTION!:** You could be **HURT** if you don't follow instructions.



Always use an approved helmet & protective gear



Never use on public roads



Never carry passengers or cargo

This section presents some of the most important information and recommendations to help you ride your electric balance bike safely.

Please take a few moments to read these pages. This section also includes a special message for parents and location information for the safety labels on your electric balance bike.

# PRE-RIDE SAFETY

**⚠ CAUTION:** For your safety you must carefully read this manual and follow its instructions. Your electric balance bike may come with additional instruction sheets that cover features unique to your bike. Please ensure that you read and become familiar with their contents and retain them with this manual for future reference. Remember electric balance bikes, in most areas, are subject to the same laws, rules, and regulations as motor vehicles.

Always wear a Certified helmet when riding your bike. Learn and follow local and state traffic use laws.

Any major service or adjustments on your bike not covered in this manual should be carried out by an authorized Orion dealer. If you wish to make adjustments yourself, this manual contains important tips on how to do it.

**⚠ CAUTION:** Any adjustments you make are entirely at your own risk. Do NOT use your bike for freestyle and stunt riding, jumping or competitive events. Do not ride your bike when any part is damaged or not working properly. You must, for your safety and the safety of other users, consult an authorized Orion dealer for any questions on repairs or maintenance.

**⚠ WARNING:** Like all mechanical components, bicycles are susceptible to wear and high stresses. Various materials and components respond differently to wear and stress fatigue. As your bicycle ages, it is advisable to conduct more frequent inspections for deformed, cracked, bent, or loose components. These conditions could result in sudden failure, posing a risk of injury to the rider. If any part is cracked or broken, DO NOT RIDE until repairs have been made.

## BEFORE RIDING

1. **⚠ WARNING-ON AND OFF -ROAD CONDITIONS:** The condition of the riding surface significantly impacts your safety. When the surface is wet or contains sand, leaves, small rocks, or other loose debris, exercise extra caution. Gradually reduce the speed of the bicycle and ride with heightened awareness. It will require a longer time and greater distance to come to a stop. Apply the brakes earlier and with gentler force. Always initiate the rear brake first, allowing sufficient time and distance for it to take effect. Subsequently, cautiously engage the front brake to maintain control of the bicycle. Hasty application of the front brake may result in a front pitch-over or a fall. Practice proper brake usage under controlled conditions until you become adept at braking effectively under all road conditions.
2. **NOTICE:** State and federal regulations mandate the installation of a complete set of reflectors on bicycles. Certain state and local laws may additionally stipulate the inclusion of a warning device, such as a horn or bell, and in most cases, a light. It is crucial to note that the manufacturer and many legal authorities neither approve nor encourage riding at night. Vision is significantly limited during dawn, dusk, and nighttime for bike riders, motorists, and bystanders. If riding at night is unavoidable, exercise extra precautions by using front and rear lights, wearing flashers on your arms, donning light-colored clothing, and planning your route to traverse well-lit areas while avoiding heavy traffic zones.
3. **NOTE:** It is essential to always wear protective shoes while riding a bicycle and avoid loose-

fitting clothes. To prevent pants or other loose clothing from getting entangled in the chain wheel, consider wearing a cuff band or trouser clip. For enhanced safety, it is recommended to wear protective long sleeves and pants, gloves, eye protection, and a DOT/CPSC approved helmet, along with elbow and knee pads. Helmet usage is mandated by law in many states and is consistently advisable for your overall safety.

4. **⚠ CAUTION:** WET WEATHER WARNING: Regularly inspect your brakes as the ability to stop is crucial for your safety. Exercise caution in wet weather, as roads become slippery, and sharp turns should be avoided. Allow additional distance for stopping, as brakes tend to be less efficient when wet. Be mindful of leaves, loose gravel, and other debris on the road, as they can also extend stopping distances. If possible, refrain from riding in wet weather, as impaired vision and control increase the risk of accidents and injury.
5. **⚠ CAUTION:** The most effective defense for an electric balance bike rider against accidents is to stay vigilant and aware of road conditions and traffic in the vicinity. Avoid wearing anything that impedes your vision or hearing.
6. When riding, **ALWAYS WEAR A APPROVED BIKE HELMET.** It may save your life.
7. Adhere to all traffic regulations. Many traffic regulations are applicable to both bike riders and automobile operators. Comply with all state and local traffic regulations, signs, and signals. Consult your local police station for information on bicycle licensing and inspection, as well as the legal areas for riding your bike.
8. **ON AND OFF ROAD OPERATION:** Steer clear of various road hazards, including drain grates, potholes, ruts, soft road edges, gravel, wet leaves, uneven pavement, railroad crossings, manhole covers, curbs, speed bumps, puddles, and debris, as they can impact your riding and potentially lead to a loss of control. If you find yourself riding in such areas, adjust your speed and braking technique accordingly.
9. If any components become loose while riding, **(STOP IMMEDIATELY!!)** and tighten, or bring to a Authorized Orion Dealer for repair.

**TO PREVENT INJURY, IT IS IMPERATIVE THAT THIS PRODUCT BE THOROUGHLY ASSEMBLED BEFORE USE. WE STRONGLY ADVISE REVIEWING THE COMPLETE ASSEMBLY GUIDE AND CONDUCTING THE CHECKS OUTLINED IN THE OWNER'S MANUAL BEFORE RIDING.**

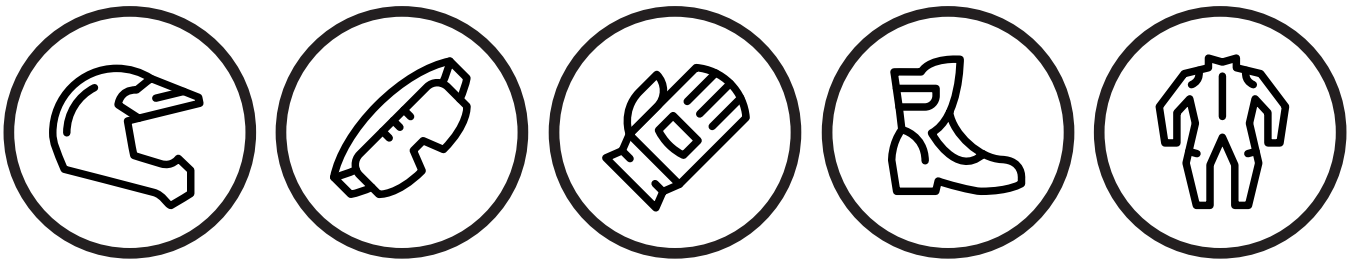
A brief moment spent before each ride can significantly enhance your safety and the overall enjoyment of your riding experience. Prior to every ride, cultivate the habit of performing the following safety checks:

- Stand in front of the electric balance bike facing rearward, securing the front wheel between your legs. Attempt to twist the handlebars to ensure they remain stationary. Lift the bike by pulling up on the handlebars; there should be no movement.
- Push the front wheel from side to side, ensuring it feels secure and does not wobble. Lift the front wheel by the handlebars and strike it downward with the heel of your hand to confirm a secure attachment. Spin the front wheel to ensure it does not wobble or contact the fork or brake pads.

- Attempt to lift, push down, and twist the seat to confirm it is securely tightened.
- Inspect the connection of the foot pegs to the frame, ensuring no screw threads are visible. The foot peg should feel firm and parallel to the ground.
- Apply the brake(s) and ensure they feel firm to the touch. Spin the wheel(s) and apply the brakes to verify their effectiveness in stopping the wheel(s).
- Confirm that accessories (if equipped) are securely attached and won't contact any moving parts. Ensure all reflectors are in position and intact.
- Now, don your **APPROVED SAFETY HELMET** and relish your ride. Your safety is well worth just a minute. Additionally, be sure to read and adhere to the warnings and instructions outlined in this manual.

## SAFETY EQUIPMENT

Orion Moto promotes the use of safety equipment during the use of your electric balance bike; the following list is an advisory guideline of the equipment that should be obtained before using your electric balance bike for the first time, and to be used for every ride regardless of experience and skill level.



**HELMET:** A helmet is the most important piece of protective equipment and should be worn at all times the electric balance bike is being ridden. Ensure the helmet fits the operator snugly, is securely fastened and provides good, all-round visibility. A poorly-fitting or loose helmet can become dislodged in an incident and then offer no protection at all.

**EYE PROTECTION:** Recommended to prevent eye injuries and prevent branches, bugs, dust or sand hitting your face and distracting you. Sunglasses are unlikely to provide adequate physical protection.

**GLOVES:** Protective gloves should be worn that do not prevent the rider from operating the brake levers or controls.

**FOOTWEAR:** Protective footwear is recommended

**CLOTHING:** Arms and legs should be covered to reduce abrasions to the body, even in hot weather. Protective long sleeves and pants should be worn when riding.



# MESSAGE TO RIDERS

Your safety is of utmost importance to Orion Moto. Therefore, we strongly encourage you to read this message before using this electric balance bike. Making informed decisions regarding if, when, and how you ride this electric balance bike can significantly contribute to accident prevention.

## THINGS TO CONSIDER

The initial decision you'll need to consider is whether you are prepared to ride. Riding readiness varies greatly from person to person, and age and size are not the sole determining factors.

### PHYSICAL ABILITY

An essential factor to consider is that riders must be of sufficient size to support the electric balance bike, mount it, and sit comfortably on the seat with both feet touching the ground. Additionally, they should be able to reach and operate the brakes, throttle, and all other controls easily.

If you determine that you are ready to safely operate this electric balance bike, ensure that you thoroughly read and comprehend the owner's manual before riding. Also, make certain you have a helmet and other suitable riding equipment, and always wear it while operating the electric balance bike or when seated on it.

### SAFE AND RESPONSIBLE RIDING

When you put safety first, you can enjoy more peace of mind, and you can enjoy more hours of safe off-road riding.

### LOADING, ACCESSORIES & MODIFICATIONS

Orion Moto has specifically designed the electric balance bike for solo riders. It is not intended to carry a passenger or cargo. The presence of a passenger or cargo may impede your ability to maneuver and maintain balance and control of the electric balance bike.

Moreover, exceeding weight limits or carrying an unbalanced load can significantly impact the bike's handling, braking, and stability. Adding accessories or making modifications that alter the original design and performance of this electric balance bike may compromise its safety. Additionally, the weight of any accessories will reduce the maximum load the electric balance bike can carry.

It is strongly recommended that you refrain from carrying any cargo on this electric balance bike to ensure optimal safety and performance.

### ACCESSORIES

It is highly recommended that you exclusively use Orion Moto Genuine Parts and Accessories that have been explicitly designed, approved, and tested for your electric balance bike. Given that Orion Moto cannot test all other accessories, you bear personal responsibility for the proper selection, installation, and use of non-Orion Moto accessories. Seek assistance from your dealer for guidance and consistently adhere to this guideline:





Make sure the accessory:

- Does not reduce ground clearance and lean angle
- Limit steering travel
- Alter your riding position
- Interfere with operating any controls

## **MODIFICATIONS**

We strongly advise you not to remove any original equipment or modify your electric balance bike in any way that would change its design or operation. Such changes could seriously impair your electric balance bike handling, stability, and braking, making it unsafe to ride.

We also advise you not to make any modifications or remove any equipment that would make the electric balance bike illegal in your area.

# COMPONENT LOCATION



- 1. Frame
- 2. Handlebars
- 3. Brake levers
- 4. Throttle
- 5. Stem
- 6. Head clamp

- 7. Front Forks
- 8. Front Axle
- 9. Rear Axle
- 10. Hub motor
- 11. Foot pegs

- 12. Head light
- 13. Seat clamp
- 14. Charging port
- 15. Brake Caliper
- 16. Brake Disc

- 17. Kickstand
- 18. Control Panel
- 19. Seat
- 20. Front Fork Lock
- 21. Tail Light

# BIKE ASSEMBLY

## TOOL KIT

The included tool kit includes the following:

### 1. ALLEN WRENCHES

- 2.5mm
- 4mm
- 6mm
- 8mm

### 2. SOCKETS

- 14mm
- 16mm
- 19mm

### 3. FRONT WHEEL AXLE

## REPLACEMENT PARTS

For the complete selection of replacement parts, please contact your local authorized dealer.

<https://orionmoto.com/dealer-locator/>

## DO NOT DISASSEMBLE, MODIFY OR REPLACE ELECTRICAL PARTS

If you need to change any parts, please consult one of our authorized dealers or contact customer service for additional help.

Before commencing any repair or maintenance, ensure the following steps are taken:

1. Turn the power **OFF**.
2. Allow the bike to cool down for a sufficient period (up to 30 minutes)
3. Secure the bike for repair or maintenance

In case of uncertainty about any repair or maintenance, please contact Orion Moto Customer Service at (817) 350-4520.



### WARNING

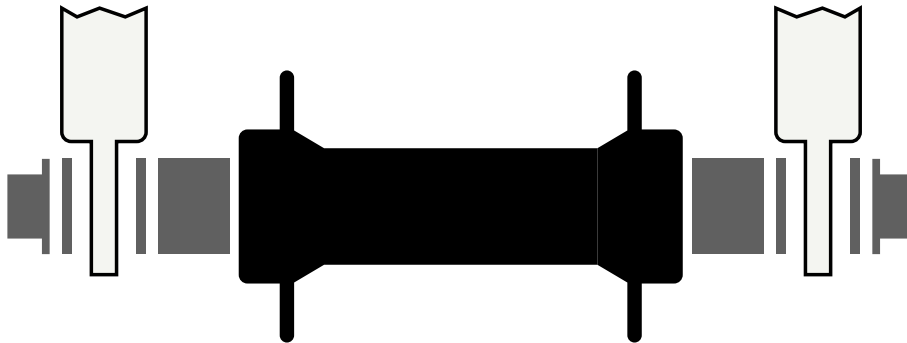
Any adjustments you choose to make are your sole responsibility. Please refrain from utilizing your bike for freestyle, stunt riding, jumping, or competitive events. Do not ride your bike if any component is damaged or malfunctioning.

## FRONT WHEEL INSTALLATION

The front axle is located in the **TOOL KIT**. The washers and spacers are already arranged in the correct order. Visual references are provided below.

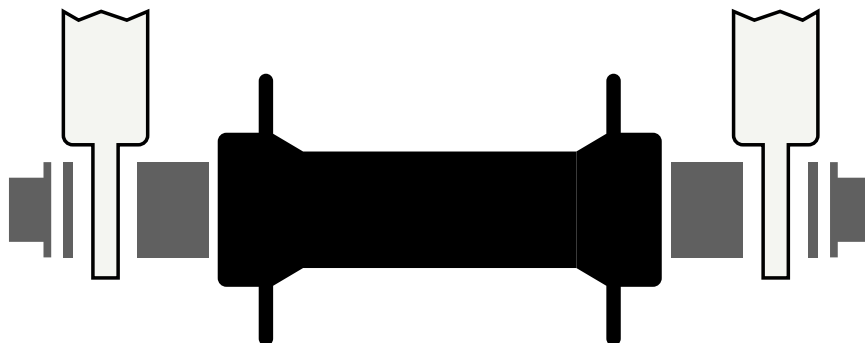
### E12 XTREME

Nut | Washer | Fork | Washer | Spacer (both sides).



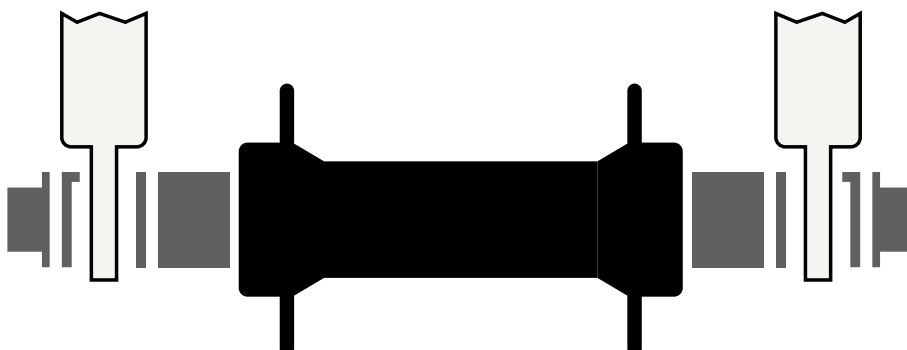
### E16 XTREME

Nut | Washer | Fork | Spacer (both sides).



### E20 XTREME

Nut | Hub Lock Washer | Fork | Washer | Spacer (both sides).



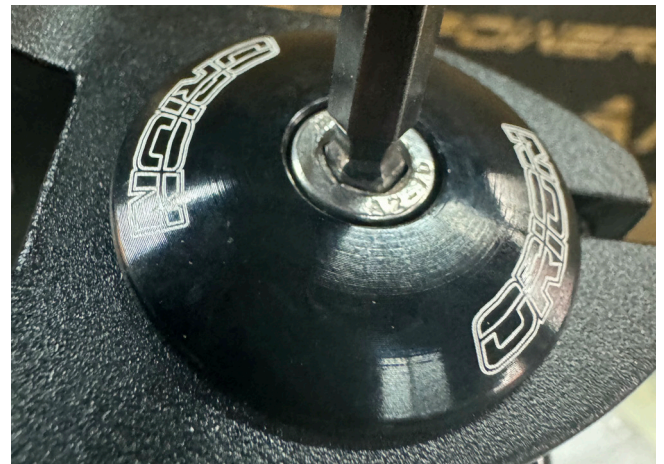
# HANDLEBAR INSTALLATION

## STEERING STEM

1. Loosen the **M4 SCREWS** that secure the lower handlebar clamp onto the steering stem.
2. Rotate the lower clamp approximately 180 degrees, ensuring it faces forward and is evenly balanced between the fork.



3. Securely tighten the **M4 SCREWS**.
4. Remove the center plastic piece covering the **M5 SCREW** in the center of the steering stem.
5. Tighten the **M5 SCREW** securely, reinstall plastic cap.



6. Once the bike is fully assembled, check to ensure that the handlebars and front wheel are even. Verify that there is zero play in the handlebars, front wheel, fork, and steering stem.

## HANDLEBARS

1. Use the **4MM HEX WRENCH** provided to remove the bolts from the handlebar clamp.
2. Once the clamp is open, place the lower crossbar of the handlebar in the groove of the top crown.
3. Loosely tighten the handlebar clamp with 4mm hex wrench and adjust the handlebar to a 90 degree angle aligning with the forks.
4. Cross-tighten the handlebar clamp from corner to corner making sure the bolts are tight and handlebar does not move.
5. There are 4 screws to assemble or disassemble the handlebar. Be sure to rotate the handlebar so the on/off switch is easy to reach.



## FOOT PEG INSTALLATION

### PLASTIC FOOT PEG INSTALLATION:

1. The plastic foot pegs are versatile and can be used on either side of the bike.
2. Hold the foot peg in the correct position so that the mounting hole on the foot peg is aligned with the threaded hole on the frame.
3. Insert the provided **M6/1.25X25MM** screw into the mounting hole. Utilize the provided **6MM ALLEN WRENCH** to initiate tightening the screw. Ensure that the screw is threading smoothly and avoid tightening if it feels cross-threaded.
4. Complete the tightening process and verify that the foot peg is correctly aligned.
5. Periodically check the tightness of the screws holding the foot pegs on.

## INSTRUCTIONS FOR ASSEMBLING FOLDABLE METAL FOOT PEGS:

### ⚠ CAUTION: USE APPROVED SAFETY GLASSES

The folding metal foot pegs are side specific. The mounting position for the return spring is in the down position for each foot peg. See picture.

1. Gather the provided **M6 SCREW**, mounting bracket, grooved washer, and spacer, and assemble them in the following order.
2. Hand-thread the **M6 SCREW** into the threaded hole on the side of the bike. Ensure smooth threading and avoid tightening if it feels cross-threaded. Use the provided M6 Allen wrench to tighten the screw.
3. Before fully tightening the screw, ensure that the bracket is correctly aligned, as depicted in the accompanying picture.



4. Complete the tightening process.
5. Take the provided spring and position it on the foot peg, ensuring the larger part of the spring covers the inner part of the foot peg.
6. Press the smaller opening of the spring onto the back part of the mounting bracket and push the foot peg into place.





7. While holding the foot peg in place, push the mounting pin into position from the top, ensuring it passes through both sides of the mounting bracket.
8. Insert the safety cotter pin and bend it to secure it in place.
9. Verify that the foot peg folds backward under pressure and returns to the forward position on its own.

## SEAT ADJUSTMENT

1. Pull quick-release lever to loosen the clamp.
2. Raise/Lower saddle to desired height.
3. Tighten quick-release, adjust nut as needed.



## HEADLIGHT INSTALLATION

1. Connect the headlight quick connect to the main wire harness.



2. Put the washer on the long **M5 screw**, insert it into the headlight mounting bracket and push it through the hole in the fork above the front tire.
3. Put the **10mm** nut on the screw at the back of the fork and tighten.
4. Adjust headlight angle by slightly pushing forward and down or backwards and down until it is in its desired location.
5. Make sure the light is working

## BRAKE LIGHT INSTALLATION

1. Connect the tail light quick connect found near the rear of the bike on the right side near the motor.
2. Align the **M4 SCREWS** and washers with the holes on the rear right side of the frame.
3. Tighten the screws down to secure the brake light.
4. Zip tie the brake light cable so that it is secure to the frame and out of the way of the rear wheel.



## TEST BRAKES

1. Squeeze the brake lever and hold it.
2. Attempt to push the bike forward.
3. If the brake is adjusted correctly, the rear wheel should not spin.
4. Check brake light to ensure that it is working properly.

# BEFORE YOU RIDE

## ADJUST BRAKE

To adjust the brake cable, follow these steps:

1. Twist the brake lever adjuster in or out, making 1/4 to 1/2 turn adjustments at a time until the desired brake adjustment is achieved. *If the brake still requires further adjustment, proceed to step 2.*
2. Determine whether the brake cable is loose or if the brake rotor is dragging on the brake pad: Loosen the brake hub's barrel adjuster.
3. Adjust the brake hub adjuster in or out until the desired brake adjustment is achieved. Lock the brake hub barrel adjuster in place.
4. Perform a final adjustment of the tension in the brake cable using the brake lever barrel adjuster. *Repeat the **TEST BRAKE** section above to ensure proper adjustment.*

## PRE-RIDE CHECK LIST

### 5. WHEELS

- Check the condition of both tires and ensure the tread is in good condition, and free from punctures, cracks, and deformations.
- Maintain proper tire pressure. Orion Moto recommends a range of 25-35 PSI dependent on the weight of the rider and the type of terrain.
- Ensure the wheels are aligned correctly and true.
- Ensure the wheels are properly seated in the dropouts and that the wheel nuts are tightly secured.

### 6. BATTERY

- Familiarize yourself with battery charging and storage for best practices.

### 7. BRAKE SYSTEM

- Pull the Brake Lever; You should sense a distinct pressure point, and the levers should remain unable to make contact with the handle.

### 8. CABLES

- Look for any loose cables.
- There should be no strain on any wiring near the fork when turning the handlebars from left to right.

### 9. KICKSTAND

- Make sure that the kickstand is tightly secured and not rubbing against the ground or tires.

# OPERATING BIKE

## WALK MODE - E12

Parents can help teach kids how the motor feels by using **WALK MODE** (e12 only).

1. Set gear position to 0 in order to prevent accidental acceleration. The parent can walk alongside the bike and press and hold **(-) MINUS**.
2. This will engage the motor for as long as the button is pressed in.
3. It will have a 1-2 sec delay bike will then move at a top speed 2.5mph.



## STRIDE MODE

**STRIDE MODE** allows riders to set the bike in motion using their feet while gripping the accelerator. Once the wheels have completed **2-3 FULL ROTATIONS**, the motor seamlessly takes control, allowing the rider to shift their feet onto the foot pegs. This mode helps reduce the feeling of abrupt acceleration, which can catch newer or younger riders off guard. To enable/disable Stride mode:

1. Turn on bike.
2. **HOLD (+/-)** simultaneously until **P01** shows on the display. (Bike will automatically leave the program mode after 4 seconds of no use)
3. Press the **POWER** button until the display shows **P09**. Press the **(-) MINUS** button so the display reads 00000.
4. Wait 4 seconds until the bike exits **P MODE**, the bike is now in ride mode.
  - Stride mode: 00001
  - Ride mode: 00000
5. Select the desired gear to operate.

Once your child has become skilled with the bike and you are confident in their riding ability, you can begin transitioning between modes. For a smooth acceleration in modes 1, 2, and 3, there is a 1.5-second delay implemented in the **STANDARD PROGRAM**.

## RACE MODE

### INSTANT THROTTLE RESPONSE

In **RACE MODE**, the twist throttle delay is minimized to just 0.1 seconds, resulting in an instantaneous throttle response. Therefore, it's crucial to ensure that your child has ample open space in front of them to ride safely and avoid any potential collisions. To enable/disable **RACE MODE** complete the following:

1. Make sure the bike is turned OFF.
2. Pull in the front left brake and keep it engaged throughout the entire process.
3. Power on the bike.
4. Turn the throttle five times rapidly.
5. Release the brake.
6. Select the desired gear.
7. Race mode is now ready.

It is advisable for riders to gradually acclimate themselves to each of the gears/speed settings, starting from walk mode (e12 only) and progressing through gears 1, 2, 3, and race mode. It is not advisable to skip gears or advance a rider to higher gears unless they are experienced and prepared to do so.

## PROGRAM MODE

1. Turn on bike.
2. Simultaneously **HOLD (+/-)**. Press **POWER** to cycle through menu options. **PRESS (+/-)** to toggle options on or off.
  - P1 - Backlight brightness: 1 Lowest setting, 3 Highest setting
  - P2 - Change between KPH and MPH
  - P4 - Auto shut down  
This feature is designed to turn off the bike and preserve battery if it is left on. It can be configured from 0=No shut down up to 60 minutes before turning off the bike. The bike will not automatically shut off while being used.
  - P9 - Change between stride mode and ride mode
3. By holding the **POWER** button and **(+) PLUS**, you can toggle between Current, Max, and average speed.

*NOTE: Modes P3, P5-P8 are fixed for operating features of the bikes and should not be changed.*

FOR A COMPLETE LIST OF SPEEDS SEE THE **SPECIFICATIONS SECTION** (PAGE 22).

## CHARGING

Check the battery capacity while the power is on.

We suggest charging the battery either when the red light comes on or after riding.

1. Plug the charger into the AC outlet before plugging into battery port on the bike.
2. Plug the charger into the battery port on the Xtreme bike.
3. Make sure the charger is firmly connected to the port.
  - Ensure that the bike is charged in a dry and cool environment.
4. Charger will be turned off automatically after the battery is fully charged.
  - Charging can take 2-4 hours.
5. Once the battery is fully charged, disconnect the charger from the bike, then unplug the charger from the outlet.



### WARNING

**NEVER** store the charger outdoors

**NEVER** set the output cable, power cord and charger on a wet surface

**NEVER** use the charger with defective power cord or damaged wires

**NEVER** attempt to plug in the charger using wet hands or in an extremely humid environment

**NEVER** place the charger directly under the sun

**NEVER** use the charger in inflammable and explosive areas.

**ALWAYS** unplug charger from AC outlet before attempting and maintenance or cleaning.

## PROPER CLEANING PROCEDURES

Follow these guidelines when cleaning your electric balance bike:

1. Turn off the power to the balance bike and unplug it from the charger.
2. Begin by rinsing your electric balance bike thoroughly with cool water to remove loose dirt.
3. Prepare a bucket of cool water and add a mild, neutral detergent such as dish washing liquid or a cleaner designed for washing.
4. Use a sponge or a soft towel to clean your electric balance bike, paying special attention to any stubborn grime. If needed, you can use a mild cleaner or degreaser to tackle persistent dirt.
5. After cleaning, make sure to thoroughly rinse your electric balance bike with clean water to eliminate any cleaning residues.
6. Dry your electric balance bike with a chamois or a soft towel. Avoid letting it air dry, as this may result in dullness and water spots. While drying, inspect the bike for any chips or scratches.
7. As a safety precaution, take a slow ride and apply the brakes multiple times. This aids in drying the brakes and restoring normal braking performance.



### WARNING

High-pressure washers, like the ones available at coin-operated car washes, have the potential to harm specific components of your electric balance bike. Please be aware that high-pressure water or air may cause damage to particular bike components. Exercise caution when cleaning. Avoid directly spraying all electrical components of the bike. Dry bike off immediately.

# TROUBLESHOOTING

## POWER SWITCH DOESN'T WORK OR LIGHT FLICKERS WHEN PUSHING THE SWITCH.

POSSIBLE CAUSE	SOLUTION
Faulty switch or poor connection	Power switch is not good
Battery not fully charged	Verify the battery is fully charged
Wire harness connection, faulty switch, or bad controller	Follow the throttle wire down to where it enters the frame. Remove the rubber plug and gently pull the wire to access the connector. Unplug the connector and check for any corrosion on the pins. If corrosion is present, clean the pins and then reconnect the connector. Unplug the connector. Connect a voltmeter with an ohm function to the red and blue wires that go to the switch. Depress the switch, and check the meter. If the meter goes to 0, the charge switch is faulty. If the meter does not go to 0, then you have a bad controller.

## BIKE STOPPED WORKING WHILE RIDING IT

POSSIBLE CAUSE	SOLUTION
Loose battery or wire connection(s)	Recharge or replace battery
Faulty power switch	Contact your local Orion Moto authorized dealer/service center for diagnosis and repair
Faulty throttle	Do not exceed the weight limit of 120lb, ride on flat terrain
Motor or electrical system damage	Verify the battery is fully charged
Rider weight/ terrain too steep	Replace battery

## SHORT RUN TIME/RUNS SLOW

POSSIBLE CAUSE	SOLUTION
Battery not fully charged	Verify the battery is fully charged
Old or damaged battery	Replace battery



# SPECIFICATIONS

	<b>E12 EXTREME</b>	<b>E16 EXTREME</b>	<b>E20 EXTREME</b>
POWER	250W BRUSHLESS HUB MOTOR	350W BRUSHLESS HUB MOTOR	500W BRUSHLESS HUB MOTOR
BATTERY	REMOVABLE 24V 8AH LIFEPO4 BATTERY (UL TESTED/APPROVED)	REMOVABLE 36V 8AH LIFEPO4 BATTERY (UL TESTED/APPROVED)	REMOVABLE 48V 8AH LIFEPO4 BATTERY (UL TESTED/APPROVED)
RUN TIME	4 HOURS (RUN TIMES VARY ON RIDER SIZE & TERRAIN)	4 HOURS (RUN TIMES VARY ON RIDER SIZE & TERRAIN)	4 HOURS (RUN TIMES VARY ON RIDER SIZE & TERRAIN)
CHARGE TIME	120+ MINUTES	120+ MINUTES	120+ MINUTES
WEIGHT	30LBS	33LBS	45LBS
WHEEL BASE	28"	33-1/2"	40-1/2"
TOTAL LENGTH	41-1/4"	50"	60-1/2"
STEERING TUBE HEIGHT	20-1/4"	24-1/4"	29-1/2"
TOP OF SEAT TUBE INSERT	12-7/8"	15-1/4"	19-1/4"
SEAT HEIGHT	16" - 19-1/2"	19" - 23-1/2"	23-1/4" - 30-1/4"
GROUND TO TOP OF GRIP	25-5/8"	30-1/2"	36-1/2"
TOP FRAME TUBE LENGTH	14"	17"	21"
1ST GEAR SPEED	5MPH	7.5MPH	9.5MPH
2ND GEAR SPEED	7.5MPH	13MPH	18MPH
3RD GEAR SPEED	13MPH	24.5MPH	24.5MPH
RACE MODE SPEED	17 MPH	28 MPH	28MPH

# WARRANTY

PRODUCTS COVERED BY THIS WARRANTY:	LENGTH OF WARRANTY: <sup>(1)</sup> (FROM DATE OF ORIGINAL RETAIL PURCHASE)	
	PRIVATE USE	COMMERCIAL   RENTAL   COMPETITION
<b>Electric Balance Bikes – e12   e16   e20</b>		
Frame and Forks	12 Months	No Warranty
Non-Electrical Components	12 Months	No Warranty
Electrical Components	90 Days	No Warranty

This warranty is limited to the following Orion products when distributed through our dealer network in the United States. The following warranty applies to products manufactured on or after January 1, 2023

## Qualify for This Warranty

The product must be purchased in the United States, from an Orion dealer. This warranty applies to the first retail purchaser and each subsequent owner during the applicable warranty period, unless noted otherwise.

## What Will Be Repaired or Replaced Under Warranty

Orion Moto through its Dealers will repair or replace, at its option, any part that is proven to be defective in material or workmanship under normal use during the applicable warranty period. Warranty repairs and replacements will be made without charge for parts for the specified warranty period. Anything replaced under warranty becomes the property of Orion Moto. All parts replaced under the warranty will be considered as part of the original product, and any warranty on those parts will expire coincident with the original product warranty.

## To Obtain Warranty Service

You must, at your expense, take the product, and proof of purchase to an authorized Orion Moto dealer who is authorized to sell and/or service our product, during the dealer's normal business hours. To locate a dealer near you, visit <https://orionmoto.com> and click on Find a Dealer. If you are unable to obtain warranty service or are dissatisfied with the warranty service you receive, contact the owner of the dealership involved; normally this will resolve the problem.

## Warranty Limitations

Damage caused by the following is not covered under this warranty. Unavoidable natural disasters, fire, collision, theft, improper storage or transportation, negligence of the periodic maintenance, improper use, racing, jumping, improper repair, adjustment or maintenance, repairs and adjustments not done by the Distributor dealers, use of non-genuine parts, using the product for commercial use, unauthorized modification made to the product, Improper charger or electrical device (extension cords or power strips) or electrical outlets not built to code, or installing performance parts or components on the vehicle that change the original engineering. In addition, this warranty does not cover rubber or plastic parts unless found defective upon assembly by the dealer. The Factory Limited Warranty does not cover damage caused by, or resulting from, any other reason besides a manufacturer's defect.

## DISCLAIMER & CONTACT INFORMATION

Orion Moto assumes no liability under any circumstance for incidental or consequential loss, damage, or injury, whether direct or indirect, resulting from the use of this product, including any malfunctions or defects.

Adult guardians assume all responsibilities associated with the use of these products by minors. This product is not suitable for handicapped individuals or those with limited mental or physical capabilities. Customers understand that the use of these products can carry the risk of injury or death to themselves or others. To minimize such risks, we strongly recommend the use of safety equipment, such as approved helmets and knee pads.

The consumer absolves our company, its agents, and affiliates from any liability arising from or related to the use or ownership of any product. The consumer fully accepts responsibility and releases the Orion Moto from any personal injuries, fatal injuries, losses, costs, or damages incurred as a result of operating this item.

The consumer is solely responsible when permitting other riders to use this item and assumes all responsibility in the event of damages, injuries, or fatalities. The consumer is responsible for understanding and complying with all local and state laws regarding the operation of this product. Submission of payment by the consumer serves as an agreement to release the seller from any and all responsibilities for the item as stated above.

By making this purchase, you acknowledge that you have read, understood, and agreed to the terms and conditions of this Agreement. You also represent that you are of legal age (18 years or older) to enter into this Agreement and be bound by its terms.

While all care is taken, any errors and omissions in the item details are unintentional. Therefore, Orion Moto cannot be held liable for any errors or omissions in these advertisements.

### **ORION**

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