

OWNER'S MANUAL



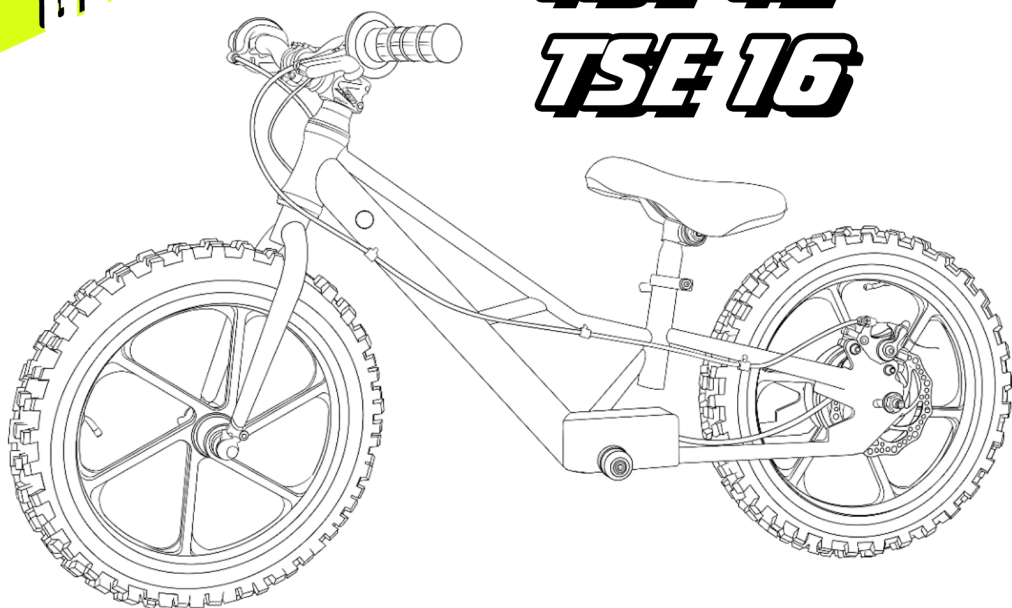
Read and understand this entire manual before riding. Thumpstar Motorbikes strongly recommend having this machine assembled by a skilled mechanic. Assembly should include, but is not limited to checking over the entire bike including the engine.

GENUINE THUMPSTAR

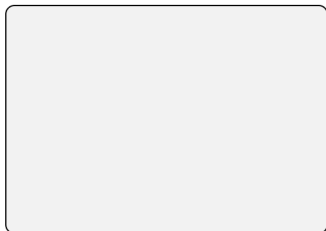
**THUMPSTAR
ELECTRIC BALANCER**

TSE 12

TSE 16



VIN & ENGINE NUMBER



NOTE:

Manual illustrations are for demonstration purposes only. Illustrations may not reflect exact appearance of actual product. Specifications subjected to change without notice.

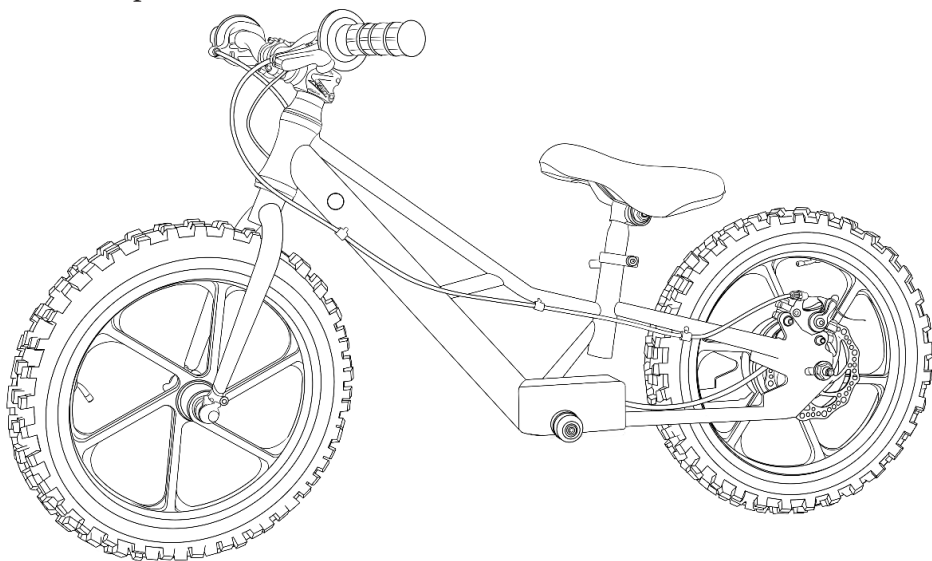
Owner's Manual

THUMPSTAR BALANCER, FOR AGES 3-12

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 THUMPSTAR balancer.

For any additional information, please visit:
www.ThumpstarUSA.com



NOTE: Manual illustrations are for demonstration purposes only. Illustrations may not reflect the exact appearance of the actual product. Specifications are subject to change without notice. Please have your product Serial Number (S/N) and a copy of your receipt before contacting us for warranty assistance and/or replacement parts.

⚠ WARNING: Riding a TSE balancer does present potential risks and caution is required. Like any riding product, a TSE balancer has inherent hazards associated with its use (for example, falling off or riding it into a hazardous situation). When riding the TSE balancer, it is possible to lose control or otherwise get into dangerous situations. Both children and the adults responsible for supervising them, must recognize that if such hazards occur, a rider can be seriously injured or die even when using safety equipment and other precautions. **RIDE AT YOUR OWN RISK.**

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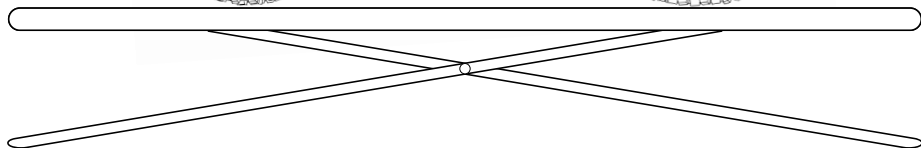
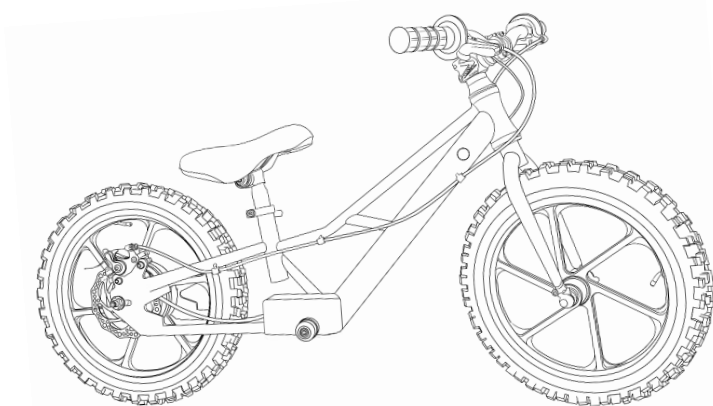


These pages give an overview of the contents of your owner’s manual

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Quick Reference

Model Version	TSE 12 VR:1	TSE 16 VR:1
Grips	Universal MX	
Handlebars	Fat Bar 1 1/8 Clamp x 540mm	
Footpeg	Thumpstar P/N 3933	
Rear Brake Cable	Thumpstar P/N 7822	
Tires	TSE 12 - 12"x2.25	TSE 16 - 16"x2.125



Introduction

Congratulations on the purchase of your new TSE Balancer! With proper assembly and maintenance, it will offer you years of enjoyable riding!

IMPORTANT:

Carefully read and follow this manual (and any other materials included with this bike) before riding. Please retain this manual for future use. If this bike was purchased for a child, it is the responsibility of the purchaser to verify the bike has been properly assembled, and that the user has been properly trained and instructed in use of the bike.

This manual is provided to assist you and is not intended to be a comprehensive manual covering all aspects of maintaining and repairing your bicycle. The bicycle you have purchased is a complex piece of equipment that must be properly assembled and maintained in order to be ridden safely. You must have it assembled and maintained by one of our authorized dealers.

The user or consumer assumes all risk of personal injuries, damage, or failure of the bicycle or system and all other losses or damages to themselves and others and to any property arising as a result of using the bicycle. (need to ensure that you hold no liability for injury to the user or damage to property)

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.

NOTE: YOUR INSURANCE POLICIES MAY NOT PROVIDE COVERAGE FOR ACCIDENTS INVOLVING THE USE OF THIS BICYCLE. TO DETERMINE IF COVERAGE IS PROVIDED YOU SHOULD CONTACT YOUR INSURANCE COMPANY OR AGENT.

Introduction

 DANGER: Failure to properly assemble and maintain your bicycle could result in serious injury or death to the rider.

This manual contains important safety, performance and service information. The purpose of this Owner's Manual is to help you use your bike safely in the manner it is intended and allow you to enjoy the benefits it offers for many years to come. Please read it before you take the first ride on your new bicycle, and keep it for reference. If you have any questions or do not understand something, take responsibility for your safety and contact Thumpstar customer service at **330-298-5107** or **support@thumpstarusa.com**

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

A Few Words About Safety

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



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



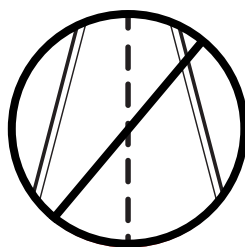
You could be **HURT** if you don't follow instructions.

WARNING



Always use an approved helmet & protective gear

Never use on public roads



Never carry passengers

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

Electric Balancer Pre-Riding Safety

⚠ CAUTION: For your safety you must carefully read this manual and follow its instructions. Your bicycle 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 bicycles, in most areas, are subject to the same laws, rules, and regulations as motor vehicles.

Always wear a CPSC approved 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 a professional bicycle mechanic. 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 a professional bicycle mechanic for any questions on repairs or maintenance.

⚠ WARNING: As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components react to wear or stress fatigue in different ways. As your bicycle ages, you should inspect it more frequently to look for deformed, cracked, bent, or loose components. Such conditions may lead to sudden failure. This may possibly cause injuries to the rider. If something is cracked or broken, do not ride until repairs have been made.

Electric Balancer Pre-Riding Safety

BEFORE RIDING

1. **⚠ WARNING - ON AND OFF ROAD CONDITIONS:** The condition of the riding surface is very important to your safety. If the surface is wet, or has sand, leaves, small rocks or other loose debris on the surface where you plan to ride, carefully decrease the speed of the bicycle and ride with extra caution. It will take a longer time and more distance to stop. Apply the brakes sooner and with less force. Always apply the rear brake first allowing time and distance for it to take effect. Then follow by cautiously applying the front brake, in order to maintain control of the bicycle. Rapid front brake application first may cause a front pitch over or fall. Learn to use your brakes properly under controlled conditions until you learn proper braking under all road conditions.
2. **NOTICE:** State and federal regulations require a full set of reflectors. Some state and local laws may require that your bike be equipped with a warning device, such as a horn or bell and most states require a light. The manufacturer and many legal authorities DO NOT approve or encourage riding at night. Vision is quite limited at dawn, dusk and at night for bike riders, motorists and by-standers. If you must ride at night, take extra precautions, use front and rear lights, wear flashers on your arms, wear light-colored clothing, and plan your route to ride in well lighted areas avoiding heavy traffic areas.
3. **NOTE:** Always wear shoes when riding a bicycle and avoid loose fitting clothes. Wear a cuff band or trouser clip to keep pants or other loose clothing from getting caught in the chain wheel. Long sleeves, long pants, gloves, eye protection, a CPSC approved helmet, elbow and knee pads are recommended. Helmet use is required by law in many states and is always a good idea for your safety.

Electric Balancer Pre-Riding Safety

4. **⚠ CAUTION: WET WEATHER WARNING:** Check your brakes frequently. The ability to stop is critical to your safety. Roads are slippery in wet weather so avoid sharp turns and allow more distance for stopping. Brakes become less efficient when wet. Leaves, loose gravel and other debris on the road can also lengthen stopping distance. If at all possible, do not ride in wet weather. Vision and control are impaired, creating a greater risk of accidents and injury.
5. **⚠ CAUTION:** A bicycle rider's best defense against accidents is to be alert to road conditions and traffic in the area. Do not wear anything that restricts your vision or your hearing.
6. When riding, **ALWAYS WEAR A APPROVED BIKE HELMET.** It may save your life.
7. Obey all traffic regulations. Most traffic regulations apply to bike riders as well as automobile operators. Observe all state and local traffic regulations, signs and signals. Check with your local police station on bicycle licensing and inspection, and where it is legal to ride your bike.
8. **ON AND OFF ROAD OPERATION:** Avoid the following road hazards: drain grates, pot holes, ruts, soft road edges, gravel, leaves (especially when they are wet), uneven pavement, railroad crossings, manhole covers, curbs, speed bumps, puddles, and debris as all have an effect on your riding and may result in loss of control. Adjust your speed and the way you use your brakes if you must ride in such areas.
9. If any components become loose while riding, **(STOP!!)** immediately and tighten, or bring to a mechanic for repair.

Electric Balancer Pre-Riding Safety

TO AVOID INJURY, THIS PRODUCT MUST BE PROPERLY ASSEMBLED BEFORE USE. WE STRONGLY RECOMMEND THAT YOU REVIEW THE COMPLETE ASSEMBLY GUIDE AND PERFORM CHECKS SPECIFIED IN THE OWNER'S MANUAL BEFORE RIDING.

Just a minute spent before each ride can significantly improve your safety and the enjoyment of your ride. So, **EACH TIME** before you ride make a habit of performing the following safety checks:

- Stand in front of the bicycle facing rearward and hold the front wheel securely between your legs. Try to twist the handlebar and verify that they do not move. Then pull the handlebars up, trying to lift the bike. There should be no movement.
- Try to push the front wheel from side to side and confirm that it feels tight and will not wobble. Lift the front wheel up by the handlebars and strike the wheel downward with the heel of your hand to confirm that it is securely attached to the wheel. Spin the front wheel and confirm that it does not wobble or contact the fork or brake pads.
- Try to lift/push down on and twist the seat to confirm it is tight.
- Look at the connection of the pedals to the crank arm. You should not see pedal screw threads and the pedal should feel firm and be parallel to the ground.
- Apply your brake(s) and make sure they feel firm to the touch, and then spin the wheel(s). Apply the brakes. The brakes should stop the wheel(s).
- Check to be sure that the fenders and accessories (if equipped) are firmly attached and will not contact any moving parts. Make sure all reflectors are in position and not broken.

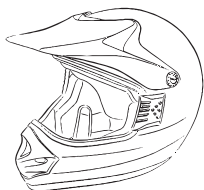
Now, put on your **BICYCLE SAFETY HELMET** and enjoy your ride. Your safety is well worth just a minute. Also, be sure to read and follow the warnings and instructions in this manual

Electric Balancer Pre-Riding Safety

SAFETY EQUIPMENT

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

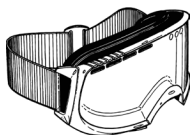
HELMET



A helmet is the most important piece of protective equipment and should be worn at all times the electric balancer 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

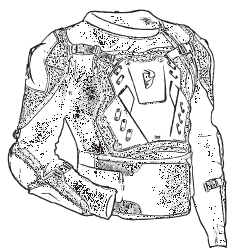


FOOTWEAR



Sturdy footwear is recommended

CLOTHING



Arms and legs should be covered to reduce abrasions to the body, even in hot weather. Trousers should be close-fitting and in good condition.

Message To Riders

Your safety is very important to Thumpstar. That's why we urge you to read this message before riding this electric balancer. You can help prevent accidents by making good decisions about if, when, and how you ride this electric balancer.

THINGS TO CONSIDER WHEN RIDING

The first decision you'll need to make is whether you're ready to ride. Riding readiness varies widely from one person to another, and age and size are not the only factors.

PHYSICAL ABILITY

An important consideration is that riders must be big enough to hold the electric balancer up, get on, and comfortably sit on the seat with both feet touching the ground. They should also be able to easily reach and work the brakes, throttle, and all other controls.

If you decide that you're ready to safely operate this electric balancer, make sure you carefully read and understand the owner's manual before riding. Also be sure that you have a helmet and other appropriate riding equipment, and always wears it when operating the electric balancer or sitting 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 offroad riding.

Loading, Accessories & Modifications

Thumpstar designed a rider-only electric balancer. It was not designed to carry a passenger or cargo. A passenger or cargo could interfere with your ability to move around to maintain your balance and control of the electric balancer.

In addition, exceeding the weight limits or carrying an unbalanced load can seriously affect your electric balancer's handling, braking, and stability. Adding accessories or making modifications that change this electric balancer's design and performance can also make it unsafe. Also, the weight of any accessories will reduce the maximum load the electric balancer can carry.

We recommend that you do not carry any cargo on this electric balancer.



ACCESSORIES & MODIFICATION

Modifying your electric balancer or using non-Thumpstar accessories can make your electric balancer unsafe.

Loading, Accessories & Modifications

ACCESSORIES

We strongly recommend that you use only Thumpstar Genuine Parts and Accessories that have been specifically designed or approved and tested for your electric balancer. Because Thumpstar cannot test all other accessories, you must be personally responsible for proper selection, installation, and use of non-Thumpstar accessories. Check with your dealer for assistance and always follow this guideline:

Make sure the accessory:

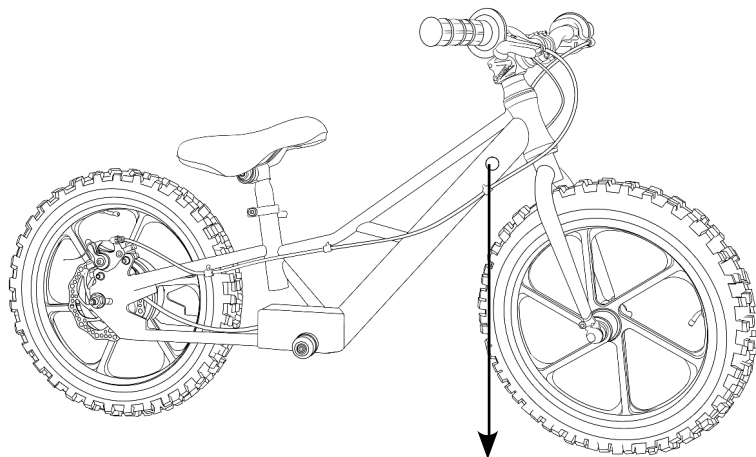
- Does not reduce ground clearance and lean angle
- Limit steering travel
- Alter your riding position
- Interfere with operating any controls

MODIFICATIONS

We strongly advise you not to remove any original equipment or modify your electric balancer in any way that would change its design or operation. Such changes could seriously impair your electric balancer 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 balancer illegal in your area.

Safety Labels



WARNING

Always wear protective equipment such as helmet, knee pads, elbow pads and shoes.

- Do not ride at night, in areas of low visibility.
- Max rider weight may not exceed 120 lbs / 65 kgs; Weight in excess of this amount may damage the bike.
- For riders 3 years old and up only.
- To reduce the risk of injury, adult supervision is required. Never use in roadways, near motor vehicles, on or near steep inclines or steps, swimming pools or other bodies of water; always wear shoes, and never allow more than one rider.
- Traffic can be fatal, do not ride on streets, around cars, or sidewalks.

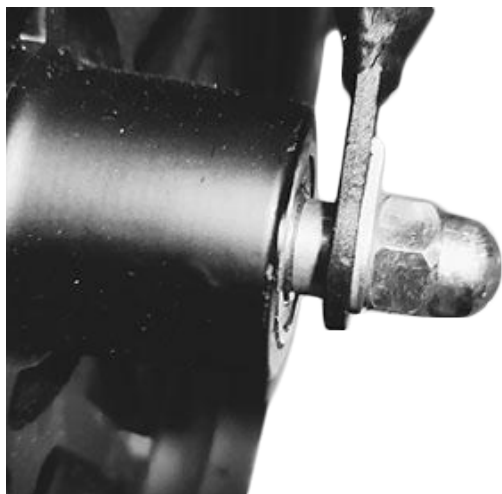
Important Information

FRONT WHEEL INSTALLATION



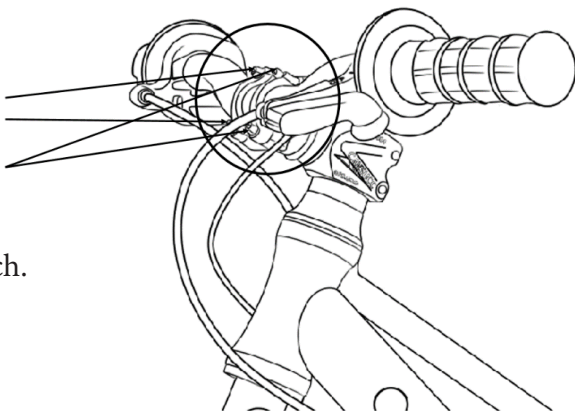
INSTALL THE FRONT AXLE IN THE ORDER SHOWN ABOVE

NOTE: the 16in requires two washers outside; not shown



HANDLE BAR ASSEMBLY

Attach the handle bars as shown. There are 4 screws to assemble or remove the handlebar. Be sure to rotate the handlebar so the ON/OFF SW is easy to reach.

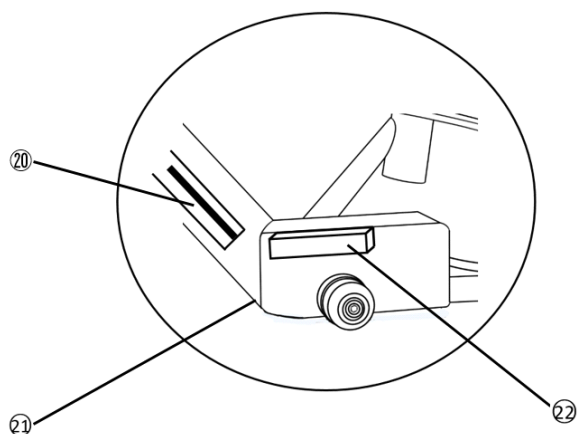


This diagram shows a bicycle with various components labeled with circled numbers 1 through 20. The labels point to the following parts:

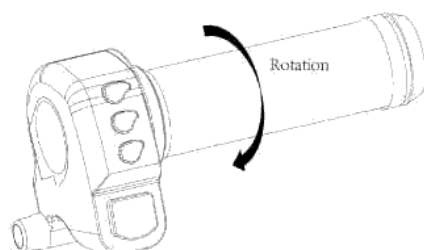
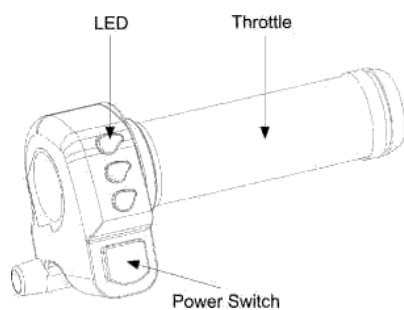
- 1: Main frame
- 2: Handlebar
- 3: Front fender
- 4: Headset
- 5: Front fork
- 6: Front wheel
- 7: Front brake lever
- 8: Front brake cable
- 9: Front axle
- 10: Front wheel hub
- 11: Seat post
- 12: Bottom bracket
- 13: Rear fender
- 14: Rear wheel
- 15: Rear brake lever
- 16: Rear brake cable
- 17: Rear wheel hub
- 18: Rear axle
- 19: Rear wheel rim
- 20: Rear wheel tire

1. Frame 2. Handlebar 3. Handlebar grip 4. Brake lever 5. Throttle 6. Front fork 7. Stem 8. Head Clamp 9. Front Wheel	10. Front axle 11. Charge Port 12. Footrest 13. Seat 14. Seat Post 15. Seat Clamp 16. Hub Motor 17. Rear Axle Nuts 18. Brake Caliper	19. Brake Disc
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Operating and Riding the Electric Balancer



- 20. Battery
- 21. Controller Box Cover Screw
- 22. Controller



Operating and Riding the Electric Balancer

IMPORTANT INFORMATION

Non-powered training: We recommend that you teach your child how to balance the Balancer first before you add power. They should be proficient at kicking and balancing the Balancer before turning the power switch on. There are many videos on YouTube which can teach them to kick and balance.

POWER MODE

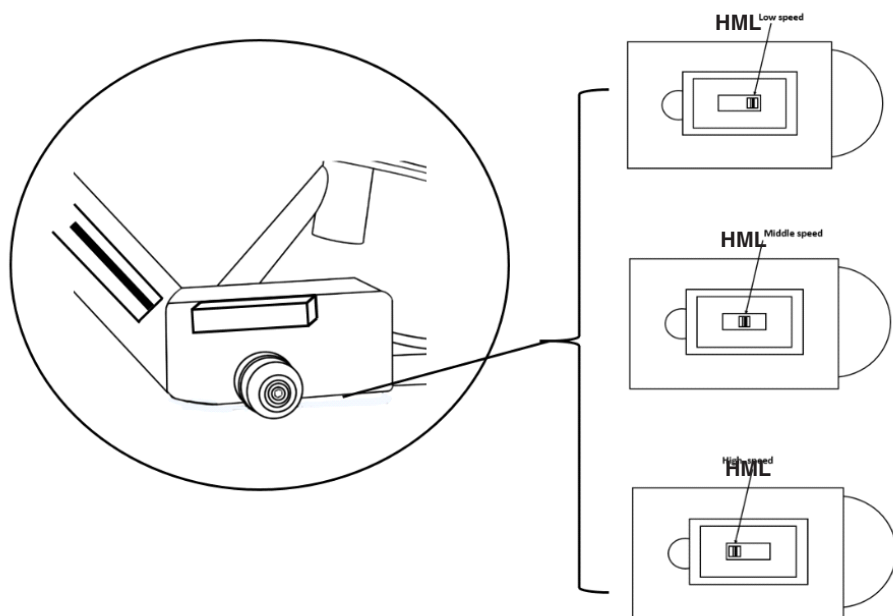
The 12in comes in the lowest settings and ½ power. We programmed the beginner mode so that the balancer does not move too fast and you can briskly walk next to your child while training. The throttle is not very responsive and has a delay built in and takes a few seconds to start moving. Once they kick or you push them, it will start to move and will slowly gain speed as it goes. This is a safety feature built in so that the Balancer does not start too fast. This feature changes when you go to faster modes.

We leave the speed cap off so that you can adjust the speeds. After you have chosen a safe setting for your child's skill level, we recommend you cover the switch (cover is in the tool bag) so they cannot change the mode and go faster.

The illustrations below show you the different positions of the speed switch located on the bottom of the frame. As mentioned above, the 12in comes with 50 % power, 50% torque, kick-start and the slowest speed setting. To change to 100 %power, full torque, non-kick mode - please refer to the next page.

 WARNING: It is recommended that once you change to full-power mode, you monitor your child and make sure that they can operate the Balancer safely. We recommend that you change 1 mode at a time.

Operating and Riding the Electric Balancer



Do not add full power, full torque and non-kick all at the same time. The first change you should make is to remove the kick-start mode. After they get comfortable with the twist and go, you can change to full power mode. We suggest you change the speed switch to the slowest position to make sure that your child can handle the speed change. In full power mode and the highest speed setting, the twist throttle delay time is reduced to 1.5 seconds and engages quicker, so make sure your child has enough open space in front of them to safely ride and will not crash into any obstacles.

16in comes with 50% power, non-kick mode and the slowest speed setting. Follow the same instructions as above for the 12in. See the next page for instructions on how to release the full potential of the Balancer.

Operating and Riding the Electric Balancer

HOW TO CHANGE THE MODES OF THE BALANCER

- Remove the screw for the plastic cover located at the bottom of the position. You have to remove the silicone that covers the screw head. The cover opens from the front (round part) and will require you to pry it open from the front area. A screwdriver or anything flat will work just fine.

⚠ WARNING: DO NOT PRY THE COVER FROM THE SIDES OR THE REAR, THERE ARE LOCKING TABS ON THE REAR OF THE COVER AND YOU WILL BREAK THEM OFF. PLEASE READ THESE INSTRUCTIONS CAREFULLY. THE COVER HAS SILICONE ON IT TO SEAL IT FROM WATER. PRY OFF WITH CARE.

- Please pay attention when you remove the cover, the speed switch is connected to the cover. Once you pry the cover off, you can move it off to the side or unplug it.

- 50% power mode: Locate the solid BLACK AND WHITE wires with a black connector and unplug it. This will give you 100% power. We put the mode wires on the top and so you can easily find them (see pic below), 12in and 16in.

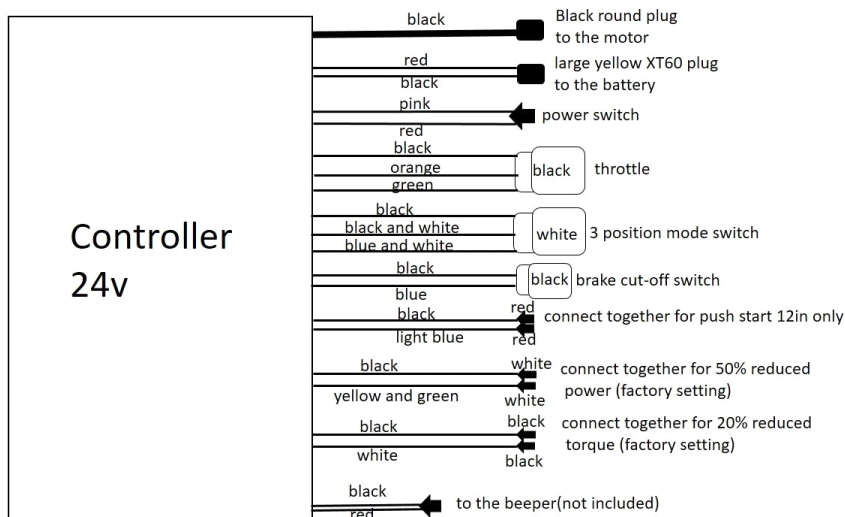
- Torque reduction: Locate the solid BLACK AND YELLOW/GREEN STRIPED wire with the white connector and unplug it. This will give you full torque. We only connect this for the 12in, the 16in has full torque.

- NON-Kick mode: Locate the solid BLACK AND LIGHT BLUE wires with the red connector and unplug it. This will change the Balancer to NON-Kick mode. 12in only. 16in has this function, however, we do not connect it. If you want this function on your 16in, then connect the red connector together.

Operating and Riding the Electric Balancer

To easier locate the wires, we wrapped the wires with a white tube and zip-tied the group together. The words 'Zero Start Switch', 'Torque Switch' and 'Speed Limit Switch' are on each set of the wires.

See wiring diagram below for reference.



⚠ CAUTION: Running with full speed and torque will decrease the running time and drain the battery faster. Operating at full speed and torque for a long time, (over 5 minutes), will make the battery, controller and motor get hot. Excessive riding in this mode will decrease the life of the components.

Operating and Riding the Electric Balancer

SAFELY APPROACHING OR RE-MOUNTING THE THUMPSTAR ELECTRIC BALANCE

- Teach children to approach the Balancer with caution; before use or while standing back up if knocked over.
- Ensure the power switch is turned off.
- Ensure all wheels/tires have stopped rotating or moving.
- Inspect for any obvious damage.
- Perform a Pre-Ride Inspection
- Have the rider mount the electric balancer, gripping the handlebars with both hands and sitting on the seat with both feet on the ground.
- Please press the power switch to the 'ON' position.
- Carefully resume riding your Balancer.

LOADING AND UNLOADING THUMPSTAR ELECTRIC BALANCER INTO A VEHICLE

- Ensure the power switch is turned off.
- Load into a vehicle for transport.
- After unloading, ensure that Power Switch is still switched off.
- Perform Pre-Ride Inspection.

Operating and Riding the Electric Balancer

CHECK AND MAINTAIN

Before use, check that the THUMPSTAR electric balancer is in proper working order. The balancer should be maintained and repaired in accordance with the manufacturer's specifications, using only the manufacturers authorized replacement parts, and should not be modified from the manufacturer's original design and configuration.

PRE-RIDE INSPECTION AND CHECKLIST

Power Switch: Ensure that the Power Switch is turned off during the Pre-Ride Inspection and remains 'OFF' until the rider is sitting on the saddle, both hands gripping the handlebars, both feet flat on the ground.

Throttle: Ensure the Power Switch is turned off. Check that the throttle rotates freely, and the return spring returns the throttle back to 'ZERO' position from the 'FULL'. Ensure there are no cracks or visible damage.

Brake: Check brake for proper function. When you squeeze the lever, the brake should provide positive braking action. Slight rubbing is normal.

Tires: Inspect the tires for excess wear. Regularly check the pressure and inflate as per tire specifications.

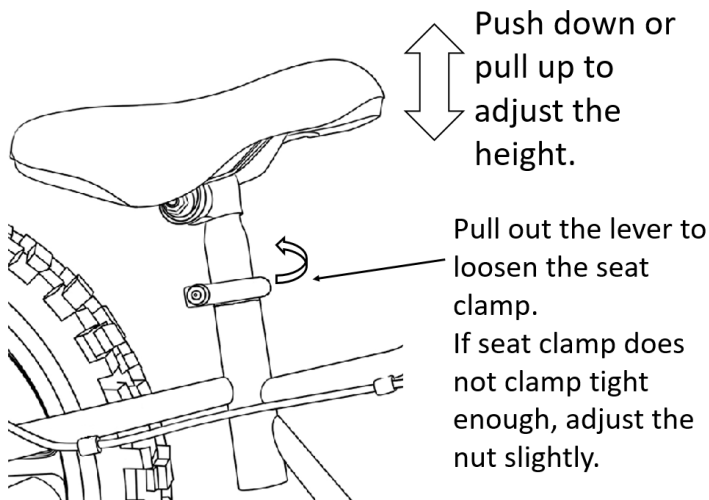
Frame, Fork, Stem and Handlebars: Check for cracks and loose hardware. Broken components are rare, however it is possible to break parts after you have crashed. It is important to make a regular habit of inspecting your Balancer every time you ride it.

Hardware/Loose Parts: Check all your hardware such as nuts, bolts, cables, fasteners, etc., to ensure that they are secure. There should not be any unusual rattles or sounds from loose parts or broken components. If the unit is damaged, do not ride it. Reference 'Warnings' listed in this manual.

Laws and Regulations: Check and obey local laws or regulations prior to riding.

Operating and Riding the Electric Balancer

Adjust the height of the seat.



AFTER RIDING

- Check the battery capacity with the power on.
- It is recommended to charge the battery when the red light comes on. If the balancer does not seem to have power, plug it in and let it charge, this could be from the rider using the past the red light warning, however, it does shorten the battery life cycle.
- If the yellow light is on... keep going. If the rider is finished riding and the yellow light is on, connect the charger.
- Charging after each use is a good idea.
- Disconnect charger from the Balancer and also the mains after fully charged.

Operating and Riding the Electric Balancer

CHARGING

- Insert the charger into the 110V/220V wall socket; the light on the charger will turn green.
- Insert the plug from the charger into the charger port on the frame of the Balancer (you might see a small spark or hear a pop, this is normal).
- The light on the charger will turn RED, indicating that the battery is being charged. If the light does not turn RED, then the battery is fully charged or has a problem. Please see the 'Troubleshooting' section for further instructions or contact your dealer.
- The light will turn GREEN indicating that the battery is fully charged.
- Make sure that the Balancer is charged under a dry and cool surrounding.

Approx. Charging Times:

5.2Ah... 2-2.5 hours, if completely drained

 CAUTION: Leaving the Balancer in direct sunlight for a long time (5-8 hours) will harm the battery or even cause it to explode.

Repair and Maintenance

TOOLS INCLUDED IN THE KIT

- 2.5, 4, 5, 6 and 8 mm Allen Wrench
- 14,16,19 mm socket or open spanner

Turn power switch to “OFF” position, allow the THUMPSTAR electric balancer to cool before beginning repair or maintenance:

- Read instructions.
- Ensure the power switch to the “OFF” position.
- Ensure THUMPSTAR electric balancer has had adequate time to cool (up to 30 minutes)
- Secure the THUMPSTAR electric balancer for repair or maintenance.
- Exercise caution around exposed parts.
- Contact THUMPSTAR customer service if unsure about any repair or maintenance.

REPLACEMENT PARTS

For the complete selection of replacement parts visit www.ThumpstarUSA.com

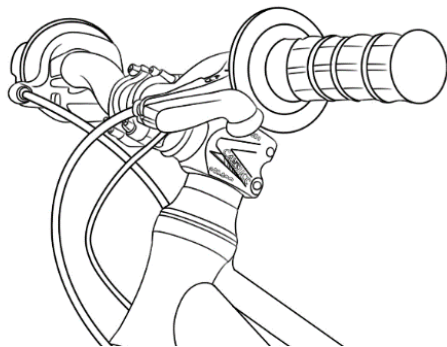
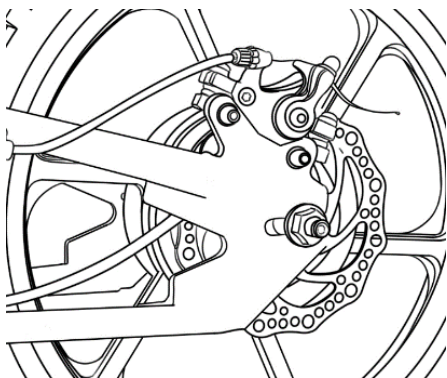
Repair and Maintenance

TEST BRAKE

- Squeeze brake and hold.
- Push the Balancer forward. The rear wheel should not spin if the brake is adjusted properly.
- If rear wheel spins when pushing forward or the lever engages prematurely, refer to “Adjust Brake”

ADJUST BRAKE

- To adjust brake cable:
 - Twist brake lever adjust in or out, $\frac{1}{4}$ to $\frac{1}{2}$ turn at a time, until desired brake adjustment is attained.
 - If the brake still needs further adjustment, proceed to step 2.
- Determine if brake cable loose or brake rotor is dragged on brake pad or not:
 - Loosen brake hubs barrel adjuster.
 - Adjust brake hub adjuster in or out until the desired brake adjustment is attained.
 - Lock brake hub barrel adjuster.
 - Perform final adjustment of tension in brake cable with brake lever barrel adjuster.
 - Repeat “Test Brake” section above.



⚠ WARNING: Test and practice breaking in an open area free from obstacles, in a straight line, until the child is familiar with the brake function.

Repair and Maintenance

BATTERY REMOVAL

Step one: Use a Phillips screwdriver (provided in the tool kit) and remove the screw at the bottom of the large round tube (position 21. First pic below). Get a flat head screwdriver or anything that is flat and pry the front of the cover up near the area of the screw hole as shown below, pulling it up towards you.

CAUTION: The switch is connected to the cover; pull with care. Unplug the switch. Do not pry the side or rear of the cover (see pic below), you could break the locking tabs off.



Step two: After you have removed the cover, take some pictures. Carefully pull out the wires of the controllers and only unplug the three pin throttle wires (org, green, blk), 2 pin power switch (pink and black), 2 pin Brake switch (blue, black), yellow XR60 connector for battery. Do not disconnect the large black round plug or the wires that are zip tied together. Pull out the controllers and let it hang off to the side (pic below). If you accidentally unplug the large round black connector, make sure you line up the arrows when you plug it back in together.



Repair and Maintenance

Step three: Remove the small screws of the charging port near the top of the tube. Carefully pull the charging point out and unplug the red connector.



Step four: Push the wires, string and charging port back into the hole. Do NOT plug it back together.



Repair and Maintenance

Step five: Find the cloth strap inside the controller box that is attached to the battery (see pic). Slowly pull on the cloth strap, you might have to pull a bit hard, and slide the battery out. When the battery is almost out use caution because the battery charge wires are connected to the charging port with the string attached to it. Once the battery is out, set it on the side of the tire and frame so you can untie the string (see pic).



Repair and Maintenance

BATTERY INSTALLATION

Install the battery in reverse order. Below are instructions just in case you forgot.

Step one: Lay the battery on the side of the tire and frame with the yellow connector facing the rear of the Balancer and the small charging wires towards the front. Find the string you disconnected from the old battery and tie it around one or both of the wires (see pic below).



Step two: Pull the charger port out and pull on the string, stop when tight.

Pick up the battery and move it towards the tube, pull on the string some more to make it tight, lay the charge wire into the groove on the side of the battery that has the smoother groove, find the smaller black wires (this protects the charger wires from getting cut as you slide the battery into the tube), find the thicker wire (throttle wire and power switch) and lay it into the other side groove, pull both sides of wires up to the halfway point and hold the wires with one hand as you put the battery into the tube slowly, as you are pushing the wires into the tube you need to pull on the string and other 2 wires that are on the opposite side (do not pull the string too hard).

Repair and Maintenance

Once the battery is halfway in, pull on the throttle wire and brake wire so the connectors are about 30-40mm past the battery (see pic). Repeat this step with the brake switch wire but this time hold the string, so you do not pull on the charger wire as well (see pic below)



Step three: Hold the top of the battery and pinch the wires with your thumb and fingers to stop the wires from sliding up and out as you push the battery in until you have reached the 90% point, lightly tug on the string and pull the charging wires out of the hole (DO NOT ROUGHLY PULL THE CHARGE WIRE, WIGGLE AND PULL. DO NOT USE A METAL OBJECT TO PULL THE WIRES OUT OF THE HOLE), go to the other side and pull the slack out of the wires.

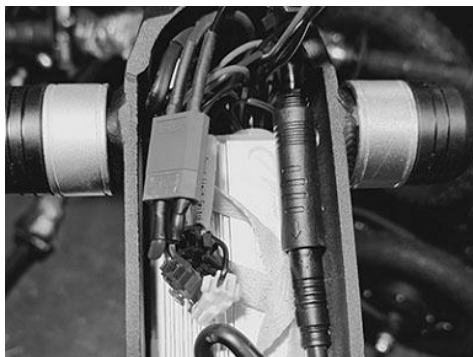


Repair and Maintenance

After you have removed the slack out of the wire, and pulled the charge wire out of the hole, you can push the battery in all the way. Put your 2 thumbs on top of the battery and push the battery inside (see pic below). Be careful not to push the battery in too far because you will pinch the 2 sets of wires coming out of the hole near the handle bars side (12in only) however it needs to go in far enough so the controller can fit in.



Step four: Put the controller back in the box, backside first (no wires side) goes in first. If you disconnected the motor wire plug it in first (don't forget to align the arrows and push hard), lay the large black wire on the right side as shown in the pic below, make sure all the wires go under the large black wire or the black wire wraps around the outside of all the wires. They should look like the pic below. Lay the wires to the left side so that they are not all bunched up in the center (they will push on the switch and cause damage) and the larger wire for the motor will lie on the right side, as you are looking from the back (see pic below). Plug in the throttle wire, power switch, and brake switch (the wires that come from the handlebars and you put it next to the battery, see diagram on the last page for wire color reference) and tuck the connectors in the front between the battery and controller.



Repair and Maintenance

We recommend you use silicone to reseal the box. Plug in the switch on the cover slide in the back first. The locking tabs on the rear of the cover will go in first. Close the cover and push on the front tab so it slides into the box (it will be a little tight), lightly tap on the cover to make sure it is down all the way. Insert screw.

Step five: Plug the charging port back together (make sure the wire colors are matching before you push), push connector together with some force to ensure the plug is connected properly, stuff the wires and the string back into the hole, install your screws and you are done. Charge the battery to make sure it is working properly.



BATTERY DISPOSAL

Your THUMPSTAR product uses sealed lithium 18650 cell batteries, which must be recycled or disposed of in an environmentally-friendly manner. Do not dispose of a lithium cell battery in a fire; the battery may explode or leak. Do not dispose of a lithium cell battery in your regular household trash. Recycle your batteries according to federal or state law.

Troubleshooting Guide

Make sure the battery is fully charged or replaced before performing any trouble shooting **ONLY** to be performed by an adult.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Power switch does not work	Battery not fully charged	Verify the battery is fully charged
	Wire harness connection, faulty switch, bad controller	Remove the controller box cover and locate the solid dark blue and black wires. Un-plug it and pluck it back in, press the switch – same result... Unplug the connector and connect a voltmeter (ohm function) to red and blue wires that go to the switch and depress the switch. You should see the meter go to 0. No charge-switch is bad. If the meter went to 0 then you have a bad controller.
Stopped working while riding it	Loose battery or wire connection(s)	Recharge or replace battery
	Power switch faulty	Contact your local THUMPSTAR authorized service center for diagnosis and repair
	Throttle faulty	
	Motor or electrical system damage	
	Rider weight/ Terrain too steep	Do not exceed the weight limit of 120lb (65kg), ride on flat terrain
Short run time/runs slow	Battery not fully charged	Verify the battery is fully charged
	Old or damaged battery	Replace battery
	Tire is not properly inflated	Inflate tires to the recommended pressure on tire sidewall. Replace tube if you are unable to maintain pressure.
	Brakes are not adjusted properly	Adjust the brakes, ensure the brakes are not rubbing on the discs
Runs intermittently	Loose connection(s)	Check for loose connections/wires

For a list of available replacement parts visit our website at

www.ThumpstarUSA.com

Cleaning and Appearance Care

Frequent cleaning and polishing will keep your TSE Balancer looking newer longer. Frequent cleaning also identifies you as an owner who values your electric balancer. A clean electric balancer is also easier to inspect and service.

While you're cleaning, be sure to look for damage and wear.

GENERAL RECOMMENDATIONS

- To clean your electric balancer, you may use:
 - Water
 - A mild, neutral detergent and water
 - A mild spray and wipe cleaner/polisher
 - A mild spray and rinse cleaner/degreaser and water
- Avoid products that contain harsh detergents or chemical solvents that could damage the metal, paint, or plastic on your electric balancer.
- If your electric balancer is still warm from recent operation, give it time to cool off.
- We recommend the use of a garden hose to wash your electric balancer. High pressure washers (like those at coin-operated car washes) can damage certain parts of your electric balancer.

NOTE: High pressure water (or air) can damage certain parts of your electric balancer.

WASHING YOUR TSE BALANCER WITH A MILD DETERGENT

1. Rinse your electric balancer thoroughly with cool water to remove loose dirt.
2. Fill a bucket with cool water. Mix in a mild, neutral detergent, such as dish washing liquid or a product made especially for washing.

Cleaning and Appearance Care

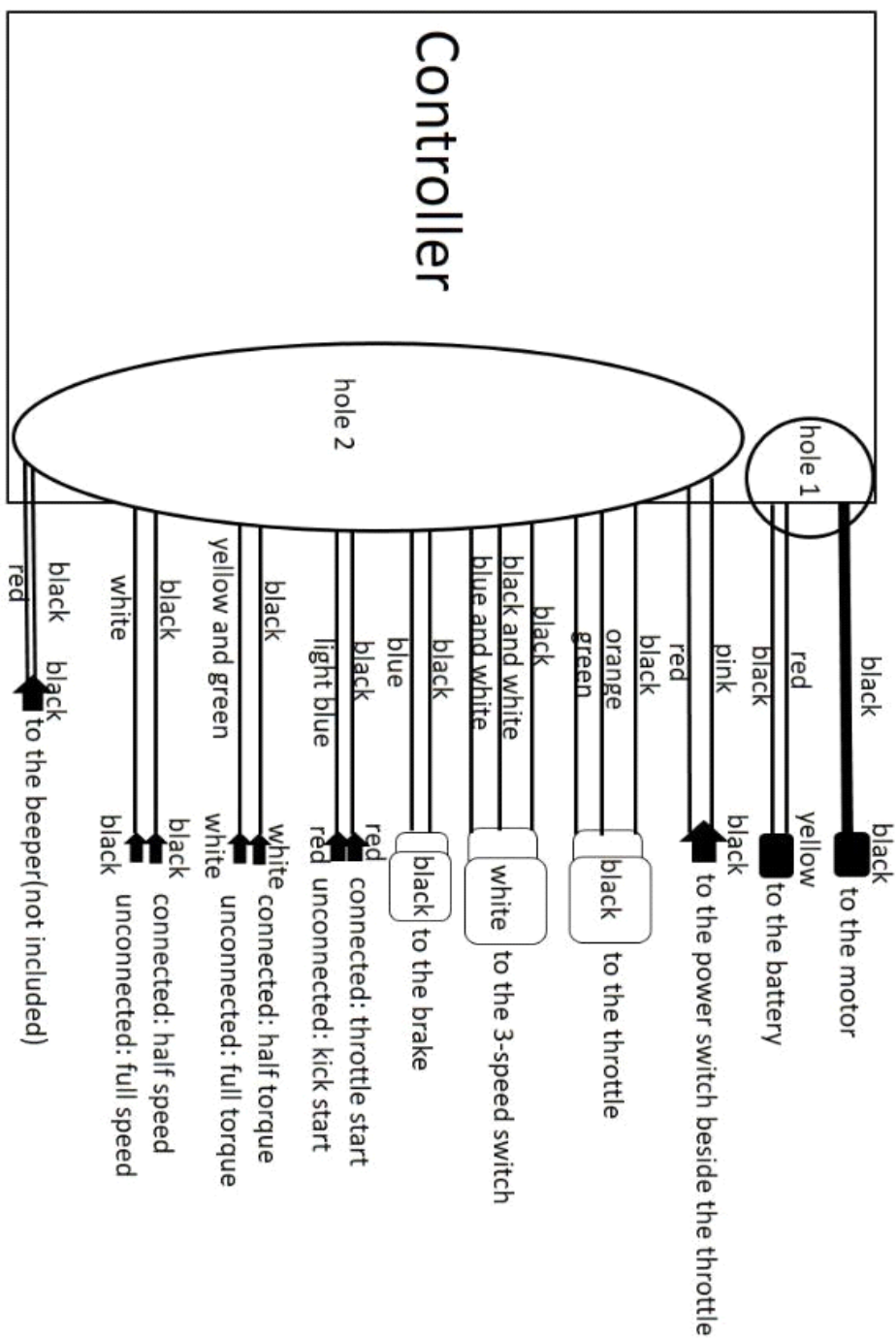
3. Wash your electric balancer with a sponge or a soft towel. As you wash, check for heavy grime. If necessary, use a mild cleaner/ degreaser to remove the grime.
4. After washing, rinse your electric balancer thoroughly with plenty of clean water to remove any residue.
5. Dry your electric balancer with a chamois or a soft towel. Leaving water on the surface to air dry can cause dulling and water spots. As you dry, inspect for chips and scratches.
6. As a precaution, ride at a slow speed and apply the brakes several times. This will help dry the brakes and restore normal braking performance.

TIPS

Here's helpful advice on how to prepare for an off-road adventure, how to transport and store your Thumpstar electric balancer, and how to be an environmentally responsible electric balancer owner.

Spraying WD40 or similar product on metal parts will help protect the electric balancer (*never spray WD40 near the brakes*)

Controller Diagram



Controller Diagram

FUNCTION	WIRE COLOR	WIRE VOLTAGE REFERENCE
Connect to Battery	Red	24V
	Black	Negative
Connect to Motor	Yellow 1.5MM	When motor running, 12v. Stop 0v
	Green 1.5MM	
	Blue 1.5MM	
	Orange 0.3MM	5v with Power ON
	Yellow 0.3MM	When motor running, 12v. Stop 0v
	Green 0.3MM	
	Blue 0.3MM	
	White 0.3MM	Exchange from 0 to 5v when running
Connect to Power Switch	Black 0.3MM	Negative
Connect to Power Switch	Pink	24v
	Red	Will have 24v when PWR SW is ON
Connect to Throttle	Black	Negative
	Orange	4.3v
	Green	Will have 0.8v when at 0 throttle position and go to 3.5v at full throttle
Connect to Mode Switch	Black and White	5v when not switched to GND
	Black	Negative
	Blue and White	5v when not switched to GND
Connect to Brake Cut-Off	Black	Negative
	Blue	Has 5v without a brake. Goes to 0v when brake
Connect together for kick start	Black	Negative
	Light Blue	Has 5v when not connected to GND
Connect together for 50% power	Black	Negative
	Yellow and Green	Has 5v when not connected to GND
Connect together for 20% reduce torque	Black	Negative
	White	Has 5v when not connected to GND
Connect to Beeper	Black	Negative
	Black and Red	5v

Specifications

TSE 12

ENGINE AND TRANSMISSION

Engine	250w Brushless
Battery	Li 24v 5.2A-5c
Speed Mode	6 Speed (3 x Learning Speeds + 3 x Racing Speeds)
Starter	Throttle / Kick (Kick can be turned on/off)
Running Time	2 Hours
Charge Time	2-4 Hours
Final Drive	Hub Drive Motor (No Chain)
Top Speed	6, 10, 16 Kph / 4, 6,10 Mph

SUSPENSION, BRAKES AND WHEELS

Suspension Front	N/A
Suspension Rear	N/A
Brakes Front	N/A
Brakes Rear	Disc Brake
Wheel & Tyre Front	12-2.125
Wheel & Tyre Rear	12-2.125

DIMENSIONS AND WEIGHT

Wheelbase	690mm 27"
Seat Height	250mm + 100mm 10" + 4"
Weight (N.W/G.W)	11/12.2 Kg 24/27 Lbs
Max Load	75 Kg / 165 Lbs
Product Packing Size	860x225x440mm .1m3

Specifications

TSE 16

ENGINE AND TRANSMISSION

Engine	250w Brushless
Battery	Li 24v 5.2A-5c
Speed Mode	6 Speed (3 x Learning Speeds + 3 x Racing Speeds)
Starter	Throttle / Kick (Kick can be turned on/off)
Running Time	2 Hours
Charge Time	2-4 Hours
Final Drive	Hub Drive Motor (No Chain)
Top Speed	8, 13, 19 Kph / 5, 8,12 Mph

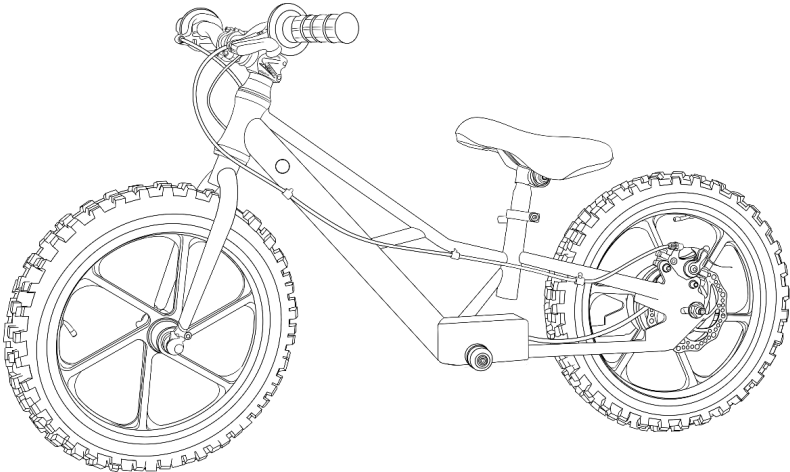
SUSPENSION, BRAKES AND WHEELS

Suspension Front	N/A
Suspension Rear	N/A
Brakes Front	N/A
Brakes Rear	Disc Brake
Wheel & Tyre Front	16-2.125
Wheel & Tyre Rear	16-2.125

DIMENSIONS AND WEIGHT

Wheelbase	780mm 31"
Seat Height	480mm + 100mm 19" + 4"
Weight (N.W/G.W)	11/12.2 Kg 24/27 Lbs
Max Load	75 Kg / 165 Lbs
Product Packing Size	995x240x440mm .1m3

Model Version - TSE 12 VR:1 | TSE 16 VR:1



FRAME			

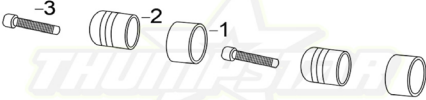
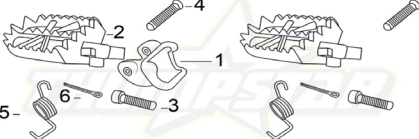
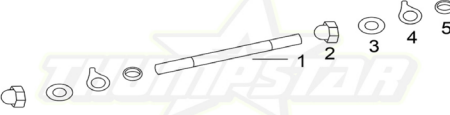
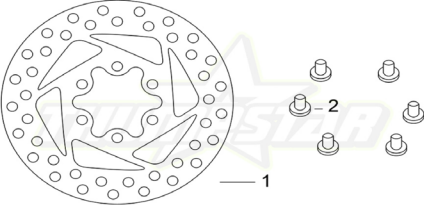
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Spare Part Catalogue

ALLOY FOOTPEG		POS.	PART NO.	ERP CODE	ENGLISH NAME
		A	7826		Rubber Footpegs Assembly
		1			Alloy Spacer
		2			Black Footpeg
		3			Hex. Socket Bolt M8x40
STAINLESS FOOTPEG		POS.	PART NO.	ERP CODE	ENGLISH NAME
		A	7827		Stainless Footpeg Assembly
		1			Stainless Mount Left&Right
		2			Footpeg Left&Right
		3			Hex. Socket Bolt M8x28
		4			Pin L42mm OD8
		5			Spring Left & Right
		6			Split Pin 2.5x30
FRONT AXLE ASSEMBLY		POS.	PART NO.	ERP CODE	ENGLISH NAME
		A	7828		Front Axel Assembly
		1			Front Axel M10xL135
		2			Spacer 10x14xL5
		3			Stop Washer 10x25xL2
		4			Flat Washer 10x20xL2
		5			Cap Nut M10
REAR BRAKE ASSEMBLY		POS.	PART NO.	ERP CODE	ENGLISH NAME
		A	7828		Rear Disc Assembly
		1			Rear Brake Disc 140mm
		2			Hex Head Screws - M5xL12

Parts Finder

Finding Parts at our website

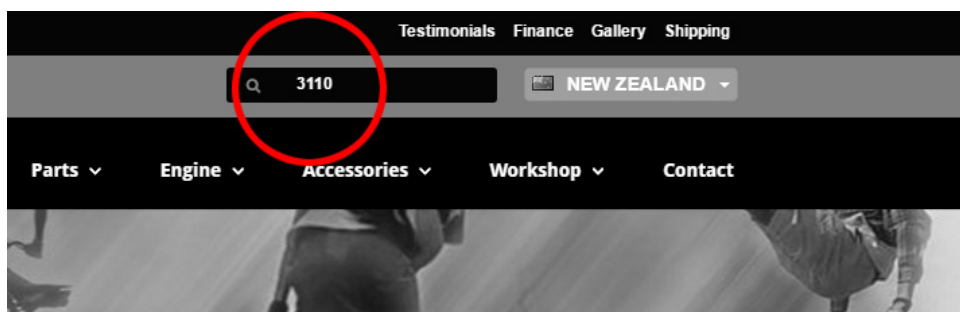
Websites

<https://www.thumpstarelectricbalancebike.com>

<https://www.thumpstar.com.au/>

<https://www.thumpstar.co.nz/>

- Go to our website then copy the part number or ERP CODE in our Spare Part Catalogue and paste it in the search bar then press enter or click the search icon beside it.



- After searching you will see the parts listed below the search bar

SUBSCRIBE

email address

SUBSCRIBE

Your search for "3110" revealed the following

PARTS

Brake
Chain & Sprocket
Frame & Footpeg
Graphic & Decal
Handlebar & Control
Muffler & Exhaust
Petrol Tank



Air Filter - 38mm - Straight | 3100

\$20.57

If you find a CHEAPER PRICE, we will guarantee to beat it, all

Warranty

THUMPSTAR LIMITED WARRANTY

Warranty registration should be online within 7 days of purchase.

THUMPSTAR warrants the product to be free from material and manufacturing defects from date of purchase as described below

- Frame – Three years
- Electrical system components, including battery and charger – 90 days.

This Limited Warranty will be void if the product is not used in accordance with the owner's manual, such as:

- Damage in an accident, crash or loss of control incident
- Used in a manner other than for recreation.
- Poorly or incorrectly maintained.
- Used in a manner in which this product was not specifically designed.
- Failure to follow owner's manual instructions or warnings
- Electronics or battery exposed to water.
- Modified in any way.
- Damaged by unauthorized service or parts.
- Used for commercial purposes.

This Limited Warranty does not cover any damage, failure or loss caused by improper assembly, maintenance, or storage.

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

For your records, save your original sales receipt with this manual and write the serial number below. Serial number is located on the rear hub motor.

Serial Number (located on the hub motor): _____

Date Purchased: _____

Purchased From: _____

Disclaimer

Thumpstar will not be held liable under any circumstance for incidental or consequential loss or damage or injury, due direct or indirect use of this product, including any malfunction or defect.

Adult guardians assume all responsibilities associated with the use of these products by minors. It is not suitable for handicapped persons or persons with limited mental or physical capacities. Customers understand that the use of these products can cause injury or death to themselves or others. To reduce the risks of any such injuries we strongly recommend the use of safety equipment such as approved helmets and knee pads. The Buyer holds our company and its agents and affiliates harmless from any liability arising out of or relating to the use or ownership of any product. Purchaser fully accepts responsibility and releases the seller for all and any personal injuries, fatal injuries, any losses, costs, and damages incurred as a result of Purchaser's operation of this item. Purchaser is solely responsible when permitting other riders to ride this item, and assumes all responsibility in event of damages, injuries or fatal injuries etc. Purchaser is responsible for understanding and obeying all local and state laws for operation of this product. Once purchaser submits payment, This will serve as purchaser agreement to release the seller of any and all responsibilities of the item such as stated above.

By purchasing, you acknowledge that you have read and understood, and you agree, to the terms and conditions of this Agreement, and you represent that you are of legal age (age 18 or older) to enter this Agreement and become bound by its term.

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