



Helio Cycle Owner's Manual

This manual contains important safety, performance and maintenance information.

Read it before you ride and keep it handy for future reference.

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Contact information:

You are the reason we build Cycles. Our primary concern is your safety and satisfaction. If you have comments or questions about your Cycle, or if you'd like to let us know what you think about something or share an idea about how we can improve our products or services, we'd like to hear from you.

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If you read just one owner's manual all year, make it this one...

Thank you for buying a Helio Cycle. We wrote this manual to help familiarize you with the operation and maintenance of your Helio Cycle and we really want you to read it.

We first asked the guys who designed and manufactured your Helio Cycle, our engineers, to write the owner's manual, which we thought was a great idea since they know more about it than anyone. Unfortunately, they used loads of technical terms, and while the information was extremely accurate and detailed, most people found it, well, boring. Boring just won't do, because like we said, we really want you to read the manual.

So we translated it into this version, a hopefully not-so-boring one.

There's a lot of really useful information in here. Reading it will help you enjoy your Helio Cycle more. Perhaps even more importantly, reading it will help prevent you from damaging your Cycle, or worse, damaging yourself. So if you read just one owner's manual all year, make it this one.

The name 'eGO' is a trademark of eGO Vehicles, Inc. in the United States. However, the 'EGO' mark is owned by a different company in some countries in Europe. Therefore, eGO Vehicles has decided to market our product under the name 'Helio' or 'Helio Cycle' in Europe and in some other markets.

This Owners Manual is for the Helio Cycle. In this manual, please note that the use of the mark 'EGO' or 'eGO / Helio Cycle' is used purely for descriptive and reference purposes and refers to both the eGO Cycle and the Helio Cycle. The use of 'EGO' in this manual DOES NOT (unless otherwise specified) indicate that eGO Vehicles claims to own the 'EGO' mark in countries where the 'EGO' mark is registered by any other company.

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Cautions and warnings

Throughout the manual, you'll see ⓘ (caution) and ⚠ (warning) icons. The caution icons contain information that will help prevent you from damaging your Helio Cycle. The warning icons contain information that will help prevent you from damaging yourself. Pay particular attention to these because like they say, it's all fun and games until somebody loses an eye.

You'll also see 🚲 (tip) icons. These clue you in to tips about riding and maintaining your Helio Cycle.

Finally, you'll see 😊 (Zen) icons. These contain meaningful quotes from wise people about how to live a happier life. We think they're useful, but we realize they're just our opinions. Paying attention to these is, of course, completely optional.

😊 ***“A wise man learns even from a fool, but a fool learns from no one.”***
- Confucius

Your Electric Helio Cycle



(The Helio also includes turn signals and other details that are fully explained in this manual)

Congratulations! We're glad that you have purchased an electric Helio Cycle. Your Helio Cycle is a high-quality vehicle designed to be **extremely safe** and will give you many years of **reliable** service.

Your Helio Cycle is **simple to use**. It's easier to ride than a bicycle. It has a low scooter-type chassis that allows step-through mounting and dismounting and a low center of gravity that makes handling a breeze, even when you're riding slowly. The key-controlled Performance Selector allows you to select performance characteristics to suit your personal riding needs.

Your Helio Cycle is also **simple to re-charge**. After a ride, just plug it in to any household outlet and the integrated, on-board, smart-charging system will automatically re-energize the batteries. Leave it plugged in when you are not using it and your batteries will thank you with a long life.

Your Helio Cycle is also **easy on the environment**, since it's powered by an energy-efficient, emission-free electric motor. No smog, no fumes, no greenhouse gasses. Just plain smart transportation.

Best of all, your Helio Cycle is also **good for your spirit**, because it's really fun to ride! The large wheels and high-performance tires give it unparalleled cornering and handling ability. The high-torque motor, twist-grip throttle, automatic braking feature, and hand brakes allow for extremely responsive and precisely controlled acceleration and deceleration. It's so fun to ride that you'll get bugs in your teeth from smiling!

Riding your Helio Cycle in Public:

We've designed your Helio Cycle to be a practical means of everyday transportation - not a toy for up and down the driveway. Your Helio Cycle is *perfect* for the shorter trips that make up the majority of travel

General Safety Information

We designed your Helio Cycle to be as safe as possible, but there are still many dangers inherent in riding your Helio Cycle, especially on public roadways. There is a risk of injury or even death. By choosing to ride your Helio Cycle, *you* assume the responsibility for that risk - not the other people on the road, not the people who maintain the roads, not us, but YOU. *So it's up to you to become familiar with the rules of safe riding.*

Learning to ride your Helio Cycle is not difficult, but it *may not* come naturally for you. If you already know how to ride a bicycle, learning to ride your Helio Cycle will be straightforward. If you *don't already* know how to ride a bicycle, we recommend you learn *before* you try to ride your Helio Cycle. Once you've mastered the basics of balancing and steering a bicycle, learning to ride your Helio Cycle will be much easier.

Even if you're a pro on a bicycle, keep in mind that your Helio Cycle has the equivalent power of almost 2 horses! That kind of power takes some getting used to! Start out slowly (or even ride on a flat grassy area) until you're comfortable with the reins.

The Basics:

Always follow the pre-ride safety checklist (see page 44) before every ride.

- Wear an approved helmet.
- Wear sturdy clothes to protect you if you fall. Also, make sure they are not loose enough to become tangled in moving parts.
- Obey all traffic regulations. Stop at stop signs and red lights, signal your turns, and be prepared to yield the right-of-way even if it's legally yours, because in a collision with a car, right or wrong, you'll lose.
- Ride defensively. Assume that the people in cars are completely oblivious to you.
- Keep your speed at a level consistent with traffic and weather conditions.
- Ride on the side of the road, *with* the traffic.
- Be prepared for parked car doors opening in front of you, pedestrians stepping into your path, cars pulling out in front of you, or any other event that could cause you to have to swerve suddenly to avoid a crash.
- Watch for potholes, sewer and storm grates, railway tracks, expansion joints, road construction, and other obstacles or obstructions that could cause you to lose your balance.
- Keep in mind that your Helio Cycle tires are more like bike tires than car tires. Avoid glass or other sharp-edged debris that could puncture the tires. If you *do* ride through glass or sharp-edged debris, stop and remove any debris from the tires and make sure they are undamaged.
- Never ride with headphones. Headphones mask many sounds that may be extremely important to you, like wailing sirens, squealing brakes, and shrieking pedestrians.

- Never carry a passenger. Your Helio Cycle is designed to carry ONLY ONE PERSON.
- Thoroughly learn to control the braking, acceleration and steering of your Helio Cycle before you venture out into traffic.
- Never carry anything that obstructs your vision or makes control of your Helio Cycle difficult or awkward.
- Never ride your Helio Cycle while under the influence of alcohol or drugs.
- When possible, avoid riding your Helio Cycle in bad weather, when visibility is obscured, or when you are extremely tired.

Helmets

Even though the law requires you to wear a helmet, common sense dictates that you should anyway, *regardless* of what the law says. Most serious cycle injuries involve head injuries that might have been avoided if the rider had worn a helmet. Get yourself a high quality approved helmet; make sure it fits correctly; and WEAR IT.

☺ ***“The graveyards are filled with indispensable men.”***
- Charles De Gaulle quoting Shakespeare

Wet or Icy Weather Riding

We recommend that you leave your Helio Cycle at home when the weather gets nasty, not because the weather will damage your Helio Cycle, but because riding in foul weather is dangerous. Roads get slippery, traction is reduced, brakes don't work as well, and usually, visibility is reduced. If you do need to ride in foul weather, be especially careful and follow these safety tips:

- WHEN YOUR BRAKES ARE WET, STOPPING POWER IS GREATLY REDUCED. It may take you twice as far to stop when your brakes are wet! So when it's wet outside, ride slower, allow extra stopping distance and avoid quick or jerky maneuvers. Apply your brakes earlier and more gradually.
- WET SURFACES ARE MORE SLIPPERY THAN DRY ONES. Watch for “slippery when wet” hazards in the road. Manhole covers, sewer grates, and even certain types of pavement and stone inlays can become as slick as ice when wet. Avoid riding over these hazards, especially while steering through a corner, when you're especially susceptible to taking a spill.

Also, though your Helio Cycle will not be damaged by rainy rides, avoid riding through deep puddles that may immerse the chassis underwater. If your Helio Cycle does get wet, wipe it down with an old towel to protect the finish, and wait until it's dry inside and out before you ride it.

⊗ **Icy or wet weather impairs traction, braking and visibility, both for you and for everything *else* on the road. The risk of accident is dramatically increased**

in icy or wet conditions. So if you *must* ride in these conditions, be *extra-super* careful! Do everything you can to avoid injury and death!

Night Riding

Your Helio Cycle is outfitted for riding at night, however, riding at night is dangerous for two reasons: (1) you can't see as well, and (2) neither can anyone else. Besides, you and your Helio Cycle present a much smaller profile than a car, and so naturally, you're more difficult to see. Avoid night riding if possible. If you must ride at night, follow these guidelines:

- Make sure all your lights work and are turned *on*.
- Wear light colored, reflective clothing and accessories such as reflective vest, a reflective headband, armbands, and leg bands, and reflective stripes on your helmet.
- Ride slowly.
- Avoid areas with heavy traffic.

⊗ **Riding at night, at dusk, or when visibility is reduced is dangerous. You can't see as well, and neither can anyone *else* on the road. Avoid it if you can. If you *must* ride when visibility is impaired, be extremely careful. And be sure to turn on your lights.**

☺ ***“Be careful going in search of adventure – it is ridiculously easy to find.”***

- William Least Heat Moon

A Special Caution for Parents

In most places it is illegal for children under the age of 16 to ride an Helio Cycle on public roads. We discourage the use of an Helio Cycle by anyone under the age of 16. Regardless of the law, or our policy on the matter, as a parent it is *your* responsibility to ensure the safety of your child. If you decide to allow your child to ride an Helio Cycle, both you *and* your child should read this manual beforehand. Make sure that the seat and handlebars are adjusted properly for a smaller rider. Make sure that you and your child have learned and understand how to operate the Helio Cycle safely. Make sure your child has learned and understands the pre-ride safety checklist. Make sure your child follows the checklist before each ride. Make sure that both you and your child understand and obey all relevant motor vehicle laws as well as the common sense rules of safe and responsible Helio Cycle operation. And above all else, **MAKE CERTAIN THAT YOUR CHILD WEARS A HELMET WHILE RIDING AN EGO / HELIO CYCLE.**

☺ ***“Example isn't the main thing in influencing others. It's the only thing.”***

- Albert Schweitzer

Registration Information

Traffic and vehicle laws vary from jurisdiction to jurisdiction. Some jurisdictions have created special laws covering electric vehicles like the Helio Cycle, but in many jurisdictions, there are no such laws. Consequently, your Helio Cycle may be covered by laws originally written for other types of vehicles (like mopeds or even bicycles).

Some of these laws require registration and/or insurance before using an Helio Cycle on a public road. Many jurisdictions require no special operator's license, but do require that you have a driver's license. In these jurisdictions, you could be ticketed for operating your Helio Cycle on a public road without the proper license or registration.

It is *your* responsibility to find out the laws for your area and to comply with them at all times. Call your local Police Department or Department of Motor Vehicles to learn about the laws in your area.

☺ ***“I would uphold the law if for no other reason than to protect myself.”***
- Thomas More

Assembling your Helio Cycle

Chances are, you have already assembled your Helio Cycle using the Quick Assembly Guide. But for completeness, we cover the assembly here as well.

Assembling your Helio Cycle is simple and takes only a few minutes. However, if you're unsure of your ability to properly assemble your Helio Cycle or simply don't want to do it yourself, your local bicycle shop might be able to help.

A properly sized allen key and hex wrench are required, so we included these tools in the box. No other tools are required other than scissors to cut away some of the packaging straps.

⊗ **Obviously, it is *extremely* important that you assemble your Helio Cycle correctly. If you don't, you may not be able to control your Helio Cycle. An uncontrollable Helio can cause severe injury or even death, so follow the procedures carefully.**

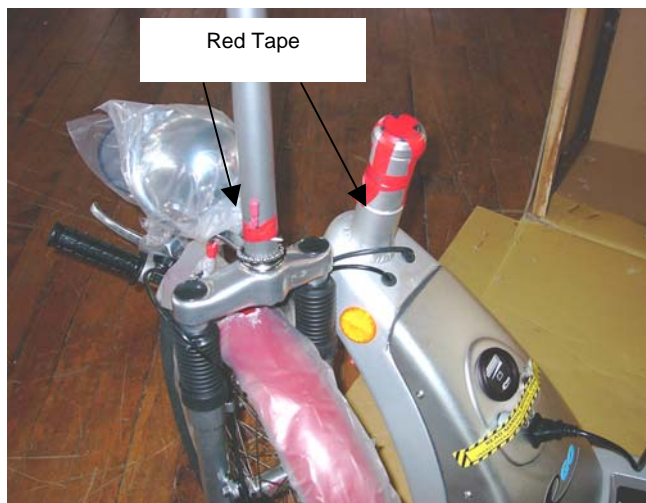
☺ ***"If you cannot find the time to do a task correctly, how will you find the time to do it over?"***

- unknown

Your Helio Cycle was carefully assembled and thoroughly tested for proper performance at the factory. To facilitate shipping, we removed the handlebar and front wheel assemblies and the saddle assembly. The front wheel is also removed from the front fork. To reassemble your Helio Cycle:

Unpacking your Helio Cycle

1. Find a large, clean, flat surface, like your garage or driveway, to unpack your Helio Cycle.
2. With the box upright, remove the strapping material and open the top of the box. Then open the ends of the box allowing the large side panel to fold down to the ground.
3. Slide the Helio Cycle out of the box onto the open cardboard panel. Locate the small box with parts inside. Inside you will find some small parts and the tools needed for assembly.
4. Cut away the plastic tie wraps and remove the packaging material.



5. Locate the two areas of red tape securing some small bearing parts for shipping and assembly. Carefully remove the red tape from the fork tube and the red tape holding the small parts on the head tube of the chassis. Be sure to leave the bearing parts on the fork tube and neck in the same position and order.
6. If the bearing parts need to be re-installed on the fork tube, **be sure the balls face up and the ball bearing retaining ring faces down**. If bearing parts need to be re-installed on the chassis head tube, **be sure the balls face down**.

Installing the front wheel in the front fork

7. Remove the plastic brace between the ends of the front fork.
8. Remove the nut and the washers from each side of the wheel, and slide the wheel between the fork, being sure the metal disk inserts between the disk brake pads. Remove the paper spacer between disk pads if present.
9. Once the wheel is in the fork, place the washers and nut in this order: 1. Regular Washer, 2. Safety Washer (flange inserts into the small hole in the fork), 3. Regular Washer, 4. Wheel retaining nut. Tighten.



Installing handlebars and front wheel assembly

10. Leaving the Helio Cycle on the cardboard panel, lean the Cycle away from you on to its side.
11. Slide the fork tube of the front wheel assembly into the head tube of the chassis, then stand the Helio Cycle upright and support it with the kickstand (under the wing on the left side of the Cycle).
12. See top figure for installation of bearing parts on the chassis head tube. **Be sure the balls face down and the ball bearing retaining ring faces up**. (This is opposite of the bearings on the fork tube – See #6.)
13. Slide the aluminum tube, from the small box onto the fork tube.
14. Place the handlebar stem onto the fork tube. Make sure the cables are not twisted or crossed.



15. Place the aluminum cap (found in the parts box) onto the top of the handlebar stem, and thread the headset retaining bolt through the cap into the top of the fork tube.
16. Tighten the headset retaining bolt with 5mm allen key until the black rubber compression ring (below the 15cm tube) begins to be compressed, and then tighten the bolt one additional revolution.
17. Align the handlebars with the front wheel and tighten the two stem clamp bolts on the side of the stem with 5mm hex wrench. (Be sure these two bolts are tight – or you may not be able to steer).
18. Connect the headlight wire located behind the headlight
19. Connect the speedometer wires.



Adjustments

20. If the steering feels too stiff, the headset retaining bolt is too tight. Loosen the two stem clamp bolts, then loosen the headset retaining bolt $\frac{1}{4}$ turn counterclockwise, and retighten the two stem clamp bolts. Repeat as necessary.
21. Make sure the fork assembly is not loose. Firmly squeeze the right hand brake lever and rock the Cycle forwards and backwards. If there is play in the headset (a knocking feeling) tighten the headset retaining bolt: loosen the two stem clamp bolts, tighten headset retaining bolt and tighten the two stem clamp bolts. Repeat as necessary.
22. Insert and adjust the saddle. To adjust the saddle height, open the quick-release clamp lever on the seat tube of the chassis. Adjust the saddle to desired height and close the quick-release lever. To tighten the clamp, open the lever, tighten the knurled knob opposite the lever and close the lever again.
23. The seat post has a minimum insertion mark on it. Under no circumstances should the seat post be extended beyond its minimum insertion mark. If you can see this mark, the seat post is extended too far out of the seat tube. If you ride your Helio Cycle with the seat post sticking out too far, the seat tube and/or the seat post could bend or break. This could cause all sorts of severe injuries.
24. Install small "S"-shaped plastic cable retainers to keep cables in front of the chassis head tube.
25. Insert the large round rubber cover over the input plug on the dash and the small round rubber cover over the headset-retaining bolt.

Adjust saddle front/back position and tilt-angle.

Your Helio Cycle was shipped to you with the saddle positioned in the middle of the saddle rails and the saddle tilt-angle set horizontally. This will be satisfactory for most people. However, some people will prefer the saddle a little closer to the handlebars,

some a little farther away. Some will prefer the saddle tipped forward a little, some tipped back a little. Here's how to adjust it:

1. Loosen the saddle clamping mechanism underneath the saddle with the allen key. (It may be easier to remove the saddle and seat post from the Helio before loosening the saddle clamp)
2. Slide the saddle backward or forward on its rails to the desired position, and adjust the tilt angle to the desired position.
3. Retighten the saddle clamping mechanism.

Side view mirrors

The Helio Cycle includes two side view mirrors that you will need to install. You will find these mirrors in two identical white boxes, one labeled "R" for Right Side, and one labeled "L" for Left Side. Screw the mirrors into their respective mounts on the handlebars. These mounts are found on each side of the handlebars attached to the brake handles.

Front fork maintenance

Just like a car, your Helio Cycle needs to be maintained. The front suspension fork will give you years of riding enjoyment and comfort if you follow a few simple tips recommended for cleaning and maintaining your front fork.

Every week or after approximately 10 hours of riding:

1. Peel the rubber fork boots up, and check the underlying metal for dirt or other contamination.
2. Apply a few drops of Teflon impregnated oil (available at your local bike store) around the seals to maintain proper lubrication.
3. Remove the rubber boots, and bounce up and down on the handlebars of the Cycle to check for any sticking or chattering.

Every 6 months or if the metal underneath the boots looks excessively dirty:

1. Take your Cycle to any bicycle shop and ask them to disassemble and clean the front fork
2. Only a qualified mechanic should perform this procedure because they have the right tools and the right knowledge necessary for disassembly of the front fork.

Before your first ride

OK, your Helio Cycle is assembled and you're ready to go... almost. Just one more thing to take care of. It's your responsibility to make sure you comply with all local laws concerning operation of your Helio Cycle on public roads.

If registration and insurance are required, take care of it *before you ride* your Helio Cycle. You may need to supply the registry with the Certificate Of Conformity, which is found in the literature packet or provided by the reseller of the cycle.

Go ahead...plug your Helio Cycle in to charge, and by the time you have finished reading his manual, you will be fully charged and ready to go. And if you don't already have a helmet, swing by the local bike shop (or motorcycle shop,) and buy one while you're your cycle is charging.

Don't lose your Certificate of Origin or Invoice/Bill of Sale!

These are important legal documents keep them in a safe place in case you need them in the future.

If you call us for a replacement Certificate of Origin (or COC) and we discover that you lost it because you didn't listen to our advice, we'll give you a good ribbing about it. To avoid this, keep your Certificate of Origin and Invoice/Bill of Sale in a safe place.

Features of your Helio Cycle

- Instrument panel
 - On/off switch
 - Range indicator
 - Charging inlet
 - Charging status indicator
 - Light switch
- Hand Brakes
- Throttle
- Motor
- Charging Plug
- Lights
- Cargo Rack
- Speedometer

The Instrument Panel

The instrument panel has four main controls and indicators: the on/off switch and performance selector, the range indicator, the charger receptacle and the charging status indicators. The lights switch and electric horn button are on the left handlebar grip.



The On/Off Switch and Performance Selector

The on/off switch and performance selector is a three position key-operated switch. When you turn the switch on, three things happen:

- The panel instruments are activated
- The electronic propulsion circuitry is activated
- The twist-grip throttle is activated'
- The tail/brake light is turned on (not on the Helio)

Your Helio Cycle has two performance modes: *GO FAR* and *GO FAST*. When the key is pointing up, the starter switch is turned off. When you turn the key to the left, the Helio Cycle is activated in the *GO FAR* mode. When you turn the key to the right, the Helio

Cycle is activated in the *GO FAST* mode. The *GO FAR* mode features a lower top speed and slower acceleration and deceleration. The *GO FAST* mode provides a higher top speed and faster acceleration and deceleration. Because the *GO FAST* mode is a high-performance mode, we *strongly* recommend you learn to ride your



Helio Cycle in the GO FAR mode. Switch to the GO FAST mode *only* after you're very familiar with riding your Helio Cycle. The 'M' version (maximum 25 km/hr) of the Helio Cycle has only one performance mode equivalent to the GO FAR mode as described above.

⊗ **Your Helio Cycle will accelerate *quickly* when the throttle is twisted. But that's only *half the story!* It will also decelerate *quickly* when the throttle is released. Unless you're prepared for these things, you could lose your balance and crash, which could, of course, result in severe injury or death. Since your Helio Cycle will accelerate and decelerate quicker in the GO FAST mode, use the GO FAST mode only after you are very familiar with riding your Helio Cycle.**



☺ ***“There is more to life than increasing its speed”
- Mahatma Ghandi***

🚲 **If you try to change performance modes while driving, the Helio Cycle will turn off. Come to a complete stop before changing performance modes.**

⊗ **Do not put the key in the switch unless you are sitting on your Helio Cycle ready to ride.**

Always remember that your Helio Cycle is an *electric* vehicle. Unlike conventional vehicles, you will not hear the motor or any other audible clues to remind you that the ignition is on. To prevent anyone from twisting the throttle and unintentionally accelerating your Helio Cycle, it has an automatic throttle cutout mechanism that deactivates the throttle after one minute of non-use. To reactivate the throttle, simply turn the key off, then back on again.

Even though your Helio Cycle has an automatic throttle cut-out mechanism, it's always a good idea to assume that whenever the ignition is on, current is flowing and the throttle and propulsion circuitry are activated. Unless you're sitting on your Helio Cycle ready to ride, remove the key from the ignition. That's important enough to reiterate:

⊗ **Unless you're sitting on your Helio Cycle ready to ride, remove the key from the ignition.**

⊗ **When the key is on, the throttle is active. Twisting the throttle will make your Helio Cycle accelerate whether you're sitting on it or not! If you twist the throttle when you're not sitting on your Helio Cycle ready to ride, you'll be lucky to walk away with merely a banged-up shin and a damaged Helio. If**

you're unlucky, you could be looking at severe injury or even death. To prevent this sort of accident, turn the ignition off and remove the key when you're not sitting on your Helio Cycle ready to ride.

① Leaving the key in the “on” position will slowly drain the batteries even when you are not riding your Helio. If you leave the key on for an extended period of time (a day or more), you can *permanently* damage the batteries. Turn the ignition off and remove the key when you're not sitting on your Cycle ready to ride.

🚲 If the key has been in the “on” position for more than two minutes and the throttle doesn't work, the automatic throttle cutout mechanism has disengaged the throttle. To restart it, turn the key off, then back on again.

The Range Indicator

The range indicator is your “fuel gauge” and tells you the charge of the batteries. To get an accurate determination of the charge of the batteries and therefore your range, you must be stopped. When the batteries are fully charged all the lights will glow. As you ride, the lights will go out TO THE LEFT one by one until only two remaining indicator lights are illuminated. When these two lights flash on and off, this indicates the batteries are nearly depleted and will need to be recharged soon.

When you decelerate, the automatic braking feature recaptures some of the energy of motion and converts it to electricity to recharge the batteries. During deceleration, all the charge indicator lights will glow, indicating the batteries are being recharged. Note that this *does not* indicate that the batteries are fully charged.

Again, for an accurate determination of the state of charge of the batteries, you must be stopped.

When the batteries are new and fully charged your Helio Cycle has a range of over 20miles (32km) on flat terrain in the “GO-FAR” mode. If you are a heavy rider, if you are riding up hills or if you are in lots of stop & go traffic, your range will naturally be shorter. Also, if you are in the “GO-FAST” mode, your range may be shorter.

🚲 **The Range Indicator continuously monitors the state of charge of the batteries *and the load they are under*. To get an accurate reading of range, you must view the indicator when stopped.**

🚲 **The Range Indicator conveys a lot of information. After you have gotten to know your Helio Cycle, you will be able to predict your range and monitor your riding habits by viewing the behavior of the Range Indicator.**



☺ **“Everywhere is walking distance if you have the time.”**
- Steven Wright

The Charging Inlet

Charging your Helio Cycle is simple. The charging inlet is located under the rubber splash cover on the instrument panel. Pull off the rubber cover and insert the proper end of the provided charging cord. Plug the other end of the cord into any grounded power outlet. The charging system draws a maximum of about 6 amps, which is about what a toaster uses, so if you can use an outlet to make toast, you can use it to charge your Helio Cycle. From a complete discharge it takes about 4 hours to charge your Helio Cycle to over 80% capacity and about 5-7 hours to completely recharge it. For faster charging, a fast charge connector is provided on every Helio Cycle. The connector is located under the battery door. Directions for use are included with the optional external fast charger that is required for fast charging.

🚲 **When you disconnect the charging cord, replace the splash cover in the power inlet. The splash cover prevents the inlet from collecting water. Also, the cord comes with a Velcro strap. Take the cord with you by securely attaching it under the seat or onto the cargo rack.**

🚲 **The Helio Cycle charger is so smart, it will accept any voltage from 100V to 240V at 50 or 60 HZ, and the charger will automatically shut off after the batteries are fully charged. So, take your Helio Cycle with you anywhere in the world. You don't need a converter – just plug it in.**

🚲 **The charging cord we provide is the same as a computer power cord. If you lose your cord, you can get a cord to match the local outlet at any computer store.**

Charging Status Indicators

The charging indicator lights are located just above the Charging Inlet and are visible when the splash cover is removed. When plugged in to an outlet, you'll see one of two things:

1. Red light and Amber light - batteries are being charged.
2. Red light and Green light – battery charging is complete.



🚲 **If you take care of your Helio Cycle batteries, they'll last longer. Do the following two simple things when possible: leave your Helio Cycle plugged in when you're not riding it, and avoid completely depleting the batteries while riding.**

🚲 **If you have the time, *always completely* recharge your Helio Cycle. The batteries will last much longer that way. Avoid letting your Helio Cycle sit for an extended period of time with the batteries depleted.**

🚲 **A new Helio may experience shorter than expected range for the first few rides. After 10 long rides and full recharges, your Helio should provide full range.**

The Light Switch

The slide switch on the left handlebar operates the headlight. It is extremely self-explanatory. We include this explanation merely for reasons of completeness. To turn on the lights, activate the switch. (Note: this switch does *not* operate the brake light. The brake light illuminates automatically whenever you decelerate and the brake light also activates when the brake levers are activated.

🚲 **Riding with your lights on will increase your visibility in traffic. However the lights use current from the battery and so riding with your lights on will reduce the operational range of your Helio Cycle. Of course, always ride with your lights on at night, when visibility is reduced, or when required by law.**

Handlebar switches

The instrument panel on the front dash of the chassis includes the On/Off and Performance switch, the Range Indicator, the Charging Inlet, and the Charging Status Indicators. Lighting, horn, and turn indicator controls can be found on the left side of your handlebars. On the left handlebar grip control there are two switches and one button.

The switch on top is the light switch

Slide this switch vertically and the headlight, tail light and rear plate light should illuminate.

The switch in the middle is the directional signals

Just as you would expect, if you slide the switch to the left, the left turn signal flashes. If you slide the switch to the right, the right turn signal flashes.

The button is the horn

Give that little button a press and you will hear the Helio horn. Just enough to let people and cars around you know that you are coming through.

🚲 **Lights, directionals and horn will only work if the key is turned on.**

The Brakes

Your Helio Cycle has two independent braking systems. The primary braking system is an automatic electronic braking system that engages whenever the throttle is

released or reduced, converting forward motion into electrical energy that is used to recharge the batteries. The secondary braking system consists of handlebar mounted brakes.

The Automatic Brakes

When you reduce the throttle, the automatic braking feature engages and causes your Helio Cycle to slow down. This feature also recaptures some of the energy of forward motion and converts it to electricity to recharge the batteries. Most of the time, this automatic braking will provide sufficient power to slow you down. However, the automatic brakes will not bring you to a complete stop. You will need to use the hand brakes to stop completely. In the GO FAST mode, the automatic braking will make you decelerate more quickly than in the GO FAR mode. Whenever automatic braking is in effect, the brake light will be activated.

⊗ When you release the throttle, the automatic brakes will engage and you will decelerate. If you're not prepared, you could lose your balance and crash. Nobody wants that, because it could lead to severe injury or even death. Keep in mind that the automatic braking is more powerful in the GO FAST mode.

The Hand Brakes

Occasionally, you may need more braking power than the automatic brake provides. The hand brakes alone are more than capable of stopping your Helio Cycle. The harder you squeeze the levers, the more braking force you apply. To stop, apply your rear brake first and then, gradually apply your front brake. The brake light will turn on when either of the brake levers are pulled.

⊗ The front brake lever is on the right side of the handlebar and the rear brake lever is on the left side. It is very important that you become accustomed to operating the front brake with your right hand and the rear brake with your left. In fact, it should be completely instinctive. If it is not, you may mistakenly apply the wrong brake, experience unexpected weight shifts while braking, lose your balance, and crash. And you know the drill when that happens: you could experience severe injury or even death, and that's the *last* thing we want.

**☺ “The ability to stop is one of the most important human abilities, sometimes even more important than the ability to go.”
- John Muir**

The Throttle

The throttle controls the speed and rate of acceleration and deceleration of your Helio Cycle. It operates by twisting the right hand grip. The twist grip throttle on the Helio Cycle is similar to the throttle style required and used on every road legal cycle and moped in the world.

- To accelerate, twist the throttle back toward you.

- To accelerate slowly or to cruise at a low speed, twist the throttle only partway around.
- To accelerate quickly or to travel faster, twist it further toward you. Remember that the throttle also controls the deceleration of your Helio.
- To slow down, twist the throttle away from you. Automatic braking will slow your Helio Cycle. The quicker you reduce throttle the stronger the automatic brake is applied.
- To come to a complete stop, be sure you completely release the throttle (twist away from you) before using the hand brakes.

⊗ **If you have not successfully operated a cycle with a twist grip throttle before, please read this whole section again and perhaps a third time. Other than balance, throttle operation is the most important skill needed to safely control your Helio Cycle. An uncontrolled Helio is dangerous and can lead to severe injury or even death.**

⊗ **Do not use the throttle to ‘walk’ the Helio Cycle. Walking beside your Helio Cycle while twisting the throttle is dangerous and can quickly lead to spectacular and energetic crashes, and severe injury or death.**

⊗ **The throttle may be active if the key is on. Don’t twist the throttle until you are ready to go. The result could be mayhem. And don’t let anyone else walk up and twist the throttle either. If you’re not sitting on your Helio Cycle, ready to ride, remove the key from the ignition so that neither you *nor* innocent bystanders hurt themselves.**

☺ ***“Borrow trouble for yourself if that’s your nature, but don’t lend it to your neighbors.”***

- Rudyard Kipling

🚲 **Learning to use a twist grip throttle doesn’t take long, but is *very important* to get right. Before venturing onto a road with cars and other hard objects, practice riding your Helio in a flat open area. Start in the GO FAR mode. If at any time you feel out of control – *LET GO of the throttle* – it will spring to the “OFF” position and you will quickly slow down.**

The Motor

Below your feet is a powerful electric motor. Treat your motor as a friend and it will take you where you need to go confidently and reliably. If you take it for granted, you might be walking home. The most important thing to remember about your motor is, if your motor is overloaded for too long, it will overheat and burn out. Short periods of overload are a normal part of driving and are safe for your motor, but long overloads create large amounts of heat that will permanently damage your motor.

How do you know if your motor is overloaded? It depends upon terrain, rider weight and ambient temperature, but generally – the motor is overloaded anytime when at full throttle the cycle is not able to maintain normal maximum speed.

① If you are driving at full throttle (in GO FAST) and your speed is substantially below (around 16 mph, 25kph) the normal top speed (around 23 mph, 37kph), your motor is overloaded. This will generally occur on rather steep hills. The motor can safely tolerate only short bursts (30 seconds or less) of such ‘high load’ driving, without a significant cool-down period (sometimes hours.) If the hill is very steep, the motor can handle even shorter periods. If the hill is less steep, the motor can handle the overload for a longer period of time.

① Never continue operating your Cycle if your speed at full throttle drops below 12 miles per hour (fast jogging speed), or if starting from a stop the Cycle is unable to accelerate to normal speed ‘smartly’ (in 5 to 10 seconds.)

🚲 If your typical route includes steep hills (those that slow you down to nearly 15mph) that take longer than 30 seconds or so to climb, find an alternative route that allows the cycle to maintain nearly top speed. When climbing steep or long hills, get a full speed running start, always climb hills at full throttle in the GO FAST mode, and avoid stopping, and more importantly starting, on a hill.


① Motor ‘Break-in’ This is important! To ensure that your Helio motor provides years of healthy service, please drive gently for the first 4 or so hours of use. Avoid riding up OR down steep hills. Avoid aggressive acceleration OR deceleration. Being conscientious during the break-in period will help to maximize motor efficiency, and reliability.

The Cargo Rack


An aluminum rear cargo rack is standard equipment on your Helio Cycle. There are a few things to keep in mind when using the rack. First, do not carry anything that weights over 10 pounds (5 Kg). (This means no passengers, *especially* the very light ones known as “babies”!). Second, make sure you secure your cargo well (use the integrated tie posts along the sides of the rack.) Third, make sure there are no hanging or loose straps that might get tangled in the rear wheel or drive belt. Also, keep in mind that carrying cargo will make your Helio Cycle handle differently than it otherwise would.

⊗ When you use the rack, make sure nothing can slip, shift, or come loose and get tangled in the wheel or drive belt. If you don’t, you might crash. As you know, that could cause severe injury or even death.

⊗ Carrying heavy objects will change the handling characteristics of your Helio Cycle. Allow more time and distance for stopping and starting, and reduce your speed when going around turns. If you don’t, well, severe injury or even death might result.

 **If you need more cargo space, consider pannier-style baskets for the rear rack and/or a basket for the handlebars. For larger loads we offer a cargo trailer. Visit our web site for details and for other accessories.**

Tempo-III Speedometer Set-up and Operation Guide


The TEMPO-III speedometer provided on your Helio has 8 functions: speed (displayed in large numbers,) average speed (AVS), trip distance (DST), daily trip distance (DST ) , odometer (ODO), maximum speed (MAX), elapsed time (TM), and time of day. This short manual will describe how to set-up, use, and trouble shoot problems with the speedometer.

Set up

Before you rely on the speedometer, you must calibrate it for the wheel size and metric/English display. To enter the set-up mode – remove and replace the battery. Slide the speedometer from the handlebar holding bracket. On the back – remove the cover with a coin (be careful not to loose the cover, spring or battery. Replace the batter, spring and cover. Reinstall the speedometer completely in the handlebar bracket. You should now see 'km/h' in the display.


1. Metric / English selection: By pressing the SET/RESET button you can select km/h or mile/h. Press the MODE button to set the desired unit.
2. Wheel circumference selection: After setting the metric/English units, the screen shows a value of 216. Press the SET/RESET button until the value 160 appears (the circumference of a 20 inch wheel in cm) then press the MODE button to set the value.
3. Set the current time of day: After setting the wheel circumference, the time of day '12:00' shows in the display. Press the SET/RESET button to select the proper minute (0-59). Press the MODE button to set the value. Repeat this procedure to set the proper hour (0 – 23).

If at any time you need to set-up a, b, or c, you must remove and replace the battery to enter the 'set-up' mode. You may choose between daily trip distance and trip distance

4. Choose trip distance or daily trip distance counter: Press the MODE button until 'DST' is displayed. Then, press and hold the SET/RESET button and press and hold the MODE button for 3 seconds. The 'DST' will flash. Press the SET/RESET button to set daily trip distance or trip distance. When  is displayed on the right side then daily trip distance is selected. (Average speed will not function if daily trip distance is selected.)

Operation

Current speed is displayed in large numbers whenever the screen is on. The other functions are displayed in smaller numbers below the speed.

1. Changing mode: By pressing the mode button you can choose to display the following functions in continuous order: AX → ODO → DST → AVS → TM → TM → 

2. Reset: You may reset MAX, DST, AVS, and TM by selecting MAX or DST or AVS or TM and holding the SET/RESET button and then pressing the MODE for three seconds. MAX, DST, AVS, and TM will be reset at the same time. (If Daily trip distance was set up in 1.d above, daily trip distance will not be reset. Daily trip distance is automatically reset to 0.0 at the start of a new day.)
3. The backlight will operate whenever the headlights are turned on.
4. The display will operate as soon as the front wheel begins rolling – if it does not, be sure the sensor on the fork is properly aligned (1mm gap) with the magnet on the wheel, and that the sensor wire is connected behind the front wheel.
5. The Lithium battery (CR2032) should last 5 years before needing replacement.

Before you Ride

Before you ride your Helio Cycle, make sure that it is in good working order. Make sure the brakes are working, the wheels are fastened securely, the tires are properly inflated and in good condition, it's unplugged from the charging cord and everything is ready to go. A good way to ensure your Helio Cycle is safe to ride is to memorize the "Pre-Ride Safety Checklist" below and follow it before every ride.

⊗ **Follow this checklist before every ride, not just the first one. It's much healthier to discover your front wheel is loose before you're riding around a curve at 20 mph (32kph). If your Helio Cycle doesn't pass every step in the checklist, DO NOT RIDE IT, or you could be headed for severe injury or even death instead of the corner store or the office. We're serious. Follow the checklist.**

☺ ***"Only a fool tests the depth of the water with both feet."***
- African proverb

The pre-ride safety checklist

Follow this checklist before *every* ride

1. **CHARGING CORD** – Make sure your Helio Cycle is unplugged and the cord is securely stowed before you ride away.
2. **TIRE CONDITION** – Make sure they're properly inflated. Look for glass, nails or other objects lodged in the tread.
3. **WHEELS** – Make sure the wheel-retaining nuts are tight.
4. **HAND BRAKES** – Inspect the cables and housings for wear. Squeeze the handbrakes and rock the Helio Cycle forward and backward. If it rolls, the brake cables or pads need adjustment.
5. **RANGE INDICATOR** – Make sure you have sufficient battery power to get you where you want to go.
6. **PERFORMANCE SELECTOR** – Using the key switch choose the correct, "Go Far" or "Go Fast" performance mode. If this is your first ride, choose "Go Far".
7. **MIRROR ADJUSTMENT** – Sit facing forward on your Helio Cycle and make sure you have a clear view of what's behind you.
8. **HELMET** - Make sure your helmet is on your head and properly adjusted.

Maintaining your Helio Cycle

Your Helio Cycle is designed to be extremely durable and virtually maintenance-free. All internal bearings (including the motor bearings) are sealed, internal belts require little maintenance, and all electronic components require no adjustment. Your Helio Cycle will most likely not require any regular maintenance beyond what you'd expect for a bicycle. Most of the time, you'll simply need to make sure the tires are inflated to the proper pressure, the brakes are properly adjusted, the lights are working properly, and the drive belt is properly tensioned.

In the unlikely case that your Helio Cycle *does* malfunction, DO NOT REMOVE THE BATTERY DOOR OR DASH PLATES without first visiting the service section of our web site or calling eGO Vehicles Service or your local dealer or distributor.

⊗ NEVER REMOVE THE BATTERY DOOR OR DASH PLATES without first reading and fully understanding the appropriate service bulletins and instruction manuals. Doing so exposes dangerous high-current wires and sensitive electronic components. Even when the ignition is off, Helio Cycle batteries and high-current wires contain enough electricity to MELT METAL! Severe injury could result!

Routine Maintenance

Some of the procedures described below require specialized parts, such as drive belts, bulbs, and high-pressure tires. You can order any part you'll need to take care of routine maintenance directly from your authorized eGO Vehicles dealer or distributor.

All of the procedures described below are relatively simple. However, if you are unsure about your ability to perform the procedures correctly or you simply do not want to do them yourself, your local eGO Vehicles Service Centre or bicycle shop will be glad to do them for you. Call your local eGO Vehicles dealer or distributor for the authorized service center nearest you.

⊗ All of these procedures can be dangerous. Many of them require you to support your Helio Cycle with one wheel removed or slightly off the ground. Make sure you are careful around your Helio Cycle so that it doesn't fall on you. Keep by-standers at a safe distance. Keep children and pets away. Also, make sure the key is NOT in the ignition.

☺ ***“Everything should be as simple as possible, but not simpler.”***
- Albert Einstein

The batteries

Your Helio Cycle batteries are designed to withstand many hundreds of discharge/charge cycles and will typically provide more than 8000 miles (13,000km), or up to 5 years, of riding. They are completely sealed and don't require water or any other chemicals. However, all batteries need proper care. The basics are simple: fully charged batteries are healthy batteries and cool batteries are happy batteries. Here are three things that you can do to ensure that your Helio Cycle batteries enjoy long and fruitful lives:

1. Avoid completely discharging the batteries: After the initial break-in of the first 10-15 rides, when possible, don't ride your Helio Cycle until it won't go any further. It is better to recharge your Helio Cycle before performance is noticeably reduced (generally after 15 miles, 24km).
2. Don't leave your batteries in a state of discharge: Always plug in your Helio Cycle after you ride, even if the batteries are not completely discharged. After all, the internal charger is a smart-charger and will know just what to do.
3. Store your Helio Cycle properly: Store your Helio Cycle in a dry place, and when possible, also store your Helio Cycle in a cool place, because cold environments are better for storing batteries than hot ones. Also, when storing your Helio Cycle for long periods, you can leave your Helio Cycle plugged in for months. If this is not practical, keep the batteries "topped off" by leaving it plugged in until the charging status indicator indicates a full charge (solid green light) at least once a month.



Since the internal charger is a "smart-charger", there's no danger of overcharging your batteries. So it's a good idea to plug in your Helio Cycle *whenever* you're not using it to make sure the batteries stay fully charged.

🚲 This is important, so here it is again. Helio Cycle batteries have *no* "memory" and *don't* need to be completely discharged before they're recharged. In fact, they'll last longer if they're *not* fully discharged. Also, if you store your Helio Cycle for long periods of time, keep the charge "topped off" by plugging it in until the charging status indicator indicates a full charge (solid green light) at least once a month.

Eventually, the batteries will need to be replaced. This procedure requires removal of the battery door, which exposes dangerous high-current wires and sensitive electronic components. When the time comes to replace the batteries, contact us for a replacement battery kit including detailed instructions for removing and replacing your batteries. The procedure should take about 5 minutes.

⊗ REMOVING THE BATTERY DOOR OR DASH PLATE exposes dangerous high-current wires and sensitive electronic components. Even when the ignition is off, Helio Cycle batteries and high-current wires contain enough electricity to MELT METAL! Severe injury could result!

Replacing / Swapping Battery Packs

Generally, you will not need to replace your batteries for many thousands of miles of use. However you might wish to switch battery packs to achieve quick 'turn-around' when you don't have the time to wait for the batteries to recharge. In either case, the procedure is nearly the same, and it should only take you a few minutes.

Before starting this procedure, be sure that your Helio Cycle is turned off, the charging cord is NOT connected, and that you have removed metal items from your fingers and wrists: watches, rings, etc. The batteries contain dangerous amounts of energy and can cause very serious burns. If you do not feel comfortable with this procedure, please call us for help, or bring it to your local automobile shop for assistance in handling the batteries.

Removing the batteries:

1. With the 3mm allen key provided, remove the two screws holding the battery door, and lift off the battery door.
2. You should notice a black nylon strap, and a number of connectors that connect the batteries to the cycle. Locate and disconnect the Black/Red (sometimes this connector will have a piece of white tape) connector that runs between the forward and aft battery. (If there is a small green wire attached to the rearward battery black terminal, detach that connector also.)
3. Locate and disconnect the Red/Red connector
4. Locate and disconnect the Black/Black connector
5. Unclip the nylon hold down strap.
6. Remove the aft battery using the lift handle(s) that lie flat along the edge of the battery.
7. Remove the forward battery using the lift handle(s) that lie flat along the edge of the battery.

Installing the batteries:

Make sure your replacement battery pack is correctly wired with the same wires, connectors, and protection covers that were on the battery pack that you removed. IF you are swapping packs, the fresh pack should already have wires. If you are replacing – you will need to switch the wires from the old batteries to the new. If you purchased a REPLACEMENT Battery Pack, you did not receive wires attached to the batteries and you will need to remove the wire connectors from the old batteries and attach them to the new batteries. Please carefully read the instructions that came with your replacement battery pack. If you purchased a SPARE Battery pack, a wire and connector set came attached to the spare battery pack and you will not need to use any tools.

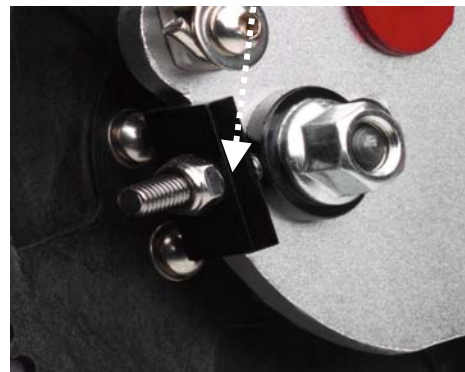
1. Before installing be sure the wires are securely attached and the protective caps fully cover the terminals.

2. Install the forward battery with the terminals rearward - push the handle(s) flat. Push the forward battery forward until it lines up with the battery strap entry point in the bottom of the chassis.
3. Install the aft battery with the terminals forward - push the handle(s) flat. Push the aft battery forward until it is touching the forward battery.
4. Connect the two ends of the black nylon strap and make sure it very snugly holds the batteries in place. The batteries should not move at all when pushed front / back or side to side.
5. Connect the two ends of the Black/Black connector
6. Connect the two ends of the Red/Red connector
7. Connect the two ends of the Red/Black (or white/white) connector
8. Install the battery door, and with the 3mm allen key provided, replace and tighten the battery door hold-down screws.

The drive belt

Adjusting the drive belt tension

The drive system on your Helio Cycle is designed to require very little maintenance. However, if one of the two the drive belts become loose, the belt may slip; making popping, snapping or clicking sounds, and will need to be tightened. There are two belts, the 'primary' is located inside the chassis and the 'secondary' is visible on the rear wheel gear. If you hear a popping sound during acceleration or deceleration, stop as soon as practical and follow the directions below. Ridding with a loose belt will quickly lead to belt failure. Increase tension on the secondary drive belt first. If the problem persists, tension the primary belt.



Secondary Belt Tension Adjustment

1. Place a block of wood (or other support) under the chassis so that the rear wheel is slightly off the ground.
2. Slightly loosen the large rear wheel axle nuts with the 15 mm wrench.
3. Turn the RIGHT belt tension adjuster nut clockwise one complete revolution with the 10mm spanner. Then turn the LEFT tension adjuster nut clockwise one complete revolution. Turning the belt tension adjuster nuts the same number of revolutions will ensure that the wheel remains properly aligned in the chassis.
4. Test the belt tension. If you can push it inward much more than $\frac{1}{2}$ inch (1 cm) with your thumb (using as much pressure as you would to affix a postage stamp to an envelope) it's too loose. If the belt is too loose, continue to alternately Belt Tension Adjuster tighten the belt tension adjuster bolts, keeping the wheel properly aligned.

5. Tighten the wheel axle nuts after adjusting and before test riding.

If you are in doubt about the proper tension, make small tension adjustments and test ride your Helio between adjustments until the belt stops skipping (generally occurs first during hard automatic braking from high speed.)

When the belt is properly tensioned, check to make sure the wheel is properly aligned by rotating the rear wheel by hand. If the belt rides in the center of the drive pulley, it is correctly aligned. If the belt rides close to the right (outside) edge of the pulley add another $\frac{1}{2}$ turn to the right side adjuster nut and loosen the left side adjuster nut $\frac{1}{2}$ turn. Repeat until the belt rides near the center of the pulley.

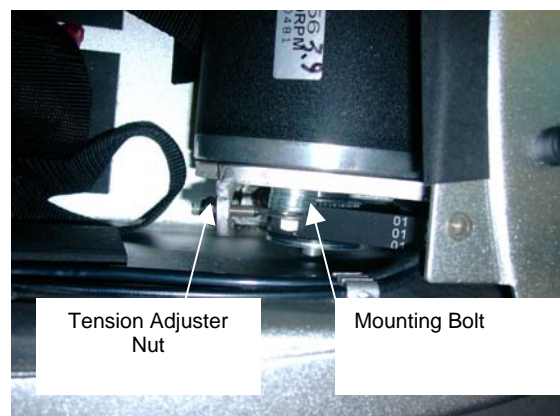
ⓘ Be careful not to over tighten the belt using this alignment method. When the belt is too tight it will be noisy, create vibrations, and lead to premature belt and pulley wear. If the belt appears aligned but is too tight, turn both adjuster nuts evenly in the counterclockwise direction, then retighten the rear wheel retaining bolts.

ⓘ It is very important that the rear wheel is properly aligned. A misaligned wheel can cause the belt to come off the drive-pulley, which can damage the belt, the drive pulley, and the rear wheel. A misaligned wheel will also cause the belt and drive pulley to wear unevenly, which can result in belt or drive pulley failure.

If adjustments to the secondary drive belt (previous page) do not eliminate the skipping tendency, tension the primary belt.

Primary Belt Tension Adjustment

1. Remove the battery door using a 3mm allen wrench.
2. Using an adjustable wrench, slightly loosen the motor mounting bolt
3. Using a small adjustable wrench, tighten (clockwise) the primary belt tension adjuster nut (remove the small black rubber cap) by $\frac{1}{2}$ turn.
4. Tighten the top motor mounting bolt and replace the battery door.



Make small tension adjustments and test ride between adjustments until the belt stops skipping.

Note: If your Helio Cycle does not have a tension adjuster system on the motor mount, then the motor mount must be removed from the chassis to adjust the tension of the primary belt. Please contact eGO Vehicles for complete service instructions.

Replacing the drive belt

The drive belt (secondary belt) on your Helio Cycle is extremely long wearing and is designed to last for many years. However, if one is damaged, it may need to be replaced. Replacement of the belt is relatively simple, however, if you are unsure of your ability to correctly follow the procedure or you simply do not want to do it yourself, your local eGO Vehicles service center or bicycle shop can help. Contact us for the authorized service center nearest you.

To replace the drive belt yourself, here's what you'll need: a new drive belt, a 15 mm spanner, 10mm spanner, and a block of wood (or other support) to support your Helio Cycle while the rear wheel is off the ground.

To replace the drive belt:

1. Place block of wood under the rear of the chassis so that the rear wheel is slightly off the ground.
2. Loosen the rear quick-release brakes in three steps:
 - Grip the brake calipers with your hands, squeeze the brake pads against the rim, and hold them there. This will slacken the brake cable.
 - Pull the L-shaped cable tube (the thing that looks like an aluminum noodle) out of its slot in the retaining bracket.
 - Release the calipers. They should spring away from the rim leaving at least a ½ inch (1cm) gap between the rim and the pads.
3. Loosen the two rear axle retaining nuts.
4. Turn the belt-tension adjuster nuts *counterclockwise until the rear wheel can be pushed forward about ¼ inch (0.5cm)*.
5. Push the rear wheel forward as far as it will go. This will loosen the old belt enough to slide it off the rear wheel pulley.
6. Slip the belt off the rear-wheel pulley.
7. Slide the rear wheel out of the chassis.
8. Fit the new belt around the small drive pulley (just forward of the rear fender inside the chassis).
9. Reinstall the rear wheel and fit the belt loosely around the rear wheel pulley. (Washer placement: On the right side of the axle, the washer is between the wheel pulley and chassis. On the left side of the axle, the washer is between the tension adjuster and the axle nut.
10. Reinstall the belt tension adjusters. Make sure they are properly oriented and aligned with the chassis dropouts.
11. Tension the belt by turning the belt-tension adjuster nuts *clockwise* with the 10 mm spanner. Refer to the section on adjusting belt tension on page 48 for the proper procedure. The belt is properly tensioned if you can push the belt inward about ¼ inches with your thumb.
12. Make sure the wheel is properly aligned with the chassis by rotating it manually a few turns. If the belt rides in the center of the rear wheel pulley, it is correctly aligned.
13. Retighten the rear-wheel axle retaining nuts.
14. Re-engage the quick-release brakes.

Tires

Adjusting the pressure

Helio Cycle tires operate in a pressure *range*. The maximum pressure is 100 PSI (690kPa.) The minimum pressure is 60 PSI (414kPa.) Tires at maximum pressure will provide superior handling characteristics, very little rolling resistance and a longer range but will not provide much cushioning on bumpy or uneven surfaces. Tires at minimum pressure provide a softer ride, are more susceptible to flats, and create more rolling resistance thus reducing the riding range. If you want a really efficient and high-performance (but bumpy) ride, or if you're a large person, keep the tires inflated to their maximum pressure. If you want a smoother but less efficient ride, inflate your tires to about 60 PSI (414kPa.)

Helio Cycle tire valves work just like the ones on cars. To add air, remove the cap and push the air hose or pump fitting onto the end of the valve stem. To remove air, depress the pin in the center of the valve stem.

⊗ **This is the part where we warn you about losing an eye: DO NOT OVERINFLATE THE TIRES! If you over-inflate your tire, you could cause it to explode. Besides being alarmingly loud, it could put your eye out, which is, of course, a severe injury.**

⊗ **It is very easy to over-inflate your tires with a filling station air line. Use a high-pressure bicycle floor pump with a pressure gauge instead. If you must use a filling station air line, add air in short bursts.**

① **If you ride with your tire pressure too low for your weight or for the riding conditions, you dramatically increase your chances of getting a flat tire, especially when riding on bumpy surfaces.**

🚲 **Tire pumps with built-in high-pressure tire gauges are inexpensive. Any bicycle shop will be glad to sell you one. Before you buy, make sure it is compatible with Schrader-type valves and that the gauge measures pressure up to at least 100 PSI (690kPa.) If you already have a pump but it doesn't include a tire gauge, we recommend that you at least buy an accurate gauge.**

Repairing a flat tire

Sooner or later you'll run over something sharp and get a flat. Repairing a puncture is relatively easy. However, if you are unsure of your ability to complete the repair procedure or if you simply don't want to do it yourself, your local bicycle shop can handle the repair for a small fee. Be sure to provide this manual to them so they will know the procedure for installing the rear wheel and adjusting belt tension.

🚲 **Most flats happen while you're out riding around in the world. Carrying a compact pump, a few tools and a spare tube can get you home in an emergency.**

☺ **“Be Prepared.”**

- Boy Scout motto

⊗ **Although it is usually possible to repair a damaged tube with a patch, a patched tube may be weakened and may not hold the high pressure required for Helio Cycle tires. Replace punctured tubes with new ones, and if you must use a patch temporarily, replace a patched tube as soon as possible.**

Here's what you'll need to repair a flat tire:

1. New inner-tube
2. 15 mm spanner (plus a 10mm spanner for the rear wheel)
3. Tire levers
4. Pump with pressure gauge
5. A support for your Helio Cycle while the wheel is off

Front tire puncture:

1. Place the support under the front chassis of the Helio Cycle so that it is supported with the front wheel slightly off the ground.
2. Loosen the two front-wheel-retaining nuts.

ⓘ **Use only a proper fitting spanner to tighten or loosen the wheel nuts. Using grips or a loosely fitting wrench will damage the wheel nuts.**

3. Remove the front wheel.
4. Depress the tire valve to let all the air out of the tube.
5. Remove *one* side of the tire by gripping the tire with both hands and bending it downward until one side of the tire peels off the rim. If this proves difficult, use the tire levers to *carefully* pry the tire bead over the rim. It's not necessary to remove the tire completely from the wheel. Removing one side is sufficient.

ⓘ **DO NOT use a screwdriver to pry the tire off the rim. If you do, you'll likely damage the tube, rim, and/or the tire. You can buy inexpensive tire levers at any bicycle shop.**

6. Remove the inner-tube and inspect the inside of the tire for damage or sharp objects protruding into the tube cavity.
7. Inflate the new tube just enough to give it some shape and replace the old tube with the new one.
8. Start at the valve stem and work the tire bead back into place on the rim. If you have trouble getting the tire seated over the rim, *carefully* use a tire lever to pry it into place, making sure not to pinch the tube.
9. Inflate the tire to the proper pressure, checking to make sure it's properly seated on the rim. (see page 35 for details on proper tire pressure).
10. Reinstall the wheel on the fork.
11. Retighten the wheel retaining nuts.

Rear tire puncture:

1. Follow the instructions on page 34 called “Replacing the Drive Belt” to remove the rear wheel.
2. Follow steps (4) - (11) in the procedure in the previous section for repairing a front flat.
3. Once the puncture is repaired, re-install the wheel using the instructions on page 34 to replace the drive belt.

Replacing a tire

If a tire is damaged, torn, or excessively worn, do not try to repair it. Instead, replace it. We selected these particular tires based on their performance characteristics and their compliance with regulations. Although many other tires will fit on your Helio Cycle rims, not all of them will be suitable for use on your Helio Cycle. Do not use conventional bicycle tires to replace Helio Cycle tires. Contact us for tire-ordering information.

Replacing a tire is easy. Follow the procedure for repairing a puncture, except instead of removing only one bead of the tire from the rim, and remove them both.

⊗ Helio Cycle tires are specially rated high-pressure tires. DO NOT USE CONVENTIONAL BICYCLE TIRES ON YOUR Helio Cycle. If you do, the chance of tire failure drastically increases.

The Brakes

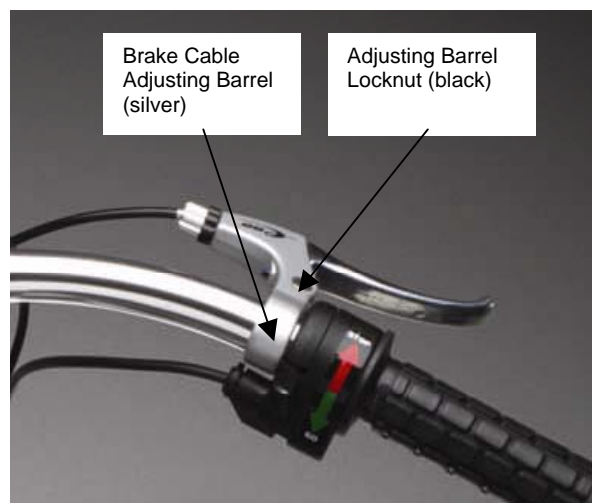
Adjusting the hand brakes

If your Helio Cycle hand brakes fail the pre-ride safety checklist, they are probably simply out of adjustment. You can usually return them to proper adjustment quite easily. Here’s how:

1. Place a block of wood under the chassis so that the wheel you’re interested in is slightly off the ground.
2. Spin the wheel to make sure the wheel is perfectly round and doesn’t wobble from side to side.

If the wheel is out of round or wobbles back and forth, take it to a bicycle shop for professional attention. Ask them to “true” the wheel.

3. Turn the brake-cable-adjusting barrel *counterclockwise* until the brake pads just touch the rim or disk.
4. Turn the adjusting barrel 1/2 turn *clockwise* to back the pads away from the rim or disk a little.
5. Spin the wheel again. If the brake pads hit the rim, turn the adjusting barrel another 1/2 turn *clockwise*. Repeat this step until the wheel spins freely.
6. Turn the adjusting-barrel locknut *clockwise* as far as it will go to lock the adjusting barrel into place.



If the above procedure fails to return the hand brakes to proper adjustment, you should have them checked by a qualified technician. Your local bicycle shop can handle this procedure.

The lights

Aligning the headlights:

Your headlight may occasionally get bumped out of alignment and will need to be realigned. To test for proper alignment, position your Helio Cycle about 25 feet (9m) from a blank wall and turn on the light. It should provide a uniformly lit area on the wall centered about 1.5 feet (50cm) off the ground. Aim it properly, and tighten the retaining screw.

Replacing a bulb

The bulb on your Helio Cycle is a long-lasting, low-current bulb. However, it will occasionally burn out. Replacing it is simple. Remove the bezel by loosening the bezel clamp bolt at the bottom front edge of the light. Slide the bezel off the housing and be sure not to drop the glass lens. Locate and replace the bulb. Contact us for information on how to order new bulbs.

Troubleshooting

Use this troubleshooting guide to help you identify and solve any problems you may have with your Helio Cycle. Please refer to the applicable sections in the manual before attempting to repair or adjust your Helio Cycle. If you have problems with your Helio that are not addressed in this guide, give us a call and we'll help you get it straightened out.

1. Symptom – chatter, snapping or popping sound when accelerating or decelerating

Cause – one or both belts improperly tensioned

Solution – Properly tension drive belts **page 32**

Cause – rear wheel isn't properly aligned

Solution – align rear wheel **page 32**

2. Symptom – throttle doesn't work

Cause – ignition isn't turned on

Solution – turn ignition on

Cause – batteries are discharged

Solution – recharge batteries

Cause – safety cutout mechanism has activated

Solution – turn key off, then back on

3. Symptom – Short operational range

Cause – brakes are rubbing against wheels

Solution – adjust brakes so wheels turn freely

Cause – batteries are low

Solution – charge batteries

Cause – batteries are old or damaged

Solution – have an authorized technician test and replace batteries if necessary

Cause – Batteries are very new

Solution – 'exercise' the batteries by riding until empty and recharging 5-10 times

4. Symptom – Charge indicator light doesn't work

Cause – power outlet is faulty

Solution – use different power outlet

Cause – extension cord is faulty

Solution – replace extension cord

Cause – internal charger is damaged

Solution – contact eGO Vehicles or authorized dealer/distributor for diagnostic information

Cause – batteries are old or damaged

Solution – Contact eGO Vehicles or authorized dealer/distributor for diagnostic information

5. **Symptom** – Rubbing or scraping noise when riding

Cause – mudguard(s) are loose, bent, or out of alignment

Solution – tighten and/or straighten fender(s). If fender is bent too badly to be straightened, replace it.

Cause – rear wheel belt is not properly aligned and belt is rubbing

Solution – properly align belt. See Page 48

Cause – wheel-retaining nuts are loose

Solution – tighten wheel-retaining nuts

6. **Symptom** – Range indicator reads erratically

Cause – you are accelerating, decelerating, or climbing a hill while reading gauge

Solution – stop to read gauge

7. **Symptom** – Soft, spongy or loose steering or handling

Cause – tires are under-inflated

Solution – inflate tires to proper pressure **page 35**

Cause – wheel-retaining nuts are loose

Solution – tighten wheel retaining nuts

Cause – headset bearing is too loose

Solution – set bearing to proper tension **page 15**

Cause – Loose rear-triangle-to-chassis fasteners

Solution - tighten rear-triangle-to-chassis fasteners with hex key

Cause – Loose handlebar

Solution – Tighten handlebar clamp bolts on the stem

8. **Symptom** – Stiff or difficult steering

Cause – headset bearing is too tight

Solution – set bearing to proper tension **page 15**

9. **Symptom** - Batteries won't fully charge

Cause – batteries are old or damaged

Solution – Contact eGO Vehicles or authorized dealer/distributor for diagnostic information

Cause – charger is damaged

Solution – Contact eGO Vehicles or authorized dealer/distributor for diagnostic information

10. Symptom - Range indicator reads “full” only when plugged in

Cause – batteries are old or damaged

Solution – Contact eGO Vehicles or authorized dealer/distributor for diagnostic information

11. Symptom – Range gauge lights are flashing

Cause – batteries are low

Solution – charge batteries

12. Symptom – Headlight doesn't work

Cause – switch isn't on

Solution – turn switch on

Cause – wiring is broken/damaged/disconnected

Solution – inspect and reconnect wiring

Cause – bulb is burned out

Solution – replace bulb

13. Symptom – Saddle is loose

Cause – loose saddle-retaining bolt

Solution – tighten retaining bolt under the saddle

14. Symptom – Handbrakes do not work properly

Cause – improperly adjusted pads

Solution – adjust pads

Cause – worn brake pads

Solution – replace pads

Cause – improperly adjusted brake cables

Solution – adjust brake cables

Cause – broken brake cable

Solution – have qualified technician replace brake cable

Cause – warped or “out-of-true” wheel

Solution – have qualified technician repair or replace wheel

15. Symptom – Handbrakes squeak

Cause – improperly adjusted pads

Solution – adjust pads

Cause – worn brake pads

Solution – replace pads

Ego Vehicles no-nonsense limited warranty

Your Helio Cycle is warranted against defects in materials or workmanship for the following periods:

Chassis (the shiny aluminum frame)	10 years
Batteries	6 months
All other parts/components	2 years

We will repair or replace (at our option) defective items if defective within the warranty period, beginning on the original date of purchase. You'll be responsible only for the cost of shipping to an authorized service center or to an eGO Vehicles location, if required. Only original owners who purchase their Helio Cycle from EGO Vehicles, Inc. or an authorized dealer are eligible for this warranty.

Obligations of Original Owner

You must retain your original, dated, purchase receipt or invoice as proof of purchase, and present a copy upon request, before warranty services will be performed. You are responsible for reading the owner's manual and following all recommended operational and maintenance guidelines.

Exclusions from this warranty

Of course, this warranty doesn't cover cosmetic damage, damage that occurs during shipping (it's covered by shipping insurance), improper assembly or maintenance, flat tires or normal wear and tear to parts like your tires or brake pads. It also does not cover damage due to accident, misuse or neglect. It also doesn't cover damage sustained in commercial use, rental, deliver, carrier applications, or in competition (but if you've found a competition that you can enter your Helio Cycle in - let us know!)

Some folks like to tinker with their electric vehicles, but please leave the performance-tuning to us. In addition to being potentially hazardous to your health, modifying your Helio Cycle or attempting to perform maintenance beyond that advised in the owner's manual may void your warranty.

YOU are responsible for learning and obeying the highway code. This warranty doesn't cover anything related to the legal registration or use of your Helio Cycle on a public road. So ride safely and avoid fines, OK?

How to make a warranty claim

Contact your local eGO Vehicles distributor or call our world wide customer service number: 1-401-461-2108 (US.) We'll take it from there.

The usual legal mumbo-jumbo: This warranty gives you specific legal rights. This warranty does not affect the statutory rights of the consumer.

The pre-ride safety checklist

Follow this checklist before every ride

CHARGING CORD – Make sure your Helio Cycle is unplugged and the cord is securely stowed before you ride away.

TIRE CONDITION – Make sure they're properly inflated. Look for glass, nails or other objects lodged in the tread.

WHEELS – Make sure the wheel-retaining nuts are tight.

HAND BRAKES – Inspect the cables and housings for wear. Squeeze the handbrakes and rock the Helio Cycle forward and backward. If it rolls, the brake cables or pads need adjustment.

RANGE INDICATOR – Make sure you have sufficient battery power to get you where you want to go.

PERFORMANCE SELECTOR – Using the key switch choose the correct, "Go Far" or "Go Fast" performance mode. If this is your first ride, choose "Go Far".

MIRROR ADJUSTMENT – Sit facing forward on your Helio Cycle and make sure you have a clear view of what's behind you.

HELMET - Make sure your helmet is on your head and properly adjusted.

Notes



Your Helio-dealer: