

Hitch Hiker Operating Instructions

Read Completely and Carefully Before Operating

The Hitch Hiker is designed as an *electric pedal assist system*. A pedal assist system helps the riders propel the cycle *while the riders are pedaling*. Although the Hitch Hiker can be used to completely replace pedal propulsion of your Surrey, International Surrey Company does not recommend it. Cycling is a healthy activity that should remain the main source of propulsion on your Surrey. Recommended use of the Hitch Hiker is to engage the system when you need an extra boost. After all, if you wanted a golf cart, you would have purchased a golf cart!

When the Hitch Hiker is not being used during a ride, the Hitch Hiker wheel should **not** be engaged with the riding surface. Cranking the wheel off of the riding surface will reduce rolling resistance and prevent unnecessary tire wear.

Charging the Hitch Hiker

- A. The Hitch Hiker comes standard with a 5 amp charger. The charger is operational on any standard 120 volt wall plug (common wall plug).
- B. To charge the Hitch Hiker:
 - a. Turn the Hitch Hiker to the “off” position with the key (failing to follow step will cause severe damage to your Hitch Hiker that is not a warranty issue).
 - b. Remove the key.
 - c. Be certain that the charger **is not** plugged into the electrical outlet.
 - d. To the left of the Hitch Hiker ignition, is an Anderson plug charging port.
 - e. Plug the charger into the Hitch Hiker charging port. The connection can be made only one way. Make sure the connection is securely made.
 - f. Plug the charger into the 120 volt electrical outlet.
 - g. Switch the charger to the “on” position (the – symbol on the toggle switch)
 - h. The charger fan will begin to operate and both LED lights will appear red if a charge is required.
 - i. After 6 to 8 hours, the LED lights will appear red and green and the fan will power off.
 - j. When the LED lights appear red and green, switch the charger to the “off” position (the O symbol on the toggle switch).
 - k. Unplug the charger plug from the charging port on the Hitch Hiker battery box and unplug from the electrical outlet.

Note: Leaving the charger plugged in for long period of time is not good for the charger or the Hitch Hiker battery. The charger should be turned off and unplugged when the battery is not in charge mode and taking a charge. **ONLY USE THE CHARGER SUPPLIED WITH YOUR HITCH HIKER!**

Note: If the charger comes with supplemental instructions from the manufacturer. Please read those. Also included are extra fuses in case the fuse in the charger blows.

Battery Care and Management

Caring for your lithium ion battery is critical for long cycle life and optimal performance.

- ❖ Do not store your battery in temperatures below -17C (0F) or above 27C (80F). Prolonged storage outside this temperature range may cause permanent damage the battery – Keep the cycle warm and indoors prior to riding for peak performance.

- ❖ Do NOT charge the battery if it is below 0C (32F) or above 45C (113F). This will cause permanent damage! Charging at normal room temperature is recommended.

- ❖ Expect decreased capacity and range at lower operating temperatures; maximum capacity will be 80% of normal at temperatures near 0C (32F).

In short, your battery likes to be charged warm, kept warm, and will perform best when warm. This can be a little tricky in the winter- usually a warm garage is perfect for storage.

You might consider removing your battery from the Hitch Hiker battery box to bring the battery to a warm storage area if necessary.

Also, if you can- try to discharge and re-charge your Hitch Hiker at least once a month. This will help keep the battery in premium condition for summer riding.

Be aware that the Hitch Hiker Lithium Batteries (like most lithium batteries) do NOT trickle charge like lead acid batteries. *Take care to not overcharge the battery or leave it on the charger after the charger indicator light turns green.*

Engaging and Operating the Hitch Hiker

Before Ride

- ◆ Check brakes for proper adjustment
- ◆ Check all tires for proper air pressure

During Ride

- ◆ Always wear helmets. Avoid riding at night
- ◆ No unlicensed motor vehicle operators
- ◆ Never more than 800 lbs of passengers
- ◆ Always pedal during use—No full throttle
- ◆ Never throttle through turns
- ◆ Always obey all traffic laws and regulations

After Ride

- ◆ Remove key from ignition before charging!

Operating the Hitch Hiker

1. Make sure your surrey's brakes are properly adjusted and all tires have proper air pressure!
2. Turn the Hitch Hiker crank counter-clockwise (left) to lower the Hitch Hiker wheel to the ground. Turn the crank until the wheel makes solid contact with the ground. If the wheel slips (or "peels out") when the throttle is engaged, the wheel is not lowered enough to the ground. If the wheel begins to lift the rear wheels of the cycle off the ground or allows the surrey to rock, the wheel is lowered too much and should be raised until all four wheels of the surrey are solidly contacting the ground.
3. Make certain everyone is securely seated on the surrey, including children in the childseat with the safety strap engaged and tightly around the waist of each rider.
4. After the Hitch Hiker wheel is lowered properly, locate the key ignition on the driver side of the black battery box. Insert the key and turn the key to the "on" position. The Hitch Hiker is now operational.

5. Gently turn the throttle. The more the throttle is turned, the more power will be supplied to the Hitch Hiker wheel.
6. Never fully engage the throttle. Only turn the throttle enough to travel at a safe, manageable speed while pedaling the Surrey.
7. When the surrey is fully loaded or climbing significant inclines, always assist the Hitch Hiker with pedaling on the passenger side (and the backseat pedal placements, if available) pedaling position(s).
8. If the throttle is engaged but not moving the Surrey, the Hitch Hiker is overloaded!! Let off the throttle! Failing to do so will damage the Hitch Hiker.
9. Do not continue to engage the throttle if the Hitch Hiker is overloaded and is not moving the surrey. Failure to do so will cause the Hitch Hiker controller to overheat. Overheating causes the controller to shut off the motor but can also cause severe, irreversible damage, which is outside the warranty.
10. Do not use the throttle in turns and always reduce speed in turns.
11. Always travel in a safe and manageable speed. Excessive speed can be dangerous. Never exceed 15 miles per hour under any circumstance.
12. Always turn the key ignition to the "off" position and remove the key when the Hitch Hiker is not in use. Always:
 - use the vehicle in a responsible manner and maintain the vehicle in safe operating condition
 - read and observe all warnings and operation instruction labels affixed to the vehicle
 - follow all safety rules established in the area where the vehicle is being operated
 - leave the vehicle when there is a risk of lightning
 - reduce speed to compensate for poor terrain or conditions
 - let off the throttle and apply service brake to control speed on steep grades
 - maintain adequate distance between vehicles
 - reduce speed in wet areas
 - use extreme caution when approaching sharp or blind turns
 - use extreme caution when driving over loose terrain
 - use extreme caution in areas where pedestrians are present
13. Suggested maximum ramp is 25% or 14 degrees.

Warnings

SYSTEM WARNING – The Hitch Hiker is designed to prevent “gunning” and “punching” the throttle. The throttle should be engaged in a slow, measured way. Otherwise, the throttle may not respond.

SYSTEM WARNING – The Hitch Hiker controller will become non-operational if the internal temperatures become dangerously high. This mechanism prevents permanent damage to the electronics. All the system to cool before restarting the system.

SYSTEM WARNING – A system protection is in place to cut off the system automatically if the battery voltage drops to 52 volts. A typical full charge is 64 to 66 volts on a volt meter.

GENERAL WARNINGS

- Unintentional movement of the twist throttle may cause the vehicle to move unexpectedly and could cause serious injury or death.
- Before operation, all passengers should be seated and holding on securely to the available handle bars. Additionally, **seat belts are strongly suggested**.
- Never adjust or manipulate in anyway the throttle. Doing so will void any warranty immediately and can be very dangerous.
- Never allow an unlicensed driver operate the Hitch Hiker on any cycle. Intended for use by individuals 18 years and older.
- Never “gun” or “punch” the throttle. Doing so could cause damage to the system and injury or death.
- Never throttle through a turn and apply the brake to turn in a slow, safe speed.
- Operate the Hitch Hiker in the same manner you would operate an automobile.
- Always operate in a safe and manageable speed. The Hitch Hiker should be operated at the same speed that is achieved by pedaling. Failure to follow these warning can cause serious injury or loss of life!
- Never travel in excess of 15 mph, under any circumstance including on declines.
- Never overload the Surrey with more than 800 lbs of passengers when using the Hitch Hiker.
- Before operating the Hitch Hiker, read all warning labels and the owner’s manual. Contact International Surrey Company or visit www.surreycompany.com for a replacement manual.
- Except where permitted by law, NEVER drive on public roads.
- All passengers should wear a helmet while riding a vehicle with a Hitch Hiker.

- It is not advisable to operate at night, however if night time operation is necessary, use safety lights and wear light colored clothing.
- Do not operate any vehicle using the Hitch Hiker unless all occupants are properly seated and holding on. Driver and passengers must keep entire body inside vehicle while moving.
- Operate vehicles only from the driver's seat.
- Always drive slowly in congested areas, on wet or loose terrain, and when backing up.
- Drive slowly when turning and avoid sudden stops.
- Always drive straight up and down slopes.
- Do not coast, use brake when going down a slope.
- Always fully engage parking brake and remove the key BEFORE leaving the vehicle.
- To safely start a vehicle with a Hitch Hiker, turn the key to "on" – release the parking brake – then SLOWLY twist the throttle.
- NEVER drive any vehicle with a Hitch Hiker under the influence of drugs or alcohol.
- NEVER leave children unattended or allow children to play on the vehicle with a Hitch Hiker.
- NEVER leave the key in the vehicle when parked.
- NEVER alter a Hitch Hiker to increase travel speeds above factory specifications.
- State law or local rules may require additional equipment before a vehicle with a Hitch Hiker can be operated in your community. ***Always obey all state and local laws when operating a vehicle with a Hitch Hiker.***

***ALWAYS WEAR A
HELMET!***



Helmets save lives.

Check helmet manufacturer instructions for proper helmet size and fit.

Hitch Hiker Battery Box



Charging Port

Ignition & Key

Please note actual, latest model might differ slightly in appearance from instructions.