



*California Side Car*

# Trike Owner's Manual

Encore  
Viper

2023

Thank you for purchasing a CSC Trike Conversion!

At CSC our goal is to create a special riding experience that will bring you many happy miles of stress and trouble-free touring and exploration.

By choosing a CSC trike you have purchased one of the most reliable and maintenance free trike kits on the market today. But rest assured that if you do have trouble, you are covered by the industries top warranty, and are also connected to the largest trike dealer/service network in the world.

Because our trike kits are built with the highest quality and latest technology components there is very little maintenance. This owner's manual will walk you through these details.

Sincerely,  
CSC Trikes  
[www.californiasidecar.com](http://www.californiasidecar.com)

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## Riding a Trike:

Now that you have purchased a CSC trike, riding it will be different, but much easier than riding your two wheeled motorcycle. Worrying about gravel and leaves in the road or navigating parking lots will be a thing of the past. With this decrease in stress, you will soon discover that you are able to ride for much longer periods of time than before. So relax and enjoy the sights. Life on a trike is great, just remember to keep your feet up when you stop!

## Trike Features:

### Brakes

- If your Honda motorcycle was equipped from the factory with ABS (Anti-Lock Brakes) your CSC trike will retain this feature.
- Your Honda motorcycle was equipped with a linked (front and rear) braking system. This system has also been retained on your trike.
- Brake pad wear is highly dependent on riding style, GVWR, and riding environment. Typical pad life will range from 20k miles to 30k miles.
- Parking brakes:
  - Encore DCT: The OEM park brake has been retrofitted to the trike kit and functions just like it did on the motorcycle.
  - Encore Manual Transmission: The OEM park brake (optional) is retrofitted to the trike kit and functions just like it did on the motorcycle.
  - Viper: CSC park brake (optional) operated with hand lever on right hand side of trike.

## Body

- Since your Honda motorcycle came equipped with a saddle bag open warning light, we have transferred this feature to the trunk lid of the trike body.
- If your Honda motorcycle was equipped with a TPMS (Tire Pressure Monitoring System) it will either be disabled (Viper) or will continue to function on the front wheel only (Encore). This OEM feature is not able to be adapted to a trike.
- The travel trunk or top trunk on your Encore trike has been moved approximately 1 inch rearward from its original location to give your passenger more room.
- Encore trikes have a battery powered trunk latch. If the battery is discharged the trunk can be accessed by pulling the emergency release cable that is located behind the left-hand battery cover.
- Your trike is equipped with back-up lights that automatically turn on when reversing. See instructions for changing the bulb on pg. 16
- If your trike is equipped with Ground Effects (optional) you will notice that there is a cornering light in the front of each side. These will illuminate the ground in the direction you are turning when the turn signal is activated. See instructions for changing the bulb on pg. 16
- Your trike has been painted with the highest quality automotive paints. These paints can take up to 90 days to fully cure. Do not wax or cover

your trike body during this time. You can however pinstripe or have murals painted during this time.

## Suspension

- Your trike has retained the OEM preload adjuster and it functions on the trike shock just as it did on the OEM Honda shock. The preload adjuster is simply a way to raise and lower the height of the rear suspension on your trike. This is necessary to compensate for varying loads. By using this adjustment, the correct ride height of the trike can be maintained regardless of load.
- Because the optimal steering geometry for a two wheeled vehicle is significantly different than the optimal geometry for a three wheeled vehicle, your trike is most likely equipped with a CSC “Powertrak” (optional). This option includes a completely new front lower fork (Encore) or new triple clamps (Viper) for the front suspension that make the steering easier, more stable, and safer.

## Drivetrain

- Encore trikes are equipped with an electronic module that modifies the transmission shift points (DCT only) and disables the TPMS system for the rear wheels (All Encore). The front tire TPMS system will continue to function as OEM.
- Your trike has been equipped with an automotive type driveshaft using the highest quality u-joints available. These do not require any maintenance and should last the lifetime of your trike.
- Encore trikes maintain the OEM traction control.

- Your CSC trike has a slightly higher final gear ratio (numerically) than the stock motorcycle. This helps add extra torque to compensate for the weight of the trike kit.
- If your trike is equipped with an Auxiliary Fuel Tank (optional) you will have gained an additional 3.6 gal of fuel. See “How it Works”  
pg. 11

## **Towing**

- CSC trikes are excellent tow vehicles. Your trike is already equipped with a trailer hitch mount and a 6-pin female trailer plug connector. All that is needed to tow a trailer is a draw bar, ball, and compatible male trailer plug. All are available from CSC.



CSC Encore



## **Trike Specs:**

GVWR: = Curb Weight + Max Payload

Curb Weight: 1201lb (545kg)

Max Payload Capacity (Shock Spring Dependent)

525lb (238kg) (optional)

650lb (295kg)

775lb (352kg) (optional)

Overall Width: 60in (152.4cm) (with fender trim)

Overall Length: 115in (292cm) (with Powertrak)

Trunk Capacity: 8.25 cubic ft (233.6L)

Ground Clearance: 4.75in (12cm)

Max trailer weight: 600lb (272kg)

Max trailer tongue weight: 50lb (23kg)

Rear tire size: 215/45-17 or 205/55-16

Rear tire air pressure: 25psi (17in) or 28psi (16in)

Rear wheel lug nut torque: 75ft-lb (102NM)

Auxiliary fuel tank capacity: 3.6gal (13.6L)

Differential oil capacity: 1qt (0.95L)

### **Trailer plug wire colors:**

White = Ground

Brown = Running Light

Yellow = Left Turn

Green = Right Turn

Red = Brake

Black = Accessory (constant 12V)

# Maintenance Schedule:

| Items   | Frequency Miles |     |    |    |     |     |     | Replace |         |
|---|-----------------|-----|----|----|-----|-----|-----|---------|---------|
|   | Daily           | 500 | 4k | 8k | 12k | 16k | 20k |         | 24k     |
| Brake Pads and Rotors [1]                                   |                 |     | I  | I  | I   | I   | I   | I       |         |
| CV Boots  |                 |     |    |    | I   |     |     | I       |         |
| Drive Shaft   |                 |     |    | I  |     | I   |     | I       |         |
| Wheel Bearings [2]  |                 |     | I  | I  | I   | I   | I   | I       |         |
| Rear Differential Oil [3]                                   |                 | R   |    |    |     |     | R   |         |         |
| Wheels and Tires  |                 |     | I  | I  | I   | I   | I   | I       |         |
| Lighting  | I               |     |    |    |     |     |     |         |         |
| Tire Pressure   | I               |     |    |    |     |     |     |         |         |
| Brake Fluid   |                 |     | I  | I  | I   | I   | I   | I       | 2 Years |
| Powertrak Head Bearings [4]                                 |                 |     |    | T  |     | T   |     | T       |         |
| Encore Engine/Transmission oil and filter, DCT equipped [5] |                 | R   | R  | R  | R   | R   | R   | R       | 1 Year  |
| Encore DCT Clutch Initialization                            |                 | C   | C  | C  | C   | C   | C   | C       |         |

**At higher odometer readings, repeat at frequency intervals established here.**

**I: Inspect and clean, adjust, lubricate, and/or replace if necessary.**

**R: Replace**

**T: Check Torque of Head Bearings**

**C: Initialize Clutch after every oil change**

This Schedule is in addition to the Honda Maintenance Schedule

NOTE:

[1] Minimum rear brake pad thickness: 0.040in (1.02mm)  
Replace as required.

Minimum rotor thickness: 0.290in (7.36mm)

[2] Wheel bearing torque 200 ft-lb

[3] Rear differential oil should be changed after the first 3 months or 500mi., whichever comes first. Use only **NON-synthetic** 80W-90 GL-5 grade or higher gear oil. The differential case should contain **no more** than 1 qt of gear oil.

[4] Head bearing torque: Top nut 80ft-lb (Viper only), adjuster nut 35ft-lb.

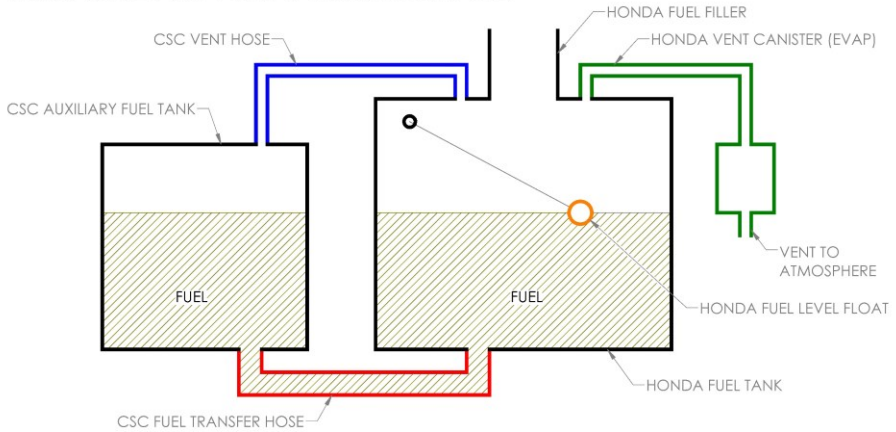
[5] CSC recommends an increased frequency for engine/transmission oil replacement for DCT equipped Encore trikes. This recommendation is based on Honda tech info.

**Note:** The service life of wear items such as brake pads and tires is dependent on many factors, including riding habits, road type, vehicle loading, environment etc.

Service & Maintenance questions – contact CSC Parts & Service at 434.263.6500

# Auxiliary Fuel Tank:

CSC AUXILIARY FUEL TANK SCHEMATIC



## HOW IT WORKS:

- When fuel is added to the Honda fuel tank, the CSC fuel tank is automatically filled at the same time. Sometimes the gas station pump will fill the Honda tank faster than the transfer hose can transfer the fuel. If this happens just wait a minute for the two tanks to level out and continue filling. Because of the transfer hose, fuel levels in both tanks are always the same during usage.
- The motorcycle fuel gauge only reads fuel level, it cannot directly read fuel volume. Because of the shape of the Honda fuel tank, the volume of fuel per a given level varies as the level drops. This means that because of the physical shapes of the tanks you will notice the gauge dropping at different rates as the tanks empty.
- Because of the added fuel capacity with the CSC tank, "full" on the fuel gauge now means 3.6gal more than before. Likewise, "1/2" on the fuel gauge will now mean 1.8gal more, and "1/8" on

the gauge will now mean 0.45gal more. In other words, whatever the fuel gauge reads you will always have more fuel than was available without the CSC tank.

- On the 2018 and newer motorcycles the actual fuel range will always be much farther than the indicated range. The max range displayed on the motorcycle dash when full only reads 200 miles. When equipped with a CSC tank this range is much farther. Approximately 65% more.
- Because the Honda tank is slightly taller than the CSC tank, when the tanks are full some fuel will enter the CSC vent line. This is not a problem because as the fuel drains from the CSC tank the fuel will drain out of the vent as well.
- The CSC tank is a closed system with the Honda tank so all emission devices will continue to function just as Honda designed them to.

#### TOTAL FUEL CAPACITIES

Encore: 9.15gal / 34.6L (5.55gal Honda + 3.6gal CSC)

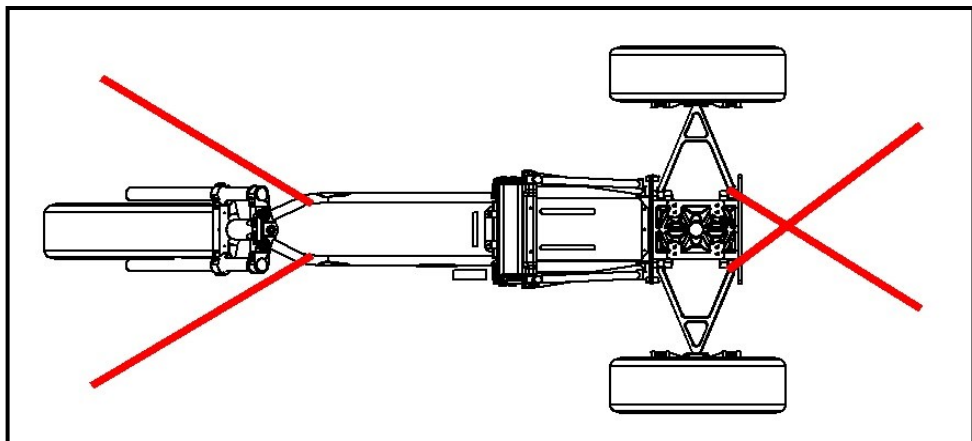
Viper: 10.2gal / 38.6L (6.6gal Honda + 3.6gal CSC)

## Trailing your CSC trike:

If you plan on trailing your trike, please use this diagram for the proper tie down procedure. Failure to do so may over time result in damage to the trike shock and/or suspension components.

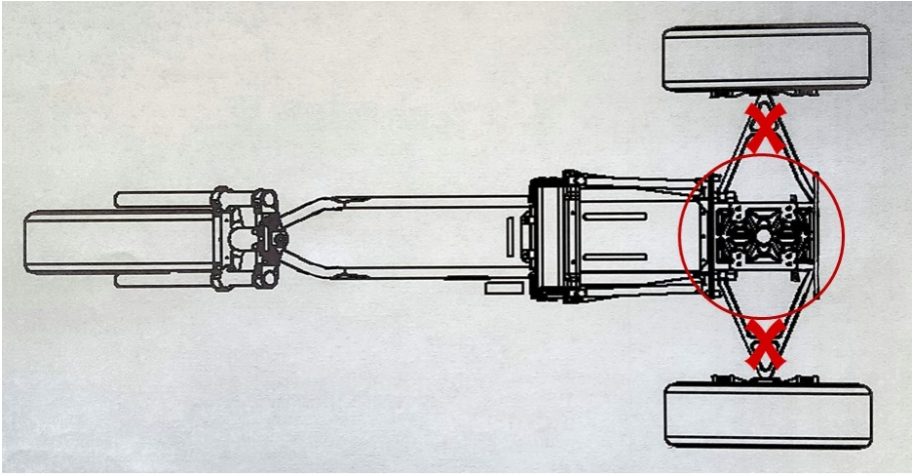
When strapping down the rear of your trike please hook your tie downs on the inside of your lower control arms, then cross them for more security. In the front choose a strong attachment point such as the lower frame tube, engine guard, or lower triple clamp.

Securing your trike in this manner will compress the suspension so it does not bounce around with the trailer. This will greatly limit the movement of your trikes suspension when it is in tow.



# Trike Jacking Point:

The jacking point on a CSC trike is shown below in the diagram. Jacking point is in the center. NOT on the side.



## Replacement of GFX & Reverse Bulbs:

1. Locate rubber socket cover over backside of reverse/ground effects bulb housing. Remove by pulling it off.
2. Locate the #2 Philips head screws in the center of the housing and remove screw. Remove with black ground wire.
3. Remove bulb, cut white wire.
4. Using a wire connector, connect the white wire to the new bulb.
5. Reinstall in reverse order and test.

## Differential Oil Change:

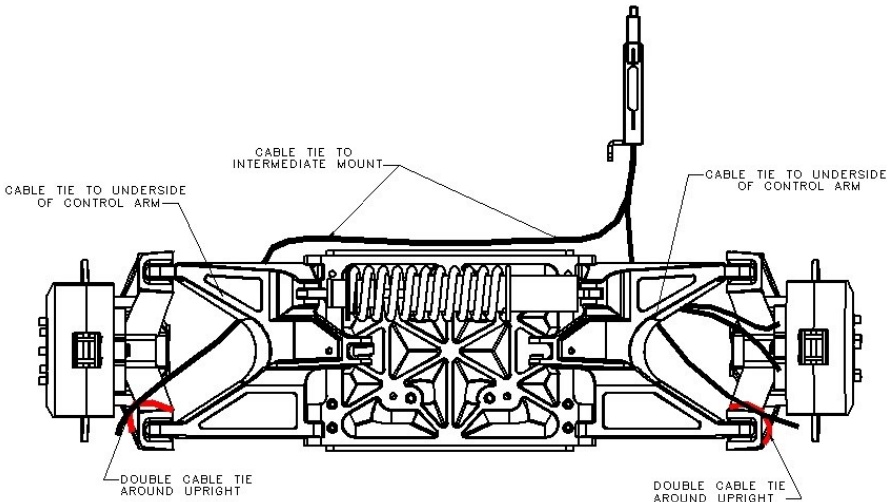
1. Lift trike in such a manner that the right tire can safely be removed and the bottom drain can be accessed.
2. Remove right rear wheel.
3. Drain oil from differential. Drain plug can be accessed through opening in suspension lower tray.
4. Remove the fill plug by accessing it through the right fender opening.
5. After oil has finished draining, reinstall drain plug and tighten to 22ft-lb.
6. Refill with one quart of gear oil. Use 80W-90 GL-5 grade or higher, NON-synthetic oil. Do not overfill or oil will be sprayed out the vent from over pressure.
7. Replace fill plug and tighten to 22ft-lb.



8. Replace rear wheel. Tighten lug nuts to 70 ft-lbs.
9. Finished

# Park Brake Adjustment: SINGLE or DUAL Caliper Viper only

1. With brake handle down, adjust caliper lever on both sides, with square head bolt so brake pads barely free-float on the brake rotor. Secure with lock nut.
2. Test brake calipers and handle to ensure proper function. The calipers should lock the rotor after 3 to 5 clicks of the handle. Re-adjust as necessary.





CSC Viper

# TRIKE WARRANTY

**5 YEARS / UNLIMITED MILES**

California Sidecar warrants to the original and subsequent owners that all component parts of this Trike Conversion Kit are free from defects in materials and workmanship, subject to the following terms and conditions:

## WARRANTY PERIOD:

5 YEARS / UNLIMITED MILES. Warranty repairs will be made at no charge for parts and labor provided that the conversion kit was installed by a “factory authorized stocking dealer”. If installed by other than an “authorized dealer” the warranty covers parts only, and only if the kit was properly installed in accordance with manufacturers’ instructions. All warranty repairs must be pre-approved by the manufacturers’ Service Department and according to prescribed procedures.

Proof of purchase must accompany all warranty claims. All defective parts must be returned prepaid prior to shipment of replacement part.

## ITEMS NOT COVERED:

Damage caused in any part by misuse, lack of maintenance, improper alterations and repairs required by normal vehicle maintenance. These items include, but are not limited to, brake and clutch linings, chains, sprockets, belts, pulleys, gears, gaskets, bearings, lights, and suspension boots.

Defects in the fiberglass, paint, chrome trim, light bulbs, LED or other appearance parts are covered for a period of six (6) months provided that the damage is not caused

by road hazards or the environment (i.e. tree sap, rock chips, road salt, etc.) Repairs to the host motorcycle are not covered.

Should it become necessary to return the product, either in whole or in part, to the manufacturer's facility, the buyer / owner of the product will be responsible for pre-paid shipping costs. The manufacturer will also pay one-way shipping costs.

Loss of time and use, and other incidental or consequential damages are not covered.

**EXCLUSIONS:**

Any vehicle which is used commercially, raced or used in any way, other than its intended use.

Any vehicle which is not timely registered with the manufacturer.

Any vehicle with an altered odometer.

This limited warranty applies as stated except in those states that have specific statutes to the contrary. In those states, state law is applicable.

100 Motorcycle Run • Arrington, VA 22922  
[www.californiasidecar.com](http://www.californiasidecar.com)

CSC VIN/Order # \_\_\_\_\_



From all of us at  
California  
Sidecar...Enjoy the  
Ride!

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