

# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions



For 2025 PRIME Karts model:

**Fatal Vision® Roadster (XL-4 PRO)**



*Scan QR for link to assembly, maintenance and parts list*



*Visit for information on  
Fatal Vision Impaired & Distracted  
Roadster Driving Courses*

# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

Thank you for your purchase of the Fatal Vision® Roadster pedal kart! These step-by-step instructions will guide you through the assembly and set up of your new Kart so you can be safely riding in no time. The assembly must be performed by an adult. While the assembly is designed to be safe and easy, basic operation of hand tools is necessary to complete the assembly. The 2 larger boxes weigh around 70# so two people may be needed to lift and move each box. Use caution during assembly, especially with pinch points and when filling tires with air **(28psi MAX!)**.

PRIME Karts are designed and built to last for years with maximum up-time and ease of maintenance. Replacement parts and maintenance resources are available at [www.primekarts.com](http://www.primekarts.com)

Innocorp Ltd's support team is available at [support@fatalvision.com](mailto:support@fatalvision.com) or by phone M-F 8am-5pm 800-272-5023

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# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

1

Carefully remove banding straps with a scissors and lift the top covers off of box 1 of 2 and box 2 of 2

XL-4 PRO model  
(2 Boxes)



Box 1 of 2 contents



Box 2 of 2 contents



## Tools needed:

- 13mm wrench
- 17mm wrench
- 19mm wrench
- Adjustable wrench
- Phillips screwdriver
- Rubber hammer
- 5mm Allen wrench



# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

2

## Unpack each Box and lay out the contents

Box 1 of 2



### Box 1 of 2

- A - Steering wheel
- B - (3) Coast wheels
- C - Steering brace
- D - Spoiler bracket
- E - Front frame ass'y
- F - R & L fender brackets

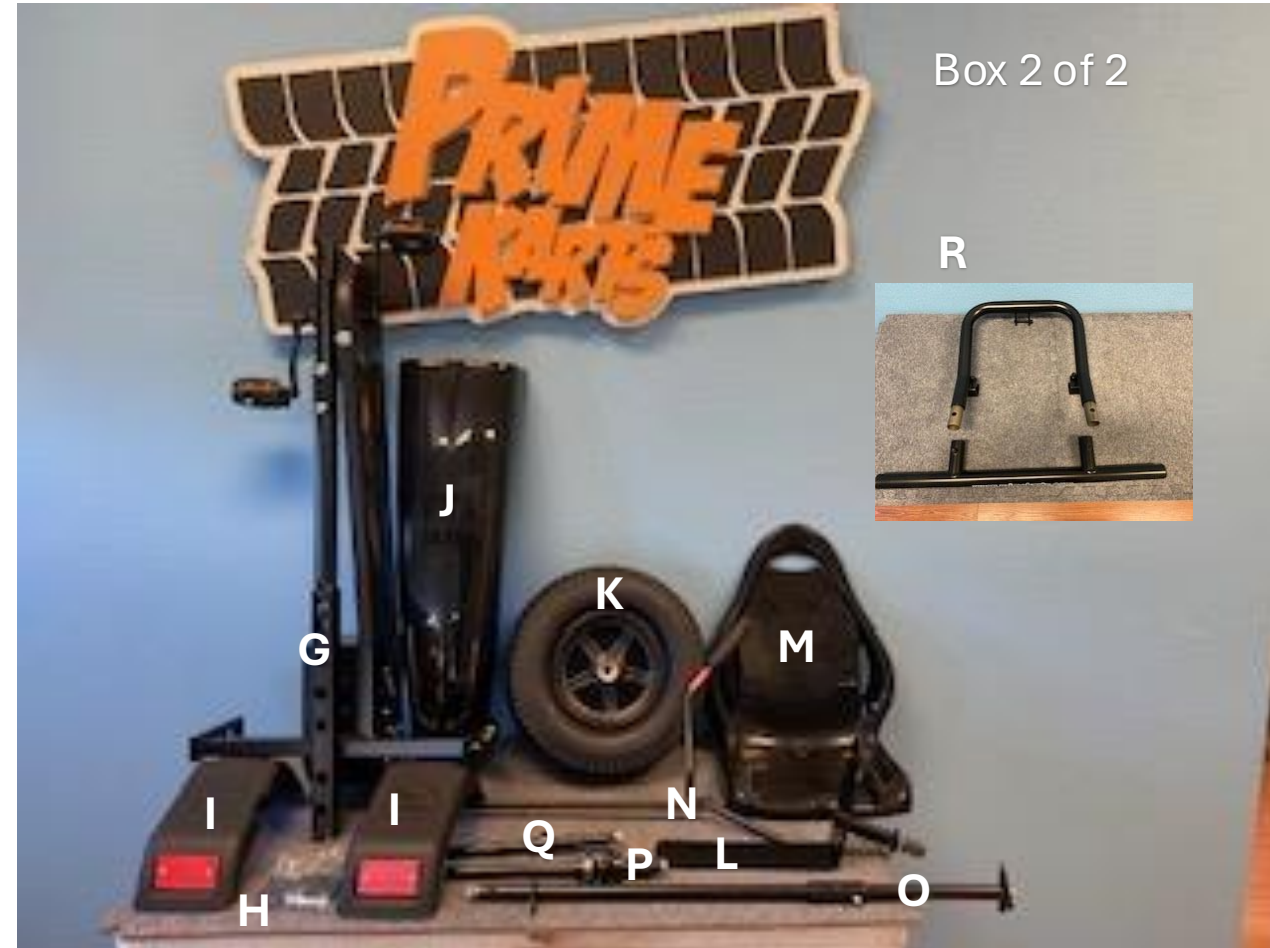
### Box 2 of 2

- G - Rear frame ass'y
- H - Hardware set
- I - R&L fenders
- J - Spoiler
- K - Drive wheel
- L - Seat bracket
- M - Seat
- N - Hand brake
- O - Steering shaft
- P - Rear drive axle
- Q - Rear coast axle
- R - Back Bumper

Box 2 of 2



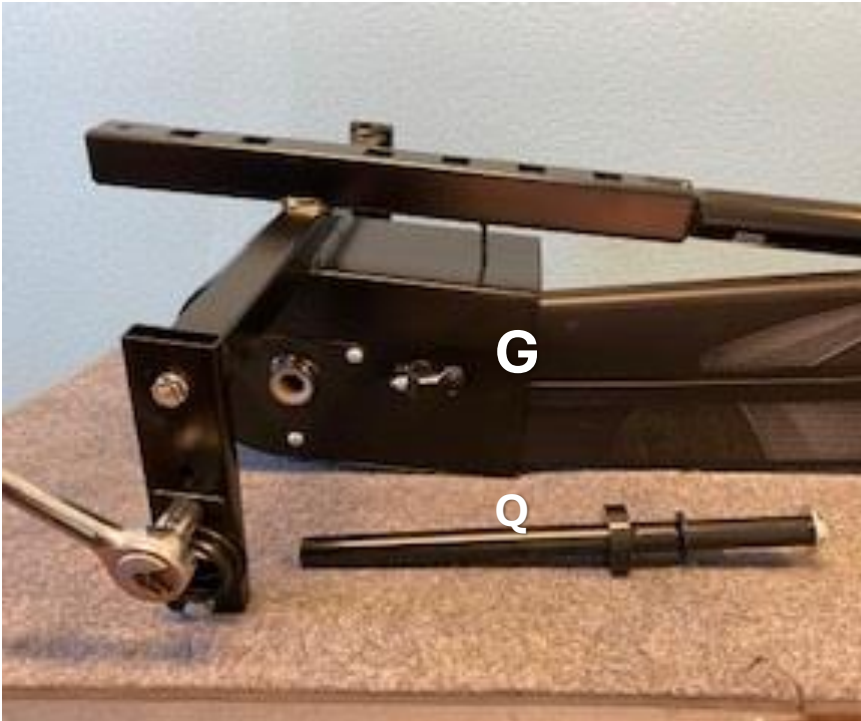
R



# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

## 3 Assemble (Q) rear coast (right side) axle to (G) rear frame ass'y

## 4 Open (H) Hardware Set



Remove the bearing cup using a 13mm wrench to remove (2) bolts.



Slide bearing cup over the outside end of the coast axle (Q). Slide the inside of the rear coast axle into the transmission bushing until the bearing cup lines up with the outer plate. Reinstall and tighten the 2 bolts that were removed.

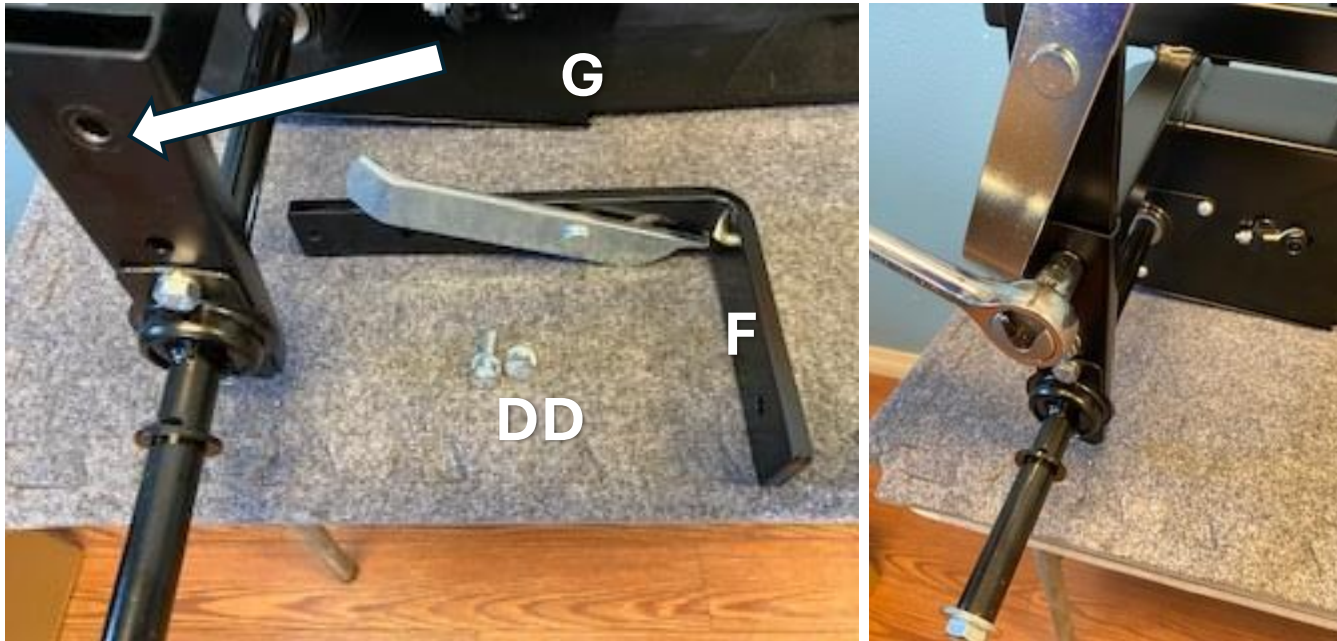


AA - Steering wheel cap  
BB - (4) wheel hub caps  
CC - Seat mounting hardware  
DD - (2) Fender bracket hardware  
EE - Front connection hardware



# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

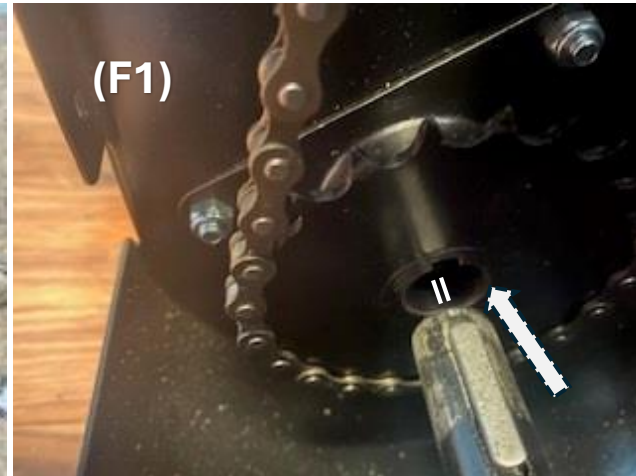
## 5 Assemble (F) RIGHT rear fender bracket to (G) rear frame ass'y



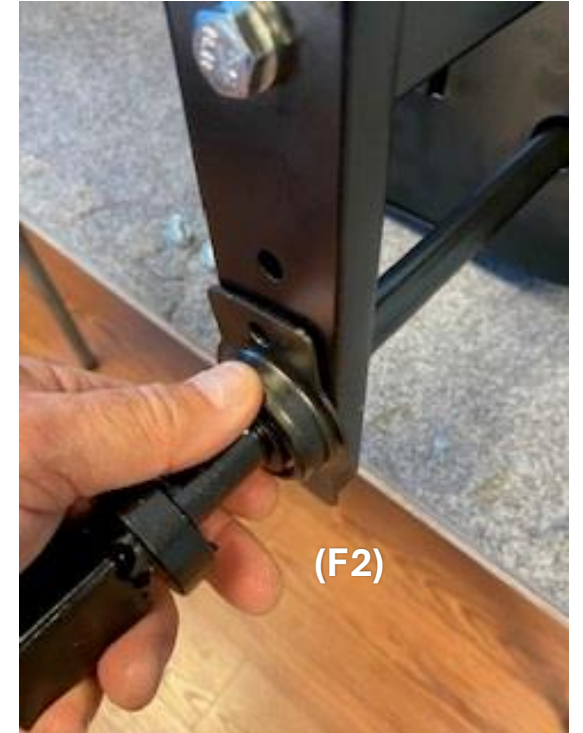
Using a 13mm wrench, remove the top bolt from the fender bracket tube and slide the bracket (F) inside the tube with the silver parking brake cam towards the outside. Line up the top hole in the tube and the top threads in the bracket and start threading the top bolt but do not tighten. Thread the short bolt (DD from hardware set) in the bottom hole. Tighten both bolts.

# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

## 6 Assemble (P) LEFT rear drive axle to (G) rear frame ass'y



(cutaway image of axle shaft and sprocket hub)



(F2)

Remove the 2 bottom bolts from the left fender bracket tube using a 13mm wrench. Slide rear drive axle (P) into the transmission access hole keeping it centered. Once you feel the axle engage the sprocket hub, you may need to turn the axle (or pedals) until the key in the axle shaft lines up with the keyway in the sprocket hub (see F1). Once the axle is fully engaged, the bearing carrier will be flush with the fender bracket (see F2). Reinstall and tighten the 2 bottom bolts.



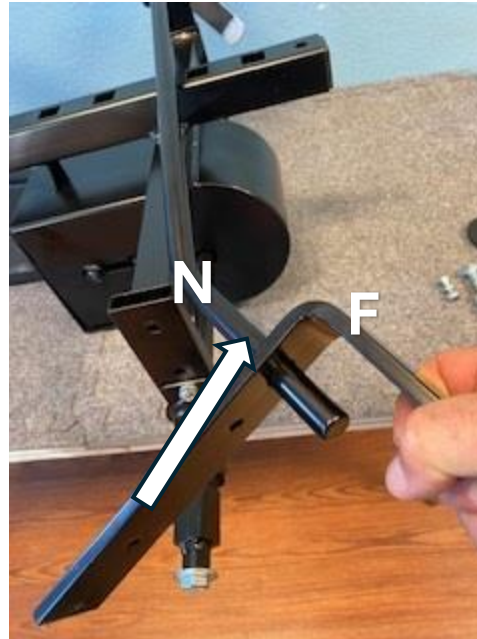
# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

## 7 Assemble (F) LEFT rear fender bracket and (N) hand brake

Parking brake cam



Lift the parking brake cam and slide the short handle end of the hand brake (N) through the top large hole in the RIGHT fender bracket until it is stopped at the brake handle.



Remove top bolt from fender support bracket tube with a 13mm wrench. Slide the top larger hole in the LEFT fender bracket over the left side of the hand brake rod end.



Slide the fender bracket into the fender bracket tube until the top and bottom mounting holes line up.



Reinstall the longer bolt in the top hole and (DD) fender hardware bolt and washer from the assembly set and tighten with a 13mm wrench



# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

8

## Assemble (I) RIGHT and LEFT rear fenders

**NOTE:** The longer side of the fender will be towards front. The shorter side towards the back.



Lift the hand brake handle with one hand while lifting the parking brake cam with the other to lock the hand brake in the top position of the cam.



Line up the slot in the LEFT fender (I) with the top of the fender bracket and slide it in until it stops.



A rubber hammer can be used to fully seat the fender

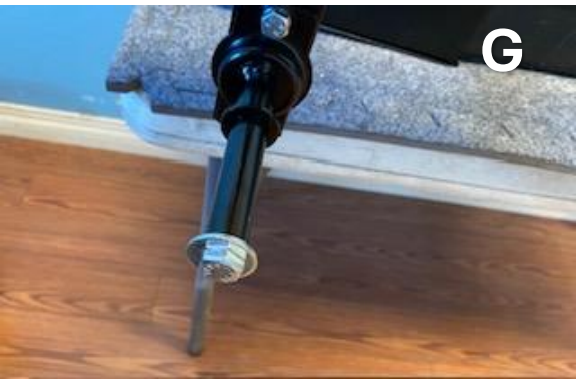


Repeat the same procedure for the RIGHT side making sure that the parking brake cam is still in place.

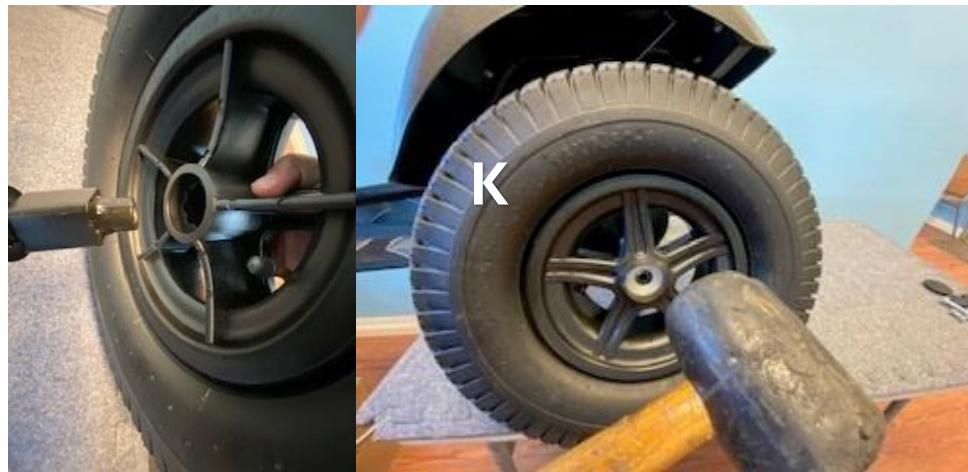
# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

9

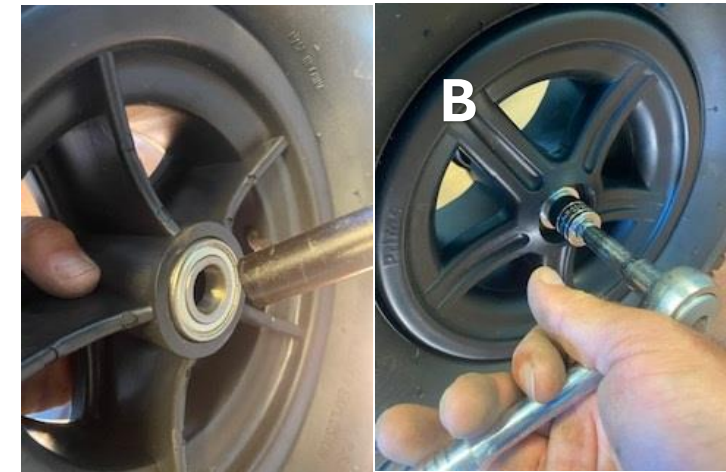
**Assemble (B) RIGHT coast and (K) LEFT drive rear wheels**



Using a 17mm socket, remove the axle end bolts from the right and left rear axles.



Install LEFT drive wheel (K) on the left rear axle. The outside of the drive wheel has a white bushing and a star pattern on the inside hub. Slide the inside star pattern over the drive axle square rotating the wheel as needed to line up the hub with the axle. Once the hub and axle are lined up, a rubber hammer can be used to seat the wheel.



Install the RIGHT coast wheel (B) on the right rear axle. The coast wheels will have radial ball bearings on both sides of the hub. Once both rear wheels are on the axles, reinstall the axle bolts and tighten



# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

10

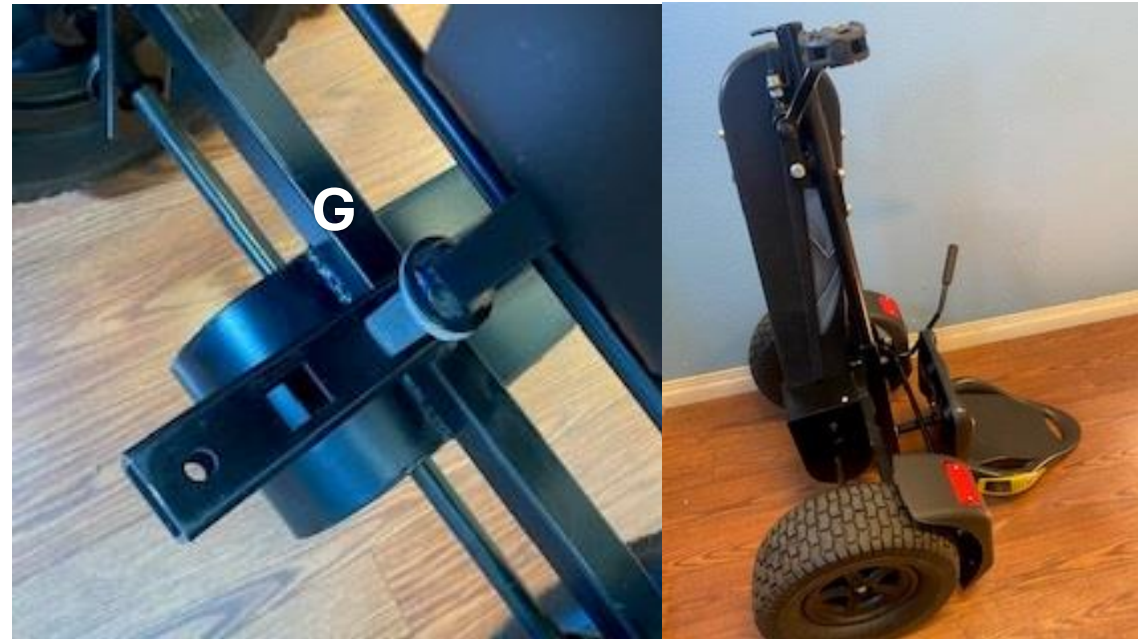
Assemble (L) seat bracket and (M) seat



Install the seat (M) to the seat bracket by sliding the top of the bracket (L) into the pocket molded to the back of the seat frame as shown. Insert (CC) seat mounting hardware bolt from the assembly set into the square hole in the top of the seat. The square in the top of the seat should line up with the square on the bolt shoulder. Once the bolt is through both the seat and seat bracket, install the washer and nut then tighten using a 13mm wrench

11

Assemble (L) seat bracket and (M) seat



Insert the seat bracket into the second square position on the rear frame seat adjustment. Stand the rear assembly upright so it is resting on the back of the seat.



# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

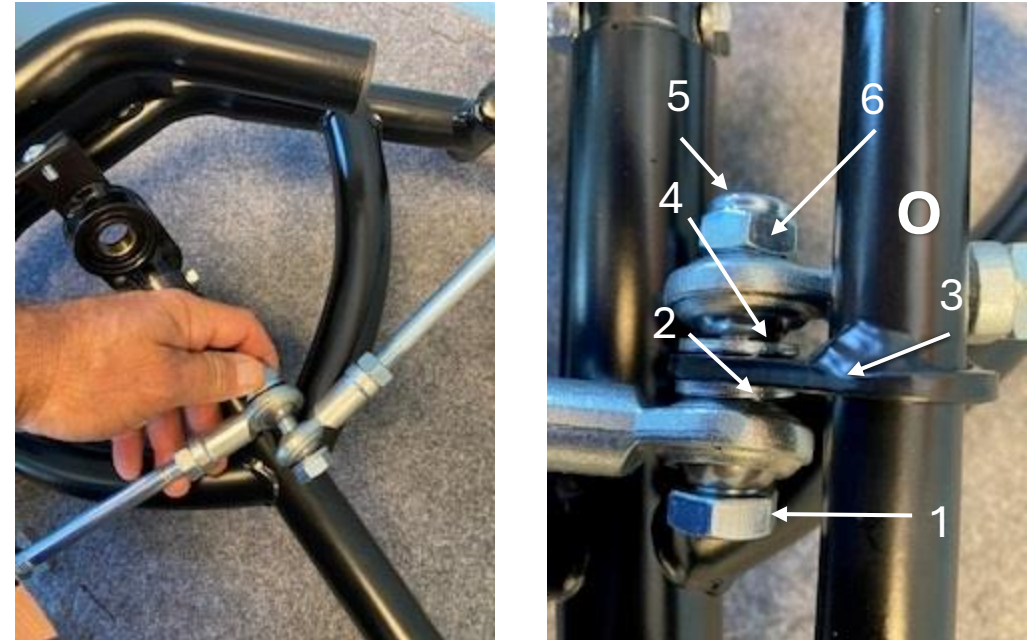
## 12 Align and tighten pivot stop bolt



Rotate the front end assembly (E) inside tube to align the slot with the pivot stop bolt.

To do this, the top hole of the inside tube should be aligned with the stop bolt. Pull the inside tube in the direction of the arrows until it stops. Slowly tighten the stop bolt using a 19mm wrench. Some resistance is normal until the bolt engages the inside slot. If the bolt will not go all the way in as shown, move the inner tube forward until the bolt fully engages and tighten.

## 13 Assemble (O) steering shaft to (E) front frame assembly

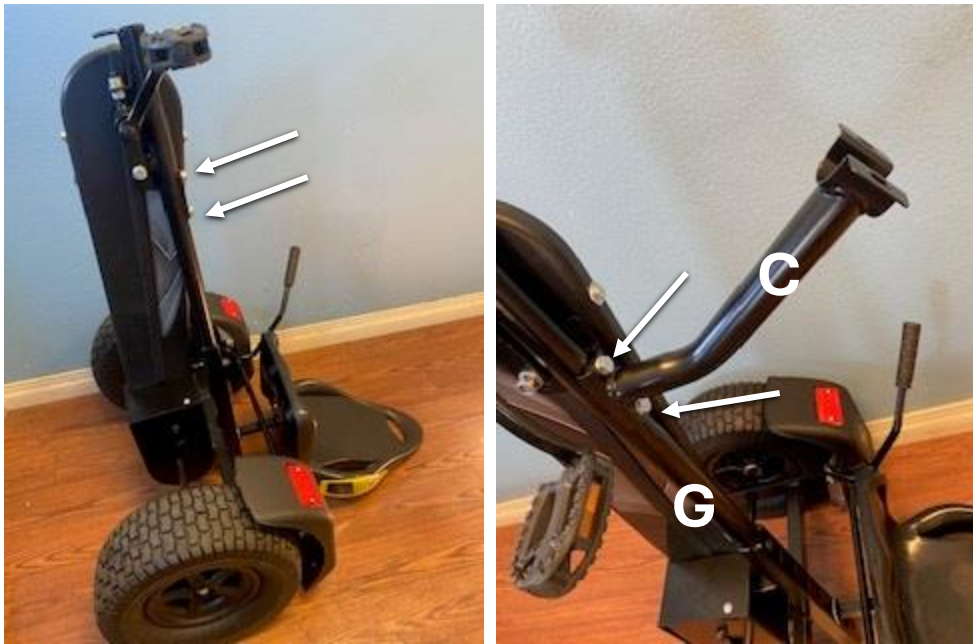


Remove the steering linkage bolt from the spherical rod ends on (E) front end assembly. Connect the tab of (O) steering shaft to the spherical rod ends:

- 1) With both axles facing outward, slide bolt through left side rod end.
- 2) Install washer.
- 3) Slide bolt through steering rod tab.
- 4) Install second washer.
- 5) Slide bolt through right side rod end.
- 6) Install nut and tighten with (2) 19mm wrenches.

# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

## 14 Install (C) steering brace



Remove steering brace mounting bolts using a 17mm wrench. Install (C) steering brace to (G) rear frame assembly, reinstall hardware and tighten.

**NOTE:** Make sure steering brace faces forward as shown in the picture.

## 15 Install (O) steering shaft to bearing end connection



Remove bolt from the end of the steering shaft and insert shaft into the bearing end connection. Reinstall the bolt and washer and tighten using a 13mm wrench.



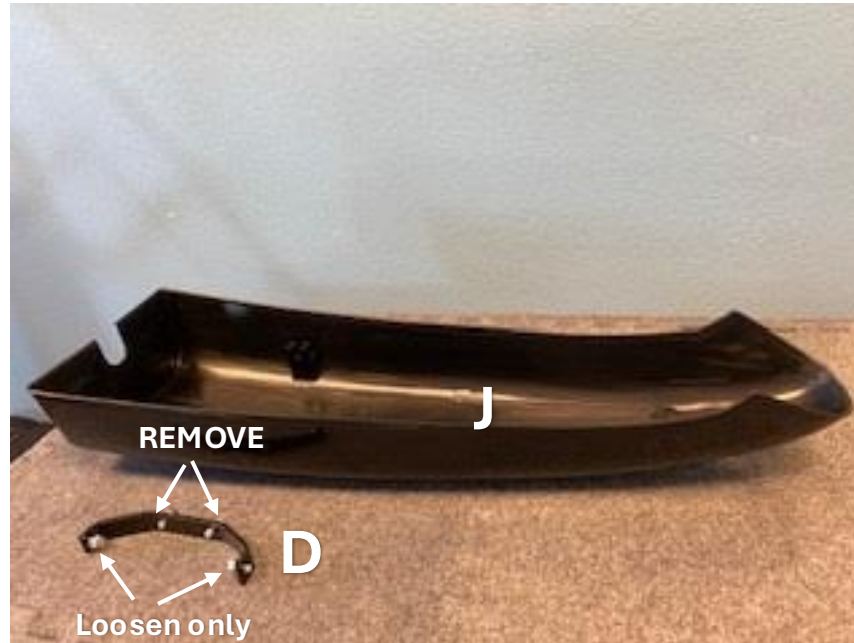
# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

**16** Connect (E) front frame ass'y to (G) rear frame ass'y



Connect (E) front frame ass'y to rear frame ass'y using (EE) hardware from (H) assembly set. Tighten using (2) 19mm wrenches (or 19mm and adjustable wrench.)

**17** Assemble (D) spoiler bracket to (J) spoiler



Remove the (2) top bolts from (D) spoiler bracket. **LOOSEN ONLY** the 2 side bolts on the bracket.



Slide the loosened side bolts and washers between the tab slots on the bottom of (J) spoiler. (The washer should be between the bolt head and the inside tab). Tighten each bolt with a 13mm wrench



# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

18

Connect (J) spoiler to (E) front frame ass'y



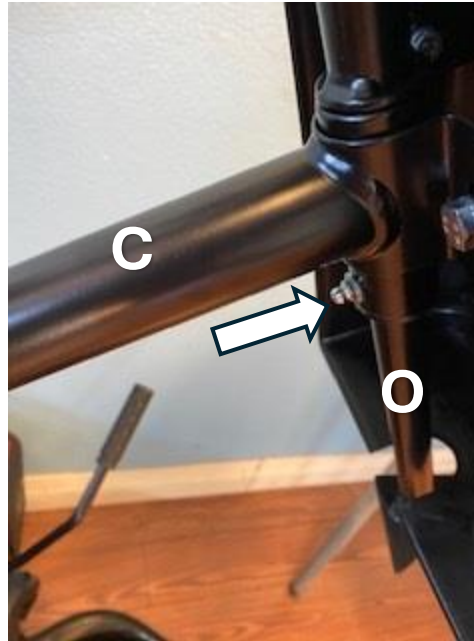
Remove screw from the bearing end connection using a Phillips screwdriver.



Reinstall the screw through the top of the (J) spoiler to the bearing end connection and tighten.

19

Connect (D) spoiler bracket to (C) steering brace



Rotate the steering shaft bearing so the grease fitting is facing down for easier maintenance. Line up the threaded holes in (D) spoiler bracket with the slots in (C) steering brace. Reinstall the bolts that were removed in step 17 and tighten using a 13mm wrench.

# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

20

Install (B) x2 front coast wheels



Remove (2) front axle bolts using a 17mm wrench. Slide the wheel over the front axle and reinstall the axle bolt and tighten.

21

Install (A) steering wheel



Remove steering wheel mounting bolt from the top of the steering shaft using a 13mm wrench. Line up the triangle plate on the steering shaft with the triangle back on the steering wheel. Reinstall the bolt in the center of the steering wheel and tighten.



# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

22

Install (AA) steering wheel cap



Line up the (3) pins in the steering wheel cap with the (3) holes in the center of the steering wheel. Tap in place using a rubber hammer.

23

Install (BB) x4 wheel hub caps



Line up the wheel hub cap with the center of the wheel hub and tap in place using a rubber hammer.

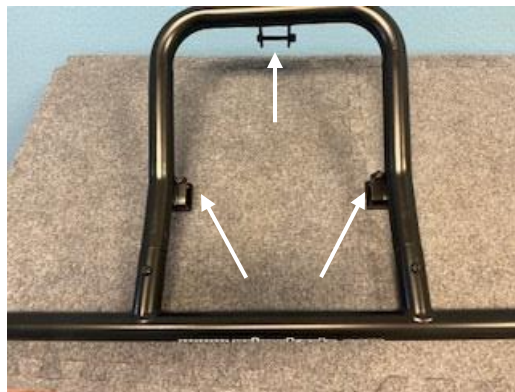


# Fatal Vision® Roadster (XL-4 PRO) Assembly Instructions

Tools needed: 13mm open-end wrench and 5mm Allen wrench

24

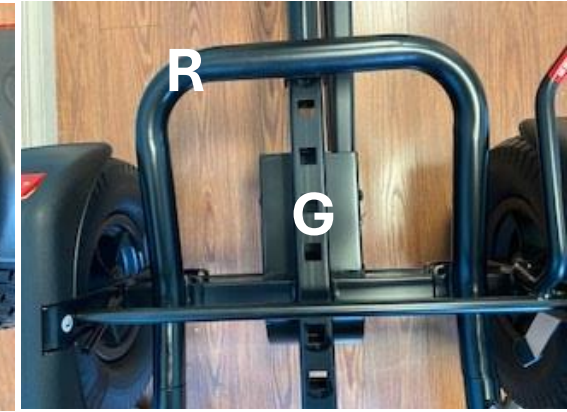
## Install (R) back bumper assembly



Remove the front and side mounting bolts from the U-brace.



**NOTE:** The front mounting bolt is longer than the (2) back bolts.



Drop the back of the bumper down and slide forward until the front tab clears the center cross brace and the hand brake rod. Then lifting the back of the bumper, slide the bumper assembly forward until the rear tabs slide over the square cross brace. Install the longer front bolt, washer and nut using a 5mm Allen wrench and a 13mm wrench. Install the shorter bolts (*nut and washer on top side*) and tighten all hardware.

# Fatal Vision® Roadster (XL-4 PRO) set up and safety check

Now that your new Fatal Vision® Roadster XL-4 Pro is assembled, perform these maintenance and safety checks **BEFORE** riding it for the first time.

1. Set the seat position (1-6) for the rider's height. To adjust the seat, simply pick it up and move it to the appropriate square hole. Be sure that the seat post is properly engaged in the top AND bottom square hole.
2. Check the steering operation is not binding and there is no oversteer.
3. Check that the kart pedals freely forward, coasting, and in reverse.
4. Check the operation of the hand brake and pedal (coaster) brake. To test the hand brake, simply pull up on the brake handle. To test the pedal brake, pedal back when the kart is coasting forward. **NOTE:** when backing up, the hand brake must be used.
5. **After assembly and before any event, check all tires to make sure that they are properly inflated to 25-28PSI (28 PSI MAX). Never use a high volume air compressor to fill the tires with air. ONLY use a hand pump.** Overinflating tires is dangerous and can cause serious injury and damage your kart. Underinflated tires will be difficult to pedal and can cause damage to the wheel, tire and innertube.
6. Check that ALL hardware on the kart is tight.

Now that that safety check is complete the last step is to review the safe riding guidelines on the next page



# Fatal Vision® Roadster (XL-4 PRO) safety guidelines

- The Roadster is designed for riders from 8 years old through adult with a max weight limit of 350#. It is the rider or supervising adults responsibility to determine if the Roadster is appropriate for the rider including safety gear such as a helmet.
- Children should always be supervised when riding.
- Do not drive your Roadster on public roads and always drive at appropriate speeds.
- Do not drive the kart at night.
- Always be aware of your environment and surroundings including other vehicles.
- Always ride with proper closed-toe shoes.
- NEVER ram or bump other karts or vehicles. It is dangerous and can cause serious injury as well as damage the kart.
- Make sure all covers and guards are in place before riding.
- Do not wear loose-fitting clothing or untied shoelaces close to moving parts when riding.
- An instructor must be present when using the Roadster with the Fatal Vision® impairment goggles.
- Always slow down before making any sharp turn. Turning at higher speeds can cause the kart to overturn.
- Be aware when riding downhill that speeds may increase and it takes longer to stop. Use the hand brake for braking to both rear wheels.
- Riders should never perform stunts or jumps with the kart. They are not designed for this and injury can occur.
- ABOVE ALL, USE COMMON SENSE AND KNOW YOUR LIMITS or the limits of those being supervised.



# Fatal Vision® Roadster (XL-4 PRO) Maintenance



**Our master kart mechanic “Max Uptime” says keeping up with scheduled maintenance and using only genuine PRIME Karts replacement parts, you will have maximum uptime on your Fatal Vision® Roadster XL-4 PRO kart!**

## **PRIME Manufacturing Group, LLC**

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PRIME Karts are designed and built to last for years with maximum up-time and ease of maintenance. But just like a car, bicycle or other recreational equipment, routine maintenance is required to keep your PRIME Kart performing for many years. Current genuine PRIME replacement parts and maintenance resources are available at [www.primekarts.com](http://www.primekarts.com). Innocorp Ltd’s support team is available at [support@fatalvision.com](mailto:support@fatalvision.com) or by phone M-F 8am-5pm CST 800-272-5023.

Periodic maintenance and inspections must be performed on your Fatal Vision® Roadster to keep it safe and in good working order. The items listed for maintenance and inspection are common components that will need periodic adjustment or replacement. This maintenance guide is not meant to be a complete overhaul manual. If you have questions, please contact PRIME Karts or Innocorp Support.

# Fatal Vision® Roadster (XL-4 PRO) Maintenance

## Schedule

Item	Fatal Vision® Roadster (XL-4 PRO)
Wheels, Tires and Tire Pressure	8 hours - <b><i>Before every event</i></b>
Inspect Hardware for Tightness	Initial use 2 hours, then every 8 hours
Inspect Front Chain Tension	Initial use 2 hours, then every 8 hours
Inspect Rear Chain Tension	40 hours
Inspect Transmission	80 hours
Inspect Steering Alignment	20 hours
Grease Front Axles and Steering Shaft	100 hours
Lubricate Chains	100 hours

# Fatal Vision® Roadster (XL-4 PRO) Maintenance

## 1 Wheels and tires (Before every event)

**CAUTION: DO NOT EXCEED 28 psi!!!**

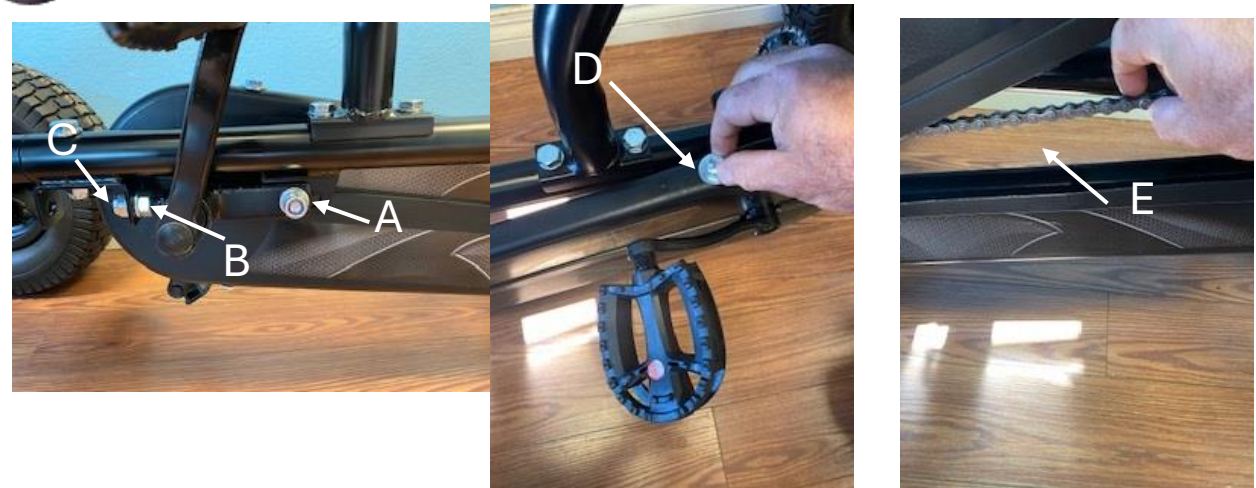


**NOTE** The air fill valve is on the **INSIDE** of the wheel. Please read the pressure specifications and warnings on the wheel and tire before adding air.

**NEVER** use a high pressure or volume air compressor to add air. **ONLY** use a hand pump to 28psi.

It is important that the tire pressure be set to the correct pressure. The correct pressure is 25-28 psi. **(28 psi MAX!)** If the pressure is too low, it will be hard to pedal and create tire wear and possibly damage the innertube. If the pressure is higher than 28psi, it is dangerous and can cause serious injury as well as damage the wheel, tire and innertube. Inspect the tires and wheels for damage, wear and cracking. Replace immediately if needed.

## 2 Front chain adjustment and maintenance (every 8 hrs)



Using a 19mm wrench, loosen the side lock nut (A) and the front adjustment jam nut (B). Remove top chainguard bolt (D) using a 13mm wrench and lift chainguard to view front chain (E). Using your fingers, the middle of the front chain should have about 13-19mm (1/2" to 3/4") movement up and down with minimal pressure. To loosen the chain, turn C counter-clockwise. To tighten, turn C clockwise. Once the chain tension is set, tighten B. Then tighten A. Finally, reinstall the top chainguard and install D and tighten. Lubricate the chain with dry chain lube according to the maintenance schedule. **NOTE:** if the chain is too loose, it may slap the chainguard and slip on the sprocket. If it is too tight, the kart will be hard to pedal and components will wear prematurely.



# Fatal Vision® Roadster (XL-4 PRO) Maintenance

3

**Rear Chain adjustment and maintenance** (every 40 hrs)



To access the rear chain, remove the (3) access screw on the transmission cover with a 3mm Allen wrench (2 screws on the bottom, one is on the front face). Once the cover is removed, the chain should have 9-13mm (1/4 to 1/2") total up and down movement in the center of the chain with minimal pressure using your fingers. To adjust the chain, loosen the (2) transmission hub bolts on the outside of the transmission box with a 15mm wrench. Next, loosen the tension nut attached to the outside right hub bolt with a 10mm wrench. Slide the axle bolts until the chain is properly tensioned and tighten the LEFT hub bolt first. Then tighten the tension nut and finally the RIGHT axle bolt. **NOTE:** The hub axle nuts must be even so the transmission is not crooked or the rear chain may come off the sprocket.

4

**Transmission inspection** (every 40 hrs)



With the transmission cover removed, inspect the transmission for side-to-side play and for bent or worn sprockets. If there is excessive movement or play, or excessive sprocket wear, replace the transmission.

# Fatal Vision® Roadster (XL-4 PRO) Maintenance

5

## Grease and lubrication (every 40 hrs)



There are (3) grease fittings located on the XL-4 series. One on each front axle and one on the steering shaft upper bearing. Use general purpose grease and a grease gun to add grease to the fittings. Wipe off excess grease when complete.

6

## Frame inspection

The XL-4 series frame is made from heavy wall steel tubing that is protected with a durable powder coating. If the paint becomes damaged exposing the bare metal, it is recommended that the area be touched up with a quality paint to prevent rust.

It is recommended that the frame be periodically inspected for any damage due to impact such as cracks near the welds, dents, or bends in the frame due to impact. Repair or replace the suspect components immediately if any of these are observed.

# Fatal Vision® Roadster (XL-4 PRO) Maintenance

## 7 Steering adjustment (every 20 hrs)



Having the proper steering alignment is important for tire wear, and ease of pedaling. To adjust the alignment, loosen the inner and outer jam nuts on both sides of the steering drag bars with a 19mm wrench. **NOTE: one nut is a right-hand thread, and the other is a left-hand thread. MAKE SURE THE STEERING WHEEL IS CENTERED at the top.** Measure across the front of the tires, inside to inside as shown above. Next, measure across the rear inside to inside. The measurement should be the same. If they are not, turn **ONLY** the drag bar rod to move that wheel in or out. Repeat on the opposite side until the measurement is the same, inside to inside tire for the front and back. Once the alignment is set, re-tighten the (4) jam nuts.





by Innocorp, Ltd.

**Our mission is to empower communities by creating innovative tools that spark curiosity and save lives.**

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