

## **TRIKE**

# FLASH CRUISER



## **USER MANUAL**

**V2.09-ENG** 

© Copyright by *FLY Products* s.r.l.

Via Perù n. 30 - 63066 GROTTAMMARE (AP) - ITALY tel./fax +39.735.632486 www.flyproducts.com - ☑ fly@flyproducts.com

#### **INDEX**

## Page Description

- SAFETY FIRST!
- NOTATION USED
- "TRIKE FLASH CRUISER" FEATURES
- OVERALL DIMENSIONS
- ASSEMBLING YOUR "TRIKE FLASH CRUISER"
- ASSEMBLY INSTRUCTIONS
- MONO VERSION
- TANDEM VERSION
- CHECK ASSEMBLY
- PREPARING YOUR FIRST FLIGHT
- PRE-FLIGHT INSPECTION
- PRE-FLIGHT CHECKLIST EXAMPLES
- MAINTENANCE
- WARRANTY
- INTERNET INFO AND UPGRADE

#### Safety first, WWW! (Who, Where and When can fly it)

The "TRIKE FLASH CRUISER" with Powered Para Gliding (PPG) is the most exciting, least expensive, safest and most accessible form of aviation available! However, it is still aviation, and brings with it all the potential inherent dangers of aviation, which is why it is imperative that prior to flying with this Para Trike it is necessary to receive adequate training from qualified instructors and obtain a valid PPG license, then give at the Para Trike the attention that all the aviation deserves, to respect the norms, the weather conditions and to realize that in the end, it is the same pilot who is fully responsible for his own safety and for the safety of fellow pilots and bystanders.

Depending on each national regulation, the Para Trike can only be used in authorized areas and flights within the controlled airspace usually require an authorization issued by radio, furthermore additional requirements such as a valid insurance must be met.

Due to the risks inherent in flying any Para Trike, no warranty of any kind can be made against equipment failure, accidents and even fatal injuries.

#### This TRIKE FLASH CRUISER is not covered by product liability insurance.

Do not start it or fly it unless you are willing to assume all risks inherent in the sport of Powered Paragliding and all responsibility for any property damage, injury, or death which may result from the use of this product.

#### **Notation Used**

Certain special terms (*NOTE, CAUTION, WARNING*) will be used throughout this manual. Their usage is defined below.

A **NOTE** provides supplemental information to help clarify a point being made in the text. Generally, a **NOTE** is provided to help assembly, use, or maintenance of the product.

Disregarding a **NOTE** could cause inconvenience, but would not cause damage or personal injury.

A *CAUTION* provides supplemental information to help clarify an area where equipment damage could occur. Disregarding a *CAUTION* could result in permanent and significant mechanical damage, however personal injury is unlikely.

A **WARNING** provides supplemental information to help clarify an area where personal injury or even death could occur from negligence. Disregarding a **WARNING** could result in serious injury or even death.

## Congratulations on Your New "TRIKE FLASH CRUISER"

FLY PRODUCTS presents this lightweight paramotor Trike whose main feature is its great versatility and easy disassembly and assembly

The FLASH CRUISER is designed to mount the RAIDER (DOUBLE RIM) paramotor series and, by appropriately drilling the support as indicated below, it also allows the installation of other paramotor models, preferably double rim.

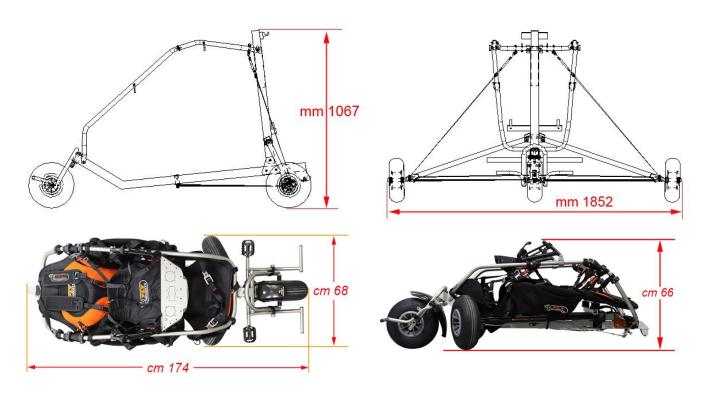
#### TRIKE FLASH CRUISER IN THE STANDARD VERSION



#### **AVAILABLE OPTIONALS:**

- Kit tandem x cradle and fork
- Kit additional tank 16 Lt.
- o Comfort pilot harness
- Light passenger harness
- Emergency parachute
- Take-off assist rod
- Instrument dashboard
- Tachometer/hour meter
- Digital altimeter

#### **OVERALL DIMENSIONS**



### **Drilling of the motor support**

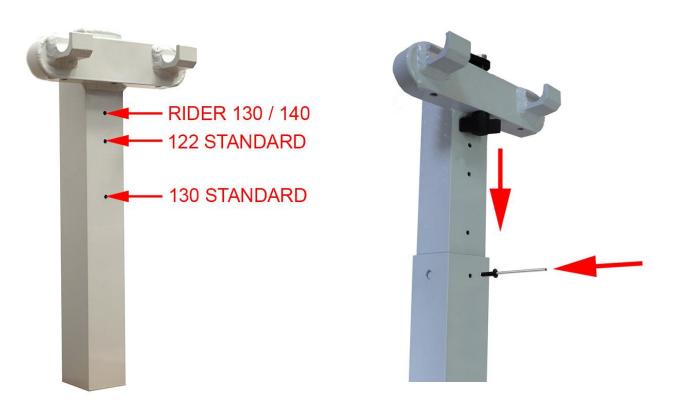
If the trike is required to mount a certain type of engine, we provide for the factory preparation for drilling and preparation for the indicated motor housing.

To allow the purchaser to mount a different motor model, always preferably a double circle, we omit the drilling of the frame and it is therefore necessary to proceed initially with this operation as follows:

### **Necessary tools to operate:**

- Drill
- Metal drill points mm Ø 8 Ø 10 Ø 12
- Hammer
- Rivet Ø 3 mm + riveter

The motor support column is supplied already pre-drilled based on the "STANDARD" engine guard models, insert it in the special support until the holes of the desired size mate and lock them with the riveting tool with a 3 mm rivet.



At this point you can proceed to the side drilling to insert the special through pin, thickened by the two teflon washers, to lock everything with the butterfly bolt.



#### **NOTE:**

Proceed with drilling by steps:

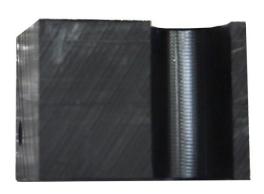
- 1 Drill **one side at a time** with a metal drill bit Ø 8
- 2 Enlarge the hole one side at a time with a metal drill bit Ø 10
- 3 Enlarge the hole one side at a time with a metal drill bit Ø 12

Side drill purpose is to fit there a through-pin, with two reinforcement washers, to prevent crushing the tube when the upper cradle will lock in that point.



## **Mounting / Setting of lower supports**

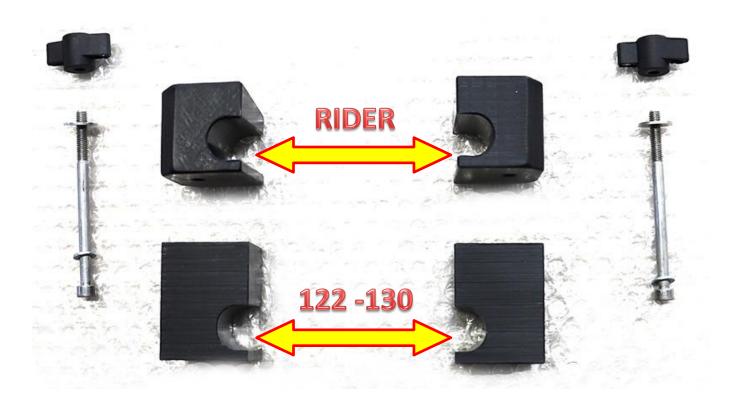
To mount the paramotor onto the Trike, once it is hooked to the motor support, it is necessary to fix the two teflon supports which are of two sizes:

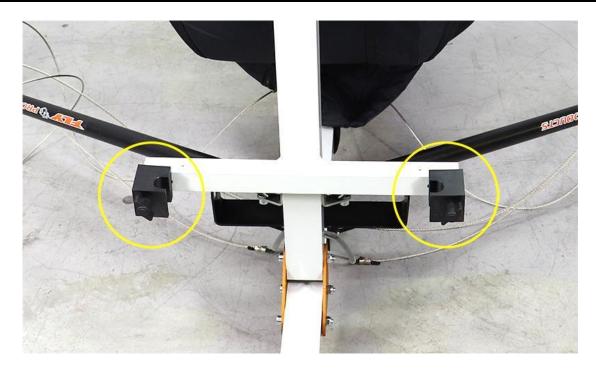


Support pair for paramotor standard 122 – 130



Support pair for paramotor RIDER





To speed up the assembly and disassembly of the paramotor you can operate on only one of the two supports leaving the other one always mounted.

## ASSEMBLING "TRIKE FLASH CRUISER"

To facilitate storage and transport, the TRIKE FLASH CRUISER can be folded to the minimum size.



## **Assembly instructions:**

To assemble the trike, start by releasing it from the straps applied after folding:





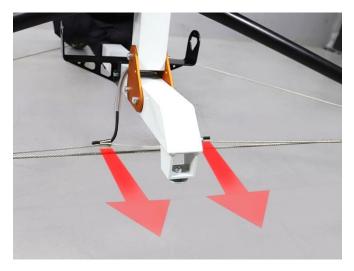
Then lift the cradle and raise the paramotor's coupling support in a vertical position, join the cradle to the support using the special butterfly screw:

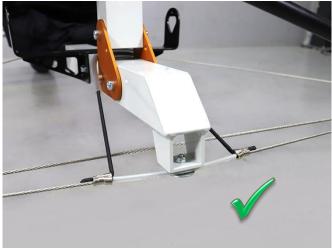


To put the wheels in position after opening them, we suggest that you lay the two pulling cables back, place your feet on them to lock them and push the trike forward until the wheels are in position:



Lock the wheels in place using the lower tie-rod with the elastic:





Hook the upper tie rods of the wheels to lock the motor support and the cradle:



Start with the right rod locking it with the push-pin and then hook the left tie-bar tightening the lever until the holes to be fitted match the push-pin



## Additional fuel tank (optional):

If the optional extra tank is present and you want to use it (we remind you that it is possible ONLY for single flights), assemble the tank support (if removed) and house the fuel tank by locking it with the appropriate strap:



© Copyright by **FLY** Products s.r.l.

## Take-off assistance with or without dashboard (optional):

If the "take-off assistance option" is present, simply turn it to the vertical position and then lock it with the special velcro straps:



## Harness attachment points:

For the pilot, the harness of its own paramotor can be used with its own carabiners, or the special harness can be mounted (optional), very light and ergonomic .It's also available the optional for passenger's light harness.

Fix the saddles in the points as indicated:

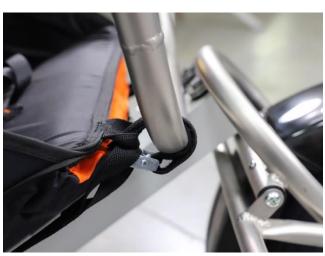












Position the supplied special supports on the rim to hold up the paraglider's lines:

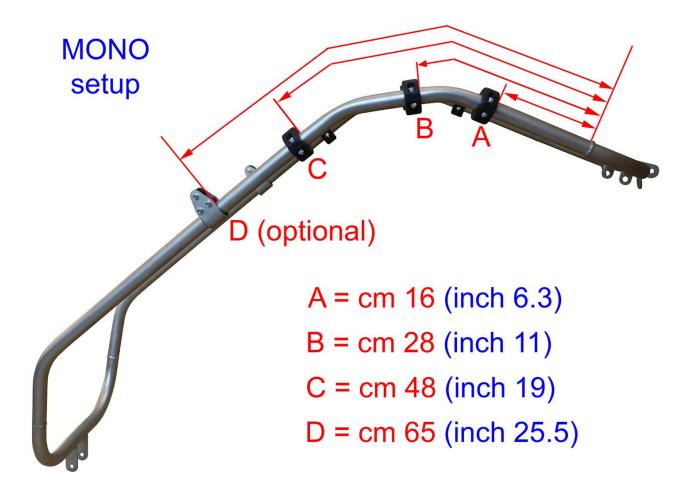


THIS COMPLETE THE ASSEMBLY OF THE TRIKE FLASH CRUISER CHECK YOUR WORK BEFORE GOING FORWARD.

#### SINGLE OR TANDEM VERSION

Transforming the TRIKE FLASH CRUISER from the single version to the double version is very simple, just move the attachment positions of the harness carabiners and then mount the second harness in the preset attachment positions.

#### SINGLE VERSION:



For the single-seat configuration, the plastic rings for the loops are set in the measurements shown in the figure and their function is as follows:

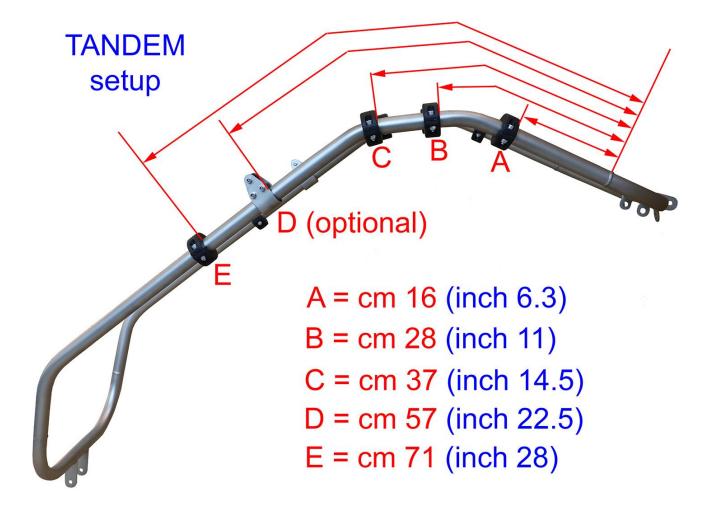
A = Hook for the paramotor cage tie strap

**B** = Hook for the paraglider

C = Hook for the harness

**D** = Hook for mounting take-off assistance (**optional**)

#### **TWO-SEAT VERSION:**



For the DOUBLE-SEAT configuration, the plastic rings for the loops are set in the measurements shown in the figure and their function is as follows:

A = Hook for the paramotor cage tie strap

**B** = Hook for the PILOT harness

**C** = Hook for the paraglider

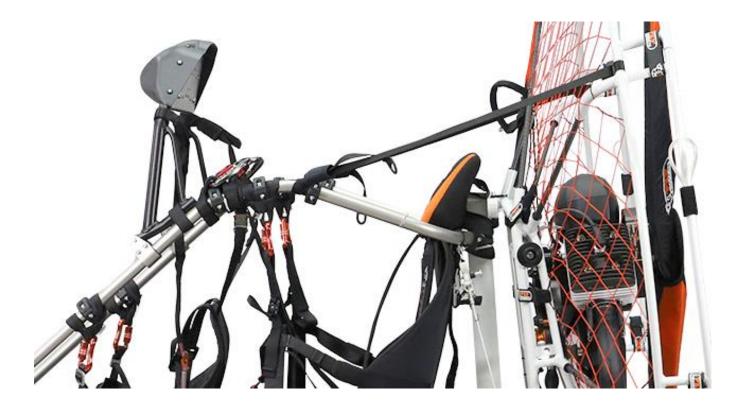
**D** = Hook for mounting take-off assistance (**optional**)

**E** = Hook for the PASSENGER harness

## **Example of setting in full optional MONO configuration:**



## **Example of setting in full optional TANDEM configuration:**



#### **ASSEMBLY CHECK**

It is essential to completely inspect the assembly of the FLASH TRIKE CRUISER to find and resolve any potential problems before proceeding.

The inspection should cover the following elements:

- ✓ Review each step of the assembly described above.
- ✓ Examine all nuts, bolts and fasteners for safety.
- ✓ Check that the harness is correctly fitted, that all the straps are fixed, that there are no twists on any belt.
- ✓ Examine the propeller cage and make sure it is secure and that the net is correctly tensioned.
- ✓ Check that the propeller turns freely at the same distance from the cage
  in all points and that nothing can enter its range of action.
- ✓ Check the fuel tank and the fuel supply system.
- ✓ Check the correct installation of the propeller and the fixing of the relative bolts.

#### PREPARATION FOR THE FIRST FLIGHT

The FLASH TRIKE CRUISER can mount different types of engine, it is necessary to follow the procedures described in the installed paramotor's manual BEFORE TAKING OFF.

#### WE SUMMARY UPON THE MAIN POINTS.

**WARNING!** Use common sense when refueling. Do not refuel a hot or running engine, do not smoke or allow on-lookers to smoke while refueling. Do not refuel near heat or open flame.

#### PRE-FLIGHT INSPECTION

Before your first flight, and before every flight, it is absolutely essential to perform a preflight inspection on your aircraft.

**WARNING!** Failure to perform a sufficient pre-flight has been a contributing factor to accidents in all kinds of aircraft. Equipment damage, bodily injury, even death can occur due to equipment problems not caught in a pre-flight inspection.

As the saying goes, "Pre-flight as if your life depends on it, because it does!"

#### The essential items to check are:

- TRIKE All the wires well tensioned and tension rods tighten with nuts locked
   Check all the Velcro straps and all blockings.
- PARAGLIDER Check the lines and canopy integrity.
- ENGINE Silent-block integrity , muffler stability and integrity
  - Gasoline mixture level.
- **PROPELLER** Blades integrity, bolts clamping.
- **RECOVERY SYSTEM** (if installed) ready and safety catch off.
- HANG POINT OF PARAGLIDER single seat or double seat
- TAKE-OFF ASSISTANCE SYSTEM (if installed) correct belts hooking

**WARNING!** If after having flown with only the paramotor, install it on the trike and <u>use</u> the same wing, it is important to check the length of the brake lines which must be lengthened by an average of at least 20 cm (8 inches).

**NOTE!** - An example of a pre-flight checklist is provided below for guidance only, FLY PRODUCTS is not responsible for its use or for its completeness.

IT IS HIGHLY RECOMMENDED TO USE AN EXAMPLE OR TO CREATE A CUSTOMIZED ONE, PRINT IT, PLASTIFY IT AND USE IT EVERY TIME YOU FLY.

## **Pre-Flight Checklist Example:**

#### Site conditions

- ✓ Current weather
- ✓ Long-range (next few hours) forecast
- ✓ Winds aloft
- ✓ Takeoff/landing direction
- ✓ Obstructions (especially Power lines)

#### **Trike**

- ✓ Wheels well inflated and fixed
- ✓ Wires well tensioned and tension rods locked
- ✓ Webbing and straps for stress
- ✓ Recovery system (if installed) ready and safety catch off
- ✓ Prop Guard for alignment/stress/wear
- ✓ All fasteners tight
- ✓ Carabiners condition
- ✓ Radio secured
- ✓ Sufficient fuel

#### **Paragliding**

- ✓ Lay wing out into wind (where is possible)
- ✓ Lines straight and clear
- ✓ Quick-links tight
- ✓ Brake lines length if the wing was used before just in paramotor only
- ✓ Take-off assist (if installed) well hooked
- ✓ Hang point of paraglider for single seat or double seat

#### Strap In, Hook Up

- ✓ Buckles secure and carabiners locked
- ✓ Chest strap tight
- ✓ Harness adjusted properly
- ✓ Nothing loose to get in propeller
- ✓ Radio for volume, clearness
- ✓ Helmet on, tight, fastened

#### **MAINTENANCE**

## **Regular checks**

It is good practice to periodically carry out a thorough check, especially of the parts subject to wear, at least once a year or after about 50 hours of flight!

The same goes for paraglider, in most cases the manufacturer recommends a periodic revision or after a certain number of hours of use and exposure to sunlight.

## **Ordinary maintenance**

Even if the TRIKE FLASH CRUISER don't need important maintenance, we suggest to proceed every 50 hours of use to an accurate inspection of following items:

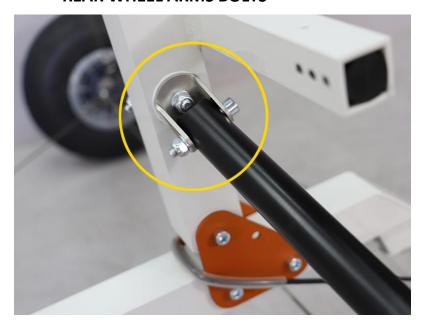
#### - FORK PIN AND FRONT WHEEL PIN

Check the wear and oxidation conditions of the fork pin and the front wheel axle, if they are not in good condition, do not hesitate, replace them immediately!

Check the tightening of the bolts and tighten them if necessary.



#### - REAR WHEEL ARMS BOLTS



Check the wear and oxidation conditions of the bolts of the rear wheel arms, if they are not in good condition, do not hesitate, replace them immediately!

#### **CAUTION:**

Bolts on the arm are free to rotate like the bolts on the sides of the wheel shafts.

#### - REAR WHEEL STEEL CABLES



Check the wear and the oxidation conditions of the steel cables of the rear wheels, if they are not in good condition, do not hesitate, replace them immediately!

Check the integrity of the cables near the joints by carefully bending the cable to check the broken wires.

#### - LOOPS AND CARABINERS

Check wear conditions inside all loops and carabiners, if there are some worn or crack beginnings, proceed immediately to replace!

#### - HARNESS AND BELTS

Check wear conditions of the harness and all belts.

#### **CLEANING**

Clean the TRIKE FLASH CRUISER with clean water and mild soap. Dust and dirt can be wiped off or removed with mild soap and water. Grease and oil can be removed with a good water-based degreaser.

#### **REPAIRS**

Minor repairs can be performed by yourself.

Major repairs should be performed by a trained service technician, or by FLY PRODUCTS.

**WARNING!:** Repairs to the harness or to any areas subject to solicitation of the TRIKE FLASH CRUISER must be carried out exclusively by an authorized dealer or directly by FLY PRODUCTS.

#### **WARRANTY**

FLY PRODUCTS will warrant their product to be free from defects in materials and workmanship for a period of six (12) months from the date of purchase. This warranty applies to the product in normal usage situations only. The dealer, from whom you purchased the product, or FLY PRODUCTS, will repair the product free-of-charge.

To obtain warranty service, please contact your dealer or FLY PRODUCTS, and then either bring the product in or have it shipped. Shipping charges are the responsibility of the purchaser.

This warranty does not apply even during the warranty period, and the purchaser shall any repair or replacement charges if:

- ✓ The cause of malfunction is due to misuse, neglect, negligence, etc. This includes seize of the engine due by an improper carburetor adjustment or improper fuel/oil mix.
- ✓ The malfunction is caused by incorrect pilot operation, i.e. a crash, whack, dork, bang, splat, ding, prong, bend, tweak, trip, fall, bounce, or any other piloting eventuality.
- ✓ The malfunction is caused by lack of normal maintenance, or modification, i.e. loose parts falling off and breaking the propeller.
- ✓ The malfunction is caused by any unpredictable events, including but not limited to: war, terrorism, vandalism, fire, earthquake, hurricane, flood, or other natural calamity.

#### INTERNET INFO AND UPGRADE

For information, more details and news see our internet site: www.flyproducts.com For safety information, data and rules you can visit the DULV website: www.dulv.de

\_\_\_\_\_

22

N	0	Τ	E