# **gosun**° ELCAT

## **User Manual**

Portable, inflatable solar electric boat



#### gosun.co/manuals

Manual de usuario en Espanol Manuel d'utilisation en Françias Gebruikershandleiding auf Deutsch 日本語のユーザーマニュアル 中文用户手册



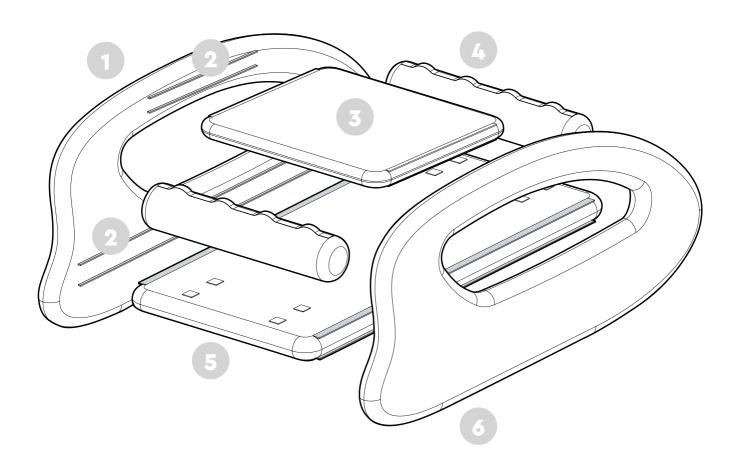
# **Table of Contents**

Elcat Inflatable Parts - Exploded View	2
Elcat Inflatable Parts – Assembled View	3
Elcat Part Location	4
Elcat Splash Part Location	5
FAQ	6
Warnings & Limitations	7
General Specifications	8
How-To Videos	9
Steps for Building Elcat 10-	-11
Storage	12
Cleaning	12
Patching	13
Motor Specifications	14
Warranty	15
Contact Us	16

## **Elcat Inflatable Parts**

#### **Exploded view**

Some versions of the Elcat have inflatable elements that are joined together via horizontal zippers. It is easiest to assemble the zippers prior to inflation. Please refer to diagram below for orientation.



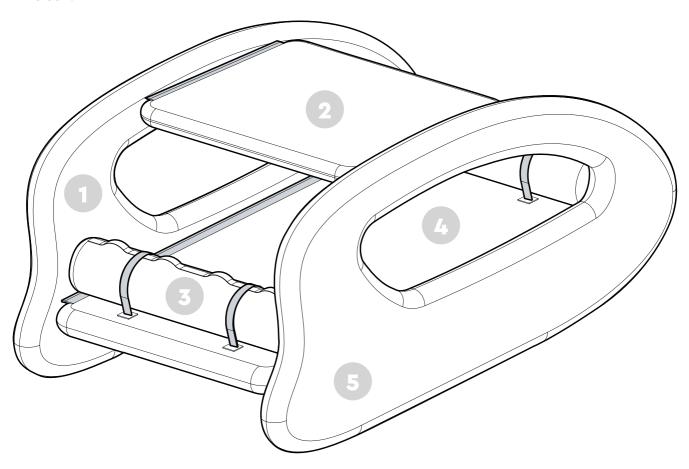
- 1 Sidewall Port
- 2 Horizontal Zippers
- 3 Upper Deck

- 4 Thwarts
- 5 Lower Deck
- 6 Sidewall Starboard

## **Elcat Inflatable Parts**

#### Assembled view

Once the unit is fully inflated, the Thwarts can be strapped in and the motor attached to the back. Elcat model requires a "long shaft" motor.



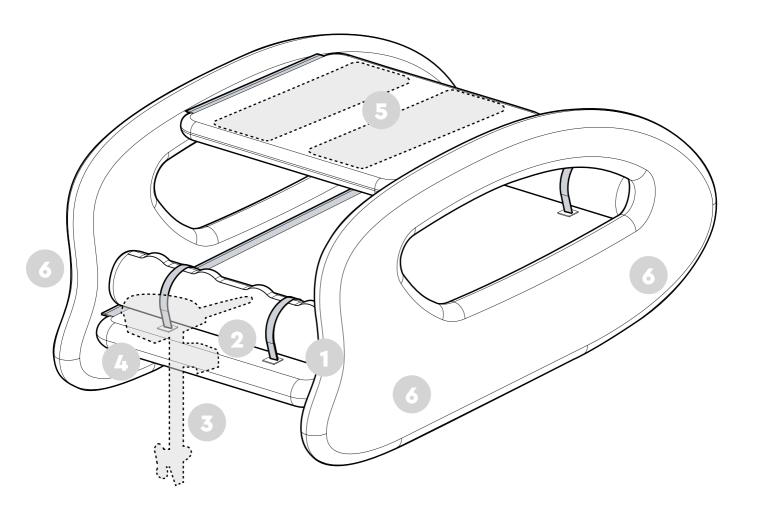
- Sidewall Port
- 2 Upper Deck
- 3 Thwarts & Straps

- Lower Deck
- 5 Sidewall Starboard

## **Elcat Part Location**

## Location of other parts

After fully inflating and assembling inflatable parts of the craft, other components get added or are found in the following locations:



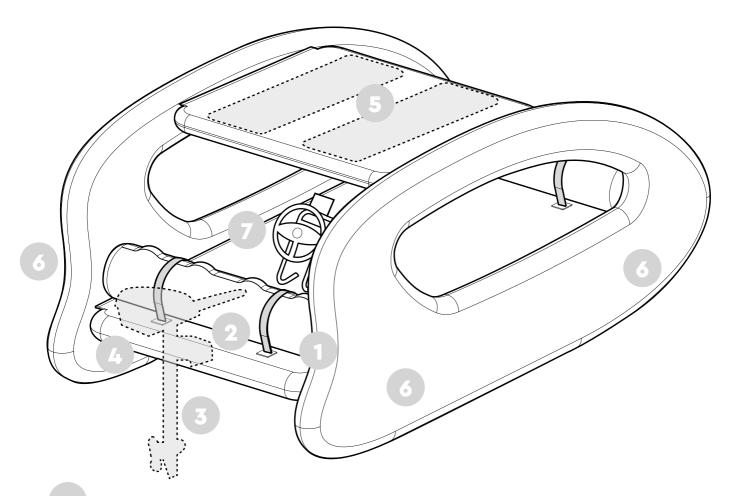
- 1 Hull Identification Number (HIN)
- 2 Motor Transom
- 3 Electric Motor

- 4 Ladder
- 5 Solar Panels
- 6 Carrying Handles

# **Elcat Splash Model**

## Location of parts

Elcat Splash model requires a "short shaft" motor. Elcat Splash with steering console option requires an "EVO" motor and Remote kit.



- 1 Hull Identification Number (HIN)
- 2 Motor Transom
- 3 Electric Motor
- 4 Ladder

- Solar Panels
- 6 Carrying Handles
- 7 Steering Console (optional)

# FAQ

Battery Range & Recharging		
How far can I go on a charge?	At average speed, going about 4 MPH, the range is about 4 hours, or 1/2 a day. To go much longer get a second battery that is swappable within minutes.	
How is the Battery charged and how long does it take?	It comes with a charger and will take overnight to charge the battery fully. There is a high speed charger available that takes about 4 hours.	
How long does it take to charge with Solar?	Depending on the time of year, (angle of the Sun) anywhere from 8–16 hours. In bright sunshine, you can recharge your batteries in 1–2 days.	
Motor		
Are there motor Tutorials?	Yes. <u>Follow this link</u>	
Wind Conditions		
How does Elcat handle windy conditions?	We do not recommend using in winds above 20mph. Elcat is very stable when used properly.	
Standing Room		
What standing room is available?	See these diagrams	
Inflation / Assembly		
What number of people is needed to assemble?	Minimum 1 person but ideally two people to make it easier faster.	
What pump do I need?	Use the high volume AC pump to inflate most of the way, then high pressure DC pump to get to 6 psi.	

# **Warnings & Limitations**

#### Read before use

- Oheck your local regulations regarding equipment (ropes, anchor, lights, life jackets, etc) and registration, insurance, licensing.
- Use the Elcat with caution, practice safe judgement and keep an eye on the weather. Elcat is negatively exposed in high winds faster than 15 knots.
- Be aware of high waves over 18 inches as they can crest over the floor and become both dangerous and uncomfortable.
- O not jump from the roof, since that poses a risk of injury.
- The upper deck or roof can handle two adults or four children at a max of 400 lbs. Do not use the roof while the motor is in use.

# **General Specifications**

Length of hull (LH) 14.75' (4.5m)

Draft 1.5' (0.45m)

Max draft 2.3' (0.7m)

Waterline length 14' (4.3m)

Max Beam (BH) 8' (2.45m)

Max load 1,323 lbs (600 kg)

Max load on roof 353 lbs (160 kg)

Max # of persons 6

Max # of persons on roof 2 adults or 4 children

Max power 8 kW

Max speed 15 knots

Working pressure 0.5 bar

Total mass (without engine) 265 lbs (120 kg)

## **How To Video Links**

Please refer to the links below for How-To information. These sections cover the setting up, storage and general maintenance of the Elcat.

- Transom <a href="https://youtu.be/Xmngy0rOP5k?t=180">https://youtu.be/Xmngy0rOP5k?t=180</a>
- Storing/How to Fold/Store <a href="https://youtu.be/Xmngy0r0P5k">https://youtu.be/Xmngy0r0P5k</a>
- Motor and Battery <a href="https://youtu.be/Xmngy0rOP5k?t=328">https://youtu.be/Xmngy0rOP5k?t=328</a>
- Solar <a href="https://youtu.be/Xmngy0rOP5k?t=397">https://youtu.be/Xmngy0rOP5k?t=397</a>

# **Steps for Building Elcat**

- 1. Unpack Elcat on a clean surface ie. concrete, asphalt or grass.

  Strongly recommend a tarp/groundsheet be used during inflation.
- 2. Locate each of the four main inflatable chambers and orient so the valves are all in the rear.
- 3. (Zippered Version): Connect all zippers before inflated, zippers works the same as a jacket. The floor has a zipper on top and bottom on both sides and the same for the upper deck or roof.
- 4. Familiarize yourself with the valves. The white sprung plunger is popped out to inflate and in to deflate. Be careful to properly engage the twist lock mechanism on the hose with each valve.
- 5. Maximum pressure is 3 psi for the cylindrical tubes (thwarts or seats) and 6 psi for the flat parts (walls, floor, upper deck).
- 6. To inflate the thwarts, use the 12V DC pump only. To inflate the flat parts, inflate first with the AC pump until the pieces have some structure. Finish inflating with the DC pump, until they are fully inflated.
- 7. When inflating the floor, pause half way to install the Transom or motor mount. Be sure the transom is secured by all four rubber grommets.
- 8. The cylindrical tubes on the floor should be oriented so the handles are facing up and can be used during your time on the water

# **Steps for Building Elcat**

#### Continued

- 9. Install the ladder by backing off the plastic knob, sliding the threaded rod out and re-inserting onto the boat's ladder slot, then secure with plastic knob
- 10. Lift the ladder when running about by using a bungee wrapped around the ladder and read straps
- 11. Install the electric motor on the transom using the clamps. Be sure to secure tightly.
- 12. Reverse these steps 3–13 to pack up and transport. To reduce Elcat's volume, the AC powered pump's hose is screwed into the opposite side for deflation.
- 13. If you have more space like a truck bed, you may keep Elcat zipped together and roll into a burrito for transport.

## **Storage**

- Elcat should be dry and clean before storing.
- Elcat should not be stored in a compressed fashion for more than a few days. It is best to unroll and add a little air to prevent the thick fabric from creases.

# Cleaning

- Olean surfaces using inflatable boat cleaner.
- On't treat mildew with bleach: Resist the urge to use a powerful chemical like bleach to remove mildew or mold from your boat, since it can also damage the vinyl.
- Before using any mildew cleaner: Make sure the cleaner is (1) specially formulated for boat use—not home use—(2) is safe to apply to vinyl material and (3) doesn't contain harmful chemicals like bleach.
- Store your boat in a dry, ventilated area: When it's time to store, make sure that after you have properly cleaned (and dried) your boat's interior and exterior surfaces, and store it in a dry, ventilated area, where it won't be exposed to harsh weather conditions (snow, hail, rain, etc.).

## **Patching**

- 1. Find the hole you can use soapy water to locate a leak. While the part is partially inflated, apply soapy water to the surface and look for small air bubbles.
- 2. Clean the surface
- 3. Mark the glueing area
- 4. Mask off the glueing area using masking tape
- 5. Acquire a water-rated vinyl repair adhesive (not provided)
- 6. Follow glue manufacturing instructions for applying glue and patching vinyl. It is likely helpful to use a hard roller or semi-hard tool to press and ensure a good bond.
- 7. Clean excess glue
- 8. Re-inflate, and use soapy water to check if there are any leaks.













# **Motor Specifications**

#### e-Propulsion Motor

Power 1.3 kW (3HP equivalent)

Input Voltage 39V - 60V

Battery Plus, 1,276 Wh li-ion polymer

Motor Weight 10.6 kg / 23.4 lbs

Charging Time AC charger (included): 8.5 Hrs; Fast charger

(optional): 3.5 Hrs

Propeller  $11'' \times 5.8''$  2-blade composite propeller

Trim / Tilt Angle 0°, 7°, 14°, 21° / 70°

Motor Brushless DC motor

Direct Drive Yes

For more information, please visit: www.epropulsion.com/spirit-1/

## Warranty

#### **Warranty Policy**

GoSun Inc. extends this One-Year Limited Warranty to the original end-use purchaser of GoSun products\* or the person receiving a Product as a gift, provided that the GoSun Product was purchased from an Authorized Dealer as defined below. The Limited Warranty does not extend to any other person or transferee. Statutory or common law may provide additional rights or remedies that vary from state to state, and country to country, which are not affected by this Limited Warranty.

#### **Definitions**

"Authorized Dealer" means any distributor, reseller or retailer that was duly authorized by GoSun at the time of the sale to sell authentic GoSun products in the jurisdiction where it sold the Product, and that sold the Product in new, unused condition in its original packaging.

"Fraud Misrepresentation" means misrepresenting any fact related to a warranty claim to GoSun, including the nature of the defect, whether the Product was purchased from an Authorized Dealer, and the authenticity of the Product.

"Intended Use" means use of the Product (a) for recreational boating, (b) for private (as opposed to commercial) purposes, (c) in conformity with all applicable local, state or federal law, code or regulations, (d) in accordance with GoSun recommendations and/or instructions in the materials and documentation that accompany the Product.

#### **Scope of One-Year Limited Warranty**

GoSun provides a One-Year Limited Warranty against Manufacturing Defects. If a Product contained a Manufacturing Defect when it was purchased from an Authorized Dealer, GoSun, at its sole discretion, will (i) repair, (ii) replace, or (iii) provide a Warranty Credit for the Defective Part. GoSun reserves the right to inspect any Product subject to a warranty claim to determine, at its sole discretion, whether the claimed defect is a Manufacturing Defect or otherwise.

# Need help?

- **\( +1 888.868.6154**
- gosun.co/help-center















