

# <u>Owners Manual</u>

#### Specifications

Length: 26.5 Inches Width: 8 Inches Height: 9 Inches Motor: Brushless Motor Surpass 2845 - 3100kv with Water Cooling Xteam 28x40mm ESC: ZTW Shark 50A Radio: 2.4GHz advanced radio control system. Propeller: Aluminum Prop 4mm Shaft Blade 36mm Battery: Lipo ShangYi 3S 1500mAh 45C Charger: B3 Pro charger

#### WARNING

Read the **ENTIRE** instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product and NOT a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

#### **Safety Precautions!**

As the user of this product, you are solely responsible for operating in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

- Never attempt to swim after a stalled RC boat.
- Never operate your RC boat while standing in the water.
- Never operate your RC boat in the presence of swimmers.
- NOTE: Because of the sharp running hardware included with this RC boat,
- We do not recommend a rubber blow up raft.

• RC boat running hardware is very sharp. Be very careful when working on and around the metal parts.

• While the motor is running pay close attention to the propeller. Do not come in contact with the propeller at any time the engine is running or serious injury will result.

• Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.

• Always avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture causes damage to unprotected electronics

• Always keep all chemicals, small parts and anything electrical out of the reach of children.

• Never place any portion of the model in your mouth as it could cause serious injury or even death.

### Age Recommendation: Not for children under 14 years. This is not a toy.

#### **Battery Safety Precautions**

**IMPORTANT NOTE:** Lithium Polymer (LiPo) batteries are significantly more volatile than the alkaline, NiCd and NiMH batteries also used in RC applications. All instructions and warnings must be followed exactly to prevent property damage and/ or personal injury as mishandling of LiPo batteries can result in fire. By handling, charging or using the included LiPo battery you assume all risks associated with LiPo batteries. If you do not agree with these conditions, please return your complete product in new, unused condition to the place of purchase immediately. You must read the following safety instructions and warnings before handling, charging or using the LiPo battery.

• You must charge the LiPo battery in a safe area away from flammable materials.

• Never charge the LiPo battery unattended at any time. When charging the battery you should always remain in constant observation to monitor the charging process and react immediately to any potential problems that may occur.

• After discharging the battery you must allow it to cool to ambient / room temperature before recharging. Also, it is **NOT** necessary or recommended to discharge the battery 'completely' before charging (LiPo batteries have no 'memory' and it's safe to charge partially discharged batteries when using an appropriate charger and settings).

• To charge the battery you must use only the stock included Charger or a suitably compatible LiPo battery charger. Failure to do so may result in a fire causing property damage and/ or personal injury. DO NOT use a NiCd or NiMH charger to charge Li-Po battery.

• If at any time during the charge or discharge process the battery begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery then place it in a safe, open area away from flammable materials to observe it for at least 15 minutes. Continuing to charge or discharge a battery that has begun to balloon or swell can result in a fire. A battery that has ballooned or swollen even a small amount must be removed from service completely.

• Never discharge a LiPo battery below 3V per cell.

• Always disconnect a battery from the ESC when not in use.

• Avoid continually operating to LVC (Low Volt Cut off), as this could result in damage to the battery.

• Store the battery partially charged (approximately 50% charged/3.85V per cell), at room temperature (approximately 68–77° Fahrenheit [F]) and in a dry area for best results.

• When transporting or temporarily storing the battery, the temperature range should be from approximately 40–100°F. Do not store the battery or model in a hot storage car or direct sunlight whenever possible. If stored in a hot garage or car the battery can be damaged or even catch fire.

• Do not over-discharge the LiPo flight battery. Discharging the LiPo flight battery to a voltage that is too low can cause damage to the battery resulting in reduced power, flight duration or failure of the battery entirely.

• LiPo cells should not be discharged to below 3.0V each under load. In the case of the 2-Cell/ 2S 7.4V LiPo battery used to power the plane you will not want to allow the battery to fall below 6.0V during flight.

The included ESC features a 'soft' low voltage cutoff (LVC) that smoothly reduces power to the motor (regardless of the power level you have set with the throttle stick) to let you know the voltage of the battery is close to the 6.0V minimum.

However, even before this reduction in power, if you find that more than the typical amount of throttle/ power is required to power up, you should return the model and disconnect the battery immediately to prevent over-discharge. And while it is possible to continue running the model after the soft LVC occurs, this is **NOT recommended**. Continued discharging can result in reaching the 5.0V 'hard' LVC which may cause permanent damage to the LiPo battery resulting in reduced power and running duration during subsequent running ( or failure of the battery entirely which is not covered under warranty).

Also, it is not recommended that you run to the soft LVC every time you run. Instead you should be aware of the power level of the battery through out, and if at any time the model begins to require more throttle/ power than typical to maintain speed you should let the model return back and disconnect the LiPo battery immediately. Constantly discharging the battery to the soft LVC can still cause permanent damage to the battery so it's best to use a timer or stopwatch to time the duration of your running and to stop at a reasonable time before the soft LVC is reached.

## IMPORTANT NOTE: DO NOT LEAVE THE LIPO BATTERY CONNECTED TO THE ESC UNLESS YOU ARE READY TO RUN. IF THE BATTERY IS LEFT CONNECTED TO THE ESC WHEN IT IS NOT IN USE, THE LIPO BATTERY WILL BE OVER-DISCHARGED BY THE SMALL AMOUNT OF CURRENT THE ESC CONSUMES.

It can sometimes take a few hours or even up to a few days to over-discharge the battery this way but doing so will likely cause permanent damage to or failure of the battery entirely (which is not covered under warranty).

#### IMPORTANT NOTE: DO NOT STORE THE LIPO FLIGHT BATTERY FULLY CHARGED.

For improved safety and longevity of the LiPo battery it's best to store it only partially charged for any length of time. Storing the LiPo battery at approximately 50% charged (which is approximately 3.85V per cell) is typically best, however it will take some careful management of the charge time and the use of a voltmeter to achieve this voltage.

If you have the equipment and skills to achieve the 50% charge level for storage it is recommended. If not, simply be sure to not store the battery fully charged whenever possible. In fact, as long as the battery will be stored at approximately room temperature and for no more than a few weeks before the next use, it may be best to store the battery in the discharged state after the last use (as long as the battery was not over-discharged on the last use).

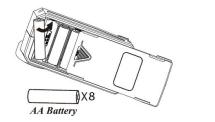
#### **Boat Battery pack Installation**

- 1. Open the rear seat cushions on the hull.
- 2. Open the hull cover.
- 3. Attach the tape attached to the battery to the hull
- 4. Attach the power connector jack to ESC
- 5. Make sure the battery in the hull is not removed ARE



#### **Getting Started!**

1. Connect the battery to the Transmission and turn on





2. Connect the battery to the Boat.

3. Check the boat's drive controller, (Make sure the propeller runs counter clockwise and counterclockwise while you face the stern).

4. After launching the boat into the water, start driving slowly. If the boat does not go straight, adjust the trimmer on the transmitter to run straight.





#### Checking with the Radio System

- 1. Turn the transmitter throttle and rudder trim to the middle position.
- 2. Power on the transmitter.
- 3. Connect a fully charged battery to the ESC.

**CAUTION:** Always keep all body parts, hair and dangling or loose items away from a spinning propeller, as these could become entangled.

**NOTICE:** Always power on the transmitter before powering on the ESC. Always power off the ESC before powering off the transmitter. Never transport the boat with the battery connected to the ESC.

4. Ensure the rudder moves in the proper direction when the controller is moved left or right.

5. Pull the throttle to full, then return the throttle to neutral, ensuring the propeller turns counterclockwise. The ESC auto-sensing voltage cutoff will engage when the ESC detects a low battery charge. Release the throttle and recharge the battery when necessary.

#### Testing Your Boat in the Water

1. Carefully place the boat in the water.

2. Operate the boat at slow speeds near the shoreline. Avoid objects in the water at all times.

3. Once you are comfortable operating the boat at slow speeds, it is safe to operate the boat farther from the shore.

4. Bring the boat back to shore when you notice the boat starting to lose speed.

5. Power off the ESC and disconnect the battery packs.

6. Allow the motor, ESC and battery packs to cool before charging the batteries or operating the boat again.

#### **Boating Tips**

Avoid boating near other watercraft, stationary objects, waves, wakes and other rapidly moving water, wildlife, floating debris or overhanging trees. You should also be careful to avoid boating in areas where there are many people, such as swimming areas, park waterways or fishing areas. Consult local laws and ordinances before choosing a location to pilot your boat.

Maximum speeds are only achieved when the water conditions are smooth and there is little wind. A sharp turn, wind or waves can turn over a boat when it is moving quickly. Always pilot your boat for the wind and water conditions so that the boat does not turn over.

When running your boat for the first time, we recommend calm wind and water conditions so that you can learn how the boat responds to your control.

When making turns, decrease the throttle position in order to decrease speed and probability of flipping the boat over.

Never operate your boat in less than 3 inches (8 cm) of water.

**NOTICE:** When running at full speed in choppy waters, the prop may exit and re-enter the water repeatedly and very quickly, subjecting the propeller to some stress. Frequent stress may damage the propeller.

**CAUTION:** Do not operate this product in vinyl- covered or inflatable pools. Sharp components may cause damage to these materials.

**CAUTION:** Never retrieve your boat from the water in extreme temperatures, turbulence or without supervision.

#### **Motor Care**

• Prolong motor life by preventing overheating conditions. Undue motor wear results from frequent turns, stops and starts, pushing objects, boating in rough water or vegetation and boating continuously at high speed.

• Over-temperature protection is installed on the ESC to prevent circuit damage, but cannot protect the motor from pushing against heavy resistance.

#### When you finish

- 1. Power off the ESC by disconnect the battery.
- 2. Power off the transmitter.
- 3. Remove the battery from the boat.

**Tip:** Always store the boat open (without the hatch and inner liner sealed) or moisture may allow mold and mildew to grow in the boat.

**NOTICE:** Running the boat in salt water could cause some parts to corrode. If you run the boat in saltwater, rinse it thoroughly in fresh water after each use and lubricate the drive system.

**NOTICE:** Because of its corrosive effects, running RC boats in saltwater is at the discretion of the modeler.



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