

40cm Class Boats User Manual 79705/79706

WARNING

Please make sure you read the entire instruction manual to become familiar with the features of the boat before operating. Failure to operate this product correctly can result in damage to the product or personal property – and even cause serious injury.

Please understand that this is a sophisticated hobby product and is not a toy. It must be operated with caution and common sense. Note that it does require some mechanical ability to correctly operate this product. Failure to operate 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. Do not attempt to disassemble or operate with incompatible components or make changes to the product without the approval of HRP Distributing.

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 final assembly, setup, or use.

Safety Precautions -

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

- Never attempt to swim to retrieve a stalled RC boat.
- Never operate your boat while standing in water.
- Never operate your boat in the presence of swimmers.
- The running hardware on RC boats can be very sharp, so use caution when working on or around these parts.
- Be cautious with the propeller when the motor is running. Do not come into contact with it or serious injury could result.
- Due to the sharp hardware, do not operate near or around inflatable objects.
- Keep a safe distance in all directions around your boat to avoid possible collisions or injury. This boat is
 controlled by a radio signal that is subject to interference from many outside sources and could result in a
 momentary loss of control.
- Always avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture can cause damage to unprotected electronics.
- Make sure to keep all chemicals, small parts and anything electrical out of the reach of children.

Age Recommendation -

This product is not a toy. Not for use by children under 14 years of age.

Battery Safety Precautions

Important Note: Lithium Polymer (LiPo) batteries are more volatile than the alkaline, NiCd and NiMH batteries used in other RC applications. All instructions and warnings must be followed exactly to prevent possible personal injury or damage to property, including by fire.

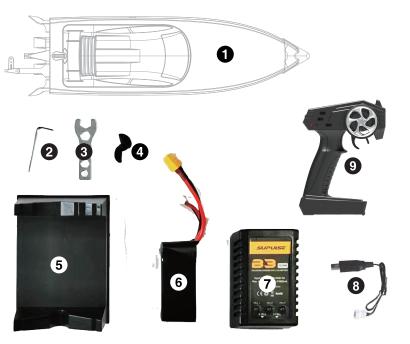
Important - Though the running battery is not included with this boat, it is important to follow these safety instructions for any battery you purchase to run the boat.

- You must charge you LiPo battery in a safe area away from any flammable materials.
- Never charge the LiPo battery unattended at any time. When charging the battery you should always
 remain in constant observation of the battery to monitor the process and react immediately to potential
 problems you observe.

- After discharging the battery during running the boat you must allow it to cool to ambient room temperature before attempting to recharge. Also, it is NOT recommended that you completely discharge the battery before charging. It is safe to charge partially discharged batteries when using an appropriate LiPo charger.
- For charging the battery you must use only 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 a LiPo 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 before placing it in a safe, open area away from flammable materials for observation for at least 15 minutes. Continuing to charge or discharge a battery that has started to "balloon" or swell can result in a fire. Important note: A battery that has "ballooned" or swollen even a small amount must be removed from service immediately and completely.
- Never discharge a LiPo battery below 3V per cell.
- Always disconnect a battery from the ESC when the product is not in use.
- Avoid continually operating the battery to LVC (Low Voltage Cutoff) as this could result in damage to the battery.
- Store the battery partially charged (approximately 50% charged or 3.85V per cell) at room temperature (approximately 68° to 77° Fahrenheit) in a dry area for best results.
- When transporting or temporarily storing the battery, the temperature range should be between 40° F to 100° F. Do not store the battery or boat in a hot car or in direct sunlight whenever possible or the battery could be damaged or even catch fire.
- LiPo cells should not be discharged to below 3.0V each. In the case of the 4-cell, 14.8V battery recommended for the you should not allow the voltage to fall below 12.0V during operation.
- Do not over-discharge the LiPo battery, which could result in reduced power, lower run times or complete failure of the battery.

NOTE: The included ESC features a "soft" LVC (Low Voltage Cutoff) that smoothly reduces power to the motor (regardless of your throttle position) to let you know that the voltage to the battery is near the 12.0V minimum and avoid damage to your battery.

Box Contents -



- 1. Assembled boat
- 2. Hex wrench
- 3. Multiple hex sizes wrench
- 4. Backup propeller
- 5. Boat stand
- 6. Lithium battery
- 7. Balance charger (only for 3S battery RTR version)
- 8. USB charger (only for 2S battery RTR version)
- 9. Radio transmitter (and receiver in boat) (RTR)

Contents Model KIT Motor ESC Servo Radio Battery	RTR	PNP
Battery Charger		

Photo shown as an example for all the 40cm class boats.

Charging Instruction (For RTR)

For charging the included lithium battery, you can only use the included charger or a suitably compatible lithium battery charger.

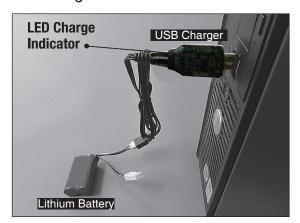
Charging the lithium battery using a none lithium battery compatible charger (such as a NiCd or NiMH battery charger), or even a different lithium battery charger with the incorrect settings, may result in damage to the battery or even fire resulting in property damage and/or personal injury.

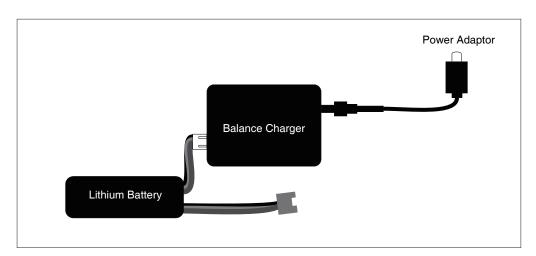
CAUTION: You must be careful to ensure proper polarity before making the connection.

Follow below steps to charge the lithium battery with the included charger.

For USB charger -

- 1.Power off your vehicle.
- 2.Carefully plug the charger into the USB port on your computer or USB adaptor.
- 3. Connect the battery into the charger.
- 4. While charging, the red LED charge indicator will be solid on. The charging process takes approximate 3.5 hours. For safety reasons, never charge the battery over 4 hours.
- 5. When the battery is fully charged, the green LED charge indicator will be solid on.



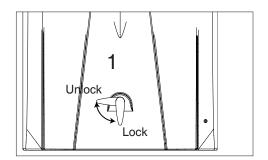


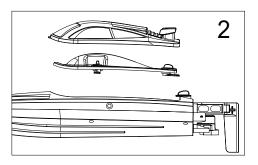
For balance charger & power adaptor set -

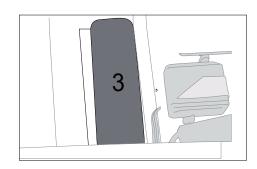
- 1. Plug the included balance charger to the power adaptor, then plug the power adaptor into a compatible AC outlet(depends on different contries and area), then connect the power output lead to the receptacle on the side of the balance charger The power adapter and balance charger are powered on when the green color LED indicator is glowing.
- 2. Connect the white 4-pin connector from battery to the mating connector on the charger.
- And while the white connectors are 'keyed' to minimize the risk of a reverse polarity connection, if you force them it is possible to make connection with the incorrect polarity potentially causing damage to the battery and/or charger. When the connectors are properly aligned for correct polarity, connecting them should require only a moderate amount of pressure to achieve the 'click' that indicates a secure connection.
- 3. When the battery is connected to the charger securely and with the proper polarity, the green LED indicat ors will glow. When charging the battery, the red LED indicator will glow.
- 4. It will take approximately 1.5-2.5 hours to fully charge a mostly or fully discharged (not over-discharged) battery. And when the battery is fully charged, the red LED indicator will turn to green. You can disconnect the battery from the charger as it is now fully charged and ready for use.

CAUTION: Do not store the lithium battery fully charged.

Boat Batteries Installation







- 1. Rotate the hatch of the hull cover by clockwise to unlock the hatch.
- 2. Open the hull covers.
- 3. Adhere included loop tape or velcro tape to the battery.
- 4. Secure the boat battery on the hook strip in the boat.
- 5. Secure the battery in the hull with the hook and loop strap as shown.

Check Radio System

CAUTION: Always keep all body parts, hair and dangling or loose items away from a spinning propeller, as these can be 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.

- 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.
- 4. Ensure the rudder moves in the proper direction when the controller is moved left or right.
- 5. Pull the throttle to max power postion, then return the throttle to min power position, ensuring the propeller turns counterclockwise. The ESC auto-sensing voltage cutoff function will engage when the ESC detects a low battery charge. Release the throttle and recharge the battery when necessary.

NOTICE: Read completely the radio appendix for more detailed instruction of using the radio. Make sure you have totally studied the radio manual appendix before you really start operating the boat with the radio.

Getting Started

Notice - for detailed information of transmitter and control, please ready carefully the radio manual that comes together in the boat package.

- 1. Power on the transmitter.
- 2. Connect a fully charged battery.
- 3. Test the transmitter's control of the boat with the boat on the display stand.
- 4. After launching the boat in the water, start driving slowly. If the boat does not go straight, adjust the trimmer on the transmitter to run it straight.
- 5. Power off the ESC and disconnect the battery packs.
- 6. Always turn off transmitter at last.
- 7. Allow the motor, ESC and battery packs to cool before charging the battery or operating the boat again.

Test Your Boat in Water -

- 1. Carefully place the boat in water.
- 2. Operate the boat at slow speed near the shoreline. Avoid objects in water at all time.
- 3. Once you are comfortable operating the boat at slow speed, make sure it is safe and then operate the boat farther from the shoreside.

Tip: If you are using too much steering trim on your transmitter to make the boat drive straight, return the trim to neutral and mechanically center the rudder. To do this, loosen the knob from the rudder horn, adjust the knob to a proper position linking to pushrod, make sure ruder is centered.

4. Bring the boat back when you notice it starts to run at low speed even when you pull up throttle to max.

Motor Care -

Prolong motor life by preventing overheating conditions. Undue motor wear results from frequent turns, stops and starts, pushing object, boating in rough 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 Finished Running

- 1. Power off the ESC.
- 2. Disconnect the battery in hull.
- 3. Power off the transmitter.
- 4. Remove batteries from boat and transmitter.

NOTICE: Always store the boat without hatch covered or inner liner sealed. Otherwise moisture may cause mold and mildew to grow in the boat.

Maintenance

Always replace the shaft when it is damaged or shows visible wear or injury and property damage may result. Lubricating the shaft is vital to the life of the drivetrain. The lubricant also acts as a water seal, keeping water from entering the hull through the stuffing box. Lubricate the shaft, propeller shaft and all moving parts after every 2-3 hours of operation. Always replice an parts that show visible wear or damage.

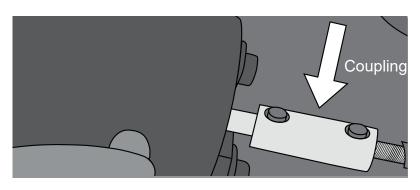
- 1. Loosen the coupling between the motor and the shaft.
- 2. Loosen setscrew from the shaft and remove the shaft from the back of the boat.

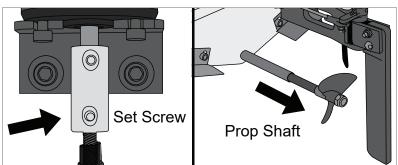
Tips: Use paper or cloth to touch the shaft.

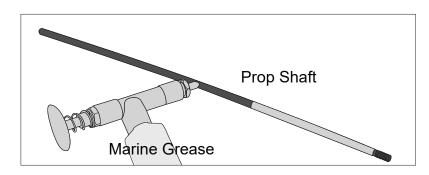
- 3. Remove the drive shaft by sliding it out of the stuffing box. Wipe lubricant and material from the shaft. Lubricate the full length of the shaft assembly up the drive dog with marine grease.
- 4. Apply threadlock to the coupling setscrew. Threadlock will help prevent the shaft from loosening during usage.
- 5. Carefully reinstall the drive shaft, ensuring that there is a 1-2mm gap between the prop strut and the drive dog to allow for shaft shrinkage under load.

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

NOTICE: Because of its corrosive effects, running RC boats in salt water is at the discretion of the user.







Troubleshooting Guide

Problem	Possible Cause	Solution	
Extra noise or extra	Damaged propeller, shaft or motor	Replace damaged parts	
vibration	Propeller is out of balance	Balance or replace propeller	
Reduced runtime or boat underpowered	Boat battery charge is low	Completely recharge battery	
	Boat battery is damaged	Replace boat battery and follow battery instructions	
	Blocking or friction on shaft or propeller	Disassemble, lubricate and correctly align parts	
	Boat conditions may be too cold	Make sure battery is warm before use	
	Battery capacity may be too low for conditions	Replace battery or use a larger capacity battery	
	Drive dog is too close	Loosen coupling at shaft and move away shaft a small amount	
	Too little lubrication on shaft	Fully lubricate shaft	
	Vegetation or other obstacles block the rudder or propeller	Remove boat from the water and obstacles	
Boat does not respond to throttle but responds	Throttle servo travel is lower than 100%	Make sure throttle servo travel is 100% or greater	
to other controls	Throttle channel is reversed	Reverse throttle channel on transmitter	
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Boat does not bind (during binding) to	Transmitter is too near boat during binding process	Move powered transmi tter a few feet from boat, disconnect and reconnect battery to boat	
	Boat or transmitter is too close to large metal object	Move boat or transmitter away from large metal object	
transmitter	Bind plug is not installed correctly	Install bind plug and bind boat to transmitter	
	Boat battery/ Transmitter battery charge is too low	Replace/recharge batteries	
	ESC switch is off	Power on ESC switch	
Boat tends to dive in water or takes on water	The boat hull is not completely closed	Dry out the boat and ensure the hatch is fully closed on the hull before re turning the boat to the water	
	Center of gravity is too far forward	Move batteries back in the hull	
	Trim tabs are angled incorrectly on the back of the boat	Angle each trim tab up a small amount to lift the bow or down a small amount to lower the bow	