AQUACRAFT

PARADISE

## **WARNING:**

- WARNING:

  NEVER attempt to swim after a stalled R/C boat!

  Never operate your R/C boat while standing in the water.

  Never operate your R/C boat in the presence of swimmers.

  Always use a Personal Flotation Device (PFD) when boarding and operating your retrieval craft, i.e. Jon boat or duck boat. NOTE: Because of the sharp running hardware included with this R/C boat, we do not recommend a rubber blow up raft.

  R/C boat running hardware is very sharp. Be very careful when working on and around the metal parts.

  AquaCraft products are to be used by ages 14 and over.
- used by ages 14 and over.



aquacraftmodels.com

#### **OPERATION NOTES**

Thank you for purchasing the AquaCraft Paradise! We want the time you spend with your new RC boat to be fun and successful so please fully read the manual. If for any reason you think this RC model is not for you, return it to your local hobby dealer immediately. Your hobby dealer cannot accept returns on any model after final assembly or after your boat has been operated.

All pictures, descriptions, and specifications found in this instruction manual are subject to change without notice. AquaCraft maintains no responsibility for inadvertent errors in this manual.

## **ITEMS INCLUDED**

Paradise hull and sail set Keel with counterweight Rudder Radio transmitter Boat stand





PARADISC

▶ Eight "AA" batteries

#### **SPECIFICATIONS**

#### **BOAT SPECIFICATIONS:**

Hull Length: 26 in (660 mm) Height: 50.5 in (1285 mm) Beam: 5.25 in (135 mm) Weight: 3 lb (1.36 kg)

#### **BOAT FEATURES:**

Prepainted lightweight fiberglass hull Pre-assembled preprinted sails Water resistant radio hatch

Tactic TTX410 2.4G two stick surface radio system

Tactic TR325 2.4G receiver

Tactic SX-100 sail servo pre-installed Tactic SX-100 rudder servo pre-installed

Quick and easy final assembly

#### **WARRANTY SERVICE**

AquaCraft will warrant your Paradise for 90 days after the purchase from defects in materials or workmanship of original manufacture. AquaCraft, at their option, will repair or replace at no charge, the incorrectly made part. This warranty does not cover damage caused by crash, abuse, misuse, alteration or accident. To return your boat for service you need to provide proof of purchase. Your store receipt or product invoice will suffice. IN NO EVENT SHALL THE PURCHASER BE ENTITLED TO ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

Outside USA and Canada, contact local importer for warranty information.

Hobby Services
3002 N. Apollo Drive, Suite 1
Champaign, Illinois 61822
Attn: Service Department
Phone: (217) 398-0007
9:00 am - 5:00 pm Central Time M-F
E-mail: hobbyservices@hobbico.com

## **SAFETY PRECAUTIONS**

- Never, ever attempt to swim after a stalled RC boat. DO NOT get in the water for any reason to retrieve your boat. Your Paradise has flotation added to the interior of the hull and will not sink. To aid you in retrieving a stalled RC boat you can use a fishing reel with a tennis ball tied to the end of the line. Or better yet get yourself a small Jon boat so you can row out and pick up your boat. Remember to use a PFD any time you enter your retrieval craft.
- AquaCraft products are to be used by ages 14 and over.
- The speed and mass of this boat can inflict property damage and severe personal injury if a collision occurs.
   Never run this boat in the presence of swimmers or where the possibility of collision with people or property exists.
- This boat is controlled by radio signals, which are susceptible to possible interference from electrical noise.
- If your Paradise should happen to lose signal, wind and water currents will slowly carry it to shore. The bad news is that the boat could be carried to the opposite shore. When surveying areas to run your model, keep variables in mind such as wind direction, size of the lake, etc. It is not advisable to run R/C boats on any free-flowing bodies of water such as creeks or rivers.

#### **BASIC BOAT TERMINOLOGY**

**BOW:** The bow is a nautical term used to describe the front of the boat.

STERN: The back of a boat.

**STARBOARD:** This is the right side of the boat when aboard and facing the front (bow).

**PORT:** This is the left side of the boat when aboard and facing the front (bow). An easy way to remember this is that port and left both contain four letters.

**HULL:** The main structural outer skin of a boat. Most modern boats have fiberglass hulls.

**DECK:** The deck of a boat is the horizontal outside surface that one walks upon. When you are outside on a boat, the deck is your floor. When you are in the cabin of a sailboat the deck is usually the ceiling above you.

**RUDDER:** Blade that turns the boat.

### SAILBOAT TERMINOLOGY

**BACKSTAY:** A backstay is the stay that runs from the top of the mast to the stern of the boat. Like other stays, it is a strong wire, rod, or line that is used to prevent the mast from being blown over. The backstay is specifically designed to prevent the mast from blowing forward. Backstays sometimes have adjustable tension in order to shape the mast (and consequently the sail) in varying wind conditions.

**BOOM:** A boom is a horizontal spar that is generally attached to the mast at one end, and attached to the aft corner of a sail (the clew) at the other end. The boom is used to hold the sail out in a horizontal direction.

**BOWSPRIT:** The bowsprit is a spar that extends forward of the hull of a boat. It can be used for a variety of things, including a more forward point to attach a forestay and/or a sail such as a spinnaker or jib.

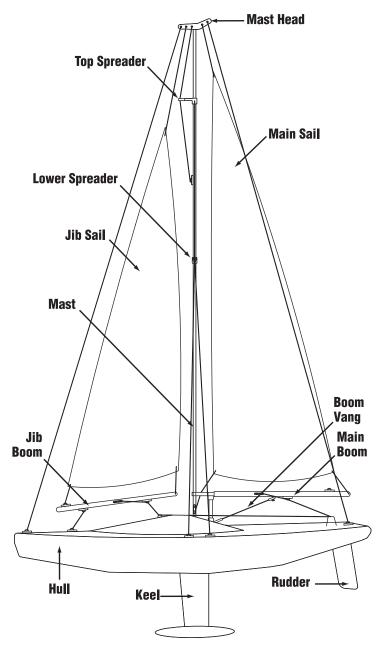
**CLEAT:** A cleat is a piece of hardware designed to hold a line. In the most traditional sense, a cleat is a piece of metal or wood that is shaped somewhat like an anvil. A special knot known also as a cleat is used to tie a line to these traditional cleats.

**FOOT:** The foot of a sail is a reference to the bottom edge of a sail. The forward corner of the foot is the tack, and the aft corner of the foot is the clew.

**FORESTAY:** The stay that runs from the top of a mast to the bow of the boat. As with other stays, a forestay is made from strong wire, rod, or line, and is used to prevent the mast from being blown over. On some sailboats the forestay attaches to the mast slightly below the very top. If this is the case, the sailboat is considered to have a "fractional rig". A forestay can also be called a headstay.

**JIB:** The sail that goes forward of a mast. The leech of a jib generally does not go any further aft than the position of the mast. If it is larger than that, it is considered a genoa.

**KEEL:** The part of a boat's hull that extends below the waterline, on the boat's centerline, that is used to counterbalance the from the side of wind it is called Lee helm.



tendency of wind to blow a sailboat over. A keel generally is shaped something like a fin, so as to cut through the water and prevent sideways motion of the boat. It also will always have weight at its lowest point to prevent the sailboat from tipping over.

**LUFF:** The forward edge of a sail. The luff runs between the head of a sail (at the top of a mast), to the tack of a sail (at the lower forward corner of a sail).

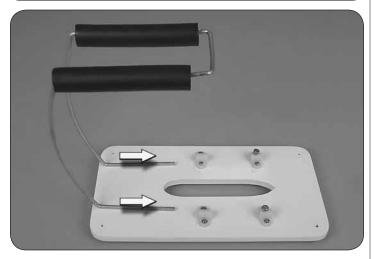
MAIN SAIL: The sail that is located aft of the mast on a sloop.

**MAST:** The vertical spars on boats. A mast is supported by stays so that it does not blow over from the force of the sails. The purpose of the mast is to provide the basic support for the system of sails. Masts were originally made of wood, then aluminum, and now they are sometimes made of carbon fiber. The weight of a mast is extremely important because it cancels out weight in the keel.

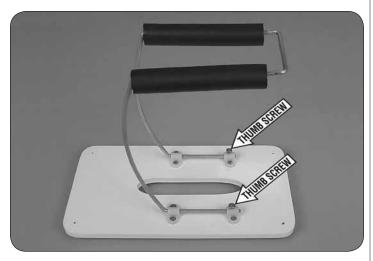
**WEATHER AND LEE HELM:** If the boat tends to turn wind ward this is called Weather helm. If the boat tends to turn away from the side of wind it is called Lee helm.

# Carefully remove your Paradise sailboat and all remaining components from the box. **IMPORTANT:** Use additional care not to bend the mast while removing the mast and sail assembly from the box.

#### **ASSEMBLE THE STAND**



1. Insert the wire uprights into the base of the boat stand as shown in the photo (note direction).



2. Tighten the two (2) thumb screws firmly.

## **TRANSMITTER**

The transmitter is not water resistant and should never come in contact with water.



Slide off the battery door on the back of the transmitter. Install 4 fresh "AA" batteries into the transmitter in the configuration molded into the battery compartment. Re-install the battery door onto the back of the transmitter.



Turn the transmitter on using the switch on the front. The red LED should light up. If it does not light up, turn the transmitter off and check to make sure that the batteries are installed properly. If you see a flashing red LED, the batteries are low and need to be replaced.

## **INSTALL THE KEEL**

If you have not already done so, remove the Paradise hull from the plastic bag and open the bag containing the keel and rudder parts.



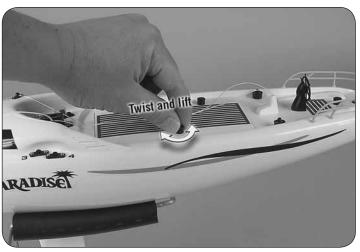
Remove the thumbnut from the keel shaft and insert it up through the bottom of the hull as shown. The keel has been shaped to fit only one way. Pay close attention here or the keel and hull may be badly damaged.



Replace the thumbnut and tighten firmly.



Your boat should now look like this



Next, twist the hatch lock knob and remove the forward hatch as shown.



Install 4 fresh "AA" batteries in the configuration molded into the battery holder. Leave the hatch open for now.

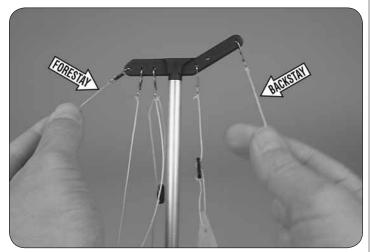
## **INSTALL THE MAST AND SAILS**

**NOTE:** The snap rings and eyelets have been numbered for identification only; the lines do not need to be attached in numerical sequence.





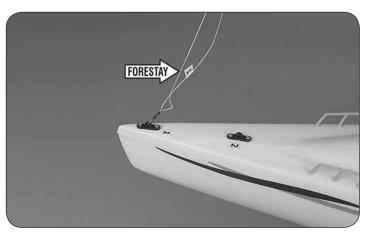
If you have not already done so, remove the mast and sail assembly from its packaging and remove the tape securing the rigging lines. Insert the bottom of the mast into the mast base.

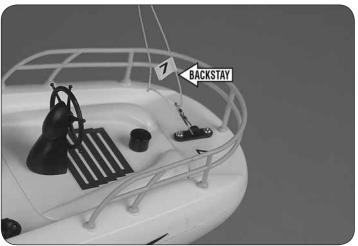


Attach the remaining snap rings to their counterparts and tighten all of the lines. Once again, make sure that the mast stands as straight as possible.

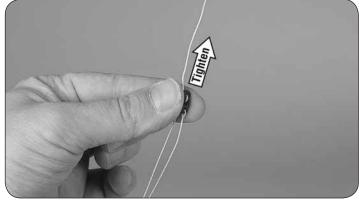
## CHECKING THE RADIO SYSTEM, RUDDER INSTALLATION, AND ATTACHING THE SAIL CONTROL LINES

Turn the power "ON" to the transmitter and sailboat (in that order). Move the sail control stick (left stick) all the way down and center both the left and right trims.





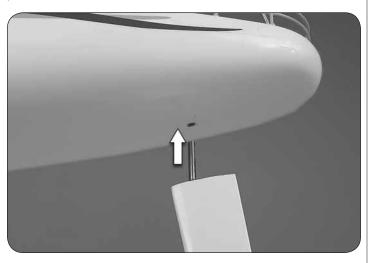
Attach the forestay and backstay to their corresponding eyelets as shown. The numerical markings in the photos may not match those of your model.



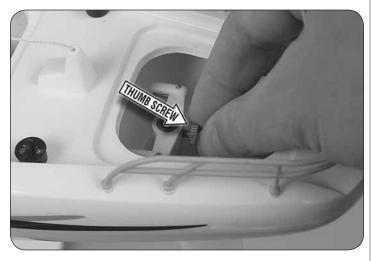
Tighten the lines by adjusting the adjustment blocks (bowsies) as shown. It is important to make sure that the mast is as straight as possible.



Gently twist the helm pedestal and lift the rear hatch from the deck as shown. This will enable you to access the rudder pushrods and rudder control arm.

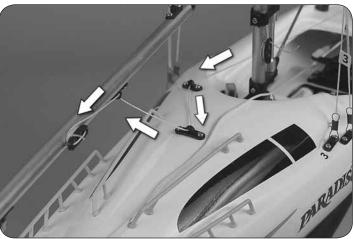


Insert the rudder shaft up through the small hole at stern. The rudder is shaped so that it will only fit one way.



Tighten the thumb screw on the rudder control arm firmly, making sure that it contacts the flat spot on the rudder shaft. Replace the rear hatch.

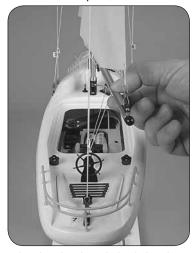




Thread the jib and mainsail control lines through the eyelets as shown. Attach the end of the jib control line to the jib boom cleat by coiling the line around the cleat several times and tucking the end of the line through the coils as shown.

Standing behind the boat with the radio system turned "ON", move the rudder control stick (right stick) to the right. This should cause the back of the rudder to move to the right. Moving the rudder control stick to the left should cause the back of the rudder to move to the left. If this is not the case, simply move the rudder servo reverse switch to the other position.

NOTE: Since it is necessary to adjust the sail control lines depending on wind conditions, they should not be permanently attached. A good starting point is to pull the left stick of the transmitter all the way down and attach the lines so that the booms have about 2" of play as shown. When the sail control stick (left stick) is moved up, you should be able to open the sails.



Replace the forward hatch and twist the hatch lock knob to secure it. Turn the power "OFF" to your boat and then your transmitter (in that order).

## SAILING THE PARADISE

#### **SAILING 101**

Unlike propeller driven boats that you basically point and accelerate, sailboats present an interesting challenge. Sailing requires constant reaction to water movements, any wind gusts, and any wind direction changes. These reactions then require adjustment of the rudder and sails in order to find the best possible course. In some cases transmitter adjustments are sufficient but at other times it will be necessary to make physical adjustments of the sails via the rigging lines. There is no substitute for actual "on-the-water" experience and after your first couple of outings you may want to read through this manual again in order to help you to gain a better understanding of the "art" of sailing. While learning to sail, it is a good idea to pick up on as much sailing terminology as possible; this will make it easier to grasp some aspects.

#### **READING THE WIND**

When you get to your favorite pond, take a few moments to observe wind direction, speed, and frequency of gusts and adjust your sailboat's rigging as necessary. What follows are guidelines for tuning your ship's sails and rigging, but with experience you will gain the ability to fine-tune your sails and rigging for optimal performance, regardless of conditions.

For light wind conditions (1-5 MPH): Use the adjustment blocks (bowsies) located between the tops of the sails and the masthead to tighten the sails so they will respond to the slightest push from the wind.

**For medium wind (6-10MPH):** Loosen the sails slightly in order to find the most efficient combination of sail shape and tension. As a rough guideline, you will want it somewhere inbetween the light and high wind set-up.

For high wind conditions (11-15 MPH): Loosen the jib and main sail further. They will be better able to handle the high winds and your hull will be less likely to lay over on its side.

#### **GETTING WHERE YOU NEED TO GO**

Sailboats can easily sail downwind but sailing against the wind can be quite challenging. In fact, sailboats cannot sail directly into the wind and attempting to do so will leave you in irons. Sailboats can sail at up to a 45° angle against the wind. Movements against the wind are known as tacking. Take a moment to study the diagram below as you read through these definitions.

**DOWNWIND:** Sailing with the wind coming from stern (a.k.a. running and sailing free).

**IN IRONS:** A sailboat is said to be "in irons" when the boat stalls with its bow pointed directly into the wind with its sails struggling to fill with air (luffing), keeping the boat from moving. If you find yourself in this position, simply move the rudder stick to either side and hold it until the sails catch some air. You will need to adjust the tension on the sails with the sail control stick to get the boat moving. Release the rudder when the ship reaches the desired heading.

**LUFFING:** When the sails are unable to fill with wind and begin flapping wildly (like a flag).

**TACKING:** Sailing towards the wind in a series of maneuvers diagonal to the wind source. There are basically two tacking directions. Starboard tack occurs when the wind comes from starboard and the sail boom hangs over the port side. Port tack is just the opposite, with the wind coming from port with the sail boom hanging over the starboard side.

There are varying degrees of tack angle and it is important to learn when each will be useful and how to get your sailboat into position, especially when racing. For instance, when trying to reach a specific position upwind, sailing close hauled may be the most direct route. Sailing close reached allows you to get upwind faster, but is not as direct. In any case, you basically want the sails to be full of air and just on the verge of luffing. Here are some terms that describe different sailing positions in relation to the wind:

**CLOSE-HAULED:** You can sail up to a 45° angle against the wind. Think of it as sailing "close" to the wind with the sails "hauled" in tight.

**CLOSE-REACH:** Nearly the same as close-hauled, but at less of an angle toward the wind. This allows the boat to reach greater speed.

**BEAM REACH:** Sailing with the boat at about a 90° angle to the wind.

**BROAD REACH:** Sailing with the wind coming diagonally from behind (a.k.a. sailing large or quartering wind).

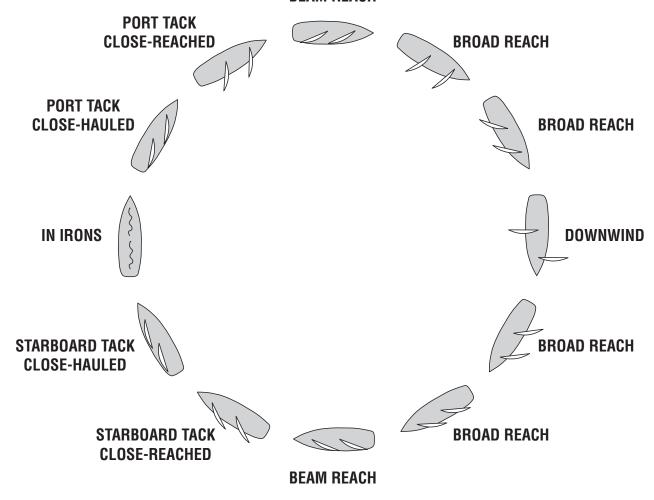
## **SAFETY PRECAUTIONS**

Please read before running the Paradise sailboat.

- NEVER attempt to swim after a stalled or stuck boat! Wait
  patiently for the wind currents to return the boat to shore
  or use a tennis ball attached to the end of a fishing rod to
  retrieve it.
- Sailing the Paradise in winds over 15 MPH is not advised. If you wish to sail in conditions where wind speed is above 15 MPH, you may want to install a high-torque sail servo.
- It is dangerous to operate any R/C vehicle at any time that there is not sufficient light.
- R/C models produce vibrations which will cause screws, nuts, bolts, etc, on your model to become loose over time.
   It is important to make sure that all hardware is secure before operating your model.
- CAUTION: Windy conditions cause rough water that will affect the performance of your sailboat and increase the chances of taking on water.
- Your Paradise sailboat may occasionally take on small amounts of water, especially when running in high winds, rough water, and when making tight turns. Keep a roll of paper towels handy and dry out the hull interior after every run. Check for leaks if you notice excessive amounts of water in the hull.



#### **BEAM REACH**



- After running, remove the hatch covers and allow the interior of the boat to dry out completely. If you neglect to do this, it may result in corrosion of the electronic components.
- IMPORTANT: If, for whatever reason, your boat takes on a large amount of water causing the electronics to get wet, you must do the following immediately: Remove the radio equipment from the boat. Allow the components to air dry completely before reassembling. Reinstall the components and check for proper operation before running the boat in water.
- Total run time of the Paradise sailboat is approximately 45-60 minutes (assuming you begin with new batteries in the receiver box). When you notice a decrease in power or sluggish response, it means the batteries are nearly drained and it's time to head for shore. As soon as the boat reaches shore, turn off the power to the boat and transmitter (in that order).

## **LAUNCH PROCEDURE**

- 1. Turn the power "ON" to the transmitter and boat (in that order).
- Gently place the boat in water that is at least 12" deep and free of obstacles (weeds, rocks, sticks, ducks, muskrats, etc.). The mast of the Paradise sailboat is NOT A HANDLE. Do not hold the boat by the mast.
- 3. Initially you will want to launch the boat downwind and note if the boat has a tendency to turn right or left. Adjust the steering trim lever on your transmitter until the boat runs in a straight line when the steering control stick is at neutral.
- 4. When finished running, be sure to turn the power "OFF" to your boat and transmitter (in that order).
- 5. When you are through sailing for the day, remove the keel and rudder and allow them to dry.

#### THE WAITING GAME

If for whatever reason, you lose control of your Paradise sailboat, wind and water currents will slowly carry it toward shore. The bad news is that the boat could be carried to the opposite shore. Keep in mind things like wind direction and size of the pond or lake when surveying areas to run your sailboat. We recommend that you do not attempt to operate your sailboat on any "free flowing" bodies of water such as rivers or creeks.

If your boat gets stuck in weeds or runs aground, use a fishing rod with at least 12lb. line and a tennis ball tied to the end to retrieve it. Above all, NEVER attempt to swim after a stalled or stuck boat.

If you intend to run on salt water, be sure to do the following:

- Tape the hatches shut for added protection.
- Use petroleum jelly on the rudder and keel shafts.
- Rinse thoroughly with freshwater after every run.

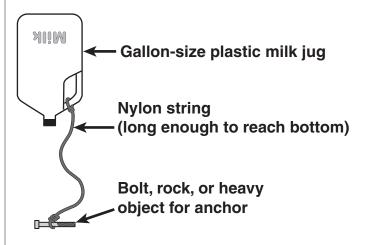
#### **GOOD LUCK AND GREAT BOATING!**

## **RACING**

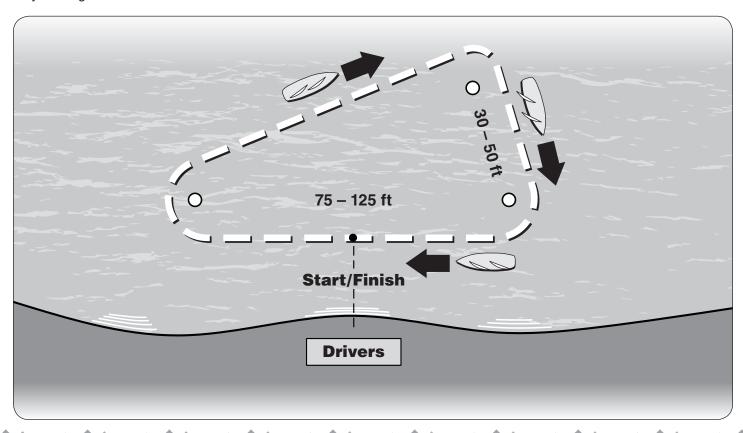
Although it is very enjoyable to go out and run the Paradise sailboat by yourself, we think the real fun and excitement is experienced when you get involved in RACING!

Racing does not have to be an organized and sanctioned competition to be fun. In fact, small informal races can be very exciting without the stress that comes with formal events.

Here are some suggestions for setting up a simple racecourse for boats:



- Make 2 to 4 simple and inexpensive "marker buoys" with empty milk jugs, string, and heavy objects for anchors, similar to the above sketch.
- For "oval racing" place the buoys similar to the sketch below. NOTE: These patterns are not based on any sort of official standards; therefore, you may set up race courses any way you desire, using your imagination to make the races more interesting. Usually the smaller courses will provide more action and excitement.
- The length of the races can be determined by a set number of laps around the buoys (for example, the first boat to complete 5 laps is the winner); or by time (for example, whoever is leading at the end of two minutes is the winner).



## **REPLACEMENT PARTS**

To order replacement parts for the Paradise sailboat, use the order numbers in the Replacement Parts List that follows. Replacement parts are available only as listed and can be purchased from hobby shops or mail order/ Internet order firms. Hardware items (screws, nuts, bolts) are also available from these outlets. If you need assistance locating a dealer to purchase parts, visit www.hobbico.com and click on "Where to buy". If this kit is missing parts, contact Hobbico Product Support.

