

HBZ3412



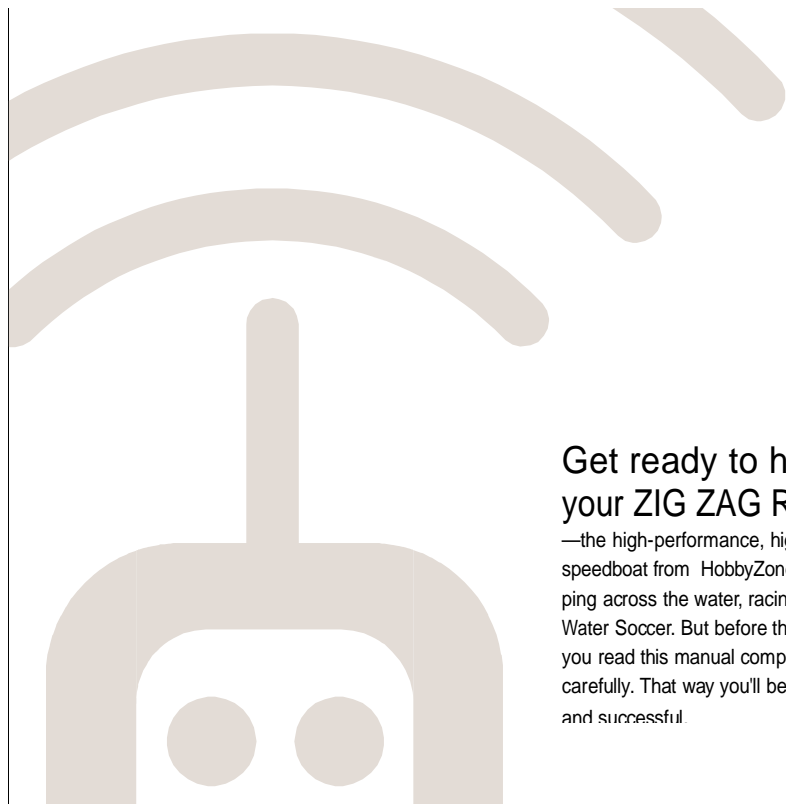

radio control sports
hobbyzonesports.com

6503

Visit www.modelflight.com.au for more information and spare parts.



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Get ready to have a BLAST with your ZIG ZAG RACER 2™

—the high-performance, highly maneuverable, self-righting speedboat from HobbyZone®. You'll have hours of fun zipping across the water, racing with friends and playing Zig Zag Water Soccer. But before the fun begins, it's very important that you read this manual completely and follow the directions carefully. That way you'll be sure your Zig Zag fun is safe and successful.

Visit www.modelflight.com.au for more information and spare parts.

Welcome
to the World of

hobbyzone[®]
radio control sports

Crash damage is not covered
under the warranty.

Be sure to read the warranty on
page 26 and "Warnings and
Safety" on page 24 before you
proceed to Step 1.

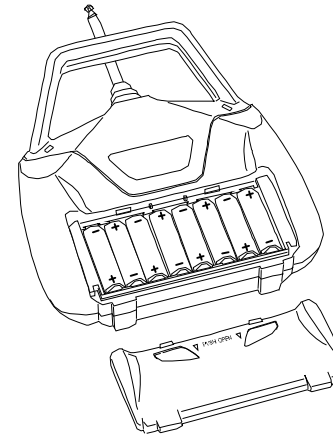
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Transmitter

Needed for Step 1

"AA" Heavy-Duty Batteries
(x8 included)

1. Remove transmitter back cover by pushing down with thumbs, as indicated by the arrows.
2. Install batteries. Use fresh 1.5V "AA" batteries only.
3. Watch polarity. Replace cover.
4. To test, switch on transmitter—LED should glow brightly.
5. Replace batteries when you hear low-battery alarm (beeping sound).

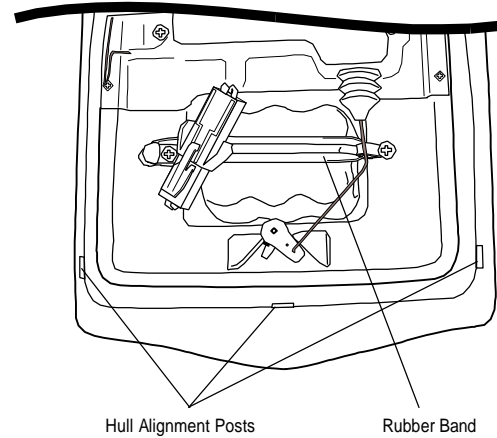


Install Battery

IMPORTANT – Prior to installing battery, the transmitter must be turned on and your Zig Zag boat placed on the included stand.

1. Lift canopy slightly and turn sideways to uncover battery compartment.
2. Attach battery to connector in boat and place battery in compartment.
3. To secure battery, stretch rubber band over the top of the battery and connect to hook.
4. Make sure battery and connectors do not interfere with movement of wire pushrod.
5. Reposition canopy and secure it by fitting canopy peg into the front alignment cavity in the hull and inside the five hull alignment posts.

Note: Always make sure your transmitter is on before you install the battery. After you are done, make sure the battery is unplugged prior to turning off the transmitter.



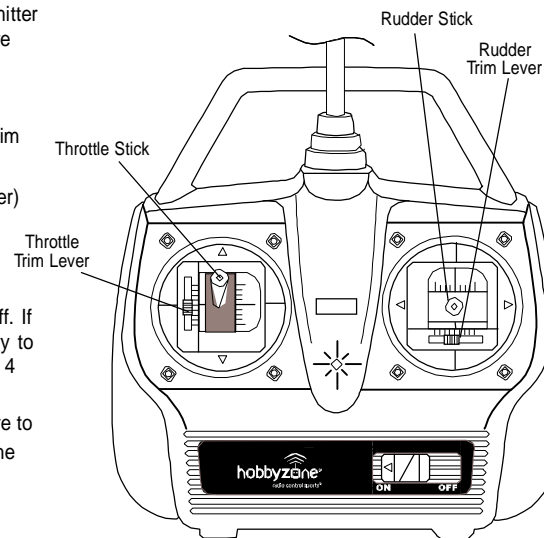
Motor Test and Battery Discharge

CAUTION: Keep everything clear of the propeller.
A moving propeller can cause injury.

1. The small lever next to the throttle stick (left stick on transmitter) is called a throttle trim lever. With your boat on the stand, transmitter turned on, and battery installed, make sure

the throttle trim lever is in the center (neutral) position.

2. If motor is running, gradually move the trim lever down until the motor stops.
3. Move throttle stick (left stick on transmitter) up. Motor speed will increase as this stick is moved up.
4. In order to fully discharge the battery, run the motor at high speed until it shuts off. If there is not enough charge in the battery to power the propeller, then proceed to Step 4 (on next page).
5. When finished with the motor test, be sure to disconnect the battery first then turn off the transmitter.

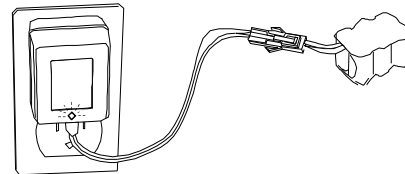


Charging the Zig Zag Battery

Note: Never charge a hot battery or a battery that is already charged. Always discharge before every charge. See Step 3 for instructions on discharging.

See "Warnings and Safety" on page 24.

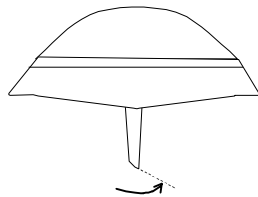
1. The charger supplied with the Zig Zag Racer 2™ has a built-in timer. Plug the battery into the charger, and then plug the charger into the wall. The LED indicator should glow constantly. After about 3 hours, the LED will turn off. At this time, the battery is charged and ready to use.
2. To charge another battery, the charger must first be unplugged from both the wall and the battery to reset the timer.



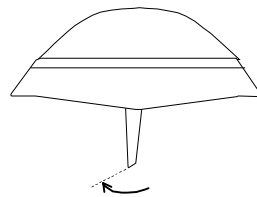
Important: Charge the battery shortly before running the Zig Zag Racer 2. If you charge the battery 12–48 hours before use, charge again for 30 minutes right before you run. Stop charging immediately when the battery becomes warm, indicating it is fully charged.

Rudder Test

Back of Boat

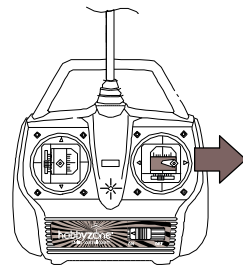


Back of Boat

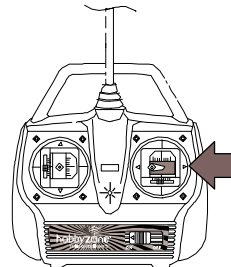


Move the rudder stick (right stick on transmitter) side to side. The rudder should move as shown in the drawings.

Right Rudder



Left Rudder



NOTE:

The small lever under the rudder stick is called a trim lever and is used to adjust the "neutral" point of your control stick. To do this, place the rudder stick in neutral (center) position. If rudder is not aligned straight ahead, use the rudder trim lever to center it.

Choosing Your Location

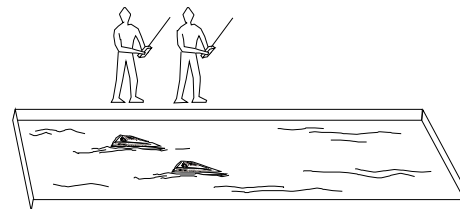
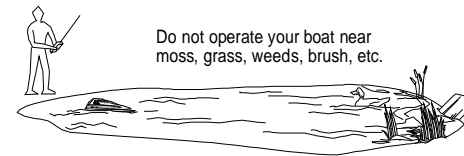
CAUTION: Parents, do not allow young children to go the lake or pool unsupervised. Be safe and stay away from steep grades near shorelines where you or those with you could slip and fall into the water.

1. Choose a location that is not being used by swimmers when you are running your boat.
2. If you choose a lake, be sure there is no moss, grass, weeds or debris present that could get wrapped around the propeller or trap your boat offshore.
3. Make sure the shoreline is clear and relatively flat so you can easily launch, operate and retrieve your boat.



DO NOT mix radio control boating and swimming.

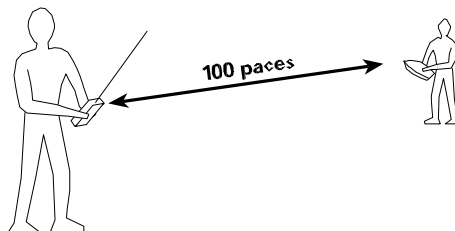
DO NOT swim to retrieve your boat.



Range Test

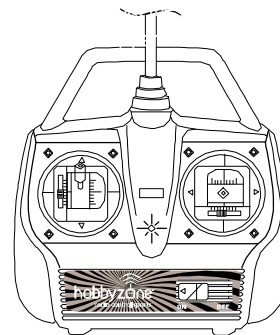
You will need two people to do the range test: one to hold the transmitter and one to hold the Zig Zag Racer 2™.

1. One person holds the transmitter; the other person walks 100 paces away with the boat.
2. Extend the transmitter antenna completely and turn the transmitter on.
3. Plug in the battery and close the hatch cover.
4. As the first person moves both of the transmitter controls at the same time, the other person watches to be sure the boat's motor and rudder controls operate smoothly.



WATCH OUT! The person holding the boat should hold it so that the propeller does not come in contact with any part of their body.

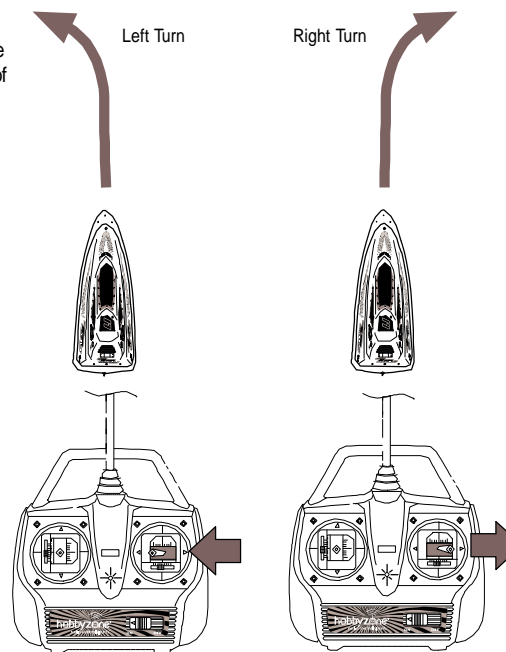
If model does not range test correctly, do **not** run. Call Horizon Hobby Product Support Staff toll-free at 1-877-504-0233 for directions on how to proceed.



Launching and Running

Before launching, make sure no one in the area is operating another radio control vehicle on the same frequency. Your frequency is marked on the back of your transmitter and under the boat canopy.

1. To launch your Zig Zag Racer 2™, turn transmitter on, install charged battery and place and release the boat in the water.
2. Advance throttle (left) stick partially so boat moves slowly. Move rudder (right) stick to right to turn the boat to the right. Move rudder stick to left to turn the boat to the left.
3. Practice running the boat at slow speed, making right, left, and figure-eight turns. As your ability to control the boat improves, gradually increase the speed. With a bit of practice, you'll see your driving skills improve quickly.



Launching and Running (continued)

- Your Zig Zag Racer 2™ has no reverse. Be sure to plan ahead while driving so you don't get your boat stuck in a dead end.
- Running time with a fully charged battery will be approximately 10–15 minutes, depending on your driving speed.

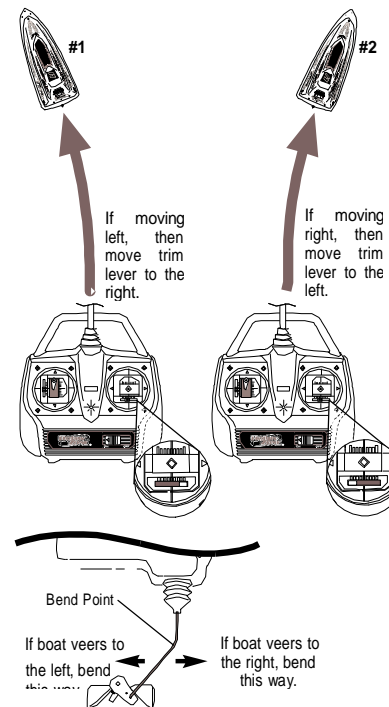
NOTE: When you notice your boat running much slower even at full throttle, it's time to bring your boat to shore. Slower speed indicates the battery is low, and you have only 2 or 3 minutes of running time before it completely stops. Make sure you allow the motor to cool for 5 minutes between battery exchanges.

CAUTION

- Do not run your boat into hard objects or onto shore or the rudder and propeller can be damaged.
- Keep hands and fingers away from the moving propeller when launching or retrieving your boat.
- Do not swim to retrieve your boat.
- If the canopy of the boat becomes dislodged, you may need to remove water from inside the boat. Remove the drain plug at the back of the boat and drain the water, then replace the plug.

Trimming the Rudder Control

- After launching your boat, check to see that it is running straight.
- If your Zig Zag Racer 2™ always turns to the right when rudder stick is at neutral (centered), move the trim lever below the stick to the left until it drives straight. See drawing #1.
- If the boat always turns to the left when the rudder stick is at neutral, move the trim lever to the right until it drives straight. See drawing #2.
- If the boat still turns in one direction after moving the trim lever the full amount in the opposite direction, you will need to adjust the rudder linkage wire.



If the boat still turns to the left, use your fingers to bend a greater angle in the wire.
If the boat still turns to the right, use your fingers or a pair of pliers to slightly straighten the wire.

RACING AND GAMES WITH THE ZIG ZAG

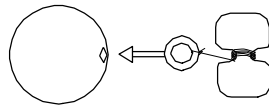
The Zig Zag Racer 2™ is available on six different frequencies (channels). This means that up to six people can race at the same time.

Racecourse Setup

You can use the orange buoys that come with your Zig Zag Racer 2 to set up a racecourse.

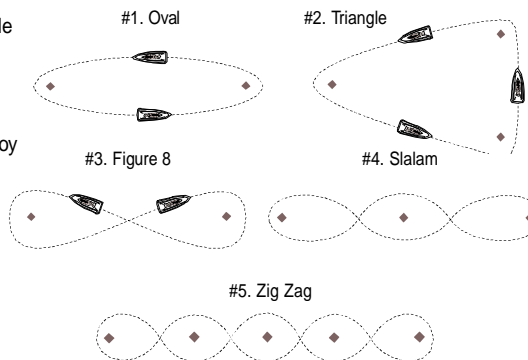
1. Attach butterfly-shaped steel anchor to orange ball by first removing the tape that holds the fishing line in place.
2. Push the white plastic plug firmly into the hole in the ball.
3. Toss this assembly into the water in the desired location. The line will unwind on its own until the anchor hits bottom, and the buoy will float on top of the water.

CAUTION: Do not swim to retrieve buoys.
For retrieval method, see page 18.



- 4 To mark the course, use two or three buoys set in a line or in the shape of a triangle. You should allow 20 to 30 feet between them if possible. See drawings below. Vary the racecourse shape to sharpen your skills.

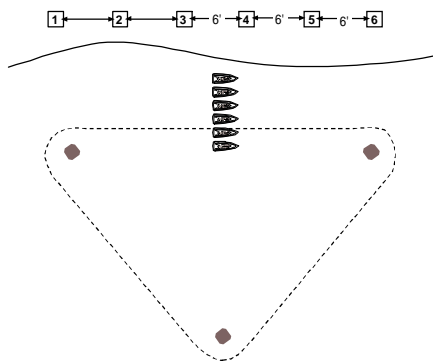
Setup Options



Racing Options

1. After you've set up your course, drivers launch their boats and then stand in a line on the shore a minimum of 6 feet apart. Do not walk between a driver and his boat or you may cause radio interference.
2. To start, boats should be launched and lined up together near the racecourse (see drawing A), ready for the starter's "Go!"

A.

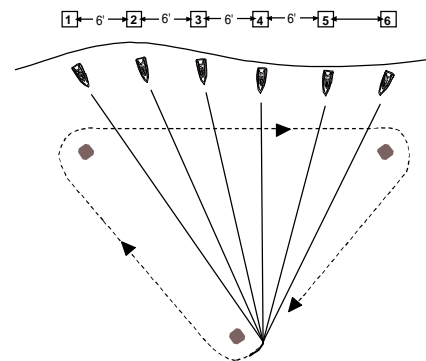


3. Another way to start is for each driver to hold his or her boat at water's edge. At "Go," drivers release boats and head for the first buoy (see drawing B).

Note:

Race length is determined in advance by the number of laps or by the amount of time (10 laps or 5 minutes, for example).

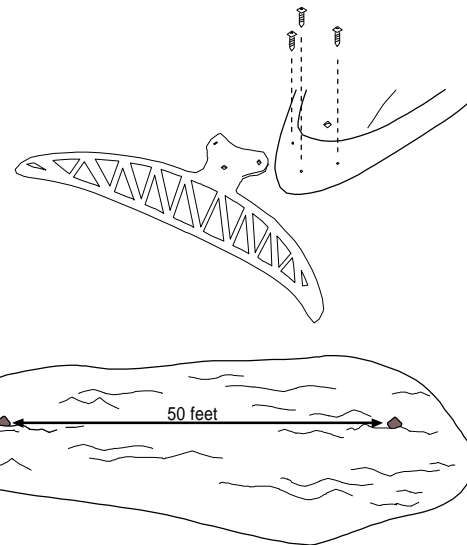
B.



Zig Zag Water Soccer Setup

When you can consistently maneuver your Zig Zag Racer 2™ at both low and high speeds, you can add to your racing fun by playing Zig Zag Water Soccer. Here's how you set up your boat and "playing field."

1. Attach bumper to front of boat using the three screws provided. Secure the screws but do not over-tighten.
2. To set up your playing field, place two buoys (with anchor attached) in water approximately 50 feet apart to mark the two goal lines.



Playing Zig Zag Water Soccer

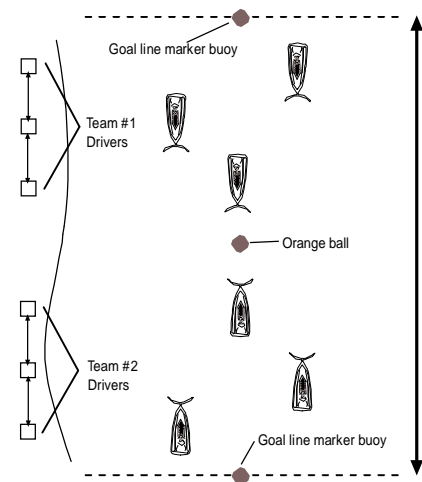
Zig Zag Water Soccer can be played with one, two, or three players on each team with each boat on a different frequency.

- Game begins by tossing the third orange ball (w/o anchor) into the middle of the "playing field."
- Each team tries to score by using their bumper to push the ball past the goal line.
- To make the game more challenging, the bumpers have been designed so the ball pops loose when you exceed 4–5 mph. Because of this, easy "sprints" to the goal line are not possible, and your competitor has time to catch up with you and steal the ball. Just as in real soccer, each team will be most effective when using strategic offensive and defensive plays and teamwork.
- Game length is made up of two 4-minute halves. The team scoring the most goals wins.

If neither team scores, there is a third 1-minute playing period. After one minute, the team

that scores the most points or is closest to the goal line is declared winner.

NOTE: For best results, it is easiest to move the ball when the throttle is in low position.

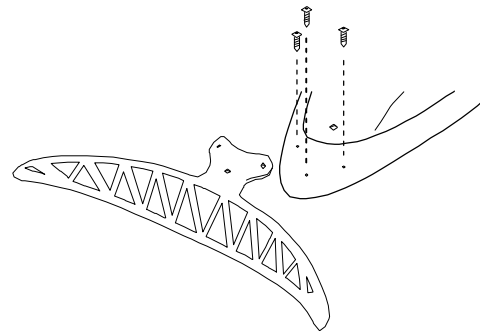


Retrieving Buoys

The bumper provided for Water Soccer can also be used to retrieve the orange buoys. Remember—do not swim to retrieve the buoys.

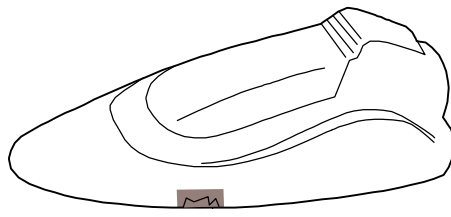
1. Attach bumper to front of boat using the three screws provided. Secure the screws but do not over-tighten.
2. Re-launch your Zig Zag and steer it to catch a buoy in the bumper.
3. Carefully pull the buoy towards shore. The anchor will create some drag that will slow your speed and hamper maneuverability.

CAUTION: Do not swim to retrieve the buoys.



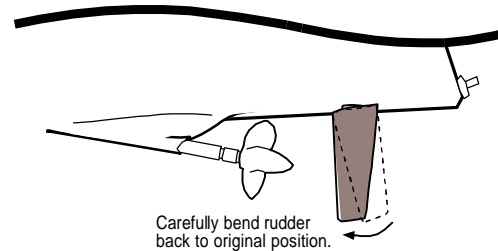
Maintaining the Zig Zag Racer 2

- The Zig Zag Racer 2™ is designed to be self-righting if it is tipped over during racing or while playing water soccer, as long as the canopy is fitted properly to the hull. If the canopy is knocked out of place, immediately drive to shore, empty any water from the boat and put the canopy back into place.
- Be careful not to hit other boats or objects broadside at full throttle with the nose of your Zig Zag or you can damage the canopy. Small cracks can be taped, but if you get a large crack or break a piece out of the canopy, it must be replaced with a new one.



Small Crack

- The rudder shaft can be damaged if you run over an object, another boat or hit the shore.
Be careful when bending it back into position.



- After each run, drain any water out of the boat before running again.
- Be sure to allow motor to cool for 5 minutes after a run, between battery exchanges.

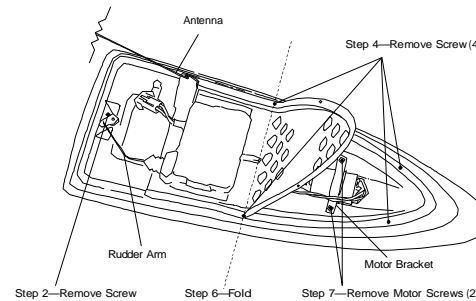
Propeller/Shaft Replacement

If you damage the propeller, you may need to purchase a replacement propeller/propeller shaft. Follow these steps to replace the propeller. Adult supervision is recommended.

1. Remove the canopy by unhooking the rubber band that attaches the canopy to the hull.
2. Use a small flathead screwdriver to loosen the black set screw that secures the rudder.
3. Remove rudder carefully and make certain not to lose the two spacers that allow the rudder to move freely.
4. Remove the 4 small Phillips screws that secure the front of the plastic deck cover and the antenna.
5. Push the antenna out of your way.
6. Pull up on the top (front) of the plastic deck cover to reveal the motor and drive shaft coupler.
7. Remove the two screws that secure the motor bracket. Carefully pull the motor out, making certain not to accidentally detach the motor leads from the solder joints.

Note: The motor is secured to the hull with aggressive servo tape, so it may take a small amount of force, as well as prying with a screwdriver, to free the motor.

8. When the motor is free, pull the motor out and remove the rubber drive shaft coupler. This should expose the drive shaft coupler cap.

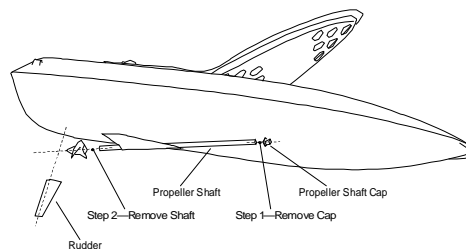


Propeller/Shaft Replacement (continued)

Follow these steps to replace the prop/prop shaft:

1. Remove prop/prop shaft from cap by unscrewing it.
2. Slide propeller and shaft out of drive tube.
3. Locate the new prop/prop shaft.
4. Slide the new prop/prop shaft into the boat.
5. Thread the prop/prop shaft into the threaded cap. It may be necessary to use small pliers to hold cap while shaft is being tightened.
6. Slide rubber coupler back onto motor cap.
7. Slide rubber coupler back onto the new drive shaft cap.
8. Re-install motor and motor bracket. Make sure that the motor leads are once again placed inside the molded hook to keep the leads secured and out of the way.

9. Re-install the rudder. Be certain to include the spacers below the rudder arm.
10. Re-install the deck cover. Make certain the antenna is secured.



If you have any questions regarding the replacement of the prop/prop shaft, please call product support at 877-504-0233

Troubleshooting Guide

PROBLEM	POSSIBLE CAUSE	SOLUTION
Unit doesn't operate	<ol style="list-style-type: none"> 1. Transmitter "AA" batteries are depleted or installed incorrectly. 2. The connector inside the boat may not be fully plugged in to the battery. 3. The battery is not charged. 4. The radio electronics are wet. 	<ol style="list-style-type: none"> 1. Check that the batteries are installed as per the illustration inside the transmitter back (see page 5). Replace the batteries with new fresh "AA"s. The LED indicator on the transmitter will be bright if the batteries are good and installed correctly. 2. Push the connector together until a click is heard to ensure a solid connection (see page 4). 3. Fully charge the battery per the instructions (see page 4). 4. Carefully dry the inside of the boat with a warm (not hot) hair dryer.
The boat will not drive straight when the steering stick is centered	<ol style="list-style-type: none"> 1. The steering trim is not adjusted properly. 2. The steering linkage is bent by the battery or battery wires moving it out of the correct position. 	<ol style="list-style-type: none"> 1. Drive the boat away from yourself slowly and adjust the steering trim until the boat tracks straight. 2. Readjust the battery position to properly clear the steering linkage.

Troubleshooting Guide (continued)

PROBLEM	POSSIBLE CAUSE	SOLUTION
The boat goes much slower than normal	<ol style="list-style-type: none"> 1. The battery isn't charged. 2. Weeds, moss, or trash may be caught on the prop or rudder. 3. The motor or battery is old and wearing out. 4. Water has entered the hull. 	<ol style="list-style-type: none"> 1. Fully charge the battery per the instructions (see page 4). 2. Take the boat out of the water. Unplug the battery inside the boat to make sure the prop is not running. Remove the item from the prop or rudder. 3. After approximately 300–500 runs the motor and battery will need to be replaced. 4. Pull the drain at the rear of the boat and drain out the water.
The radio has poor or no range	<ol style="list-style-type: none"> 1. The batteries in the transmitter are weak. 2. The transmitter is on a different frequency from the boat. 3. Antenna is not extended. 	<ol style="list-style-type: none"> 1. Replace the batteries with fresh "AA" batteries. 2. Check that the channel number matches the channel on the back of the transmitter. 3. Extend antenna fully.

Warnings and Safety

1. Read and follow this manual completely, observing all instructions, Warnings, Notes, Cautions, and safety directions; otherwise serious injury and damage can occur. Think: Safety First.
2. Keep propeller away from body parts, even when it isn't spinning, as you or someone else might turn the boat on by accident. Beware of hair becoming entangled in the propeller, especially when launching the Zig Zag Racer 2™, or injury may occur.
3. **NEVER SWIM** to retrieve your boat or buoys. Do not operate your Zig Zag Racer 2 near people, as injury may occur. Never allow anyone to attempt to catch the Zig Zag Racer 2 while it is running or serious injury can result.
4. Adult supervision is recommended for ages 12 and under.
5. Battery Charging: Only use a battery charger intended for use with the Zig Zag battery. Never leave a charger unattended while charging. Before charging, always be sure to deplete the power from the battery by running it in the Zig Zag Racer 2 until the propeller stops. This will help prevent overcharging. While charging, place the battery on a heat-resistant surface. DO NOT lay it on carpet while charging. NEVER charge the battery with the included charger for more than 3 hours, as overcharging may cause excessive heat in the battery, causing injury, damage and poor battery life and performance—voiding the warranty.
6. Never cut into the battery, charger, or boat wires, or serious injury can occur. Causing the battery to "short out" (crossing negative and positive bare wires) can cause a fire, serious injury and damage.
7. When operating your Zig Zag Racer 2, ALWAYS turn on the transmitter BEFORE you plug the battery into the Zig Zag Racer 2. When you finish running your Zig Zag, always unplug the battery BEFORE you turn off the transmitter.
8. Never operate on the same frequency as another boater in your area. The frequency of your Zig Zag Racer 2 is shown on stickers on the back of the transmitter and on top of the radio box inside the canopy.

Replacement Parts

Item	Description	Suggested Retail	Item	Description	Suggested Retail
HBZ1012	7.2V 900mAh Battery	\$24.99	HBZ3336	Hull W/PCB,PRP, MTR & RDR: ZZR CH 1	\$49.99
HBZ2519	3 Hour Wall Charger	\$9.99	HBZ3337	Hull W/PCB,PRP, MTR & RDR: ZZR CH 2	\$49.99
HBZ3315	3" Orange Balls (2)	\$3.99	HBZ3338	Hull W/PCB,PRP, MTR & RDR: ZZR CH 3	\$49.99
HBZ3317	Buoy Anchor w/Line	\$3.99	HBZ3339	Hull W/PCB,PRP, MTR & RDR: ZZR CH 4	\$49.99
HBZ3319	Bumper w/Screws	\$4.99	HBZ3340	Hull W/PCB,PRP, MTR & RDR: ZZR CH 5	\$49.99
HBZ3323	Hook for Canopy (2)	\$0.79	HBZ3341	Hull W/PCB,PRP, MTR & RDR: ZZR CH 6	\$49.99
HBZ3324	Drain Plugs (5)	\$1.25	HBZ3331	ZZR PC Board: CH 1	\$22.99
HBZ3325	Rudder & Steering Arm	\$3.99	HBZ3342	ZZR PC Board: CH 2	\$22.99
HBZ3327	Propeller w/Shaft	\$3.99	HBZ3343	ZZR PC Board: CH 3	\$22.99
HBZ3328	Rubber Coupler/Plastic Spline: ZZR, ZZR2	\$1.25	HBZ3344	ZZR PC Board: CH 4	\$22.99
HBZ3329	Electric Motor	\$9.99	HBZ3345	ZZR PC Board: CH 5	\$22.99
HBZ3412	Instruction Manual: ZZR2	\$0.99	HBZ3346	ZZR PC Board: CH 6	\$22.99
HBZ3413	Decal Sheet: ZZR2 Yellow	\$3.99			
HBZ3418	Decal Sheet: ZZR2 Red	\$3.99			
HBZ3419	Decal Sheet: ZZR2 Blue	\$3.99			
HBZ3414	Canopy w/Hook, Yellow: ZZR2	\$7.99			
HBZ3415	Canopy w/Hook, Red: ZZR2	\$7.99			
HBZ3416	Canopy w/Hook, Blue: ZZR2	\$7.99			
HBZ3417	Cockpit Window: ZZR2	\$1.99			
HBZ3351	TX: Channel 1: ZZR, FBC, IIST, FTB, ZZR2	\$24.99			
HBZ3352	TX: Channel 2: ZZR, FBC, IIST, FTB, ZZR2	\$24.99			
HBZ3353	TX: Channel 3: ZZR, FBC, IIST, FTB, ZZR2	\$24.99			
HBZ3354	TX: Channel 4: ZZR, FBC, IIST, FTB, ZZR2	\$24.99			
HBZ3355	TX: Channel 5: ZZR, FBC, IIST, FTB, ZZR2	\$24.99			
HBZ3356	TX: Channel 6: ZZR, FBC, IIST, FTB, ZZR2	\$24.99			
HBZ1058	TX Antenna: All HBZ Birds, ZZR, ZZR2	\$4.99			
HBZ1060	Transmitter Battery Cover	\$2.49			

HobbyZone Accessories



HBZ1026 DC Peak Charger

Charge your battery from your car in about 40 minutes with our DC Peak Charger, including adapter to charge most HobbyZone® Aircraft and ZigZag Boat batteries.

Retail: \$19.99

Warranty & Non-Warranty Replacement Parts

Warranty: Horizon Hobby, Inc. guarantees this kit to be free of defects in material and workmanship at the date of purchase. This warranty does not cover any parts damaged by use, crashes or modification.

In the event that you're requesting Horizon to replace Zig Zag Racer 2™ parts, please follow the instructions below.

1. Make sure the battery is unplugged from the Zig Zag Racer 2. Please pack the complete Zig Zag Racer 2 (all components) in the original box and put into a sturdy shipping carton for protection. Include complete name and address information inside the carton, as well as clearly writing it on the outer label/return address area.
2. Include detailed information explaining the nature of the problem(s) encountered. Please date your correspondence and be sure your complete name and address appear on this

enclosure. Within your letter, advise us of the payment method you prefer to use. The Horizon Service Center accepts VISA or Mastercard, or you can pay cash in advance with a cashier's check or money order. If you prefer to use a credit card, please include your card number and expiration date.

Warranty Parts Replacement.

Providing that warranty conditions have been met, defective parts will be replaced without charge. Sorry, crash damage is not covered under warranty. To receive warranty service, include your original dated sales receipt.

Non-Warranty Parts Replacement.

Should your parts replacement costs exceed \$50, you will be provided an estimate advising you of your options.

Warranty & Non-Warranty Replacement Parts (continued)

Mail your Zig Zag Racer 2™ to:

Horizon Service Center
ATTN: HobbyZone Dept.
4105 Fieldstone Road
Champaign, IL 61822
Phone: (217) 355-9511