

4D - BOAT INSTRUCTION MANUAL

The 4D - BOAT is a new kind of submarine. It can be played in a fish tank, pond or a swimming pool. The speed and direction of the boat can be controlled accurately as it driven by 4 propellers. So it can be controlled to move in 3D water freely. The boat can run 15~25 minutes (depends on the running velocity) as a high capacity rechargeable battery is employed. The boat's laser mode allows two or more boats to play laser games with each other. The reliable waterproof technology insures the life of the submarine. All of the new technologies used in this boat have won patents of P.R.C.

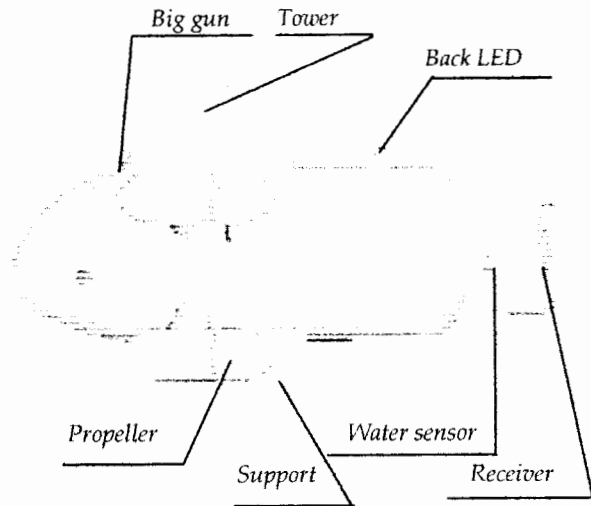


Figure 1. The shape of submarine

- ※ Read the manual carefully before running the sea-monster.
- ※ User must be 6 ages or over.
- ※ The remote controller uses a 9V battery.
- ※ The 4D - BOAT should run in clear water at 0~40℃.
- ※ Don't disassemble the boat otherwise the seal will be destroyed.
- ※ Please keep the remote controller dry for it is not waterproofed.
- ※ Unplug the tower after using the boat, wipe it carefully and keep it dry.
- ※ Make sure that the '+' and '-' are positioned properly when installing the 9V size battery.
- ※ Make sure the input voltage of the charger matches with the power supply.
- ※ At one place, please don't use the same remote frequency at the same time.

Product contents

- | | |
|-------------------------------|-----|
| • Submarine body | × 1 |
| • Submarine tower | × 1 |
| • Remote controller | × 1 |
| • Intelligent battery charger | × 1 |
| • Antenna | × 1 |
| • Instruction manual | × 1 |

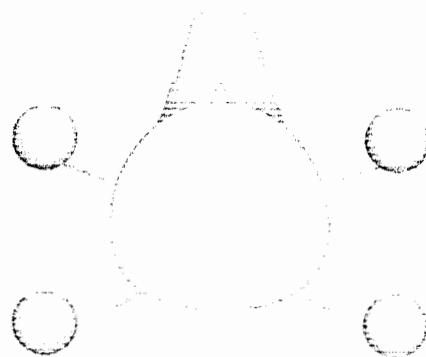


Figure 2. Back view of the submarine

How assembling

Install the propeller as shown in figure 2. Note the number on the head of every propeller.

Remote controller assembly

The remote controller as shown in figure 3, assemble it as follows:

1. Insert a 9V battery as shown in the battery box.
2. Insert the battery cover tab into the slot.
3. Tighten the cover screw.
4. Tighten the antenna clockwise as shown in figure 3

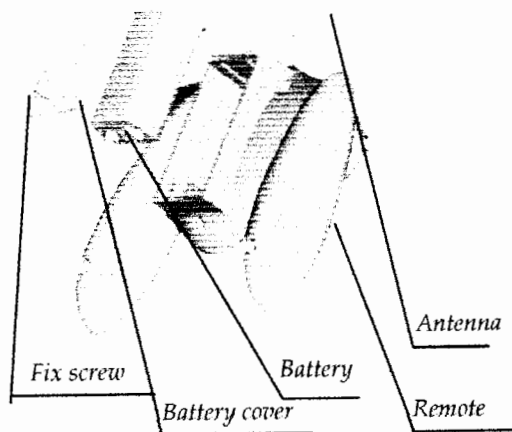


Figure 3. Remote assembly

two hours the first time you use it. It means the submarine needs to be charged when all the LED on the boat are flashing, and the boat can't go continuously. Plug the charger in and plug the AC adaptor into the submarine (please make sure the supplied power voltage matched with the voltage the charger allowed to be used). Unplug the submarine when the indicating LED goes out (tip: charge the boat for 30 minutes more after the charging LED goes out, the boat will be charged with more power).

Testing before putting the (1) BOAT

into the water

Put the submarine on a table after charging the submarine fully. Plug the submarine tower in (check the direction of the tower as shown in figure 5). Both the front blue LED will light and the LED at the back of the boat will flash. Turn the power switch on the remote controller on. And then check the 4 propellers working well or not. Clean the propellers if they're very slow.

How to use

The forwards, backwards, left hand sides and right hand sides in this manual are based on the view from the back of the submarine.

Submarine charging

The submarine should be charged for more than

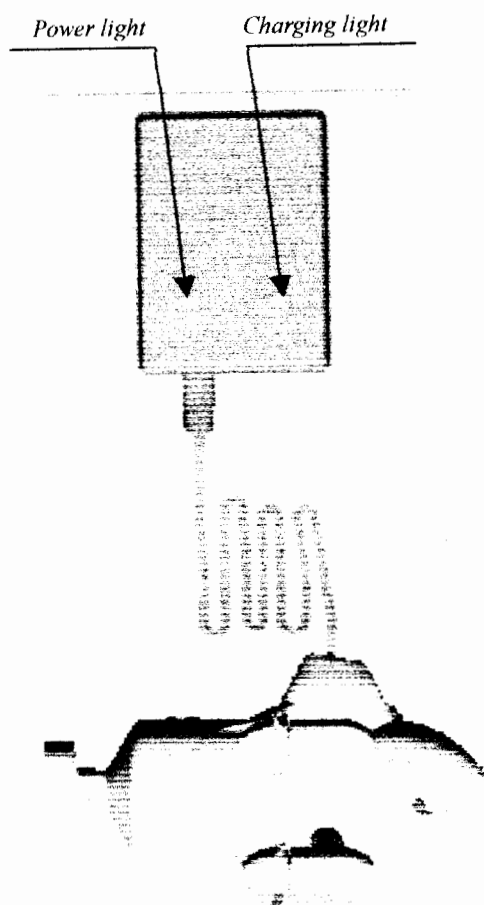


Fig 4. Boat charging

Plug the tower in before using as shown in figure 5. The front LED of the submarine will light. **You must unplug the tower after use.**

Switch on the remote power as shown in figure 6 and the remote will beep. The signal LED on the remote will light and the status LED will switch on if the direction button does not seat at the center. If the status LED is on, try moving the

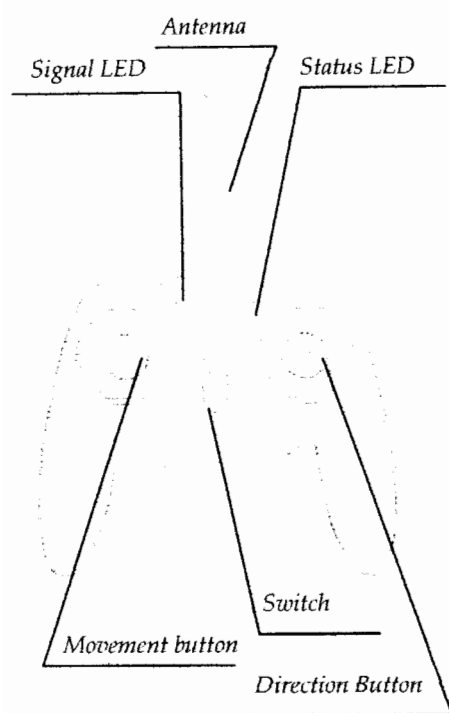


Figure 5. Remote controller

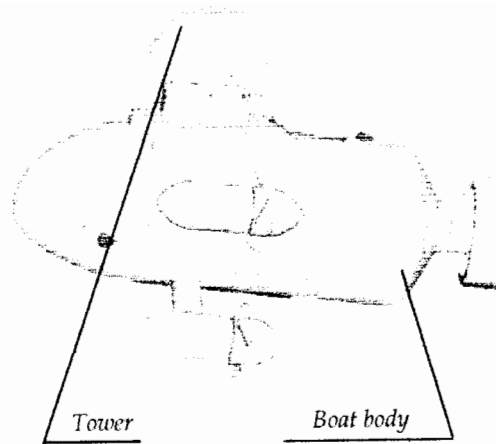


Figure 5. Assembling of the submarine

direction button until the LED goes off.

Moving forwards: push the movement button forwards.

Moving backwards: pull the movement button backwards.

Turning left: hold the movement button forwards or backwards, and then push the direction button to left.

Turning right: hold the movement button forwards or backwards, and then push the direction button to right.

Climbing: hold the movement button forwards or backwards, and then pull the direction button backwards.

Diving: hold the movement button forwards or backwards, and then push the direction button forwards.

Laser mode of the submarine

There is a gun in the front of the tower and a receiver at the back of the tail as shown in figure 1. When the boat is going to shoot, it should arrive at the back of the other boat. Aiming the gun at the other boat's receiver, hold the movement button forwards or backwards, and then push the direction button down vertically. The boat will shoot once every time the direction button is pushed down and the remote will beep four times. When a boat is hit, all the LED on it will light, and then it will float up, running in circles and can't be controlled for 13 seconds. The valid fire area is 40cm between two boats and the angle is less than 30°.

Moving in a straight line

If the boat can't go straight as it is using, the first thing you should do is to check whether the propellers are dirty or not. If they are; clean them. The second is to check whether the statute LED on the remote is on or off, if the LED is on; it means the direction button is not at the center of its position. Otherwise a straight moving adjustment is required with the following procedures.

Adjusting a tending to the left-hand side: Hold the direction button right while pushing the movement button down vertically, the remote will beep and the force of right-hand side will be decreased by 1 unit every time the movement button is pushed down. After several adjustments, the boat will go in a straight line. If the tend of the boat changes to the right in the adjustment, it means the adjustment of left-hand side trend is over adjusted. In this case, hold the movement button left and push the movement button down vertically. The power of left-hand side will be decreased by 1 unit every time the movement button is pushed down. So the over-adjustment of tend to left-hand side can be counteracted.

Adjusting a tending to the right: Hold the movement button left while pushing the movement button down vertically; the remote will beep and the force of left-hand side will be decreased by 1 unit every time the movement button is pushed down.

Adjusting a tending to dive: Hold the direction button backwards while pushing the movement button down vertically, the remote will beep and the force of the top side will be decreased 1 by unit every time that movement button is pushed down.

Adjusting a tending to climb: Hold the direction button forwards while pushing the movement button down vertically, the remote will beep and the bottom force will be decreased by 1 unit every time the movement button is pushed down.

Note: the straight moving adjustment is valid only before the remote switch off this rime.

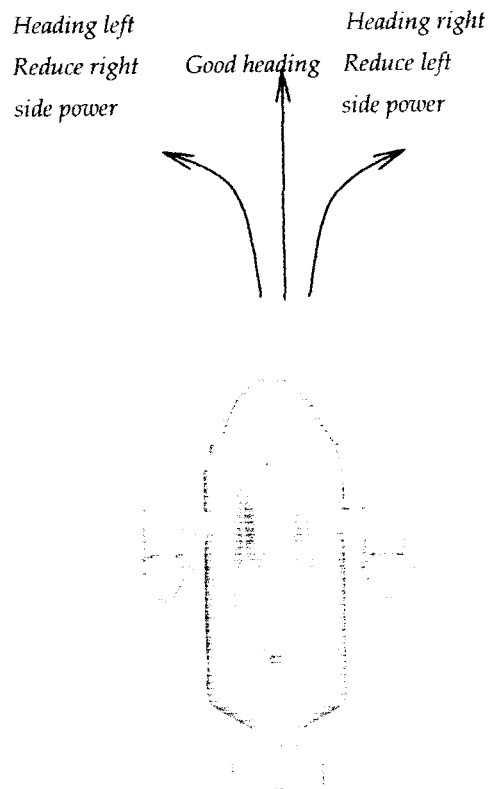


Figure 6. The sketch of keeping straight moving adjustment

Pattern moving setting

This setting is to add more fun to the boat by moving in 'S' shapes.

- 4D - BOAT will go into up-down 'S' shape moving mode if hold the movement button down, push the direction button down firstly.
- 4D - BOAT will go into left-right 'S' shape moving mode if hold the movement button down and push the direction button secondly vertically.
- 4D - BOAT will go into normal mode if hold the movement button down and push the direction button thirdly vertically.
- 4D - BOAT will go into up-down 'S' shape moving mode again as the same with mode 1 if hold the movement button down and push the direction button fourthly and so on.

Information of the indicated LED

1. Indicated LED on remote controller (as shown in figure 4)

<i>Name</i>	<i>Color</i>	<i>Statute</i>	<i>Meaning</i>
Signal LED	Red	Lighting	Power on
Signal LED	Red	Flashing	Low battery of remote, the battery needed to be changed
Statute LED	Green	Lighting	Direction button left/righted
Statute LED	Red	Lighting	Direction button forwarded/back warded
Statute LED	Yellow	Lighting	Direction button lifted/righted and forwarded/back warded

2. Indicated LED on 4D - BOAT (as shown in figure 1)

<i>Name</i>	<i>Statute</i>	<i>Meaning</i>
Front LED	Lighting	Standby statute
Back LED	Lighting	Signal receiving OK
Back LED	Flashing	No signal
Back LED	Quick flashing	The boat is shooting
All LED	Flashing	The boat battery is low
Front LED & back LED	Lighting one by one	The boat is hit

3. Indicated LED on charger

<i>Name</i>	<i>Statute</i>	<i>Meaning</i>
Power LED	Light	Power on
Charging LED	Light	Charging
Charging LED	Off	Battery full or no battery

How to keep the longest remote control distance

The remote control distance is base on the environment. The longest remote control distance can be gotten as follows:

- Pull the antenna out as long as possible.
- Don't aim the antenna to the submarine; a better way is put the antenna parallel with your body.
- Put the end of antenna into the water where the submarine is.

Tips for a new user

When the submarine is traveling away from you then the controls are the usual left=left, right=right. But when the submarine is traveling towards you the controls are inverted to left=right, right=left. After some practice you should get used to it.

Trouble shooting

Problem	Possible cause	Solution
All the LED are flashing and the boat can't go continuously	Low boat battery	Charge the boat's battery
While only pushing the movement button forward, the boat can't go straight	One or more propeller is dirty or one or more motor outputs are low	Clean the propellers or adjust the balances of the motors (see straight moving adjustment)
The distance of the remote control is shorter than normal	The antenna has not extended fully or the antenna aims to the boat	Pull out all the antenna or aim the antenna to the sky vertically or put the end of antenna into the water where the submarine is
The boat doesn't responds to the remote and the yellow statute LED on the remote is flashing	The remote battery is low	Change the battery
The boat doesn't responds to the remote and the front LED and the back LED on the boat flash one by one	The boat is hit	Wait 30 seconds
The velocity of the boat is low	The submarine's battery is low	Charge the battery

More information about your boat

Technical Specifications:

Submarine body size	114 × 70 × 70mm
Maximum depth	About 2m (in water)
Running time	About 20 ~ 30 minutes (depends on running velocity)
Frequency of cannonball	38KHZ
Remoter frequencies	27,40,49MHZ
Remote size	120 × 112 × 50 mm (exclude antenna)
Antenna length	600 mm
Distance of remote controller	10~15 m
Battery of remote controller	9V battery