

# BC232 Intelligent Sonar Fish Finder User Manual

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## 1. Overview

BC232 intelligent sonar fish finder is a directional research and development, suitable for its matching fishing boats high precision and sensitive detection of river, river, lake, sea and other water environment. This fish finder can also provide with the depth of the bottom, bottom contours, water temperature, density of fish or the depth of fish and other parameters for your reference.

## 2. How Sonar Works

Sonar technology is based on sound waves. The system uses sonar to locate and define structure, bottom contour and composition, as well depth directly below the transducer. The transducer sends a sound wave signal and determines distance by measuring the time between the transmission of the sound wave and when the sound wave is reflected off an object; then it uses the reflected signal to interpret location, size, and composition of an object.

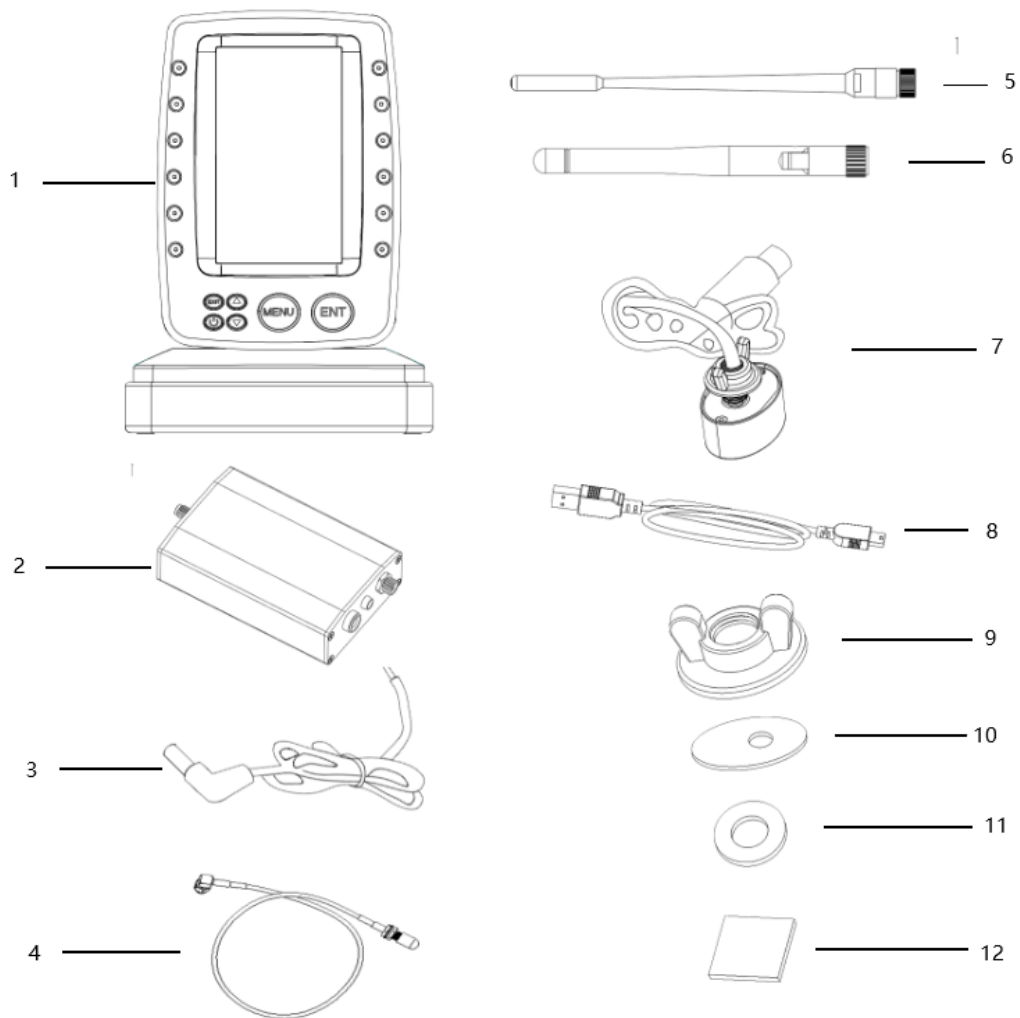
## 3. Product Specification

Content	Receiver	Transmitter
Display Type:	4.3 "LCD display	/
Resolution:	480*272	/
Back lighting:	White	/
Power:	3.6W	5.4W
Main body waterproof:	IP4	/
Sonar Frequency:	200KHZ & 83KHZ	
Depth Range Max:	0.6-73M±0.1M	
Depth Range Min:	0.6 M	
Operating temperature:	-20-70°C	
Operating voltage:	10.8-18V	
Radio frequency:	2.4G	
Radio Range Max:	500 meters in open area	

#### 4. Product Functions

Water bottom profile and water temperature display	<input checked="" type="checkbox"/>
Big/small fish identification and fish depth indicator	<input checked="" type="checkbox"/>
Fish situation and depth alarm	<input checked="" type="checkbox"/>
Kell offset	<input checked="" type="checkbox"/>
Zoom in on display of bottom tracking	<input checked="" type="checkbox"/>
Kell offset setting	<input checked="" type="checkbox"/>
Automatic depth range	<input checked="" type="checkbox"/>
Noise Rejection	<input checked="" type="checkbox"/>
100-level sensitivity setting	<input checked="" type="checkbox"/>
Automatic and manual selection of depth range	<input checked="" type="checkbox"/>
Auto zoom and quick manual zoom	<input checked="" type="checkbox"/>
Measurement unit can be set: meters or feet	<input checked="" type="checkbox"/>
User selectable sonar chart mode	<input checked="" type="checkbox"/>

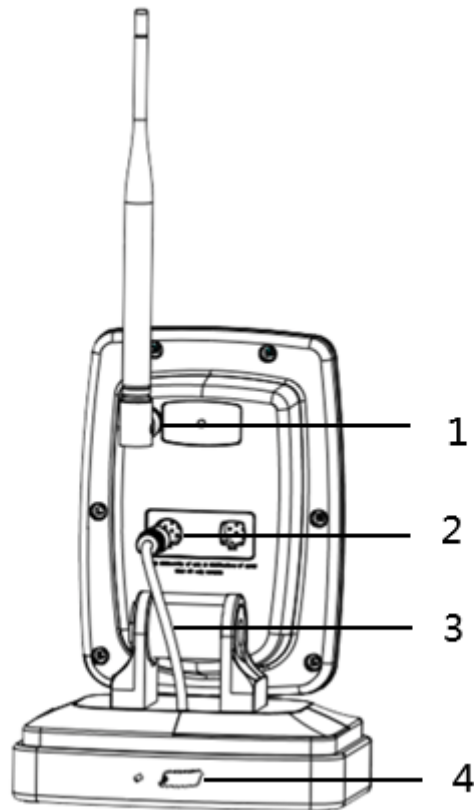
#### 5. Product list



- 1. Receiver
- 2. Transmitter
- 3. Transmitter Power Cable
- 4. Antenna Feeder
- 5. Transmitter Antenna
- 6. Receiver Antenna
- 7. Sonar Transducer
- 8. Receiver Charge Cable
- 9. Transducer Nut
- 10. Rubber Gasket (big)
- 11. Rubber Gasket (small)
- 12. Velcro

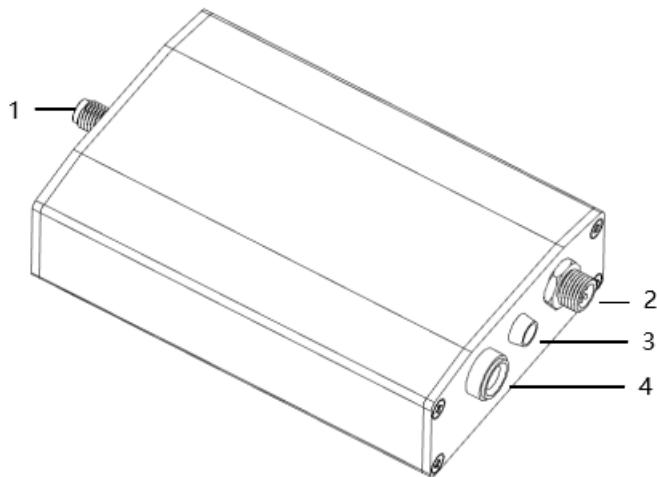
## 6.Product connection port introduction

### 6.1 Receiver port



1. Antenna pedestal
2. Receiver power input
3. Receiver power cable
4. Micro USB charging port

### 6.2 Transmitter port

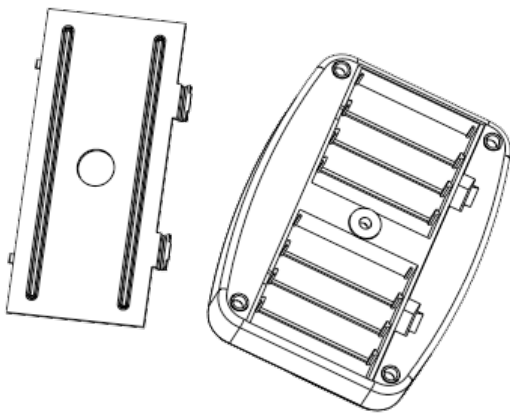


- 1. Power port
- 2. Snor transducer port
- 3. Power indicator
- 4. Power port

## 7. Power Supply Mode

### 7.1 Receiver power supply mode:

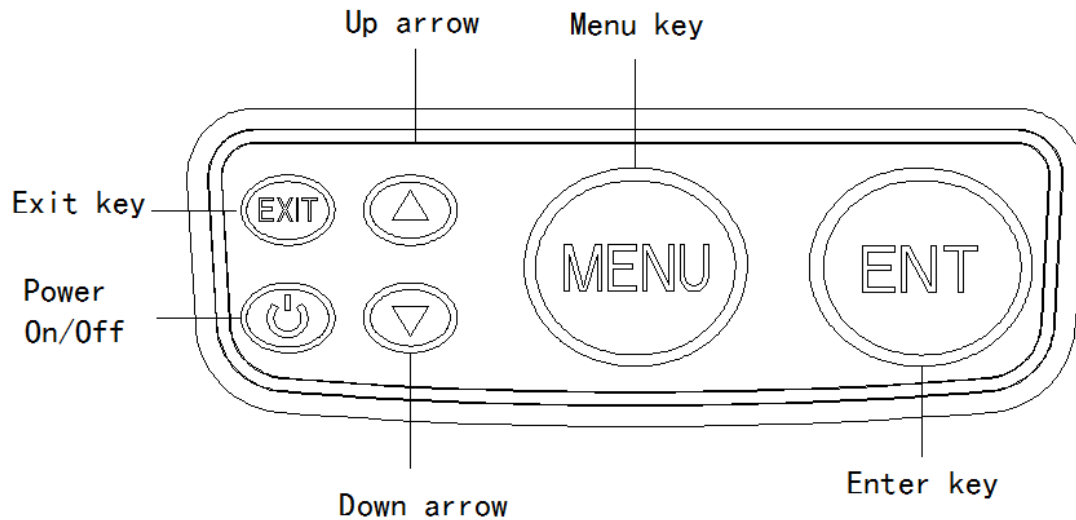
Use 8 pcs AA batteries, put 8 pcs AA batteries into the battery box.



### 7.2 Transmitter power supply mode:

The Transmitter is powered by 12V external power supply, and the Transmitter Power Cable is connected to the 12V battery on the boat.

## 8. Key Functions



## 8.1 Key Functions introduction

### 8.1.1 Power On/Off

**Starting up:** In the off state, press and hold the Power On / Off key for 3 seconds and the screen will display "Loading", then the system automatically enters the mode and set value which set up before last normal shutdown.

**Shutdown:** In the on state, press and hold the Power On / Off key for 3 seconds, the screen will display "Shutdown"

**Stop Chart:** When the unit is working, press the Power Key to stop the screen chart on the screen, and press the key again to restore the screen chart.

**Save settings:** Long press the Power on / off Key for 3 seconds to turn off the device normally. The system will automatically save the data settings in your current menu.

**Warm tip:** \*\*\*When the product is incorrectly installed or exceeds the detection range, the depth value will display "0.0", and it will automatically shutdown after 5 minutes.


### 8.1.2 Menu key

Under power on, Press the menu key and the menu will appear on the screen. .

There are 3 tabs in the menu system:

Sonar", "Setup" and "Advance". You can press the Menu Key to switch between different menu tabs.

In menu components, user can use the up and down arrow keys to select the menu to be

modified, select the menu item and press  enter key , and then use the up and down arrow keys to modify the setting value. Once the setting value appears on the

screen, the system immediately performs the operation according to the new setting value.

### 8.1.3 Exit key

When accessing the menu or sonar signal amplification, press the EXIT key, the system returns to the detection mode.

Sonar frequency conversion: When the unit starts working, you can press the EXIT key to switch between different frequencies. There are 200KHZ single frequency, 83khz single frequency.

### 8.1.4 Enter/zoom key

When the device is working, press the Enter key once to magnify the sonar view displayed on the current screen display(2x) . Press it again , and screen will return to the normal display status.

Choose Menu Item: In menu components, after selecting the Menu Item that needs to be adjusted, press the ENT Enter key to select this menu item, and then use the up/ down arrow keys to modify the setting value.

### 8.1.5 Up/ down arrow keys

When pressing the menu key to enter the menu, the up/ down arrow keys can move up and down to select the options that setting value need to be modified.

After selecting the menu item that needs to be modified, press ENT key, and the menu item will turn red. Then press the up arrow key, will select the left option, press the down arrow key will select the right option. When there are multiple options in the submenu, press the up and down arrow keys successively to select the options that need to modify the setting value.

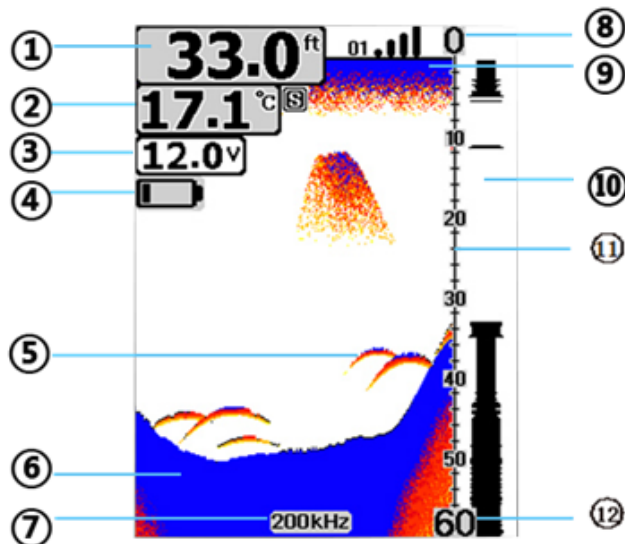
When the sonar signal is manually zoomed in, you can move the zoom preview box up and down to select the position you want to zoom in on.

When the depth cursor is turned on, press the up and down keys to move the depth cursor up and down.

## 9. Screen Display Description

1. Water Depth
2. Water Temperature
3. Battery voltage
4. Battery voltage for boat
5. Fish Icon

- 6. Bottom Contour
- 7. Sonar Frequency
- 8. Upper Limit of Depth Range
- 9. Water surface
- 10. Real-time single
- 11. Depth Scale
- 12. Lower Limit of Depth Range



## 10. Sonar signal display

### 10.1 Current Signal Chart (Real-time Signal RTS)

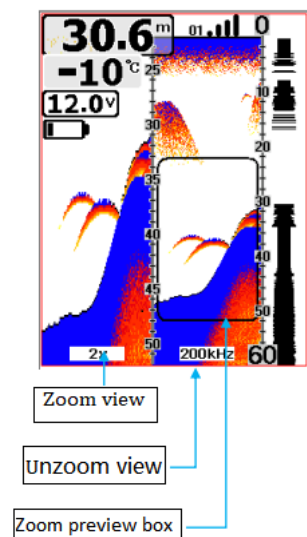
The current signal chart box is to display the strength of the latest echo in horizontal lines at the far right of the display screen. The wider the horizontal line indicates the stronger the signal, and the depth of the echo refers to the depth scale.

### 10.2 Sonar Signal Zoom View (200KHZ or 83KHZ)

In the 200KHZ or 83KHZ single-frequency Zoom View, the screen view is automatically split into left and right. The unzoomed view is displayed on the right side of the screen, and the zoomed view is displayed on the left side of the screen.

In the Sonar Zoom View, on the unzoomed display screen on the right, there will be a zoomed preview box. The contents of zoomed preview box will be displayed on the left side screen after zoomed in (2x).

When zooming in automatically, the Zoom Preview Box will track the bottom and moves up and down as the bottom gets higher and lower. When zooming in manually, the Zoom Preview Box will move up and



down as the user presses the up and down keys.

### 10.3. Manual Zoom

When the depth range is set to manual, press the ENT key to magnify



the sonar view displayed on the screen.

Press the up and down key to manually move up and down the Zoom Preview Box.

### 10.4. Auto Zoom

When the depth range is set to automatic, if press the ENT key, the system will automatically adjust the position of the Zoom Preview Box based on the underwater depth reading. At this point, you cannot manually adjust the position of the zoom preview box.



There are 3 tabs in the menu system:

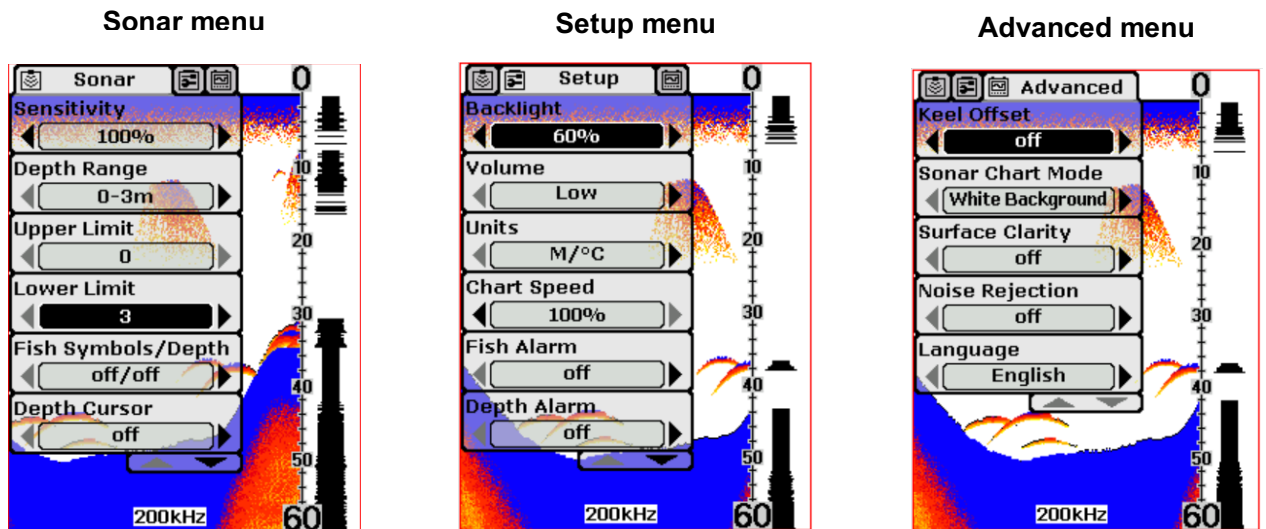
"Sonar", "Setup" and "Advanced". You can press the Menu Key to switch between different menu tabs.

## 11. Function Menu Settings

### 11.1 Menu components

There are 3 tabs in the menu system: 1) Sonar, 2) Setup, 3) Advanced.

Press the Menu Key to switch between different menu tabs.



### 11.2 Menu components Settings

Press the Menu Key once to enter the sonar menu, There are 7 tabs in this menu:

- 1) Sensitivity
- 2) Depth Range
- 3) Upper Limit

- 4) Lower Limit
- 5) Fish Symbols / Depth
- 6) Depth Cursor
- 7) Simulator

### 11.2.1 Sensitivity



Press the menu key to select "sonar" menu to enter the sensitivity sub-menu. Optional settings:"1%"to"100% or "Auto".

Users can filter the sonar echo signals by adjusting the sensitivity until the signal information they need is displayed on the screen. If you want to see more details, try increasing the sensitivity, a little at a time. At high sensitivity value , a lot of underwater noise will also be displayed on the screen. If you don't want to see these underwater noises, you can reduce the sensitivity value to filter them. When the sensitivity is set to "Auto", the system will automatically set the sensitivity value according to different depths of water, so that the users do not need to manually adjust the sensitivity

There are 1%~100% sensitivity levels in the menu for users to choose.

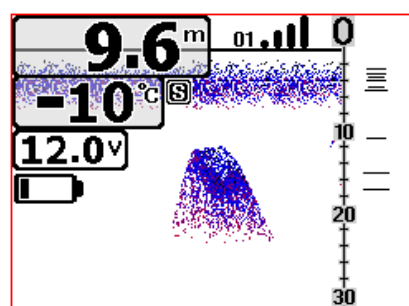
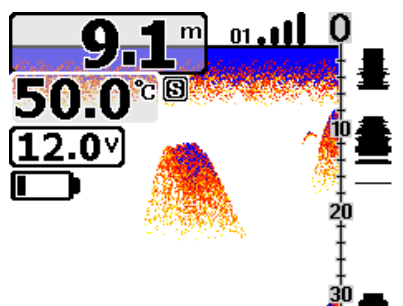
Sonar fish finder is a device that can emit ultrasonic waves and analyze reflected waves. When the fish finder emits sound waves in the water, all objects whether they are large, small, soft or hard, will generate a reflection wave. Larger or harder objects sometimes generate multiple reflection waves. So it needs a "sieve" filters out unnecessary information. The sensitivity here is the "sieve pore" of the "sieve". The higher the sensitivity, the "smaller" the "sieve pore".

Increasing the sensitivity is equivalent to reducing the "sieve pore", so there will be more stuffs left on the "sieve" (the information displayed on the screen), which may cause the information displayed on the screen to be cluttered.

Decreasing the sensitivity is equivalent to increasing the "sieve pore", so there will be less stuffs left on the "sieve"(the information displayed on the screen), and the system will filter out some information to make the display screen more concise. But be aware that what you filter out may be also important information.

Therefore, it is important to choose the appropriate sensitivity value and the depth range. In general, we recommend that you increase the sensitivity when the water is deep or clear. You can reduce the sensitivity when there are more impurities or turbidity water or there is in shallower water to reduce some false detection results.

When there are many fish, you can also use this function to distinguish big and small fish. Decrease the sensitivity, the "sieve pore"will be enlarged, then the objects with weak reflection waves will be filtered out, and the rest are relatively large fish.



Higher sensitivity

Low sensitivity

### Echo signals detected with different sensitivity Settings

#### 11.2.2 Depth Range



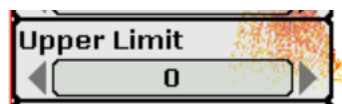
Press the menu key to select "sonar" menu to select the depth range option by the up and down keys. Press the ENT key and then press up and down keys to select Settings: ""0-9ft" to "0-240ft" ,"Auto " (" 0-3m" to "0-80m" , "Auto"). There are 8 setting values in this menu .

When the depth unit is set to "FT"(feet), the 8 setting values are: "0-9FT", "0-15FT", "0-30FT", "0-60FT", "0-90FT", "0-120FT", "0-240FT", "Auto".

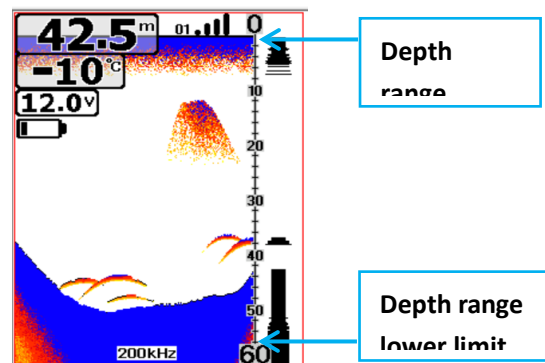
When the depth unit is set to "M"(meter), the 8 setting values are: "0-3m", "0-5m", "0-10m", "0-20m", "0-30m", "0-40m", "0-80m" "Auto".

When the depth range is set to a fixed value, the screen adjusts to the corresponding display range according to the setting value. content beyond the setting range will no longer be displayed.

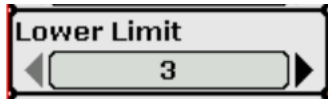
#### 11.2.3 Upper Limit



Optional settings: "0" to "240FT" ("0" to "80m")



#### 11.2.4 Lower Limit



Optional settings: "9FT" to "240FT" ("3m" to "80m")

\*\*\* Note: The minimum depth range between the upper limit and the lower limit is 3M (9FT).

\*\*\* Note: When the depth range and the upper and lower limits are different, the system execute the last setting operation.

For example, adjusted the upper and lower limits first, then adjust the depth range, the upper and lower limits will follow depth range automatically.

### 11.2.5 Fish Symbol / Depth



Optional settings: "On/On", "On/Off", "Off/Off"

"On/On": shows both the fish symbol and the depth of the fish

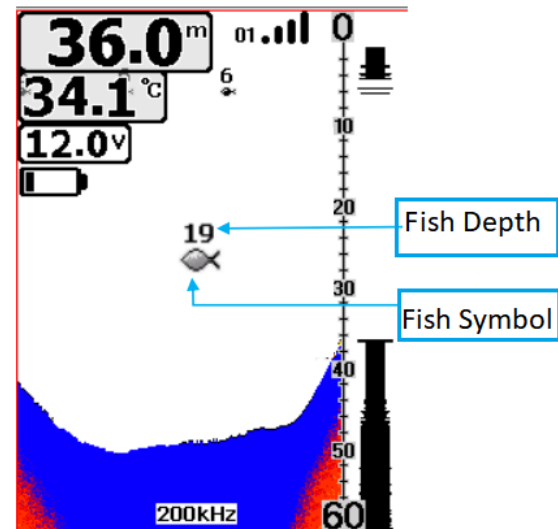
"On/off": shows only the Fish Symbols and not the depth of the fish.

"off/off": sign and the depth of the fish are all not displayed.

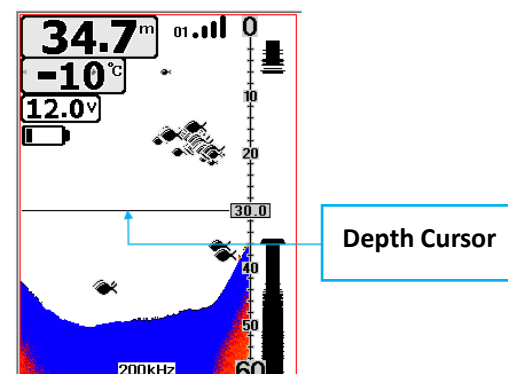
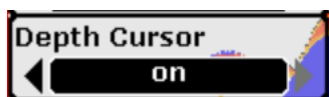
When the Fish Symbols and the display of fish depth are set as "on", the system will analyze the echo signal and display different sizes Fish Symbols according to the strength of the echo signal and then displayed the corresponding depth value above the Fish Symbols.

This product is a very powerful echo signal analysis system. Part of the water noise, surface clutter and temperature variable layer can be removed by menu setting, and then the rest of the signal information corresponding to display as Fish Symbols. However, the system is also limited, and some situations cannot be recognized, such as deadwood floating in water, air bubbles, garbage, etc., may also be shown as fish symbols.

The sonar system is not an underwater video system. It cannot visually display fish and other floating objects, such as water plants, deadwood, air bubbles, garbage, etc. The user needs to judge by the reflected sonar signal.



### 11.2.6 Depth Cursor



Optional settings: On", "Off"

The depth cursor consists of a horizontal line with a digital depth box on the right side. The numbers inside the box show the depth of the cursor.

You can find the target depth by using the up and down keys to move the cursor on the screen.

### 11.2.7 Simulator

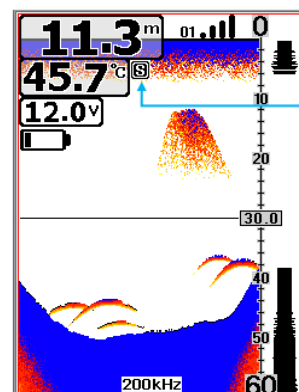


Optional settings: On", "Off"

The Simulator is a very powerful tool that simulates on the water operation. Use the Simulator to learn how to use your fish finder before taking your boat on the water. The Simulator Indicator



will be visible on screen when Simulator is set to "On".



Simulator

## 11.3 Settings Menu

Press the Menu Key twice to enter the Settings Menu, There are 8 tabs in this menu:

- 1) Backlight
- 2) Volume
- 3) Units
- 4) Chart Speed
- 5) Fish Alarm
- 6) Depth Alarm
- 7) Battery Alarm
- 8) Transparency

### 11.3.1 Backlight



Optional settings: "10%" to "100%"

User can switch the Frontlight or adjust the brightness as needed.

When the screen backlight is set to turn on, (10%~100%), the background light will always be on, which will consume a lot of power and reduce the battery life. So you better use this feature only in low light.

The screen of this fish finder is clear viewing in direct sunlight, so the backlight can be turned off when used outdoors during the day.

### 11.3.2 Volume



Optional settings: "High","Medium","Low"  
User can adjust the volume settings as needed.

### 11.3.3 Units



Optional settings: "ft/°C" (Feet / Celsius) , "ft/°F"(Feet / Fahrenheit), "m/°C"(Meter / Celsius), "m/°F" (Meter / Fahrenheit)  
User can set measurement units as needed.

### 11.3.4 Chart Speed



Optional settings: "10% to 100%"  
10% is the lowest chart speed; 100% is the fastest chart speed.  
User can adjust the chart speed as needed.

It is recommended that the chart speed should be set to the maximum so that the reflected wave information can be updated in a timely manner.

### 11.3.5 Fish Alarm



Large fish only



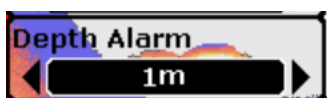
Large/medium fish only



All fish

Optional settings: "off "  
Select "off " for no fish alarm, or select one of the following symbols to set the alarm.

### 11.3.6 Depth Alarm



Optional settings: "off, "1ft" to "99ft" ("1M" to "30M"), increase or decrease by 0.1FT or 0.1M

Select OFF for no Depth Alarm, select a number from "3ft - 99ft " to set the alarm depth point and turn it on.

The Depth Alarm will sound and blink when the depth is equal to or less than the setting.



The Depth Alarm function is specially designed for Marine users. Users can set this function according to actual needs.

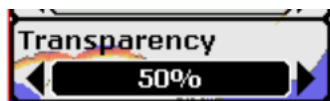
### 11.3.7 Battery Alarm



Optional settings: "of", " 10V " to " 12V. Increments or decrements in units of 0.1V.

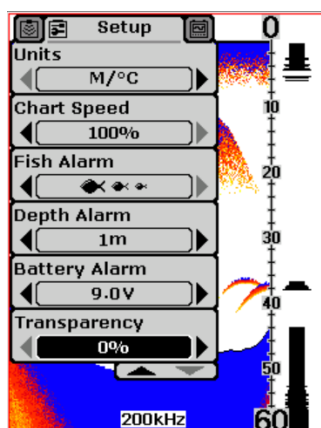
Battery Alarm sounds and the Battery Voltage Readout will blink when the input battery voltage is equal to or less than the menu setting.

### 11.3.8 Transparency

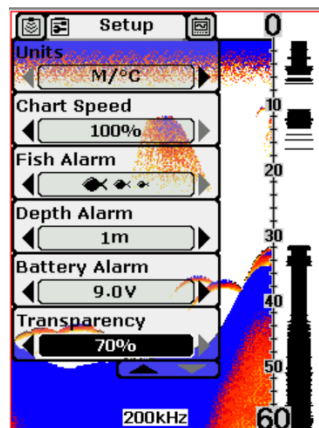


Optional settings: " 0% " to " 70% "

Transparency setting allows you to change the transparency of the dialog boxes. So that you can see the sonar view through the dialog box.



Transparency



Transparency

## 11.4. Advanced Menu

Press the Menu Key thrice to enter the Advanced Menu, There are 5 tabs in this menu:

- 1) Keel Offset
- 2) Sonar Chart Mode
- 3) Surface Clarity
- 4) Noise Rejection
- 5) Language

### 11.4.1 Keel Offset



Optional settings: " Off ", " 9ft " to +9ft ", ( " -3m " to "+3m" ), increase or decrease by 0.1 depth value.

Keel Offset will adjust the digital depth readout to indicate depth from the waterline or boat's keel.

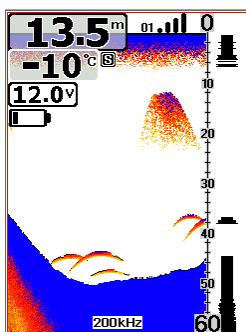
Enter a positive vertical measurement from the transducer to the waterline to read the depth from the waterline. Enter a negative vertical measurement from the transducer to keel to read the depth from the keel.

### 11.4.2 Sonar Chart Mode

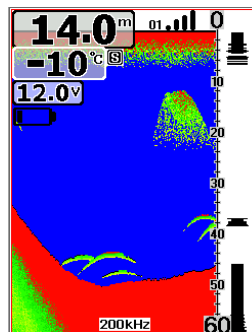


Optional settings: " White Background ", " Blue Background ", " Gray Scale "

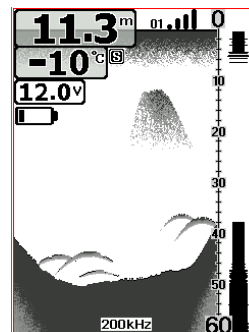
You can change the Sonar Chart Mode to suit your viewing preferences.



White Background



Blue Background



Gray Scale

### 11.4.3 Surface Clarity



Optional settings: " Off ", " High ", " Medium ", " Low "

User can adjust the Settings as needed.

Surface Clarity adjusts the filter that removes surface clutter noise caused by algae and aeration.

### 11.4.4 Noise Rejection



Optional settings: " Off ", " High ", " Medium ", " Low "

User can adjust the Settings as needed.

Noise Rejection is a system that automatically filters discrete noises for better analysis result, but also filters some useful signal information. Noise Rejection function probably provides the best display for the user in most cases.

If you are in a noisy environment, try using the "High" setting. If you are having trouble with noise, we suggest that you take steps to find the interference source and fix it, rather than continually using the unit on the high setting.

## 11.4.5 Language



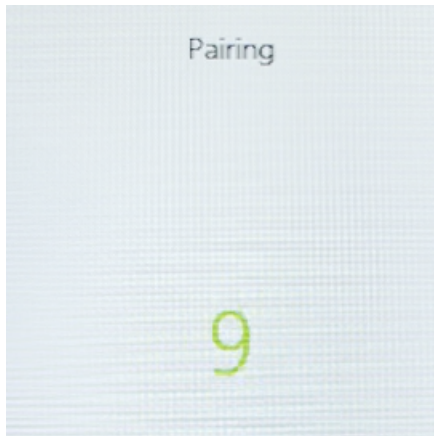
There are seventeen languages in the menu: (English, Russian, French, Chinese, Japanese, Finnish, Polish, German, Italian, Spanish, Dutch, Korean, Swedish, Greek, Danish, Czech, Portuguese).

**Important Note (Pairing).** In order to avoid the interference from the other wireless fish finder or the receiver (main unit) doesn't receive transmitter (transducer) signal, you can pair the channel between the receiver and transmitter by yourself according to steps as below:

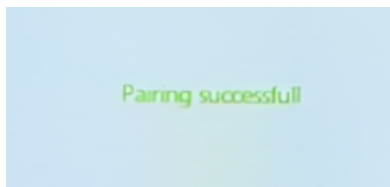
1. Before pairing the channel between the receiver and the transmitter, please make sure that the receiver and the transmitter are turned off.
2. Please make sure the receiver must be under power off, press and hold the Menu and On/Off key more than 3 seconds to enter pairing interface, press up and down key to select a channel that far away from the current baitboat's channel, the number of the channel is in red.



3. Press Enter key to start pairing, then the number of the channel turns green



4. Electrify the transmitter by 12V power, the receiver shows pairing successful and turns off.



5. Press and hold the receiver On/Off key to start up to work normally.

Note: Indicator is blue when charging, and off when full charged.

**This manual is subject to change without notice.**