# PAD Fish Finder Operation Manual

## Model： PD408

# Contents

# System Introduction

PAD Fish Finder PD408 is one kind of new-type fish finder with simple- touch operation to display fishing images on Android PAD / phone through Bluetooth transceiver box transferring fishing signal to Pad / phone. It is a fishing echo presentation with high stability and sensitivity to effectively remove noise and disturbance. Due to high cost-performance and good user experience, PAD fish finder can be applied for professional and amateur fishing lovers.

## System Diagram



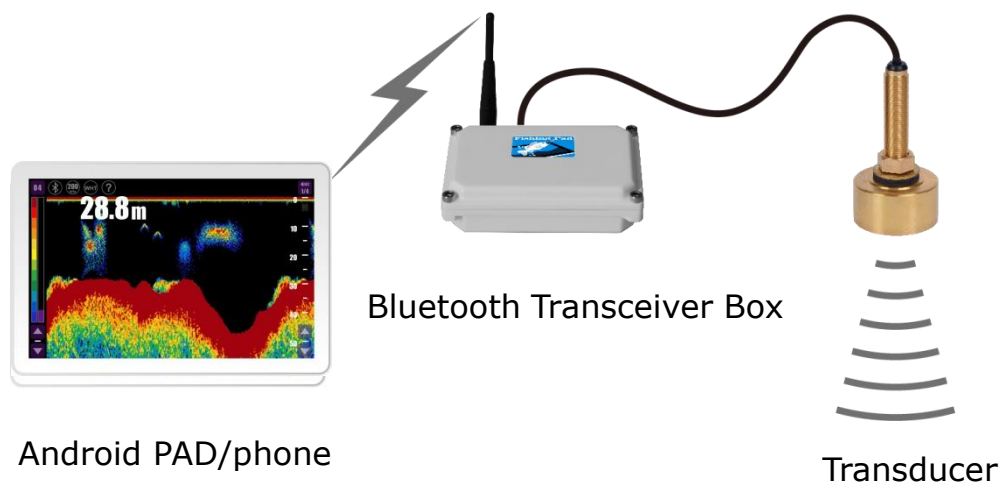Bluetooth Transceiver Box

Android PAD/phone

Transducer

Figure 1 System Diagram

Bluetooth transceiver box connected with transducers transmits wirelessly fishing signal to Android PAD/phone and the fishing images are presented on the PAD/ phone screen. With simple and convenient touch operation, there are a variety of display modes including Normal, Bottom Lock, A-Scope, Bottom line, Demonstration, Horizontal mode, Vertical mode and Alarm modes. Also, PAD fish finder offers hands-off operation. When the Auto modes are selected, the system automatically gets a suitable range scale and tracks the seabed whether the depth changes in the course of sailing.

## Characteristics

| | |
|---|---|
| Android operating system | PAD/ phone touch operation |
| Wireless Bluetooth communication | Small volume and portability |
| Professional fishing functions | HD and high stability |
| Fantastic interfacial design | Multifunction and entertainments |
| Customized menu sequence | Convenient setup operation |

# Technical Parameters

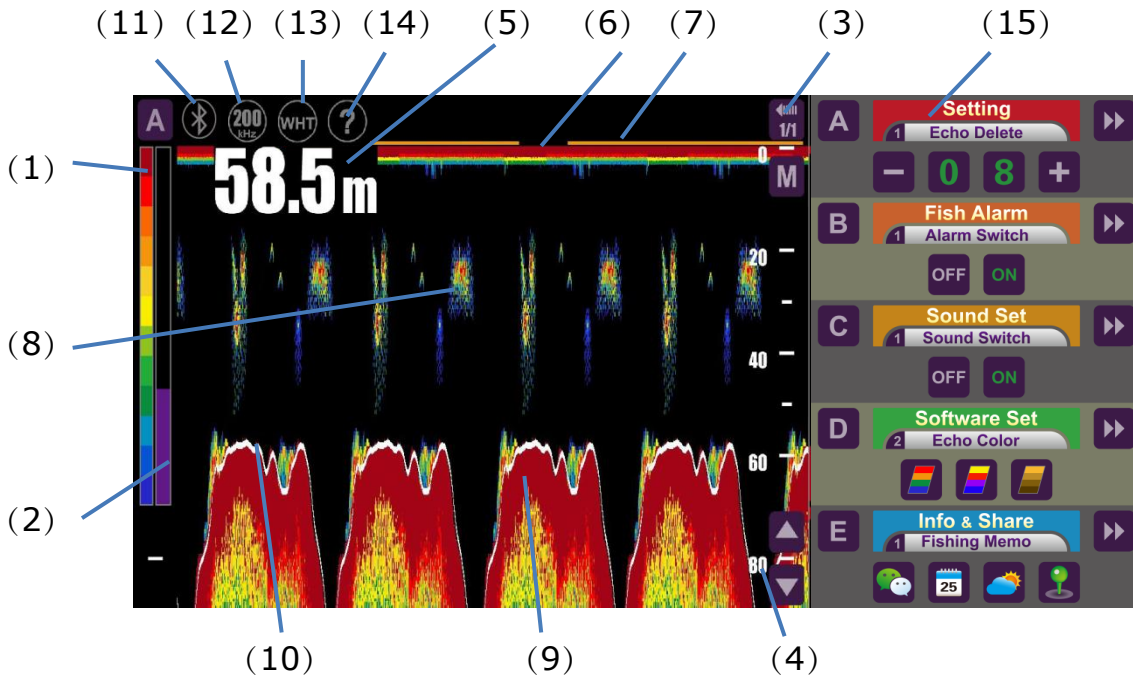| | |
|---|---|
| Display | Used in all kinds of Android tablet and smartphones |
| Operating System | Android version ≥4.0 |
| System Memory | ≥1G |
| Communication | Bluetooth |
| Resolution | 2‰ accuracy,  Max resolution 1cm |
| Depth Range | 2 5 10 15 20 30 40 50 60 80 100 120 150 200 250 300 400 (17 levels) |
| Power | 11~48VDC  5W |
| Working Frequency | 200kHz/50kHz/48kHz |
| Output Power | 600W |
| Echo Delete | 15 colors |
| Echo Color | Rainbow, Yellow-blue, Yellow-black |
| Display Mode | A-scope, Bottom Lock, Demonstration |
| Language | Simplified/ Traditional Chinese, Norwegian and English |
| Water Temperature | -5℃~+50℃ |
| Bluetooth Distance | 40m |
| Alarm | Fish school alarm |
| Alarm Type | Buzzer and vibration |
| Working Temperature | -15℃~+55℃ |
| Waterproof | IP65 (Bluetooth Transceiver Box ) |
| Bluetooth Transceiver Box | 150×130×45mm |
| Weight | 0.5kg |

# Operation Introduction

## Screen Layout



Figure 2 Screen Layout

| No. | Item | Display | |
|-----|------|---------|---|
| （1） | Echo Delete | Different colors indicate different signal strength. Red is the strongest and blue is the weakest. | |
| （2） | Sensitivity | Click on the icon 'A' to switch between manual and auto modes | Manually adjust signal sensitivity: Click on up/down arrows or slide up and down the purple column on the left screen to increase and decrease the signal sensitivity, from 0 to 40. |
| | | | Automatically adjust signal sensitivity |
| （3） | Transfer | The newest fishing images are shown on the right end of screen and continuously move left. The transfer speeds have 8 level options: STOP 0, SLOW 1/8, 1/4, 1/2, 1/1, 2/1, 4/1, FAST 8/1. | |

| | | | |
|------|------|------|------|
| （4） | Depth Range | Click on the icon 'A' to switch between manual and auto modes | Manually adjust depth range: Click on up/down arrows to increase and decrease the depth range: 2 5 10 15 20 30 40 50 60 80 100 120 150 200 250 300 400 (17 levels) |
| | | | Automatically adjust the depth range according to the practical underwater conditions. |
| （5） | Depth | Bottom depth, three kinds of unit: m, fm and ft. Long press the depth to move the depth number position. | |
| （6） | Transmitting wave | The transmitting wave from the transducer. | |
| （7） | Time Scale | Indicate the fish finder is working and fishing images are moving. | |
| （8） | Fish school | Detected fish school | |
| （9） | Bottom Echo | The bottom echo tails to easily discriminate between soft, rocky or sandy bottom by change in colour. | |
| （10） | Bottom Line | Emphasize the bottom contour. White line on black background or black line on the white background. | |
| （11） | Bluetooth | Display the bluetooth connection between PAD and transceiver box successfully or not. | |
| （12） | Frequency | Three working Frequency for option: 48kHz, 50kHz, 200kHz | |
| （13） | Background | The monochrome background presentations are available for night and day time operation. Two background colors for option: BLK (black) and WHT (white) | |
| （14） | Guidance |  How to debug the fishing images to observe clear and steady fishing images. <br>  Operation manual. <br>  Teach to operate PAD Fish Finder for new users. | |
| （15） | Main menu | Five primary menus: Finder Set, Fish Alarm, Sound Set, Software Set and Info & Share. | |
| （16） | Language | Change the language settings on the PAD to select the language of Fish Finder. Simplified/ Traditional Chinese, Norwegian and English (other languages in Android system). | |
| （17） | Brill | Change the screen brightness on PAD system settings. | |

# Operation Introduction

Download and install the Fish finder App. Open the Fish Finder APP to enter the main operation interface.

Click on the Bluetooth icon to pair the Bluetooth. Only one Bluebooth serial number (FF XXXXXX) is for one Bluetooth transceiver box (provided on the label of Bluetooth Transceiver box). Users type the Bluetooth number and then 'Bluetooth pair succeed!'

Swipe left to bring the main menu on the right side of screen, shown in Fig. 3.



Figure 3 Main Menu

There are 5 primary menus: Setting, Fish Alarm, Sound Set, Software Set and Info & Share.

# A Setting

In the menu of Setting, press the icon ' A ' and there appear five second menus: 1 Echo Delete, 2 A-Scope, 3 Bottom Lock, 4 Shallow Gain, 5 Bottom Line. Or press double-right arrows to select one of the five second menus.



Figure 4 A Setting

## Echo Delete

The color bar of Echo is on the left end of the screen. Red indicates strong echo and blue indicates weak echo. By hiding weak echo, clearly observe the water bottom images. Click the icon '+'/ '-' to set the showing echo color number:

From 03 (show 3 color levels/remove 12 color levels) to 15 (show 15 color levels/remove 0 color level)

## A-Scope

A-Scope is applied to closely observe and monitor target depth.

The A-Scope picture on the right side of one tenth screen shows an instantaneous

echo envelope at each ping, clearly showing the differentials and positional relationship of echo signal strength and the wider echo envelope indicates the stronger echo signal.
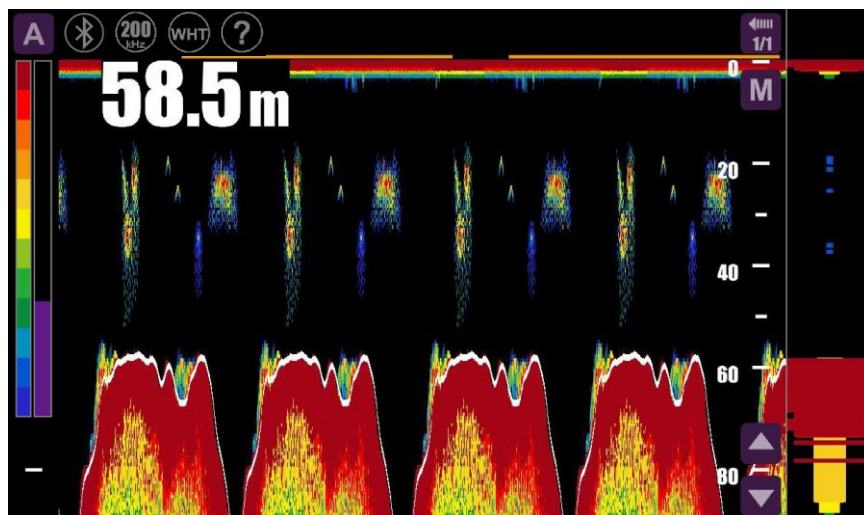


Figure 6 A-Scope

| Item | Function |
|------|----------|
| OFF | Turn off A-scope. |
| ON | Turn on A-Scope. |

## Bottom Lock

Bottom Lock is applied to detect fish school close to or on the bottom.

When Bottom Lock mode is on, there are two pictures shown on the screen, where the normal fishing images are on the right side and the bottom is displayed as a straight line labelled as the depth of zero on the left side, regardless of bottom contour of ups and downs. The zoom-in area above the bottom line is to clear observe fishing images near the bottom. The range of the enlarged area above the bottom can be optional: 1/2.5 of the depth range (×2.5), 1/5 of the depth range (×5) and 1/10 of the depth range (10). The grey area on the right normal fishing images shown in Fig. 5 is the
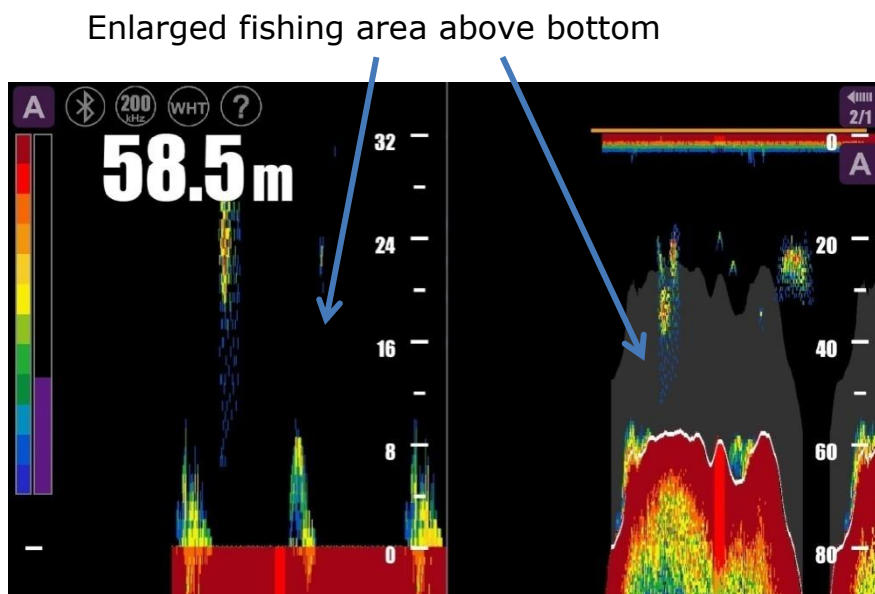
enlarged area on the left picture.

Enlarged fishing area above bottom



Figure 5 The enlarged fishing image on left side and the normal fishing image on right side

| Item | Function | |
|------|----------|---|
| OFF | Turn off Bottom zoom mode. Display normal fishing images on the screen. | |
| ×2.5 | Enlarge the area above the bottom | The enlarged multiple is 2.5 (1/2.5 of the depth range). |
| ×5 | | The enlarged multiple is 5 (1/5 of the depth range). |
| ×10 | | The enlarged multiple is 10 (1/10 of the depth range). |

## Shallow Gain

It is used to restrain the sensitivity of shallow places of about 100m underwater in order to remove plankton and bubble image features.

The setting range are OFF, LO, MED and HI.

| Item | Function |
|------|----------|
| OFF | Shallow Gain is zero and display the unprocessed fishing images. |

| | |
|---|---|
| LO | Shallow Gain is low. |
| MED | Shallow Gain is standard. |
| HI | Shallow Gain is high. |

## Pulse width

The narrower the pulse width, the lower the sensitivity is and the wider the pulse width, the higher the sensitivity is. The narrowest pulse width is 100μs and the widest pulse width is 3000μs.

According to the displayed depth on the screen, the pulse width normally can be set as short pulse width.

| Item | Function |
|---|---|
| Narrow | Narrow pulse width. |
| Wide | Wide pulse width. |

## Bottom Line

In order to easily discriminate between the bottom and the fish school near the bottom, the white curved line on black background (or black on the white background) is used to emphasize the bottom contour, whether the bottom is flat or rugged.

| Item | Function |
|---|---|
| OFF | Turn off the white bottom line. |
| ON | Turn on the white bottom line. |

In the main menu of Setting, press the double-up arrows to change the sequence of the 5 secondary menus.

# B Fish Alarm

In the menu of Finder Alarm, press the icon 'B' and there appear 4 second menus in the primary menu of Fish Alarm: 1 Alarm Switch 2 Starting Depth 3 Alarm Range 4 Alarm Level. Or press the double-right arrows to select one of the four second menus.
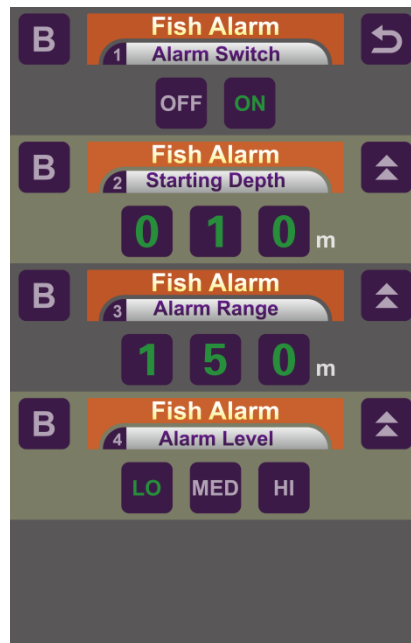


Figure 7 B Finder Alarm

## Alarm Switch

Switch on or off the main menu of Alarm Switch.

| Item | Function |
|------|----------|
| OFF | Turn off the Alarm Switch menu and all Alarm Switch settings are invalid |
| ON | Turn on the Alarm Switch menu and all Alarm Switch settings are available. |

## Starting Depth

Set the starting depth for fish alarm range, from 000m to 399m. Respectively swipe up or down the three digital icons to change the starting depth of fish alarm range.

## Alarm Range

Set the width of fish alarm area under the starting depth, from 000m to 399m. When fish school appears in the alarm range, the system will alarm to inform fishers. Respectively swipe up or down the three digital icons to change the starting depth of fish alarm range.

In Fig. 8, the fish alarm area is from the underwater depth 10m to 150m and the Alarm Range is 140m (150m-10m=140m). When fish school appears within the setting area, the system will give alarm.



Figure 8 Alarm Range of 140m

## Alarm Level

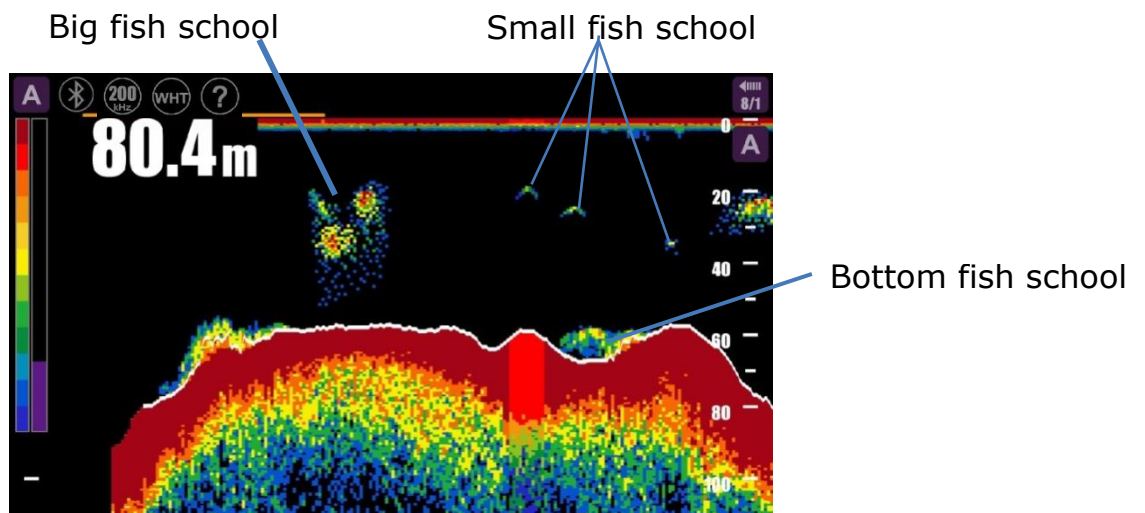When fish school appears within the setting alarm range, the system will raise the alarm.



Figure 9 Alarm Level

| Item | Function |
|------|----------|
| LO | When small fish school appears, the system will give the alarm. |
| MED | When middle fish school appears, the system will give the alarm. |
| HI | When big fish school appears, the system will give the alarm |

In the main menu of Fish Alarm, press the double-up arrows to change the sequence of the 4 second menus.

## C Sounder Set

In the menu of Sound Set, press the icon 'C' and there appear 5 second menus in the primary menu of Sound Set: 1 Sounder Switch 2 Alarm Sound 3 Alarm Vibration 4 Key Sound 5 Fishing Music. Or press the double-right arrows to select the five second menus.



Figure 10 C Sounder Set

## Sound Switch

Switch on or off the main menu of Sound Set.

| Item | Function |
|------|----------|
| OFF | Turn off the sound set and all sound settings are invalid. |
| ON | Turn on the sound set and all sound settings are available. |

## Alarm Sound

Set the alarm sound. When fish school appears, it alarms with three kinds of alarm sound: SD1, SD2 and SD3 for options.

## Alarm Vibration

Set the alarm vibration.

| Item | Function |
|------|----------|
| OFF | Turn off the alarm vibration. When fish school appears, it alarms without vibration. |
| ON | Turn on the alarm vibration. When fish school appears, it alarms with vibration. |

## Key sound

Set the touch key sound.

| Item | Function |
|------|----------|
| OFF | Turn off the key sound and touch screen without key sound. |
| ON | Turn on the key sound and touch screen with key sound. |

## Fishing Music

When fishing, enjoy the music to relax.

| Item | Function |
|------|----------|
| OFF | Turn off the music. |
| Single | Single cycle: Loop playback only one song during fishing. |
| Loop | Loop playback the songs in the song lists. |
| Select | Select the songs in the song list to listen during fishing. |
| Search | Search the songs downloaded on PAD/phone |

In the main menu of Sound Set, press the double-up arrows to change the sequence of the 5 secondary menus.

# D Software Set

In the menu of Software Set, press the icon 'D' and there appear 5 second menus in the primary menu of Software Set: 1 Mode Switch 2 Echo Color 3 Display Mode 4 Depth Unit 5 Oscilloscope. Or press the double-right arrows to select the five second menus.



Figure 5 D Software Set

## Mode Switch

Select the Three operating modes for the PAD. This function is not PAD for users.

| Item | Function |
|------|----------|
| FISH | PAD Fish Finder. |
| 1CH | PAD High-precision Echo Sounder. |
| 2CH | 2-channel PAD Echo Sounder |

## Echo Color

Three different hues for echo color levels on the left end of the screen: rainbow, red-blue and yellow-black.

## Display Mode

Two display modes for observation of fishing images: Horizontal and Vertical modes.

## Depth Unit

Three different depth units of displayed depth on screen: M (meter), FM (fathom), FT (feet).

| Unit conversion | 1ft=0.3048m | 1fm=1.852m |
|---|---|---|

## Oscilloscope

Switch on or off the Oscilloscope.

| Item | Function |
|---|---|
| OFF | Turn off the Oscilloscope to display the echo images. |
| ON | Turn on the Oscilloscope to display the oscilloscope images. |

In the main menu of Software Set, press the double-up arrows to change the sequence of the 5 secondary menus.

# E Info & Share

In the menu of Info & Share, press the icon 'E' and there appear 5 second menus in the primary menu of Software Set: 1 Fishing Memo 2 Fishing Record 3 Fishing Screen 4 Fishing History 5 Manual & About. Or press the double-right arrows to select the five second menus.
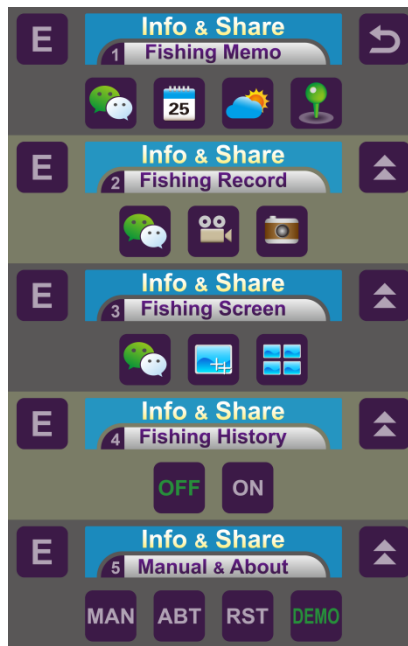


Figure 6 E Info & Share

## Fishing Memo

| Item | Function |
|------|----------|
|  | WeChat share. |
|  | Calendar. |
|  | Weather and Temperature. |
|  | Map and GPS. |

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## Fishing Record

| Item | Function |
|------|----------|
|  | WeChat share. |
|  | Video. |
|  | Photograph. |

## Fishing Screen

| Item | Function |
|------|----------|
|  | WeChat share. |
|  | Print Screen. |
|  | Photo Album. |

## Fishing History

| Item | Function |
|------|----------|
| OFF | Turn off the fishing history record and stop recording the fishing messages. |
| ON | Turn on the fishing history record and record the fishing messages. |

## Manual & About

| Item | Function |
|------|----------|
| MAN | PAD Fish Finder Operation Manual. |
| ABOUT | Nanjing Ninglu Technology<br>+86 255261-6325 Ext. 8820<br>+86 15094319396<br>export@sounder.com.cn<br>m.sounder.com.cn<br>Software version:1.0 |
| RST | Reset the system. |
| DEMO | DEMO for how to debug the fishing images to observe clear and steady fishing images. Press the icon 'DEMO' to play a fishing demo or stop a fishing demo. |

In the main menu of Info & Share, press the double-up arrows to change the sequence of the 5 secondary menus.

# Installation

## Bluetooth Transceiver Box

Bluetooth transceiver box can be placed in the ship bridge. It wired receives the signals from transducers and transmits wirelessly fishing signals to PAD/ phone by wireless Bluetooth. There are a 2-pin socket for power supply, a 3-pin socket for temperature sensor, a 4-pin socket for transducer and Bluetooth antenna on the back of Bluetooth transceiver box. The dimension of Bluetooth Transceiver Box is shown in Fig. 13.
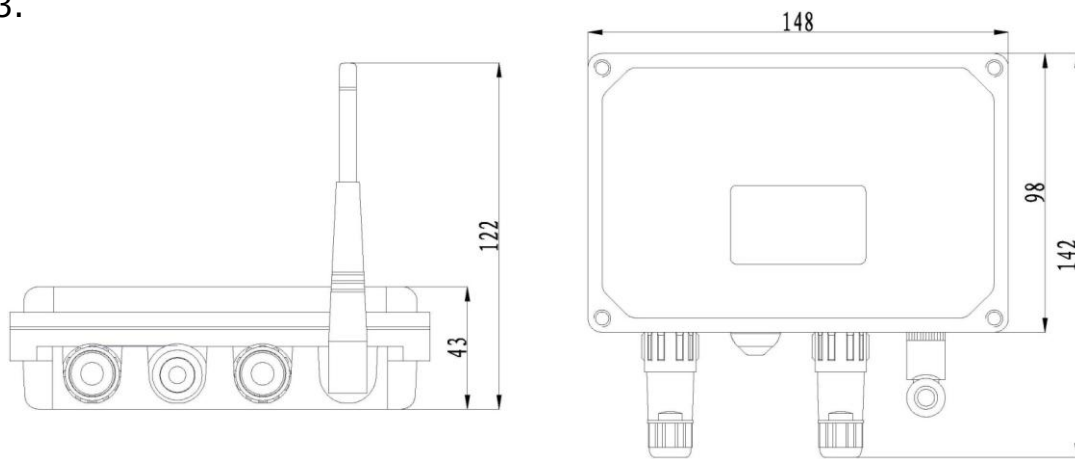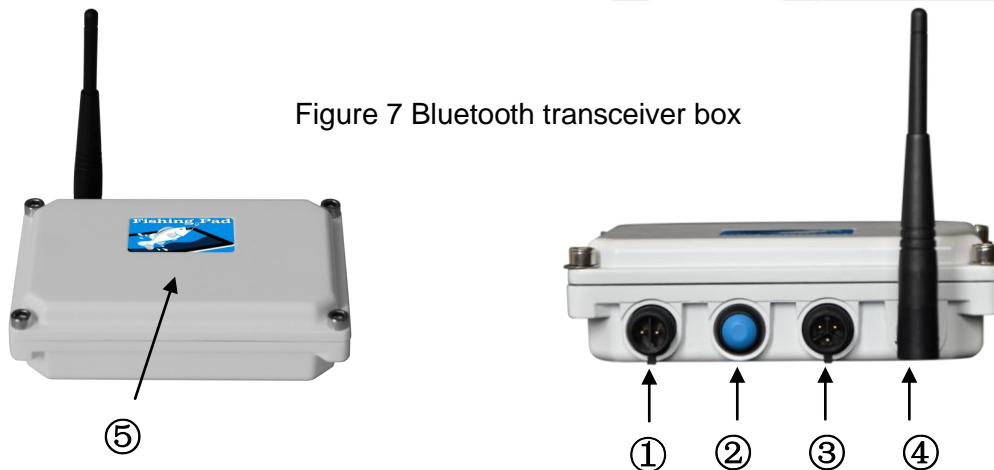


Figure 7 Bluetooth transceiver box

① Two-core pilot plug : Connect 11~48VDC power supply

② Blue Bottom：Power switch of Bluetooth Transceiver Box.

③ Three-core pilot plug：Connect the transducer of type BP60-200-10L

④ Wireless Bluetooth：Wirelessly connect to Android PAD/phone.

⑤ Indicator light: Double flashing for connection and single flashing for disconnection.