

TF520

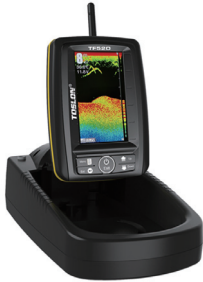
Quick Start Guide v1.1



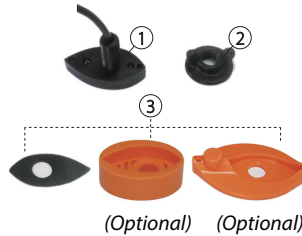
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Check the content

Monitor



Transducer

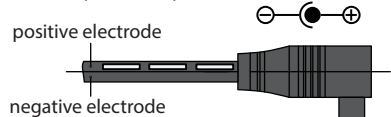


- 1) Transducer 2) Knobs 3) Rubber
*Note: the rubber is different according to
different bait boats*

SonarBox



- 1) SonarBox 520W
2) Power cable (DC5.5-2.1)



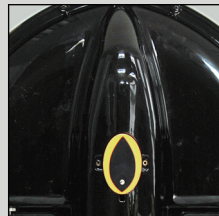
- 3) Transducer adapter connector
4) Antenna for monitor
5) Antenna for SonarBox
6) SMA radio cable
7) Valcro

Installation (transducer)

1) For general boats, like Carp Madness, Anatec Monocoque, you need to drill a hole on the boat bottom to fix the transducer.



2) For boats of Carplounge/-Waveruner/Vegaboat/Carpboat etc, there is a transducer groove on the bottom. So, you only need to simply match the transducer to the boat with a rubber.



3) For Anatec catamaran bait boat, there is a transducer groove on the bottom. So, you only need simply match the transducer to the boat with a rubber.



Installation (antenna & wiring)

Antenna Installation

- 1) Drill an hole (5mm diameter) on the selected position.
- 2) Install the SMA cable in the hole and lock the nut of SMA connector with washer.
- 3) Screw the antenna on boat.



Wiring

After all the installation are finished, please connect the parts (transducer, antenna, battery) to the SonarBox. Then fix the SonarBox inside the boat.









Powering

	For Monitor	For SonarBox
Recommended voltage	9 ~15V	9 ~12V
Absolute Maximum voltage	16.0V	14.8V

→ **Note:** overvoltage may burn the elements in the device!

From bellow shows the voltage range of the most popular batteries in the market:

Battery Type	Voltage	Permission
12V Lead-acid	10.8v~14.8V	✓
8*AA NiMH	7.8V~10.6V	✓
8*AA Alkaline	7.5V~12.8V	✓
2S Lithium	5.6~8.4V	✓
3S Lithium	8.4~12.6V	✓
4S Lithium	11.2V~16.8V	✗

 <p>12V lead-acid</p>	 <p>2S Lithium</p>
 <p>8AA NiMH</p>	 <p>3S Lithium</p>
 <p>8AA Alkaline</p>	 <p>4S Lithium</p>

Using Instruction

1. Please do not put the display on ground during the operation, which could cause a short R/C distance.

It is recommended to install the monitor on a tripod, which can ensure that the monitor is at least 1.2 meters above the ground.

2. Make sure the antenna is tighten on the boat, otherwise the R/C distance will be greatly shorten.



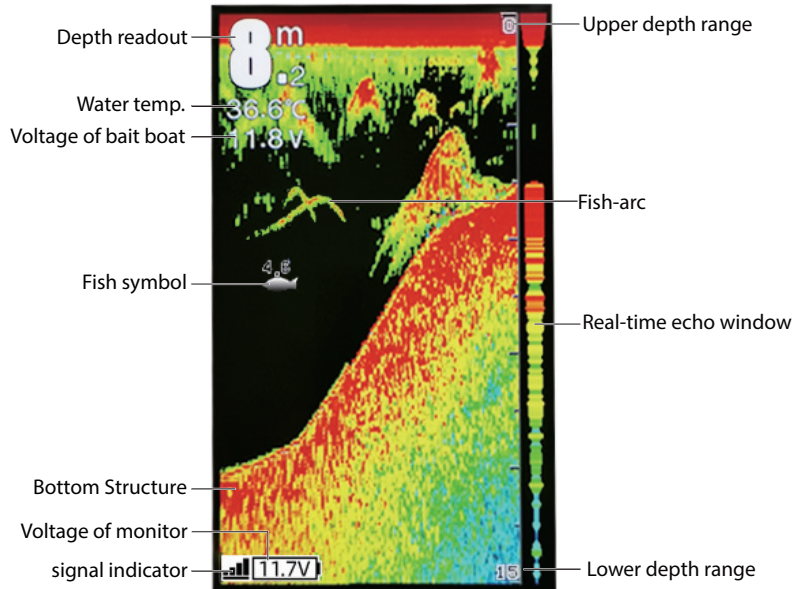
Key function



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Menu	Open Menu settings; Switch between menus
Ent	Finalizes menu selections; confirm a setting
Up arrow	Move up to select menu; increase a value of option
Down arrow	Move down to select menu; decrease a value of option
Power & Exit	Turns unit on/off. Also be use to quit a menu setting

What's on the display



Menu Operation

In most time the default setting is enough. However in some situation, to achieve the best performance of the system, you need adjusting the menu setting.

1. Sensivity

Determines how echoes will be displayed on the screen. Increasing the sensitivity will make you see more details on the screen.

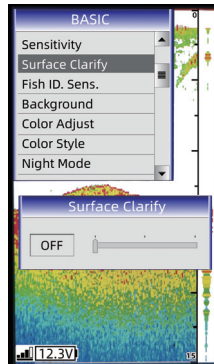
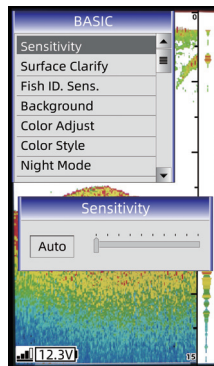
In deep water, increasing the sensitivity. whereas in shallow decreasing the sensitivity.

How to set the Sensivity?

- 1) Press **MENU** Key, and use keypad to choose **【Sensitivity】**
- 2) Press **ENT** key to conform the selection.
- 3) Press **UP arrow/Down arrow** key to increase/decrease the value.
- 4) Press **ENT** key to confirm the setting.

2. Surface Clarify

Wave action, boat wakes, and temperature inversion can cause on screen clutter near the surface. The surface clarify option reduces surface clutter by decreasing the sensitivity of the receiver near the surface.



3. Fish ID Sens.

Fish ID. Sens. adjust the threshold of fish size display.

Selecting a higher setting allows weak returns being displayed as fish, which is helpful especially when you are intending to find smaller fish species or bait fish.

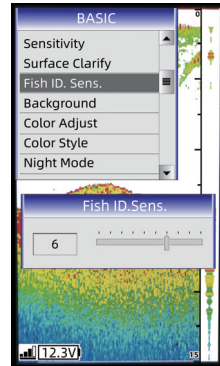
Selecting a low setting will prevent weak sonar returns being displayed as fish, which will be very helpful when you are seeking large species of fish.

→ **Note:** If you hope to find big fish, please set the value to 1; However if you hope to find all the fish, including small ones, set the value to 9.

4. Sonar Gain.

The gain controls the sensitivity of the hardware receiver. A higher gain makes the sonar more sensitive to echo returns, allowing it to display weaker targets.

If the gain is set too high, the image might be cluttered with background noise.



Menu Operation

5. Radio Bind

For the TF520, each SonarBox has an "Identity Card". It only can be connected with one monitor. And for all the TF520 we sold, the authorization process has been done in advance by our factory.

However, in some cases you may mix the monitor and the SonarBox. Then you need do the radio bind as following instruction:

How to make Radio Bind?

- 1) Enter **【Radio Bind】** menu, a message shown to remind you to power on the SonarBox.
 - 2) Power on the SonarBox, device will make radio bind automatically.
- **Note:** before making Radio Bind, please power off the SonarBox in advance.



Menu List

Basic	Sensitivity	Controls the level of details shown on the display.
	Surface Clarify	Reduces surface clutter by decreasing the sensitivity of the receiver near the surface.
	Fish ID. Sens.	Adjust the threshold of fish size display. Higher setting allows weak returns being displayed as fish, while a low setting will prevent it being displayed as fish.
	Background	Change the background of the screen.
	Color Adjust	Adjust the contrast & brightness of sonar image.
	Color Style	Users can choose different color style for sonar image.
	Night Mode	Adjust the brightness of backlight to suit device using at dark environment.
Sonar	Depth Range	Determine in which portion the bottom will be displayed on the screen.
	Sonar Gain	Controls the sensitivity of the hardware receiver.
	Shallow Alarm	Sounds when the depth becomes equal to or less than the menu setting.
	Measure Units	Selects the units of measure for all distance and temperature related readouts
	Fish Alarm	Sounds when the fishfinder detects what it determines to be a fish.
System	Simulator	Used to let you practicing using the Fishfinder as if you were on the water.
	Backlight	Adjust the brightness of backlight.
	Key Tone	Set if the sonar unit sound a tone or not when a key is pressed.
	Language	Select the display language for menus.
	Battery Alarm	Sounds when the input battery voltage of display is equal to or less than the setting.
	Boat Vtg. Alarm	Sounds when the input battery voltage of SonarBox is equal to or less than the setting.
	Default Settings	Used to restore original factory setting.
	System Info.	Show system information of device.
	Radio Bind	Make authorization between monitor and SonarBox.
	Update Devices	Update monitor or SonarBox with latest version of software.

Specifications and Features

Specifications and features	Display	Display size: 4.3" TFT LCD; Sunlight Viewable
		Resolution: 480*272 Pixels; 65,536 color
		Language: Multi-language
		Monitor and Display Real-time Voltage of Bait boat Battery
		IPX6 Level Waterproof Casing Design
	Sonar	Depth Capability: 30m (100ft)
		Sonar Frequency: 115KHz
		Sonar Beam Angle: 60deg @-10db
		Sonar Alarms: Fish / Shallow / Low Battery
	R/F	Radio Frequency: 2.4Ghz
		RC Power: 20dBm
	Power	DC 9~15V / 3S lithium battery
		Battery: 3S 18650 (Optional)
	Technical and casing	Sensor Cable Length: 0.5m
		Sonar unit size: 153 x 110 x 44mm; Portable Case Size: 262 x 150 x 98mm
		Operational Temperature: -10°C ~ 50°C
		Water Temp. Included in Transducer
	Features	Frequency-hopping spread spectrum (FHSS)
		Direct-sequence spread spectrum (DSSS) *
		Hardware gain adjustable
Built in 3S lithium battery charging function		
Stable wireless performance even in bad condition		
Full two-year warranty; extended warranties available		

*Note:

[1] Not available with TF520 version B, which with a power-adjustable radio system.

[2] For version B, please ensure the TX power compliant with local radio regulations before increasing the radio power.



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