

Intended use

The sonar fish finder serves to detect fishes in water with a depth from 0.8 m to 24.4 m. The depth of the fishes under water is determined by runtime measuring of the emitted sound waves (Sonar = Sound navigation and ranging).

The fish formation and the depth is displayed graphically on an illuminated display.

Additional functions like display illumination, acoustic fish warner or the battery saving function enable user-friendly operation.

The fish finder is battery-operated, protected against water sprays (the sonar unit is waterproof) and suited for use in sweet and salt water. The floating buoy always keeps the sonar unit at the same water depth.

You can search for fish in water, through ice or thin boat hulls made of fibreglass or aluminium.

Operation requires 4 mignon batteries (type AA). The batteries are not included in the scope of delivery.

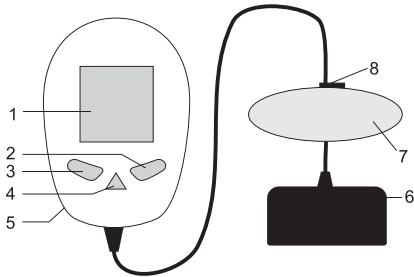
The fish finder may not be used to navigate boats or ships. The fish finder does not discharge you from your duty to exercise due diligence.

Any other use than the one described above can lead to damage to the product and, in addition, involves certain risks.

No part of the product must be modified or converted!

The safety instructions should be observed without fail!

Controls and indicators



- (1) Liquid crystal display (LCD)
- (2) „ENTER“ button to confirm settings
- (3) „SETUP“ button for changing settings
- (4) ON/OFF and RESET switch
- (5) Battery compartment on the back
- (6) Watertight sonar sensor
- (7) Floating buoy
- (8) Wedge for adjusting the length of the cable

Safety and Hazard Notices



The guarantee will lapse if damage is caused as a result of non-compliance with the operating instructions!

We do not accept liability for damage to property or injury to persons caused by mishandling or non-compliance with the safety instructions!

This device left the factory in perfect condition in terms of safety engineering.

To maintain this status and ensure safe operation, the user must comply with the safety instructions and warnings (“Caution!” and “Note!”) contained in these operating instructions. The following symbols must be observed:



This icon indicates important notices that have to be observed.



This product is CE-tested and meets the necessary directives.

Electronic devices and accumulators must be kept out of the reach of children.

For safety and licensing reasons (CE), unauthorized conversion and/or modification of the device is not permitted.

The device is not a toy and has no place in the hands of children.

Do not leave the packaging material lying around carelessly since this may become a dangerous toy for children.

Remove the batteries if the device is not used for longer periods of time to prevent leaking.

Leaking or damaged batteries may cause alkali burns if in contact with skin. It is therefore advisable to use suitable protective gloves.

Make sure that the batteries are not short-circuited. Do not throw batteries into the fire.

Batteries should not be recharged. Danger of explosion.

Never open the casing of the fish finder in water.

The display device corresponds to protection class I and is spray water protected. Do not immerse the display device.

If you have reasons to assume that safe operation is no longer possible, then disconnect the appliance immediately and secure it against inadvertent operation. It can be assumed that safe operation is no longer possible if:

- the appliance is visibly damaged,
- it does not function any longer and
- if it has been stored for long periods of time under unfavourable conditions
- if it has been subject to considerable stress in transit.

You should also heed the safety instructions in each chapter of these instructions.

Inserting/changing the batteries

The fish finder requires four type AA batteries for operation (mignon). The batteries are not included in the scope of delivery.

In the top right corner of the display is the battery status indicator in the shape of a battery. It changes its appearance depending on the state of the battery.



Batteries are full



Batteries are half-full, please keep a new set ready.



Batteries are empty and need to be replaced.

Proceed as follows to replace the batteries:

Turn the round screw on the back clockwise 90° with a screwdriver or a coin.

Remove the cover of the battery compartment.

If applicable, remove the spent batteries from the battery compartment and insert four new batteries of the same type observing the correct polarity. Observe of the polarity markings in the battery compartment.

Close the battery compartment in reverse order.

Attention! Grease the rubber seal from time to time to preserve its tightness.

The sonar fish finder is now ready for operation.



Only use alkaline batteries. These are more powerful than common zinc-carbon batteries and prolong the service life.

Initial operation

Turn the sonar fish finder on by pressing the triangular button (4) in the front briefly.

The device turns on and runs through a brief function check during which all segments are briefly shown on the display. The illumination also comes on for approx. 3 seconds.

To turn the device off, press the triangular button (4) and keep it depressed for approx. 3 seconds. The device switches off.

Demo mode

The fish finder has a demo program that displays all functions outside of the water. The sonar sensor (6) does not have to be in the water for that purpose.

Switch off the fish finder. Press and keep the on/off button (4) depressed for approx. 5 seconds. The fish finder comes on with two beeps. The demo mode runs and shows all display variants.

To turn it off, press and keep the on/off button (4) depressed for approx. 3 seconds. The fish finder turns off.

Presetting the measuring unit

You can change the measuring unit of the depth display from meters (m) to feet (f).

To program, proceed as follows:

- Switch the device on.
- Press the two buttons „SETUP“ and „ENTER“ simultaneously and keep them depressed for approx. 5 seconds.
- The measuring unit starts to flash.
- Each press of the buttons „SETUP“ or „ENTER“ switches the measuring unit. Set the desired unit.
- By pressing the button (4), this setting is saved and you return to the normal display. If you do not press the buttons during the set-up for 5 seconds, you automatically return to the normal display.

Presetting the additional functions

The fish finder has three different additional functions that can be selected individually.

- This is the battery saving function, where sonar measuring only takes place every 10 seconds and the display is refreshed (display „BATT SAVE“).
- The permanent illumination of the display (light bulb icon) and
- the activation of the acoustic fish warner (loudspeaker symbol).

In order to activate one or several of these functions, proceed as follows:

- Keep the button „SETUP“ depressed for approx. 3 seconds. The display „BATT SAVE“ starts to flash.
- Switch through the functions in turn with the button „SETUP“.
- If you want to activate or deactivate one or several functions, press the button „ENTER“. Now the corresponding function is illuminated permanently or blinks when deactivated.
- If no button is pressed for approx. 5 seconds, the fish finder returns to the normal display.



In normal operation, the display illumination stays on for approx. 2 seconds to save the battery power. When the illumination is activated permanently, the operating time of the batteries reduces.

The acoustic fish display only reacts with larger fish swarms. With single fish, it stays „silent“.

Preparations for measuring in water

The sonar sensor must be correctly placed in the water in order not to falsify the measuring result. A swim buoy (7) is therefore installed on the sensor (6), that always guarantees the right depth.

The buoy (7) should be approx. 15 to 25 cm above the sensor (6). There is a wedge (8) above the buoy, which helps you to set the exact depth.

Make sure that the rest of the connection cable always runs on the water surface or even better across it. When the cable sinks, the measuring results could be faulty.



Use „swimmers“ made from old wine corks if necessary.

When measuring through the hull of a boat, proceed as follows:

- When measuring through a boat hull (max. thickness 0.3 mm), the water level should be about 12 mm. You can also simulate this with a plastic bag filled with water. Place the water bag on the boat hull and insert the sonar sensor in it (6).
- Switch on the fish finder.

When measuring through ice, proceed as follows:

- Completely clean the surface of the ice from snow, the ice must be absolutely smooth.
- Wet the surface to be measured with water and place the sonar sensor plane onto the surface. Pull the rubber protector upwards a bit so that the sensor can lie plane on the surface. Make sure that there are no air bubbles between the sensor and the ice.
- Switch on the fish finder. Air bubbles in the ice may lead to wrong measuring results.



The connection cable becomes stiff at temperatures below 0°C. Prevent the cable from coiling.

Fish display

If a moving target is detected, this is displayed with a fish symbol in addition to the water depth (top left). If several fish are detected, several fish symbols appear on the display.

The depth of the fish in relation to the present water depth is displayed graphically on the right side of the display.

Example: The water depth is 20 meters. A box on the side therefore corresponds to 2 meters ($20:10 = 2$) This eases spatial conception.

If the maximum measurable water depth is exceeded or if the water is heavily polluted, the depth display shows „---“.



Be especially careful at/on the water. Always wear a swim vest for safety reasons.

If no depth is measured for a period of approx. 5 minutes (display „---“), the device turns off automatically. This protects the device from unnecessary battery consumption.

Cleaning and servicing the device

Apart from changing the battery and occasional cleaning as well as greasing the rubber seal in the battery compartment, the device is maintenance-free.

Rinse the device with sweet water after every use in salt water. Dry the fish finder carefully after each use.

For cleaning use only a soft, damp cloth. Cleansing fluids containing solvents or chemicals or scouring products should not be used.

Store the fish finder in a dry place.

Troubleshooting

By purchasing the sonar fish finder, you have acquired a product which is reliable and operationally safe.

Problems and malfunctions may, however, still arise.

For this reason we want to describe how to troubleshoot potential malfunctions:



Always adhere to the safety instructions!

Fault	Possible cause
The device does not turn on.	Are the batteries empty? Is the temperature below -10°C?
Fish are not detected.	The measuring range starts at 0.8 m depth. Fish above this range cannot be detected.
The depth gauge shows "---"	<ul style="list-style-type: none">• There are air bubbles in the water (e.g. through turbulent water), in the boat hull or in the ice.• The water depth is outside of the measuring range.• The water is heavily contaminated.

Disposal



When the device has become unusable, dispose of it in accordance with the current statutory regulations.

Disposal of flat batteries

You, as the end user, are legally obliged (**Regulation on Flat Batteries**) to return all flat batteries and accumulators. **Disposal in the household waste is prohibited!**



Batteries, including rechargeable batteries, which contain hazardous substances are marked by symbols. These should not be disposed off in the household waste. The designations for heavy metals concerned are as follows: **Cd** = Cadmium, **Hg** = mercury, **Pb** = lead. (the name is indicated on the battery, e.g. below the trashcan symbols on the left).



You can return flat batteries and rechargeable batteries free of charge to collection points in your local area, to our branches or anywhere else where batteries or rechargeable batteries are sold.

You thus fulfill your statutory obligations and make your contribution to the protection of the environment.

Technical data

Operating voltage	6VDC (4xAA)
Operating period	approx. 25 to 30 hrs
Measuring range	0.8 to 24.4m
Measuring cone	20° (3:1 / distance:diameter)
Sonar frequency	200 kHz
Length of cable	5.9m
Temperature range	-10°C to +50°C
Dimensions approx.	140 x 80 x 35 (mm)
Weight without batteries	approx. 450g