

Portable Fish Finder Instruction Manual

Thank you for purchasing the HawkEye® Portable Fish Finder, and welcome to the Innovations of NorCross Marine Products, Inc.



ENJOY YOUR FREEDOM...

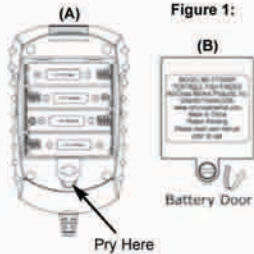


Before You Fish

Get to know the fishing regulations and habits of the fish that you are targeting by visiting your local tackle center, bait shop, library, or website. A little research can be a valuable lesson that will allow you to utilize the features of your fish finder, to make fishing more enjoyable for you, and your fishing buddies.

Installing the Batteries

- Use a screw driver to open the battery door by turning the locking screw so that it is aligned as per Figure 1(B). Once the screw is aligned, pry the battery door open in the location marked in Figure 1(A). Prying should require minimal force. If you have difficulty removing the battery door, repeat step 1 from the beginning.
- Install 4 "AA" batteries. Be certain to align the batteries as per the diagram within the battery compartment.
- Close the battery door completely, and turn the locking screw 90 degrees.



Adjusting the Sonar Sensor Float

The Sonar Sensor float must be adjusted so that it is a minimum of 6 inches away from the sensor (it can be further depending upon water conditions see Note below) (Figure 2).

- Pull out the rubber stopper.
- Adjust float so that it is 6 to 10 inches from the sensor, or at your desired depth.
- Replace the rubber stopper by pressing it firmly into the float.



NOTE: In calm water the sonar sensor can be set at which will provide the maximum amount of sonar coverage. In rougher water, the sonar sensor may need to be lowered into the water further to provide stabilized readings.

NOTE: To prevent accidental loss of the stopper always press the rubber stopper firmly into the float before tossing the sonar sensor into the water.



Refer to Figure 3 to Set the Following Features:

Turning the Power ON/OFF

- To turn the Power On, press the POWER Key.
- To turn the Power Off, Press and Hold the POWER Key for 3 seconds.
- During normal operation the screen can be refreshed by pressing the POWER Key. Use this feature if inconsistent readings are evident.

NOTE: The fish finder has an automatic power off feature to prevent battery drain if you accidentally leave the unit on. When the depth display reads "—" continuously for 5 minutes, the display will shut off automatically.

Accessing the Feature Setup

- Press and Hold the SETUP Key for 3 seconds.
- The Backlight Indicator () will blink.
- Cycle through the features by pressing the SETUP key. (the indicator will blink for the current feature to be set)
- To activate or deactivate a feature press the ENTER key. (When a feature is activated, the indicator will appear. When a feature is deactivated, the indicator will not appear)
- The screen will automatically return to normal operation after 5 seconds if no keys are pressed.

Refer to Figure 3 to Set the Following Features:

Backlight Feature ()

- Turning the backlight feature ON will keep the screen illuminated all the time. This feature will greatly reduce the battery life of the fish finder, so it should only be used during low light conditions.
- When the backlight feature is set to OFF, the backlight will illuminate for 3 seconds whenever a key is pressed.

Fish Alarm Feature ()

- The fish alarm sounds when a group of fish are detected. It will NOT sound if just one fish is detected.

Changing the Units of Measure for Depth Readings

- Press and Hold SETUP and ENTER (at the same time) for more than 5 seconds. The display will flash the current units setting next to the depth readout.
- Press either key to toggle the unit of measure (Ft = Feet or M = Meters). The selected unit of measure will blink.
- The screen will automatically return to normal operation after 5 seconds if no keys are pressed.

Using the Sonar sensor

- Toss the sonar sensor and float assembly into the water at your desired fishing location. To toss, place the sonar sensor and float in your hand, and pitch underhand. Do not throw the sensor by the cable as this will cause unrepairable damage. Before tossing, be certain that the cable is free from tangles and is not wrapped around anything.
- Use a pole to guide the sonar sensor to a desirable position (Figure 4) or add floats on the cable to allow the cable to float on top of the water (Figure 5).
- To retrieve the sonar sensor and float simply pull in the cable being certain to neatly wind up the excess cable.

WARNING: Do not allow the cable to sink to the bottom as it may become entangled in debris (Figure 6).

Using the Fish Finder for Ice Fishing

To achieve the best performance for ice fishing, it is highly recommended that you cut a hole through the ice and place the sonar sensor directly in the water. If you would like to check the area for depth or fish before cutting the hole, please follow steps 1 - 4 precisely.

NOTE: Do to various environmental conditions, this process may not work in all situations.

- Clear away snow to expose the ice surface, making sure the surface is smooth.
- Place a small amount of liquid water on the ice and set the sonar sensor on the water allowing the unit to freeze to the ice (Figure 8).
- If there are any air pockets between the sonar sensor and ice, or the water below the ice, the unit will not work properly and will require you to try another spot, or cut a hole in the ice to use. You can also use the instructions in sections (b) or (c) of the "To Shoot-Thru the Hull of a Boat" section. Be certain not to allow the water to freeze around the unit if you use the "plastic bag" (c) method.
- To remove the Sonar sensor from the frozen ice, gently tap the sonar sensor at the base with your hand. If it will not come loose, spray a small amount of water on the ice surface around the base and repeat step 4 until the sonar sensor is easily removed.

WARNING: Never use a blunt object to strike the sonar sensor as this may cause damage to the sensitive internal electronics.

Using the Fish Finder Thru a Boat Hull?

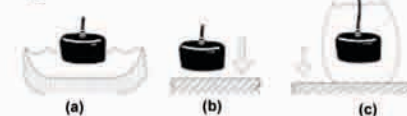
The fish finders advanced sonar capabilities allows it to "shoot thru" the bottom of a boat or canoe. The hull must be made out of solid fiberglass, or a maximum of 1/8" aluminum, and be in direct contact with the water, with no air pockets. The unit will not work thru wood, plastic, or any composite material.

To "Shoot-Thru" the hull of a boat, do one of the following (Figure 9)

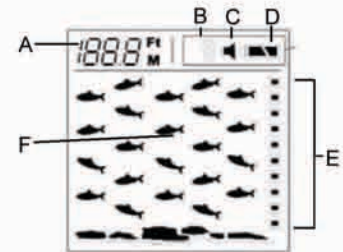
- place the sonar sensor in .5 inches of water against the hull bottom.
- coat the face of the sonar sensor with petroleum jelly and press it against the hull bottom with a twisting motion.
- place the sonar sensor in a plastic bag that is full of water and place against the hull bottom.

If depth readings appear as "—" while using one of these methods, place the sonar sensor directly in the water to verify that the fish finder is operating properly. If it operates properly while directly in the water, reposition the sensor in a new location in the hull, and repeat methods A, B, or C. These methods DO NOT work on all hulls and you may have to place the sensor directly in the water for proper operation.

Figure 9:



VirtuView™ LCD ICON DISPLAY



- Figure 10:
- A Depth Readout
 - B Backlight ON
 - C Fish Alarm ON
 - D () - Full Battery
 - () - Low Battery
 - () - Very Low Battery
 - E Fish Depth Indicator
 - F Fish Indicators

Depth Readout

The depth readout on the upper left corner (Figure 11) will appear after the power is turned ON and the sonar sensor is placed in water between 3 feet and 50 feet (.8 to 15.2 Meters). If the depth exceeds these parameters, the depth meter will indicate "—". This reading may also occur in water that is extremely dirty, or where there are heavy silt or mud bottoms. Sonar is a sound signal that travels through water. Sonar will not travel through air. Keep this in mind when using the fish finder, as the smallest air bubble between the sonar sensor and the water, will cause the unit to not operate correctly.

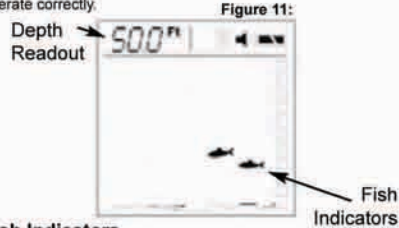


Figure 11:

Fish Indicators

If the fish finder determines that sonar has detected a fish, the display will show a fish shaped icon (Figure 11). The first column of fish indicators on the right of the display shows the most current information. This column is then moved to the left as a new reading is displayed. That is, fish indicators "swim" away from the right to the left at a constant speed. This motion in no way reflects actual movement of the fish.

Fish Depth Indicator

Use the Fish Depth Indicator to measure the fish's depth from the Sonar Sensor (Figure 12). This can be done by dividing the depth reading by 10. This number represents the value of each box.

(example, the depth is 50 feet, the fish symbol appears between the first and second box from the bottom. This means the fish is 10 feet from the sea bottom, or 45 feet from the surface)

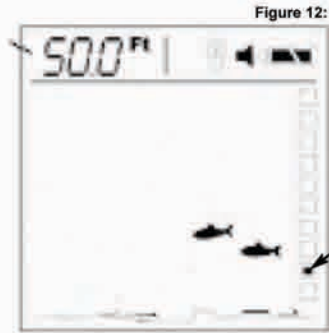


Figure 12:

Fish Depth Indicator

Using Your Fish Finder In Weeds



Figure 13:

If the weed height is taller than 10% of the total water depth, the display will show this condition by turning on fish indicators. These indicators will display the height of the weed layer and give you an idea of how deep to fish your bait. (Figure 14)

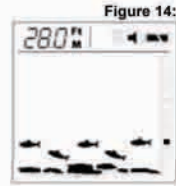


Figure 14:

(example: the water depth is 28 feet, the fish indicators are continuously turned on up to the 3rd Fish Depth Indicator. It can be assumed that the weeds are 9 feet tall)

NOTE: All other fish indicators that appear on the screen during this condition should be considered to be fish.

Determining Surface Clutter



Figure 15:

To minimize this condition, adjust the sonar sensor float to get below these signals and/or stabilize the sensor.

NOTE: All other fish indicators that appear on the screen during this condition should be considered to be fish.

Care of Your Fish Finder

1. Clean the sonar sensor and cable with fresh water and dry-off before storing. Do not submerge and/or spray the fish finder screen/housing with water or use chemicals to clean. If necessary, wipe with a damp cloth.
2. Remove the batteries from the fish finder to prevent battery leakage and corrosion.
3. Store the fish finder in the storage bag in a cool, dry place. Never leave it in temperatures over 120 degrees Fahrenheit as the extreme temperatures can damage the electronic components.

4. Cold weather is extremely hard on the electrical components within the display housing. It is suggested that you keep the unit in temperatures above 14 degrees Fahrenheit (-10 degrees Celsius) during operation. The sonar sensor cable also becomes very stiff under cold conditions. Excessive winding or unwinding under these conditions may cause unreparable damage. DO NOT WIND OR UNWIND THE CABLE IN TEMPERATURES BELOW 32° F (0° C).

I'm Having a Problem, What Do I Do?

Do not attempt to repair the unit yourself. There are no user serviceable parts inside, and opening the unit will void the warranty. Before returning the fish finder to the place of purchase, please read the following section or visit our website at www.norcrossmarine.com for troubleshooting information.

1. Nothing Happens When I Turn the Power On.

Make sure that you have installed a good set of batteries and aligned them as per the diagram within the battery compartment. You may also need to test the batteries in another device to insure they are charged. If in doubt, replace the batteries with a set from a newly opened package.

Below freezing temperatures are extremely harsh on the electronic components within the fish finder. It is important that you keep the unit in temperatures above 14 degrees Fahrenheit (-10 degrees Celsius) during operation. This may require you to keep the display head in a jacket pocket or other warm place during and in-between uses.

2. The Depth Reading Is "—"

Make sure that you are operating the unit in depths between 2.5 and 50 Feet (.8 to 15.2 Meters). Be aware that the depth is measured from the sonar sensor, not the float.

Also make sure that the water is not overly choppy, causing the sonar sensor to move around significantly. The sonar sensor must remain relatively stable to achieve optimal readings. When necessary, lower the sonar sensor to hang further from the surface of the water, providing more stability in rougher water.

If your using the unit for Ice Fishing, please refer to the FAQ section for more help.

3. I See Fish Under the Sonar sensor, but Nothing Appears on the Display

As with the depth reading, the fish finder will not detect any objects that are closer than 2.5 feet from the sonar sensor. If you're fishing in water that is less than 3 feet deep, it is recommended to discontinue use of the fish finder.

2. Why does the float need to be 6-10 inches from the Sonar Sensor? Can it be more than that, or less?

The recommended distance of 6-10 inches allows the Sonar Sensor to remain stable below the surface, even in rougher waters. The float can be adjusted to set the sonar sensor deeper if desired, to get in below a layer of ice perhaps, but the difference in depth must then be added to what the unit displays.

3. How Long Will the Batteries Last?

Total usage life of one set of batteries depends on the operational settings. The Backlight Feature will significantly reduce the battery life and therefore should be limited to nighttime use only. The average overall life based on normal use is between 25 and 30 hours of operation.

4. Is My Fish Finder Waterproof?

Although the display housing is made to be water resistant, it is not made to withstand submersion in water. Follow the Care of Your Fish Finder Section to prevent accidental damage.

5. I'm Trying to "Shoot-Thru" Ice or a Boat Hull, and the Depth Display Only Reads "—"

Shooting-Thru the hull of a boat/canoe or ice can be difficult, as hidden air pockets will prevent you from obtaining a reading. Make certain that the hull or ice is solid from the surface to the water with no air bubbles and/or gaps. Shooting thru composite hulls (plastic) or cloudy ice is not possible as there are tiny air bubbles present in these situations. **ALWAYS use a small amount of water to attach the sonar sensor to an ice surface.**

6. I'm Using the Unit for Ice Fishing, but the Depth Just Reads "—"

The sonar components in the sonar sensor will not pulse below an ambient air temperature of 14° F (-10 °C). When operating the unit in temperatures at or below this level, keep the sonar sensor warm until it can be placed directly into the water.

7. The Unit Keeps Shutting OFF Automatically?

The display has an automatic power off feature to prevent battery drain if you accidentally leave the unit on. If the depth display reads "—" continuously for 5 minutes, the display will shut off automatically.

8. The Depth Reading is Incorrect

Make sure the sonar sensor is perpendicular to the water when trying to obtain depth readings. Extremely heavy vegetation may confuse the sonar signal, causing it to misinterpret the depth. If you are certain that the readings are incorrect under these conditions, discontinue use.

9. How Much Underwater Area Does the Sonar Cover? (The Cone Angle is 20°)

DEPTH Ft (M)	COVERAGE AREA Ft (M)
10 (3.1)	3.5 (1)
20 (6.1)	7.1 (2.2)
30 (9.1)	10.6 (3.2)
40 (12.2)	14.1 (4.3)
50 (15.2)	17.6 (5.4)



10. I Tried Everything in this Manual, and I am Still Having Trouble. What Do I Do?

A majority of the fish finders that we receive from customers for service, are not defective, and the problems are easily solved by contacting customer support. If you have a problem with your unit, or technical questions, first visit our website at www.norcrossmarine.com for valuable problem/solution troubleshooting. The best way for us to assist you is by sending us a detailed description of the problem via email to customerservice@norcrossmarine.com.

If your questions cannot be answered in this manner, please contact our customer service department between 8:30 AM and 5:30 PM, Eastern Standard Time at 888-667-2767. We do not wait our customer's time by keeping them on hold, so please be confident that if you leave a message for a customer support representative, they will get back to you in a timely manner.

If after contacting our customer service department it is determined that your fish finder is in need of service and/or replacement, please contact the place of purchase for instructions. This product is an exclusive item to RadioShack®, therefore we cannot assist in replacing your defective unit.

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SPECIFICATIONS

Unit Dimensions	4.5"H x 3"W x 1.75"D
Display Type	VirtuView™ Liquid Crystal Icon
Display Window Size	1.75"W x 1.75"H
Backlighting	Green SoftGlow™ LED
Power Requirement	4 - "AA" Alkaline Batteries
Units of Measure	Feet and Meters
Depth Range Max.	50 feet (15.2 Meters)
Depth Range Min.	2.5 feet (.8 Meter)
Sonar sensor Frequency	200 kHz
Sonar sensor Beam Angle	20 degrees
Operational Temperature Range	14° F to 122° F (-10 to 50 °C)

WARNING!!!!

This fish finder should not be used as a navigational aid to prevent grounding, boat damage, or personal injury. Always operate the boat at slow speeds in unfamiliar water, or if you suspect shallow water or submerged objects, as water depth may change too quickly to allow time for you to react.

WARNING: Disassembly of the electronic components within this unit may result in exposure to lead in the form of solder, which is known to the state of California to cause cancer, birth defects, and other reproductive harm.

Frequently Asked Questions?

1. What Type of Floats Can I use for the Sonar sensor Cable?

1 inch regular fishing bobbers have proven effective. A bright color is also helpful at alerting any boaters of the cable in the water so it is not damaged by a passing boat.