

# USER'S GUIDE

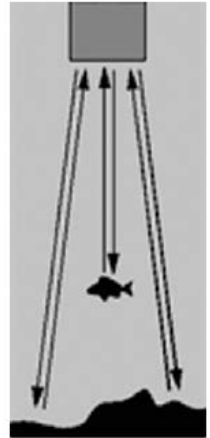
DepthTrax® 1H – HawkEye® Portable Depth Finder (DT1H)



Thank you for purchasing a HawkEye® product, and welcome to the innovations of NorCross Marine Products, Inc. To ensure safety and many years of trouble-free operation of your product, please read this manual carefully before using this product.

## INTRODUCTION TO DEPTHTRAX® INTELLIGENT SONAR


DepthTrax® Intelligent Sonar uses SONAR sound waves to detect depth and define bottom contour, composition and structure. Using specialized microprocessors, these sound waves are generated by the DepthTrax® display and sent to the DepthTrax® Sonar Sensor (*Transducer*). The sonar sensor, acting first as a “speaker”, emits these sound waves as a series of pulses. Then, microseconds later, the sonar sensor switches to a “microphone” and listens for the return of the pulses as they bounce off of objects in the water column (*referred to as “echoes”*). The “echoes” are sent back to the display where, using proprietary algorithms in the DepthTrax® software, they are analyzed for location, size, and composition. These signals are then arranged by DepthTrax's® Human Interface Software, filtered, and only the depth readings are shown on the display.





## SAFETY INFORMATION:


- Read this instruction manual carefully before attempting to install or operate this device.
- Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on this device.
- Only qualified personnel should perform repairs or servicing not covered in this manual.
- The LCD used in the product is made of glass. Therefore, it can break when the product is dropped or impacted.
- Keep this product away from heat sources such as radiators, heaters, stoves and other heat generating sources.
- Do not store in extreme temperatures above 150° F (65° C).
- Shade the LCD during storage. Do not expose LCD to direct sunlight for extended periods of time.

## NOTES, NOTICES, AND CAUTIONS

 **WARNING:** Indicates a potential for property damage, personal injury or death.

 **IMPORTANT:** Indicates potential damage to the device and tells you how to avoid it.

 **NOTICE:** Indicates important information that helps you make better use of the device and tells you how to correct a performance problem.

 **INFORMATION:** Indicates resources to obtain the proper information to help you make the most of your device.



#### **WARNING:**



This depth sounder 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.

#### **INFORMATION:**



Read this manual completely before attempting to use or install your device. Visit our Customer Service Center on our website for advanced troubleshooting and technical support.

#### **NOTICE:**



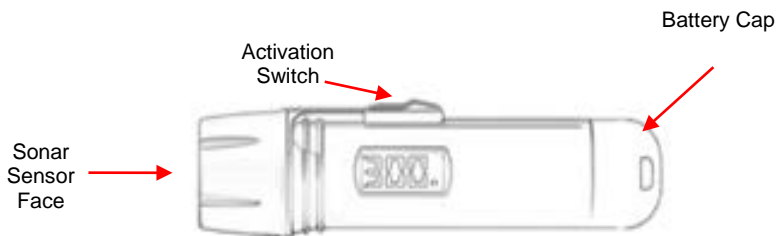
Do not attempt to remove the sonar sensor cap. Removal will damage DepthTrax® 1H and void your warranty.

## **PARTS SUPPLIED IN PACKAGING:**

The Following Parts should be included in your DepthTrax® 1H Packaging:

- DepthTrax® 1H Portable Depth Finder
- Leash (*attached to the Battery Cap*)
- User's Guide

If any items are missing or damaged, please contact our customer service department.



## INSTALLING THE BATTERY:

1. Open the battery cap by unscrewing it counter-clockwise.
2. Remove the battery holder and install a 9-Volt battery.
3. Insert the battery into the electronics housing and turn the cap clockwise until snug (do not over-tighten).

### NOTICE:



If you are using the DepthTrax® 1H in temperatures below 20° F (-7 °C) you must use a Lithium battery. Cold temperatures significantly reduce the power output of Alkaline batteries, which will inhibit the performance of the device.

### IMPORTANT:



To ensure the device remains water tight, coat the battery cover o-ring and gasket with **silicon** grease each time you replace the battery. Pinching of the black gasket during cap installation is a clear sign that the gasket is not properly lubricated.

### WARNING:

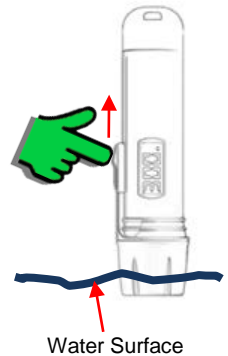


Remove battery during storage. Remove dead battery immediately.

## BASIC OPERATION:

### Switching the Readings from English to Metric

1. Turn the unit on by sliding the switch towards the battery compartment and releasing.
2. Slide the switch towards the battery compartment and hold for 5 seconds.
3. The current units of measure will blink, release the switch.
4. Pull and release the switch to change between the settings (FT/F, M/C)
5. The unit will automatically exit the units of measure setting and return to the last mode (depth or temp) if the switch is not moved for 10 seconds.



## OBTAINING DEPTH READINGS (*DEPTH READING MODE*)

1. Place the sonar sensor side of the device into the water. Make sure to hold the device perpendicular to the water surface.

### NOTICE:



If the unit is not held vertical to the water surface the readings will be inaccurate.

2. Slide the switch towards the battery cap and release.

3. The current water depth will be indicated on the display:
  - The depth will continue to update 4 times per second while the device is left in water that is between 2.5 and 300 ft deep (.8 and 61 m).
  - If the device is unable to obtain an accurate depth reading or if it is removed from the water “- -” will be displayed.
4. The device will turn off automatically 15 seconds after being removed from the water.

**NOTICE:**



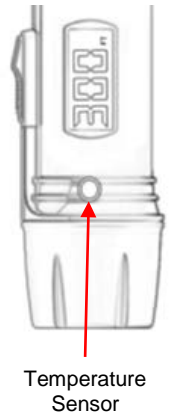
The device will not obtain readings through air. You CANNOT stand on the deck of your vessel and obtain readings unless the device is in direct contact with the water or you use one of the techniques described within this manual.

**OBTAINING TEMPERATURE READINGS (THERMOMETER MODE)**

The DepthTrax® 1H has an integrated temperature sensor built into the sonar sensor housing.

**To Obtain Temperature Readings:**

1. Activate the *Depth Reading Mode*.
2. While in *Depth Reading Mode*, slide the switch towards the battery compartment and release.
3. The display will show the current temperature.
  - To obtain air temperature readings, hold the device in your hand and activate the *Thermometer Mode* as per the above instructions.
  - To obtain water temperature readings, place the Temperature Sensor into the water and activate the *Thermometer Mode*.
  - The unit will automatically turn OFF after 1 minute of displaying the temperature



**INFORMATION:**



This device has a temperature accuracy rating of plus or minus 5%. The temperature probe may take up to 90 seconds to adjust to extreme changes in temperature.

**SHOOTING THROUGH A BOAT HULL**

The DepthTrax® 1H advanced sonar capabilities allow it to “Shoot-Thru” the bottom of a boat, canoe, kayak, etc.

- The hull must be made of solid fiberglass, or a maximum of 1/8” (3.1 mm) aluminum, and be in direct contact with the water, with no air pockets.
- The device will not work through wood, plastic, or any composite material.

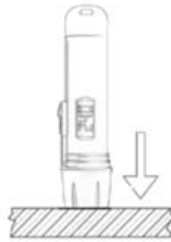
**To “Shoot-Thru” the Hull of a Boat, Do One of the Following:**

1. Place the sonar sensor in .5 inches (13 mm) of water against the hull bottom.
2. Coat the face of the sonar system with petroleum jelly and press it against the hull bottom with a twisting motion.
3. Place the sonar sensor in a plastic bag that is full of water and place against the hull bottom.

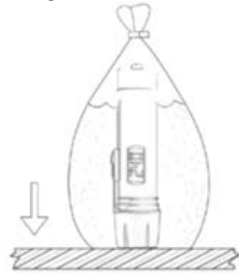
1.



2.



3.



**NOTICE:**



Some boats have a hollow space between the floor and the hull bottom called a bilge. The DepthTrax® 1H will not “Shoot-Thru” in this type of boat unless it is placed directly against the hull surface that is in direct contact with the water. Refer to our website for more advanced instructions.

**SHOOTING THROUGH ICE**

This device has advanced sonar capabilities also allow it to obtain depth readings through solid ice. You **MUST** use special techniques to obtain readings through ice:

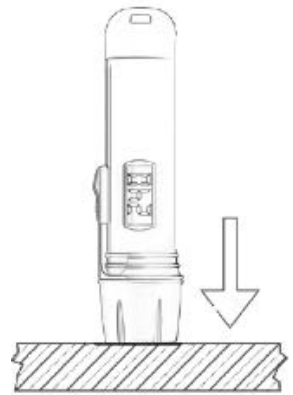
**NOTICE:**



The ice must be smooth and free from excessive air. Air will show up as white imperfections inside the ice. **The ice must be black in color.**

*To Shoot Thru Ice:*

1. Clear away snow to expose the ice surface.
2. Place a small amount of liquid water on the ice and set the sonar sensor side of the device on the water.
3. If there are any air pockets between the device and ice, or the water below the ice, the device will not work properly and will require you to use more water, try another spot, or cut a hole in the ice to use.



**INFORMATION:**



You can also use the “Plastic Bag” and “Petroleum Jelly” instructions in the “Shooting Thru a Boat Hull” section for shooting through ice. Visit our website for additional suggestions.

## SCANNING FOR DEPTH CHANGES (SIDE-SCAN)

The DepthTrax® 1H has the ability to be used as a sideways scanning sonar depth sounder to search for drop-offs.

### To Side-Scan:

1. Activate the Depth Reading feature.
2. Place the device perpendicular to the water surface to obtain a correct depth reading.
3. Once a correct reading is obtained, move the DepthTrax® 1H around in a scanning motion (similar to using a flashlight).



### NOTICE:



To obtain depth readings during side scanning the sonar signals must be directed at a solid surface that is within 300 ft (90 m) to function properly. You must be certain to aim the device at an object or the bottom within this range.

## USING FOR DIVING

The DepthTrax® 1H is waterproof to 150 ft (45 m), allowing you to use it as a range finder or target finder for snorkeling or diving. Keep in mind that the sonar signals must be directed at a solid surface that is within 300 ft (90 m) to display depth readings.



- You must be certain to aim the Device at an object or the bottom within this range.
- ALWAYS be certain to attach the Wrist/Safety Strap to your person, as the device will float to the surface if released.

## CARE AND MAINTENANCE

### Care for Your DepthTrax® 1H

1. Clean the device with fresh water and dry off before storing.
2. Remove the battery from the device to prevent battery leakage and corrosion.
3. Store the depth sounder in a cool, dry place. Never leave it in temperatures over 158° F (70 °C) as the extreme temperatures can damage the electronic components.

## REPLACEMENT PARTS

Individual components are not available for sale on our website. If you need replacement parts, please email our customer service department.

*The following Parts Are User Replaceable:*

- Battery Cover
- Battery Holder
- Lanyard
- O-Ring & Gasket Kit

## TROUBLESHOOTING AND FREQUENTLY ASKED QUESTIONS

24-Hour Technical Support is available online at [www.hawkeyelectronics.com](http://www.hawkeyelectronics.com). Search our online Knowledgebase for the latest troubleshooting and FAQ's, or post your own question for our support staff. For one-on-one support please email [customerservice@norcrossmarine.com](mailto:customerservice@norcrossmarine.com).

INFORMATION:	
	<p>If you have questions about this device please visit our Customer Service Center at <a href="http://support.norcrossmarine.com">support.norcrossmarine.com</a>.</p> <p><b>Warranty Details • Warranty Registration</b></p> <p><b>Troubleshooting • Product Knowledgebase</b></p> <p><b>Product Specifications • Parts &amp; Accessories</b></p> <p><a href="http://www.hawkeyelectronics.com">www.hawkeyelectronics.com</a></p>

### Nothing Happens When I Turn the Power On

Make sure that you have installed a good battery. You may also need to test the battery in another device to ensure they are charged. If in doubt, replace the battery with one from a newly opened package.

### The Depth Reading Is “---”

Make sure that the sonar sensor is in direct contact with the water and that you are operating the unit in depths between 2.5 and 300 Ft (.8 to 90 m). Be aware that the depth signal is sent from the sonar sensor in a manner similar to that of flashlight beam. Holding the unit perpendicular to the water surface will ensure accurate readings. The unit will not function properly if there is air between the sonar sensor and the water surface; keep this in mind when using the device through a boat hull or ice.

### The Depth Reading is Incorrect

Make sure that you are pointing the sonar sensor perpendicular to the water when trying to obtain depth readings.

Extremely heavy vegetation may confuse the sonar causing it to misinterpret the depth. If you are certain that the readings are incorrect under these conditions, discontinue use.

### I'm Not Getting A Reading While Trying to Shoot Through My Boat Hull or Ice

Shooting through 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 through composite hulls (plastic) or cloudy ice is not possible as tiny air bubbles are usually present in these situations.

## WARRANTY

This device is covered by a 2 Year Limited Warranty. To be eligible for warranty coverage, you must register your product within 15 days of purchase. Visit our website for warranty details and to register.

### To Activate Your Warranty:

- Read and print out a copy of the warranty details for your records.
- Complete the registration form on our website.
- Make a copy of your original purchase receipt and staple it to this manual. *You will need to present it in the rare occurrence that you need to send your product in for service.*

- Complete the information below and store this manual in a safe place. You can print additional copies of this manual from our website.

#### INFORMATION:



To aid in maintenance and service, record the following:

Date of Purchase: \_\_\_\_\_

Place of Purchase: \_\_\_\_\_

Date of Online Warranty Registration: \_\_\_\_\_

Production Date Code: \_\_\_\_\_ (3 or 4 digit code located on the device housing)

## LEGAL

#### INFORMATION:



**Made in China.** Tested to comply with FCC, CE & ROHS standards if applicable. Visit our website for compliance and warranty information. All Specifications and Prices Subject to Change Without Notice.

#### **NorCross Marine Products, Inc**

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#### WARNING:



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