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## INTRODUCTION

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Congratulations on your purchase of the Bottom Line® Tournament 1100™! Your new SONAR includes Bottom Line's advanced high-clarity bottom graph *plus* water temperature display and optional boat speed display to make the most out of your boating and fishing experience.

Make sure that your package contains the following items:

- ✓ Tournament 1100 display unit with mounting bracket
- ✓ Transducer with mounting screws
- ✓ Power cord
- ✓ Warranty card (back page of this manual)

## INSTALLATION & MAINTENANCE

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*Proper installation is essential in getting the best performance from your 1100.* Please read these directions carefully. If you do not feel comfortable performing the installation yourself, contact your authorized Bottom Line<sup>®</sup> dealer for a professional installation.


Here is what you will need to do *in this order*:


1. Mount the display
2. Mount the transducer
3. Route the transducer cable
4. Route and connect the power cable

### *1. Mount the Display*

Any convenient location will work for the 1100, provided there is enough room in the back of the unit for the power and transducer cables when the display is tilted at the best viewing angle. Four holes in the base of the display bracket allow for wood screws or through-bolt mounting.

 **Tip:** If you are planning to cut a hole in your dash for the power and transducer cables, only a 3/4" hole is required, which can be covered later with the mounting bracket. In this case, leave the bracket loose until the cables have been routed.

 **Tip:** If your dash is made from thin fiberglass, consider adding a piece of wood underneath to secure the mounting hardware.

 **Caution:** The mount must be secure enough to handle the roughest ride that your boat provides.

### *2. Mount the Transducer*

Your choice of where and how to mount the transducer will have a direct impact on the performance of your 1100. Before you get started, you need to know these basic principles:

- Your transducer will not work when it is not in the water.
- Even turbulent water or water filled with air bubbles can cause interference or completely inhibit transducer operation.

With the hardware provided, you can mount the transducer either on the bottom of the hull at the transom, or inside the hull in the bilge area.

With accessory hardware #019107 EZ Mount Trolling Motor Bracket, you can mount the transducer on your electric trolling motor. The advantage is that you will have your display unit up where you normally fish.

With accessory hardware #019106 EZ Mount Transom Bracket, you can mount the transducer to the transom. This has little advantage over the bottom mount, since the transducer will still need to hang between 1/8" to 1/4" below the bottom for acceptable performance at speed.

### *Outside Hull Mount*

In order to mount the transducer on the bottom of the boat at the transom, you will need the following tools and materials:

- ✓ Pencil
- ✓ Drill with an 1/8" bit
- ✓ Clear 100% silicone caulk
- ✓ Phillips screwdriver

#### ☐ *STEP 1*

**Choose the best location.** The transducer must be located on the bottom of the hull, close to the transom at the back of the boat (see Figure 1). It should be as close to the center as possible excluding the turbulent area in front of the propeller. If your hull has several steps, only the lowest step may be in the water at high speeds.

You may get the best results by taking a test run with your boat before the install, having a helper find the spot where the water flows clearest behind the transom.

△ **Caution:** Make sure that the location you choose is a flat surface, to prevent case warp when the screws are tightened.

△ **Caution:** Make sure that the location you choose will not cause the boat to rest on the transducer when the boat is trailered.

🔧 **Note:** On a riveted aluminum boat, do not mount the transducer behind a row of rivets, because they can cause turbulence that interferes with the transducer operation at speed.

#### ☐ *STEP 2*

**Important:** Clean the mounting area thoroughly. Remove any oil or grease with the cleaner recommended by your boat's manufacturer.

#### ☐ *STEP 3*

Place the transducer at the chosen position and mark the hole with the pencil. Drill the holes, making sure not to drill deeper than the length of the screws provided.

#### ☐ *STEP 4*

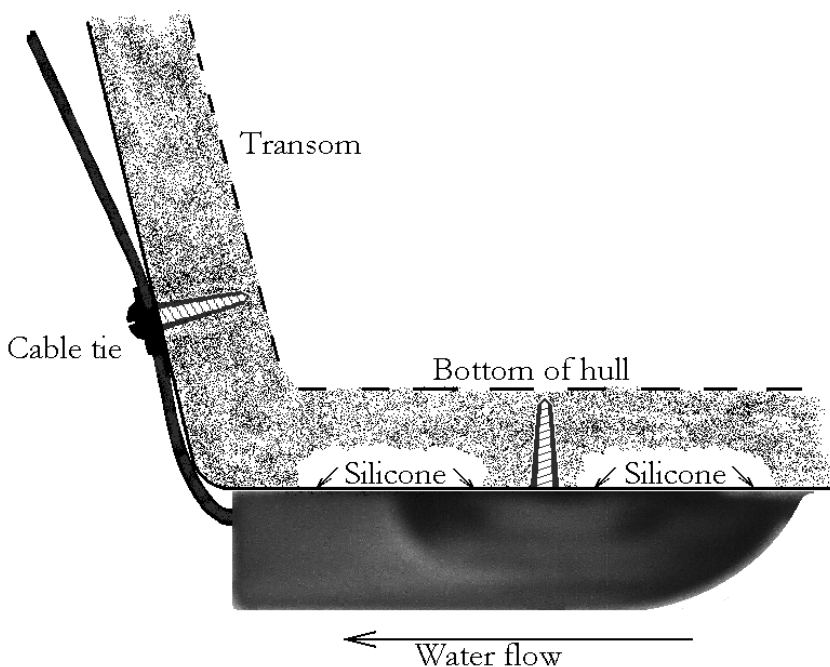
Fill the holes drilled in step 3 with silicone caulk. Then, apply a generous amount silicone caulk to the surfaces of the transducer that will contact the boat (see Figure 1).

#### □ STEP 5

Using the two screws provided, mount the transducer into place. Tighten until the transducer is snug against the hull. Do not over-tighten.

#### □ STEP 6

**Very important:** In order to ensure the best performance from your transducer, make sure that no silicone remains that would disturb the smooth flow of water across its surfaces. Wipe off all excess silicone with a cloth or paper towel and make sure that the transition area between the hull and the transducer is very smooth and that any gaps are completely filled.



*Figure 1: Outside Hull Mount*

#### *In-hull Transducer Mount*

The in-hull mounting option is only acceptable for fiberglass boats. Some boat manufacturers provide a flat, thin area specifically for in-hull mounting. The disadvantage of in-hull is that *SONAR signals may be substantially reduced*, since they have to pass through the fiberglass. The advantage is that the transducer is not exposed. If you need an in-hull mount, consult your dealer or Bottom Line representative for installation instructions.

### 3. Route the Transducer Cable

Route the transducer and power cables up to the display unit, keeping in mind the following:

- Route the cable away from high traffic areas and clear of any areas where it might be cut or frayed (e.g., consider possible damage by the propeller).
- In order to reduce interference, route the cable away from other wiring or electronic equipment.
- Do not coil the cable to take up slack. Instead, use a figure "8", which is less prone to noise and interference.

△ **Caution:** For outside hull mounts, secure the transducer cable to the transom close to the transducer (see Figure 1). This may help prevent the transducer from swinging into the boat if it is knocked off at high speeds.

### 4. Route & Connect the Power Cable

Finish by routing the power cable as necessary to reach the battery, keeping the routing suggestions above in mind. The 1100 works from a 12-volt battery system and requires ¼ amp during use (1-amp peak). For the best results, attach the power cable directly to the battery. You can attach the power cable to the accessory panel, however you may experience electrical interference. Connect the cable to the battery as follows:

- Red wire to positive (+) terminal.
- Black wire to negative (-) terminal.

⚡ **Note:** Connecting to the same circuit as other devices such as tachometers, radios or trim switches may cause electrical interference.

△ **Caution:** To protect both the cable and the display unit, Bottom Line highly recommends that you install an in-line 1-amp fast-blow fuse (available at automotive stores) in series with the red wire *at the battery*.

### Maintenance

Your 1100 should work reliably for many years, however, there are a few things you may want to consider and check periodically:

- When cleaning the acrylic display lens, do not use ammonia or alcohol-based cleaners.
- If possible, periodically clean the surface of the transducer with soap and water to remove any oil film. Oil and dirt on the transducer will reduce the sensitivity or may completely inhibit transducer operation.
- Consider using commonly available corrosion inhibitors on the back-panel connectors in harsh environments.

## FUNCTIONS AND FEATURES

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The best way to get familiar with your 1100 is to power-up in demo mode and start pressing buttons. You won't hurt anything by doing so, but you may lose or mess-up some settings. Don't worry. Your 1100 has a reset feature that restores everything back to factory settings.

### *POWER button*

- **POWER ON:** *press and release* the Power button.
- **DEMO MODE (at power on):** *press and hold* the Power button until the word **SIMULATOR** appears.
- **POWER OFF:** *press and hold* the Power button until the display goes blank.

🔑 **Note:** The 1100 remembers your previous settings every time you power it on again.

### *MENU button*

The Menu button is used to set and adjust all of the 1100's features. When you press this button, a menu will be displayed at the top of the screen. To get to more menus, press the ◀ or ▶ button. When a menu is displayed, press the ↑ and ↓ buttons to change the setting. After you are done making adjustments, press the Menu button again to clear the screen.

🔑 **Tip:** When no menu is displayed, press and hold the ↑ or ↓ button to freeze the graph.

**CONTRAST** – Contrast is the darkness or lightness of the display. Both your viewing angle and the ambient temperature affect the contrast.


⚠ **Caution:** Facing the screen toward the sun for extended periods may cause the display to reach its upper temperature limit and become black. If this occurs and you cannot adjust it lighter, *immediately* cover the screen or turn it away from the sun.

**LIGHT** – The 1100 has a display backlight for use when there is not enough daylight to view the screen. The backlight also generates heat and can be used to help warm the display in cold weather.

**FISH ALARM** – The fish alarm chimes and displays fish symbols for echoes that are likely to be from fish (see Figure 2). The depth of the fish symbol is also shown if there is room on the display. The symbol size indicates the relative signal strength of the echo, with the largest representing the strongest echo (see 'How Your 1100 Works' on page 9).

🔑 **Note:** A timer function prevents the alarm from chiming too often.


**GAIN** – The gain control sets the graph's overall sensitivity to echoes. Generally, a higher gain number means that more fish and structure are shown. Lowering the gain may help reduce interference caused by trolling motors and other sources of noise.


 **Tip:** Use as much gain or as little gain as you want, but remember that the bottom depth readout may not work under all settings.

**SCC** – The screen clutter control reduces undesirable signals on the graph. Such signals may include surface clutter (created by turbulence around the transducer), thermocline, air bubbles, algae bloom, and etceteras. Turn on SCC if these signals inhibit the display of the bottom.

**RANGE** – The bottom range control allows you to set how deep the bottom graph will display. The bottom range is displayed in the upper-left corner of the graph (see Figure 2).





In automatic mode, the 1100 sets the graph range to graph from the water surface down to just below the bottom.

 This symbol in the upper-left corner of the display indicates automatic range mode.

You may want to set the range manually if the bottom reading becomes unreliable or if you are only interested in seeing the top portion of the water. In this case, the  symbol will disappear indicating that you set the range yourself.

In bottom-tracking mode, the 1100 sets the range to graph the 10ft (3m) of water just above the bottom. This zoomed-in graph is useful for determining bottom features and for marking fish lying close to the bottom.

**BTRACK** This word in the upper-left corner of the display indicates bottom-tracking mode.

*Press and release* the  or  button to select automatic or bottom-tracking mode, or *press and hold*  or  to set a manual range.

**UNITS** – The 1100 can display in either U.S. or metric units for depth, speed and temperature.

**RESET** – This feature resets most menu settings back to the factory defaults. Try using reset when the 1100 does not appear to be working properly and you are not sure if the problem is in the settings. When the Reset menu is on the screen, press the **↑** or **↓** button to reset the settings.

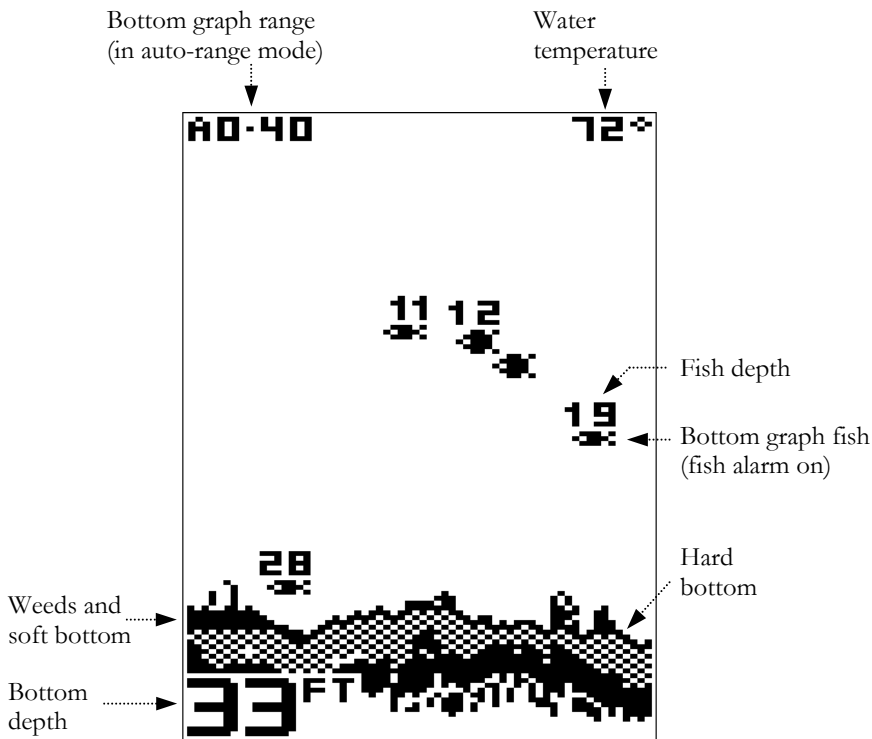


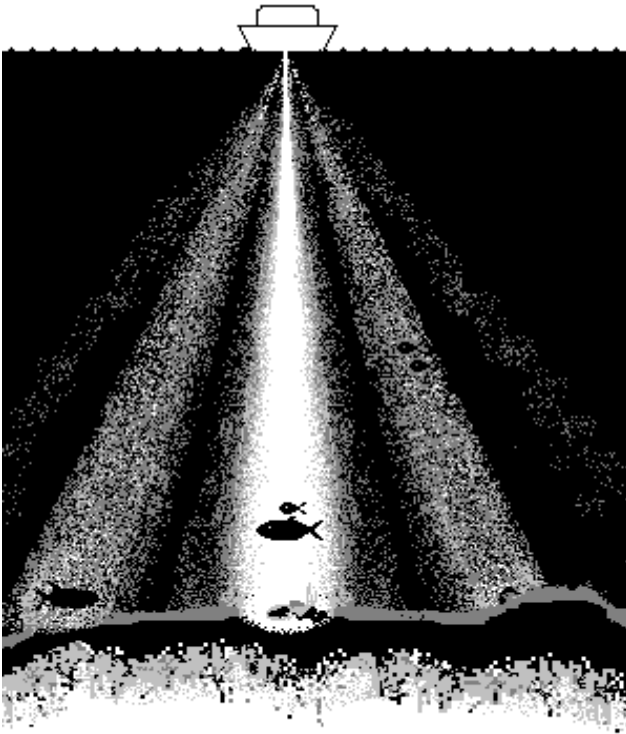
Figure 2. *Tournament 1100 Display*



### *How Your 1100 Works*

The 1100 uses active SONAR, short for Sound Navigation and Ranging, to locate and identify objects in the water. The transducer sends out short bursts of ultrasonic sound waves into the water and then listens for echoes to come back from objects and the bottom. The further away the object or bottom is, the longer it takes the echo to return.

These ultrasonic waves “illuminate” the water, forming a beam that is strongest in the direction that the transducer is pointed (see Figure 3). Weaker side-lobes split off from the main beam and with enough gain can be used for finding fish as well. You can calculate the approximate diameter of the main beam on the bottom as the depth divided by six.




*Figure 3. SONAR beam (cross-section)*

## *Reading the Graph*

The bottom graph is created by drawing all of the echoes from a single burst in a vertical column on the display, with the echoes from deepest objects drawn lowest on the display. After all the echoes from the burst are drawn, the graph is shifted to the left and the process is repeated (see Figure 2).

## *Greyscale*

The 1100 display uses a grey checkered pattern to display the strongest signals, which are usually from a hard bottom (see Figure 2). Weaker signals above the bottom are displayed as black. This allows you to separate the bottom from weeds and to differentiate a hard bottom from a soft, muddy one. A soft bottom typically gives a thinner bottom image that is mostly black. A hard bottom is displayed as a thin, black line over a much thicker area of checkered grey. Light weed cover above the bottom will give a thicker, sketchy black area above the checkered grey.

 **Note:** The size of the object does not always correlate directly with the strength of the signal.

## *Fish*

To view the natural echoes from fish and other objects in the water, turn the fish alarm symbols off (see page 6). Many fishermen have heard that an arch is a good way of determining fish, but other objects you troll across may also produce arches.

A better way of determining fish is to watch for subtle patterns on the graph. Solid horizontal lines across the screen are often fish hovering under the transducer. These lines may go up and down suggesting some movement if they are fish. Generally, thicker marks come from larger fish. Clouds of pixels are often schooling baitfish. Groups of diagonal lines are usually bubbles rising steadily up from the bottom. As you get more familiar with the 1100 and the water that you fish in, you will pick out many other patterns as well.

## SPECIFICATIONS

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Unit dimensions	6.5" x 7" x 2"
Power requirement max.	10.5-14V ¼ amp continuos, 1-amp peak
Display viewing area	3.3" x 2.4"
Display pixel matrix	128Vx64H
Depth range	Up to 240 feet
Transducer frequency	455KHz
Transducer cone angle	9°

**Computrol, Inc. reserves the right to change specification without notice.**

🔊 **Notice:** The bottom depth range specified above is under best conditions. No guarantee of maximum depth capability is made due to the unlimited types of waters in which the 1100 is used.

⚠ **Caution:** Facing the screen toward the sun for extended periods may cause the display to reach its upper temperature limit and turn black. If this occurs and you cannot adjust it lighter (see **CONTRAST** Menu on page 6), *immediately* cover the screen or turn it away from the sun.

⚠ **Caution:** The 1100 may not operate properly if the outside temperature is below 14°F (-10°C) or exposure to the sun or other heat sources causes the case to reach 140°F (60°C). Permanent damage will occur to the liquid crystal display if stored or used where the temperature is below -4°F (-20°C) or exposure to the sun or other heat sources causes the case to reach 158°F (+70°C). This type of damage is *not* covered by the warranty.

## IF YOU ARE HAVING PROBLEMS

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If you are having problems with the operation of your 1100, please try the suggestions in this section. Should all other remedies fail, please try using the reset settings feature (see page 8).

### **Problem: Unit won't turn on.**

- Check the power cable installation (see page 5).
- Make sure that the unit is within the temperature limits (see page 11).

### **Problem: Unit beeps but the screen stays blank or black.**

- When first turned on, the contrast setting may be incorrect. Immediately after turning the 1100 on, press and quickly release the Menu button followed ◀ or ▶ button to adjust the contrast.
- The screen may be black and just too hot to work at all. In this case immediately cover the screen or turn it away from the sun.

**Problem: Unit does not pass self-test.**

- Make sure that the power source has between 10.5-14V 1-amp and that the connector is fully inserted into the back of the unit.
- If the test fails repeatedly, call our customer service number listed in the warranty.

**Problem: No bottom or wrong bottom depth is found.**

- Make sure the transducer is at least 6" deep in the water and in an area where no bubbles or turbulence are present.
- If possible, rub the face of the transducer and clear off any air bubbles or debris.
- Check the clutter control (see page 7).
- The bottom may be deeper than the 1100 can display.

**Problem: Loses bottom at high speed.**

- Make sure that the transducer does not come out of the water when the boat is on plane.
- Check the transducer installation (see page 3). Make sure that the transducer is running through clear, undisturbed water.

**Problem: No fish are displayed in the graph.**

- When looking for fish in shallow water, remember that the bottom transducer beam covers a small area (see page 9).
- The gain may be too low. Try turning the gain up (see page 7).

**Problem: No speed reading (with optional speed accessory).**

- The speed wheel may be jammed with weeds or sand. Make sure it can turn freely.

**Problem: The graph is speckled with too many marks.**

- Some engine ignition systems may interfere with the 1100's operation. Aluminum boats can carry this interference throughout the hull. Confirm this by turning the engine on and off. Check the power connection (see page 5) and transducer cable routing (see page 5).
- Some pulse-width-modulated trolling motors may interfere with the 1100's operation. Confirm this by turning the trolling motor on and off. Check the power connection (see page 5) and transducer cable routing (see page 5).
- When running the boat at speed, it is typical to see scattered pixels on the screen, due to the water rushing past the transducer. Be sure that the transducer has been mounted correctly (see page 2).

## ACCESSORIES AND REPLACEMENT PARTS

BOTTOM LINE offers a full line of accessories and replacement parts. These items should be available where you purchased your 1100. If the dealer does not carry an item you want, have him special order it for you.

## BOTTOM LINE WARRANTY AND SERVICE POLICY

Bottom Line warrants that if the accompanying product (see exclusions below) proves to be defective in material or workmanship within one (1) year from the date of original retail purchase, Bottom Line will, at Bottom Line's option, either repair or replace same without charge (but no cash refunds will be made). This limited warranty may be enforced only by the first consumer user; all subsequent purchasers acquire the product "as is" without any benefit of this limited warranty.

### *Exclusions*

This warranty does not apply in the following circumstances:

- When the product has been serviced or repaired by anyone other than Bottom Line or an Authorized Bottom Line Service Center.
- When the product has been connected, installed, combined, altered, adjusted or handled in a manner other than according to the instructions furnished with the product.
- When any serial number has been effaced, altered, or removed.
- When any defect, problem, loss, or damage has resulted from any accident, misuse, negligence, carelessness, or from any failure to provide reasonable and necessary maintenance in accordance with the instructions of your owner's manual.

We reserve the right to make changes or improvements in our products from time to time without incurring the obligation to install such improvements or changes on equipment or items previously manufactured.

### *Limitation of Implied Warranties and Exclusion of Certain Damages*

We disclaim liability for incidental and consequential damages, for breach of any express or implied warranty, including any implied warranty of merchantability, with respect to this product. This writing constitutes the entire agreement of the parties with respect to the subject matter hereof; no waiver or amendment shall be valid unless in writing signed by Company. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may have other rights that vary from state to state.

### *Non-Warranty Repairs*

Bottom Line products for which the warranty does not apply, due to any of the above exclusions or warranty period expiration, will be repaired for a charge. All such repairs carry a 90 Day Limited Warranty, subject to the exclusions and limitations stated above.

### *To Enforce Warranty or to Obtain Repairs After Warranty*

Please contact us at (208) 846-9000, and we will either instruct you to return the product to the Company or, if outside the United States, refer you to an Authorized Service Center (this limited warranty is not enforceable outside of the U.S.). You must at your expense, including postage, shipping charges, insurance costs and other expenses, deliver, mail or ship product, together with proof of purchase, to the Company, or if outside the United states, to an Authorized Service Center. Please do not return the product to the company without our prior authorization (see manual for details). However, if the necessary repairs are covered by the warranty, we will pay the return shipping charges to any destination within the United States.

Serial # \_\_\_\_\_

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

Store Where Purchased \_\_\_\_\_

**📌 Note:** Keep your Proof of Purchase and/or sales receipt for your records.

Return Address:            Computrol, Inc.  
                                 499 East Corporate Drive  
                                 Meridian, Idaho 83642-3510  
                                 TEL (208) 846-9000  
                                 FAX (208) 887-2000  
                                 [www.bottomlinefishfinders.com](http://www.bottomlinefishfinders.com)  
                                 [www.cannondownriggers.com](http://www.cannondownriggers.com)