



LST-3800

In-Dash Digital Sonar Gauge Installation & Operation Instructions

The LST-3800 is a depth and temperature gauge that comes with a 200 kHz transducer, features deep and shallow alarms and has three main page displays. It can show depth in Meters or Feet, temperature in Fahrenheit or Celsius and its display may be set to rotate between Temperature, Depth or Dual display pages. The unit fits in a standard 2-1/8" (54 mm) hole used by most marine equipment manufacturers.

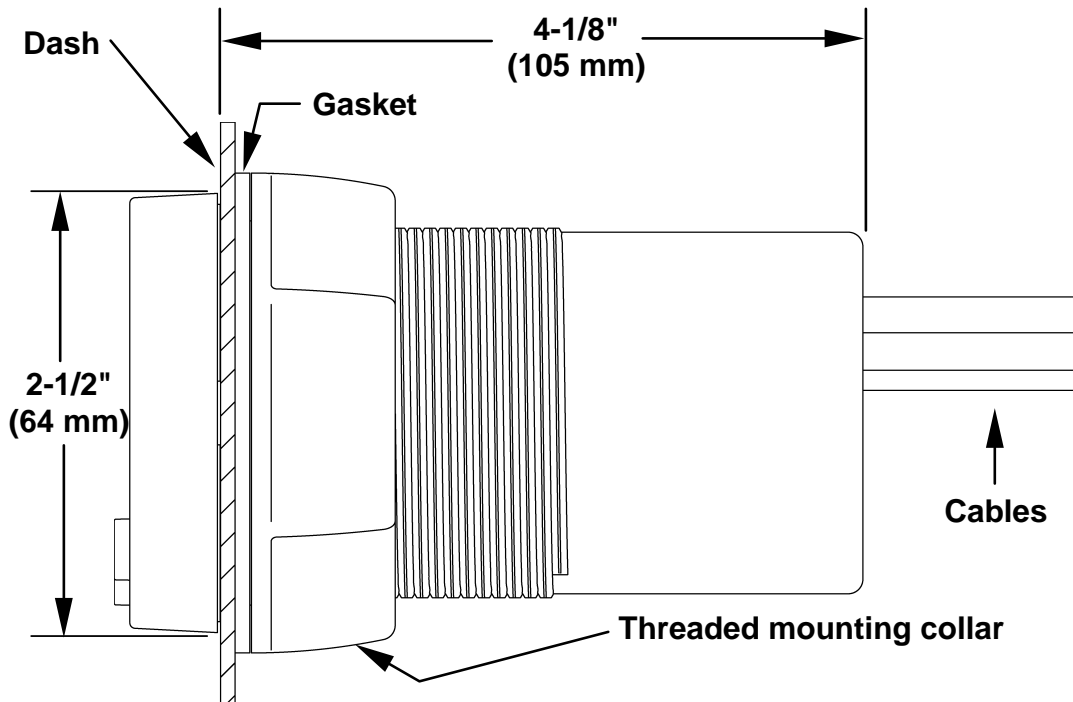
The 3800 is designed to display water depth and surface water temperature, but you **MUST** have a transducer with built-in temp sensor to receive temperature information.



LST-3800 temperature gauge.

Mounting Preparations

When installed, the gauge's bezel will cover a circular area at least 2-1/2" (64 mm) wide on the front of the dash. To mount the unit, make sure there is at least 4-1/8" (105 mm) from the front of the dash to any obstruction behind the dash. The maximum usable dash thickness is 1-1/8" (28.5 mm). Also, make certain there is room to route the unit's cables. The following figure shows gauge dimensions.



Dash installation, cross-section view.

Caution:

You should read over the entire installation section before drilling any holes in your vessel!

You can install this gauge in some other order if you prefer, but we recommend the installation sequence summarized below:

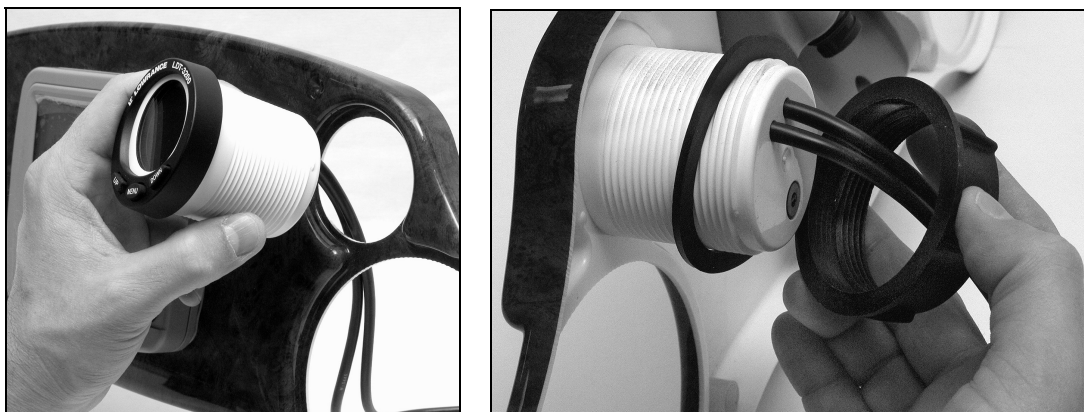
1. Determine the location for the gauge so you can plan how and where to route the cables. This will help you make sure you have enough cable length for the desired configuration.
2. Determine the location of your battery or other power connections, along with the power cable route.
3. Determine the location for the alarm buzzer and its wire route.
4. If you want to turn on the gauge backlights whenever you turn on your dashboard lights, locate your boat's dash light switch and determine how to route the dash light wires to it.
6. Install transducer, connect power wires to the battery and route the power/transducer cable to the gauge location.
7. Install the gauge, and connect the power/transducer cable.
8. Connect the buzzer wires and install the buzzer. If desired, connect the dash light wires to the boat's dash light switch.

Recommended Tools and Supplies

Supplies are not included, unless otherwise indicated. If the dash does not have a standard 2-1/8" (54 mm) hole, you will need a drill or saw to make the hole. Carefully measure the dash thickness and the hole area before cutting or drilling. The buzzer installation requires two cable ties.

If you need to extend any of the wires, use a minimum of 24-gauge wire and wire connectors of your choice. Wire nuts or electrical tape are required to cap any unused bare wires.

When you determine the location for the LST-3800, drill a 2-1/8" (54 mm) hole in the dash or use an existing gauge hole. Slide the cables through the hole from the front side of the dash, then push the LST-3800 housing through the hole until it is flush with the dash surface. Make sure the gauge is aligned correctly. Next, slide the rubber gasket and plastic-mounting collar over the cables and onto the back side of the gauge.



Insert gauge through the hole in the front side of the dash (left). Slide the rubber gasket over the cables, followed by the plastic collar (right).

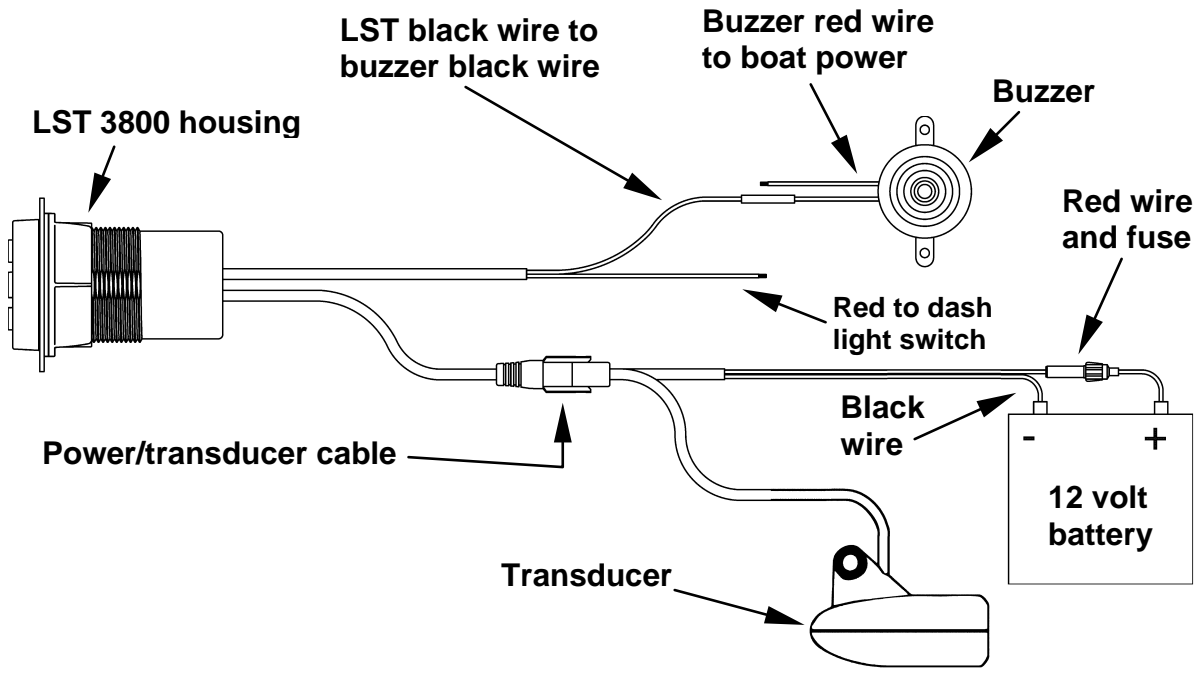
Slide the gasket forward so it is flush with the back of the dash, then screw on the mounting collar, turning it until it fits snugly against the gasket and the back of the dash.

Find a buzzer location that is protected from the elements, but still will allow you to hear the buzzer. We recommend connecting the buzzer wires, then using two cable ties to attach the buzzer to one or both of the cables at the back of the gauge.

Finish the installation by connecting the cables as described in the following wiring diagrams and photos.

Wiring

The LST-3800 operates from 10 to 15 volts DC (12-volt system). It must be wired to a 1-amp fuse. ***Failure to use a fuse with this product WILL VOID the warranty and could result in damage to the unit or your boat.***

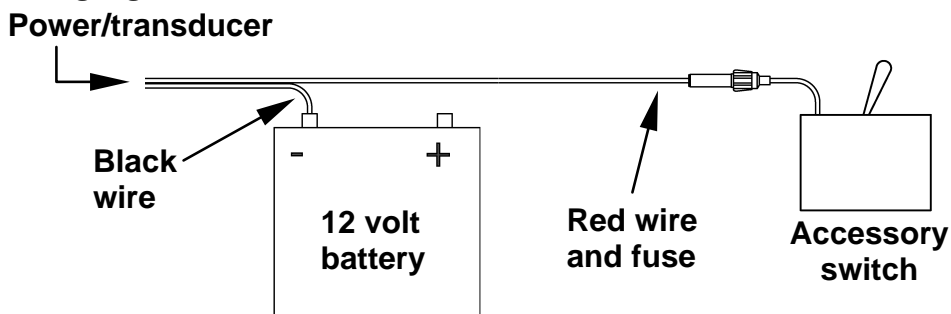


LST-3800 cable connections.

In the configuration above, the unit is always on. It will draw 11 milliamps of current with the backlight off and 40 milliamps with the backlight on full brightness. Typically, the maximum recommended current load on a boat in storage is about 50 milliamps. A battery will self discharge at a rate of about 9 milliamps. A battery's normal discharge plus the gauge current (lights off) amounts to approximately 20 milliamps, well below the recommended load limit in storage.

To automatically have the gauge backlights turn on when you turn on the other dashboard lights, connect the red dash light wire to the switch controlling the dash lights.

If you want to turn off the gauge when your not using it, connect the red wire from the power/transducer cable to your boat's accessory switch, or install an optional switch between the unit and the power source. See the following figure.



This wire configuration lets you turn off the gauge when it's not in use.

Caution:

The bare ends on any unused wires could cause an electrical short if left exposed. To prevent this, you should cover the individual wire ends — either by capping them with wire nuts or wrapping them with electrical tape. You should cut off the bare wire before taping off the ends.



After connecting the power wires to the battery or switch, connect the power/transducer cable to the gauge's power cable (above).

The unit won't be harmed if the power wires are connected backwards, but it won't work until they are connected correctly.

NOTE

The LST-3800 comes with a 200 kHz transducer. For installation instructions, download *Installation Instructions for Skimmer Transducers* from the Lowrance web site, www.lowrance.com. part number, 988-0147-582, at www.lowrance.com.

Operation

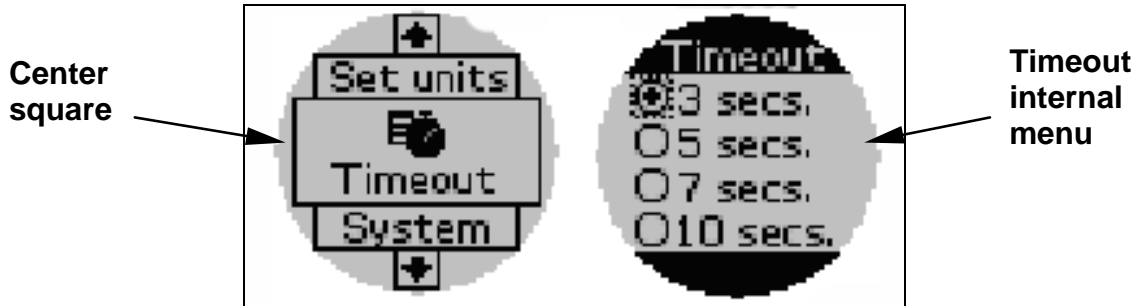
The displays and settings in this digital gauge are controlled by a three-button keypad. The buttons are **MENU**, **UP** and **DOWN**. The **MENU** key takes you to the gauge's main menu, allows you to access other internal menus and is used to modify menu options. The **UP** and **DOWN** buttons allow you to scroll through all menus.



LST-3800 keypad.

Timeout

There is no exit key in the LST 3800. The menus "time out" instead. That means they automatically close after a preset amount of time. When you install the gauge, the default timeout duration is 5 seconds. You can modify the **TIMEOUT** setting by pressing **MENU** and using the up and down keys to scroll through the main menu. When **TIMEOUT** appears in the center square — like the illustration below — press **MENU**. That will open the Timeout Menu, which has four settings: **3**, **5**, **7** and **10** seconds. Use the **UP** and **DOWN** keys to choose a setting, then press **MENU**.

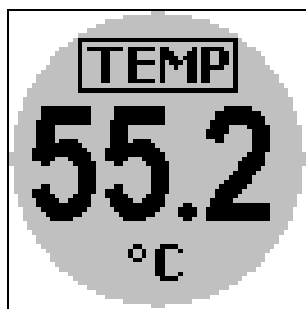


Timeout in the center square on the main menu (left) will take you to the Timeout menu. All items on the main menu will function in the same way. The Timeout menu (right).

Pages

When you first start using the gauge it will display the Depth page by default. There are two other pages: the Temperature page and the Dual Display page. You can cycle through the pages manually or have them displayed at various intervals with the **AUTOSCROLL** menu, discussed on page 7.

To cycle through the pages manually, press the up and down keys.



Temperature Page.

To modify what pages will be displayed, press **MENU** and use the **UP** and **DOWN** keys to scroll through the menu options until **PAGES** appears in the center square. Press **MENU** and use the **UP** and **DOWN** keys to move through the three page options. Press **MENU** to check or uncheck the box next to the page category you want to display. After making your selection, the menu will time out, taking you back to the main screen.

Depth Page

The Depth Page displays water depth readings taken by the 200 kHz transducer packed with the LST-3800.

For transducer installation instructions, see *Installation Instructions for Skimmer Transducers*, part number, 988-0147-582.

Temperature Page

The Temperature Page monitors surface water temperature via a temperature sensor built into your 200 kHz transducer.

Dual Display Page

The dual display shows depth and temperature readings simultaneously.

Autoscroll

If you would like page displays to rotate automatically, check out Auto Scroll, the first category on the main menu. Autoscroll allows you to not only turn on or off automatic page rotation, but gives you control over the amount of time that will pass before the gauge switches to the next page. To access the Autoscroll menu, press **MENU | MENU** and use the up and down keys to select the desired duration. The settings are **OFF**, **3**, **5** and **10** seconds. The default setting for Autoscroll is off. When you have made the desired changes, let the menu time out.

LST 3800 Menu

The unit has 10 menus. To access a menu, press **MENU** and use the **UP** and **DOWN** keys to scroll the desired menu into the center square, then press **MENU**.

Autoscroll
Backlight
Contrast
Options
Pages
Shallow Alarm
Deep Alarm
Set Units
Timeout
System

Setting LST-3800 Options

Display options for the 3800 may be manipulated through the **BACKLIGHT**, **CONTRAST** and **OPTION** menus. You can set alarms and change units of measure in the **SHALLOW ALARM**, **DEEP ALARM** and **SET UNITS** menu.

Backlight

Once in the Backlight menu, use the **UP** and **DOWN** keys to select one of five brightness levels, **OFF**, **25%**, **50%**, **75%** or **MAX**. If the unit's dash light wires are connected, the backlight will come on when with the rest of the dash lights are turned on. See wiring options on pages 4.

To control the backlight manually, check or uncheck the **MANUAL** box by pressing **MENU** in the Backlight internal menu. Use the **UP** key to increase the brightness level. The brightness level may be lowered or turned off by pressing the **DOWN** key. The **OFF** setting will only appear when **MANUAL** is checked.

NOTE

The **OFF** setting is also supported in the automatic Backlight configuration, but you will only see it when the dash lights are off.

Contrast

After opening the Contrast internal menu, a contrast scroll bar will appear. Use the **UP** and **DOWN** keys to change the contrast setting. Let the menu time out to return to the main display.

Options

The Options menu allows you to return the unit to its **FACTORY SETTINGS**, turn on or off **KEY BEEP** sounds (the keys will beep when pressed when this feature is turned on), or change the look of the display via the **REVERSE VIDEO** setting. Using Reverse video will alter the screen from the default — dark numbers with gray background — to gray numbers with a dark background.

NOTE

FACTORY SETTINGS will restore the unit to the default settings used when the gauge was powered up for the first time.

Pages

The Pages menu allows you to select the pages you want to see on the main display. See the detailed entry on page 6.

Shallow Alarm

The shallow alarm can be set to notify you of water depth, ranging from 1 to 640 feet (195 meters). The default alarm setting is off. To set the shallow alarm, press **MENU**, then use the **UP** and **DOWN** keys to scroll the shallow alarm menu into the center square. Press **MENU** to access the alarm menu, then use the **UP** and **DOWN** keys to set the alarm to the desired depth.

Deep Alarm

The deep alarm can be set to notify you of water depth, ranging from 1 to 640 feet (195 meters). The default alarm setting is off. To set the deep alarm, press **MENU**, then use the **UP** and **DOWN** keys to scroll the deep

alarm menu into the center square. Press **MENU** to access the alarm menu, then use the **UP** and **DOWN** keys to set the alarm to the desired depth.

Set Units

The Set Units menu allows you to switch the units of measure for temperature and depth from **FEET** and **FAHRENHEIT (°F)** to **METERS** and **CELSIUS (°C)**.

Timeout

You can modify the amount of time a menu will be displayed by accessing the Timeout menu. See detailed entry on page 6.

System

The System menu displays the gauge's software information.

Notes

LOWRANCE ELECTRONICS FULL ONE-YEAR WARRANTY

"We," "our," or "us" refers to LOWRANCE ELECTRONICS, INC., the manufacturer of this product. "You" or "your" refers to the first person who purchases this product as a consumer item for personal, family or household use.

We warrant this product against defects or malfunctions in materials and workmanship, and against failure to conform to this product's written specifications, all for one (1) year from the date of original purchase by you. WE MAKE NO OTHER EXPRESS WARRANTY OR REPRESENTATION OF ANY KIND WHATSOEVER CONCERNING THIS PRODUCT. Your remedies under this warranty will be available so long as you can show in a reasonable manner that any defect or malfunction in materials or workmanship, or any non-conformity with the product's written specifications, occurred within one year from the date of your original purchase, which must be substantiated by a dated sales receipt or sales slip. Any such defect, malfunction, or non-conformity which occurs within one year from your original purchase date will either be repaired without charge or be replaced with a new product identical or reasonably equivalent to this product, at our option, within a reasonable time after our receipt of the product. If such defect, malfunction, or non-conformity remains after a reasonable number of attempts to repair by us, you may elect to obtain without charge a replacement of the product or a refund for the product. THIS REPAIR, OR REPLACEMENT OR REFUND (AS JUST DESCRIBED) IS THE EXCLUSIVE REMEDY AVAILABLE TO YOU AGAINST US FOR ANY DEFECT, MALFUNCTION, OR NON-CONFORMITY CONCERNING THE PRODUCT OR FOR ANY LOSS OR DAMAGE RESULTING FROM ANY OTHER CAUSE WHATSOEVER. WE WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO ANYONE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR OTHER INDIRECT DAMAGE OF ANY KIND.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty does NOT apply in the following circumstances: (1) when the product has been serviced or repaired by anyone other than us; (2) 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; (3) when any serial number has been effaced, altered, or removed; or (4) when any defect, problem, loss, or damage has resulted from any accident, misuse, negligence, or carelessness, or from any failure to provide reasonable and necessary maintenance in accordance with the instructions of the owner's manual for the product.

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.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

REMINDER: You must retain the sales slip or sales receipt proving the date of your original purchase in case warranty service is ever required.

