




INSTALLATION OVERVIEW

Follow the instructions in this installation guide to install the ICE HELIX® control head in the portable shuttle and install the ICE transducer. We encourage you to read this guide before starting the installation, so you may understand the installation requirements.

Supplies: In addition to the installation kit, you will need a Phillips-head screwdriver, flat-head screwdriver, awl, hammer, and pliers.

 **WARNING!** Always make sure that conditions are safe before walking on the ice.

 **WARNING!** Do NOT use power tools to secure the hardware. We encourage you to read the installation instructions so you may understand the installation requirements.

 **NOTE:** Product supplies and features are subject to change without notice. This guide was written in English and may have been translated to another language. Humminbird is not responsible for incorrect translations or discrepancies between documents.

INSTALLATION PREPARATION


Portable Conversion Kit

You must first un-install the control head from its fixed mounting position before performing the portable installation instructions described in this guide.


1. Disconnect the cables from the control head installed on your boat.
2. Loosen the gimbal knobs and slide the control head out of the gimbal bracket.

Charging the Battery

You should fully charge your battery before using it for the first time to ensure peak performance.

 **NOTE:** Portable Conversion Kits do not include a battery or battery charger.

1. Charge the battery according to the battery manufacturer's specifications.
2. Slide the battery terminal adapter over each spade terminal.

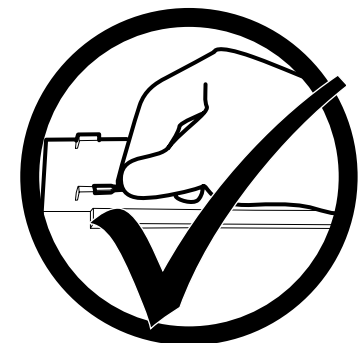
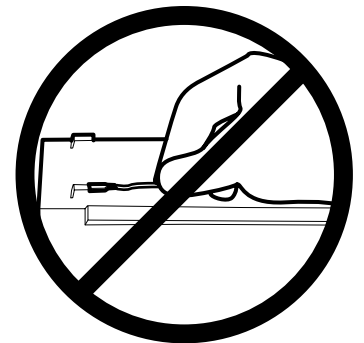
 **CAUTION!** Do not pull on the battery or charger cables when you are trying to connect them or disconnect them from the battery terminals. Push or pull gently on the spade terminals instead. If the connector feels tight, use a slight wiggling motion to slide the spade connector into place on the terminal.

Testing the Transducer

Prior to installation, test the transducer to make sure that no damage occurred during shipping.

1. Connect the power cable to the control head and the battery terminal adapter [see **Connecting Power**].
2. Connect the transducer cable to the control head [see **Installing the Transducer**].
3. Lower the transducer into the ice hole.
4. **Power On:** Press the POWER key. While the Title screen is shown on the display, press the MENU key. Select Normal mode, and press the RIGHT cursor key to start Normal mode.

Handling the Spade Terminals



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5. **Main Menu:** Press the MENU key twice. Select the Sonar tab.
6. Select Ice Fishing Mode, and press the RIGHT cursor key to turn Ice Fishing mode On.
If the transducer is working properly, you will see the bottom on the sonar view.
7. **Power Off:** Press and hold the POWER key.
8. **Disconnect Cables:** Disconnect the transducer and power cable from the control head. Disconnect the power cable terminals from the battery until the installation is completed and you're ready to fish.

ICE HELIX PORTABLE SHUTTLE ASSEMBLY

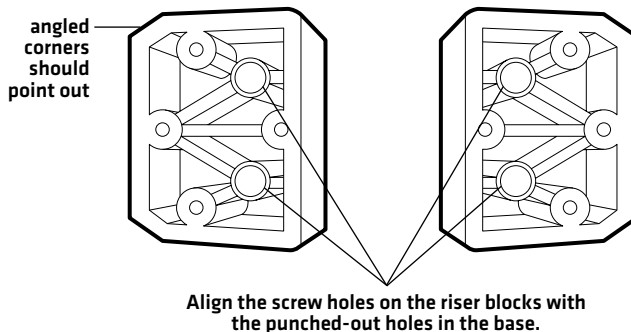
Perform the portable shuttle assembly tasks in order, referring to the step-by-step procedures in each section.

1 | Assembling the Portable Base

In this procedure, you will assemble the portable shuttle.

1. Turn over the base, and locate the **4 holes labeled D**.
2. Use a screwdriver (or an awl) with a hammer to punch out the selected mounting holes.
3. Turn the base right side up.
4. Install the riser blocks on the portable base using the following guidelines:
 - Line up the holes on the riser blocks with the holes you punched out of the base in step 2.
 - Align the riser blocks so that the wider end of each block is on the base. The narrow end of each riser block should be facing up. The angled corners on the riser blocks should be facing out.
 - See the illustrations *Aligning the Riser Blocks* and *Installing the Riser Blocks*.

Aligning the Riser Blocks

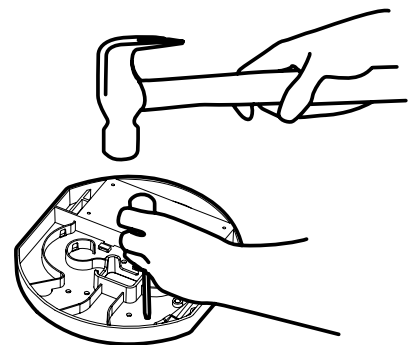


5. Secure the riser blocks to the base with the four included #8-15 x 3/4" screws.
See the illustration *Installing the Riser Blocks*. Hand-tighten only!

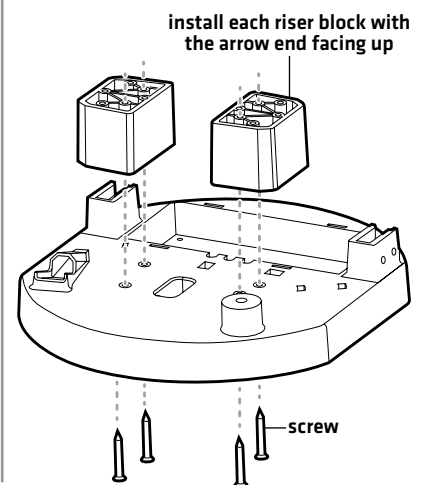
CAUTION! Do not use a high speed driver on this combination of fasteners. **Hand-tighten only!**

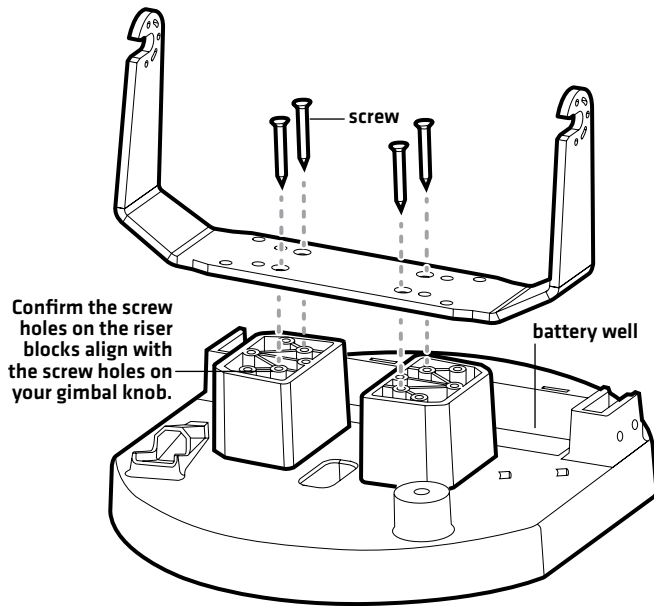
6. Line up the mounting holes on the control head gimbal bracket with the screw holes on the top of the riser blocks. There may be additional, unused mounting holes on the gimbal bracket. Make sure the opening in the gimbal bracket arms faces away from the battery well on the base.

Punching Holes




Installing the Riser Blocks



Installing the Gimbal Bracket on the Riser Blocks



7. Using a Phillips-head screwdriver, secure the gimbal bracket with the four included #8 x 1 1/4" screws. **Hand-tighten only!**
8. Install the handle onto the base, so that the curved part of the handle faces towards the back of the base, towards the battery well.

 **NOTE:** The handle is keyed so that it only fits onto the base in one way.

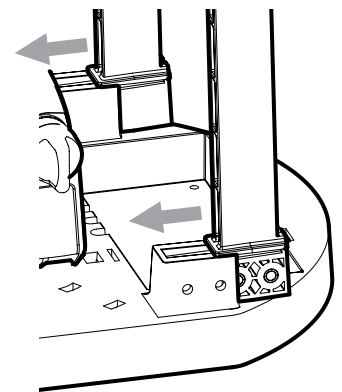
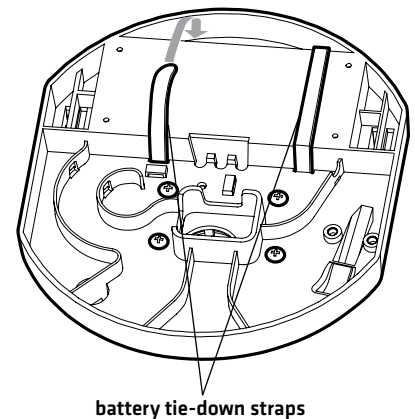
9. Install the four included #8-32 x 7/16" screws, two on each side of the handle, to attach the handle to the base. **Hand-tighten only!**

2 | Routing the Cables in the Base

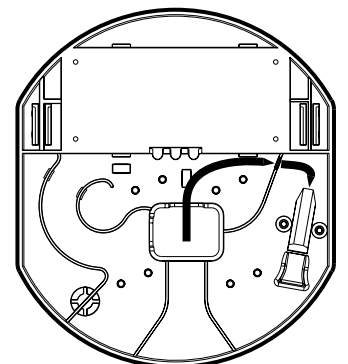
In this procedure, you will route the power and transducer jumper cables on the underside of the base and attach the tie-down straps that will be used to secure the battery to the base in a later procedure.

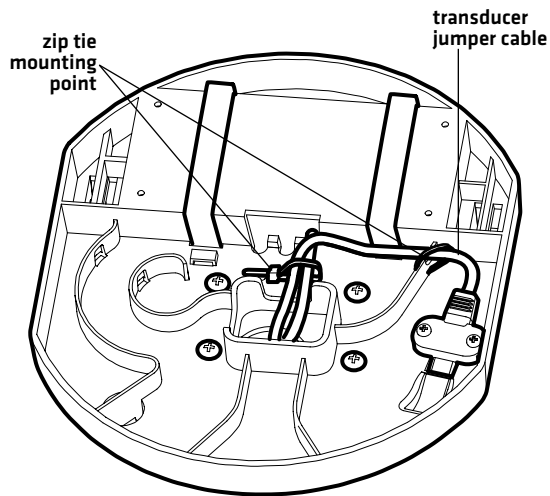
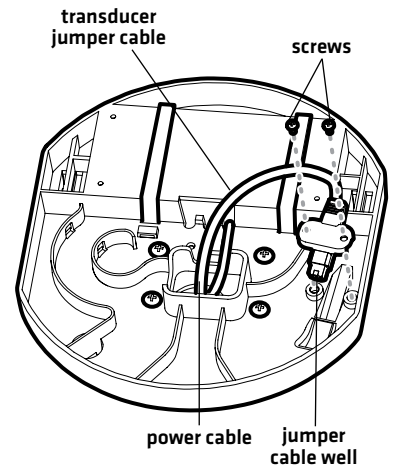
 **NOTE:** As you route the cables, make sure you leave enough cable length on the surface of the portable base to reconnect the cables to the control head later in the installation.

1. Turn the base upside down.
2. Thread the two included battery tie-down straps from the bottom of the base up through each side of the battery well, using the strap holes in the base. Make sure the soft side of the strap faces down.
3. Route the power cable and transducer jumper cable connector ends from under the base and up through the hole in the center of the base.
4. Insert the spade connector end of the power cable into the center slot of the battery well. [If you need to adjust the cable route, you can select a different slot.]
5. Route the transducer jumper cable to the jumper cable well as shown in the illustrations *Installing the Cables onto the Base* and *Transducer Jumper Cable Path*.
6. Fit the transducer jumper cable connector down into the jumper cable well and snap it into place. Insert the two #6-32 x 1/4" screws included to secure the transducer jumper connector and tighten them using a Phillips-head screwdriver. **Hand-tighten only!**
7. Adjust the cables as needed. Secure all cables to the base using the included zip ties at the points shown in the illustration *Tying Down the Cables*.


Sliding in the Handle

Attaching the Battery Tie-Down Straps


battery tie-down straps

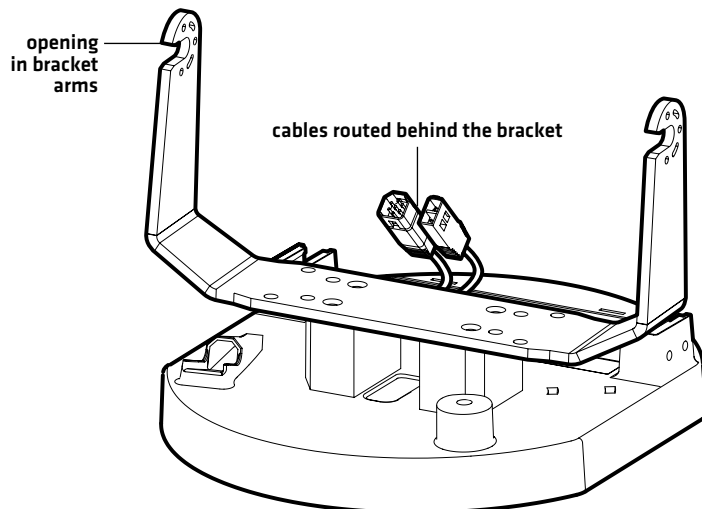
Transducer Jumper Cable Path


Tying Down the Cables

Installing the Cables onto the Base


- Turn the base right side up and pull up gently on the battery tie-down straps to remove the slack.

 **NOTE:** Before you install the battery into the portable case, finish the assembly procedures and charge the battery according to the manufacturer's recommendations.

- Route the power cable and transducer jumper cable under the gimbal bracket. See the illustration *Portable Base Assembly*.

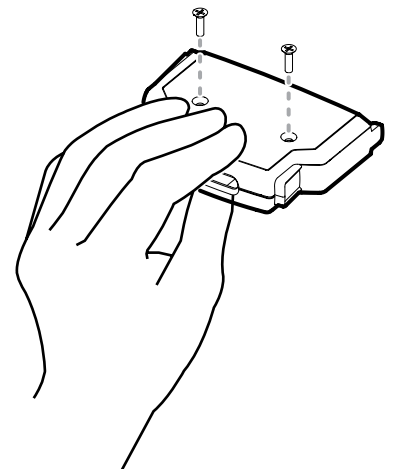
Portable Base Assembly

3 | Assembling the Cable Tray

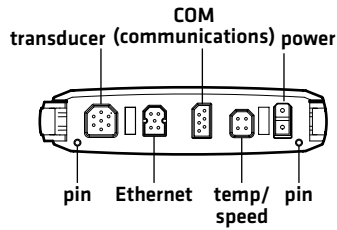
The cable tray is an important part of the control head installation. It secures the cables and protects them from potential damage.

- Use a Phillips-head screwdriver to remove the screws from the bottom of the cable tray.
- Hold the cable tray together and turn it over, so the Humminbird logo is facing up. Lift the cover and set it aside. See the illustration *Locating the Cable Tray Slots*.
- Insert each cable connector into the correct slots in the tray.

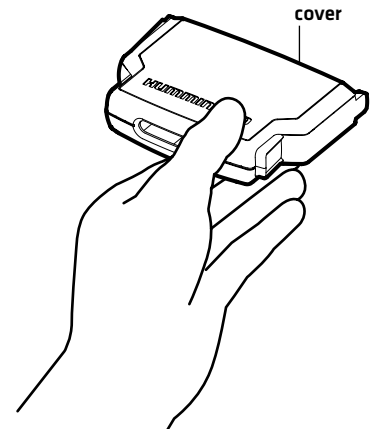
Each slot is shaped specifically for each connector, and insertion should be easy. Route the cables using the grooves in the tray.

 **CAUTION!** It is important to place the connectors into the correct slots and right side up. See the illustration *Locating the Cable Tray Slots* for details.

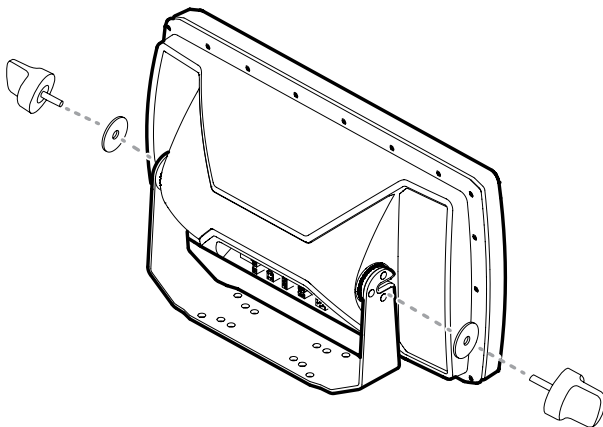
Removing the Screws


Locating the Cable Tray Slots


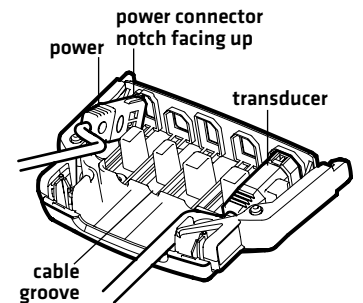
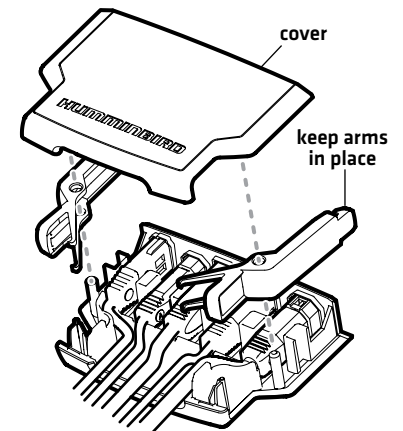
- Place the cover onto the tray. Hold the tray together and turn it over.
If the cable tray arms fall out, see the illustration *Assembling the Cable Tray* to put them back in place.
- Install the screws in the holes on the bottom of the tray. **Hand-tighten only**. See the illustration *Removing the Screws* to replace the screws.
- Turn over the cable tray so the Humminbird logo is facing up. Confirm the cables hang straight, and untwist them if necessary.

Turning over the Cable Tray

4 | Mounting the Control Head

- Place 1 washer onto each gimbal knob.
- Install the gimbal knobs [with washers] into each side of the control head. Tighten the knobs just enough so you can slide the control head into the gimbal bracket arms.
- Slide the control head [with gimbal knobs installed] into the gimbal bracket arms.

Assembling the Control Head and Gimbal Bracket



- Line up the slots on the cable tray with the matching ports on the back of the control head. Line up the cable tray pins with the holes on the control head [see the illustration *Locating the Cable Tray Slots*].
With the Humminbird logo facing up, plug the cable tray into the back of the control head. The cable tray clasps should click into place.
- Pull carefully on the cable tray to confirm the installation is secure. Make sure both clasps clicked into place.
- Adjust the control head viewing angle, and tighten the gimbal knobs so the control head is secured on the gimbal bracket. **Hand-tighten only!**

Inserting the Cable Connectors into the Cable Tray

Assembling the Cable Tray

5 | Installing the Battery


Before proceeding with this procedure, confirm the battery is fully charged [see *Charging the Battery*].

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 **NOTE:** Portable Conversion Kits do not include a battery or battery charger.

1. Move the tie-down straps out of the way so that the battery well is fully accessible.


 **NOTE:** For ease of access to the battery well, move the tiedown straps to the side and secure them around the handle.

2. Center the foam pad on the battery well.
3. Place the battery on the foam pad and push the battery into the battery well. Make sure the power cable is fitted snugly into the slot in the well so that the battery does not rest on it, and that the foam pad fits evenly around the battery well edges.
4. Pull the two battery tie-down straps over the top of the battery and connect both ends of each strap over the top. Make sure that the straps are pulled tight around the battery and that the battery is seated securely in the battery well.


 **NOTE:** Do NOT connect the power cable to the battery at this time. You should wait until just before fishing to connect the power cable to the battery.

6 | Installing the Transducer

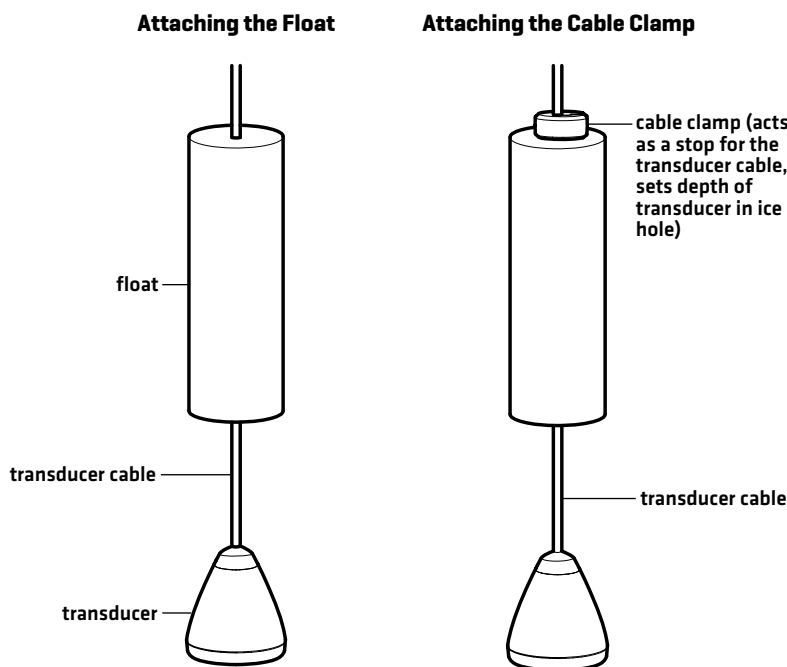
Use the instructions in this section to install the transducer.

 **WARNING!** Always make sure that conditions are safe before walking on the ice.

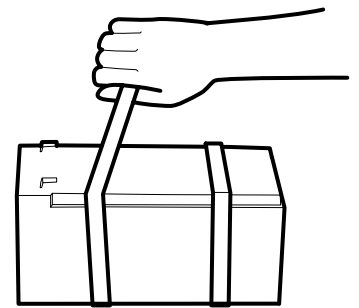
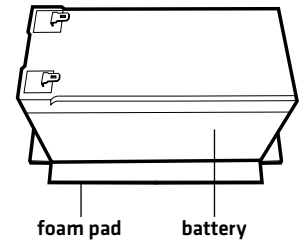
1. Attach your transducer float to the transducer cable by sliding the cable through the slit in the float [see the illustration *Attaching the Float*].
2. Position the float so that the transducer will be submerged in the water, just below the ice.

 **NOTE:** The transducer must be submerged in water for reliable transducer detection. The bottom of the transducer should be even with the bottom of the ice or hang slightly below the bottom of the ice.

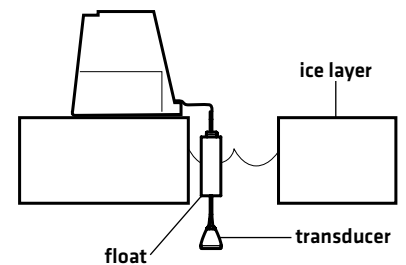
3. Once you know where you want to position your float, place the cable clamp onto the transducer cable, above the float. Make sure that the cable is taut, so that the transducer hangs straight down [see the illustration *Attaching the Cable Clamp*].



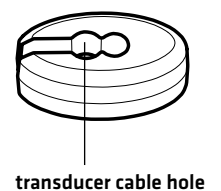
Installing the Battery



Positioning the Float



Cable Clamp



4. Plug the transducer cable into the jumper port in the portable shuttle to the left of the control head.

7 | Connecting Power

1. Connect the spade clip on the red wire of the power cable to the red [+] terminal on the battery, and the spade clip on the black wire of the power cable to the black [-] terminal on the battery. Make sure the spade clips are snugly attached to the terminals.

8 | Setting up Ice Fishing on the Control Head

Use the following instructions to get started using the control head for ice fishing.

See your control head operations manual for operations instructions.

1. **Power On:** Press the POWER key.
2. While the Title screen is shown on the display, press the MENU key. Select Normal mode, and press the RIGHT Cursor key to start Normal mode.
3. **Main Menu:** Press the MENU key twice. Select the Sonar tab.
4. Select Ice Fishing Mode, and press the RIGHT cursor key to turn Ice Fishing mode On.
5. If the transducer is working properly, you will see the bottom on the sonar view.

Confirm the Connected Transducer: Depending on your control head model, you may have to select the connected transducer in the menu system. To confirm the transducer, go to Main Menu > Sonar > Connected Transducer.

STOWING THE ICE TRANSDUCER

When you are done fishing, it is important to store the transducer and disconnect power.

1. Remove the transducer from the water, and wipe it dry.
2. Tuck the float under the control head.
3. **Disconnect Power:** Unplug the power cable when not in use.



CAUTION! Although the transducer cable is designed to be flexible in cold temperatures, you must store your cable correctly to avoid stressing it. Make sure it is coiled smoothly, with no kinks.

SPECIFICATIONS

Power Requirement..... 12 Volt sealed lead acid battery up to 16 hours continuous operation