


## ICE HELIX® SERIES Installation Guide


532363-3\_A

Follow the instructions in this installation guide to install the ICE HELIX® control head in the portable case and install the ICE transducer.

There may be some minor differences between the hardware described in this manual and the actual hardware included, depending on the configuration you purchased. We encourage you to read this guide completely so that you may understand the installation requirements.

**SUPPLIES:** In addition to the installation kit, you will need a Phillips-head screwdriver and flat-head screwdriver.

 **NOTE:** The procedures and features described in this guide 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.


 **NOTE:** The illustrations in this guide may not look the same as your product, but your unit will function in the same way.


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

## INSTALLATION PREPARATION


### 1 | Charging the Battery

You should fully charge your battery before using it for the first time to ensure peak performance. You should also re-charge your battery at least once every 6 months to maintain your battery's peak performance levels. This is especially important during periods of prolonged storage. This type of battery **should not be stored in a discharged state**.


 **WARNING!** Do NOT use the Humminbird charger with other manufacturers' batteries. The Humminbird charger is only compatible with Humminbird batteries.


 **NOTE:** Some international models may not include a battery or battery charger.

1. Charge the battery, using the included battery charger, until it is fully charged as indicated by the LED on the charger. Charging usually requires 8 continuous hours, but may vary depending on your configuration.

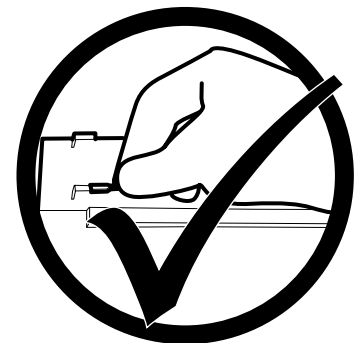
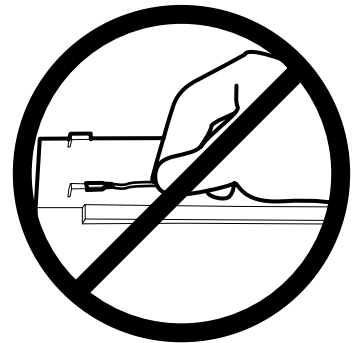
 **NOTE:** The battery charger uses a yellow LED to indicate it is charging. On some models, this light might appear closer to orange than yellow. When this happens, the battery is still charging properly and should be left to charge until the LED becomes green.

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.

 **NOTE:** The battery terminal adapter allows you to power your control head and charge it at the same time.

### Handling the Spade Terminals



## 2 | 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 the Power Cable and Installing the Battery**].
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.  
If the transducer is working properly, you will see the bottom on the sonar view.
5. **Power Off:** Press and hold the POWER key.
6. **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 SERIES CASE ASSEMBLY

Perform the ICE HELIX case assembly tasks in order, referring to the step-by-step procedures that represent the following main assembly tasks:

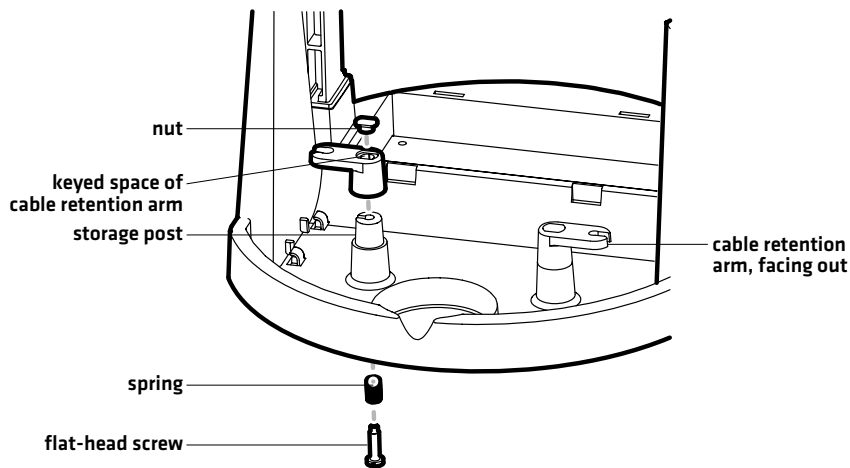
- Assembling the transducer storage posts onto the base
- Assembling the handle to the base
- Mounting the control head to the base
- Connecting the power cable and installing the battery
- Installing the transducer
- Installing the base in the portable bag
- Connecting power
- Setting up the control head
- Stowing the ICE transducer and battery charger in the portable bag

When you are finished, the control head and the transducer will be part of the ICE case assembly, and you will be ready to take your ICE HELIX out on the ice for final setup.

## 1 | Assembling the Transducer Storage Posts

In this procedure, you will install the posts to hold the transducer cable.

1. Slide one spring over each flat-head screw and set aside.
2. Insert a nut into the keyed space of each cable retention arm. Push down on the nut until it is flush with the surface of the cable retention arm.
3. Slide one cable retention arm over one storage post so that the arm faces out.
4. Hold the cable retention arm in place, and turn the base upside down.
5. Drop the assembled screw and spring straight into the back of the storage post. Using a flat-head screwdriver, push down on the screw, and tighten. See the illustration **Installing the Transducer Storage Posts. Hand-tighten only!**

**Installing the Transducer Storage Posts**


- Repeat steps 2-5 for the second cable retention arm.

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

**2 | Assembling the Handle**

In this procedure, you will install the handle and attach the tie-down straps that will be used to secure the battery to the base in a later procedure.

- 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.
- Install the four included #8-32 x 7/16" screws, two on each side, to attach the handle to the base. See the illustrations *Installing the Handle onto the Base* and *Sliding in the Handle*. **Hand-tighten only!**

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

- Turn the base upside down. 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. Make sure the soft side of the strap faces down. See the illustration *Attaching the Battery Tie-Down Straps*.
- 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 for 8 hours. See *Charging the Battery* for more information.

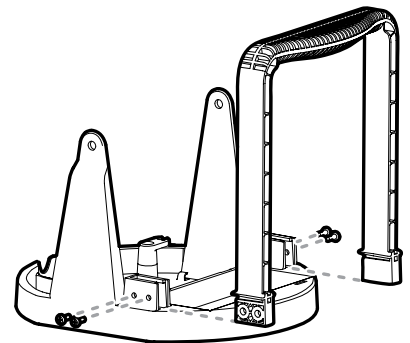
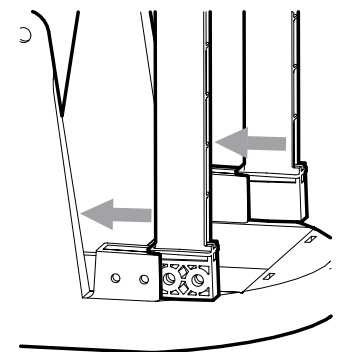
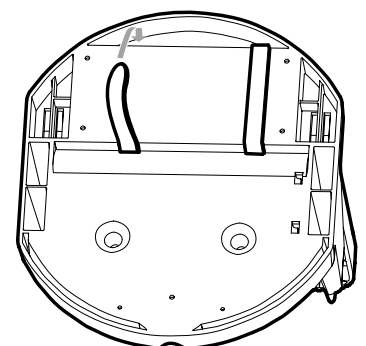
**3 | Mounting the Control Head to the Base**

In this procedure, you will mount the HELIX Series control head to the base/handle assembly.

- Insert a gimbal mount adapter onto each side of the gimbal bracket located on the base.


**🔧 NOTE:** If you have a conversion kit, select the gimbal mount adapter that corresponds with your control head.


- Slide the control head into the gimbal mount adapters.

**Installing the Handle onto the Base**

**Sliding in the Handle**

**Attaching the Battery Tie-Down Straps**


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- Thread the gimbal knob through the gimbal mount adapter into the control head housing. Tighten the knob just enough so that you can still adjust the control head angle.

 **NOTE:** If you have a conversion kit, select the gimbal knob that corresponds with your control head.


 **NOTE:** Your hardware bag may include rubber washers; however, they are not required for this installation.

- Repeat step 3 for the other side.
- Adjust the control head viewing angle, and tighten the gimbal knobs so the control head is secured on the gimbal bracket. **Hand-tighten only!**


### 4 | Connecting the Power Cable and Installing the Battery

In this procedure, you will route the power cable to your control head and install the battery into the base.


- Insert the power cable connector into the correct port on your control head. Refer to the illustration that matches the number of ports on your control head.

 **NOTE:** The control head ports are keyed to prevent reversed installation, so be careful not to force the connectors into the wrong ports.

- 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 tie-down straps to the side and secure them around the handle.


- Place the battery on the foam pad and push the battery into the battery well. Make sure that the spade terminals are on the left side of the battery well and that the foam pad fits evenly around the battery well edges. See the illustration *Installing the Battery*.

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

- 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.


- Slide the battery terminal adapter over each spade terminal.

 **NOTE:** The battery terminal adapter allows you to power your control head and charge it at the same time.


 **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.

### 5 | Installing the Transducer

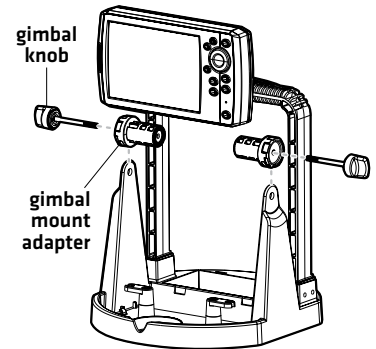
Use the instructions in this section to install the transducer.

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

- Attach your transducer float to the transducer cable by sliding the cable through the slit in the float [see the illustration *Attaching the Float*].
- 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.

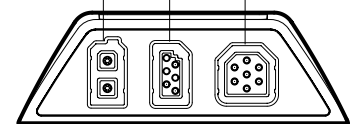
#### Mounting the Control Head



#### Control Head with 3 Ports

COM (communications)

power transducer

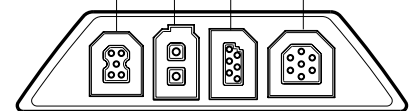


#### Control Head with 4 Ports

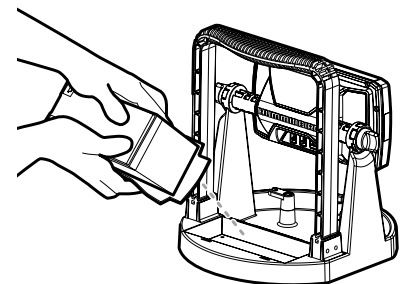
(includes Ethernet)

COM (communications)

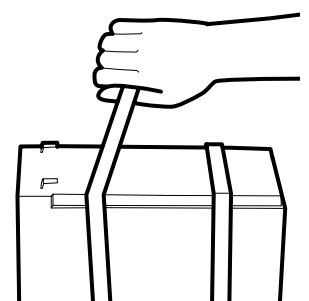
Ethernet power transducer



#### Installing the Battery



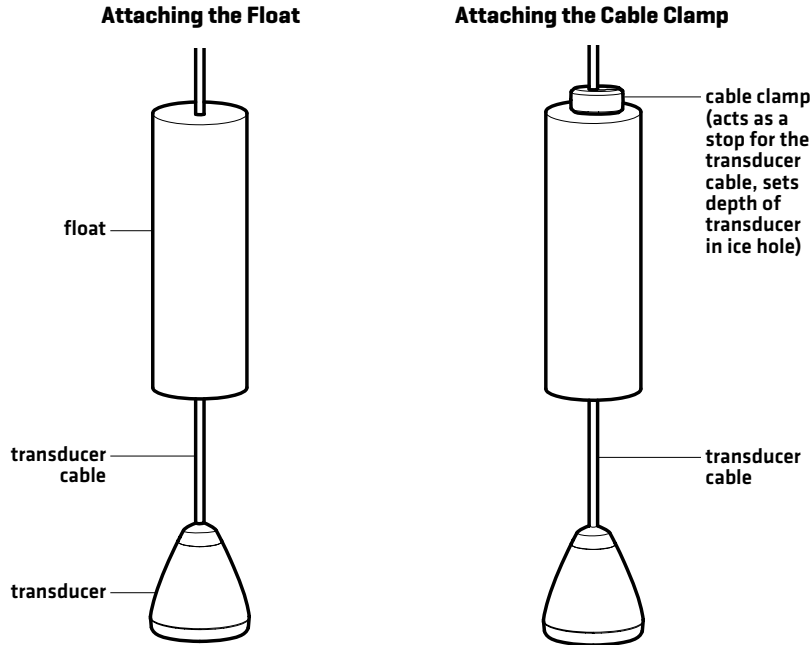
#### Tying Down the Battery



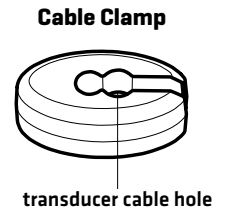
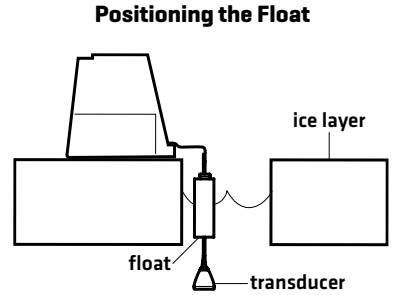
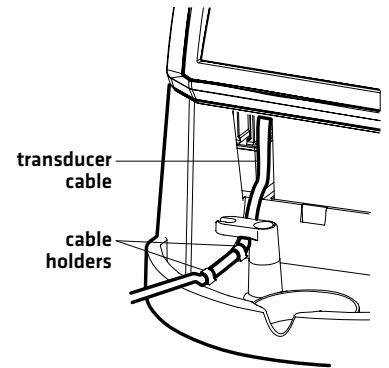
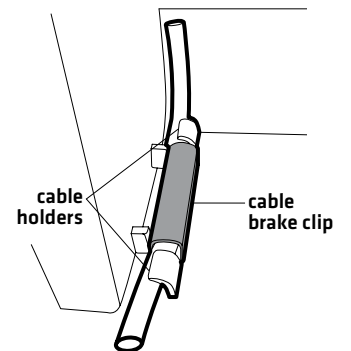
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- Once you know where you want to position your float, place the cable clamp onto the transducer cable, above the float. Make sure that the cable is taut, so that the transducer hangs straight down [see the illustration *Attaching the Cable Clamp*].



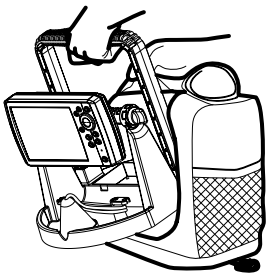
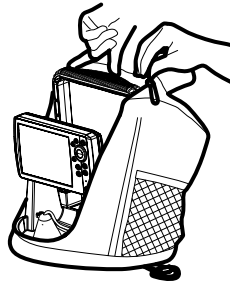
- Insert the transducer cable into the appropriate slot on the rear of the control head. The ports are keyed to prevent reversed installation, so be careful not to force the connector into the port. If the cable connector feels tight, lightly coat the outside of the connector with silicone grease. See the illustrations *Control Head with 3 Ports* and *Control Head with 4 Ports (includes Ethernet)*.
- Route the transducer cable beneath the control head and secure it to the cable holders on the base.
- Attach the cable brake clip between the two cable holders to secure the cable.


**Securing the Transducer Cable**

**Attaching the Cable Brake Clip (Enlarged View)**

**6 | Installing the Base in the Portable Bag**

In this procedure, you will install the control head and base into the portable bag.

- Unzip the front opening on the portable bag.
- Insert the base into the portable bag, so the control head faces out of the bag.

Pull the bag over one shoulder of the handle at a time. Make sure you can grab the handle through the fabric handhold inset from the outside top of the portable bag.

**Installing the Base into the Bag**

**Pulling the Bag over the Handle**

**Holding the Portable Bag**


## 7 | Connecting Power

1. Turn the portable case around so that you can access the back, and open the back zippers. 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 (see the illustration **Connecting the Spade Clips**).
2. Make sure the back battery door is zipped close, but leave the front of the bag unzipped for operation.

## 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. 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.

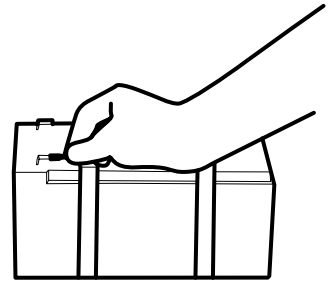
## Stowing the ICE Transducer and Battery Charger in the Portable Bag

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

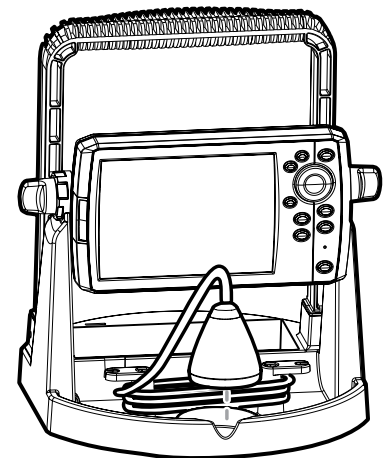
1. Remove the transducer from the water, and wipe it dry.
2. Tuck the float under the control head, and wrap the cable around the storage posts. Store the transducer in the transducer well.
3. Stow the battery charger in the portable case.
4. **Disconnect Power:** Unplug the power cable when not in use.
5. Make sure all the zippers are closed.

 **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, and that it is clear of the zippers on the portable bag.

### Connecting the Spade Clips



### Stowing the Transducer



## MAINTENANCE

Your Humminbird ICE fishfinder is designed to provide years of trouble-free operation with virtually no maintenance. Follow the simple procedures below to ensure that your Humminbird ICE continues to deliver top performance.

### Control Head Maintenance


It is important to consider the following precautions when using your control head.

 **WARNING! Do not use a chemical glass cleaner on the screen.** Chemicals in the solution may cause cracking in the lens of the unit.

- Chemicals, such as those found in bug spray and sunscreen, may cause permanent damage to the control head screen. Such damage is not covered by the warranty.
- Never leave your Humminbird ICE unit in a closed car or trunk — the high temperatures generated in hot weather can damage the electronics.

Use the following information to keep the control head and screen clean.

- **Screen:** When cleaning the LCD protective screen, use a chamois and nonabrasive, mild cleaner. Be careful to avoid scratching the lens.

 **NOTE: Do not wipe the screen while dirt or grease is on the screen.**

- **Control Head:** If the unit comes into contact with salt spray, wipe the affected surfaces with a cloth dampened in fresh water.

### Transducer Maintenance

If your transducer remains in the water for long periods of time, slush, algae and other marine growth can reduce the effectiveness of the transducer. Periodically clean the face of the transducer with a mild, marine-safe and plastic-safe soap or solution.

If your transducer remains out of the water for a long period of time, it may take some time to wet the transducer after it is returned to the water. Small air bubbles can cling to the surface of the transducer and interfere with proper operation. These bubbles will dissipate with time, or you may wipe the face of the transducer with your fingers after the transducer is in the water.

### Portable Case Maintenance

- If the portable case comes into contact with salt spray, wipe the affected surfaces with a lint-free cloth, then apply a commercially available anti-corrosive treatment to all exposed electrical contacts.
- If the portable case becomes dirty, clean the case with mild soap, water, and a soft rag or brush and then hang it up to dry.

### How to Remove Water from the Portable Case

Open the front zipper and pull the case down to allow water to exit the case. If needed, remove the case from the plastic base and air-dry it. Follow recommended maintenance procedures for salt spray exposure, if needed.

## SPECIFICATIONS

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