

LOWRANCE®

SIMRAD®

Recon™

Installation manual

English



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Warranty

This product's warranty is supplied as a separate document.

Safety, disclaimer and compliance

This product's safety, disclaimer and compliance statements are supplied as a separate document.

More information

Document version: 001

For the latest version of this document in supported languages, and other related documentation, visit: www.lowrance.com/downloads/recon or www.simrad-yachting.com/downloads/recon.

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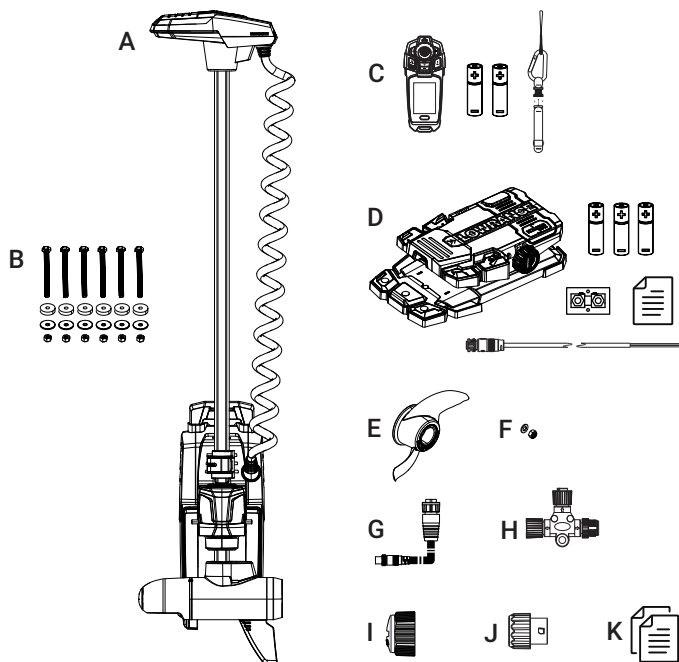
34 Service

INTRODUCTION

⚠ WARNING: This product must be installed and operated in accordance with the instructions provided. Failure to do so could result in personal injury, damage to your vessel and/or poor product performance. Specific knowledge of marine electrical systems is required for proper installation.

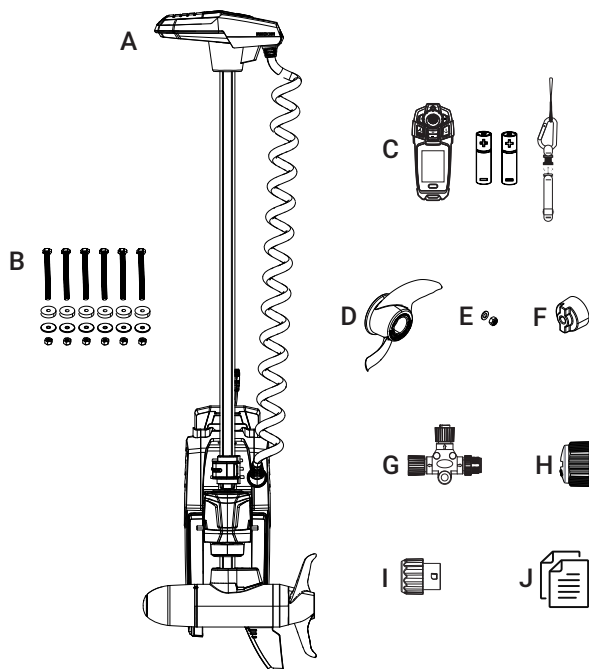
⚠ WARNING: If you intend to use your trolling motor in saltwater or brackish water, you must install the sacrificial anode over the propeller's propeller nut. Use of the product in saltwater or brackish water without an anode will void the warranty.

In the box (freshwater)



- A Recon trolling motor with Recon HDI nose cone transducer (stowed)
- B Recon trolling motor mounting hardware kit (6x 1/4"-20 x 3" stainless steel hex bolts, 6x rubber spacers, 6x washers, 6x brass nuts)
- C FreeSteer joystick remote with 2x alkaline AA batteries and lanyard
- D Advanced wireless foot pedal with 3x alkaline AA batteries, 1x 12 V power cable, 1x 3 A fuse and documentation
- E Recon 2-blade weedless propeller
- F Propeller hardware kit (1x brass M10 Nylock nut, 1x washer)
- G Sonar cable adapter, mini 9-pin to regular 9-pin
- H NMEA 2000® T-connector
- I Dust cap for NMEA® cable connector
- J Dust cap for sonar cable connector
- K Documentation pack (trolling motor and remote)

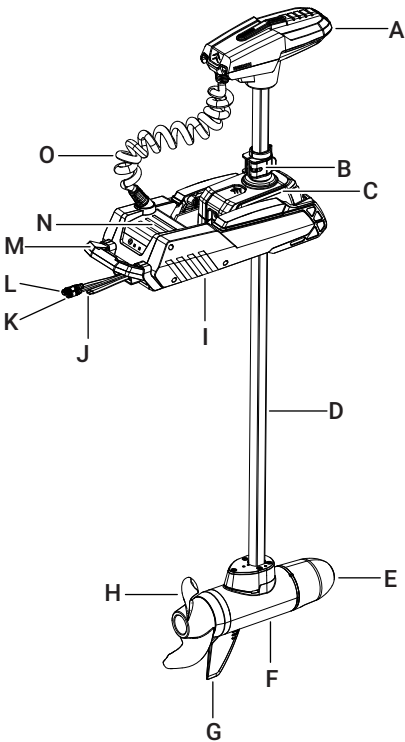
In the box (saltwater)



- A Recon trolling motor with empty nose cone (stowed)
- B Recon trolling motor mounting hardware kit (6x 1/4"-20 x 3" stainless steel hex bolts, 6x rubber spacers, 6x washers, 6x brass nuts)
- C FreeSteer joystick remote with 2x alkaline AA batteries and lanyard
- D Recon 2-blade weedless propeller
- E Propeller hardware kit (1x brass M10 Nylock nut, 1x washer)
- F Propeller shaft anode
- G NMEA 2000® T-connector
- H Dust cap for the NMEA® cable connector
- I Dust cap for the sonar cable connector
- J Documentation pack

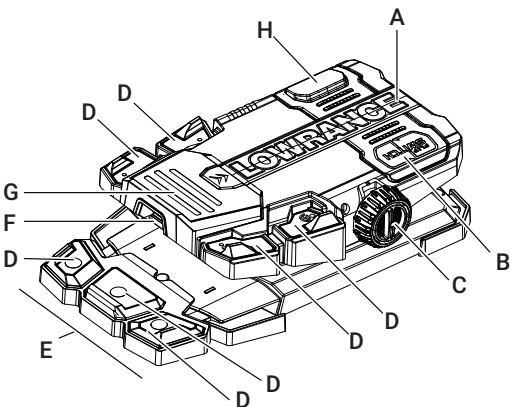
Components

Trolling motor (deployed)



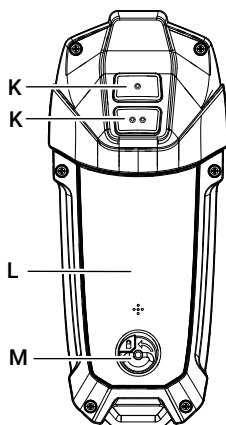
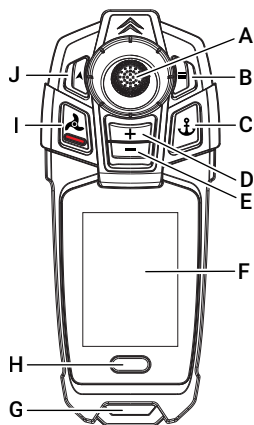
- A Head
- B Cam lock depth collar
- C Steering transmission
- D Column
- E Nose cone
- F Lower unit
- G Skeg
- H Propeller
- I Mount
- J Power cable
- K Sonar cable
- L NMEA 2000® cable
- M Stow/deploy release lever
- N Mount control board
- O Coil cable

Foot pedal



- A Toe end
- B Battery compartment
- C Speed adjustment knob
- D Mode/action keys
- E Removable lower key module
- F Power ON/OFF
- G Heel end
- H Momentary switch

Remote

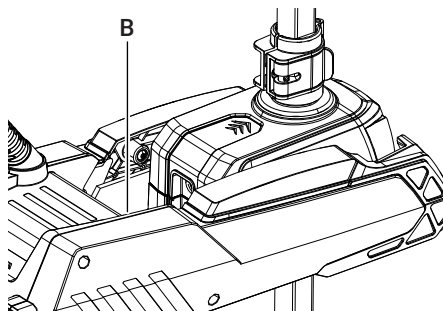
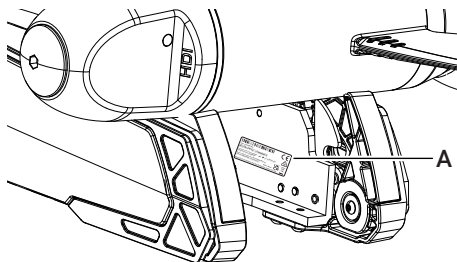


- A Joystick
- B Power ON/OFF / menu
- C Anchor lock ON/OFF
- D Propeller speed increase
- E Propeller speed decrease
- F LCD display
- G Lanyard attachment
- H In-mode soft key
- I Propeller ON/OFF / Cancel all
- J Autopilot ON/OFF
- K Programmable keys
- L Battery cover
- M Battery cover lock

Record serial number

It is important to record the serial number and model number for future reference.

Your trolling motor comes with two labels that display its serial number; one on the inside of the mount, which is easily accessed when the trolling motor is stowed (A), and the other in the recess behind the steering transmission, which is easily accessed when the trolling motor is deployed (B).



Register product

Scan the QR code® below for your brand of Recon trolling motor and start registering your trolling motor via your Lowrance or Simrad® mobile app.



Lowrance



Simrad®

If you don't already have the Lowrance or Simrad® mobile app, the QR code directs you to your device's app store, where you can install the app in one click, create an account and start registering your trolling motor.

Later, when your trolling motor is installed, powered on and in pairing mode (refer to the Recon operator manual for instructions), your mobile app will automatically connect to your trolling motor over Bluetooth® and complete the registration process by storing your trolling motor's serial number.

Using the Lowrance® or Simrad® mobile app allows you to access trolling motor settings, see your trolling motor status, and view diagnostic error codes and descriptions.

→ **Note:** Your trolling motor can only be registered to one mobile app account.

Alternatively, you can register your trolling motor by completing the form at www.lowrance.com/mfdreg or www.simrad-yachting.com/mfdreg.

INSTALLATION

Tools needed

- Philips screwdriver #2
 - Power drill
 - 8 mm (5/16") drill bit
 - 17 mm (11/16") deep socket
 - 11 mm (7/16") deep socket
 - 11 mm (7/16") wrench
 - 9.5 mm (3/8") ratchet
- **Note:** Mounting hardware is not included for the Advanced wireless foot pedal. If your trolling motor comes with a foot pedal and you intend to mount it to your boat deck, you need to obtain mounting hardware suitable for your boat and installation. You need screws with a diameter of 3.17–4.76 mm (1/8"–3/16"). If available, we recommend #10 self tapping screws.

Mounting guidelines

 **WARNING:** Do not mount any part of the trolling motor where it will interfere with the operation, launching, or retrieving of the boat.

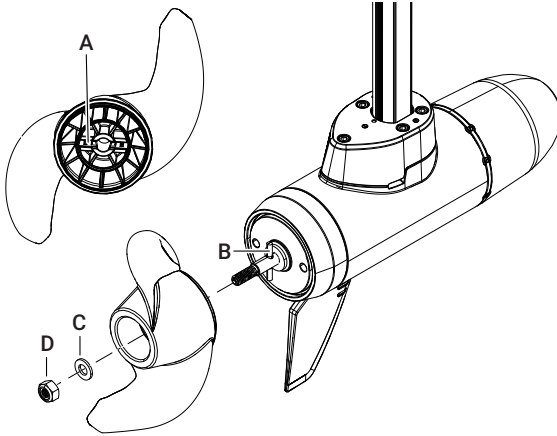
- Mount the trolling motor at the bow for proper operation of navigation and autopilot features.
- Mount the trolling motor either port side, center or starboard side.
- Make sure the area under the mounting location is clear to drill holes, and install nuts and washers. Ensure the forward mounting bolts will not penetrate the hull.
- When stowed, the head must sit inside the gunwale of the boat.
- When deployed, there must be a clearance of at least 38.1 mm (1.5 in) between the column and the gunwale of the boat.
- When deployed, we recommend a clearance of at least 102 mm (4 in) between the mount and the bow to prevent interference between the trolling motor and the bow roller when loading or unloading on a steep ramp.
- Mount the motor in a way that it does not encounter any obstructions as it is lowered into the water (deployed) or raised into the boat (stowed).

Quick release brackets

Quick release brackets are sold as accessories to enable the quick and easy removal of your Recon trolling motor from your boat. If you plan to install a quick release bracket, refer to the installation guide supplied with the bracket for mounting instructions before proceeding with the trolling motor installation.

Install propeller

- **Note:** The propeller can alternatively be installed after you have mounted the trolling motor to the boat deck.
- 1 Clean the threads of the propeller shaft of any grease and debris.
- **Note:** You don't need anti-seize compound when using a brass propeller nut.
- 2 Align the slot in the propeller (A) with the pin on the lower unit (B).



- 3 Attach the propeller to the lower unit.
- 4 Use the supplied washer (C) and brass M10 Nylock nut (D) to secure the propeller.
- 5 Use a 17 mm (11/16") deep socket to tighten the nut to torque 9 Nm (6.6 lb-ft).

⚠ WARNING: Do not use power tools to install the propeller nut and avoid overtightening. Overtightening can cause damage to the propeller or propeller pin.

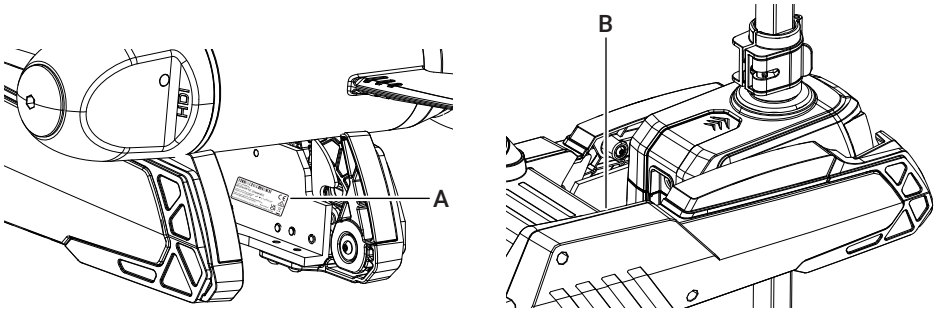
- 6 If you have a saltwater Recon trolling motor and intend to use your trolling motor in saltwater or brackish water, screw the supplied propeller shaft anode over the brass propeller nut.
- **Note:** The propeller shaft anode is also sold as a separate accessory.

⚠ WARNING: The anode helps protect the trolling motor against galvanic corrosion by sacrificing its metal to be slowly eroded instead of the trolling motor metal components. The anode requires periodic inspection, especially in saltwater which will accelerate the corrosion. To maintain this corrosion protection, replace the anode if it is more than 50% corroded. Never paint or apply a protective coating to the anode as this will reduce its effectiveness.

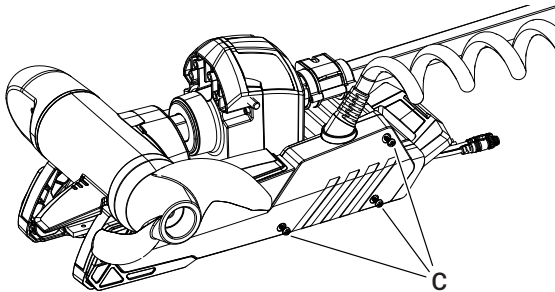
Mount trolling motor to boat

⚠ WARNING: Moving parts, such as hinges and pivot points, can cause serious injury. Keep away from moving parts when stowing, deploying, or tilting the motor.

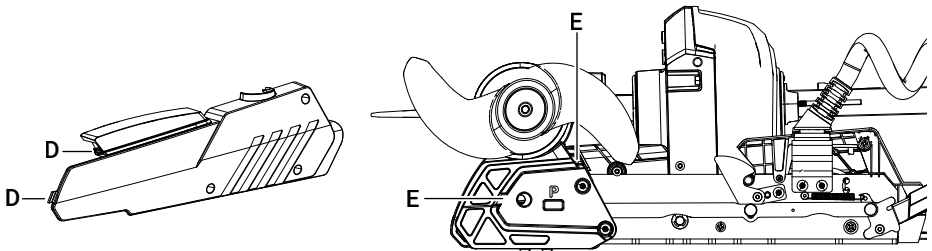
- 1 If you haven't already done so, record the serial number of your trolling motor. Serial number labels are located on the inside of the mount (A) and in the recess behind the steering transmission (B).



- 2 Loosen the side plate screws from each side of the mount (C). The screws are retained by washers.

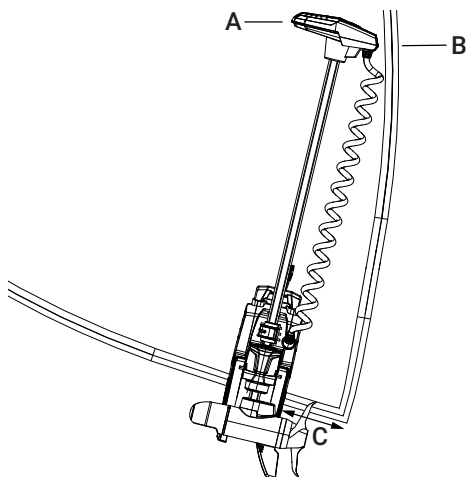


- 3 Remove the side plates from both sides of the mount, taking care not to damage the locating tabs (D) as they leave their slots (E).

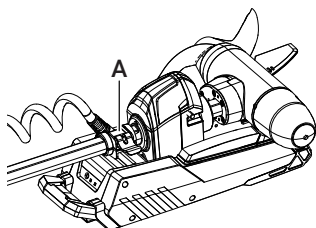


- 4 If you're replacing a trolling motor on your boat:
 - a Check if the existing mounting holes align with the new mount.
 - b Ensure the mounting location meets the mounting guidelines (refer to page 9).
 - c If new holes are not required, go to step 11 on page 15.

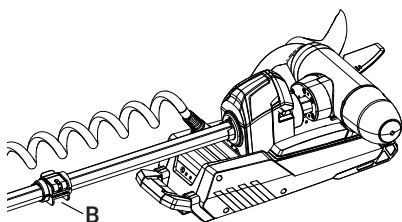
- 5 Hold the trolling motor in position while you carefully select a location on the deck of the boat that meets the mounting guidelines (refer to page 9).
 - **Note:** A mounting template is provided for you to line up on the edge of the gunwale and ensure the correct clearance between the gunwale and trolling motor column when deployed.
- 6 While the trolling motor is in the stowed position, check the head (A) doesn't protrude outside of the gunwale (B) of the boat. If it does, adjust the location of the mount.
 - **Note:** We also recommend a clearance of at least 102 mm (4 in) between the mount and the bow (C) to prevent interference between the trolling motor and the bow roller when loading or unloading on a steep ramp.



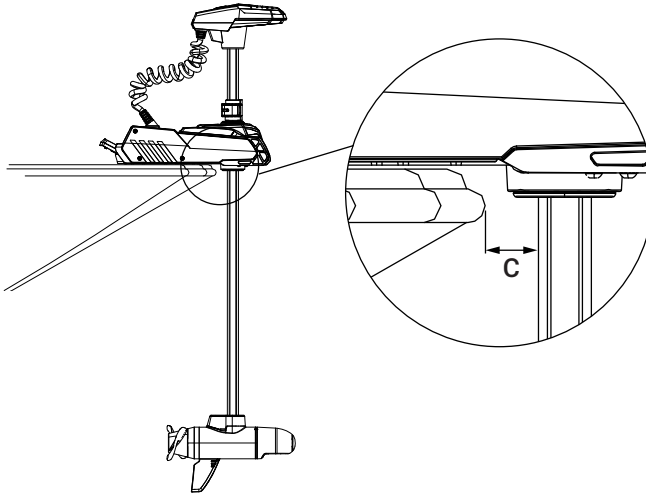
- 7 To make sure there is enough clearance between the column and the gunwale of the boat when the trolling motor is deployed:
 - a Unlock the cam lock depth collar by folding back the tab (A).



- b Slide the cam lock depth collar away from the transmission, re-locking it part way up the column (B).

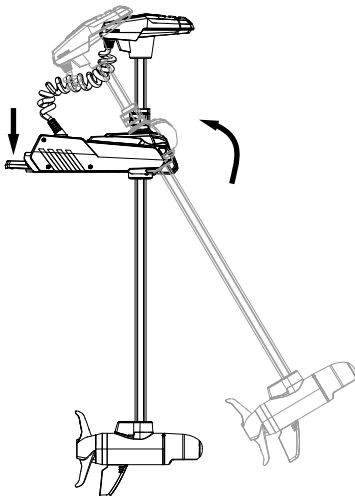


- c Hold the trolling motor under its head, and press down on the stow/deploy release lever.
- d Slide the trolling motor forward and out of its cradle. The weight of the lower unit makes the trolling motor and transmission pivot downwards. When the trolling motor is vertical, the locked cam lock depth collar on the column stops the motor from descending further.
- e Pull back on the column to ensure it's securely locked into the deployed position.
- f Check to see if there is a clearance of at least 38.1 mm (1.5 in) between the column and the gunwale of the boat (C). If there isn't, adjust the location of the mount.

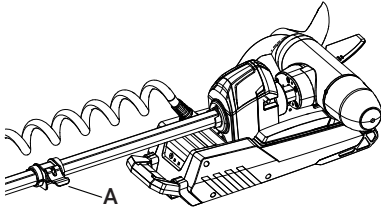


8 To re-stow the trolling motor and continue the installation:

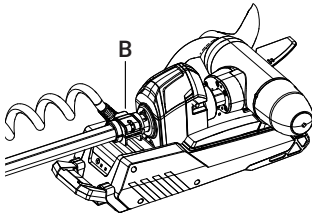
- a Hold the trolling motor under its head, and press down on the stow/deploy release lever.
- b Pull the trolling motor up and back towards the deck. The column moves up through the transmission.



- c When the lower unit is aligned with the mount cradle and the column is horizontal, release the foot lever. This engages the mount cradle that secures the lower unit.
- d Unlock the cam lock depth collar (A).



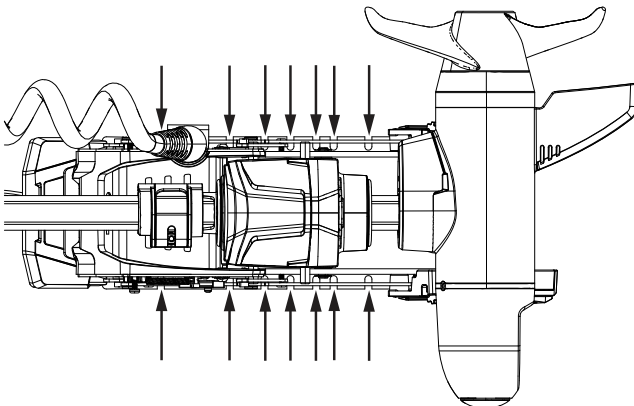
- e Guide the unlocked cam lock depth collar down the column, and lock it against the transmission (B).



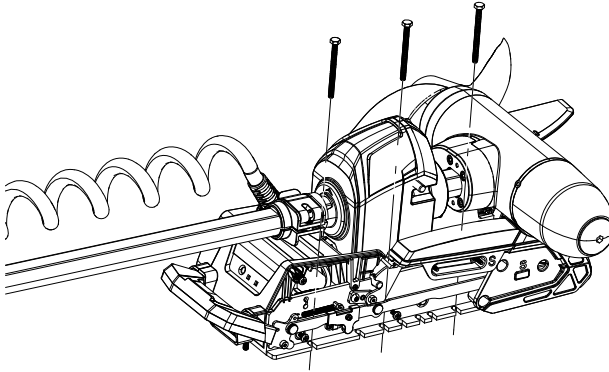
⚠ WARNING: We recommend you lock the cam lock depth collar firmly against the transmission any time the boat is underway or trailered.

- 9 Use the mounting bracket as a template and mark the location of the mounting holes.
- **Note:** There are seven mounting holes to choose from on each side of the bracket. To attach the mount for a 24 V battery system, we recommend a minimum of four bolts in total (two each side of the mount, as far apart as possible). For a 36 V system, we recommend at least six bolts (three each side, as far apart as possible).

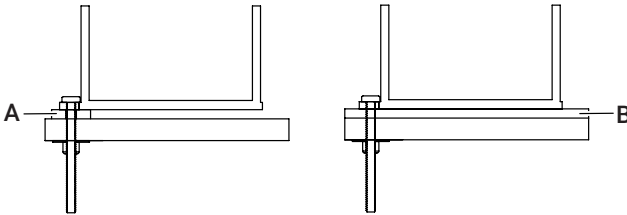
⚠ WARNING: If you can't install six bolts, we recommend you obtain and use partially threaded bolts of appropriate length, a hard material backing plate under the boat's mounting surface and large fender washers to distribute lateral forces as evenly as possible and reduce the risk of damage.



- 10 Move the trolling motor away from the marked mounting location.
- 11 Drill holes in the deck at your marked positions using a 8 mm (5/16") drill bit. Remove any debris.
- **Note:** To help prevent cracking on fiberglass decks, use a countersink bit or a larger drill bit to countersink the mounting holes.
- 12 Align the mounting bracket with the holes in the deck.
- 13 Depending on your battery system, install two or three of the supplied bolts through the drilled holes on one side of the mount.



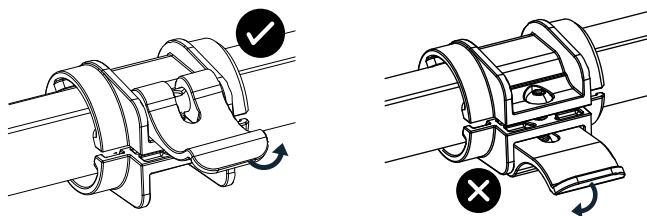
- 14 Install a supplied washer and brass nut onto each bolt, but do not tighten them.
- **Note:** On fiberglass boats with no carpet where the motor is being installed, install the rubber spacer (A) between the boat deck and the mounting bracket. If the trolling motor is being mounting to a carpeted boat deck (B), the rubber isolation spacers aren't required.



- 15 Hold the motor column and raise the unbolted side of the mounting bracket.
- 16 While holding the mount on an angle, install the remaining bolts through the mounting holes.
- **Note:** Holding the mount at an angle allows the bolts to be installed with less interference from the stow/deploy release mechanism.
- 17 Release the column so the mounting bracket rests back into its flat position.
- 18 Install a washer and brass nut onto the remaining bolts, but do not tighten them.
- 19 Align the trolling motor neatly with the mounting holes in the deck.
- 20 Using a 11 mm (7/16") wrench to hold the bolts securely, use a 11 mm (7/16") deep socket or another 11 mm (7/16") wrench to tighten the nuts on both sides of the mounting bracket from under the deck.
- 21 Install the side plates back onto the mount, aligning the locating tabs and positioning the port side around the strain relief.
- 22 Re-fasten the side plate screws.

Change opening side on collar (optional)

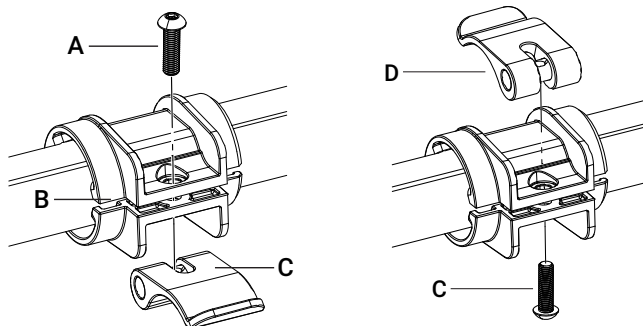
The cam lock depth collar on the trolling motor column should open and close from the top surface of the column when the motor is stowed.



If the cam lock depth collar opens from the underside of the column, follow these steps to adjust it:

→ **Note:** The trolling motor must be stowed for this procedure.

- 1 Spread a towel under the trolling motor column to prevent parts from rolling away if they fall.
- 2 Use a 5/32 (4 mm) Allen key to remove the depth collar bolt (A) securing the collar (B).
- 3 Separate the locking lever (C) from the collar. Take care not to lose the metal barrel that's free to move inside the locking lever.



- 4 Flip the locking lever 180° and reposition it (with the metal barrel inside it) on the top surface of the column (D).
 - 5 Install the bolt from the underside of the collar (E) and torque to 1.7 Nm (1.3 lb-ft).
 - 6 Before further use, test the collar can lock securely on the trolling motor column.
- **Note:** The cam lock depth collar should not slide when the lever is closed, and it should slide freely when the lever is fully opened. When sliding the cam lock depth collar, hold it by the collar, not by the open locking lever.
- 7 To adjust collar tightness, close the locking lever and tighten or loosen the depth collar bolt a quarter turn at a time, testing after each adjustment.

Interchangeable nose cone transducer

Recon freshwater trolling motors come with a Recon HDI nose cone transducer already attached to the lower unit. You can upgrade to a Recon 3-In-1 Active Imaging nose cone transducer with CHIRP sonar and high-resolution DownScan and SideScan.

Recon saltwater trolling motors are not installed with sonar in the replaceable nose cone.

Check www.lowrance.com/recon-trolling-motor or www.simrad-yachting.com/recon for the latest accessory offerings and compatibility.

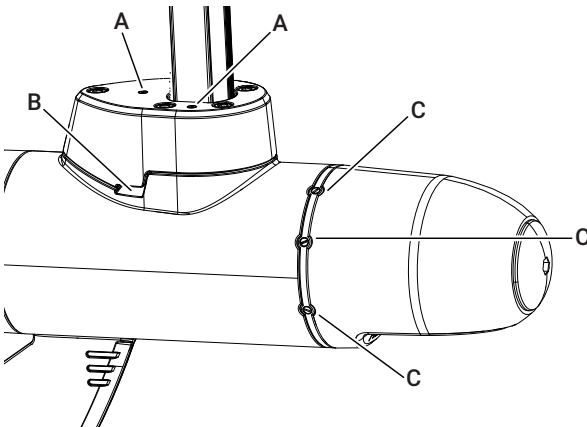
Accessory attachment points

There are several attachment points on Recon's lower unit for mounting compatible accessories.

There are three screw attachment points on the top of the lower unit tower (**A**) (only two shown) as well as a through-hole for hose clamp accessories (**B**).

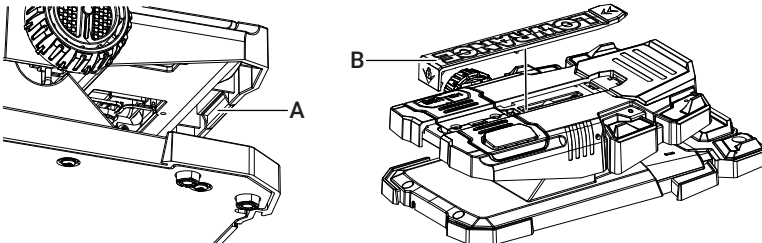
Additionally, there are three mounting locations (six attachment points) between the nose cone and lower unit, suitable for mounting live sonar transducers such as ActiveTarget or ActiveTarget 2.

This image shows three of the six transducer attachment points (**C**). There are two on each side (for Forward and Down views) and two on the top (for Scout view).

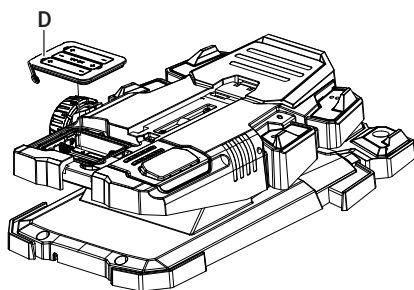
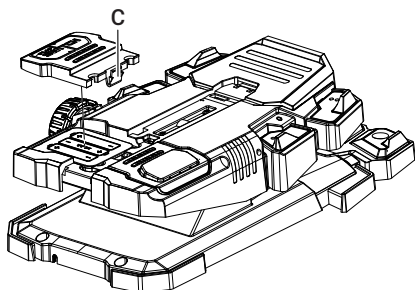


Insert batteries in foot pedal

- 1 Pull the center clip locking tab (**A**) and lift off the center clip (**B**).



- 2 Press the FlipSwitch locking tab (C) to remove the FlipSwitch cover.
 - 3 Remove the rubber battery compartment cover (D).
- **Note:** The rubber cover has a tether in one corner that loops around a small retention post. We recommend you leave the rubber cover attached via the tether when inserting the batteries.

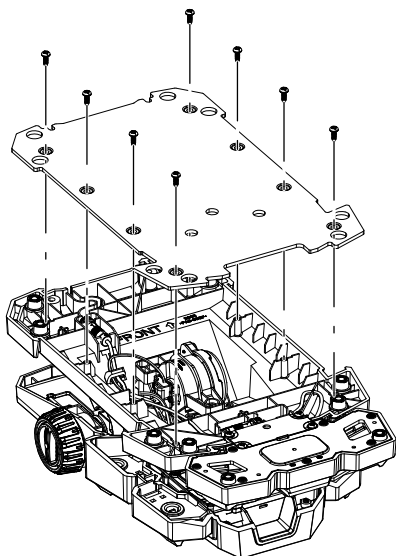


- 4 Check the polarity and install the three supplied alkaline AA batteries.
- **Note:** Alternatively, you can use lithium batteries or rechargeable NiMH batteries.
- 5 Replace the rubber battery compartment cover ensuring there is a good seal.
 - 6 Click the FlipSwitch cover and center clip back into place.
- **Note:** Remove the batteries if the foot pedal will be unused for an extended period of time.

Remove lower key module from foot pedal (optional)

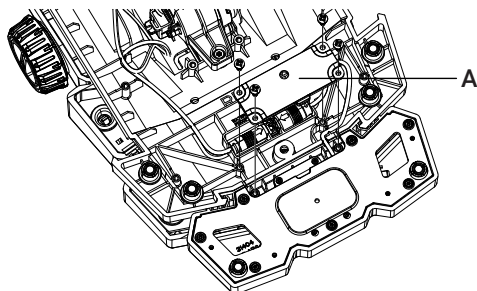
The Advanced wireless foot pedal comes with a pre-installed lower key module that gives you access to additional functions. If you don't intend to use these functions, you can remove the module before you mount the pedal to your boat deck.

- 1 Turn over the foot pedal.
- 2 Remove the eight Phillips screws that secure the base plate, and remove the base plate.



3 Remove the four screws that secure the joiner plate, and remove the joiner plate (A).

→ **Note:** The lower key module is now unsupported and attached only by the connector.

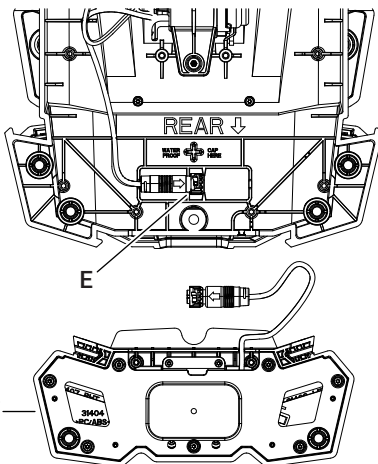
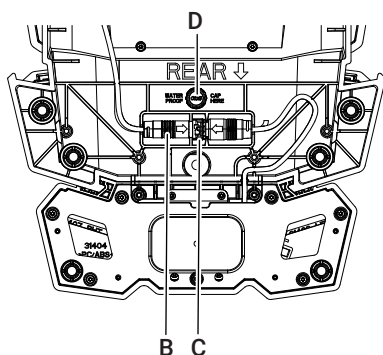


4 Disconnect the 4-pin connector (B) by unscrewing the lock on the right hand connector (C).

5 Remove the protective cap from its pedestal (D) and put it on the exposed 4-pin connector (B).

6 Press the capped pedal cable into the notch that holds it in the underside of the pedal (E).

7 Push down on the lower key module (F) to slide it free from the main body of the pedal.



8 Replace the base plate and the eight screws that hold it. Torque the screws to 0.9 Nm (0.67 lb-ft).

→ **Note:** Do not use power tools when tightening to avoid stripping of the plastic screw bosses or fastener head.

9 Store the lower key module, joiner plate, and joiner plate screws in a safe place for future use.

Connect power cable to foot pedal (optional)

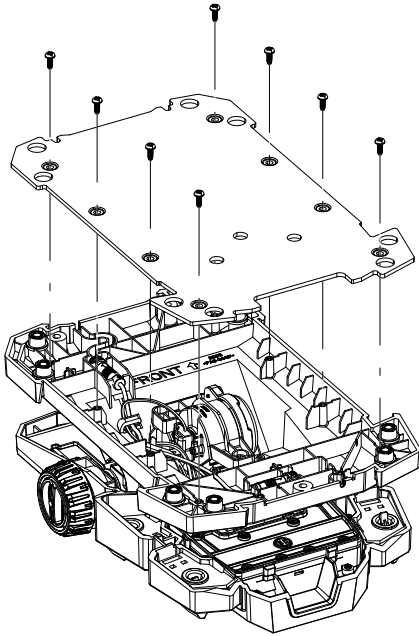
To hardwire the power instead of using batteries, follow this procedure to connect the supplied 12 V power cable to the foot pedal. This enables the pedal to turn on automatically when 12 V power is applied.

→ **Note:** This must be completed before you mount the pedal to your boat deck.

1 We recommend you remove the three AA batteries, if present, from the foot pedal battery compartment. For instructions, refer to page 17.

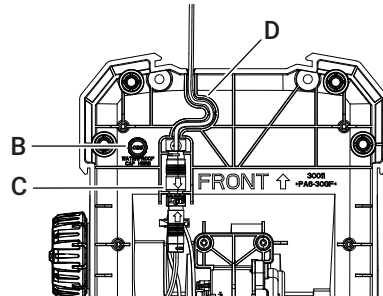
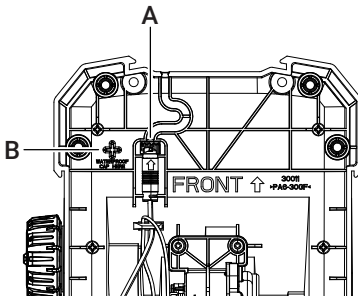
2 Turn over the foot pedal.

- 3 Remove the eight Phillips screws that secure the base plate, and remove the base plate.



- 4 Release the power connector cable (A) from the inside of the foot pedal. Remove its waterproof cap and store the cap on the pedestal (B).
- 5 Connect the supplied 12 V, 2-pin power cable to the connector in the foot pedal (C). Fit the cable into the strain relief channel in the pedal (D).

→ **Note:** After the connection is made, the connector sits lower down the foot pedal than where initially stowed.

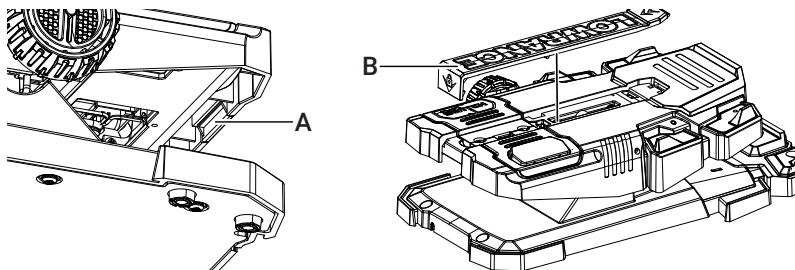


- 6 Replace the base plate and the eight screws that hold it. Torque the screws to 0.9 Nm (0.67 lb-ft).
- **Note:** Do not use power tools when tightening to avoid stripping of the plastic screw bosses or fastener head.
- 7 For instructions on how to wire the bare ends of the foot pedal power cable to a battery supply, refer to page 27.

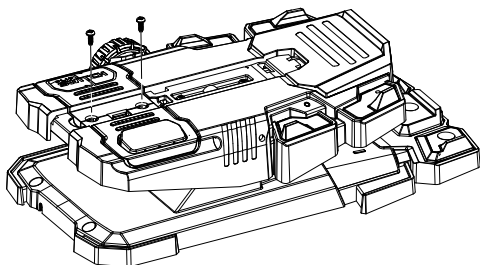
Flip momentary switch on pedal (optional)

The FlipSwitch allows you to position the momentary switch on the left or right side of the pedal.

- 1 Pull the center clip locking tab (A) and lift off the center clip (B).

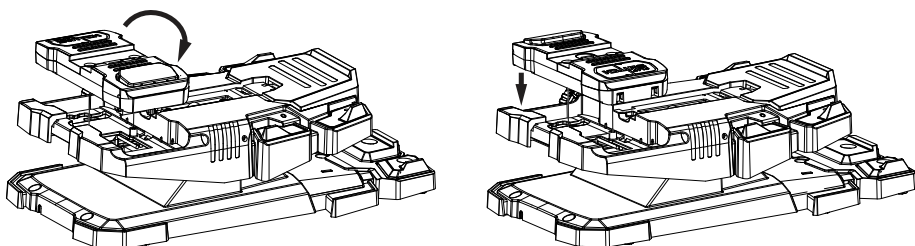


- 2 Remove the two Phillips screws that secure the FlipSwitch assembly.



- 3 Lift the assembly and turn it 180°. Re-fasten the screws and torque to 0.9 Nm (0.67 lb-ft).

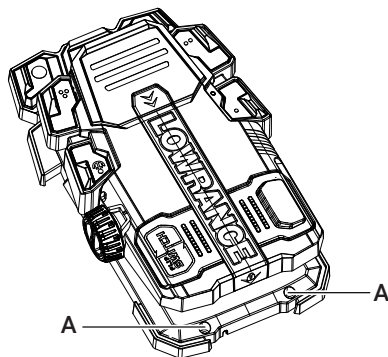
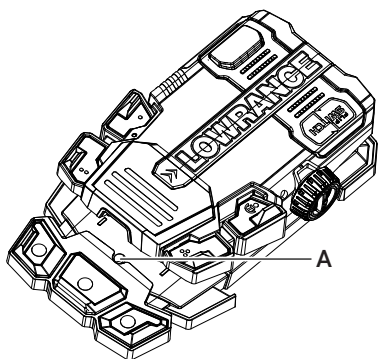
→ **Note:** As you do this, be careful not to damage the FlipSwitch cables with excessive force or by pinching.



- 4 Clip the center clip back into place.

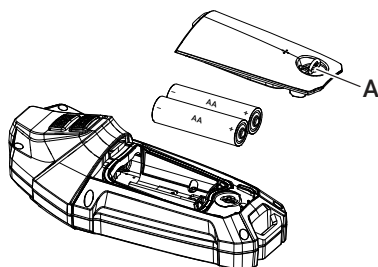
Mount foot pedal to boat (optional)

- **Note:** Mounting hardware is not supplied. Obtain mounting hardware that suits your boat and installation. Use screws with a diameter of 3.17–4.76 mm (1/8"–3/16"). If available, we recommend #10 self tapping screws.
- 1 For optimal Bluetooth® connectivity, find a location within close proximity that has a clear line of sight to the trolling motor.
- **Note:** The wireless pedal has a maximum operational range of 25 m (80 ft) from the trolling motor. This is under ideal conditions with a clear line of sight.
- 2 Use the three mounting holes on the foot pedal (A) to mount the pedal to the deck.
 - 3 Only tighten enough to slightly compress the bumper pads underneath the foot pedal.
- **Note:** For foot pedal dimensions, see page 29.



Insert batteries in remote

- 1 Flip up and turn the lock ring counter-clockwise (A) to remove the battery cover.
 - 2 Check the polarity and install the two supplied AA alkaline batteries.
- **Note:** Alternatively, you can use lithium batteries or rechargeable NiMH batteries.
- **Note:** Batteries other than lithium or alkaline could hinder the remote's ability to float.



- 3 Replace the cover ensuring there is a good seal and turn the lock ring clockwise.
- **Note:** Remove the batteries if the remote will be unused for an extended period of time.

WIRING

Wiring guidelines

 **WARNING:** Disconnect the trolling motor from its power source after each use and when charging the battery.

- Do not use the main engine battery to power the trolling motor. Use a dedicated trolling motor battery or battery bank.
- Ensure that the batteries are enclosed and secured within a battery box to prevent accidental shorting of the battery terminals.
- Route the trolling motor cable on the opposite side of the boat from other boat wiring.
- Ensure the positive and negative wires are bound to each other.
- Connect boat accessories directly to the main engine or house battery.
- Do not charge the trolling motor batteries while the trolling motor is deployed.
- Sensitive electronics, such as depth finders, must be connected to a separate battery.

Do not:

- Make sharp bends in cables
- Run cables in a way that allows water to flow down into the connectors
- Run data cables adjacent to radar, transmitter, large/high current carrying cables, high frequency signal cables, sonar cables or Ethernet cables
- Run cables so they interfere with mechanical systems
- Run cables over sharp edges or burrs

Do:

- Make drip and service loops
- Use cable-ties on all cables to keep them secure
- Solder/crimp and insulate all wiring connections if extending or shortening a cable
- Ensure the correct wire gauge (for wire recommendations, see page 24)
- Keep joints as high as possible to minimize possibility of water ingress
- Leave room adjacent to connectors to ease plugging and unplugging of cables
- Make sure cable insulation is not damaged

 **WARNING:** Before starting the installation, be sure to turn electrical power off. If power is left on or turned on during the installation, fire, electrical shock, or other serious injury may occur. Be sure that the voltage of the power supply is compatible with the unit.

 **WARNING:** The positive supply wire (red) should always be connected to (+) DC with a fuse or a circuit breaker (closest available to fuse rating).

Battery recommendations

- Your Recon trolling motor can be powered from a 24 V DC or 36 V DC battery system.
- We recommend 12 V deep cycle marine batteries or 12 V lithium batteries wired in series. The number of batteries depends on whether you set the voltage on your trolling motor to 24 V or 36 V. Do not mix battery types when wiring multiple batteries in series. If using lithium batteries, check with the manufacturer that the lithium battery is capable of being wired in series.
- As a general rule, deep cycle batteries with a higher amp-hour rating or reserve capacity rating will provide longer run times and better performance.
- Alternatively, you can use a single 24 V or 36 V lithium marine battery. Check with the manufacturer that the lithium battery is compatible for trolling motor use with up to 60 A discharge current.
- Use stainless steel nuts to secure wires to their terminals. Using stainless steel wing nuts to secure wires can cause loose connections.
- Do not power depth sounders or fish finders from the trolling motor battery. Connecting electronic equipment to the trolling motor batteries can cause electrical interference. Depth sounders or fish finders must be powered from the engine starting or electronics accessory battery (12 V).

Battery precautions

⚠ WARNING: An operating or charging battery produces gas that can ignite and explode, spraying out sulfuric acid, which can cause severe burns. Ventilate the area around the battery and wear protective equipment when handling or servicing batteries.

When charging batteries, an explosive gas mixture forms in each cell. Part of this gas escapes through holes in the vent plugs and may form an explosive atmosphere around the battery if ventilation is poor. This explosive gas may remain in or around the battery for several hours after it has been charged. Sparks or flames can ignite this gas and cause an internal explosion, which may shatter the battery.

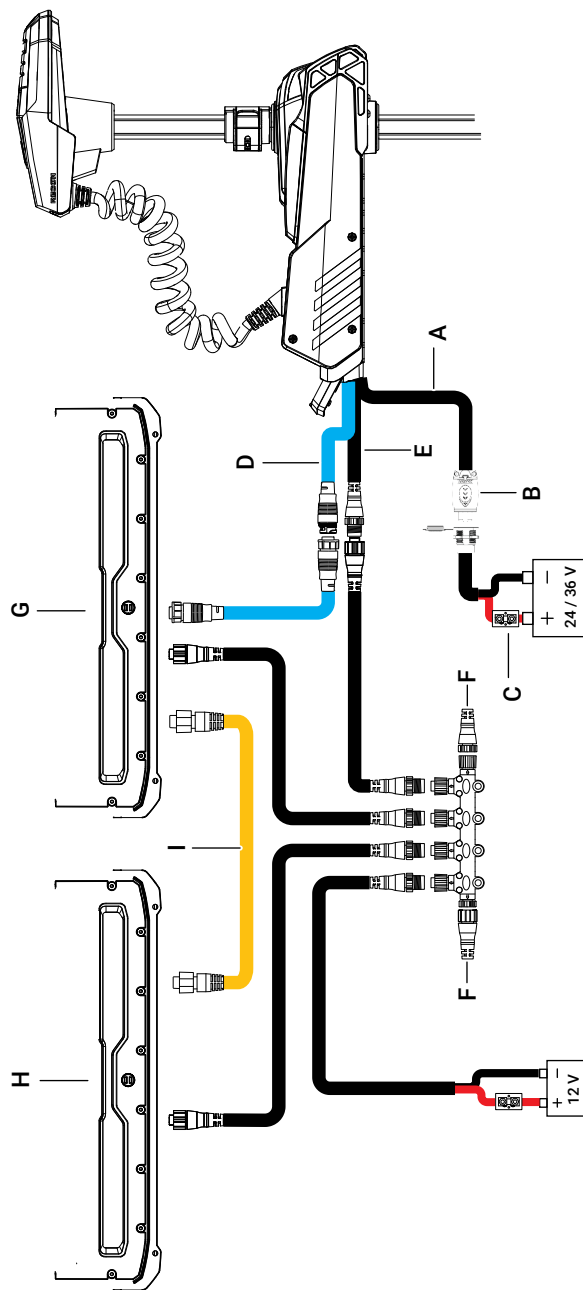
The following precautions should be observed to prevent an explosion:

- Keep flames away and do not smoke near batteries being charged or charged recently.
- Do not disconnect the power wires while the trolling motor is operating, because a spark usually occurs at the point where a live circuit is broken. Always use care to prevent reverse polarization when connecting or disconnecting cable clamps on chargers. Poor connections are a common cause of electrical arcs, which cause explosions.
- Do not reverse the polarity of battery terminal to cable connections.

Wire recommendations

- The supplied power cable is 1.2 m (4 ft) in length. The wire size is 8.5 mm² (8 AWG).
- If you need to extend the power cable up to 3 m (10 ft), use 8.5 mm² (8 AWG) wire or larger.
- If you need to extend the power cable beyond 3 m (10 ft), use 13.5 mm² (6 AWG) wire or larger.
- Install a 60 A manual reset circuit breaker in line with trolling motor positive (+) wire and within 1.8 m (6 ft) of the batteries.
- Jumper wires should be the same gauge as the power wires, and no longer than 30 cm (12 in).
- If you want to install a plug and receptacle to keep your wiring tidier or to help with the easy removal of your trolling motor, both the plug and receptacle must have a current rating of 60 A. You must choose a weather-resistant plug and receptacle to protect the electrical contacts from corrosion.

System example



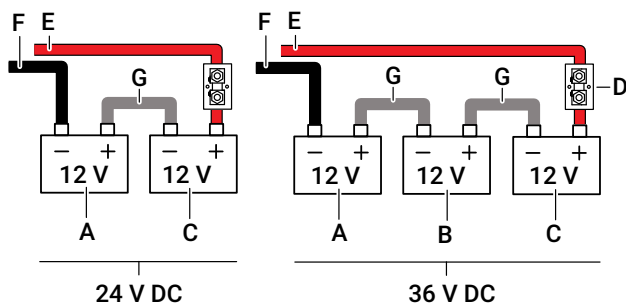
- A Trolling motor power cable
- B 60 A plug and receptacle
- C 60 A circuit breaker
- D Sonar cable
- E NMEA 2000® cable
- F NMEA 2000® termination resistor/s
- G Compatible display unit with built-in sonar
- H Compatible display unit
- I Ethernet cable

Wire trolling motor to battery supply

⚠ WARNING: Before working around electrical system components, disconnect the wires from the battery to prevent injury or damage to the electrical system due to an accidental short circuit.

⚠ WARNING: Disconnecting or connecting wires in the incorrect order can cause injury from electrical shock or can damage the electrical system. Always disconnect the negative (-) wire first and connect it last.

⚠ WARNING: Failure to operate the trolling motor within the recommended voltage specifications can cause product damage. Do not exceed the maximum supply voltage.



- 1 Install a 60 A manual reset circuit breaker (D) in line with the trolling motor's positive (+) wire (E) and within 1.8 m (6 ft) of the batteries.
 - 2 Connect the trolling motor's positive (+) wire (E) to the positive (+) terminal on the trolling motor battery (C).
 - 3 If a 24 V circuit, connect a jumper wire (G) from the negative (-) terminal on the trolling motor battery (C) to the positive (+) terminal on battery A.
 - 4 If a 36 V circuit, connect a jumper wire (G) from the negative (-) terminal on the trolling motor battery (C) to the positive (+) terminal on battery B, and a second jumper wire from the negative (-) terminal on battery B to the positive (+) terminal on battery A.
- **Note:** Jumper wires should be the same gauge as the negative (-) and positive (+) power wires, and no longer than 30 cm (12 in).
- 5 Connect the trolling motor negative (-) wire (F) to the negative (-) terminal on battery A.
- **Note:** Do not connect a common ground bond cable between 36 V and 12 V electrical circuits.
- 6 If you want to install a plug and receptacle between the trolling motor cable and battery supply, select a vertical surface in the boat where the boat structure is sturdy and refer to the installation guide that comes with the plug and receptacle.
- **Note:** Both the plug and receptacle must have a current rating of 60 A.

Wire foot pedal to battery supply (optional)

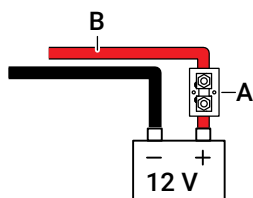
If you chose to hardwire power to your foot pedal, you can wire the pedal's power cable to a 12 V power supply. Install the included 3 A inline fuse (A) on the foot pedal's positive (+) wire (B).

The 12 V power cable is 2 m (6.56 ft) in length. The wire size is 0.75 mm² (18 AWG).

If you need to extend the power cable up to 3 m (10 ft), use 0.75 mm² (18 AWG) wire or larger.

⚠ WARNING: Before wiring the pedal power cable to a 12 V power source, the breaker for the chosen power source must be in the OFF position.

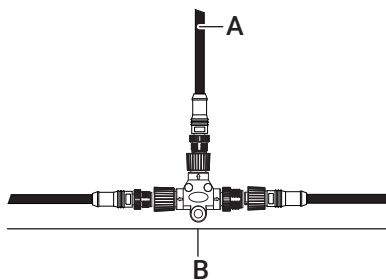
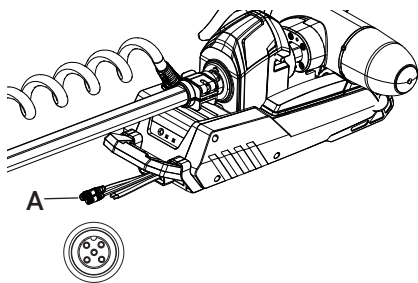
⚠ WARNING: You cannot use the same 24 V or 36 V battery system used to power the trolling motor. You need a dedicated 12 V power source. The cranking/electronics battery can be used if it is a 12 V battery.



Connect trolling motor to network

To connect your trolling motor to your boat's network:

- 1 Connect the trolling motor NMEA® cable with 5-pin connector located under the stow/deploy release lever on the mount (A) to the NMEA 2000® backbone using the supplied T-connector (B).

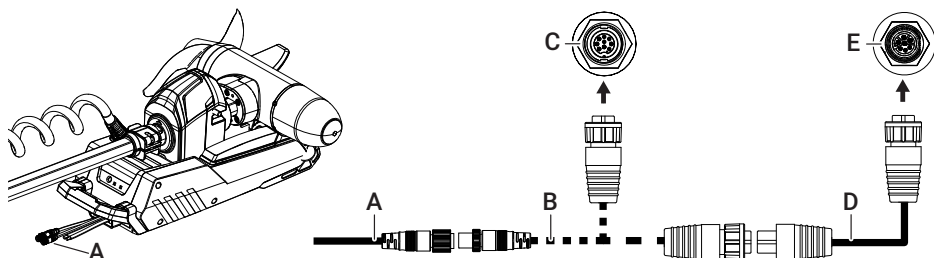


- 2 For instructions on how to control the trolling motor via the display unit, refer to the display unit documentation.
 - 3 For instructions on how to update the trolling motor software from the display unit, refer to the display unit documentation.
- **Note:** If the NMEA® cable isn't in use, attach the supplied dust cap to the connector to protect the pins from water, dust and debris.

Connect trolling motor to sonar display

This procedure only applies to Recon models with internal sonar that offer built-in sonar transducers compatible with Lowrance and Simrad® sonar displays.

- 1 If your compatible display unit has a:
 - 9-pin sonar input, use the supplied mini 9-pin to regular 9-pin adapter (B) to connect the trolling motor sonar cable located under the stow/deploy release lever on the mount (A) to the sonar port on the back of a compatible display (C).
 - 7-pin sonar input, use a 9-pin to 7-pin adapter cable (D), not supplied, SKU: 000-13977-001) to connect the trolling motor sonar cable located under the stow/deploy release lever on the mount (A) to the sonar port on the back of a compatible display (E).



- 2 Once connected, power up the display unit to check the sonar cable is connected securely.
 - 3 For instructions on how to use and adjust the sonar display, refer to the display unit documentation.
- **Note:** If the sonar cable isn't in use, attach the supplied dust cap to the connector to protect the pins from water, dust and debris.

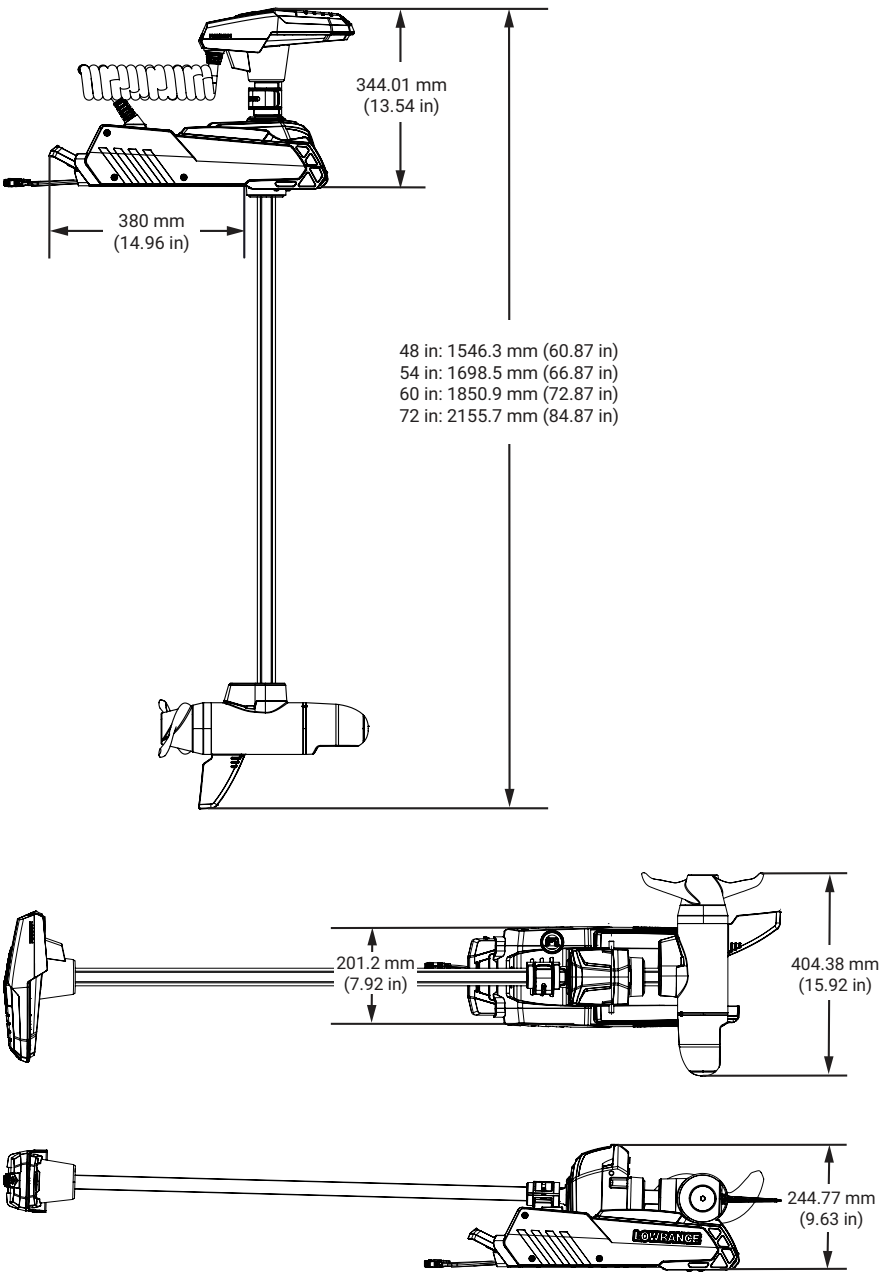
Reduce sonar interference

If you experience poor sonar performance, you should check the following items. Keep in mind, all sonar testing should be done on the water in stable conditions.

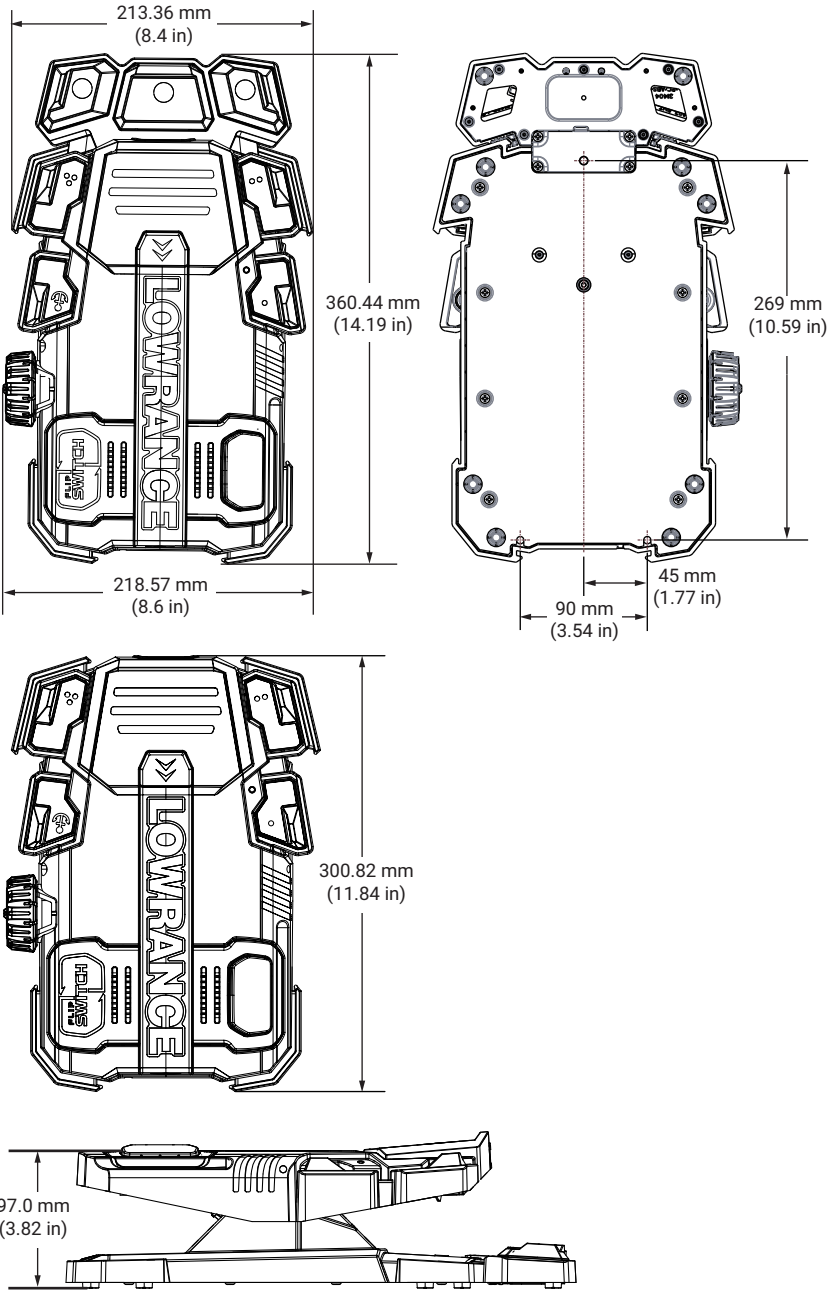
- 1 Ensure you have separate grounds. There should be no common ground between the trolling motor battery bank (24 V or 36 V) and engine/accessory battery bank (12 V).
- 2 Check the trolling motor power cables and sonar/electronics cables as far apart as possible. For example, route the power cables on the port side and electronics cables on the starboard side.
- 3 A multi-bank charger connected to both the trolling motor bank and engine/accessory battery bank can cause interference through the common ground in the charger.
- 4 Ensure that none of your sonar cables are cut or damaged. Even internally broken shielding can cause issues and can be identified by carefully inspecting the rubberized outer coating for crimps, bends, and flattened areas. Repair or replace as necessary.
- 5 Check for common external sources of interference and temporarily remove or disable these to test for improvements in sonar performance. These include:
 - Ethernet links
 - Multiple sonar transducers operating on same frequencies
 - Other third-party electronic equipment.
- 6 If sonar performance has still not improved, check with the display unit manufacturer, electronics manufacturer or your boat dealer for other boat wiring issues.

DIMENSIONS

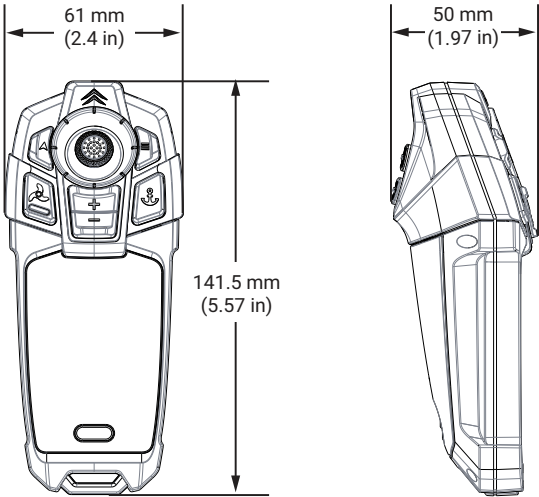
Trolling motor



Foot pedal



Remote



TECHNICAL SPECIFICATIONS

Recon trolling motor	
Operating temperature range	–20°C to 60°C (–4°F to 140°F)
Storage temperature range	–40°C to 85°C (–40°F to 185°F)
Supply voltage	Rated for 24 V and 36 V Functional range: 16 V to 46 V 12 V deep cycle marine batteries or 12 V lithium batteries
Maximum current draw	55 A RMS (24 V) 55 A RMS (36 V)
Fuse/breaker rating	60 A (24 V) 60 A (36 V)
Maximum thrust	90 lbs (24 V) 115 lbs (36 V)
Weight (with HDI nose cone transducer)	48" – 17.69 kg (39 lbs) 54" – 19.05 kg (42 lbs) 60" – 19.50 kg (43 lbs) 72" – 19.95 kg (44 lbs)
Column lengths	Freshwater: 48", 54", 60", 72" Saltwater: 54", 60", 72"
Mount style	Pivot, electric-steer
Steering	Remote, foot pedal, MFD
Compass	Internal
GPS	Internal; 10Hz GLONASS, GNSS
Connectivity	NMEA 2000®, Bluetooth® 5.2

Advanced wireless foot pedal	
Operating temperature range	–20°C to 60°C (–4°F to 140°F)
Storage temperature range	–40°C to 85°C (–40°F to 185°F)
Power	3x AA batteries 12 V power cable. Functional range: 9 V to 18 V
Fuse size	3 A (12 V)
Weight (without batteries)	With lower key module: 1.86 kg (4.1 lbs) Without lower key module: 1.72 kg (3.8 lbs)
Waterproof rating	IPX7
Connectivity	Bluetooth® 5.2 Range: 25 m (80 ft) with no obstructions

FreeSteer joystick remote	
Operating temperature range	-20°C to 60°C (-4°F to 140°F)
Storage temperature range	-40°C to 85°C (-40°F to 185°F)
Power	2x AA batteries
Weight (without batteries)	138.3 g (0.30 lbs)
Humidity	66°C (150°F) 95% RH 18 hours
Waterproof rating	IPX7
Connectivity	Bluetooth® 5.2 Range: 25 m (80 ft) with no obstructions

Recon HDI nose cone transducer		
Operating temperature range	-15°C to 55°C (5°F to 131°F)	
Storage temperature range	-30°C to 70°C (-22°F to 158°F)	
Sonar output	Traditional sonar DownScan imaging Temperature	
Frequency	Traditional sonar: 200 kHz High CHIRP 83 kHz Medium CHIRP	DownScan imaging: 455 kHz 800 kHz
Maximum depth*	Traditional sonar: 305 m (1000 ft) at 200 kHz High CHIRP	DownScan imaging: 91 m (298 ft) at 455 kHz
Connector	Mini 9-pin (mini 9-pin to 9-pin adapter included)	

*Maximum depth can vary depending on the output power of the equipment the transducer is connected to.

➔ **Note:** For other supported accessory nose cones, refer to the specifications supplied with the product.

SETUP AND COMMISSIONING

To set up and commission your trolling motor system, refer to the Recon operator manual.

ACCESSORIES

For the latest Recon trolling motor accessory offerings, visit www.lowrance.com/recon-trolling-motor or www.simrad-yachting.com/recon, or scan the relevant QR code® below.



Lowrance



Simrad®

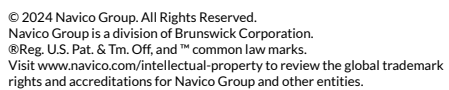
SERVICE

Your satisfaction with your product is very important to us. If you have a problem or question about your trolling motor, or you'd like to find out about available service kits, please contact your dealer or any certified service center. To find a dealer or service center, visit www.lowrance.com/contact-us or www.simrad-yachting.com/contact-us.

The following information will be needed by the service center:

- Your name and address
- Daytime telephone number
- Model and serial number of your trolling motor
- Proof of purchase or registration verification
- Nature of problem

For more service information, refer to the warranty.



lowrance.com
simrad-yachting.com