LOWRANCE

Ghost Series

Operator Manual

ENGLISH



lowrance.com

Preface

As Navico is continuously improving this product, we retain the right to make changes to the product at any time which may not be reflected in this version of the manual. Please contact your nearest distributor if you require any further assistance.

It is the owner's sole responsibility to install and use the product and transducers in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing safe boating practices.

NAVICO HOLDING AS AND ITS SUBSIDIARIES, BRANCHES AND AFFILIATES DISCLAIM ALL LIABILITY FOR ANY USE OF THIS PRODUCT IN A WAY THAT MAY CAUSE ACCIDENTS, DAMAGE OR THAT MAY VIOLATE THE LAW.

Governing Language

This statement, any instruction manuals, user guides and other information relating to the product (Documentation) may be translated to, or has been translated from, another language (Translation). In the event of any conflict between any Translation of the Documentation, the English language version of the Documentation will be the official version of the Documentation. This manual represents the product as at the time of printing. Navico Holding AS and its subsidiaries, branches and affiliates reserve the right to make changes to specifications without notice.

Copyright

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Warranty

The warranty card is supplied as a separate document. In case of any queries, refer to the brand web site of your display or system:

www.lowrance.com

Compliance Statements

Europe

Navico declare under our sole responsibility that the product conforms with the requirements of:

- Trolling motor CE under RED Directive 2014/53/EU
- Compass CE under EMC Directive 2014/30/EU

The relevant declaration of conformity is available in the product's section at the following website:

www.lowrance.com

United States of America

Navico declare under our sole responsibility that the product conforms with the requirements of:

- Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

! **Warning:** The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

➔ ***Note:*** This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that of the receiver is connected.
- Consult the dealer or an experienced technician for help.

ISED Canada

This device complies with Innovation, Science and Economic Development Canada's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

La traduction française de ce document est disponible sur le site Web du produit.

Australia and New Zealand

Navico declare under our sole responsibility that the product conforms with the requirements of:

- Level 2 devices of the Radiocommunications (Electromagnetic Compatibility) standard 2017.
- Radiocommunications (Short Range Devices) Standards 2014.

Trademarks

- Navico® is a registered trademark of Navico Holding AS.
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1 Introduction

About this manual

This manual is a reference guide for installation and operation of the trolling motor. Important text that requires special attention from the reader is emphasized as follows:

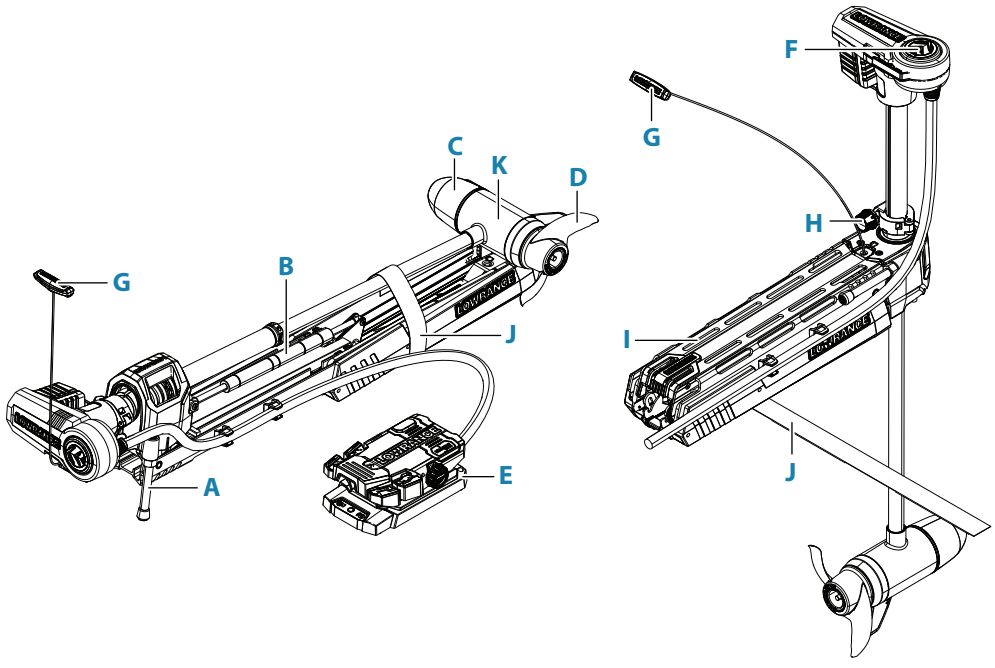
➔ ***Note:*** Used to draw the reader's attention to a comment or some important information.

! **Warning:** Used when it is necessary to warn personnel that they should proceed carefully to prevent risk of injury and/or damage to equipment/personnel.

Limitations

! **Warning:** This product is intended to be used in freshwater only. Use of the product in saltwater or brackish water will void the warranty.

Product overview



Stowed position | Deployed position

A Stabilizer
Supports the trolling motor when in the stowed position.

B Stow and deploy assist spring
Reduces the force needed to stow and deploy the trolling motor.

C HDI Nose cone transducer

D Propeller

E Foot pedal

F Direction indicator

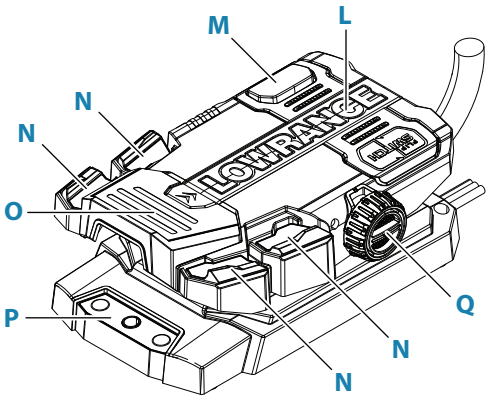
G Braided stainless steel pull cable and handle
Used when stowing and deploying the trolling motor. The trolling motor is latched in both stowed and deployed positions, pulling the cable releases the latching.

H Depth adjustment knob
When loosened, the lower unit depth can be adjusted.

I Motor mount

J Stow strap

K Lower unit



Foot pedal

L Toe end
M Momentary switch
N Mode and action keys
O Heel end
P Power key and battery capacity indicator
Q Speed adjustment knob

Safe operation with the trolling motor

Do not use automatic steering when:

- In heavy traffic areas or in narrow waters
- In poor visibility or extreme sea conditions
- When in areas where use of an autopilot is prohibited by law

When using a trolling motor:

- Do not place any magnetic material or equipment near the heading sensor used by the trolling motor system
- Verify at regular intervals the course and position of the vessel

! Warning:

- Do not run the propeller out of the water. Doing so may cause serious injuries.

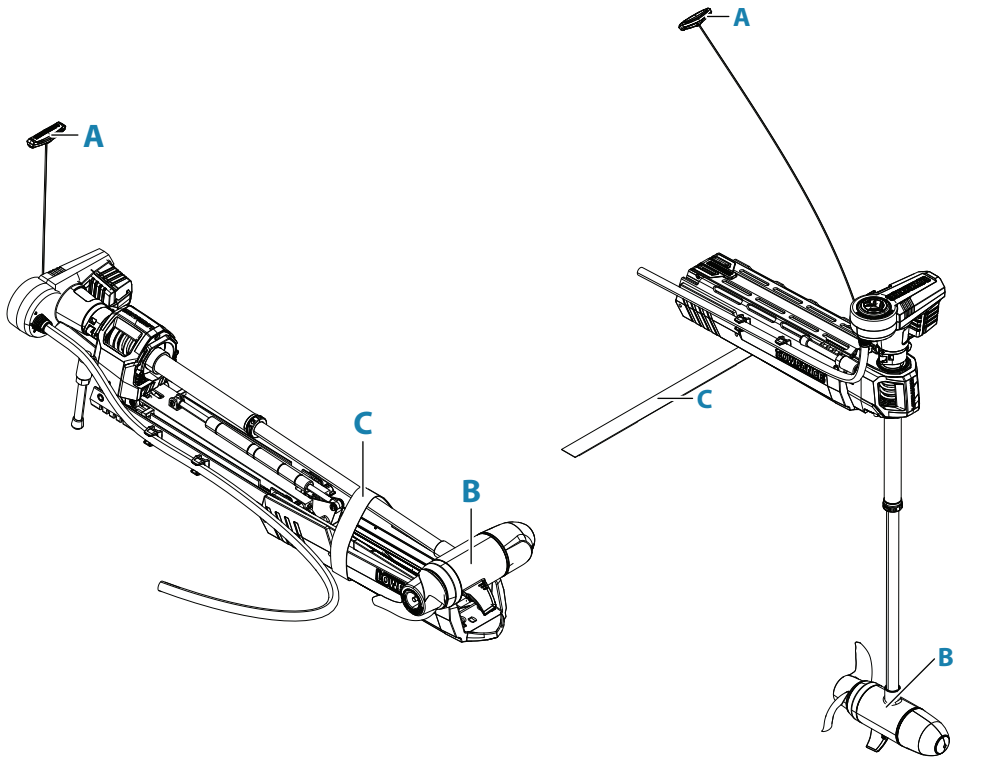
- Disconnect power when the motor is being stored, transported or not in use for extended periods of time.

- Always disconnect motor from the batteries before cleaning or checking the propeller.

- Do not attempt to disassemble the 360 breakaway.

- Keep fingers clear from moving parts when stowing or deploying the trolling motor.

Deploying and stowing the trolling motor



Stowed position | Deployed position

Deploying

1. Release the stow strap (**C**) and pull the Braided stainless steel pull cable and handle (**A**) to unlatch the trolling motor from the stowed position.
2. Lift the trolling motor from the stowed position and tilt it down until it is locked in the deployed position.
   - If the trolling motor is turned ON, the lower unit will position itself according to the foot pedal position.
   - If the trolling motor is turned OFF, the lower unit will be deactivated until the trolling motor is turned ON and the foot pedal operated.
3. Make sure that the trolling motor is fully deployed and latched in the deployed position.

Stowing

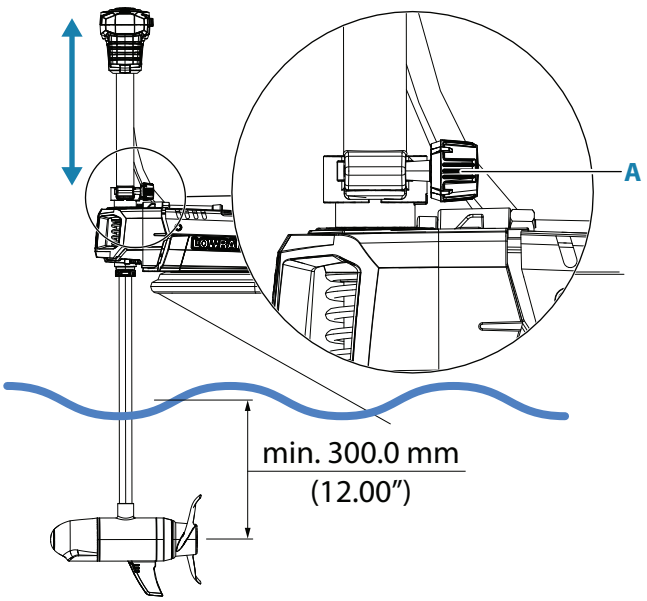
The trolling motor should be turned ON during the stowing operation. This will ensure that the lower unit is adjusted to its stowing position.

1. Pull the Braided stainless steel pull cable and handle (**A**) to unlatch the trolling motor from the deployed position.
2. Tilt the trolling motor to the stow position. The lower unit (**B**) will automatically adjust to the proper stowing angle.
3. Push the trolling motor down against the deck of the boat until it locks in the stow position. Attach the stow strap (**C**).

2 Adjusting the trolling motor

Depth adjustment

1. Loosen the depth adjustment knob (**A**).
2. Raise or lower the motor assembly to the desired level.
3. Tighten the depth adjustment knob (**A**).



How to use the FlipSwitch

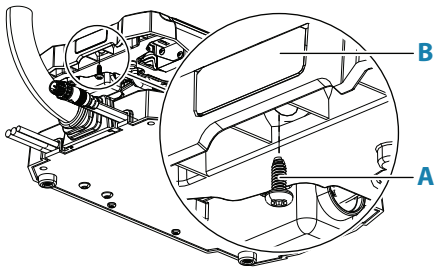
The FlipSwitch allows you to move the momentary switch (propeller ON) from the left to the right side.

Tools required

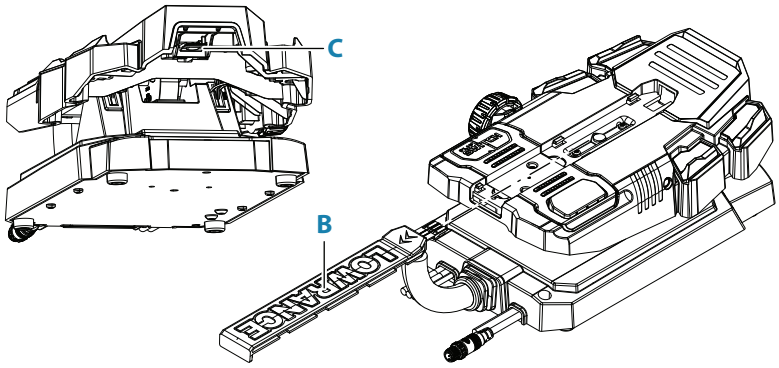
- 1x Philips screwdriver #2

Procedure

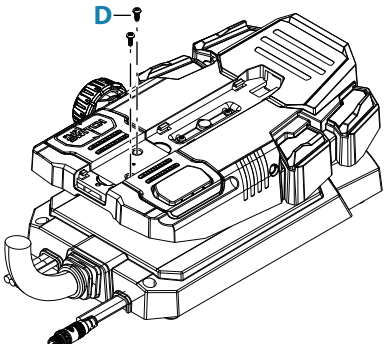
1. Remove the lock screw (**A**) that secures the cover plate (**B**).



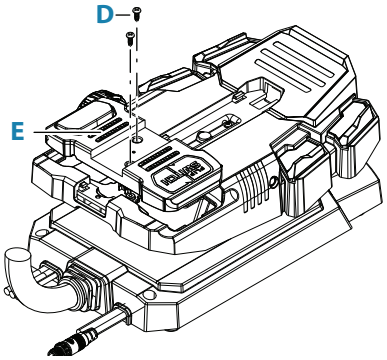
2 Press the locking tab (**C**) upwards and slide the cover plate (**B**) forward until it is free.



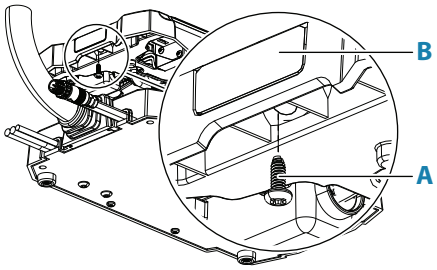
3 Remove the screws (**D**) that secures the FlipSwitch assembly.



4 Turn the FlipSwitch assembly (**E**) 180º and fasten the screws (**D)** that secure the FlipSwitch assembly.



5 Slide the cover plate (**B**) back in place and fasten the lock screw (**A**).



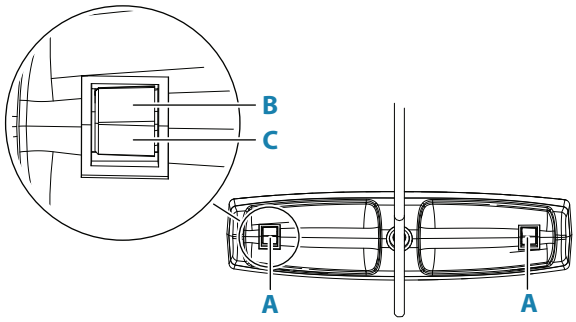
Adjusting the braided stainless steel pull cable length

Tools required

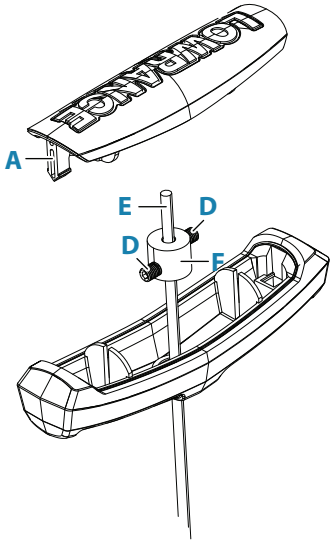
- 2x Small flat headed screwdrivers
- 1x 2 mm hex key
- 1x Side-cutting pliers

Procedure

1 Apply pressure to both sides (**B** and **C**) of the locking tabs (**A**) to remove the handle top cover.



2 Loosen the 2 set screws (**D**) and slide the pull cable (**E**) to the desired length.



3 Apply thread locker to the 2 set screws (**D**) if needed. Tighten the set screws and cut the pull cable (**E**) approximately 5 mm (1/5") above the clamp (**F**).

4 Re-install the handle top cover by pushing it down onto the handle.

3 Operation

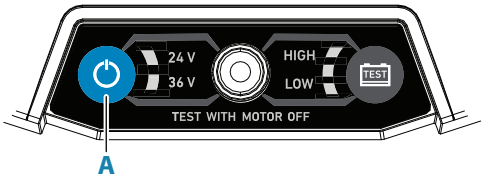
This document describes foot pedal operation of the trolling motor.

It is also possible to control the trolling motor from a compatible multifunction display unit. Refer to the documentation supplied with your display unit for more information.

Power the trolling motor ON or OFF

Press the power key (**A**) to power the trolling motor ON or OFF.

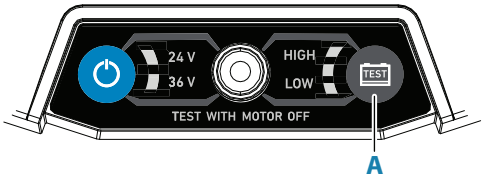
The voltage level of the electrical system is indicated when the trolling motor is powered ON.



Check the battery capacity

→ ***Note:*** The battery capacity should only be checked when the trolling motor is not running.

Press and hold the test key (**A**) to activate the indicator LEDs.

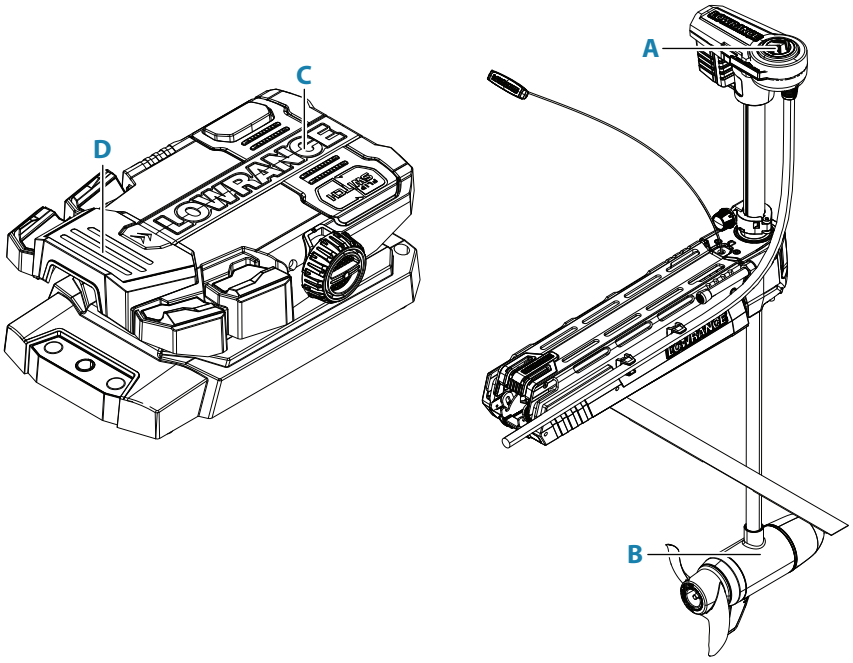


Steering with the foot pedal

The direction indicator (**A**) shows the direction in which the lower unit (**B**) is pointing.

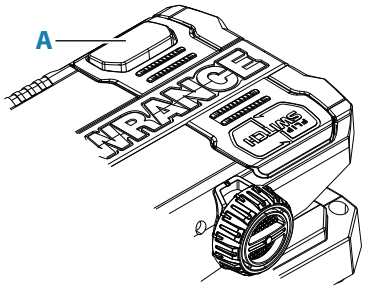
Turn to starboard (right) by pushing the toe end (**C**) of the foot pedal down.

Turn to port (left) by pushing the heel end (**D**) of the foot pedal down.



Activating the propeller

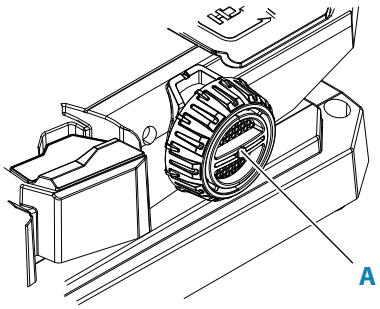
The propeller will run as long as the momentary switch (**A**) is pressed.
The propeller will stop when the momentary switch is released.



It is also possible to run the trolling motor in Propeller constant ON mode, refer to "Select a mode or action" on page 14.

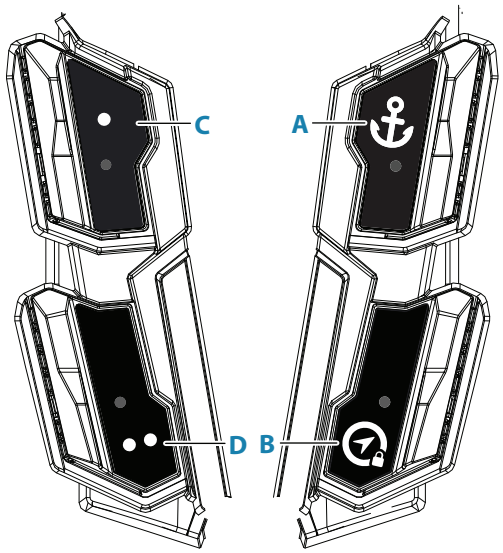
Adjusting the speed

Rotate the speed adjustment knob (**A**) to increase or decrease the propeller speed.



Select a mode or action

By default the trolling motor is in manual mode, controlled by the foot pedal. Modes can be selected by pressing the mode/action keys.



A Anchor key

B Course lock key

C Configurable key 1
By default this key has the same functionality as the Anchor key.

D Configurable key 2
By default this key is configured as a Propeller constant ON mode key.

The configurable keys can be configured from a compatible multifunction display unit.

Default modes

The following modes are available by default from the foot pedal:

Anchor

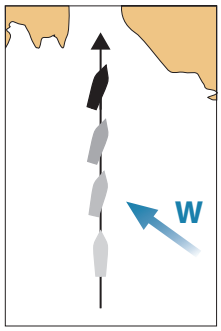
Maintains the vessel at the current position.

→ ***Note:*** When in anchor mode, the vessel heading will be affected by wind and/or current.

Deactivate anchor mode

Any foot pedal operation will deactivate the mode.

Course lock



In Course lock mode the vessel is steered along a course line. When the mode is activated, the trolling motor will draw an invisible track line based on current direction of the lower unit. The trolling motor will use the position information to calculate the cross track distance, and automatically steer along the course line.

→ ***Note:*** If the vessel is drifting away from the course line due to current and/or wind (**W**), the vessel will follow the line with a crab angle.

Change the set course

Adjust the lower unit until it is pointing in the direction that you want to travel. The trolling motor will automatically start to navigate along the new course line.

Adjusting speed

Speed can be changed by turning the speed adjustment knob.

Deactivate course lock mode

Press any mode key or the momentary switch to deactivate course lock mode.

Propeller constant ON

Engages the propeller to spin continuously.

Adjusting speed

Speed can be changed by turning the speed adjustment knob.

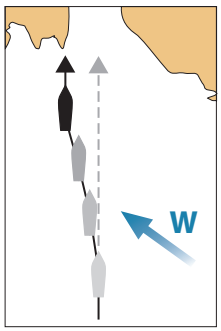
Deactivate constant ON mode

Press any mode key or the momentary switch to deactivate constant ON mode.

Configurable modes and actions

The configurable keys can be configured from a compatible multifunction display unit to access the following modes and functionalities in addition to the default modes:

Heading lock



In this mode the trolling motor steers the vessel on the set heading. When the mode is activated, the trolling motor selects the direction of the lower unit as the set heading.

→ ***Note:*** In this mode the trolling motor does not compensate for any drifting caused by current and/or wind (**W**).

Change the set heading

Adjust the lower unit until it is pointing in the direction that you want to travel. The trolling motor will automatically keep the vessel at the new heading.

Adjusting speed

Speed can be changed by turning the speed adjustment knob.

Deactivate heading lock mode

Press any mode key or the momentary switch to deactivate heading lock mode.

Power-Pole auto down

Lowers the Power-Poles automatically all the way down.

Power-Pole auto up

Raises the Power-Poles automatically all the way up.

Create waypoint

Creates a waypoint at the current vessel position.

4 Service and Maintenance

For service contact information, spare parts and accessories refer to:

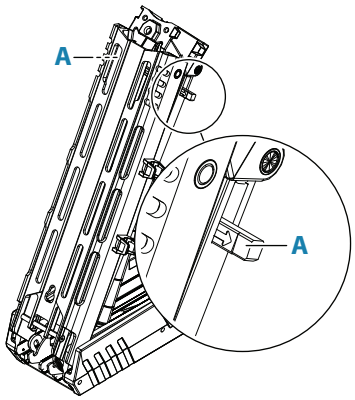
www.lowrance.com

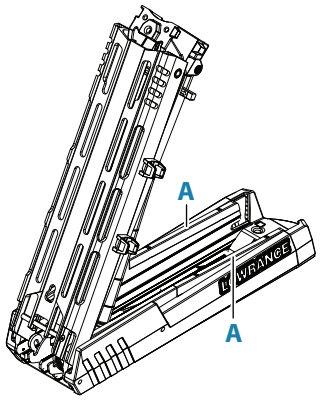
General maintenance

After each use

- Rinse your trolling motor with freshwater.
- Clean and inspect your propeller for any nicks or abrasions.
  - Remove nicks and abrasions with fine sandpaper or a file.
  - Promptly remove any fishing line or debris that may wedge between the propeller and lower unit.
  - Check the propeller nut and make sure that it is properly tightened.
- Check the battery leads for cuts or abrasions and repair or replace if necessary.
- Disconnect power when the motor is being stored, transported or not in use for extended periods of time.
- Recharge your batteries as soon as possible. The ideal state for a battery is fully charged.

Maintenance schedule

Item	Occurrence	Description
Batteries	Weekly	Check terminals for any corrosion or dirt, clean if necessary.
Mount		
Front latch block	Yearly	Grease the contact surface (**A**) of the front latch block with calcium sulfonate marine grease. 
Braided stainless steel pull cable and handle	Yearly	Visual inspection, replace if damaged.

Item	Occurrence	Description
Wear bearing	Yearly	Visual inspection. Replace the wear bearings (**A**) if necessary.  The wear bearings can be pried off using a wide blade flat screw driver.
Foot pedal		
Electrical terminals	Yearly	Check that terminal screws are not loose, if needed reapply Tef-Gel to the terminals.
Trolling motor		
Direction indicator	As necessary	Clean the indicator. Remove the indicator by prying it off with a flat head screwdriver. Blow/wash out carefully if necessary.

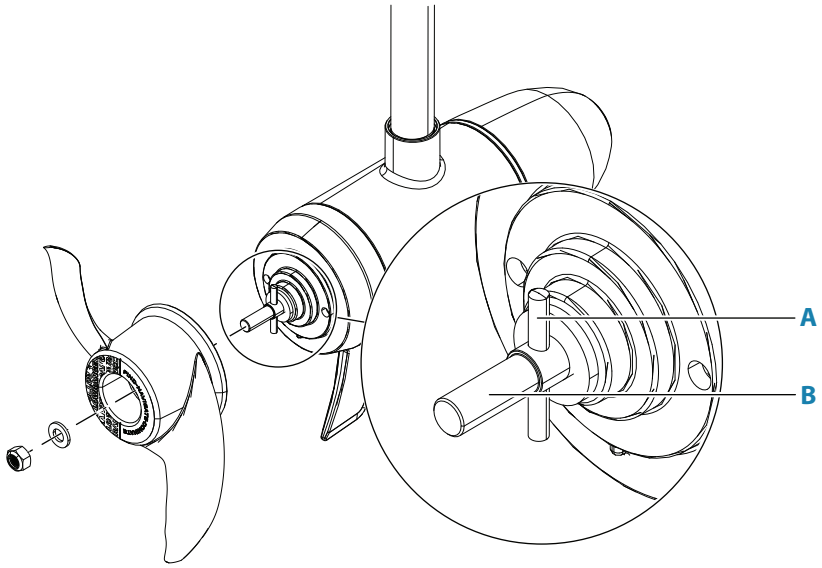
Propeller replacement

Tools required

- 17 mm deep socket

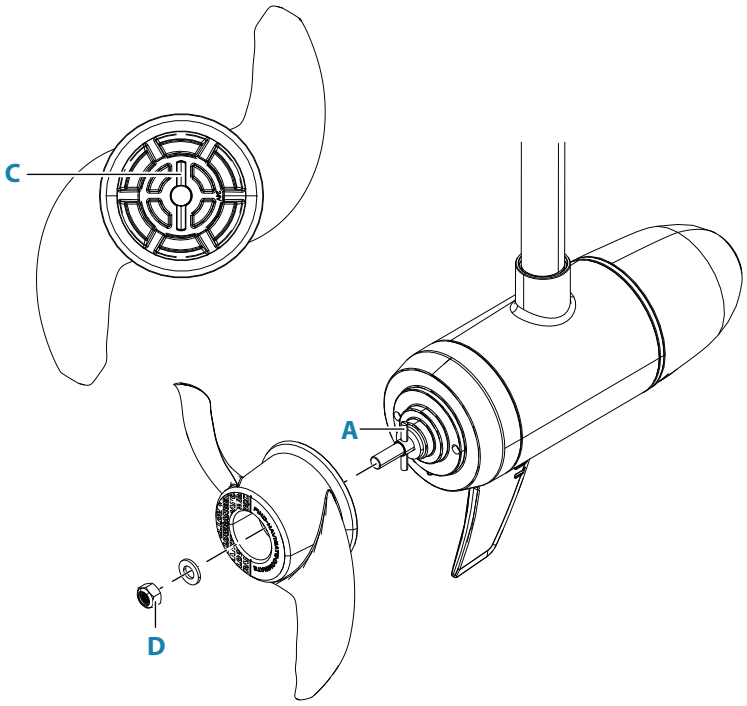
Procedure

1 Remove the propeller and inspect the drive pin (**A**) and propeller shaft (**B**) for damage. If the shaft is damaged, contact a service center.



2 Replace any damaged parts. The drive pin (**A**) can be removed by gently tapping from one side.

3 Install the new propeller. Make sure that the drive pin (**A**) aligns with the slot in the propeller (**C**). Torque the propeller nut (**D**) to 13 Nm (10 lbft).



Updating the software

The trolling motor software can be updated from the Link application or from a compatible multifunction display unit.

From a compatible multifunction display unit

To update the unit from a compatible multifunction display unit, download the latest software from www.lowrance.com and refer to the display units documentation for details about the update procedure.

From the Link application

The Link application can be downloaded from the relevant phone/tablet application store.

Follow the prompts in the application to update the trolling motor software.

Skip a software update

In the unlikely event of reoccurring update failures, it is possible to skip a software update. Skip an update by keeping the battery test button pressed while Power the trolling motor ON.

Troubleshooting

Problem	Action
Motor not running	Check battery connections for proper polarity.
	Make sure terminals are clean and corrosion free. Use fine sandpaper or emery cloth to clean terminals.
	Check the condition of the battery, refer to the battery suppliers recommendations.
	Check for proper battery voltage.
Motor loses power after a short running time	Check battery charge level. Check power wires and connections, make sure that the correct cable diameter is used.
Direction indicator hangs up or stutters during rotation	Clean the indicator. Remove the indicator by prying it off with a flat head screwdriver. Blow/wash out carefully if necessary.
Propeller vibration during operation	Inspect the propeller and propeller shaft for damage and replace if necessary.
	Remove and rotate the prop 180°.
Anchoring or heading issues	Perform calibration of the compass. Refer to the Installation Manual.
Trolling motor does not appear as a device in the display unit	Check the NMEA 2000 wiring. Make sure that the proper sources have been selected. Refer to the documentation supplied with your display unit for more information.
Cannot get the sonar to work	Check the sonar wiring.
	Verify that the sonar is properly set up on the compatible multifunction display unit.

Audible feedback

Beep pattern	Description
1 short beep	Enabling anchor mode.
	Enabling heading lock mode.
	Enabling course lock mode.
	Enabling constant ON mode.
	Speed increased (from remote controller or multifunction display).
	Speed decreased (from remote controller or multifunction display).
2 short beeps	Disabling anchor mode.
	Disabling heading lock mode.
	Disabling course lock mode.
	Disabling constant ON mode.
3 short beeps	Error, the 3 short beeps will be followed by a specific beep pattern to indicate the error. For more information, refer to "Audible error messages" on page 21.
4 short beeps	Trolling motor startup sequence completed.
2 long beeps	Calibration initiated.
	Broadcast Bluetooth pairing.
3 long beeps	Calibration completed.
	Bluetooth pairing completed.

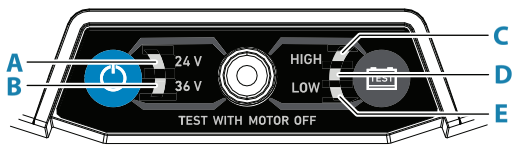
Audible error messages

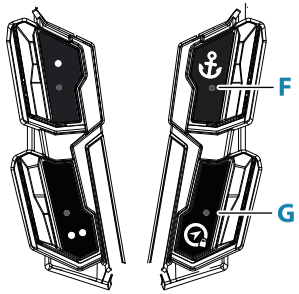
In the event that an error occurs, the trolling motor will emit 3 short beeps (signaling an error), followed by a specific beep pattern to indicate the error.

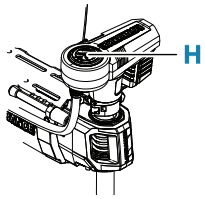
Beep pattern	Letter(s)	Error
... .--	SW	Software version mismatch between pedal and trolling motor. Retry the trolling motor software update.
--	M	Propulsion motor error. Perform a power cycle to reset the unit. If the problem persists, please contact a service center.
-.-.	C	Foot pedal not calibrated.
.- ...	AS	Invalid shaft angle.
.- .--.	AP	Invalid foot pedal angle.
....	H	Invalid heading information. Check compass connection.
--.	G	Invalid COG. Missing GPS signal.
.--.	P	Invalid position. Missing GPS signal.
-.	N	Invalid navigation data. Check multifunction display navigation source selection.

LED indicators

LED	Regular usage		During startup	During upgrade of motor components	If upgrading failed	During initialization
	24 V system	36 V system				
24 V (A)	ON	OFF	ON	Blinking fast, one at a time (10 Hz)	Blinking slow, one at a time (1 Hz)	Blinking slow together (1 Hz)
36 V (B)	OFF	ON	ON			
HIGH (C) **Battery capacity**	ON if battery > 23.6 V	ON if battery > 35.4 V	ON	OFF	OFF	OFF
MID (D) **Battery capacity**	ON if 23.0 V < battery < 23.6 V	ON if 34.5 V < battery < 35.4 V	ON	OFF	ON if Bluetooth module upgrade failed	OFF
LOW (E) **Battery capacity**	ON if battery < 23.0 V	ON if battery < 34.5 V	ON	OFF	ON if main controller upgrade failed	OFF
Anchor key (F)	ON if anchor is the current mode		OFF	OFF	OFF	OFF
Course lock key (G)	ON if course lock is the current mode		OFF	OFF	OFF	OFF
Direction indicator (H)	ON when propeller running		Blinking (1 Hz)	Blinking (1 Hz)	Blinking (1 Hz)	OFF







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