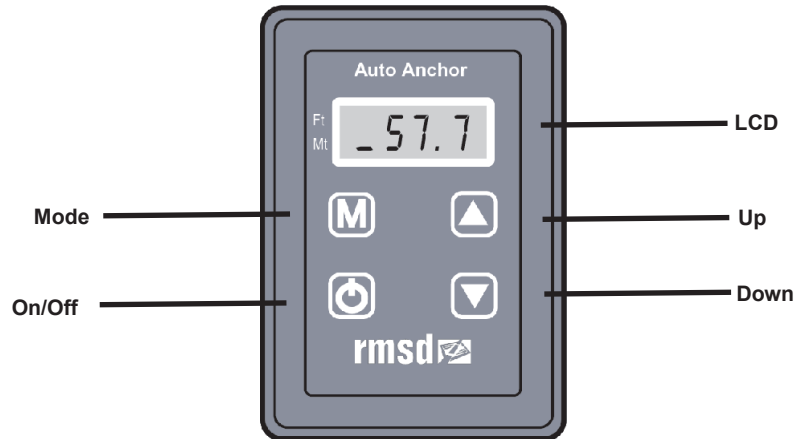


Auto Anchor 200

INSTALLATION & USER GUIDE



FEATURES

ONE TOUCH FINGERTIP ANCHOR CONTROL

KNOW EXACTLY HOW MUCH ANCHOR CHAIN YOU HAVE RELEASED

LARGE BACKLIT LCD READOUT

SAFETY CUTOUT

SAFETY LOCK

ANCHOR RETRIEVAL STOPPING POINT

ELECTRONIC FAULT DIAGNOSTIC READOUTS



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INSTALLATION

BEFORE YOU START CHECK THAT THIS PACK CONTAINS:

- The Auto Anchor 200 control unit
- The Magnet
- The Sensor
- Mounting Template
- Wiring Diagrams
- Screw covers x 4

NOTES TO THE INSTALLER

Read these notes prior to installation.

WARNING: Non compliance with these instructions will impair winch and AUTO ANCHOR operation and will negate the manufacturer's warranty. AUTO ANCHOR is designed to operate with an all chain rode.

- 1 Batteries and associated winch cables must deliver a minimum of 8 volts (12 volt system) or 16 volts (24 volt system) under load to the winch.
- 2 Solenoids must be low current type with a maximum of 2.5 Amp draw.
- 3 For optimum performance AUTO ANCHOR must be calibrated to comply with the vessel's winch specifications. (See page 4)
- 4 The magnet must be protected from salt water with epoxy. Failure to do this will impair the magnet's strength and durability.
- 5 The sensor cable must be single core screened with the screen connected to the ground.
- 6 Please contact RMSD Limited for further information if required. (Refer back page for contact details)

TECHNICAL DATA

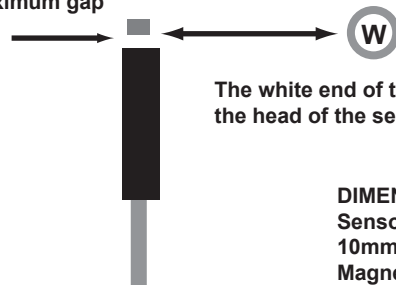
Power Supply: 12/24 v
 Current Consumption: 20 mA max
 Temperature Range: -5° C - 60° C
 Sensor Cable: Single core screened
 Batteries and winch cables:
 Min 8 volts (12 volt system) or 16 volts (24 volt system) under load
 Solenoids: Low current max 2.5 Amp draw

MAGNET & SENSOR INSTALLATION

The magnet and sensor are used to record the rotation of the gypsy.

- 1 Drill a hole (6mm diameter and 4 mm deep) in the underside of the gypsy and insert the magnet. **Ensure the white end faces the sensor.**
- 2 Seal the magnet from salt water with epoxy. Failure to do so will impair the magnet's strength and durability.
- 3 Insert the sensor into either the deckplate for vertical windlasses or the side of the housing for horizontal windlasses. Make sure this is in line with the magnet and the gap is no more than 3.5 mm.
- 4 Connect sensor wires to the AUTO ANCHOR control unit as per wiring diagram. Single core screen cable must be used with the screen connected to the ground.

3.5 mm maximum gap

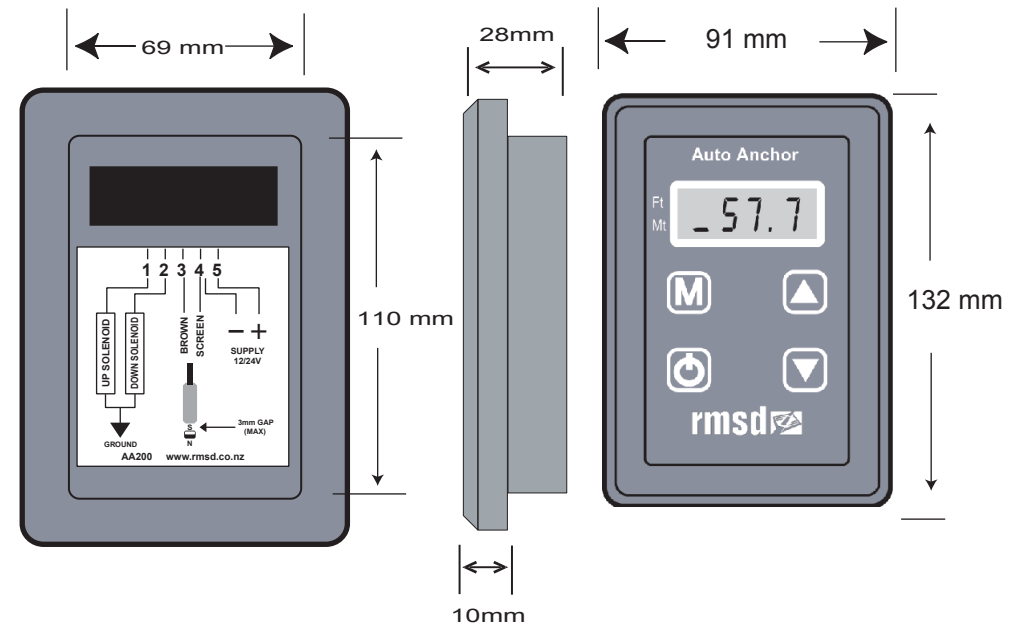


The white end of the magnet must face the head of the sensor.

DIMENSIONS:

Sensor:
10mm dia x 35mm length
 Magnet:
6mm dia x 4mm depth

CONTROL UNIT INSTALLATION



1. Use the wiring diagrams provided to run the wiring.
2. Make the cutout in the console using the template provided. Maximum 70mm x 111mm.

CALIBRATION

For optimum performance the AUTO ANCHOR must be calibrated to comply with the vessel it has been fitted to.

TO SET CALIBRATIONS

STEP 1 SELECT FEET OR METRES

Turn the AUTO ANCHOR on.

Note: If the safety lock is on (ie the display shows \mathcal{E}) you need to clear it to operate the AUTO ANCHOR. (Refer page 6).

To change the display from feet to metres hold down the MODE button until the indicator has changed position.

Note: The \mathcal{E} will appear and disappear as the indicator changes position.

STEP 2 INSTALL SETTINGS

Turn the AUTO ANCHOR Off.

Hold down the MODE button and press and release the ON/OFF button. Release the MODE button. (The AUTO ANCHOR will display Item 1 and the current setting). Set your calibrations as follows:



CALIBRATION SETTINGS

Item Reading



ITEM 1: GYPSY CIRCUMFERENCE (mm or 0.10 inches)

Default Setting 300 mm/11.8 inches

To calculate the circumference measure the length of chain used for a single revolution of the gypsy.

Use the UP/DOWN buttons to enter the value.

Advance to the next item by pressing the MODE button.



ITEM 2: ANCHOR RETRIEVAL STOPPING POINT (metres or feet)

Default Setting 1 metre/3 feet

The length of chain that will be left out when the automatic upward control stops. Note: The setting can only be accurate to + 1 gypsy revolution. For safety the absolute minimum stopping point is 0.5 m/1.5 ft

Use the UP/DOWN buttons to enter the value.

Advance to the next item by pressing the MODE button.



ITEM 3: MAX. AMOUNT OF CHAIN ON BOARD (metres or feet)

Default Setting 60 metres/196 feet

Enter value for vessel by using the UP/DOWN buttons.

Advance to the next item by pressing the MODE button.



ITEM 4: SAFETY LOCK

Default Setting On. It is recommended that the safety lock be left on but it may be disabled if necessary. To disable the safety lock, press the DOWN button to change the readout to *OFF*. To re-enable press the UP button to reset to *ON*.



SAVE

To save all calibrations hold down the MODE button until *Prog* is displayed. To return to normal operation release the MODE button



ABORT

If you need to abort and start the calibration process again press and hold the ON/OFF button until *Abt* is displayed. Then release the ON/OFF button. The AUTO ANCHOR is now off. Hold down the MODE button and press and release the ON/OFF button to restart calibration.

YOU ARE NOW READY TO START USING YOUR AUTO ANCHOR. See the Operating Instructions on page 6.

AUTO ANCHOR OPERATING INSTRUCTIONS

SAFETY LOCK

AUTO ANCHOR is fitted with a safety lock to ensure it only operates when you want it to.

The safety lock must be released before AUTO ANCHOR can be used. To do this turn the AUTO ANCHOR on, hold down the MODE button until the \mathcal{L} clears, then release the MODE button. The safety lock will automatically turn itself on again 5 minutes after AUTO ANCHOR is last operated. To turn the safety lock on sooner than this hold down the MODE button until \mathcal{L} shows. Release the MODE button and the safety lock is set.

Note: When the safety lock is on the UP/DOWN buttons will not operate.

It is recommended that the safety lock be left on. However, if necessary it may be disabled. Refer to Calibration Item 4 (page 5) for instructions.

MANUAL OPERATION - MANUAL MODE



ON/OFF BUTTON

Turns the AUTO ANCHOR on and off.

Note: To set the counter display to zero press and hold the ON/OFF button until rapid beeping stops.



DOWN AND UP BUTTONS

For manual operation, turn the AUTO ANCHOR on. Clear the safety lock if necessary. Press and hold the UP or DOWN buttons to release or retrieve the anchor. Release button to stop.

Note: During retrieval the AUTO ANCHOR will beep three times when it reaches the preset stopping point. Care should be taken when finishing retrieval beyond this point.

AUTOMATIC OPERATION - AUTO MODE

Use AUTO MODE for fingertip control to release a pre-set amount of anchor chain and return it to the vessel automatically.

STEP 1 SETTING CHAIN TO BE RELEASED IN AUTO MODE

Default setting 20 metres (65 feet)



Turn the AUTO ANCHOR On. Clear the safety lock if necessary. Press the MODE button twice to enter AUTO SET mode. Use the UP/DOWN buttons to change the flashing value to the length of chain to be released. Press the MODE button once to save the desired setting.

STEP 2 USING AUTO MODE



TO RELEASE THE ANCHOR

Turn the AUTO ANCHOR On. Clear the safety lock if necessary. Press the MODE button once to enter AUTO MODE. The value flashing shows the length of chain to be released. Press and release the DOWN button. The AUTO ANCHOR will beep three times when the preset length of chain has been released.

TO RETRIEVE THE ANCHOR

Turn the AUTO ANCHOR On. Clear the safety lock if necessary. Press the MODE button once to enter AUTO MODE. Press and release the UP button. The AUTO ANCHOR will beep three times when the chain has been retrieved to the preset stopping point. Use manual operation to complete retrieval by pressing the UP button. Care should be taken when doing this.

NOTE: SAFETY CUTOUT - Press any button to stop the unit during operation. To restart press the MODE button once to enter AUTO MODE.

OTHER SETTINGS

DISABLE AUTO MODE

Turn the AUTO ANCHOR On. Clear the safety lock if necessary. Press the MODE button twice to enter AUTO SET mode. Use the DOWN button to change the flashing value to OFF. Press the MODE button again to complete the disable operation.

To re-enable AUTO MODE.

Turn the AUTO ANCHOR On. Clear the safety lock if necessary. Press the MODE button twice to re-enter AUTO SET mode and use the UP/DOWN buttons to enter the amount of chain to be released. Press the MODE button once to save the setting.

RESET COUNTER TO ZERO

Turn AUTO ANCHOR On. Press and hold the ON/OFF button. A rapid beeping noise will be heard. Release the ON/OFF button when the counter shows 0.0

TO COUNT CHAIN ONLY

Set Calibration Item 3 (maximum amount of chain on board) to zero. This setting disables all winch operation.

RESET DEFAULTS

Turn the AUTO ANCHOR off.
Hold down the MODE and UP buttons together.
While holding these buttons press and release the ON button.
When the LCD display reads *LOAD* release the other 2 buttons.

AUTO ANCHOR TROUBLESHOOTING GUIDE - with built in diagnostic readouts

PROBLEM					ACTION
AUTO ANCHOR will not turn on	□	□	□		Check battery is connected and has correct polarity. Check battery has sufficient voltage supply (10 volts min). Check if any external fuses are blown.
AUTO ANCHOR shows <i>SQL</i>	□				Solenoids are not connected. Check wiring going to solenoids or control box.
AUTO ANCHOR does not control winch to go up or down	□	□	□		Check Calibration Item 3 is not set to zero. (See page 5) Check the AUTO MODE Chain to be Released is not set to zero. (See page 6) Check Safety Lock is not on. (See page 6)
AUTO ANCHOR does not stop at a specified distance	□				NO FAULT - Stopping is accurate to + 1 gypsy revolution. Gypsy may also run on slightly with momentum.
AUTO ANCHOR will not count or shows <i>SENS</i> and shuts off in AUTO MODE	□	□	□	□	Check calibration settings are correct. Sensor not connected or faulty. Check wiring from AUTO ANCHOR to sensor. Check sensor head is not damaged Check gap from sensor to magnet is no more than 3.5 mm. Check the south pole (white side) of the magnet is facing the sensor. Check magnet has not corroded. Check sensor and magnet pass each other when the gypsy revolves. Note: When the sensor is operating correctly the sensor indicator (metres/feet indicator) flashes every time the magnet passes the sensor.
AUTO ANCHOR stops before distance specified	□	□	□	□	Check setting for chain on board (Calibration Item 3) is not less than the distance specified.
AUTO ANCHOR shows <i>BATT</i>	□	□	□		Battery low. Check connections and charge. Note: The AUTO ANCHOR requires a minimum of 10 volts to start operating, however, a drop to 8 volts under load during winching will not cause a problem.
AUTO ANCHOR turns itself off	□				Battery has dropped to below 5 volts. Check connections and charge.



technology that works **HARD**

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