Accessori Elettrici

Electric Accessories

CONSERVARE QUESTO MANUALE A BORDO
STORE THIS MANUAL ON BOARD
CONSERVER CE MANUEL À BORD
DIESES HANDBUCH AN BORD AUFBEWAHREN
GUARDAR ESTE MANUAL A BORDO

MANUALE DI INSTALLAZIONE E D'USO - INSTALLATION AND USER'S MANUAL
MANUEL D'INSTALLATION ED D'UTILISATION - MANUAL DE INSTALACIÓN Y USO
INSTALLATION UND BEDIENUNG

THETIS 5003

2 Years Limited Warranty *

UK
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Lofrans'®
WINDLASSES
THE ORIGINAL WINDLASS

Via Philips, 5 - 20052 Monza (MB) (Italy) - www.lofrans.com - e-mail: contact@lofrans.com

Dear Customer,

Thank you for choosing a Lofrans product. Lofrans is a leader company in the production and worldwide distribution of nautical systems manufactured according to the most modern technologies, in compliance with international regulation requirements and the most important certifying bodies. All our products are manufactured with excellent materials suited for operations in marine environments and are subject to continuous checks to improve the qualitative levels and make them without any manufacturing defects. Together with such requirements, Lofrans anchor windlasses are a synthesis of reliability and efficiency, by guaranteeing the maximum performances during each phase of mooring, even in the most difficult. With a Lofrans product, years of reliable operations are guaranteed.

UK

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1 INTRODUCTION

1.1 Purpose of the manual

This manual will supply information on safety and correct use of the product. Follow these warnings carefully to avoid possible accidents or damages.

DANGER!
A warning such as this indicates the existence of a serious risk that has high probabilities to cause death or a serious accident if appropriate precautions are not taken.

ATTENTION!
A warning such as this indicates a reference to the application of safety practices, or draws the attention on unsafe behaviours that might cause personal injuries or damages to the boat.

1.2 Assistance

The Lofrans products are backed throughout the world by a network of authorised distributors and assistance. In case of need, please contact your local Lofrans distributor. Details on website www.lofrans.com

1.3 Receipt and Storage

Upon receipt of the package, verify the integrity of packing. Should it be necessary to store the product for a prolonged period, keep it in a dry and protected place.

2 TECHNICAL DATA

2.1 Specifications

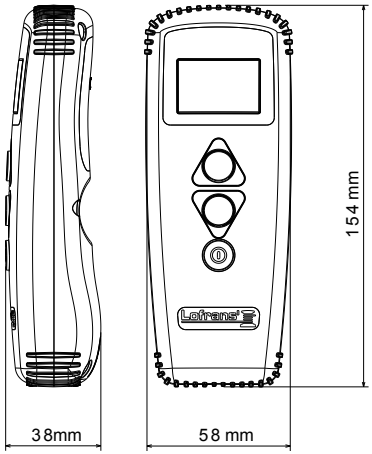
Receiver	
Power supply	from 12 to 24 Vdc
No-load current intake	min. 5 mA – max 40 mA
Protection rating	IP67*
Operative temperature	-10 : +60
Graphic display	128 x 64 pixels
Max. chain length	999 metres – 999 feet
Size (mm)	155 x 65 x 45
Net Weight (g)	370

**Excluding cable connection zone (IP68: plug & socket)*

This product is in compliance with the following regulations:

EN 55032: 2015
EN 55024: 2010+A1: 2015

2.2 General dimensions



2.3 Packaging contents

The Hand Held Control Chain Counter packaging includes:

- ✓ 1 Hand held chain counter-THETIS 5003
- ✓ 1 Connector 6-pole (female plug)
- ✓ 1 Magnetic sensor
- ✓ 1 Magnet for the windlass
- ✓ 1 Horizontal shaft anchor windlass sensor support
- ✓ 1 Cradle with 2 screws
- ✓ 1 Installation and user's manual

3 INSTALLATION

Recommended accessories

Use exclusively original Lofrans accessories and spare parts, designed and manufactured to ensure performances, duration and for keeping valid the warranty. For information on available spare parts, contact your local reseller or visit website www.lofrans.com

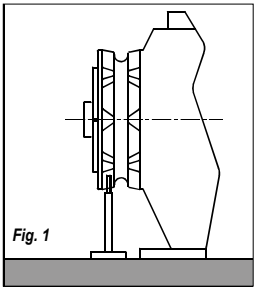


Fig. 1

3.1 Installing the magnet on the anchor windlass

On a few models of anchor windlass the sensor and the magnet are already installed (chain counter setting).
Therefore, the operations described below are not necessary.

1. A hole having a diameter of 7 mm (9/32") and depth of 12.5 mm (31/64") must be drilled on a tooth of the gypsy, in a place outside the chain's path.

2. In the case of horizontal shaft anchor windlasses (see Fig. 1), drill the hole in the outer circumference of the gypsy.

3. Also make sure that the protruding part of the magnet will not collide with the base or sensor during rotation of the gypsy. Insert the metal part of the magnet in the hole, allowing the protected part to protrude by about 2 mm. Fix it in place using an adhesive for metals (two component epoxy glue) or silicone. The glue used must be able to withstand a marine environment.

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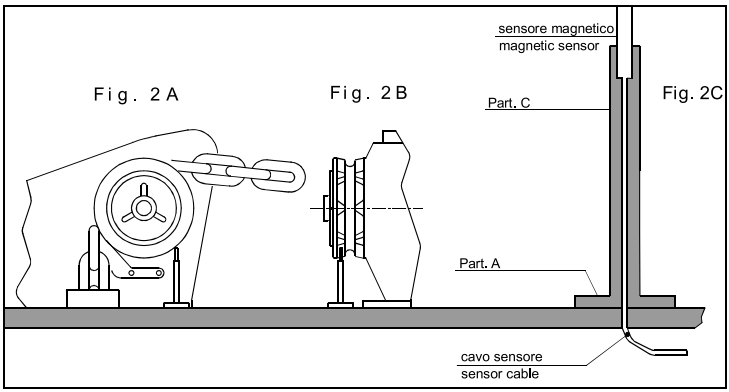
3.2 Installing the magnetic sensor for horizontal shaft anchor windlasses

(see Fig. 2A – 2B – 2C)

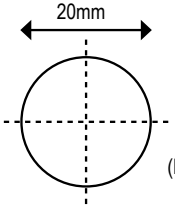
Drill a 4 mm (~3/16") hole in the cover through which to thread the sensor cable. Fasten Part A of the support with the two screws provided, after having positioned the O-ring in the lower part of the support. Cut Part C to measure using a hacksaw. The sensor must be positioned at a distance between 2 mm to 10 mm (5/64" to 25/64") from the magnet. Fit Part C with the magnetic sensor on support A and fix it in place using an adhesive for plastic (two-component epoxy glue) or silicone. Using the same glue, attach the sensor to Part C.



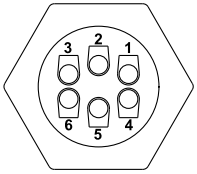
3.3 Installing the chain counter

The chain counter must be positioned so that the display will be easy to read. It should not be exposed to direct sunlight. For mounting the female connector, drill on the dashboard one hole of 20 mm (~13/16") and secure the female plug with the back locking nut (Fig. A) to dashboard with a thickness not exceeding 10mm.
Put the gasket between the rear part of the plug and the dashboard.

For instructions on making electrical connections, see the wiring diagram with the table below (Fig.B).



(Fig. A)



6-POLE REAR CONNECTOR	
PIN	SIGNAL
1	- battery
2	+ battery
3	DOWN command
4	UP command
5	Magnetic sensor
6	Buzzer

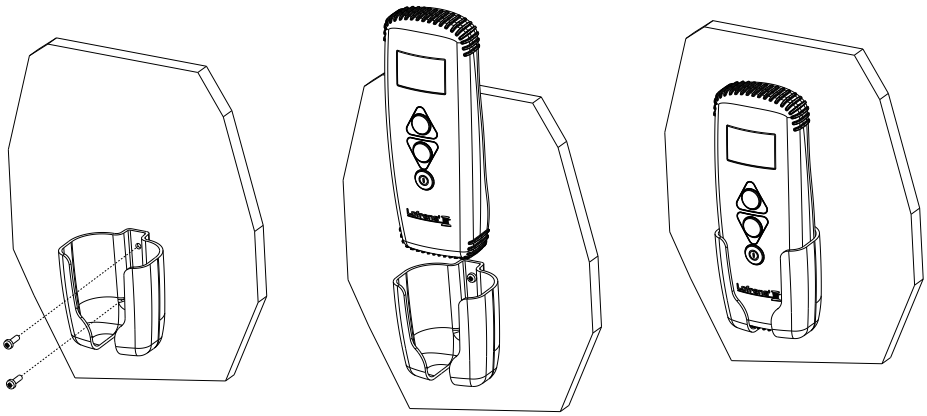
(Fig. B)

If possible mount the connector in a dry place so the rear part of the plug must be protected from contact with water or moisture.
The wires must have a minimum cross section size of 1.5 mm². Install a 5 A (ampere) fast safety fuse on the positive(+) wire of the battery.
Do not use the voltage generated by the engine battery set to provide power.

Series resistor recommended for >5m sensor cable length

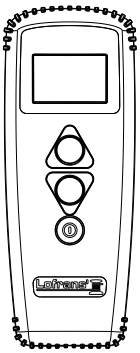
The instrument complies with EMC standards and must be positioned at a distance of:
- 30 cm (~1 Ft) from the compass;
- 2 metres (~6.5 Ft) from radio transmitter equipment;
- 50 cm (~1.5 Ft) from radio equipment;
- 2 metres (~6.5 Ft) from the radar beam.

Secure the hand held control in place with the cradle provided, tightening the two screws using a cross screwdriver.



4 MENU

4.1 Starting up



The chain counter features a graphic display and three keys: (ON), (UP) and (DOWN). There is also a buzzer that indicates the pressing of the keys or attracts the user's attention in particular conditions (alarm triggering). The ON key switches on the display and enables the other two keys. It must be used to access the parameter setting menus. For selecting the parameters to be modified and to confirm the values set. The display backlight will switch off 30 seconds after the last command given (adjustable default time – see "Light Time").
The **UP** key commands the hoisting of the anchor and the **DOWN** key casts it. When the key is released, the action is stopped. During parameter setting, the two keys allow the User to move around the menu and vary parameter values.

When switched on, the instrument will make a beep and the following page will appear for a few seconds:

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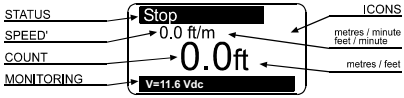
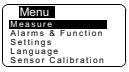
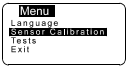
Once the initialisation procedure is complete, the main page will appear.



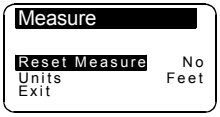
Where:

STATUS: indicates the status of the instrument and any failure.
SPEED': indicates the chain speed during hoisting or lowering in meters per minute or feet per minute.
COUNT: indicates the measurement of the chain lowered (in metres or feet).
MONITORING: indicates the power supply voltage of the instrument and the power supply voltage of the boat.
ICONS: this is the part of the display bearing the icons that indicate the hoisting or casting of the anchor and any failure.
When the instrument is turned on for the first time, it will set up as programmed in the factory (see table).

4.2 Chain counter setting menu

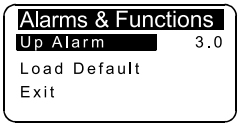
Hold down the (ON) key for six seconds to access the instrument setting menu. The following page will appear on the display:	
Use the (DOWN) and (UP) keys to move around the menu options.	
Once you are positioned on the item to be modified press the (ON) key to confirm your choice.	
Use the (DOWN) or (UP) keys to move from one parameter to another.	
Once one is positioned on the parameter press the (ON) key to enable modification.	
According to the type of parameter, using the (DOWN) and (UP) keys it is possible to reduce/increase the value of the same or disable/enable the function.	
Once the modification has been performed, press the (ON) key to confirm.	
Using the (DOWN) key go to the Exit option and press the (ON) key again to return to the setting menu. The same procedure must be used to return to the main page.	

4.3 Measurement menu



Use the ▼ (DOWN) or ▲ (UP) key to move around the parameters	
Reset Measurement *Resets the chain measurement value (0.0).*	Select with ⓘ ▼ = Yes ▲ = No Confirm with ⓘ
Units *Selects the unit of measurement:* *Feet/ inches* *Metres / centimetres*	Select with ⓘ ▲ = Feet ▼ = Metres Confirm with ⓘ
Exit *To return to the settings menu.*	Confirm with ⓘ

4.4 Alarm and functions menu

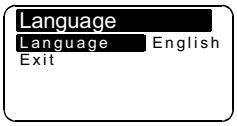


Use the ▼ (DOWN) or ▲ (UP) key to move around the parameters	
Up Alarm *It is possible to enable the function and establish the height at which the anchor-winch stops; After must release the up button to continue to other function. Settable values: 1.0 - 1.5 - 2.0…5.0 (metres or feet).*	Select with ⓘ Select value with ▲ ▼ Confirm with ⓘ
Load Default *This function allows the User to revert to the original factory default settings, thus erasing all settings memorised.* ***This command must only be used in the event of programming errors.***	Select with ⓘ ▼ = Yes ▲ = No Confirm with ⓘ
Exit *To return to the settings menu.*	Confirm with ⓘ

4.5 Settings menu

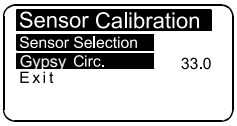
Use the ▼ (DOWN) or ▲ (UP) key to move around the parameters	
Contrast *By enabling this function it is possible to start the display contrast programming procedure.*	Select with ⓘ Select value with ▲ ▼ Confirm with ⓘ
Back Light *By enabling this function it is possible to start the display luminous intensity programming procedure. (default value 120 seconds).*	Select with ⓘ Select value with ▲ ▼ Confirm with ⓘ
Light Time *This function allows the user to set the backlight on time during which the display remains lit after the last command given (default value 30 seconds).*	Select with ⓘ Select value with ▲ ▼ Confirm with ⓘ
Keyboard Beep *This function allows the user to enable or disable the buzzer (emitted each time a key is pressed).*	Select with ⓘ ▲ = Yes ▼ = No Confirm with ⓘ
Exit *To return to the settings menu.*	Confirm with ⓘ

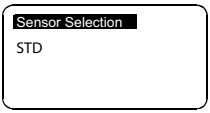
4.6 Language menu



Use the ▼ (DOWN) or ▲ (UP) key to move around the parameters	
Language *The user may select the display language:* *Italian, English, French, German, Spanish, Greek*	Select with ⓘ Select value with ▲ ▼ Confirm with ⓘ
Exit *To return to the settings menu.*	Confirm with ⓘ

4.7 Sensor calibration menu



Use the ▼ (DOWN) or ▲ (UP) key to move around the parameters	
Sensor Selection	Select with ⓘ 
Press ▲ or ▼	
Confirm with ⓘ	

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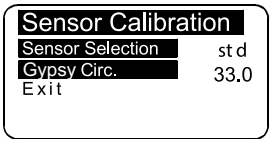
Standard Series Sensor Menu **(magnet and sensor placed <u>on gypsy</u>)**	
Gypsy Circumference *In this row the user must enter the circumference of the gypsy (in centimetres or inches).* *Use the* **Table 1** *provided to calculate the circumference.* *Settable values: centimetres or inches.* *Default value, 33 cm.*	
Select with ⓘ Select value with ▲ ▼ Confirm with ⓘ	
Exit *To return to the settings menu.*	

4.8 Table 1 - Standard Series Sensor

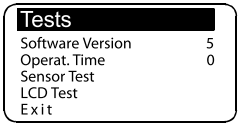
(magnet and sensor placed <u>on gypsy</u>)

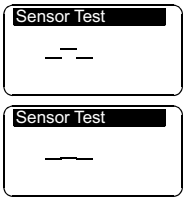
Chain type	Number of recesses (R value)	Gypsy Circumference (G value),(cm)	Gypsy Circumference (inches)
6mm ISO 4565 / DIN 766	5	18,0	7,1
	6	21,6	8,5
	9	32,4	12,8
	10	36,0	14,2
7mm ISO 4565	6	25,2	9,9
	9	37,8	14,9
8mm ISO 4565 / DIN 766	5	24,0	9,4
	6	28,8	11,3
	7	33,6	13,2
	8	38,4	15,1
10mm ISO 4565	5	30,0	11,8
	6	36,0	14,2
	7	42,0	16,5
10mm DIN	5	28,0	11,0
	6	33,6	13,2
	7	39,2	15,4
12mm ISO 4565 & 13 DIN 766	5	36,0	14,2
	6	43,2	17,0
13 DIN 764	5	45,0	17,7
14 pitch 42mm	5	42,0	16,5
5/16 HT	7	36,7	14,4
3/8" BBB	7	38,8	15,3
3/8" P.C.	6	44,2	17,4
1/2 BBB	6	40,8	16,1
1/2 HT	5	40,4	15,9

** factory setting of instrument 33,0*

The table values are indicative.
*For accurate gypsy Circumference value use formula (G value) = * R value**
Chain Internal Length

4.9 Check menu



Use the ▼ (DOWN) or ▲ (UP) key to move around the parameters	
Software Version *Indicates the version of the software installed.*	
Operation Time *Indicates the time the instrument operates*	
Sensor Test *The purpose of this function is to check the state of the sensor:* *Every pulse coming from receiver is momentary displayed to the screen*	Select with ⏻  Confirm with ⏻
LCD Test *This function switches on all the display's pixels thus making it possible to perform a check on them.*	Select with ⏻  Confirm with ⏻
Exit *To return to the settings menu.*	Confirm with ⏻

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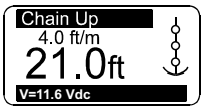
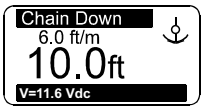
5 USE

Press the ⏻ **(ON)** key to activate controls and to switch on the display lighting. The display lighting switches off 30 seconds after the last command given (adjustable default time – see "Light Time").

Press key ▲ **(UP)** to control the anchor ascending



Press key ▼ **(DOWN)** to cast anchor

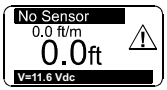
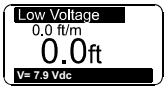


When any key is released **(UP or DOWN)** the corresponding action is stopped.

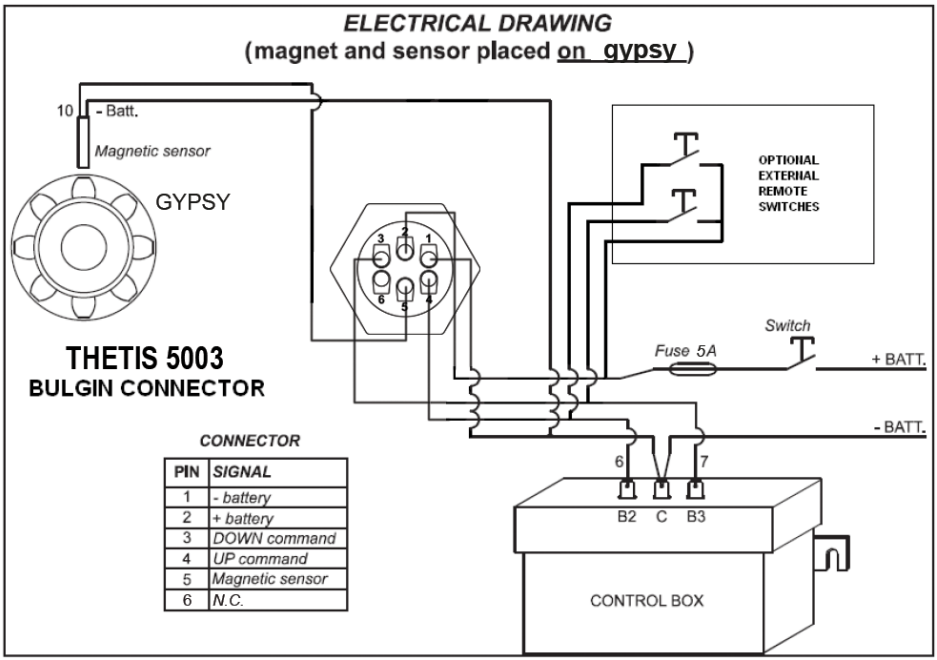
5.1 Measurement reset

Measurement reset can be performed in the **Measurement** menu by selecting "**Yes**" in the **Reset Measure** row.

6 TROUBLESHOOTING

FAULT	CAUSE	CORRECTIVE ACTION
	Though **UP** or **DOWN** keys are pressed, the instrument doesn't receive any signal from the magnetic sensor for more than 5 seconds.	Check the sensor electric connections. Check if sensor operates properly. If not, replace it. Check the position of sensor and magnet on gypsy and their distance. Check the operation of electric installation or anchor windlass.
	The instrument's power supply voltage is lower than10Vdc.	Verify the battery charge or operation of the electricssystem.

7 WIRING DIAGRAM



8 WARRANTY CONDITIONS

Lofrans' warrants that in normal use and observing the maintenance schedules, the product is covered by warranty for a period of **2 years** from the date of purchase by the original purchaser, without prejudice to the conditions, limitations and exceptions listed below. Any product that proves defective in normal use during said period shall be repaired or replaced, as Lofrans' chooses.

8.1 Conditions and limitations

1. Lofrans' does not assume any responsibility for an incorrect choice of product made by the purchaser.
2. The responsibility of Lofrans' shall be limited to the repair or replacement of all parts of the product that originally present material and/or manufacturing defects.
3. Lofrans' shall not in any way be liable for faults or any consequent damage originating from:

- use of the product in applications for which it was not designed;
- corrosion, degradation caused by ultraviolet rays and wear;
- failure to follow the maintenance schedule;
- incorrect or unsuitable product installation;
- any modification or alteration of the product;
- conditions of use exceeding the product specifications.
- The warranty does not cover the additional costs borne for interventions, removal, transport and installation of the product;
- The warranty is cancelled if maintenance is carried out by people not authorized by Lofrans'.
- Lofrans' products are designed to be used only in the marine environment. Lofrans does not assume any responsibility deriving from other uses.
- Lofrans' reserves the right to not acknowledge this warranty if the electromechanical products are operated by unsuited electrical accessories and/or in the case of failure to install an appropriate overload cutout switch on the electric power line.

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8.2 Exceptions

Coverage under warranty is limited to a period of 1 year from the date of purchase by the original purchaser for:
- Electrical boards
- Gaskets and seals
- All the products used on charter boats.

8.3 Liability

This warranty does not cover any loss or damage caused to the purchaser by the ascertained non-conformity of the product, except for the case of fraud or gross negligence of Lofrans' declared with a court ruling.
Some states and countries do not allow the exclusion or limitation of incidental or consequential damages, so the above-stated limitations or exclusions might not be applicable.

8.4 Procedure

The warranty application must be notified to Lofrans website http://www.lofrans.com/warranty.php by filling all the necessary fields, including the serial number of the control.

8.5 Termination clause

If any clause of this warranty is invalidated by a judge or other competent authority, the validity of the remaining clauses of this warranty and the rest of the clause in question will not be affected.

8.6 Conformity

This warranty is governed by the laws and in conformity with Italian laws.
The Court of Milan has jurisdiction over all disputes.

Lofrans'®

WINDLASSES

THE ORIGINAL WINDLASS

Via Philips, 5 - 20052 Monza (MB) (Italy)
www.lofrans.com - e-mail: contact@lofrans.com