ANCHOR CHAIN COUNTER DISPLAY PANEL

CODICE

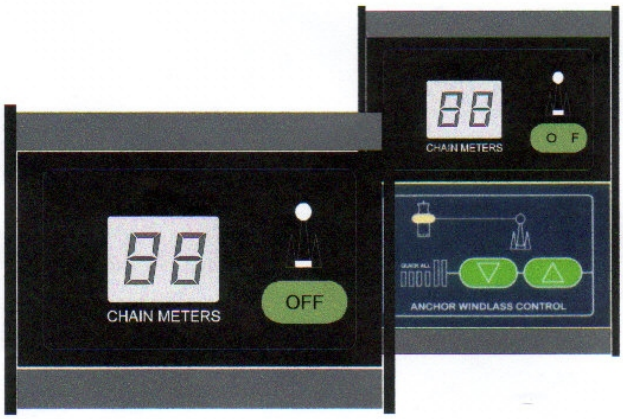
3.82.012

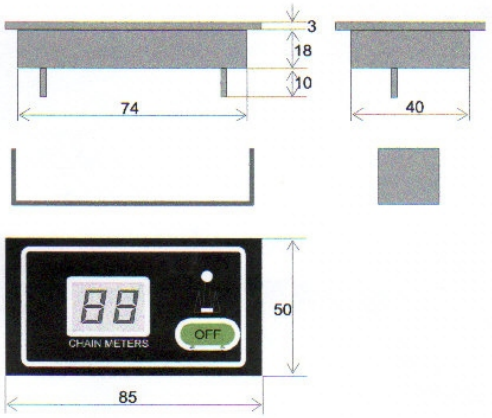
IT IS VERY EASY TO INSTALL ON ANY TYPE OF WINDLASS.

THE EASIEST AND SAFEST WAY TO INSTALL AN ANCHOR CHAIN COUNTER.

THE SENSOR CANNOT BE DAMAGED, AS IT IS APPLIED ON THE MOTOR AND NOT NEAR THE CHAIN OR THE ROTATING PARTS OF THE WINDLASS.

ONE OR MORE DISPLAY PANELS CAN BE CONNECTED TO THE SAME SENSOR





WHEN THE ANCHOR CHAIN IS IN ACTION, THE DISPLAY (S) AUTOMATICALLY STARTS TO WORK AND TO COUNT THE METERS OF CHAIN DESCENDING OR ASCENDING.

WHEN THE OPERATION ENDS, JUST PUSH ON THE "OFF" BUTTON TO RESET AND TURN OFF THE DISPLAY, WITH THE SIMULTANEOUS SWITCHING OFF OF ALL DISPLAY PANELS OF THE SYSTEM.

- THE PANEL IS ALSO COMPATIBLE WITH THE REMOTE PANELS OF THE 3.82 SERIES TO CREATE GOOD-LOOKING AND WELL-DESIGNED INSTRUMENT PANEL CONTROLS AND DISPLAYS.
- ESPECIALLY DESIGNED FOR MARINE USE, IT IS PERFECTLY WATER-PROOF AND CAN EVEN BE INSTALLED EXTERNALLY.
- BACKLIGHTED DISPLAYS AND BUTTONS.
- 12 OR 24 V POWER SUPPLY.
- PROTECTED AGAINST REVERSE POLARITY AND SPOT JAMMINGS.
- POSSIBILITY TO DESIGN SYSTEMS WITH MORE PARALLEL PANELS.
- EASY AND SIMPLE CALIBRATION DURING THE INSTALLATION WITH A SENSOR COMPATIBLE WITH ANY TYPE OF MOTOR.
- THE PANEL IS FIXED TO A FLASK AS ANY OTHER PANEL INSTRUMENT.
- THE SENSOR IS FIXED TO THE WINDLASS MOTOR THROUGH A HOSE CLAMP.
- CREATED IN CONFORMITY WITH THE UNI DIN CEI STANDARDS, CORRESPONDING TO THE CE STANDARDS.

ANCHOR CHAIN COUNTER DISPLAY PANEL
ELECTRICAL CONNECTIONS

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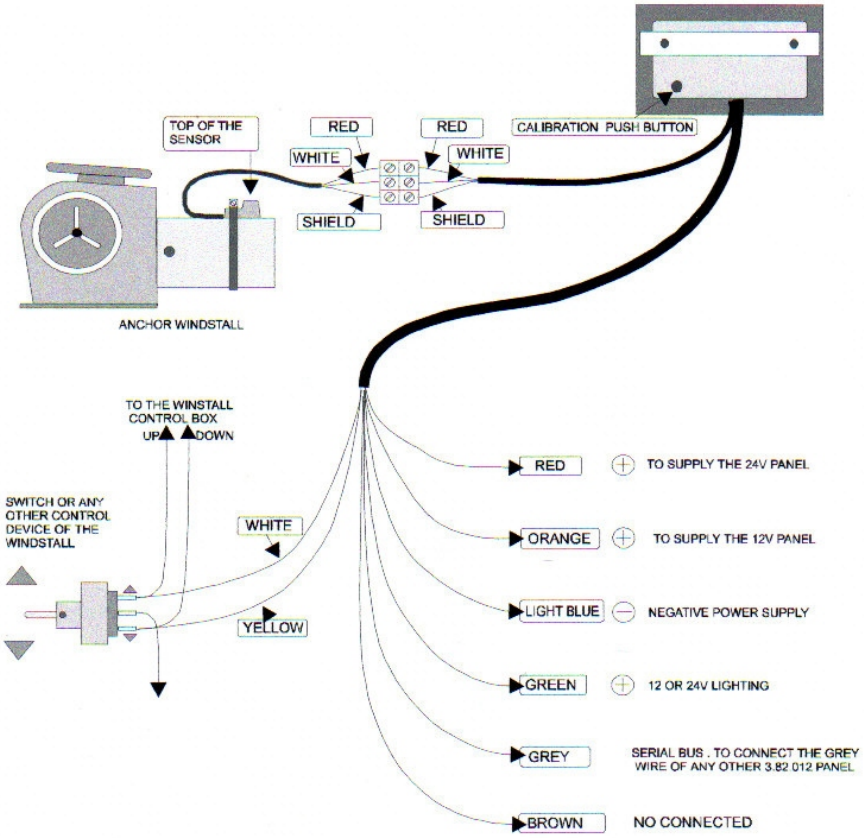
Insert the sensor with the top turned towards the motor brushes, link all connections requested, try and run the motor, issuing the descent control pulse. Two horizontal hyphens plus another two underneath should appear on the display when the windstall makes a descending run, alternatively two other hyphens should appear above for the ascending run; If this condition is missing, just try and find the most suitable position on the motor, until the aforementioned condition is achieved.



ACCORDING TO THE TYPE OF INSTALLED SYSTEM, THIS WIRE COULD BE CONNECTED TO THE POSITIVE OR NEGATIVE POLE.

FOR THE COUNTER CIRCUIT IT DOES NOT MATTER IF THE VOLTAGE IS 12 OR 24V.

YELLOW WIRE: ANCHOR DESCENT MODE
WHITE WIRE: ANCHOR ASCENT MODE

Connections of more display panels

- To install more panels (max 4) to the master panel, as illustrated in the Figure above, just provide a parallel connection to the supply wires - "red if 24V" or "orange if 12V", the light blue of the negative, the yellow ones for the start control, the grey ones for the serial data transmission.
- Adjustment of the master panel is sufficient, as the other displays will automatically copy and repeat the same master data; moreover, by pushing the "OFF" button of any panel, the count is reset and all panel displays are switched off.

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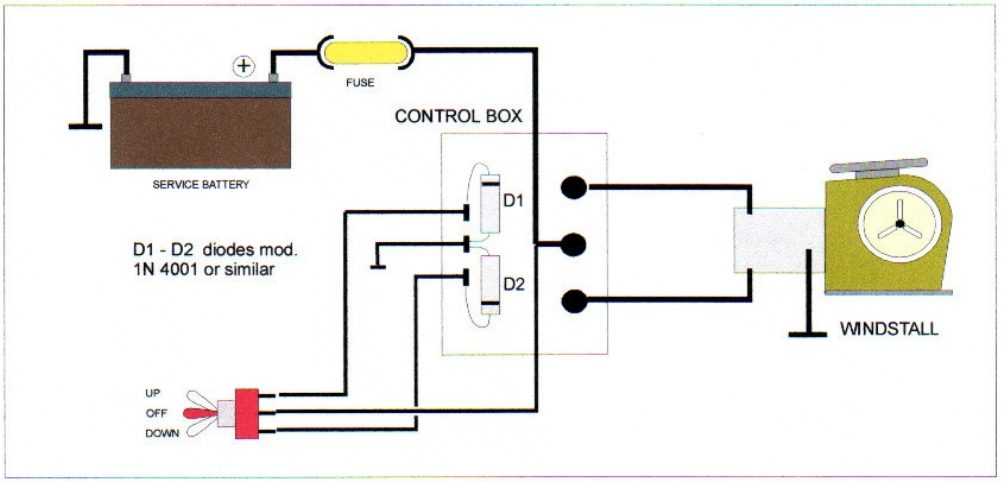
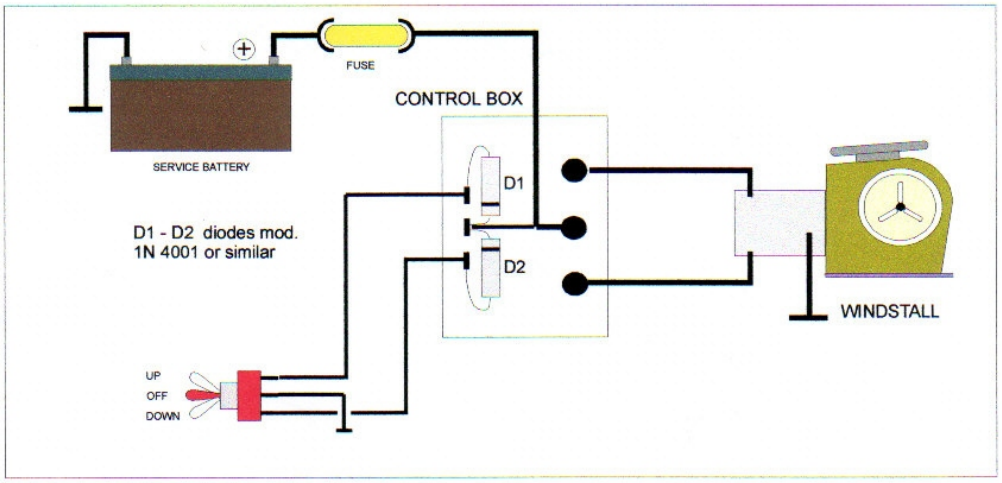
The anchor windlass motors consume a great amount of electrical current and cannot be directly controlled through a small instrument panel switch; therefore a control box usually interfaces with them to switch the power with adequate relais controlled by one or more switches, kickstarters or other devices that work with much lower currents.
The control box relais are inductive devices, and therefore, when the main switch is off, they generate instant high voltage fields of a few hundred Volts, that can damage or disturb the functioning of other equipment connected to the same circuits or located in the immediate area.
If the control boxes are not already equipped with blankers, the aforementioned overvoltage may be removed and eliminated by installing two antiparallel diodes on the relais coils, as illustrated below.



P Circuit - The central wire of the main switch is connected to the positive pole. The blanking of the overvoltage derives from the connection of the two diodes D1 and D2 to the control box as in the Figure above, i.e. with the reference lines (cathode) towards the lateral fastons.



N Circuit - The central wire of the main switch is connected to the negative pole. The blanking of the overvoltage derives from the connection of the two diodes D1 and D2 to the control box as in the Figure above, i.e. with the reference lines (cathode) towards the central fastons.

BLANKING CIRCUITS OF THE OVER VOLTAGE GENERATED
BY THE CONTROL BOXES OF THE ANCHOR WINDLASSES.

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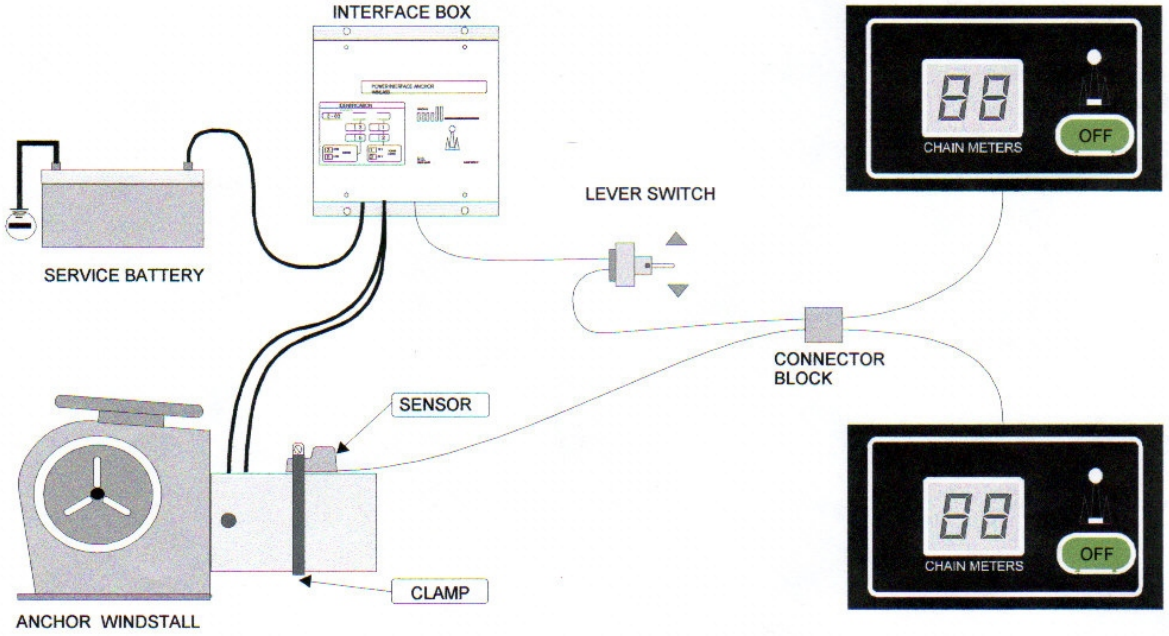
ANCHOR CHAIN COUNTER DISPLAY PANEL
TECHNICAL SPECIFICATIONS

One or more display panels (i.e. dashboard and fly) can be installed. Each time the windstall is activated, the anchor chain counter starts to work and to count the chain meters automatically.

To facilitate this operation there must be a connection with the switches or the push button controls of the anchor winch. These controls can send a positive or negative voltage to the windlass control box, depending on the type of system installed.

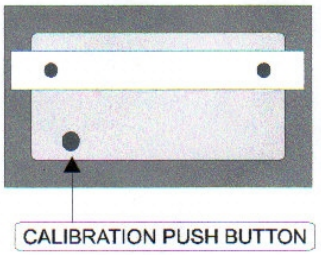
For the white and yellow wires linked to the controls "Down" and "Up" of the windstall, it does not matter if there is a 12 or a 24V voltage, or if the polarity is positive or negative, as the adjustment of these different conditions is automatic.

TECHNICAL SPECIFICATIONS	
MODEL CODE 3.82	012
Max measurable chain length	99 mt
Display resolution	1 mt
Power supply voltage	12 or 24 V
Display circuit input	25 mA
Internal circuit protected against reverse polarity	Yes
Control pulses for positive or negative start-up	Yes
Lighting input	80-120 mA
Possibility of installing a sensor with more panels	Yes
Automatic start with the descending windstall activated	Yes
Calibration and self-correction due to the push button on	Yes



MAX VERSATILITY AND EASY TO USE
VERY SIMPLE INSTALLATION

For the mounting, just clamp the sensor on the motor. No electric connection on the windstall is needed. Unfold the cables, link the few connections requested and follow the instructions for the calibration.



ANCHOR CHAIN COUNTER DISPLAY PANEL
CALIBRATION PROCEDURE AT THE INITIAL INSTALLATION

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At the initial installation, the calibration procedure is carried out in order to adjust the counter according to the windstall specifications; once performed, this procedure will be permanently stored even in the event of a cut in the power supply, and the calibration button must be pushed for at least five seconds to remove and cancel it.

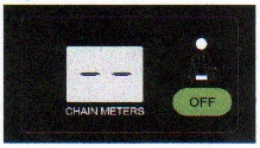
If more counter panels connected to the same sensor are onboard, the calibration procedure can be made on any one of them. This panel will then act as the master panel and perform a serial data transmission to the other panels, which therefore become its repeaters and do not need any other programming.

If a master panel is transformed into a repeater, the programming may be cancelled by pushing the calibration button for at least five seconds.

Once the installation has been performed and the connections have been checked and controlled, make sure the sensor has been correctly inserted and positioned on the windstall motor, and then execute the calibration and programming procedure of the display as follows:

START THE PANEL BY ISSUING A DESCENT COMMAND TO THE WINDSTALL

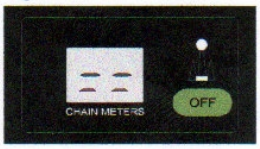
Fig. 1



NON-PROGRAMMED PANEL

At the initial start-up, all display panels visualize two horizontal hyphens to indicate that calibration has not taken place.

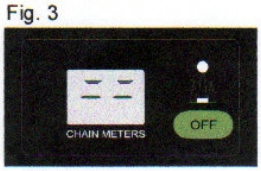
Fig. 2



DESCENT PULSE CONTROL

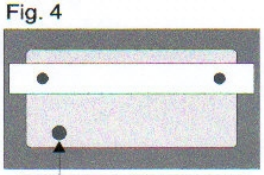
Rotating the descending windstall, if the sensor is in the correct position, the display indicates other two hyphens below the aforementioned ones

Fig. 3

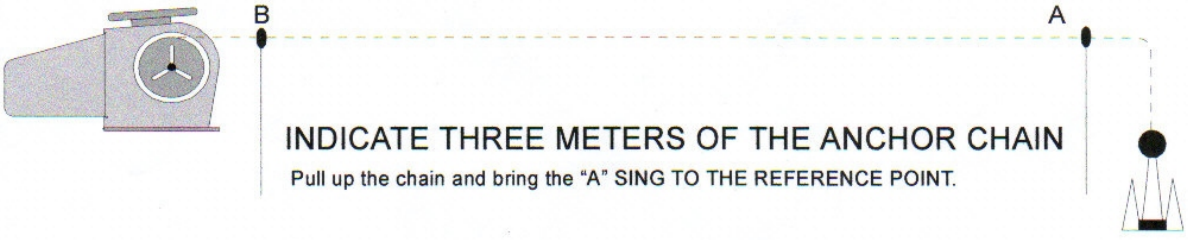


ASCENT PULSE CONTROL

Fig. 4



Rotating the ascending windstall, if the sensor is in the correct position, the display indicates two other hyphens above the aforementioned ones.
After the correct functioning of the sensor has been checked, find the calibration button on the back of the panel.



INDICATE THREE METERS OF THE ANCHOR CHAIN

Pull up the chain and bring the "A" SING TO THE REFERENCE POINT.

Fig. 5

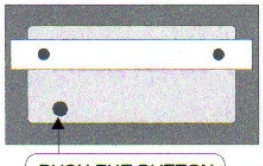


Fig. 6

CALIBRATION BUTTON

Pushing the calibration button, the display indicates 'CA' (= calibration), meaning that the programming procedure has been entered.
When the button is released, see Figure 7 for the display visualization.

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ANCHOR CHAIN COUNTER DISPLAY PANEL

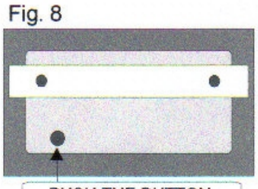
CALIBRATION PROCEDURE AT THE INITIAL INSTALLATION

Fig. 7

DESCENDING CALIBRATION

Let the previously indicated 3-meters chain descend without interruption, if possible.

Fig. 8



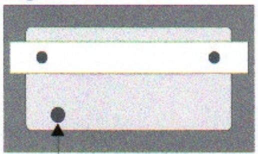
PUSH THE BUTTON

Fig. 9

ASCENDING CALIBRATION

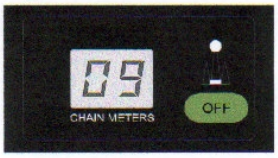
Push and release the button, the display shows what is indicated in Fig. 9. Then let the previously indicated 3-meter chain ascend without interruption, if possible.

Fig. 10



PUSH THE BUTTON

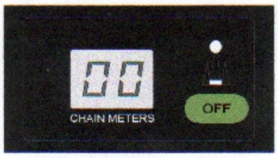
Fig. 11



PULSE RATIO - DOWN/UP

Keep the button pushed to visualise the pulse ratio between descending and ascending operation of the windstall at different speed, and then release the button. Now the calibration is set. Pull up any residual chain.

Fig. 12



END CALIBRATION

The indication "00" means that the calibration procedure is finished; the system is ready to count the descending chain meters and during the chain ascent there is be a return count.

Fig. 13

OFF AND RESET

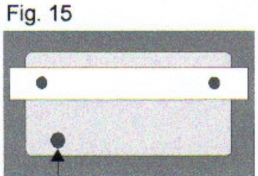
Pushing the "OFF" button on the front of the panel, the display is switched off and all counted and stored meters are cancelled.

Fig. 14

READY

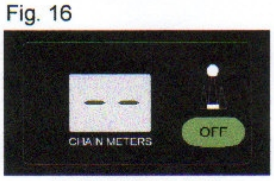
Activating the windstall in descending mode, the display and the chain counter are automatically switched on, and during the anchor recovery there is a return count.

Fig. 15



PUSH THE BUTTON

Fig. 16



PROGRAMMING CANCELLED

If the calibration is not correct and you wish to cancel it, or if the master panel is transformed into a repeater, just PUSH THE CALIBRATION BUTTON FOR AT LEAST FIVE SECONDS.The display confirms the operation by visualising two horizontal hyphens as at the beginning of the procedure.