



NMEA-2K

3DHC Controller

Rev.: [B]



Disclaimer

The interceptor units are also steering equipment and it is the sole responsibility of the navigator-operator to ensure that, at any point, any problem that will alter the vessels's course, rising from malfunction of interceptors, should be dealt immediately by the operator.

Under no circumstances, fault of our interceptor equipment leading to any kind of accident, creates liability for the manufacturer.

Trademark Notice

HydroTab is a registered trademark of Olympic Engineering Ltd, Greece. All other trademarks, trade or company names referenced herein are used for identification only and are property of their respective owners.

Patent Notice

HydroTab products are protected by patents and industrial design patents, patents pending or design patents pending.

Declaration of Conformity

This product conforms to the following Electromagnetic Compatibility (EMC) regulations and standards for use in marine environments:

CE EN 60945

Technical Information and Documentation

The technical information provided in this document was accurate and correct at the corresponding production time of the HydroTab interceptors. Our operating principal for improving the manufactured product, may lead to changes regarding its specs, without prior notice. Liability will not be held for any inaccuracy, considering the product and the user manual.

Fair Use Statement

This manual can be printed or copied for private use only. Copies should not be provided to third parties and manual should not be commercialized.

Product Disposal

Waste removal of this product must be done, according to the Waste Electrical and Electronic Equipment (WEEE) Directive.

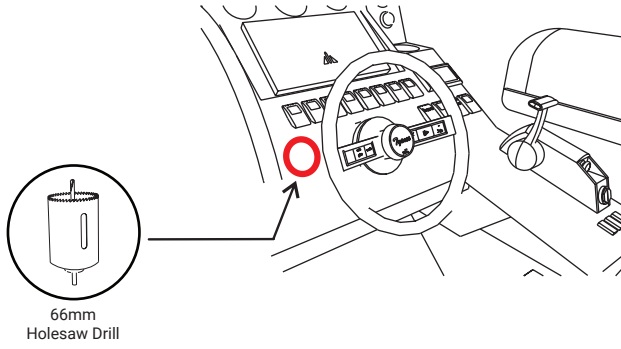
Product Registration

Please register your product online in order for the warranty to be valid.

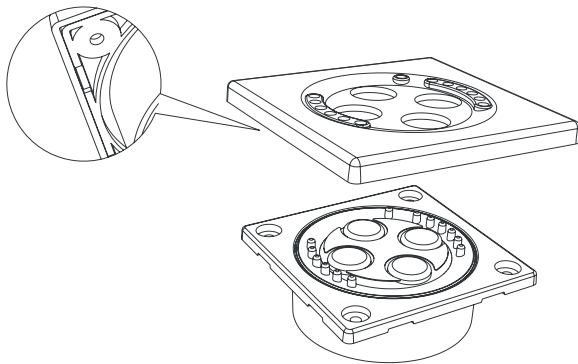
Table of Contents

Disclaimer.....	2
3DHC Mounting Instructions.....	4
Air Unit Mounting Instructions	4
Installation Diagram - Single Air Unit (ASM-01051) with Single 3DHC Controller	5
Installation Diagram - Single Air Unit (ASM-01051) with Dual 3DHC Controllers	5
Installation Diagram - Double Speed Air Unit (ASM-01086) with Single 3DHC Controller	5
Installation Diagram - Double Speed Air Unit (ASM-01086) with Dual 3DHC Controllers	5
Wiring Diagram.....	10
Pneumatic Diagram	11
Warranty Conditions	12
Notes	13

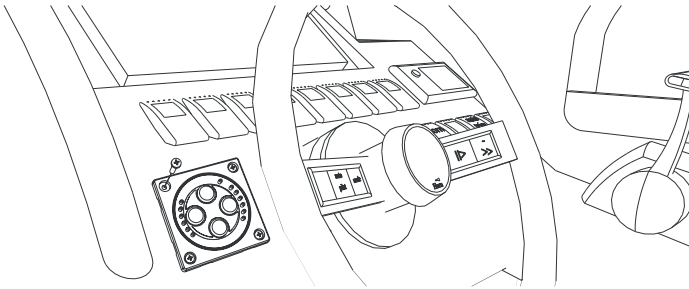
3DHC MOUNTING INSTRUCTIONS



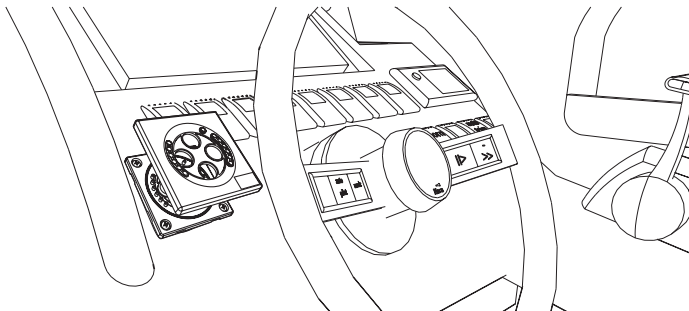
1) Use 66mm holesaw to create a hole in the desired position.



2) Remove the top cover carefully.

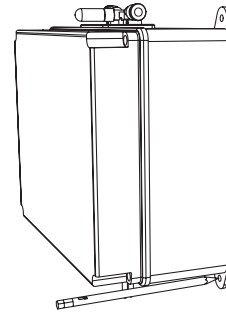


3) Mount the controller, using the corresponding screws.

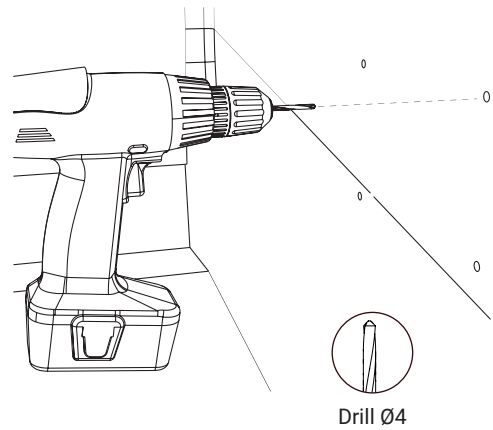


4) Place the top cover, until it is firmly closed.

AIR UNIT MOUNTING INSTRUCTIONS

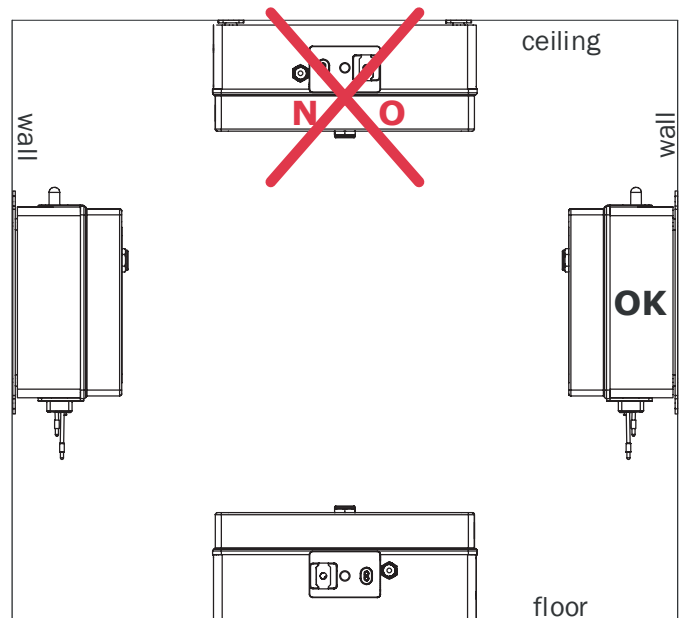


2) Place the Air Unit to the desired surface & mark the mounting holes with a pencil.

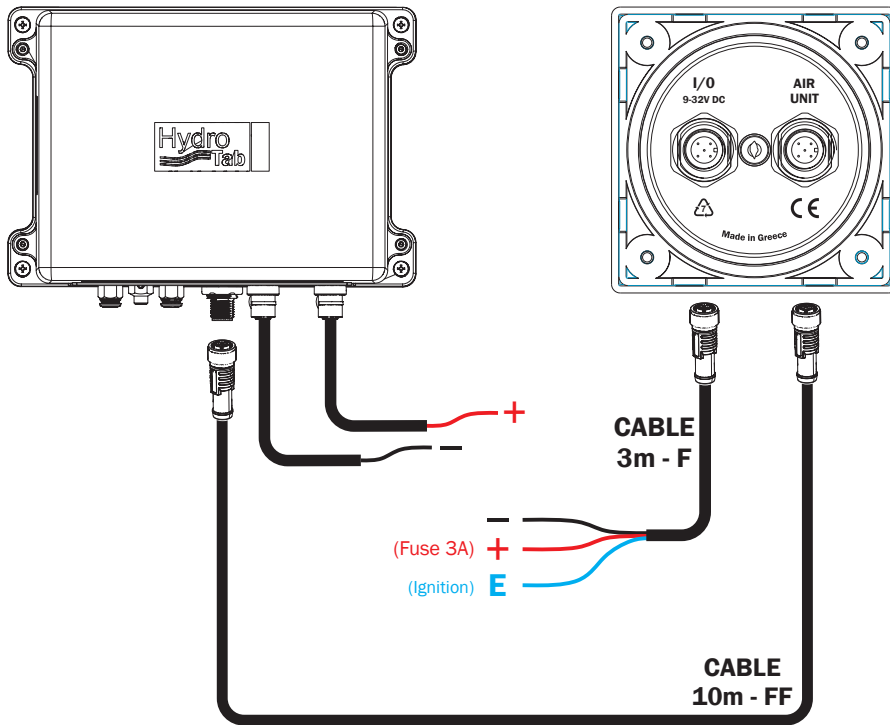


2) Drill the holes in the previously marked position, with a 4 mm bore.

PLEASE NOTE: It is strongly recommended to mount the Air Unit on a flat surface, according to the figure below.



INSTALLATION DIAGRAM - SINGLE AIR UNIT (ASM-01051), WITH SINGLE 3DHC CONTROLLER



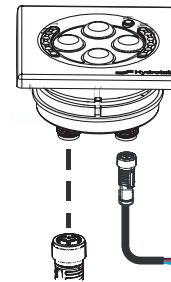
CAUTION!!

DC	Amps	Use Fuse
12V	9A	15A
24V	16A	25A

Supply 12/24V

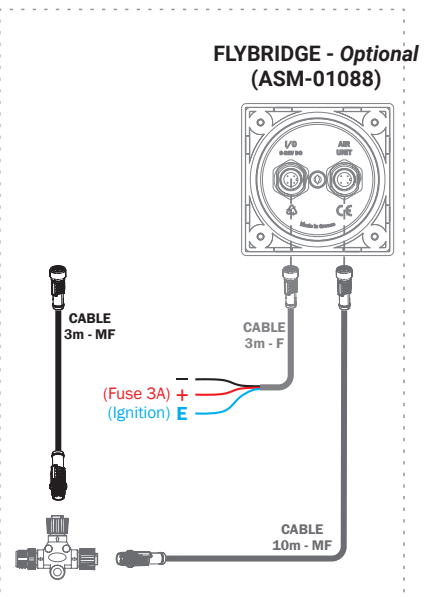
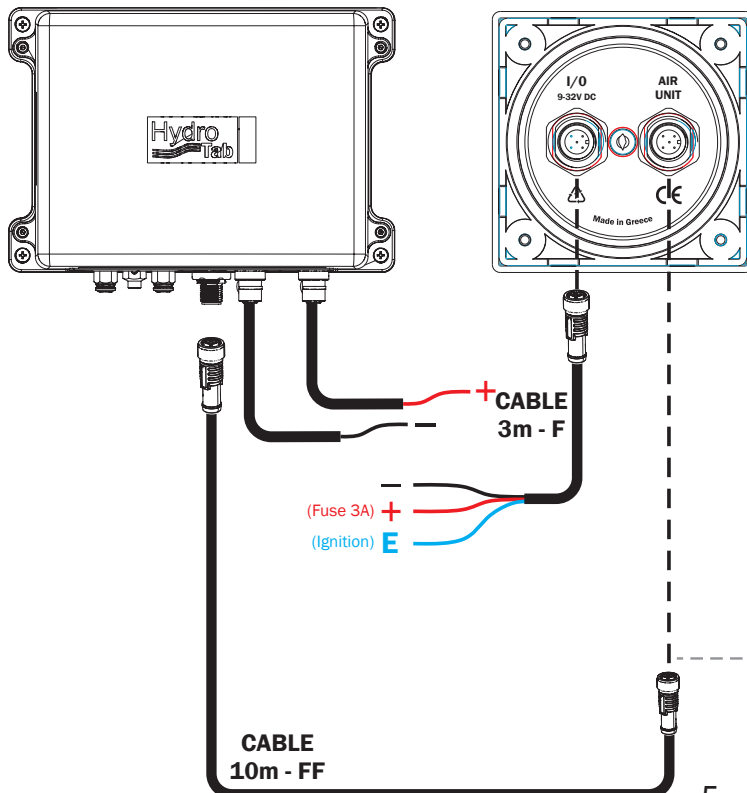


1* Always make sure to use the correct fuse, according to your boat's voltage. Please refer to the FUSE TABLE on the Air Unit.

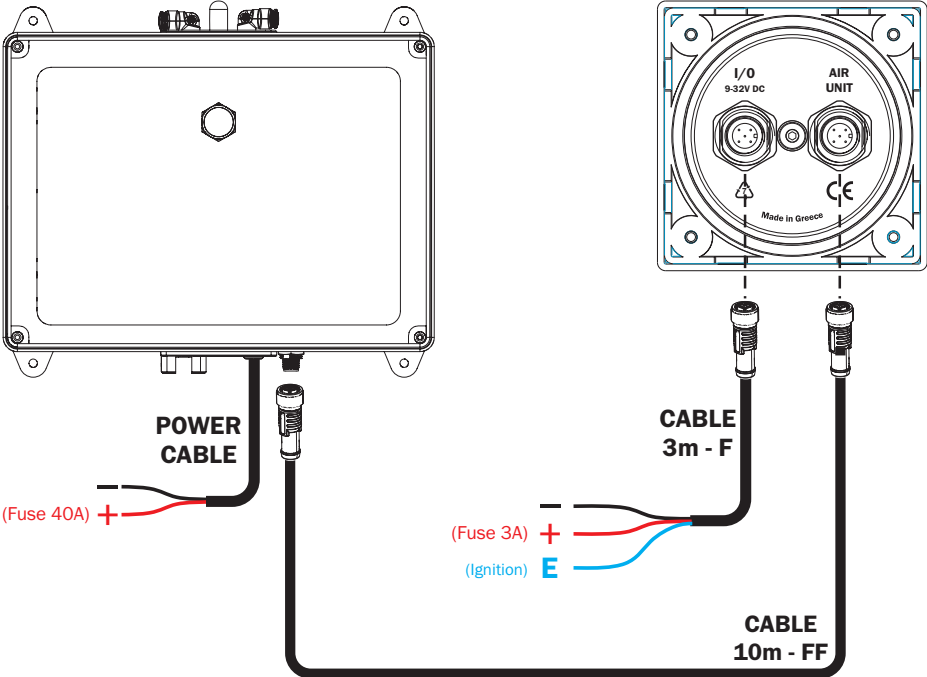


2* To start the controller, the E wire must be connected with the "ON" (Ignition Switch) contact.

INSTALLATION DIAGRAM - SINGLE AIR UNIT (ASM-01051), WITH DUAL 3DHC CONTROLLERS



INSTALLATION DIAGRAM - DOUBLE SPEED AIR UNIT (ASM-01086), WITH SINGLE 3DHC CONTROLLER

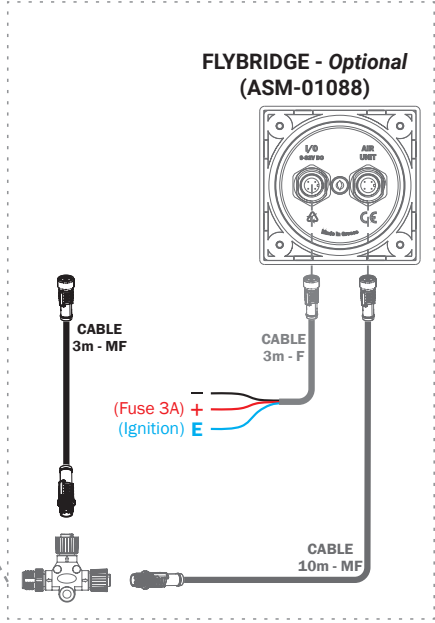
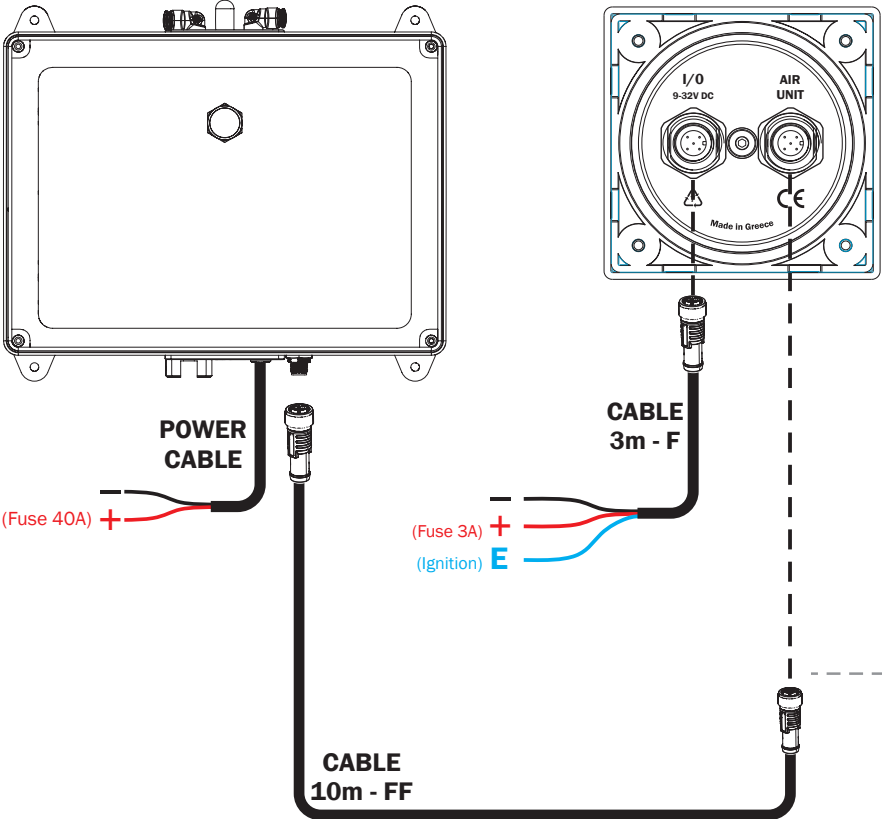


CAUTION!!

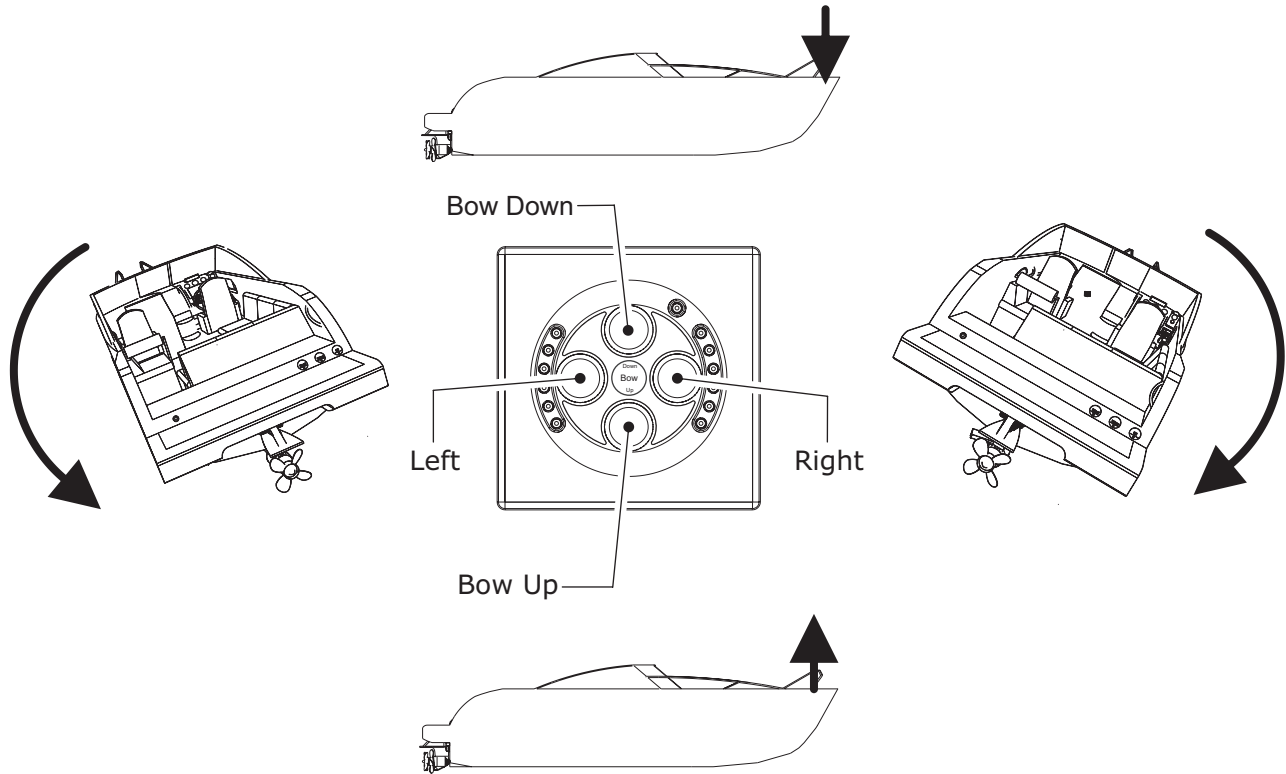
+ (Fuse 3A)
E (Ignition)

** To start the controller, the E wire must be connected with the "ON" (Ignition Switch) contact.*

INSTALLATION DIAGRAM - DOUBLE SPEED AIR UNIT (ASM-01086), WITH DUAL 3DHC CONTROLLERS



3DHC CONTROLLER OVERVIEW



HOW TO OPERATE THE 3DHC CONTROLLER

Interceptors operate, when voltage comes from the ignition. If there is no voltage from the ignition, the system does not operate.

SYSTEM RESET - RETRACTING

The system resets, and the interceptors retract automatically:

- On engine start
- On engine stop
- When simultaneously pressing the UP + DOWN Buttons, for 1 second.

PLEASE NOTE: During reset process, the controller LEDs are flashing.

SETTING THE DESIRED TRIM ANGLE

You can save the desired trim angle for the cruising speed, by manually adjusting the position & then pressing simultaneously any diagonal press buttons for aprox. 3 seconds. This position of the trim tabs is stored in the 3DHC memory and the power-on LED flashes, to confirm the saving.

MALFUNCTION INDICATION TABLE

BLINKING LED	MALFUNCTION
1st green on the left	PORT Interceptor does not retract
1st green on the right	STBD Interceptor does not retract
2nd green on the left	PORT Interceptor does not extend
2nd green on the right	STBD Interceptor does not extend

INTERCEPTOR MAINTENANCE

Check the connectors for corrosion or liquid pollution. Check in regularly the condition of the sacrifice anodes. When under 50% of their volume, anodes must be replaced.

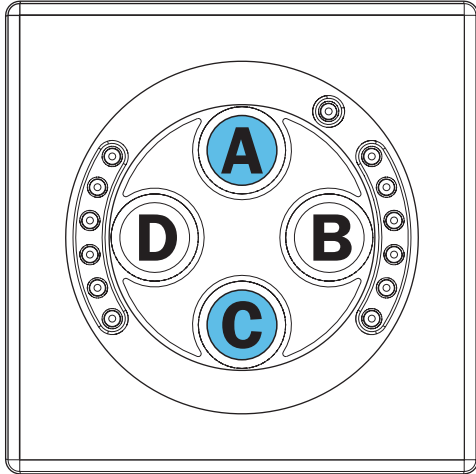
When the boat is out of the water (end of season):

1. Extend the blades
2. Apply decalcifying liquid with a brush
3. Let it sot, for aprox. 15 - 20 mins.
4. Rinse with clean water
5. Retract the blades

Once every 2 years, remove the top cover and clean the inside of the units, using water pressure.

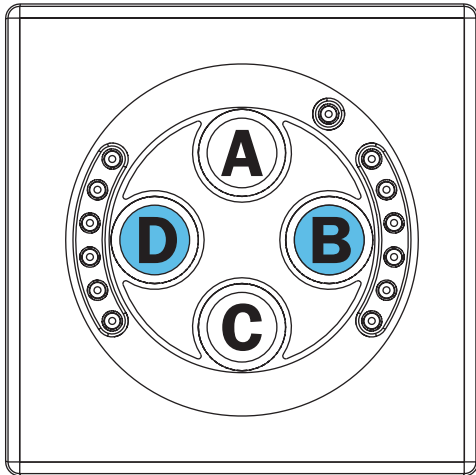
Once every 3 years, check the springs condition.

3DHC CONTROLLER FUNCTIONS



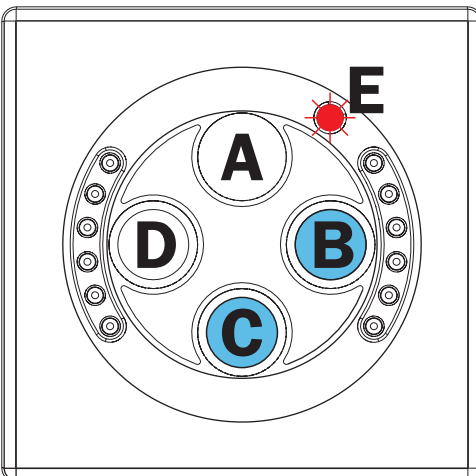
1) Emergency Retracting

Press the **A + C** buttons simultaneously, for 1 second.



2) Day & Night Mode

Change the LED indicator brightness, by pressing simultaneously the **B + D** buttons, for 1 second.



3) Interceptor Position Memory

Press the **B + C** buttons simultaneously, until the red LED **E** blinks, to save the current interceptor position in the memory. The saved position is stored even after switching off the vessel's main switch.

Next time you press **B + C** simultaneously for 1 second, the interceptors will be automatically extended in the previously memorized position.

PLEASE NOTE: If you save a new position in the memory, the previous position is automatically erased.

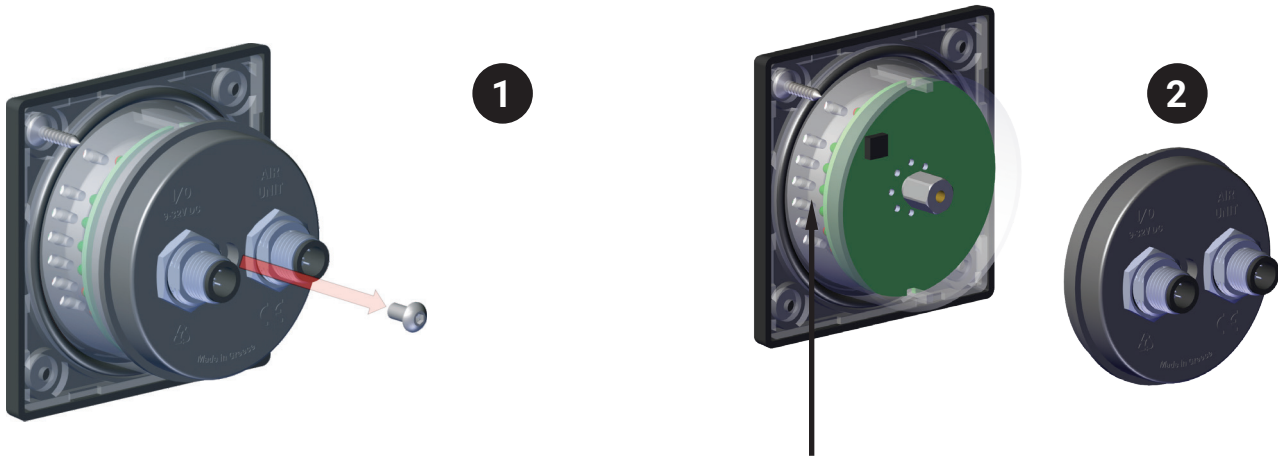
3DHC CONTROLLER ADAPTATION

THE CONTROLLERS INCLUDED IN THE PACKAGING, ARE PRE-ADJUSTED.

PLEASE NOTE: The following instructions must be executed strictly by authorised technicians, and only in the following cases:

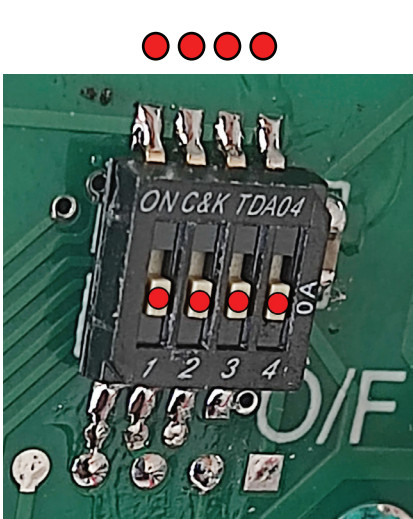
- Replacing a controller with a new one, after failure
- Installing a secondary controller that was not included in the initial set (Flybridge)

HOW TO ACCESS THE 3DHC CONTROLLER

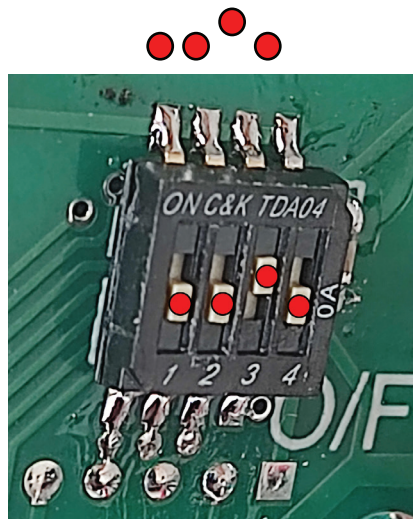


1) Remove the central screw, from the back cover.

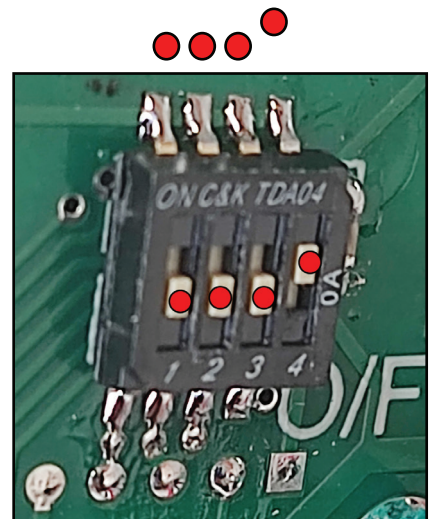
2) Locate the switch in the PCB and adjust as shown .in the following images.



320BT

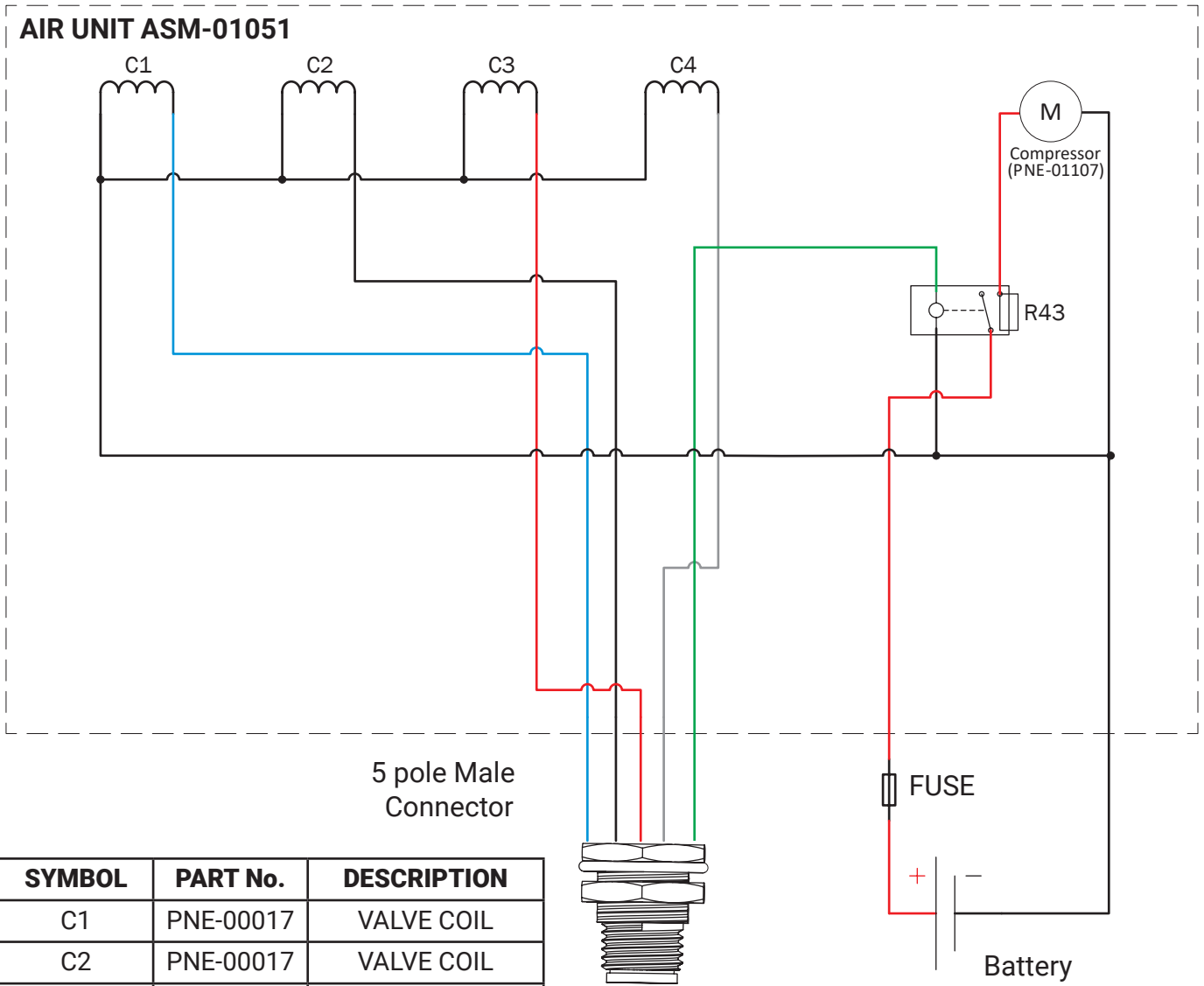


480BT



640-800-960BT

WIRING DIAGRAM



SYMBOL	PART No.	DESCRIPTION
C1	PNE-00017	VALVE COIL
C2	PNE-00017	VALVE COIL
C3	PNE-00017	VALVE COIL
C4	PNE-00017	VALVE COIL
R43	-	RELAY 12 OR 24V
F2	-	FUSE 3A

ATTENTION!
To avoid voltage drop use the right cable size.

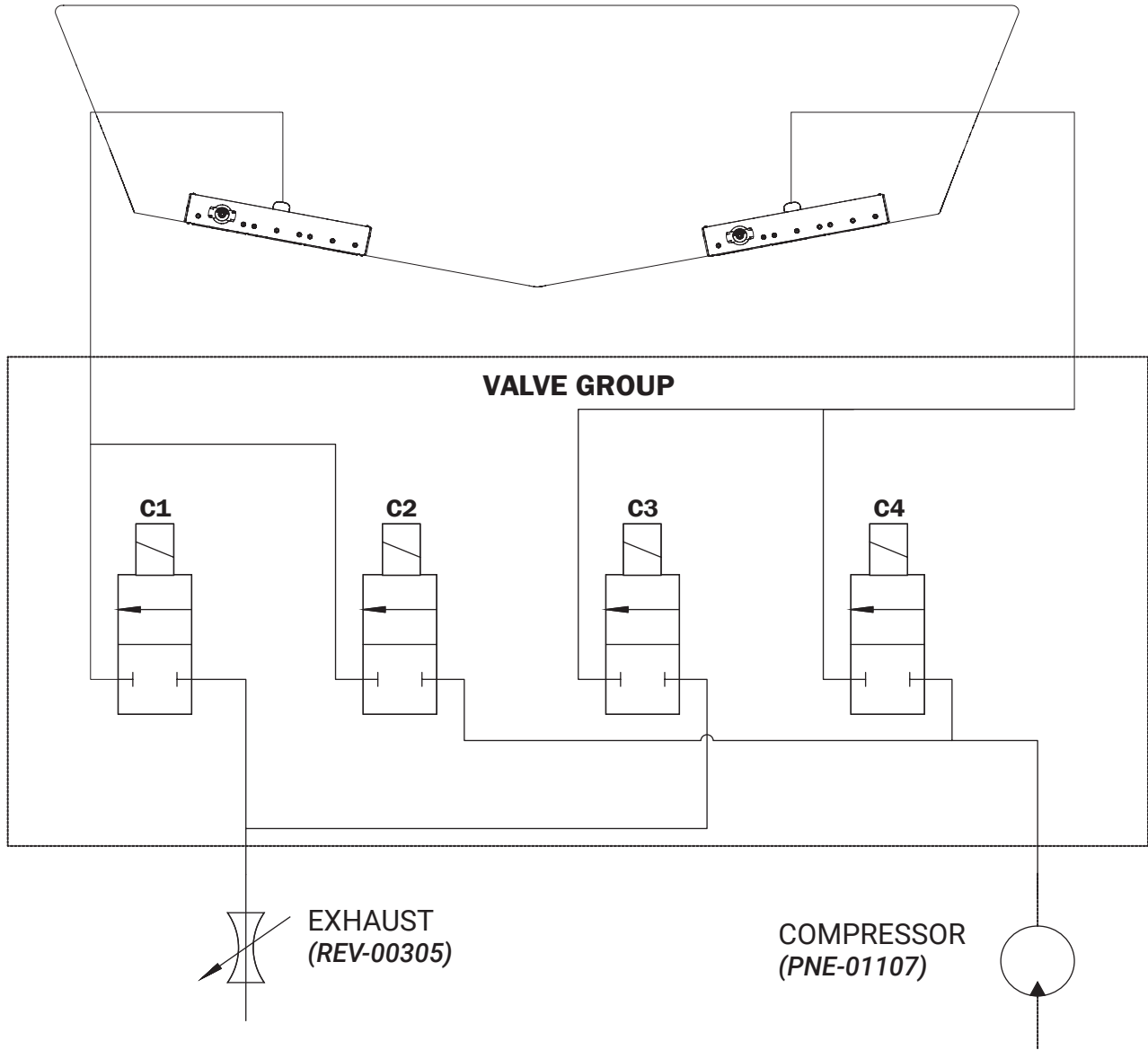
AIR UNIT POWER CABLE SIZE	
DISTANCE FROM BATTERY	CABLE SIZE
up to 2.5 m	2 x 2.5 mm
up to 4 m	2 x 4 mm
up to 6 m	2 x 6 mm
up to 10 m	2 x 10 mm

WARNING!
Advise the fusing table and ensure that you apply

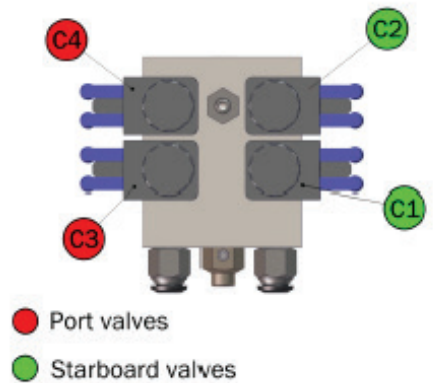
DC	Amps	Use Fuse
12V	9A	15A
24V	16A	25A

Supply 12/24V

PNEUMATIC DIAGRAM



SYMBOL	PART No.	DESCRIPTION	NOTES
C1	PNE-00017	COIL	STARBOARD RETRACT
C2	PNE-00017	COIL	STARBOARD EXTEND
C3	PNE-00017	COIL	PORT RETRACT
C4	PNE-00017	COIL	PORT EXTEND





WARRANTY CONDITIONS

FW, TS and BT Series Interceptor Units (**NOT complete systems**) are covered by a 5-year Warranty.

SR Series Interceptor Units (**NOT complete systems**) are covered by a 2-year Warranty.

Recoil springs, electrical/electronic parts & devices are covered by a 2-year warranty.

Anodes (consumables) are not included in the warranty (for BT, FW, TS Series).

HydroTab's warranty only covers the costs of repair or spare part replacement.

It is the sole responsibility of the buyer to choose the correct system, and even after HydroTab's suggestion for a system, the overall responsibility lies to the end buyer.

Provided that the system is installed, according to the provided installation manual, and no damage has been caused, due to improper handling or practices, HydroTab will replace any defective or improperly manufactured parts, within the applicable warranty period.

HydroTab only covers the parts' replacement. **Fitting or shipping costs are not covered by warranty.**

HydroTab will decide if the company will repair or replace any given part.

Repaired or replaced products will assume the remainder of the warranty time and **under no conditions will the full time of warranty be renewed.**

Limited warranty period is two (2) years, starting from the date the product ships out from HydroTab's premises.

Extended limited warranty period is provided in case:

- a) *HydroTab trim system is included as equipment of a newly purchased boat directly by from the boat builder or his reseller.*
- b) *HydroTab trim system has been purchased through an authorized Hydrotab dealer.*

The extended limited warranty period is valid for three (3) years from the shipping date, provided that the customer has downloaded, filled & submitted the online registration form within one month (30 days) from the purchase, from the following URL:

<https://www.hydrotab.gr/product-registration>

In case the dealer sells separately Interceptor Units, Air Units and/or Controller Units, that comprise a full system, which is not initially sold (as a complete system) by HydroTab, the dealer has the responsibility to provide the individual Serial Numbers for the Interceptors, Air Units and Controllers, as well as to guide the end user for their proper registration, in order for the extended warranty to be valid.

The authorized dealer is responsible for the product's service.

For any service and/or part replacement during warranty period, it is necessary to provide the original invoice. For the replacement of any part of the system (Interceptors, Air Units, Controllers etc.) under warranty, the replaced parts must be returned to HydroTab Marine Engineering for inspection, otherwise the warranty is not valid. Cost of dismantling / assembly and spare parts transportation is borne by the user.

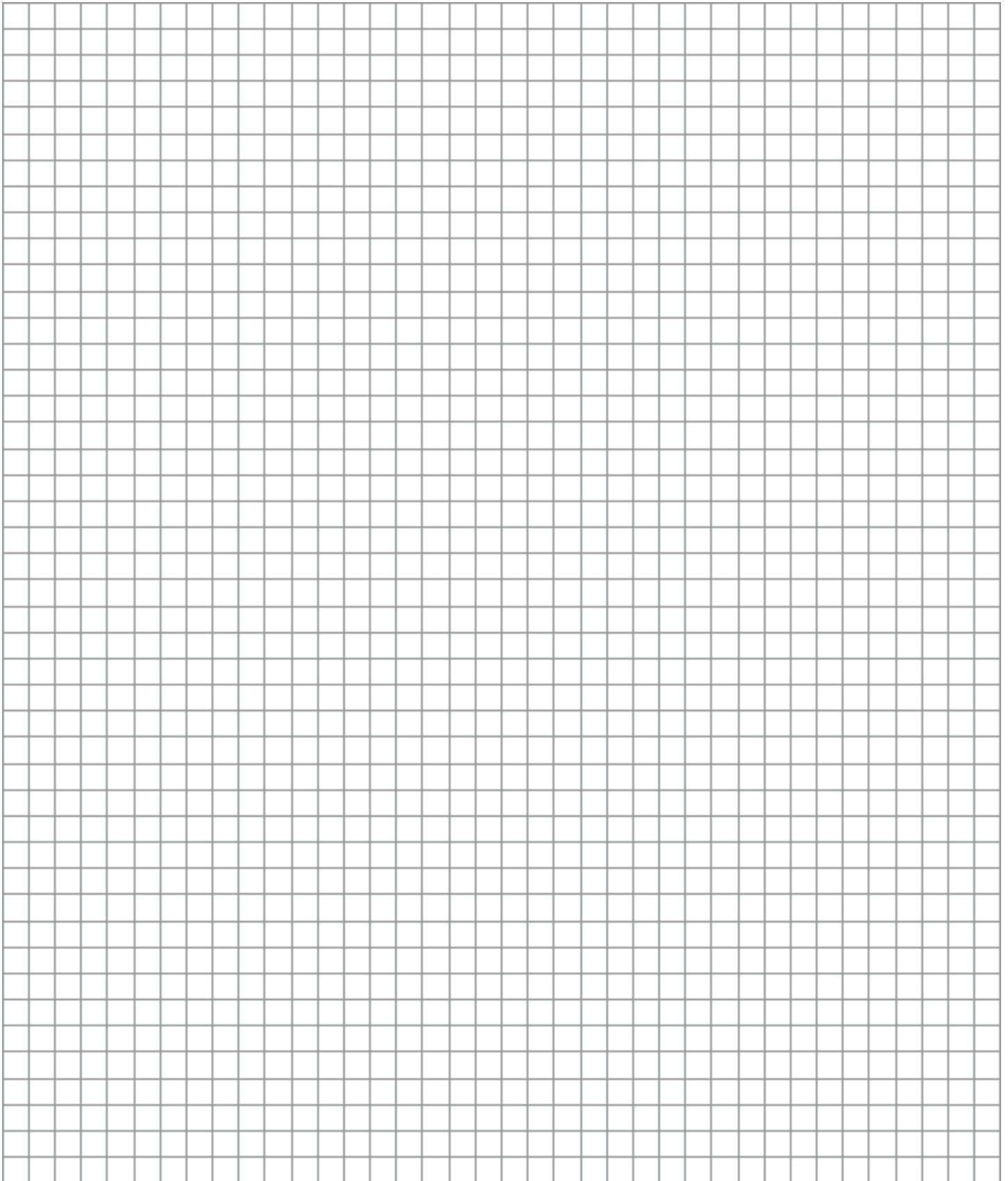
The warranty does not foresee, under any circumstances, replacement of the complete HydroTab system.

What the warranty does NOT cover:

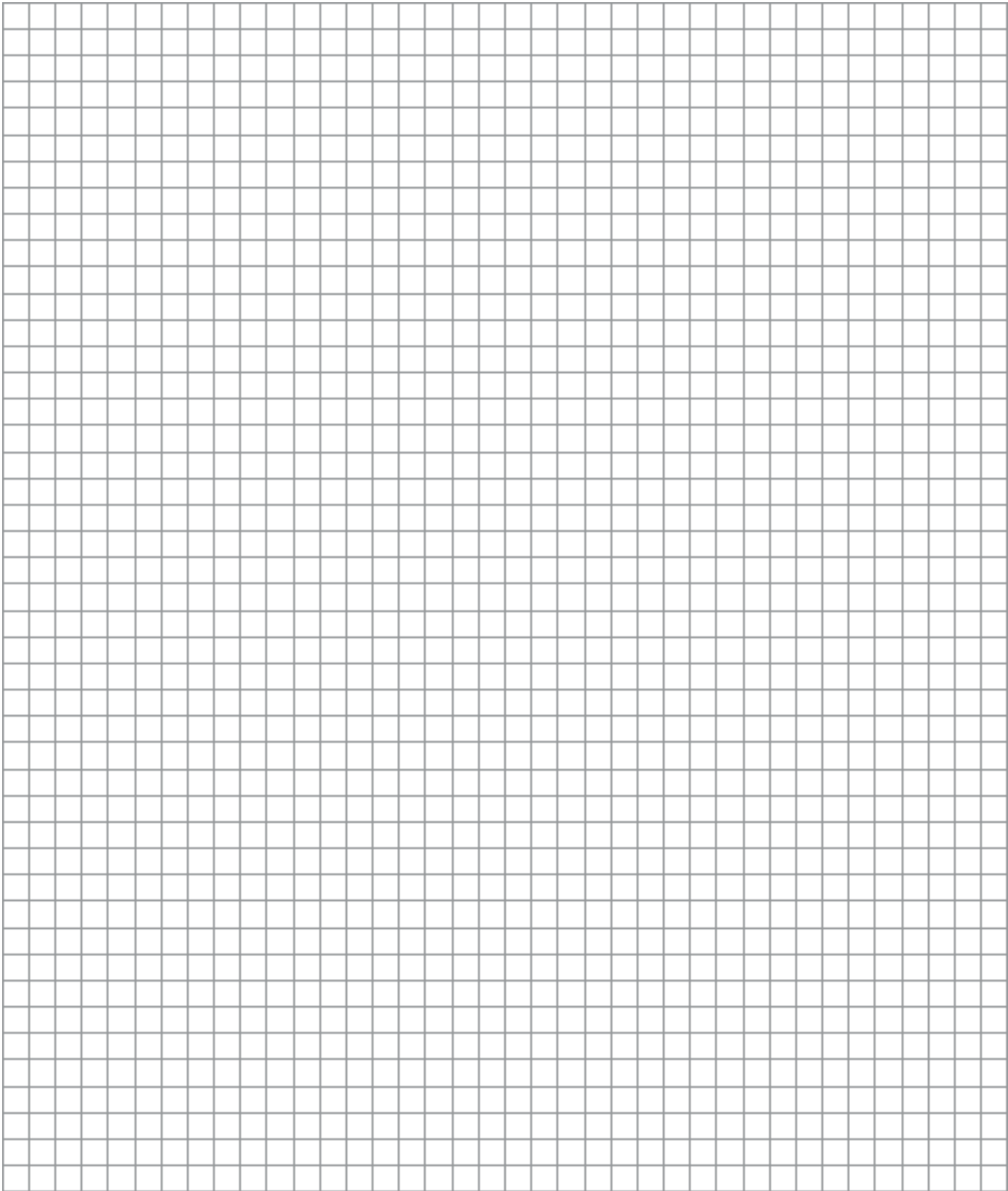
- a) *Damage caused by the lack or non-replacement of worn anodes (applies to BT, FW, TS Interceptor Series).*
- b) *Damage caused by improper installation and/or use not consistent with the manual.*
- c) *Damage with external visible deformation of the product caused by misuse of the user or other external causes.*
- d) *Damage to any component caused during transportation, installation or repair from non-authorized personnel.*
- e) *Conversions or modifications made after the initial sale.*

N. Triantafyllis Ltd (HydroTab Marine Engineering) is not liable for any incidental, indirect or consequential damages or losses, including, without limitation: travel expenses, transport, lifting & hauling, costs, loss of income, time, property, and/or profits, personal injury or damage of any products, different from those that the company distributes. Any further (except the above mentioned) commitment of the intermediate dealer regarding the sale terms or servicing of Hydrotab products does not create any liability of our company.

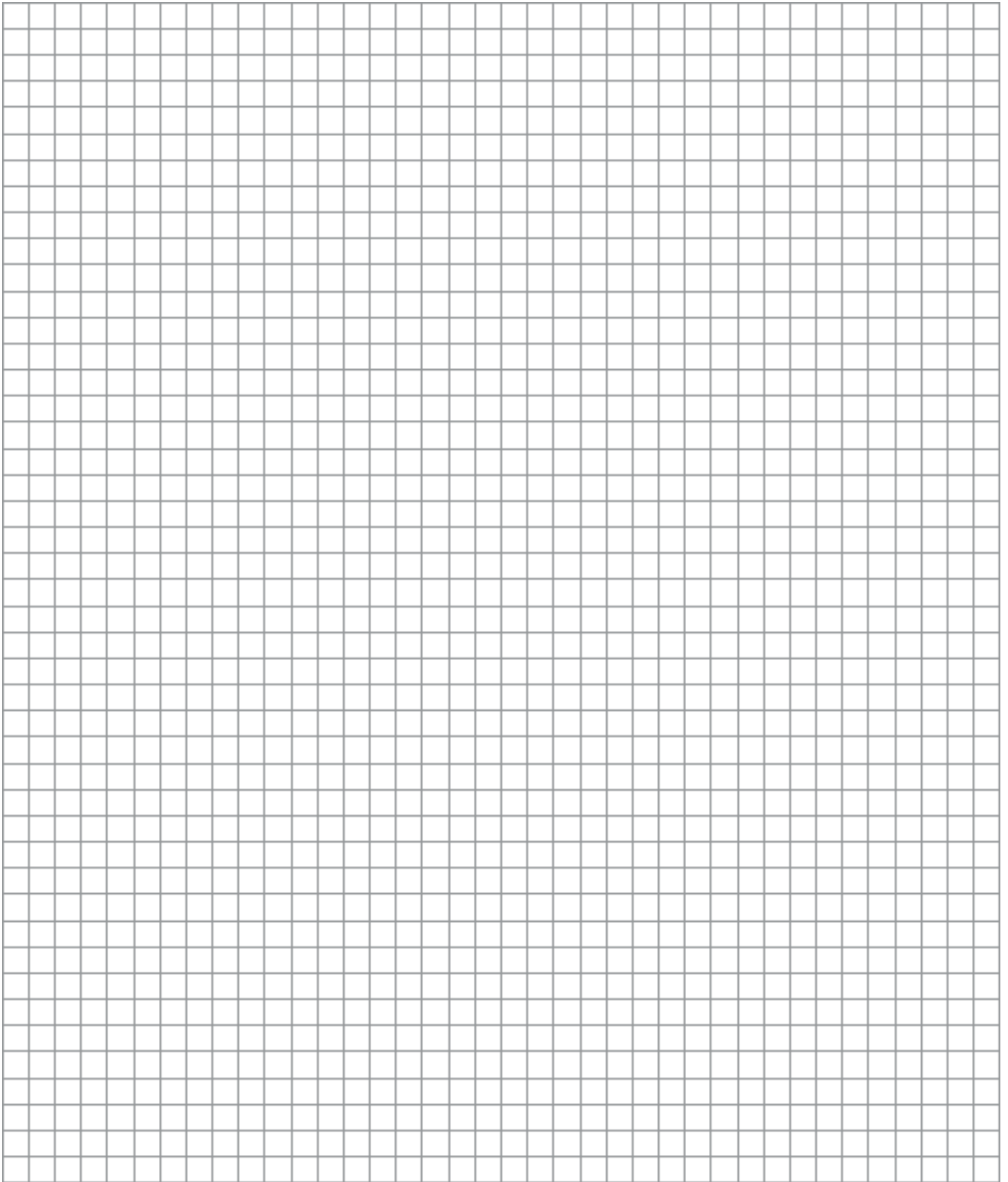
NOTES

A large rectangular area filled with a light gray grid pattern, intended for taking notes. The grid consists of small, uniform squares.

NOTES

A large rectangular area filled with a light gray grid pattern, intended for taking notes.

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A large rectangular area filled with a light gray grid pattern, intended for taking notes.



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