



**C 20 - 00130 BITACORA DE REFLEXION
C20 - 00130 MAGNETIC COMPASS OUTFIT**

MANUAL DE INSTALACIÓN
INSTALLATION & OPERATORS MANUAL

C/ ITALIA , 1
08320 EL MASNOU
BARCELONA
T. +34 93 540 99 49
F. +34 93 540 99 51
info@autonauticinstrumental.com
www.autonauticinstrumental.com

CONTENIDO

CONTENTS

CARACTERISTICAS / CHARACTERISTICS

INSTALACIÓN / INSTALLATION

AJUSTE DEL COMPAS / COMPASS ADJUSTING

MANTENIMIENTO / MAINTENANCE



FEATURES C20 - 00130 MAGNETIC COMPASS OUTFIT

- 125 mm. Reflector compass outfit.
 - Reduced shipyard installation work.
 - Modular design.
- LED lighting 24 –12 v. And emergency LED lighting 3 v. with AAA batteries
- Periscope provides the best image (+30° - 30°) vision.
 - Cover made with quality waterproof material.
 - ABS binnacle with high impact resistance.
 - Special paint treatment to protect against the saline mist.
 - Compensation system.
 - Watertightness connecting box .

INSTALLATION

Positioning

IMO Resolution A382(X) Magnetic Compasses Carriage and Performance Standards includes a section on the positioning of the magnetic compass. It is also strongly recommended that ISO 694 - Positioning of Magnetic Compasses in Ships - is complied with. If, due to the special construction of the vessel, it is necessary to deviate from these, then the Flag State Authority should be consulted, as incorrect positioning can affect the expected performance of the magnetic compass.

Installation

Details and notes within the installation drawings give adequate information to carry out an installation.

Care should be taken to ensure the vertical axis of the periscope and binnacle are parallel. If there is any doubt as to the capability of the shipyard methods to guarantee this, then we recommend the following:-

- a) Fit the binnacle as per drawings.
- b) Fit the compass in the binnacle.
- c) Locate the periscope into the base of the binnacle as per drawing.
- d) Hold the periscope in position and check that the compass card can be viewed through the mirror. Adjust the position if necessary.
- e) Secure the ceiling flange.

2. COMPASS ADJUSTING

The binnacle has a compensation system built-in. The compass adjusting must be carried out by a professional compass adjuster.

The C20 binnacle compass is simple to adjust or compensate. The compensators are the slotted shafts in the holes on the compass; note that the slots are positioned parallel with the bottom of the case.

With the slots in this position, the compensators are in neutral and are not affecting the compass Reading.

Turn the compensators with a piece of brass or cooper of proper thickness. Do not use a screwdriver, as they are often steel and may interfere with the adjusting process. Begin the adjusting procedure after having located N-S and E-W or sighting points whose direction is reliable known or can be determined from the Coast and Geodetic Survey of the local area.

As the compass is strictly a magnetic device, it will indicate only magnetic headings. The compensators are used only to minimize any magnetic affect of metal parts of the boat and cannot be expected to correct the compass for true bearings.

1. Line up the boat on the mark for the North heading and observe the compass reading. If it is not indicating a North heading, turn one of the compensators shaft slowly until the Reading is North.
2. Turn the boat to the East maker and correct for one-half the error observed by turning the other shaft.
3. Repeat the steps above, if necessary, correcting for one-halfobserved error in each direction.

3. MAINTENANCE

Compass Bowl

The compass bowl should be regularly inspected to ensure that there are no leaks or bubbles. In addition, the upper and lower glass should be maintained in a clean condition, and the compass gimbaling checked.

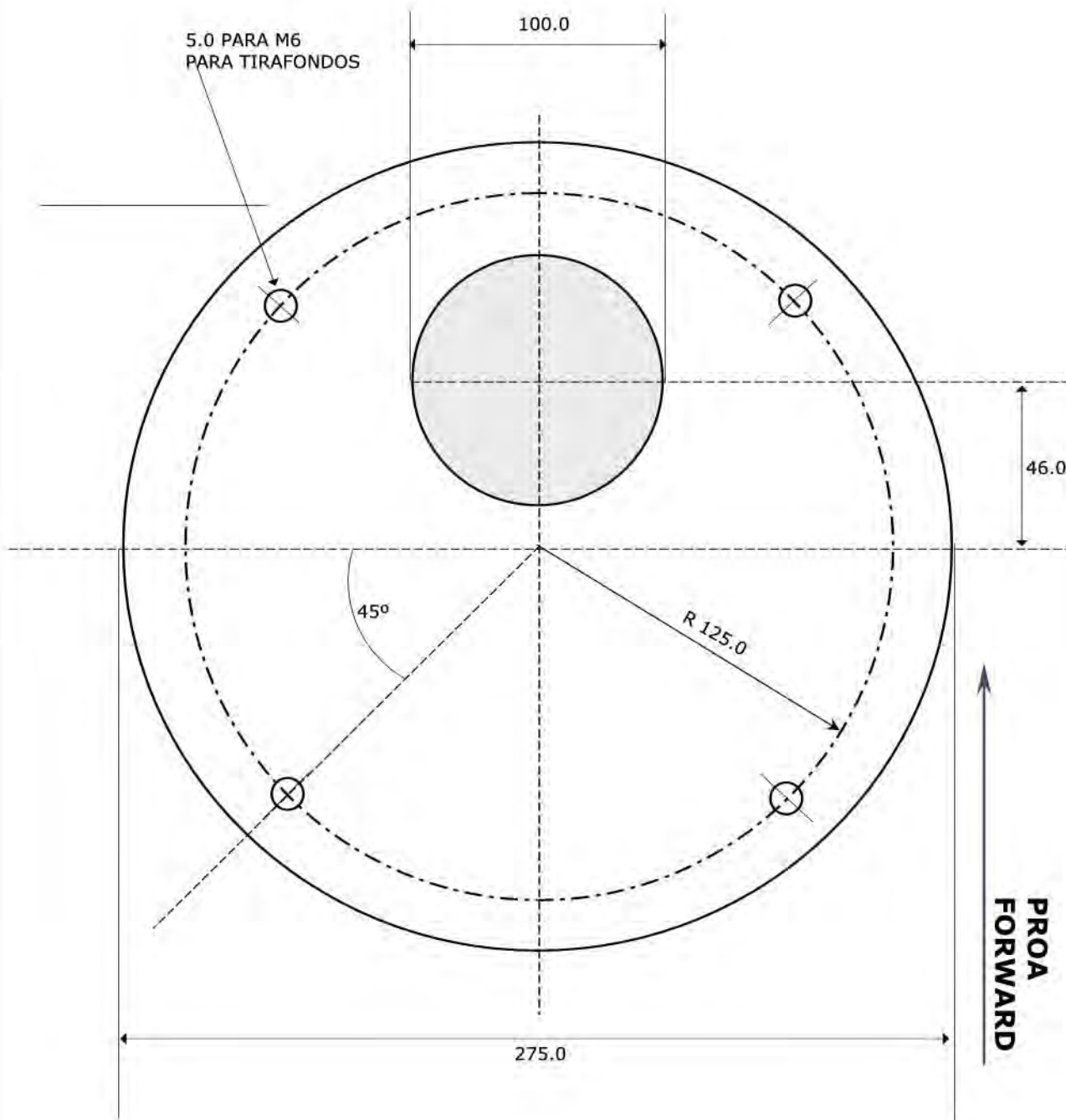
A few times per year, and more regularly on vessels with high vibration levels or following heavy weather, an operational test should be carried out on the magnetic compass to ensure that no friction has developed on the pivot and jewel. This operational test should be carried out as follows:-

Whilst the vessel is alongside, bring a magnetic object towards the compass so that the heading is deviated by 2 degrees. Hold the deviated compass card in this position for 10 seconds, and then release by removing the magnetic object. When the compass card settles it should be within 15 seconds of arc of the original heading. If the compass card does not return within this limit then there is a high level of friction between the pivot and jewel. The compass should be overhauled by a competent authority.

Binnacle

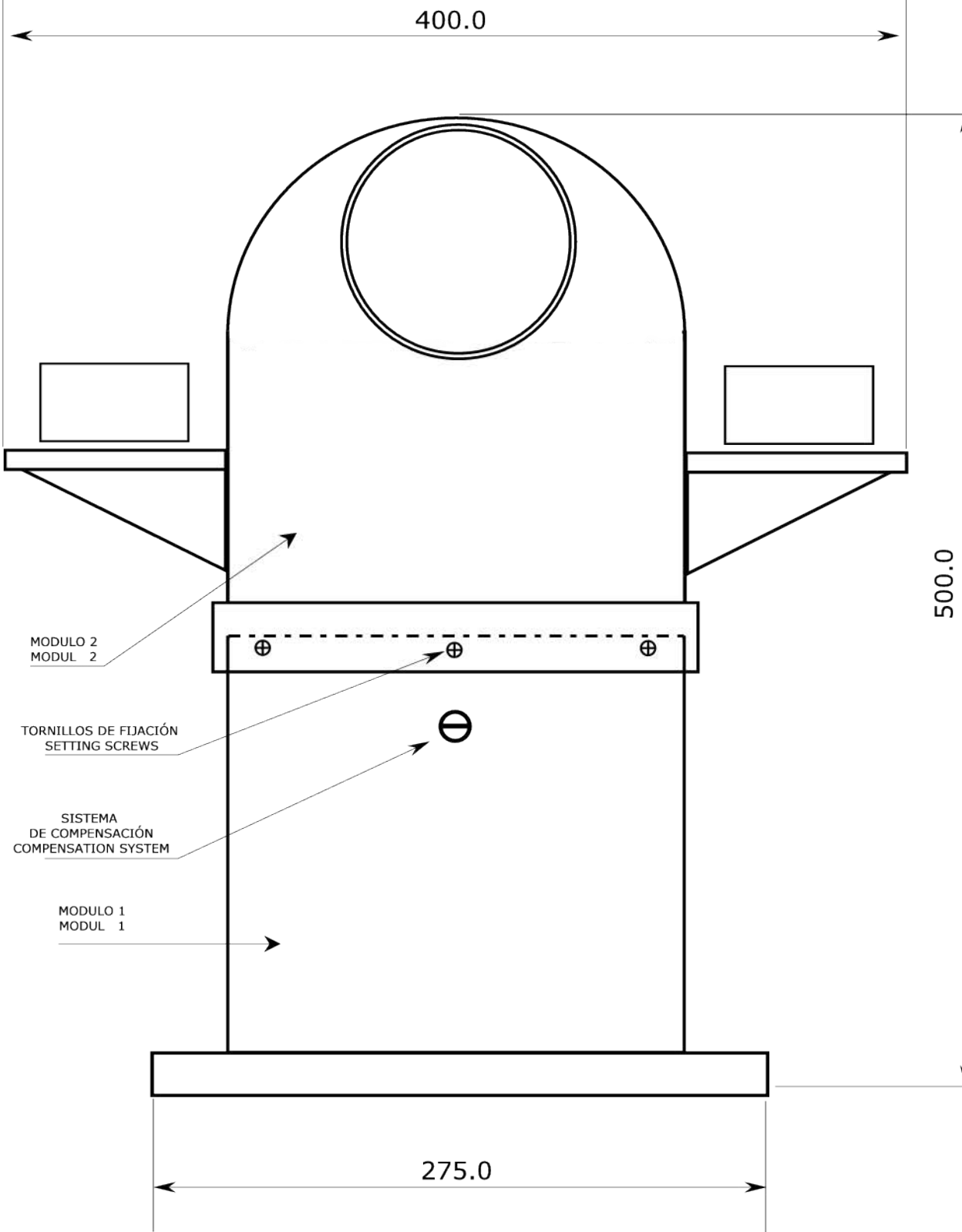
The C20 Binnacle has one of the simplest periscope arrangements, utilising only one lens and mirror. The lens is easily removed for cleaning at periodic intervals from the forward side of the binnacle.

The only area where maintenance may be required is with the binnacle lighting. There are two LED lamps within the binnacle, and an additional spare, all accessible by removing the binnacle.



C/ ITALIA , 1
 08320 EL MASNOU
 BARCELONA
 T. +34 93 540 99 49
 F. +34 93 540 99 51
 info@autonauticinstrumental.com

MATERIAL	REFERENCIA	NOM PEÇA
	C 20 00130	PLANTILLA BASE
DATA	SIGNATURA	
20/3/2008		



MODULO 2
MODUL 2

TORNILLOS DE FIJACIÓN
SETTING SCREWS

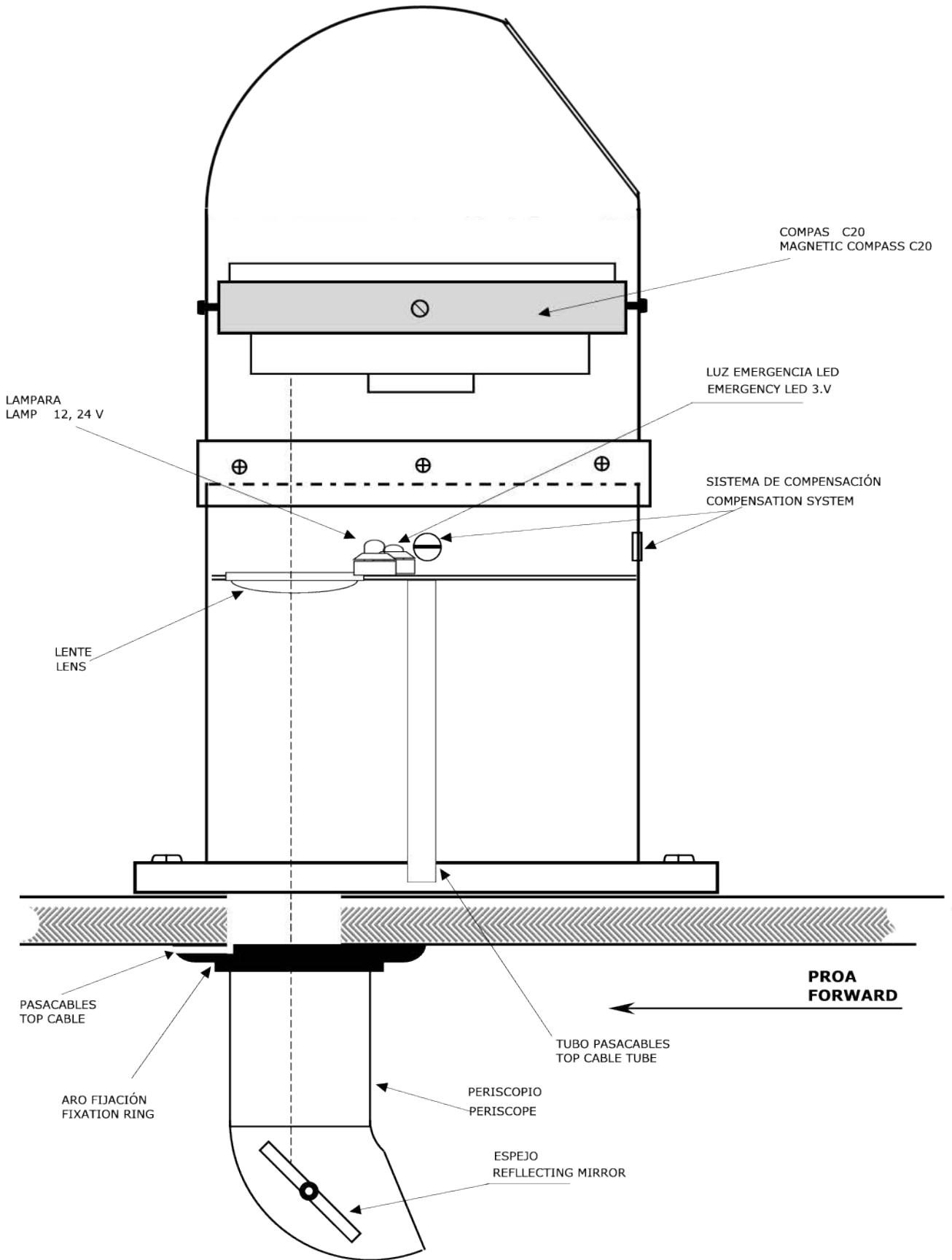
SISTEMA
DE COMPENSACIÓN
COMPENSATION SYSTEM

MODULO 1
MODUL 1



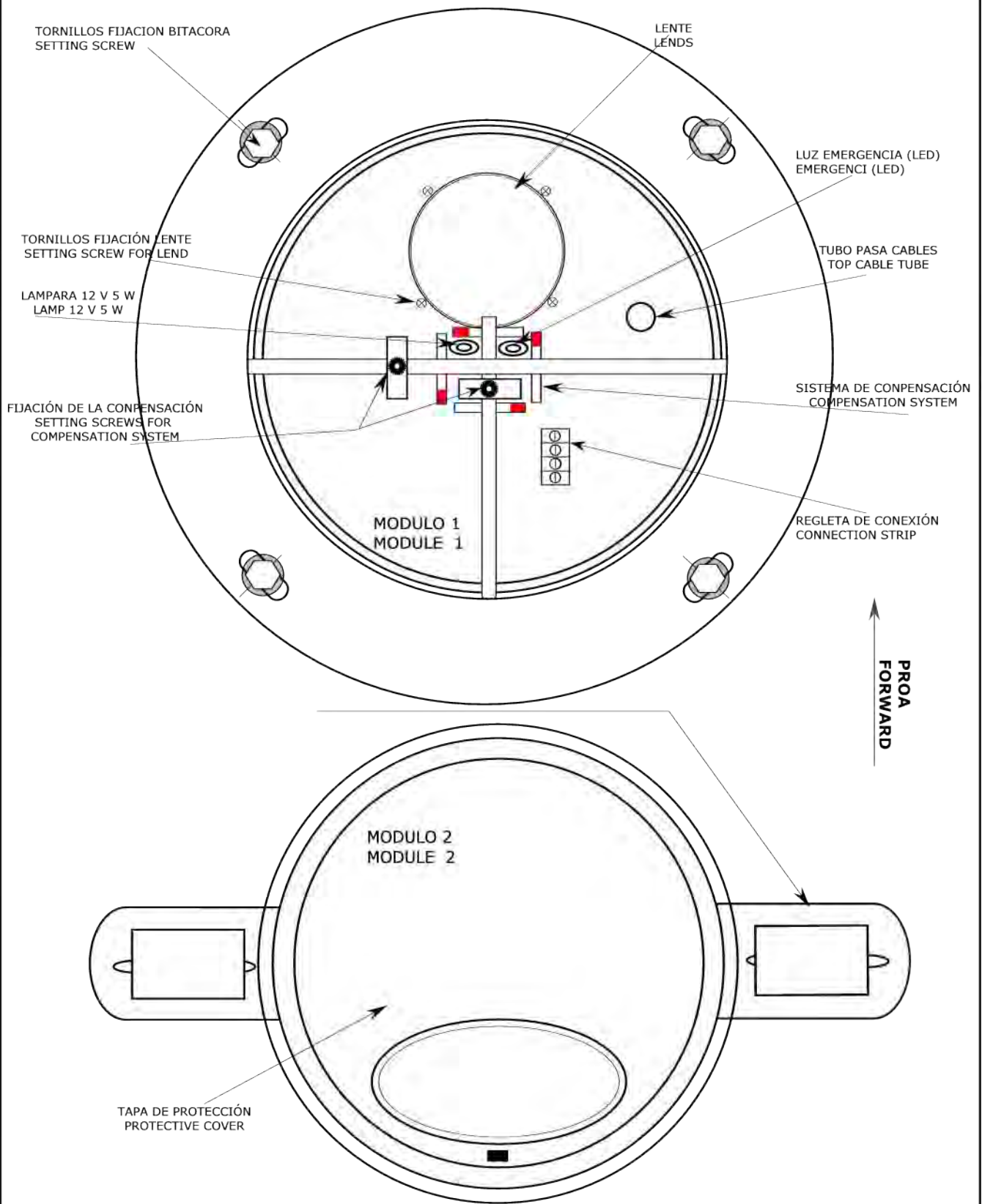
C/ ITALIA , 1
08320 EL MASNOU
BARCELONA
T. +34 93 540 99 49
F. +34 93 540 99 51
info@autonauticinstrumental.com

MATERIAL	REFERENCIA	NOM PEÇA
ABS	00130	BITACORA C 20 00130
DATA	SIGNATURA	BITACORA DOS MODULOS
20/3/2008		



C/ ITALIA, 1
 08320 EL MASNOU
 BARCELONA
 T. +34 93 540 99 49
 F. +34 93 540 99 51
 info@autonauticinstrumental.com

MATERIAL	REFERENCIA	NOM PEÇA
ABS	00130	BITACORA C20 00130
DATA	SIGNATURA	
20/3/2008		

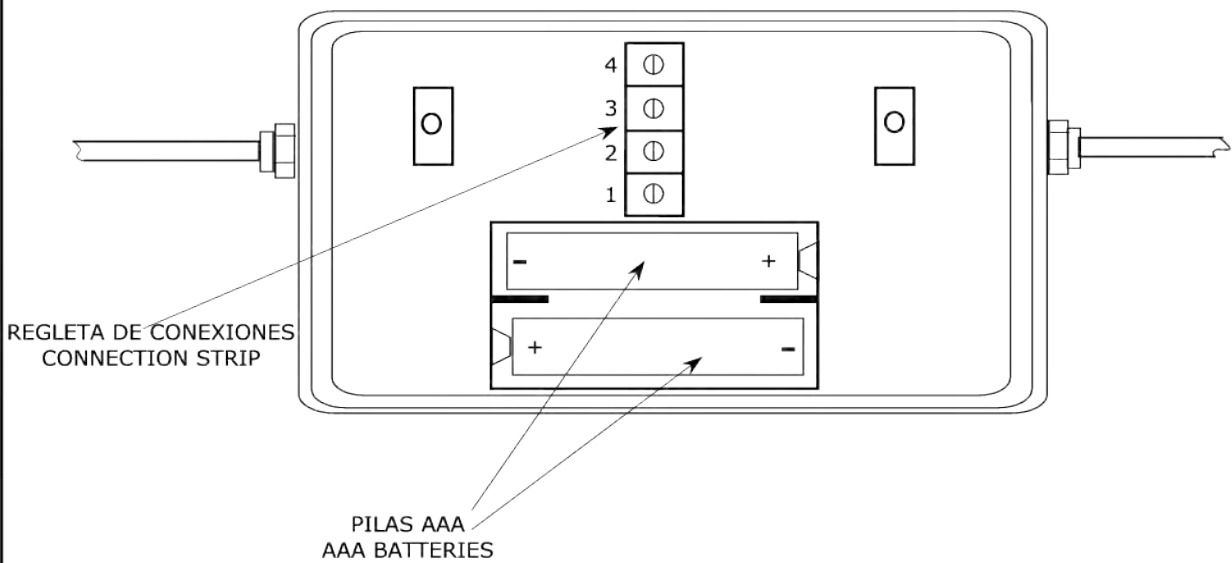
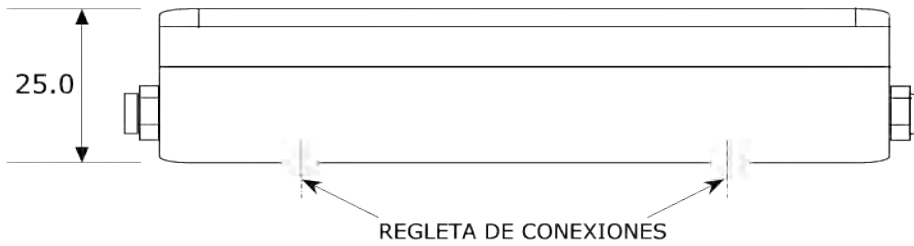


C/ ITALIA , 1
 08320 EL MASNOU
 BARCELONA
 T. +34 93 540 99 49
 F. +34 93 540 99 51
 info@autonauticinstrumental.com

MATERIAL	REFERENCIA	NOM PEÇA
ABS	00130	C 20 00130
DATA	SIGNATURA	
20/3/2008		

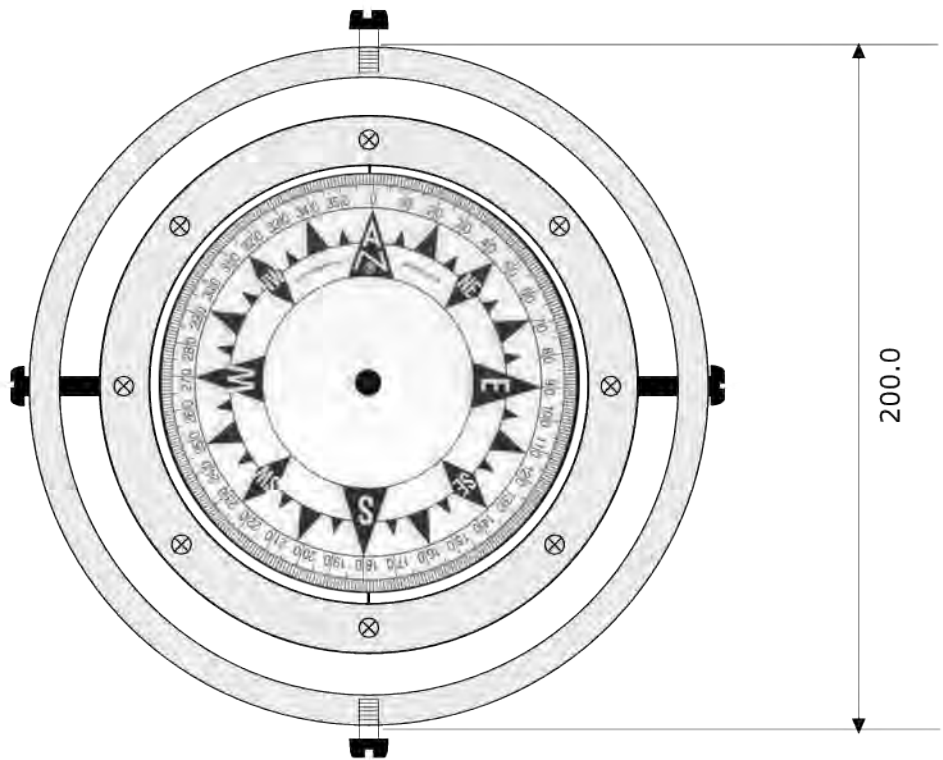


ILLUMINATION CONTROL UNIT
CAJA SERVICIO ILUMINACIÓN



C/ ITALIA , 1
08320 EL MASNOU
BARCELONA
T. +34 93 540 99 49
F. +34 93 540 99 51
info@autonauticinstrumental.com

MATERIAL	REFERENCIA	NOM PEÇA
ABS	00130	CAJA DE CONEXIONES
DATA	SIGNATURA	
20/3/2008		



C/ ITALIA, 1
 08320 EL MASNOU
 BARCELONA
 T. +34 93 540 99 49
 F. +34 93 540 99 51
 info@autonauticinstrumental.com

MATERIAL	REFERENCIA	NOM PEÇA
		COMPAS C20
DATA	SIGNATURA	
20/3/2008		