

Dual EasyBUS Amplifier/Separator

USER AND INSTALLATION MANUAL



Description

The AMP102D is a module with an integrated microprocessor that acts as insulator and amplifier of 2 channels of the BUS signal. The module can be placed inside the switchboard, and it is din rail mountable.

It has 3 BUS connectors, one dedicated to the BUS connection inside the switchboard, the others two to the connections of 2 EasyBUS line coming from the field. Both outputs can be resetted by two dedicated buttons, and it is possible to inhibit the positive of the 24V on the outputs connectors (useful in case of interconnection between more than one switchboard with a power supply in each, or to isolate an EasyBUS loop during the start up of the system).

It is present also a connector usable as service connector for Yachtica technician

The module has LEDs to monitoring the flow of network data BUS on both sides.



Table of Contents

Before starting	page 3
Functionality	page 3
Connectors Description	page 4
Module Layout	page 5
Wiring diagram 1 (max 6A)	pages 6-7
Wiring diagram 2 (max 10A)	pages 8-9
Wiring diagram 3 (max 10A)	page 10
Addressing module with Software Cabot	pages 11-12
EasyBus Wiring	page 13
Technical specifications	page 14

Important information

- This installation manual has been written from the manufacturer and is an integrating part of this product.
- The informational message is addressed to the operating experts who execute the installation and the extraordinary maintenance of this product.
- The operating experts must possess specific competences and particular abilities to carry out correctly and safely their work.
- The constant observance of the information included in this manual guarantees safety of men, use economy and a longer duration of product operative-life.
- In order to avoid wrong handling and the consequent risk of incidents, it is important to read this manual carefully, observing scrupulously the supplied information.

Safety Measures

- Carry out any intervention as specified by the manufacturer.
- The installer must verify the correct installation and operation of the product.
- It is prohibited to use the product for improper purposes or purposes different from those provided.
- It is prohibited to tamper or to modify the product.
- Delimitate the work area in order to avoid the access of unauthorized persons.
- Don't leave the work area unattended.



General Description

Before starting

Position the module inside a switchboard and follow carefully the wiring diagrams. Always disconnect the power supply for electronics before carrying out any type of electrical connections on the module according to the following specifications.

Cabling

The module has 3 couple of connectors, 2 in the upper side, dedicated to the BUS lines that start from the switchboard, 1 in the lower part, dedicated to the BUS line inside the switchboard. Please refer to the next pages for a detailed description of the connectors and for the wiring diagrams. It's present an extra connector different from the others to let Yachtica technician to connect to the net.

Start Up

After finished the cabling, verify with care all the electrical connections then power the module. At this point a green led on the lower side will switch on. If used, even status leds on the upper side start to blink

Warning: if one or boths leds on the outputs connectors don't blink when there is a bus activity (for example when a button is pressed to switch on a light), but they are fixed on, the relative channel is freezed because of a problem on the BUS). Double check the line before move forward, then reset the outputs with the relativebutton.

Functionality

The AMP102D acts as insulator and amplifier of 2 channels of the EasyBUS signal between the switchboard and maximum 2 loop of EasyBUS which start from it (to another switchboard or to a SPA800B loop, see schemes pag 6 and 7).

The status led, permit to identify a possible problem on EasyBUS loops.



Connectors Description

CON1 Input BUS Connector

Connect the BUS cable inside the switchboard to the poles: **A-B e +- C**.

CON2 e CON3 Outputs BUS connectors

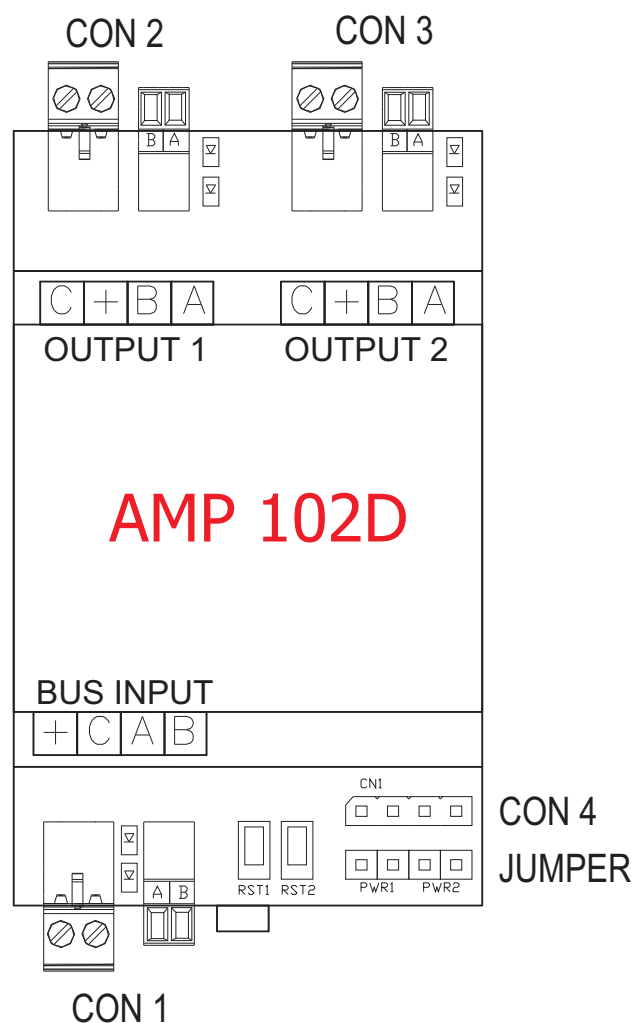
Connect the cables coming from maximum 2 BUS loop to be isolate/amplifier. Always verify all the polarity and all the connections. Connect the positive of an output only if there is the necessity to power the loop connected to it. In case of connection to others switchboards with independent power supply, let this pin unconnected or remove the related jumper at the bottom side of the module.

CON4 Service Connector

Technical connector for Yachtica

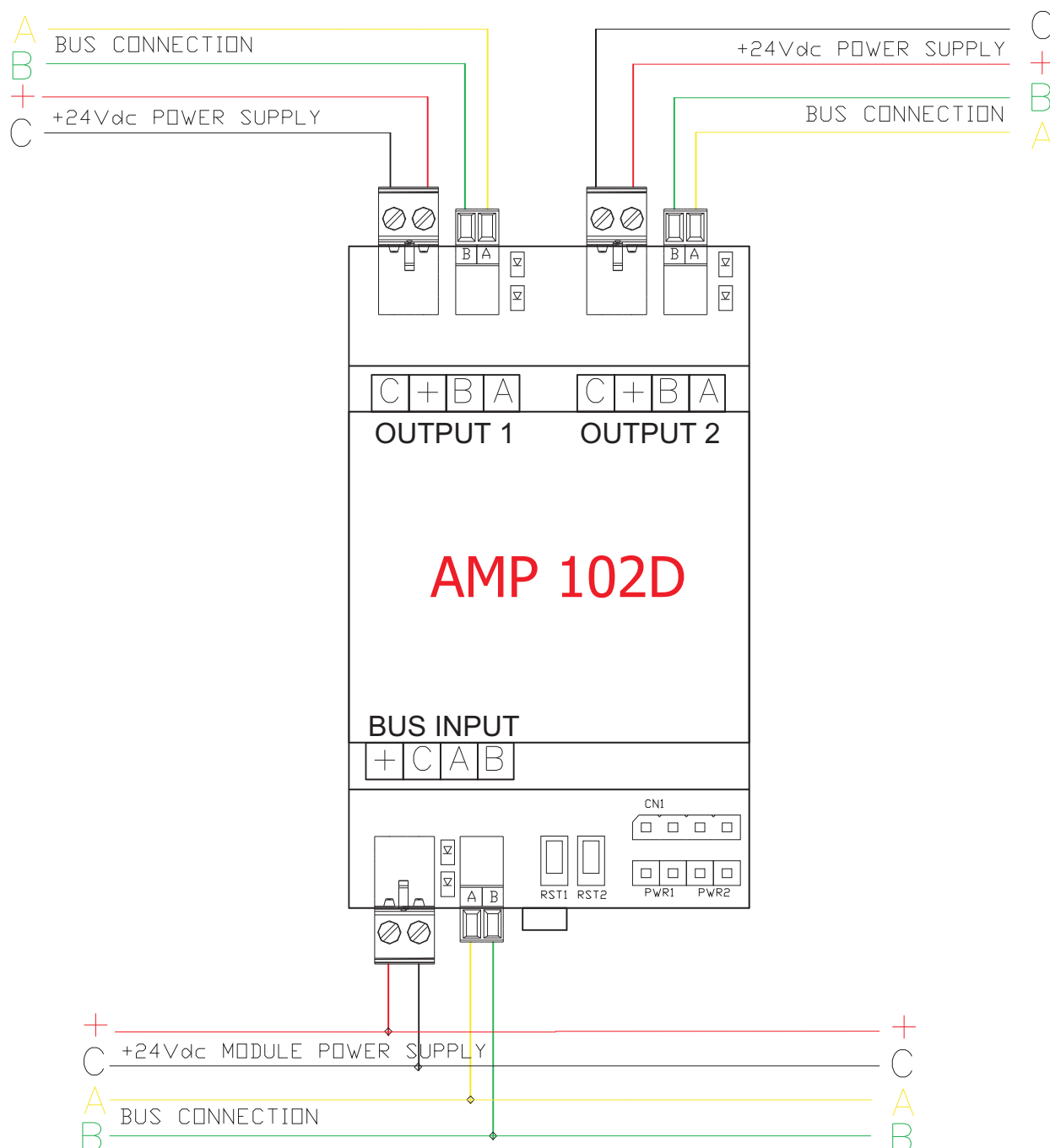
JUMPER

AMP 102D Layout





AMP 102D Wiring Diagram



WARNING

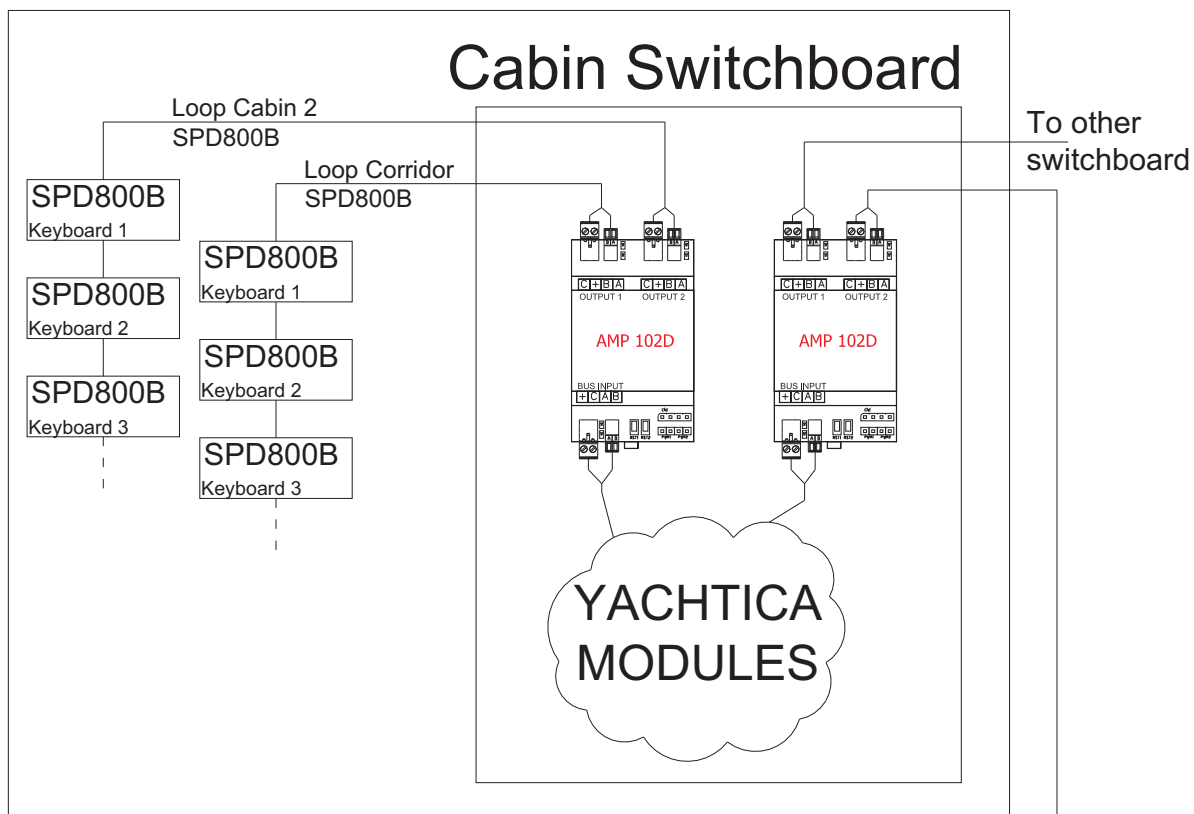
The 24V is pass through. Do not connect different positives (+) from different power supply.



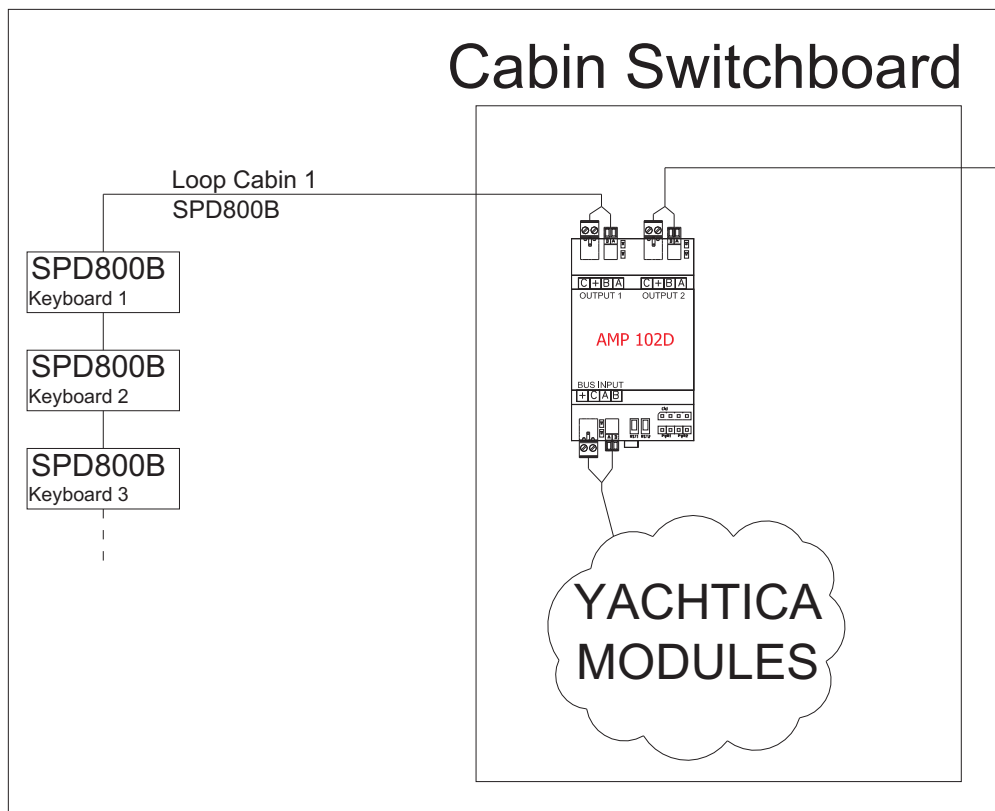
The installation of this product must only be carried out by qualified technicians assistance and/or assembling service

AMP102D Wiring Diagram: local switchboards

CABIN 2

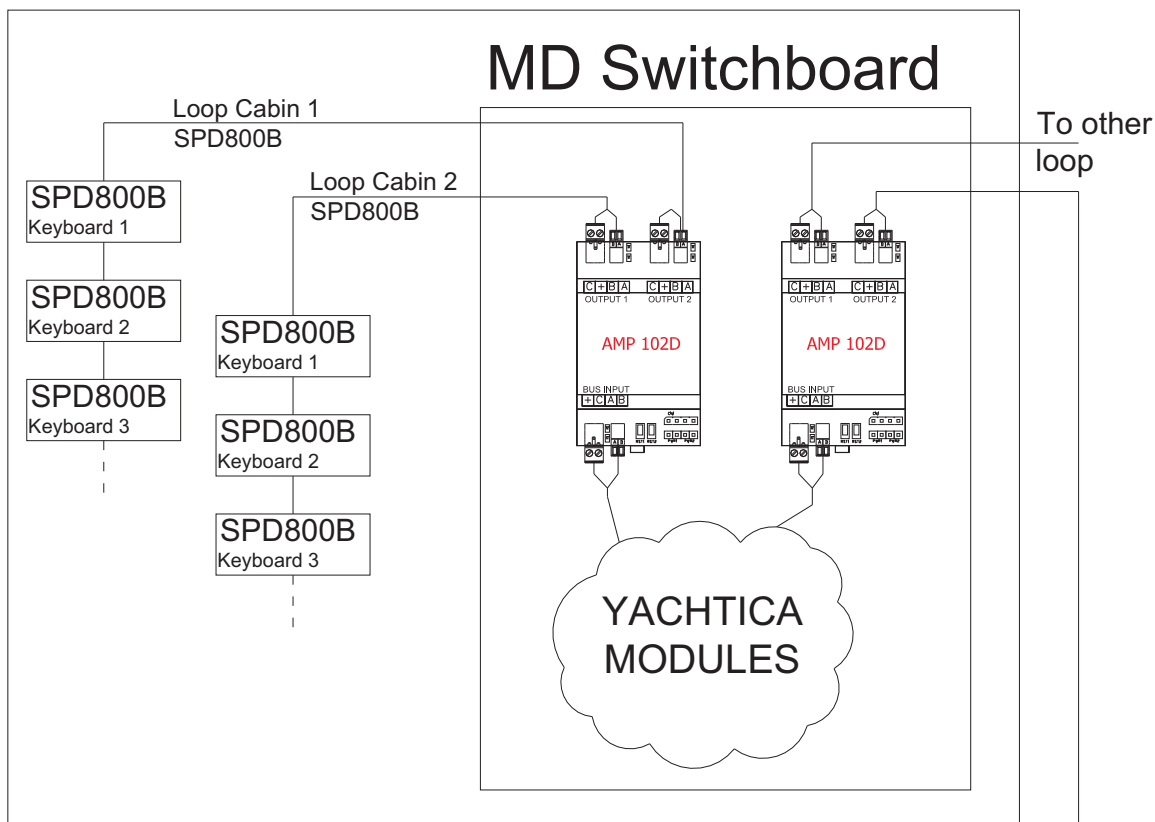


CABIN 1

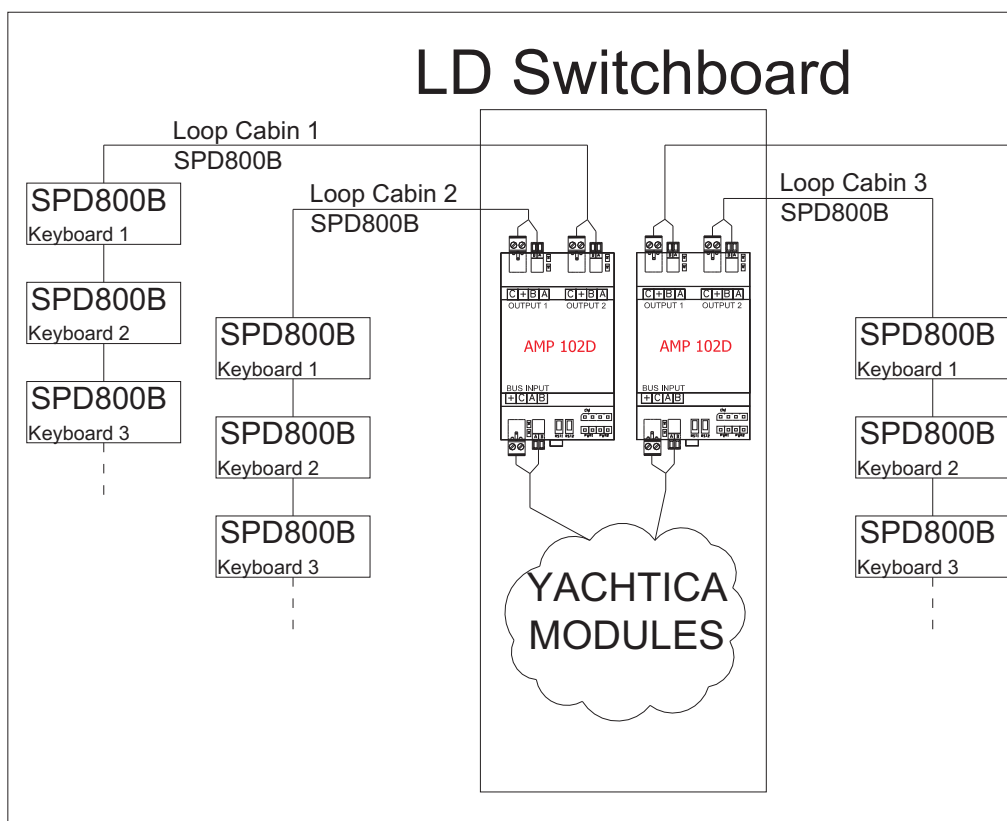


AMP102D Wiring Diagram: Central Switchboard

TECHNICAL AREA MAIN DECK



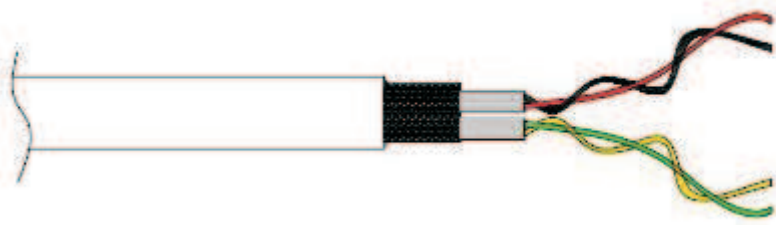
TECHNICAL AREA LOWER DECK





EasyBUS Wiring

For the wiring of EasyBus System use a 2 shielded twisted pairs cable, AWG26.



Use 1 pair for the power ("+" and "C") e 1 pair for the Bus ("A" and "B")

In case of EasyBus loops that start from an electrical switchboard, connect the shield to the "C" on the connector CON1.

NOTE 1: Connect the shield on switchboard side.

NOTE 2: The BUS EasyBUS must be connected in open ring. Do not close the loop in a ring.



Technical Specification

Caratteristiche

4 BUS output connectors
2 BUS connectors for powerinput BUS
Monitoring Led
Removable connectors
Tropicalized electronic
Reset buttons
Jumper to isolate the +24V

Technical Data

Power Supply for the electronics	9-32 V DC
Electronics MAX absorption	30 mA
Operating Temperature	+5 +50 °C
Storage Temperature	-40 +70 °C
Relative Humidity	15% 90% non-condensing
Protection	IP 20
Dimensions	L 54mm x H91mm(escluso connettori) x P63mm
Casing Material	Self extinguishing Noryl
Colour	Grey RAL 7035
Certification	Marked c e



[illegible]

[illegible]



Usage warning

Electrical tension may cause electric shock and severe burns. Be sure to turn off the electrical supply before carrying out any type of work on the connectors. Omission of observation of these safety measures may cause death or severe lesions to people as well as great material damage.

The appliances of the YACHTICA System must be installed and used exclusively by adequately trained and qualified personnel.

Before proceeding with the use of the appliances, make sure to have correctly carried out the installation procedures indicated in this installation manual.

Before proceeding with the use of the appliances, make sure that the electric installation, carried out by a qualified technician in conformity with the Technical Norms, corresponding to the class of homologation of the vessel, in vigour, is provided with the devices prescribed for the protection against direct and indirect contacts and electrical surcharges.

The appliances of the YACHTICA System must be exclusively used in connection with appliances and external components which are conformed to the Norms comparative to the product.

The appliances of the YACHTICA System must be exclusively used in marine environment.

Do not use the appliance if, upon visual inspection, it shows deterioration of the enclosing box or if the screening wraps of the feeding cables show any wear and tear or damage.

The YACHTICA System may not be used to carry out safety and accident prevention functions since it does not have the redundancy requirements lawfully requested.

VIAREGGIO YACHTING CORPORATION S.r.l. shall only be held responsible for products repaired or eventually modified by Technicians of its Technical Assistance Team or by persons/companies expressly authorized by VIAREGGIO YACHTING CORPORATION S.r.l. to carry out such operations and only if such product/s is/are connected to an electrical installation realized in conformity with the Technical Norms in vigour and is/are used by qualified personnel solely in conformity with the Instructions of Use.

VIAREGGIO YACHTING CORPORATION S.r.l. shall not be held liable for damage of any sort or kind in case of appliances used or installed incorrectly.

VIAREGGIO YACHTING CORPORATION S.r.l. shall not be held liable for any damage to persons or things derived from the use of the examples contained in the documents accompanying the appliances.

All rights reserved. Any form of duplication, even partial, of this documentation, must be previously authorized by VIAREGGIO YACHTING CORPORATION S.r.l..

Conformity declarations

All the devices of the Yachtica System is designed and tested with the requirements of the European EMC Directive 89/336 and in accordance with the Low Voltage Directive 93/68



VIAREGGIO YACHTING CORPORATION S.R.L.
VIAREGGIO - ITALIA
TEL. +39 0584 383354 - FAX +39 0584 383270
E-MAIL: info@yachtica.com