

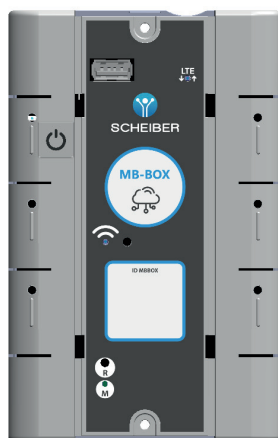


**SCHEIBER**

# MB-BOX

Ref : 36.159xx.00

## User manual & repair guide



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## Acknowledgement

Thank you for your purchase and we hope that this product is entirely satisfactory.

Before you being using the product, we recommend that you read the following instructions carefully. This manual explains how to use and install the product according to the use for which it was intended.

## Safety warnings

### **IMPORTANT: Do not dismantle the device**

Any contact with the components inside the product can cause injuries.  
In the event of a malfunction, only a qualified technician is authorized to repair the device.

### **IMPORTANT: In the event of an impact**

If the product falls or suffers violent impacts, immediately contact a qualified person to make sure that the device is working properly.

### **IMPORTANT: Unpacking the equipment**

After unpacking the product, make sure that it is complete and in good condition: if in doubt, immediately contact someone with the required professional qualification.

### **IMPORTANT: Unpacking the equipment**

Do not leave any part of the packaging within the reach of children or irresponsible people.

## Related accessories

Designation	Reference
120Ω BUS CAN termination	0D.CRD399
Micro-Fit / M12 (NMEA) adapter	0D.CRD630
USB-card micro SD adapter	0R.INF420
USB-C / RJ45 adapter	0R.INT430
GPS antenna - 5M cord	0I.CED522
Power harness	0D.CRD310

## Equipment description

The MB-BOX is a complete and scalable solution similar to a home automation box consisting of the physical MB-BOX box and, optionally, dedicated applications. It can be integrated into land vehicles as well as boats, it centralizes all installation data, controls equipment and carries out maintenance operations, all remotely and worldwide thanks to the 'application.

## Characteristics



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	MB-BOX
REFERENCE	36.159xx.00
POWER SUPPLY	9-32 V DC
PERIPHERAL DEVICES	1 Ethernet port 3 USB ports 2 independent CAN networks (4 connectors) 1 connector for 2 inputs and 1 output 1 SIM card holder
MOTHERBOARD	1.2GHz processor, 8GB eMMC storage, 1GB of RAM (Option 16GB and 32GB of storage)
BUS CAN	4 x 6-way Micro-Fit type connectors 2 separate CAN BUS
COMMUNICATION	LTE-M1
GPS	GNSS
BLUETOOTH	Bluetooth 5.0
WIFI	2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac
OS	Linux
I/O	1 analog input with wake-up function (0 – 32VDC) 1 npn type digital input with wake-up function 1 output 0.5A
USB	2x USB 2.0: 1 USB-C and 1 USB A* on front panel Where 1 mini USB HSAUTOLINK* OTG *Both USB ports cannot be used at the same time
FIRMWARE VERSION	V8.00 or higher
ENVIRONMENTAL CONDITIONS	Indoor use Altitude up to 2000m Operating temperature: 0 to +50°C Relative humidity: 0 to 93% - non-condensing Protection index: IP20
FIXING DISTANCE	128x87mm
WEIGHT	0,25 Kg
STANDARDS	EN 60945
DIMENSIONS (LXLXH)	150 x 95 x 25 mm

## Electrical characteristics

NOMINAL VOLTAGE (VDC)	9-32 VDC
OWN CONSUMPTION	45 mA
2.4GHZ WI-FI CONNECTED	180mA @12V
GPS RECEPTION	204 mA @12V

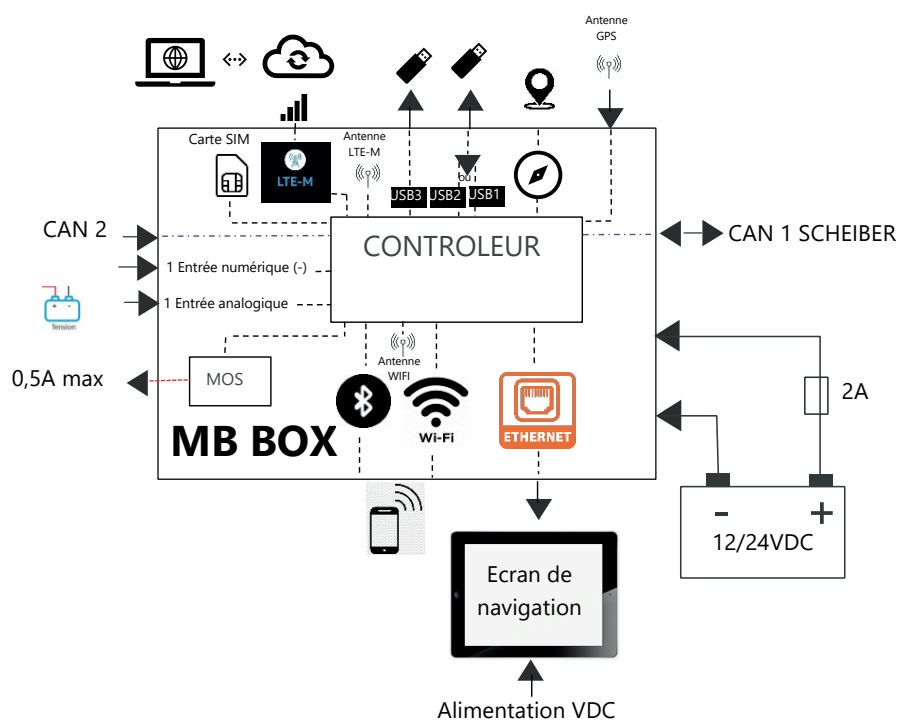
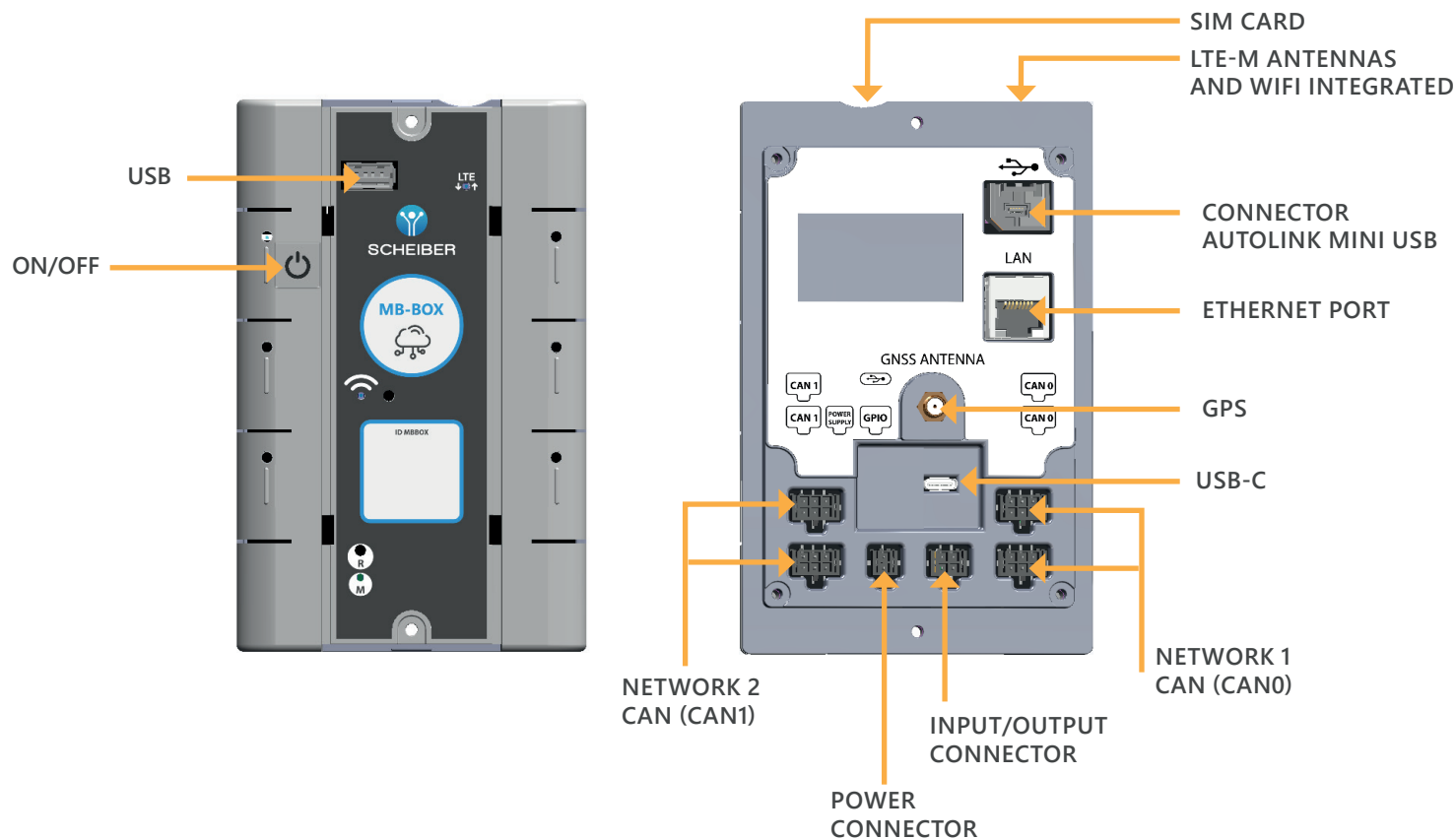


## Description of the markings used

<b>V</b>	Volt
<b>A</b>	Ampere
<b>ou DC</b>	Direct current



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## Installation instructions



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- This device must be placed in a place protecting it from any risk of water splashing. Install in a ventilated location
- Do not install on supports that are sensitive to heat, such as carpet or PVC flooring, etc.
- The product must be installed away from heat and humidity



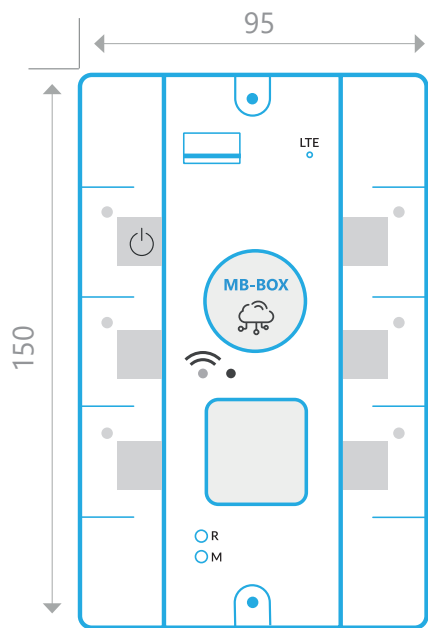
**WARNING: Connection/disconnection with power on**

**Do not perform connection or disconnection with power on.**

**FIXING: 2 SCREWS 2.9X19MM**

**MOUNTING DISTANCE: 137mm**

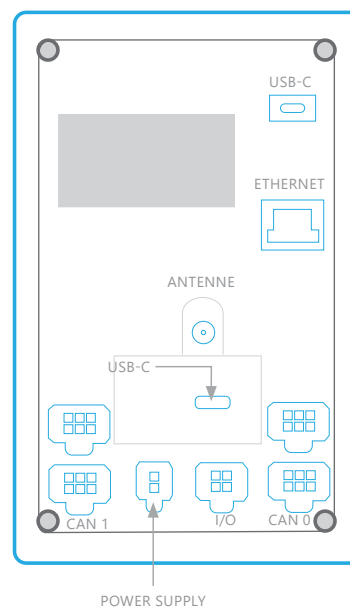
**Front view**



**Profile view**



**Back view**





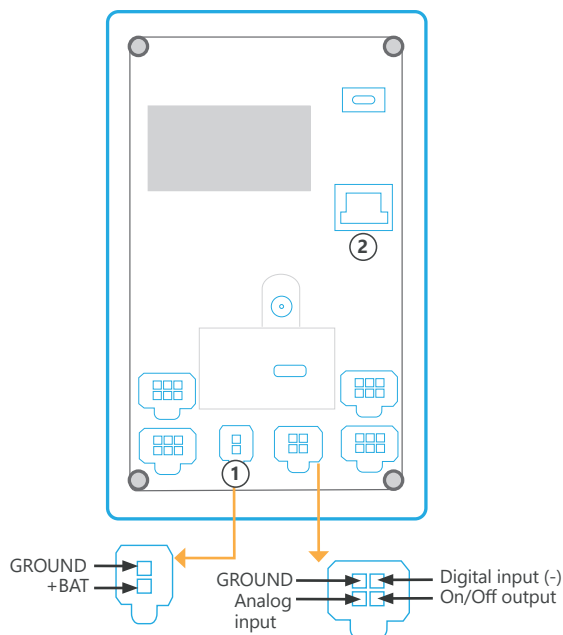
SCHEIBER

## Connection

- 1 Connect power
  - by an external power supply using the 2-way connection:

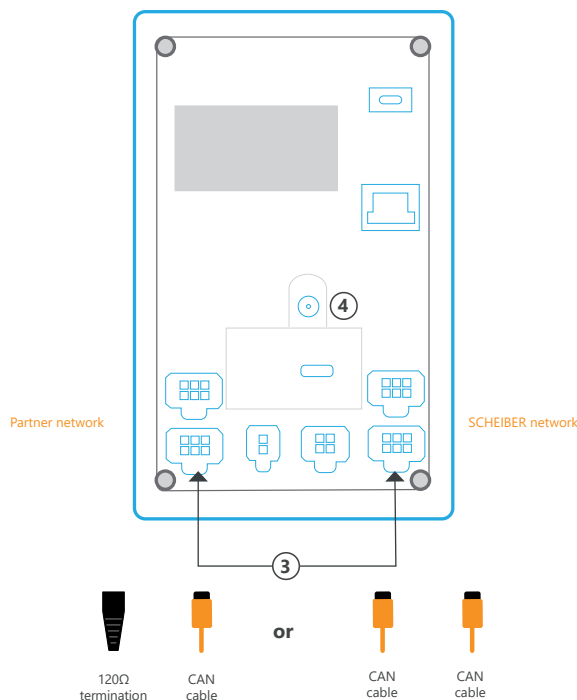


- 2 Connect the ETHERNET port to the screen or the HUB of your installation



- 3 Connect 2 right CAN connectors to the SCHEIBER network  
Connect 2 CAN connectors to the partner network  
The 2 networks CAN1 and CAN0 are distinct.

- 4 Screw the GPS antenna (optional)



## Indicators and buttons

**"Power ON" button**, a short press on this button switches on the MB-Box or performs a soft reset if the MB-Box is already on. A long press on Power ON exports logs to a USB key.

**"SW-WIFI" button**,  
When pressing the SW-WIFI button briefly (<5s), the MB-Box resets the WIFI configuration parameters to factory mode:

SSID=scheiber-01

Password = scheiber

During a long press (>5s) on the SW-WIFI button, the MB-Box performs the following actions:

If WIFI is disabled:

Lighting of the WIFI LED in fixed mode

Configuring WIFI in server mode

Activation of the WIFI interface

Configuring the IP address of the WIFI interface

If WIFI is activated in server mode:

Turning off the WIFI LED

Disabling the WIFI interface

If WIFI is activated in hotspot mode:

Turning off the WIFI LED

Configuring WIFI in server mode

Restarting the WIFI interface

Configuring the IP address of the WIFI interface

Lighting of the WIFI LED in fixed mode

Edit this section

**SW-ON-OFF** (powerOFF button at the bottom)

The "Power off" button, one press turns off the MB-Box, it restarts if a Wake-Up entry is active in the installation.

1- ON/OFF light, fixed light for about 15 seconds when loading the bootloader, then flashing during the initialization phase

2- LTE LED, flashing:

LTE network search

on

off -----

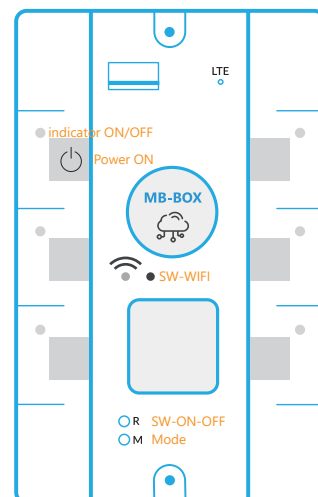
MB-Box connected to the LTE network

on -----

off

3- Wi-Fi indicator,  
the indicator is ON when Wifi is activated  
flashing light: Hotspot mode activated

4- Mode LED, the LED flashes green when the CAN BUS 0 is active, the LED flashes red when the CAN BUS 1 is active.





## Use

Le produit MB-BOX est disponible avec plusieurs services :

### Embedded services:

- Customer app
- Configurations, settings
- Software update
- Maintenance
- Data storage

### Remote Services:

- Client application, dashboard, remote control
- Configurations, settings
- Software update
- Maintenance
- Provision of data in the cloud via an API
- Data storage

Non-exhaustive list, depending on the options chosen by customers and available or to come

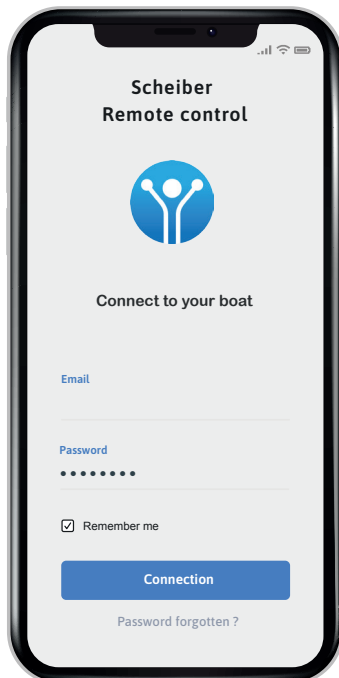
## Software

### Web browser compatibility

Operation is guaranteed with Chrome, we recommend its use.

## Example of a remote application compatible with the MB BOX

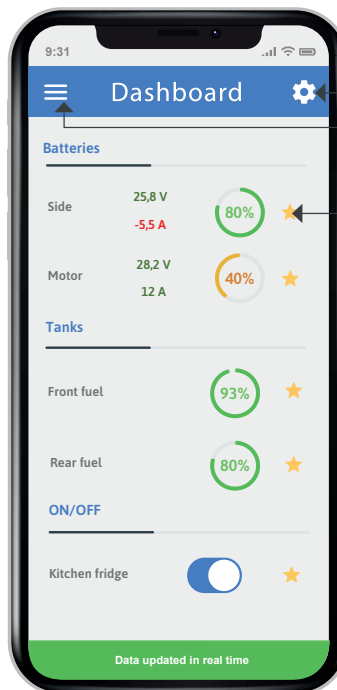
**Login screen**



**Dashboard**



**LAND VERSION**



**NAUTICAL VERSION**

Access to settings  
Menu access

Favorites  
(displayed on home page)

### ACTIONS :

swipe down: refresh data  
slide to the right: menu display  
swipe left: access settings

### 3 states depending on data refresh:

Data updated 10 days ago

#### ACTION :

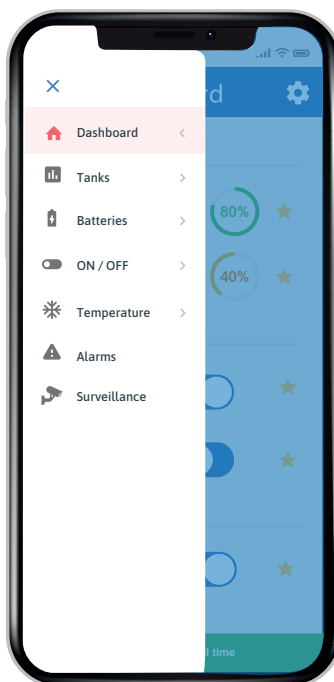
click on the orange banner to wake up the installation and refresh the data



Power up ...

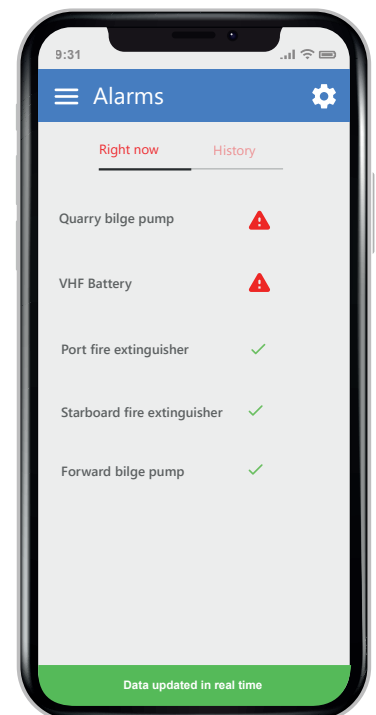
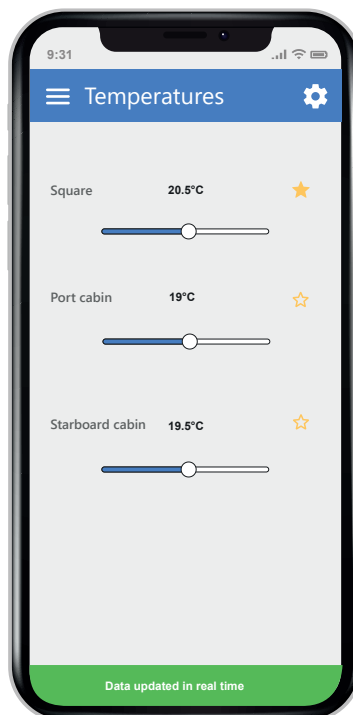
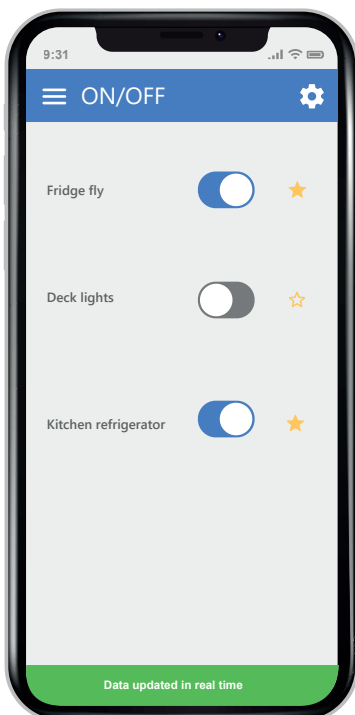
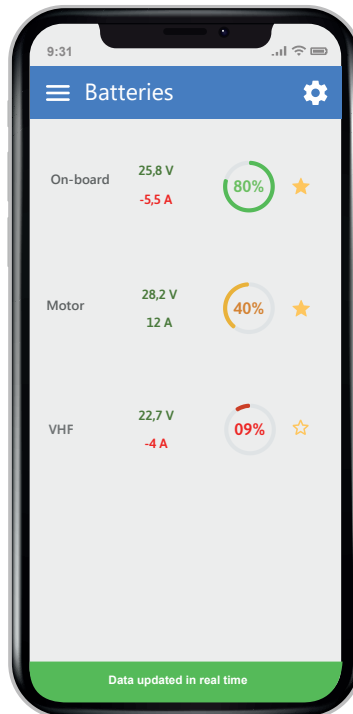
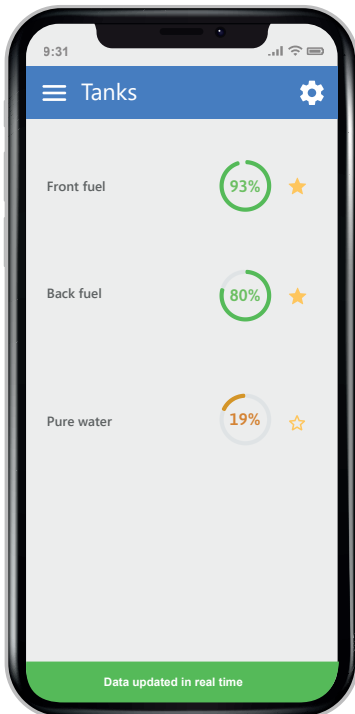


Data updated in real time





## Examples of feature pages



Active alarms are put  
at the top of the list

Non-exhaustive list, customization possible.



## Terms and conditions

The manufacturer cannot be held responsible and accepts no responsibility in the event of harm to persons or property due to improper use and in reference to the warnings provided in this manual.

SCHEIBER reserves the right to change the characteristics of its products in the interest of its customers. The manual supplied with this product must not be reproduced, transmitted, stored in a search system or translated into any language, in full or in part, by any means, without the prior written consent of SCHEIBER.

Although every effort has been made to provide you full and accurate information in this manual we ask that you inform the SCHEIBER representative of your country in case of any error or omission we may have overlooked.

SCHEIBER reserves the right to change the characteristics of the hardware and software described in these manuals at any time and without prior notice.

## Warranty terms & after-sales

### **WARRANTY SUBJECT:**

The company SCHEIBER warranties all its products' range against failures or masked-failures according to the article 1641 and followings of the Civil Code. Repairs and replacement of the equipment during the warranty period do not change terms or time of this warranty which is of 2 years. Repairs and replacement of the faulty parts under warranty are made only on presentation of the invoice which certifies the warranty beginning date.

### **WARRANTY DOES NOT APPLY:**

This warranty can not be applied in case of misuse, wrong installation, repair by anyone else than a SCHEIBER authorised technician, damage arising from improper use (fuses replaced by another value), utilisation in an unsuitable environment or if the equipment has suffered from physical damages through handling, transport. It does not cover calibration or verification due to the normal age of the components. Warranty modalities: The equipment freight will be charged to the customer. If the returned equipment is not conform, our company considers it has the right to refuse the free repair and proposes an estimate.

### **RESPONSIBILITY LIMITS:**

In any case, the company SCHEIBER will not be held responsible for direct damages or damages not due to the normal use of the equipment. In case of a dispute arising between the parties, the case shall be submitted to the French Right to the court specified by the company SCHEIBER.



# SCHEIBER

L'innovation française depuis 1965

## Question ?

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## Problem ?

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