USERS/INSTALLATION MANUAL

WHISPER CONNECT TOOL

Accessory for WP professional equipment

- Full WhisperConnect CAN bus functionality
- One product to monitor your WhisperPower energy system
- Control your WhisperPower equipment from one place
- Configuring WhisperPower devices made easy

TABLE OF CONTENTS:

1. INTRODUCTION

Thanks for choosing our product. The WhisperConnect Tool is one tool for monitoring, controlling and configuring your WhisperPower energy system. The WhisperConnect Tool uses the WhisperConnect CAN bus to communicate to all WhisperPower equipment with WhisperConnect capabilities in a system. Simply connect the WhisperConnect CAN bus to the computer using the supplied CAN to USB converter and you are ready to go. Due to the easy to use user interface you can have your system completely configured to your needs in no time at all.

The following products can be monitored, controlled and configured by the WhisperConnect Tool:
- DC PowerCube 24V-150A
- DC PowerCube 48V-80A
- AC PowerCube 24V-4000W
- AC PowerCube 24V-7000W
- AC PowerCube 24V-14000W
- WP-PMG 4kW
- WP-BMSS Smart Shunt
- WP-ION Power Plus 12V 160Ah

Applicability of this manual

This manual contains important instructions for safe and effective installation, operation, maintenance and, if necessary, troubleshooting of the WhisperConnect Tool.
It is therefore obligatory that every person who works on or with the WhisperConnect Tool is completely familiar with the contents of this manual, and that he/she carefully follows the instructions and important safety instructions contained herein.

Use of pictograms

Throughout this manual, safety instructions and warnings are marked by pictograms.

IMPORTANT!

Throughout this manual, the following alert symbol is used to indicate potential hazard:

WARNING
A WARNING refers to possible injury to the user or significant material damage to the WhisperConnect Tool if the user does not (carefully) follow the procedures.

CAUTION!
Special data, restrictions and rules with regard to preventing damage. A procedure, circumstance, etc. which deserves extra attention.

LIABILITY

WARNING REGARDING LIFE SUPPORT APPLICATIONS

This equipment is not sold for applications in any medical equipment intended for use as a component of any life support system unless a specific written agreement pertaining to such intended use is executed between the manufacturer and WhisperPower. Such agreement will require the equipment manufacturer either to contract additional reliability testing of the WhisperConnect Tool and/or to commit to undertake such testing as a part of the manufacturing process. In addition the manufacturer must agree to indemnify and not hold WhisperPower responsible for any claims arising from the use of the WhisperConnect Tool in the life support equipment.

GUARANTEE SPECIFICATIONS

WhisperPower guarantees that this equipment has been built according to the legally applicable standards and specifications. Should work take place, which is not in accordance with the guidelines, instructions and specifications contained in this user's manual, then damage may occur and/or the unit may not fulfill its specifications. All of these matters may mean that the guarantee becomes invalid. The guarantee is limited to the costs of repair and/or replacement of the product. Costs for installation labour or shipping of the defective parts are not covered by this warranty.

IMPORTANT SAFETY INSTRUCTIONS

READ AND SAVE THESE INSTRUCTIONS

- To ensure safe and sustainable operation of the WhisperConnect Tool, the handling and safety instructions detailed in this manual shall be followed at all times.
- To reduce the risk of electric shock – Do not expose WhisperConnect Tool to rain, snow, spray, moisture, excessive pollution and condensing circumstances. The WhisperConnect Tool was designed for dry and clean environments.
- Bear in mind that all applicable (safety) standards and (local) regulations shall be followed at all times.
- This product is mounted in the vicinity of batteries. Obey all warnings and safety instructions of your battery supplier when installing or working on the WhisperConnect Tool. Specifically, when connecting the shunt and battery voltage, obey to all installation rules for working with batteries.

WHISPERCONNECT

What is WhisperConnect?

All devices that are suitable for WhisperConnect CAN bus are marked by the WhisperConnect symbol. WhisperConnect is a fully decentralized data network for communication between the different WhisperPower system devices. It is CAN-bus based which has proven itself as a reliable bus-system in automotive applications.

WhisperConnect is used as power management system for all connected devices, such as the inverter, battery charger, generator and many more.

This enables communication between the connected devices, for instance to start the generator when the batteries are low. WhisperConnect reduces complexity of electrical systems by using UTP patch cables. All system components are simply chained together. Therefore each device is equipped with two WhisperConnect CAN bus data ports. As only a few WhisperConnect cables are needed, installation and material costs are reduced importantly. New devices can be added to the existing network easily. Consequently the WhisperConnect CAN bus network is highly flexible for extended system configuration. WhisperPower also offers several interfaces like the Modbus and NMEA interface, making even non-WhisperConnect devices suitable to operate in the WhisperConnect network.

CAUTION!
Never connect a non-WhisperConnect device to the WhisperConnect network directly! This will void warranty of all WhisperConnect devices connected.

How to set up a WhisperConnect Network

Every WhisperConnect device is equipped with two data ports. When two or more devices are connected via these ports, a local data network call segment for the WhisperConnect CAN bus is formed. Keep the following rules in mind: Place a terminating device on both network ends. Connections between the devices are made by standard straight UTP patch cables.

For centralized monitoring and control of connected devices, WhisperPower offers a range of panels that show full status information of your system at a glance and all details at the pressing of a button. Each monitoring panel can be used for data monitoring, data control and configuration of connected equipment.
For automation of your system, WhisperConnect offers event driven actions. An event (e.g. low state-of-charge) forms the condition to be met for a device to perform a task (e.g. starting a generator to activate a charger).

2. OPERATION

CAUTION!
Before operating the first time, the equipment must be installed properly (see next section) and correct settings must be made.

Once installed simply start the WhisperConnect Tool software on your computer or laptop, select the connected CAN-USB converter, click on connect and you are ready to go.
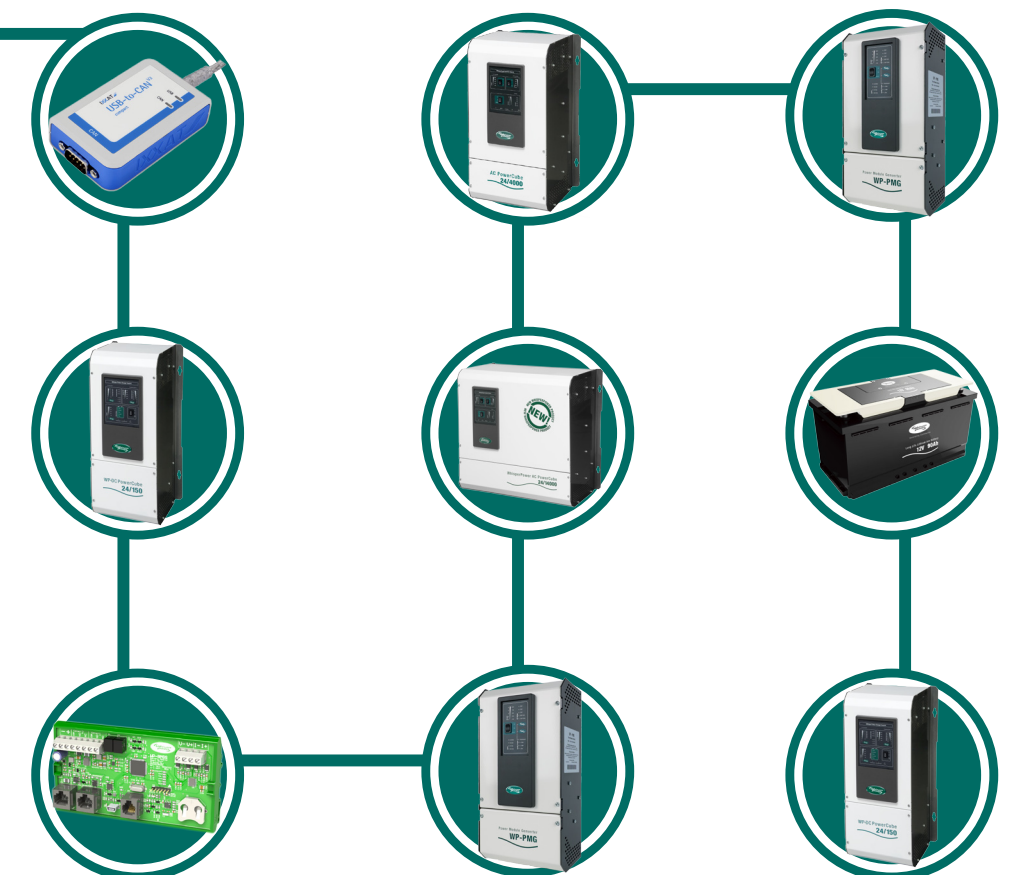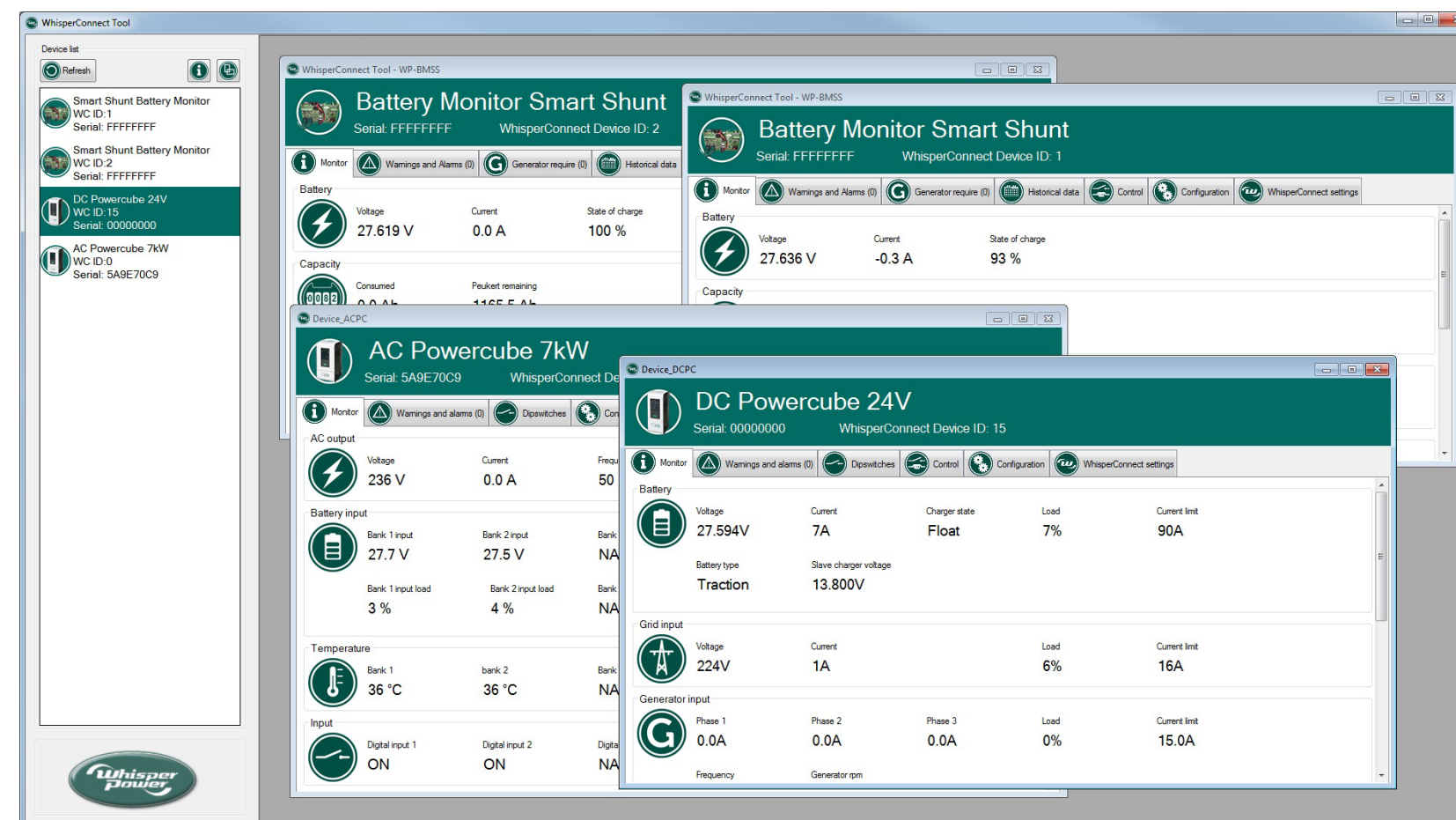
For a detailed operation manual check the help page in the WhisperConnect Tool software.
The WhisperConnect Tool also features a demo mode. No USB-CAN converter is needed to use the demo mode. When the demo mode is activated all device are available in the tool. The devices can be monitored, controlled and configured as in a real system. The demo mode is ideal for discovering all the capabilities of the WhisperConnect Tool without the need to connect it to the physical devices.

List of Materials

The delivery includes all materials to get started with the WhisperConnect Tool. Only an additional computer or laptop is required. The delivery includes:

- Ixxat USB-CAN V2 compact converter
- Cable WhisperConnect to SUB-D9
- Cable WhisperConnect 1,5m
- WhisperConnect 3-way adapter
- WhisperConnect terminator
- Cable WP ION bus to SUB-D9
- Cable WP ION bus 0,6m
- WP ION bus 3-way adapter
- WP ION bus terminator
- WhisperConnect Tool manual
- WhisperPower USB with
  - WhisperConnect Tool software
  - WP ION configuration software
  - Necessary drivers

3. INSTALLATION

General Remarks

Local and/or special regulations may apply depending on the type of installation involved. It is essential that each and every circuit in the electrical system is properly installed by a qualified electrician using all applicable standards.

Refer to the wiring diagram for details of electrical connections.

Step 1:
Installing the Ixxat drivers

- Connect the WhisperPower USB to the computer.
- Navigate to the folder containing the Ixxat drivers.
- Install the Ixxat VCI driver.

Step 2a:
Connecting to a single WhisperPower device

- Connect one end of the WhisperConnect cable to the device.
- Install a WhisperConnect terminator in the device.
- Connect the other end of the WhisperConnect cable to the WhisperConnect 3-way adapter.
- Install a WhisperConnect terminator in the Whisper-Connect 3-way adapter.
- Connect the Ixxat CAN-USB V2 compact to the Whis-perConnect 3-way adapter using the WhisperConnect RJ45 to SUB-D9 cable.
- Connect the USB cable of the Ixxat CAN-USB converter to the computer.
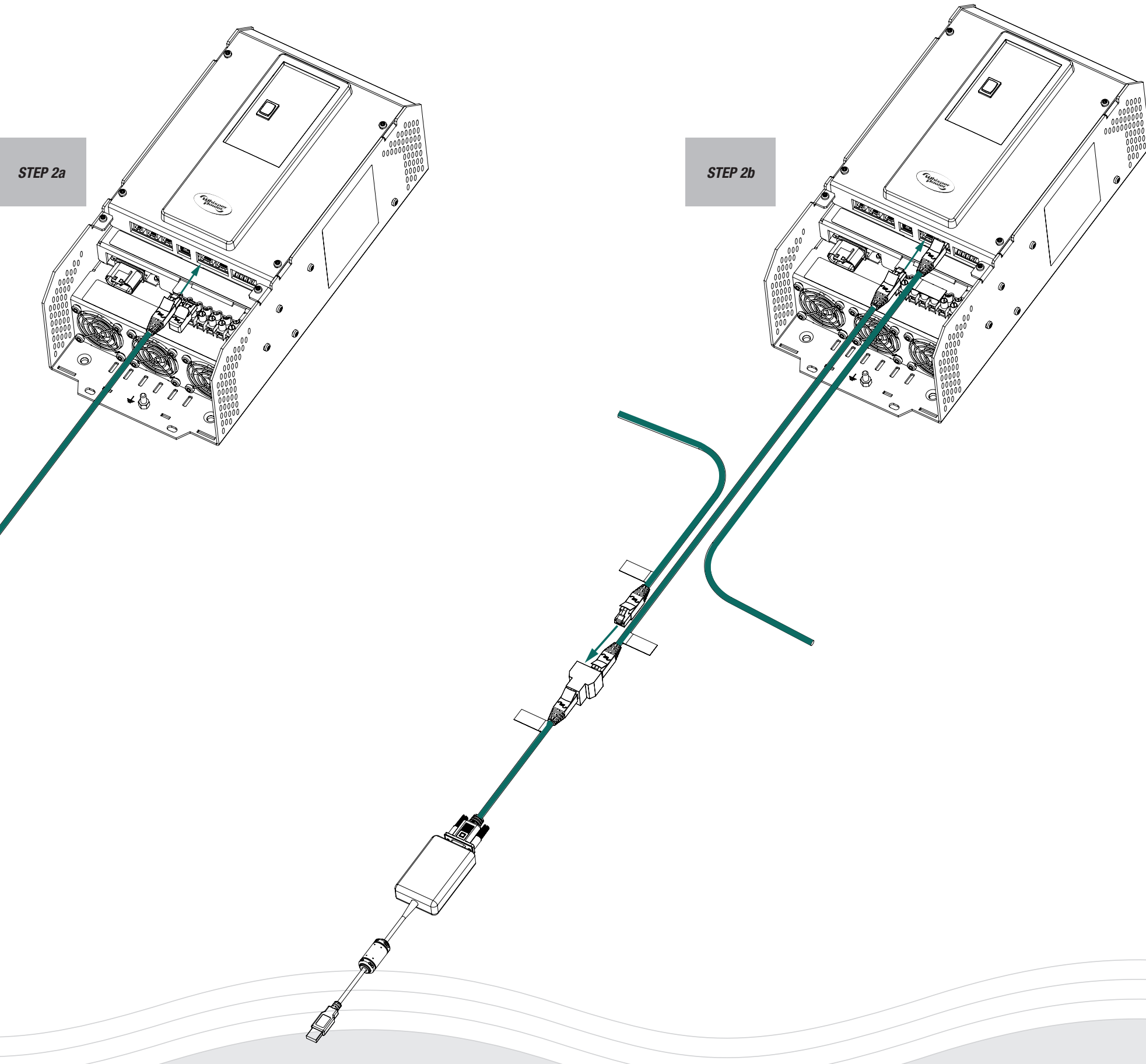
Step 2b:
Connecting to a WhisperPower system

- Remove one end of a WhisperConnect cable from a device in the WhisperConnect system.
- Add a WhisperConnect 3-way adapter to the Whisper-Connect cable
- Install a WhisperConnect cable between the Whisper-Connect 3-way adapter and the device
- Connect the Ixxat CAN-USB V2 compact to the Whis-perConnect 3-way adapter using the WhisperConnect RJ45 to SUB-D9 cable.
- Connect the USB cable of the Ixxat CAN-USB converter to the computer.

Step 3:
Start the WhisperConnect Tool application

- Navigate to the folder on the USB containing the WhisperConnect Tool application
- Start the WhisperConnect Tool application

STEP 2a

STEP 2b

5. SPECIFICATIONS

SPECIFICATIONS	
Communication	WhisperConnect
Connection to computer	USB 2.0 type A
Connection to system	RJ45 or Micro C
WEIGHT AND DIMENSIONS	
Weight	<0.5kg
Dimensions (h x w x d)	70 x 230 x 320 mm
Storage temperature	-40..80 °C Relative humidity in operation/storage up to 95% non condensing
RECOMMENDED SYSTEM REQUIREMENTS	
Operating system	Windows 7 or higher
CPU	Core 2 Duo or Athlon X2 at 2.4 GHz
Memory	2 GB of RAM
Hard drive	128 MB of free space

APPLICABLE STANDARDS AND EU DIRECTIVES EMC DIRECTIVE
EMC (2004/108/EC)
Low Voltage Directive
LVD (2006/95/EC)

6. TROUBLESHOOTING

Problem	Possible cause	Solution
USB led is red	USB cable is not properly connected	Check the USB cable connection
	The Ixxat VCI driver is not installed	Install the Ixxat VCI driver
The CAN led is red	Incorrect installation of the WhisperConnect bus	Check wiring and termination of the WhisperConnect bus
The WhisperConnect Tool application cannot find the converter	The converter is not properly connected	Check the USB cable connection
	The Ixxat VCI driver is not installed	Install the Ixxat VCI driver
My WhisperPower device is not listed in the WhisperConnect Tool application	The device is not properly connected to the WhisperConnect bus	Check wiring and termination of the WhisperConnect bus
Multiple unknown devices are listed in the WhisperConnect Tool application	The devices have duplicate addresses in the same WhisperConnect bus	Change the WhisperConnect device ID of one of the devices

7. WARRANTY TERMS AND CONDITIONS

WhisperPower guarantees that the equipment has been built according to the legally applicable standards and specifications. WhisperPower assures the product warranty of the Power Module for Genverter during two years after purchase, on the condition that all instructions and warnings given in this manual are taken into account during installation and operation.

The warranty is limited to the costs of repair and/or replacement of the product by WhisperPower only. Costs for installation labor or shipping of the defective parts are not covered by this warranty.

8. CE MANUFACTURER'S DECLARATION

We, WhisperPower BV, Kelvinlaan 82, 9207 JB Drachten, Netherlands, hereby declare that:
Product: 40290370,WhisperConnect Tool Is in conformity with the following provisions of the EC:
2004/108/EC (EMC Directive) and 2006/95/EC (Low Voltage Directive)

Drachten,
M. Favot, C.T.O. WhisperPower B.V.