

Quick Start Guide



Communication and Monitoring Device

A Introduction

The Conext ComBox Freedom SW (809-0918) is an accessory compatible with the Xantrex Freedom SW family of products. It provides an overall view of system performance for mobile power monitoring systems such as recreational vehicles, marine vessels, construction and other heavy duty applications. The Context ComBox lets you configure the system and devices, monitor performance, and access data logs through a web-based application on a laptop or tablet.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK AND FIRE

- Connect only to Safety Extra Low Voltage (SELV) circuits and power sources.
- All wiring must be done by qualified personnel to ensure compliance with all applicable installation codes and regulations.
- Do not expose the Conext ComBox Freedom SW to rain, snow, spray, or bilge water.
- Do not disassemble. No user serviceable parts inside.
- Do not install and/or operate in compartments containing flammable materials or in locations that require ignition-protected equipment.

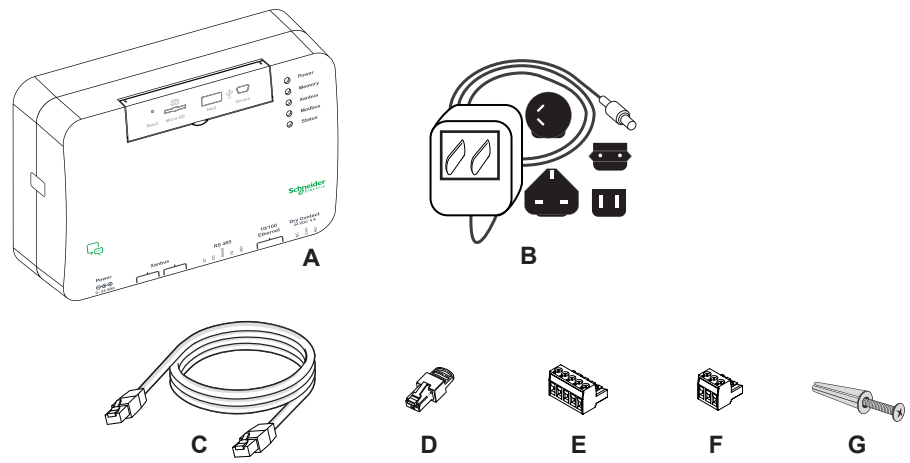
Failure to follow these instructions will result in death or serious injury.

Exclusion for Documentation
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Conventions Used
A Section **1** Step **!** Safety **↔** Direction **↗** Expand **A** Label

Contact Information
 www.xantrex.com
 Please contact Xantrex at 1-800-670-0707, customerservice@xantrex.com, or visit the Xantrex website at: http://www.xantrex.com.

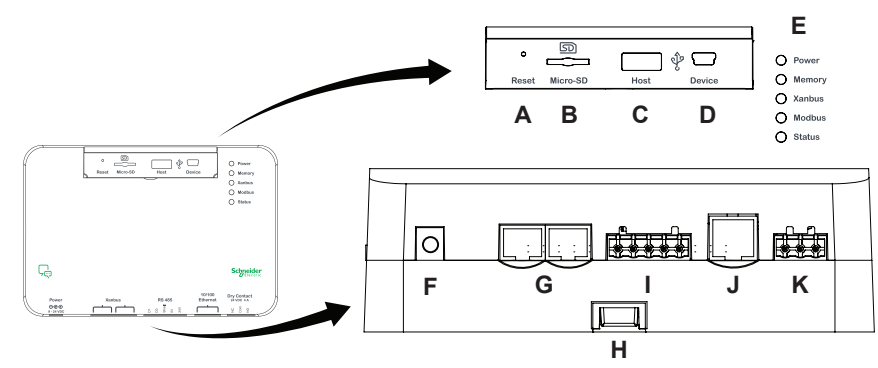
B Material list



- A** Conext ComBox unit
- B** AC/DC adapter* with changeable plugs
- D** Ethernet cable
- E** Xantbus network terminator
- F** RS 485 Modbus connector (or RS 485 connector)
- G** Dry contact connector
- H** Woodscrew #6 with anchor (2)

* When ordering a replacement, reference PN: 0J-921-0023-Z.

C Identification

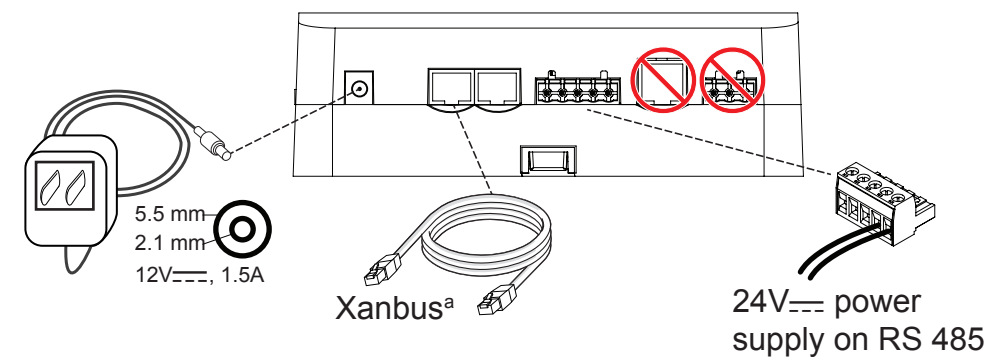


- A** Reset pinhole
- B** Micro-SD port
- C** USB Host port (used for USB thumb drives)
- D** USB Device port
- E** LED indicator lights
- F** Power port
- G** Xantbus ports
- H** DIN rail sliding catch
- I** RS 485 port
- J** 10/100 Ethernet port
- K** Dry contact port

D Overview of available power sources

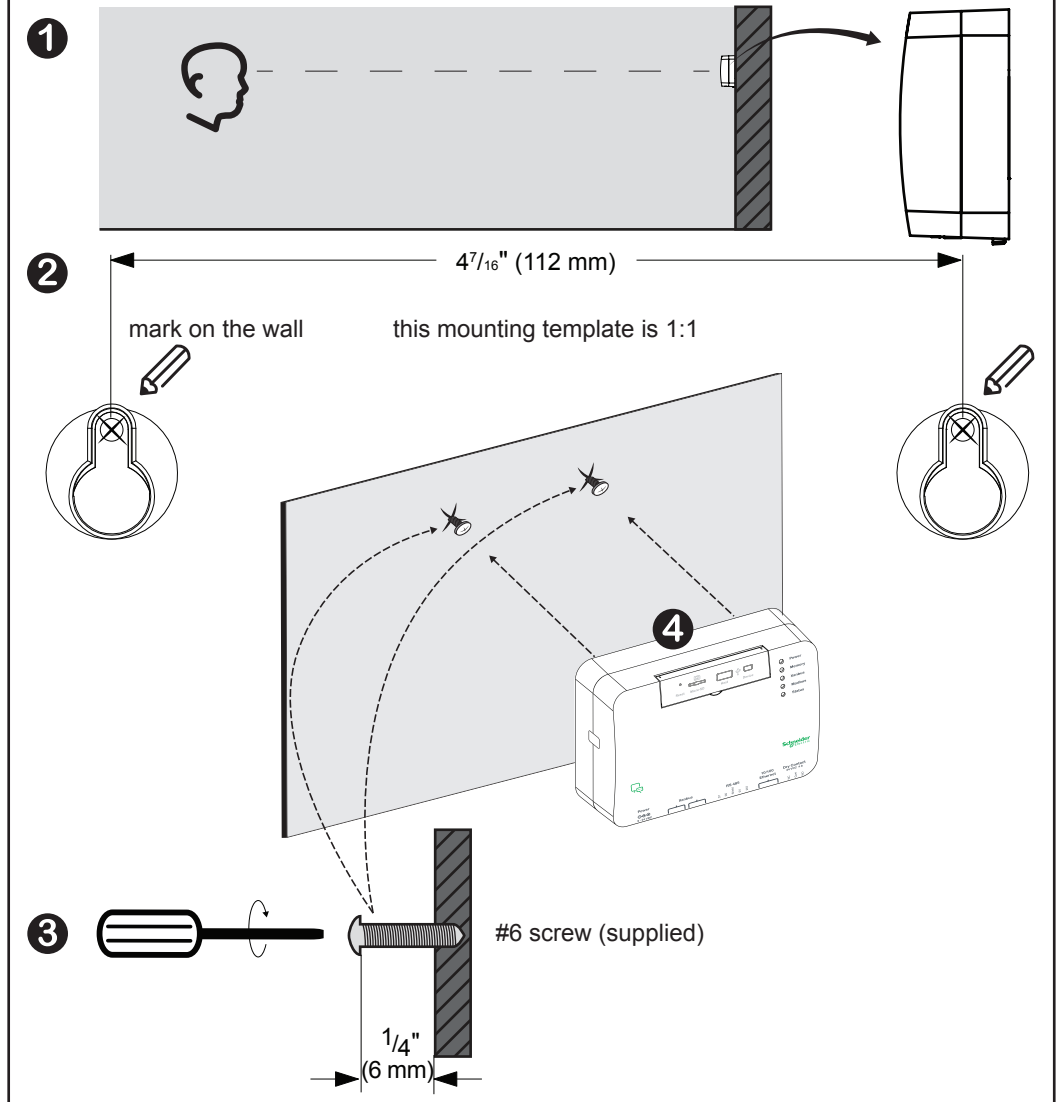
NOTE:

- The Conext ComBox can be powered by all three sources simultaneously. Typically, the AC/DC adapter is used as a primary power source. Xantbus or 24VDC input power through the RS 485 are secondary power sources.
- Do not turn on the Conext ComBox by connecting to either of these power sources until section **G Turning On the ComBox**.



a. For a complete list of Xantbus-enabled devices including devices that can provide power to the Conext ComBox, see the Owner's Guide.

E Mounting to a wall



F Connecting to an Ethernet network

NOTICE

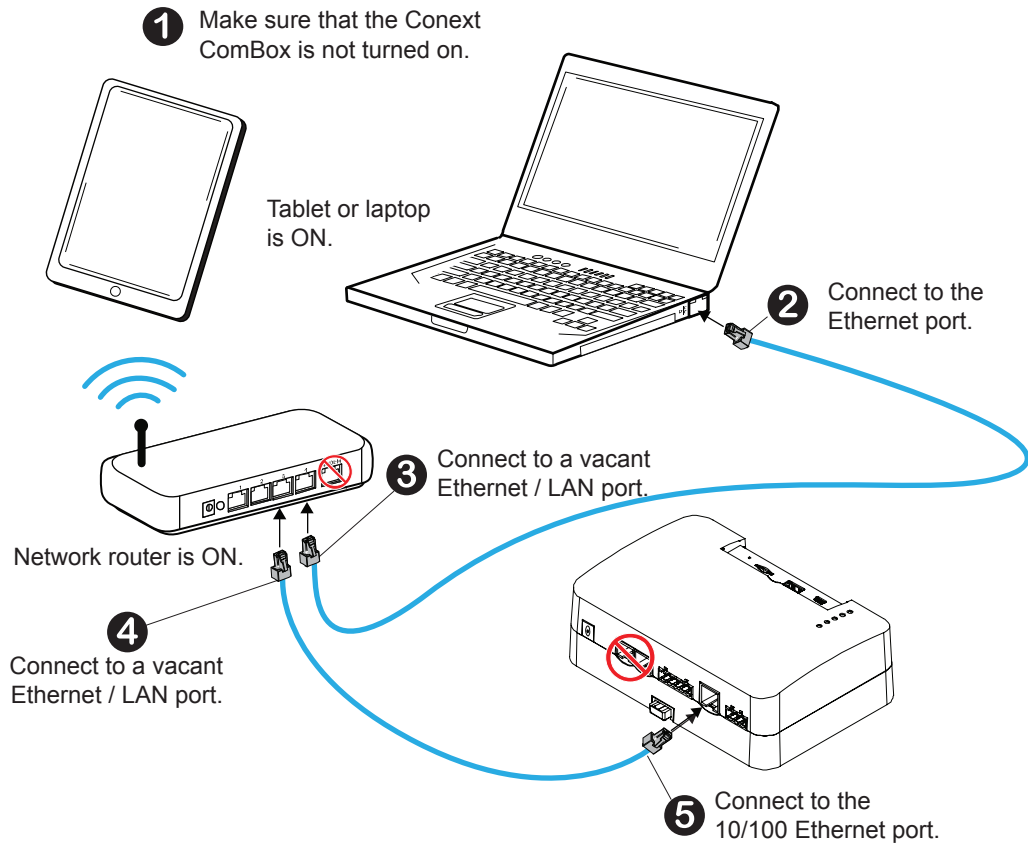
EQUIPMENT DAMAGE

- Do not connect an Ethernet cable plug to the MODEM / WAN port of the network router.
- Do not connect an Ethernet cable plug to a Xanbus port of the Conext ComBox.

Failure to follow these instructions can damage equipment.

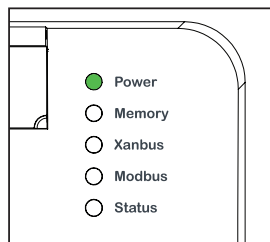
NOTE:

- The computer and network router MUST be powered up and the router must have assigned an IP address to the laptop before plugging in the ComBox network cable.
- Once the ComBox network cable is plugged in you MUST wait long enough so that the router successfully assigns an IP address to the ComBox.
- Failure to wait for the IP address means that the device discovery tool in the next step will not be able to find the ComBox.
- Follow the connection sequence below. Skip steps 2 and 3 if the computer is connected by Wi-Fi to the Ethernet / LAN.



G Turning on the ComBox

Connect the AC/DC adapter (supplied).



When power is applied to the Conext ComBox, all the LED lights will flash once and then the Power LED will flash intermittently for approximately two minutes. When the Conext ComBox is fully powered on, the Power LED is solid green.

H Discovering the Conext ComBox on the network

PREREQUISITES

OS ■ Windows 7 ■ XP (SP2, SP3) ■ Vista ■ Mac OS X 10.4.8.

Web browsers ■ Windows Internet Explorer 8.x or later ■ Firefox 12.x or later ■ Google Chrome 18.x or later ■ Safari 5.x or later ■ Android 4.0 or later (Ice Cream Sandwich)

Other hardware ■ USB thumb drive

- 1 Plug a USB thumb drive into the ComBox USB Host data port while the ComBox is turned on (the Power LED is steadily on and not flashing).
- 2 Watch the Memory LED and wait for it to flash quickly five times.
- 3 Remove the USB thumb drive from the USB Host data port.
- 4 Plug the USB thumb drive into your computer's USB port.
- 5 Navigate to the root directory of the thumb drive using the file system browser on your computer.
- 6 Look for a file named *serial number.html*, where *serial number* is the serial number of the ComBox.
- 7 Double-click on the *serial number.html* file. Your default web browser will launch and display the System Information screen.



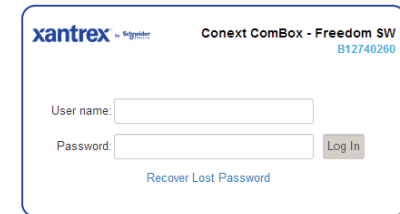
- 8 Click the Connect button to open the ComBox user interface Login window.

NOTE:

Make sure that your computer is on the same Local Area Network as the ComBox.

I Configuring device settings and connecting to Xanbus

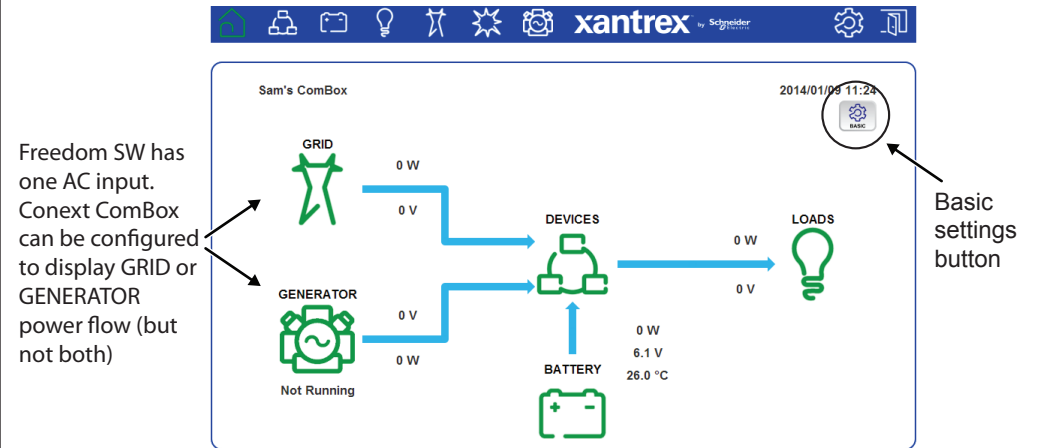
- 1 Enter the User name and Password and click Log In.



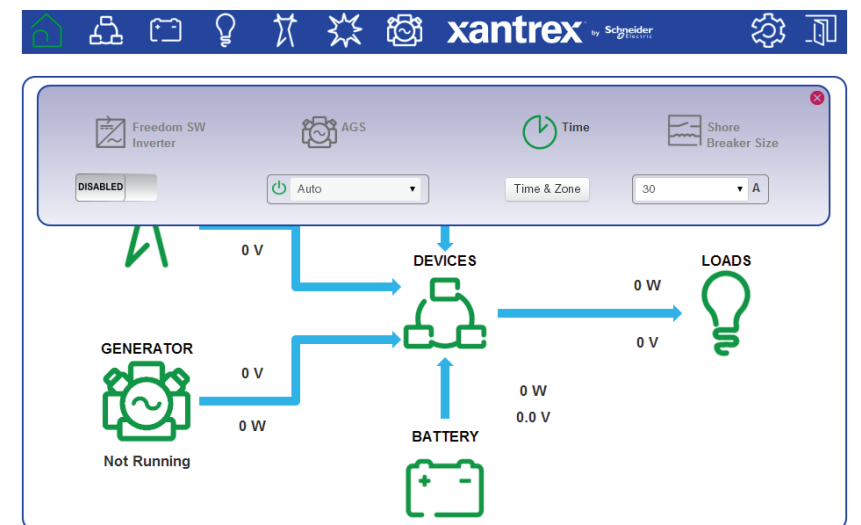
Admin Account
User name: *admin*
Password: *password*

User Account
User name: *user*
Password: *user*

The Conext ComBox Home screen appears.



- 2 Click the Basic settings button to display the control panel.



3 In the control panel, change the Time and Zone setting before connecting the ComBox to the Xanbus network.

⚠ WARNING

PHYSICAL INJURY HAZARD

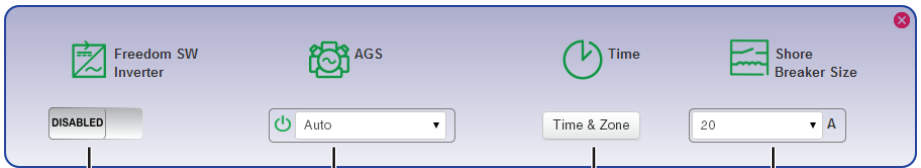
Be careful when changing the ComBox time setting. It will override any time settings on individual Xanbus-enabled devices in the network. The time represents the entire system. Any appliance or equipment that is time-controlled by a Xanbus device, such as a generator connected to an AGS, can inadvertently turn on at the wrong time.

Failure to follow these instructions can result in death or serious injury.

Click **Time and Zone**. Select the time, date, and time zone, and then click **Submit**.



4 In the control panel, adjust the other basic settings as needed and click the close button when done.



Turns the inverter on and off. When enabled, the AC loads connected to the inverter receive power. When disabled, the loads receive AC power only when the system is connected to shore power. If there are two inverterchargers, this setting applies to both devices.

Sets the appropriate time and time zone for synchronizing the ComBox and SCP internal clocks.

Starts or stops the generator.
 • **Auto:** automatic start/stop based on triggers selected in the Freedom SW AGS
 • **Manual On:** overrides Auto start
 • **Manual Off:** overrides Auto stop

Sets the amperage limit for the AC shore breaker. If the system has both a Freedom Sequence and a Freedom SW inverter/charger installed, this setting applies to both devices. If the system does not have a Freedom Sequence, then only the Freedom SW shore breaker size is set.

6 Connect the ComBox to the Xanbus network.

NOTICE

EQUIPMENT DAMAGE

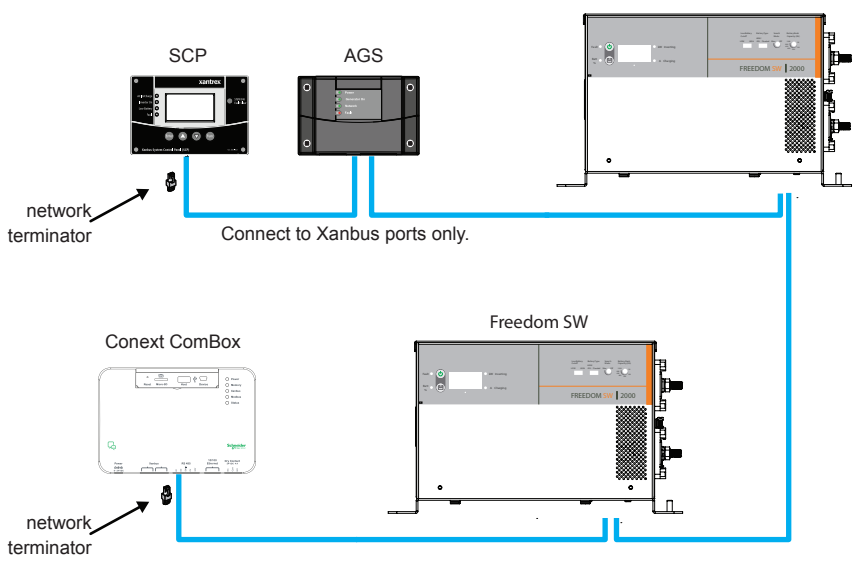
Do not connect a Xanbus cable plug to the 10/100 Ethernet port of the Conext ComBox.

Failure to follow these instructions can damage equipment or affect network performance.

NOTE:

- Xanbus components can be arranged in any order.
- Total length of all cables combined must not exceed 131 ft (40 m).
- Use a network terminator at both ends of the network. See illustration below.

Illustration only. Components vary.



7 Change advanced settings as needed. To change advanced settings, you must be logged on as Admin.

For more information, refer to the *Conext ComBox Freedom SW Owner's Guide* available on <http://xantrex.com/power-products/default/conext-combox-freedomsw>

J Specifications

ELECTRICAL SPECIFICATIONS

COMMUNICATION INTERFACES

| | |
|----------|--|
| Xanbus | Connector: 2 x RJ-45 Products Supported: Xantrex Freedom SW inverter/charger, Xanbus SCP, and Xanbus AGS |
| Ethernet | Connector: 1 x RJ-45, 10/100 MBPS Server: FTP, Web, Modbus TCP/IP Client: SMTP, SNMP; Auto discovery: DPWS |
| RS 485 | Modbus (1 x Connector: Screw 5-terminal, 16-24AWG, 2-wire serial, 19200 bps) |

DATA INTERFACES

| | |
|----------------|--|
| USB 2.0-Host | USB-A, MSD protocol for firmware and device upgrades |
| USB 2.0-Device | USB-mini B, MSD protocol for exporting data logs to a PC |

POWER SUPPLY (SELV ON ALL SOURCES)

| | |
|-------------------------|--|
| Power Consumption | 2 W average / 10 W peak |
| AC/DC adapter* | Input: 100-240V~, 50-60Hz, 0.6A, Output: 12V=, 1.5A, 5.5mm outer, 2.1mm center-positive jack |
| Xanbus | When connected to Freedom SW providing 15V=, 200mA min or more than one Conext TX |
| 24V on RS 485 connector | 24V=, 1A max input only through pins 4 and 5 |

* When ordering a replacement, reference PN: 0J-921-0023-Z.

MEMORY

| | |
|------------------------|--|
| Internal | 96 MB flash |
| External Micro-SD Card | 2GB or more, class 2 or better recommended |

GENERAL SPECIFICATIONS

| | |
|-------------------------------|---|
| Weight | 250 g (0.6 lb) |
| Housing / Mounting System | ABS Plastic / DIN-rail: 35 mm, Wall-mount: 2-screw |
| IP rating / Mounting Location | IP 20, NEMA Type 1, Indoor only |
| Status Display | 5 x LEDs |
| Temperature | Operating: -4 to 122°F (-20 to 50°C) Storage: -40 to 185°F (-40 to 85°C) |
| Humidity | Operating: < 95%, non-condensing Storage: < 95% |

FEATURES

| | |
|--------------------------------|---|
| Programmable dry contact relay | Screw 3-terminal, 16-24 AWG, NC-Com-NO, Class 2, 24V=, 4A max SELV input only |
| Graphical user interface | Integrated Web Server for ComBox settings only (Internet Browser), Android tablet |
| Remote firmware upgrades | Yes |
| Max. number of Xanbus devices | Up to 20 (depending on device type) |

REGULATORY

| | |
|----------------------------|--|
| EMC immunity | EN61000-6-1 |
| EMC emission | EN61000-6-3, FCC Part 15 Class B, Ind. Canada ICES-003 Class B |
| Substances / environmental | RoHS |



DIMENSIONS

