	Cobra4 Wireless Manager	12600.00

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Operating instructions

The unit complies with the corresponding EC guidelines

Fig. 1: 12600.00 Cobra4 Wireless Manager

CONTENTS

1   SAFETY PRECAUTIONS

- Carefully read these operating instructions completely before operating this instrument. This is necessary to avoid damage to it, as well as for user-safety.
- Only use the instrument for the purpose for which it was designed.
- Only use the instrument in dry rooms in which there is no risk of explosion.
- Protect Cobra4 Wireless Manager from dust, moisture and vapours. Use a slightly moist lint-free cloth to clean the instrument. Do not use aggressive cleaning agents or solvents.
- Only use the experimental set-up for the purpose for which it is intended.
- Do not open up the instrument.
- The present-day state of software development makes it impossible to guarantee that a product is free of faults. PHYWE Systeme GmbH & Co. KG therefore does not take on any liability for damages that occur during the installation or the use of the instrument.

2   PURPOSE AND CHARACTERISTICS

The purpose of Cobra4 Wireless Manager is to allow radio-based communication between a PC and a Cobra4 Wireless-Link (12601.00) or a Cobra4 Remote-Link (12602.00).
Cobra4 Wireless Manager is equipped both with a USB-socket for connection to a PC and with a radio unit that works at the 2.4 GHz carrier frequency and can communicate with

Cobra4 Wireless-Link (12601.00) and Cobra4 Remote-Link (12602.00) peripheral units (Fig. 2).
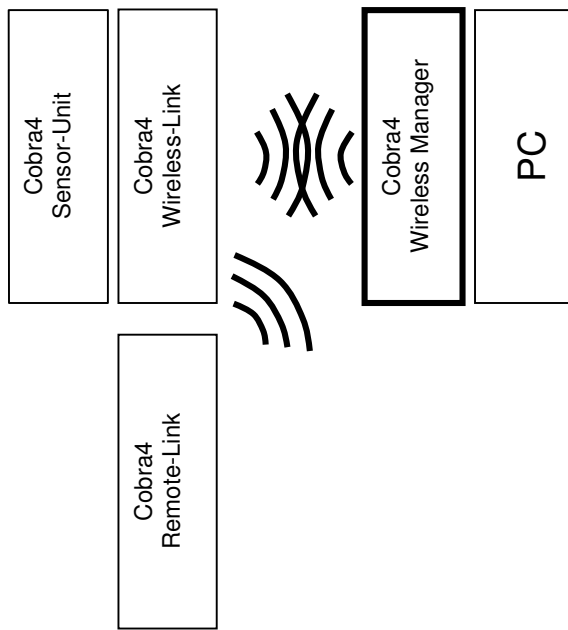

Fig. 2: Concept of the Cobra4 instruments wireless path

3   FUNCTIONAL- AND OPERATING ELEMENTS

Cobra4 Wireless Manager is equipped with an LED that serves as status indicator.

Fig. 3: 12600.00 Cobra4 Wireless Manager – front view

4   NOTES ON OPERATION

Cobra4 Wireless Manager fulfills the technical requirements combined in whole in current European Community Guidelines. The product characteristics justify the CE-mark and the FCC-mark. The following notes on usage are to be observed:

• Communication of Cobra4 Wireless Manager with the relevant radio based interface-module of the Cobra4 line of instruments (Cobra4 Wireless-Link, Cobra4 Remote-Link) can be so influenced by radio hops, particularly by W-LAN and Bluetooth equipment, that it no longer functions flawlessly.

• The instrument can be so influenced by electrostatic charges and other electromagnetic phenomena (HF, bursts, indirect lightning discharges) that it no longer works within the given specifications. Carry out the following measures to reduce or eliminate the effect of such disturbance: Ensure potential equalization at the PC (especially with Laptops). Use screening. Do not operate high frequency emitters (e.g. radio equipment or mobile radiotelephones) in the immediate vicinity. When a total failure of the instrument occurs, unplug it and plug it back in again for a reset.

• Optimal wireless communication between Cobra4 Wireless Manager and a peripheral Cobra4 Wireless-Link or Cobra4 Remote-Link instrument is only possible when there is no obstacle between them and they are at the shortest possible distance (max. 20 m) from each other. Set up your experiment correspondingly.

• During data acquisition, other parallel-running PC applications can cause disturbance. Before "measure" is started, in particular other USB equipment (e.g. Web-Cam) should be switched off.

Compliance statement:

USA   This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.
Usually this is followed by the following FCC caution:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Canada   "Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device." Usually this is followed by the following RSS caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

5   HANDLING

This section describes how to put Cobra4 Wireless Manager into operation and provides an overview of how to handle it. To avoid failure or improper operation, please read carefully through this section.

5.1 Putting into operation

First install the necessary driver and operating program via the CD that is supplied. To do this, lay the "measure" CD in the PC and follow the directions.

5.2 Working with the instrument

Connect Cobra4 Wireless Manager to a USB port of the PC and start "measure". Cobra4 Wireless Manager is now automatically recognized and the appropriate user interface automatically opens.

Switch on the relevant radio based interface module from the Cobra4 instrument line (Cobra4 Wireless-Link, Cobra4 Remote-Link). Connection is automatically made between the instruments and is displayed in the "measure" operating interface.

⚠️

Important: Cobra4 Wireless Manager communicates exclusively with instruments from the Cobra4 product line.

The status of the wireless communication, i.e. the quality of the signal, the firmware and also the status of the internal memory, can be called by clicking on the Cobra4 Wireless Manager icon.

A number of Cobra4 Wireless Managers can be connected to one PC, whereby the data rate remains constant with the increase in the number of sensors. In addition, one Cobra4 Wireless Manager can communicate with up to 99 instruments of type Cobra4 Wireless-Link.

6   TECHNICAL SPECIFICATIONS

USB Instrument for radio based communication with Cobra4 instruments at a carrier frequency of 2.4 GHz

Power consumption (mA)	< 100
Supply voltage (V):	5
(USB-powered device)	
Output voltage, wireless (mW)	1
Data rate, burst (ksps):	50
Transmission range, without obstacles (m)	20
Max. number of Cobra4 Wireless-Links in network:	99
Dimensions L x W x H (mm)	75x25x10
Weight (g):	20

7   PARTS SUPPLIED

Cobra4 Wireless Manager is supplied with the following components:
• CD for installation of the driver and operating software
• Operating instructions

8   ACCESSORIES

To work with Cobra4 Wireless Manager, further wireless-based Cobra4 product line interface modules are required:

Cobra4 Wireless-Link	12601.00
Cobra4 Remote-Link	12602.00

Cobra4-Mobile-Link can be used with all instruments from the Cobra4 product line.

• Cobra4 Sensor-Unit pH and 2 x Temperature NiCr-Ni	12630.00
• Cobra4 - Unit pH, BNC connector	12631.00
• Cobra4 - Unit Conductivity /	
• Temperature (Pt1000)	12632.00
• Cobra4 - Unit Conductivity with stainless	
• steel electrodes	12633.00
• Cobra4 - Unit Pressure, abs. 2 bar	12638.00
• Cobra4 - Unit 2 x Temperature Pt100	12639.00

• Cobra4 Sensor-Unit Temperature, Semiconductor -20...+100 °C	12640.00
• Cobra4 - Unit 2 x Temperature NiCr-Ni	12641.00
• Cobra4 - Unit Force 4 N	12642.00
• Cobra4 - Unit Force 40 N	12643.00
• Cobra4 - Unit Electricity	12644.00
• Cobra4 - Unit Tesla	12645.00
• Cobra4 - Unit Acceleration	12650.00
• Cobra4 - Unit Weather: humidity, air pressure,	
• temperature, light intensity, elevation	12670.00
• Cobra4 - Unit Carbon dioxide (CO2)	12671.00

9   NOTES ON THE GUARANTEE

We guarantee the instrument supplied by us for a period of 24 months within the EU, or for 12 months outside of the EU. Excepted from the guarantee are damages that result from disregarding the Operating Instructions, from improper handling of the instrument or from natural wear.
The manufacturer can only be held responsible for the function and technical safety characteristics of the instrument, when maintenance, repairs and alterations to the instrument are only carried out by the manufacturer or by personnel who have been explicitly authorized by him to do so.

10   WASTE DISPOSAL

The packaging consists predominantly of environmentally compatible materials that can be passed on for disposal by the local recycling service.

Should you no longer require this product, do not dispose of it with the household refuse.
Please return it to the address below for proper waste disposal.

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