

# vbk technology



**vbk.cmd**

Manual - vbk.cmd EN 2.05 2015-03

**Warning**

This manual is part of the product.

Please read carefully before the installation or the application of the product.

Note all safety warning, caution marks incl. all warning labels placed at the equipment.

Make sure that the warning labels are kept in good condition and replace missing or damaged labels.

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## Definitions and Meanings

For all different safety instructions special symbols are used in this manual.

Follow all hints and warnings to avoid any injury or material damage. The user of the device is fully responsible.



### **WARNING!**

„Warning“ indicates that death, severe personal injury or extensive property damage can result if proper precautions are not taken.



### **DANGER!**

„Danger“ indicates an immediate risk of electric shock which will result in death, injury or serious damage if the applicable safety regulations are not followed



### **HINT!**

The symbol refers to a possible hazardous situation that could cause material or environmental damage.



Recommendation and Useful information for an efficient and Failure-free operation

## Qualified personal only

Only **qualified person(s)** must operate with the present device. This qualified personal must be familiar to these types of products and associated with danger and risks, authorized to install, mount, commission and use these types of product.

## Intended Use

Use this device only in the manner intended by the manufacturer, according to the manual and only in combination with the described products only.

## Safety Instructions

All Warnings, Cautions and Hints shown in this document are provided for your safety and as a means of preventing damage to the product. This section lists Warnings, Cautions

and Hints, which apply generally when handling the **vbk.cmd**, classified as General, Transport & Storage, Commissioning, Operation and Repair.

Specific Warnings, Cautions and Hints that apply to certain specific chapters are listed at the beginning of the relevant chapters. Please read the information carefully, since it is provided for your own personal safety and it will also help prolong the service life of your product.

### Warning

This equipment controls potentially dangerous rotating mechanical parts. Noncompliance with **Warnings** or a miss to follow the instructions contained in this manual can result in loss of life, severe personal injury or serious damage to property.



Only suitable **qualified personal** should work on this equipment, and only after becoming familiar with all safety notices, installation, operation and maintenance procedures contained in this manual. The successful and safe operation of this equipment is dependent upon its proper handling, installation, operation and maintenance. Children and the general public must be prevented from accessing or approaching the equipment!

### Information

Keep these operating instructions within easy reach of the equipment and make them available to all users. Whenever measuring or testing has to be performed on live equipment suitable electronic tools should be used. Before installing and commissioning, please read these safety instructions and warnings carefully and all the warning labels attached to the equipment.



## Transport and Storage

### Warning

Correct transportation and storage, erection and mounting, as well as careful operation and maintenance are essential for proper and safe operation of the equipment. Protect the device against physical shocks and vibration during transport and storage. Also be sure to protect it against water (rainfall) and excessive temperatures.



## Operation

### Warnung

Use for intended purpose only. **The manual of the controlled fan regardless whether type of fan it is, is unconstrained by advices in this manual, especially in questions of safety.** Some parameter and settings lead to automatic restart of controlled fan after switch-on.



## Service & Repair



### **Warning**

Repairs and Service on the device may only be carried out or advised by **vbk** technology.



### **Warning**

Li-Ion chargeable battery inside. The battery may explode when mistreated. Do not overload, shortcut, disassemble or dispose of in fire!

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## 1 Overview

All devices of brand **vbk.cmd** are battery-operated, electric handhelds to control special devices with RS485-based interfaces (i.e. EC-Drives from different brands).

## 2 General Description

A clear and simple menu guide has been realised bilingual (English/German). The amber lighted full graphic display is designed for comfortable use at all lighting conditions. The Mini-USB-link can be used for Battery charge as well as a data interface. A 5V-Power supply with a wide selection of variable, removable adapters that fit numerous different AC outlet sockets. The flexible design offers possibilities for a customized OEM-solution in front design and software.



## 3 Operation

### 3.1 Operating conditions



All devices of series **vbk.cmd** are designed for an indoor usage. Make sure to protect from humidity and rain if you use it outside.

Shock



#### **Warning**

Do not drop the device or expose to sudden shock.

Do not use the device in an area where it is likely to be exposed to constant vibration higher than  $2,5 \text{ mm} \cdot \text{s}^{-1}$ .

Temperature



#### **Warning**

Do not use or store device outside temperature range of  $0^{\circ}\text{C} \dots 40^{\circ}\text{C}$ .

Electromagnetic Radiation



**Warning**

Do not use the device near sources of electromagnetic radiation.

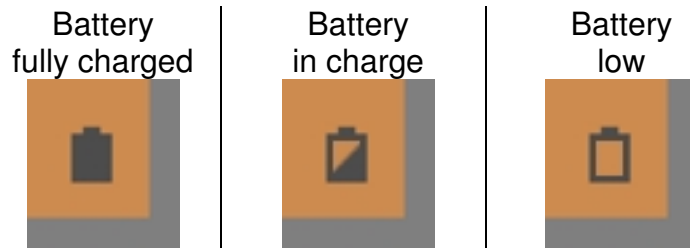
### 3.2 General Properties of the Device

Voltage Supply

Rechargeable Li-Ion battery; 3,7V – 2300mAh

USB-interface, incl. 5V power supply

automatic charge state detection incl. safety switch off



Use

Handheld for inside application, protection grade IP20  
(acc. EN 60529)

Temperature

0°C ... 40°C  
ambient temperature at stock and usage

Display

Amber coloured full graphic display

Access

easy access push encoder (IGR)

Time base

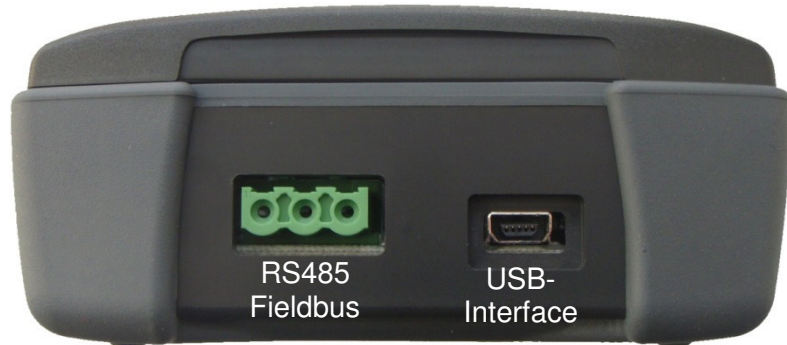
Real-time-clock



### 3.3 Inputs and Outputs

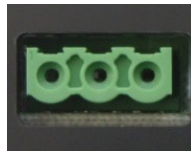
I/Os

RS485 - Fieldbus  
USB-Interface



Fieldbus

*Phoenix Contact IC 2,5/3*



↑  
GND

↑  
RSA (D1)

↑  
RSB (D0)



USB-Interface  
Mini USB Typ B

for battery charge  
and as data link



### 3.4 Interface – General Information

Hardware

Structure according RS485 Specification  
(Half duplex – 1/8 Load up to 256 points – max. 400m  
wiring length)

Characteristic

Baud rate: 9600, 19200, 38400, 57600  
Parity: none, even, odd  
Stop bits: 1, 2

Supported Features


According connected device

## 4 Menu Structure

### 4.1 Software

Scan Line	Network scan to find all connected devices with the chosen protocol
Single Monitor	Cyclic scan of single device and monitoring of requested data
Single Control	Control / Parameterizing of a single addressable device with feedback
Broadcast	Control / Parameterizing of all connected devices without feedback (broadcast)
Datalog	Log-function for single device and save in the external flash

### 4.2 Menustructure - Basisvariation

<i>Main level</i>	<i>Sublevel 1</i>	<i>description</i>
Properties		Back to main level
	Change Language	English / Deutsch
	Set Clock	date – rime
	Timeout Light	Time to switch off display lighting
	Update Firmware	Service feature (coded)
<i>Software variation</i>		<b>→ (Software) Appendix</b>
Power Off	-	Switch off device

# 5 Technical Data

Operation Voltage	Li-Ion 3,7V – 2300mAh USB Interface
Protection Level	IP20 (acc. EN 60529)
Temperature	0°C ... 40°C Storage and Operating
Display	Single colour full graphic display with background lighting

Access easy access push encoder (IGR)

Dimensions in mm



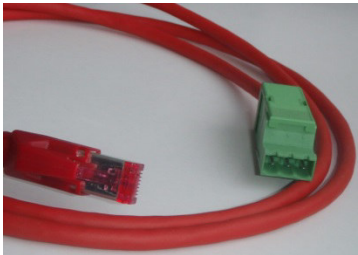
Weight 350g

Accessory (included) 5V-Power supply with a wide selection of variable, removable adapters that fit numerous different AC outlet sockets.



Accessory (on demand)

Data cable, 1,50m  
*Phoenix Contact* → RJ45



USB Data cable, 1,80m  
USB-A → mini-USB-B



## 6 Additional Hints

### 6.1 Manufacturing

All devices of **vbk.cmd** series are manufactured according

**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment**

### 6.2 Packing and Shipping

The shipping is realised inclusive power supply in fitting individual packing.

Individual packing, incl. power supply

Accessory on demand

- Data cables



For Export **vbk.cmd** is categorized to the following HS code

**85176200**

Machines for the reception, conversion and transmission or regeneration of voice, images or other data, incl. switching and routing apparatus (excl. telephone sets, telephones for cellular networks or for other wireless networks)

All claims for damage must be reported immediately.

### 6.3 Service

Technical queries about **vbk.cmd** under:

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## 7 Notices





**vbk** technology

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