INSTRUCTION LEAFLET
KIT CONTROL BOX WITH GUI

- Compact format box with easy plug and play connection
- Only a USB connection with the PC needed
- Easy to integrate in existing setups
- An additional software makes it possible to run the Kit Encoder main functions
- Easy way to do the calibration, preset, pulse testing and filter setting with the Kit Encoder
- Additional possibility to read out the temperature and kit encoder firmware version

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Compatibility of Kit Control Box

Kit Control Box can be used for configuration of

On-Axis Absolute Kit Encoders with:

- BiSS C interface (type key KCD-BC0xB-xx17-xxxx-xxx)
- SSI interface (type key KCD-Sx0xB-xx17-xxxx-xxx)

Hollow Shaft Absolute Kits Encoders with:

- SSI interface (type key CCD-Sx0xB-xxxx-xxxx-xxx)

In case Kit Control Box is used for configuration of KCD-XX03B-XXXX-XXXF-XXX (Ø 22 mm), to prevent an encoder kit from electrical damage, please ensure, that only KIT CONTROL BOX KCB-VA produced not earlier than **after the 19th week of 2020 (on the product label indicated as 19/20)** and that the appropriate adapter cable is used. If an older version is available, please, contact us to arrange an update.

Do not connect other devices, kit encoder types or cables that are not specified within this documentation!

Kit Control Box Set includes

10047799 KIT CONTROL BOX KCB-VA + Adapter Cable Set for 36 mm kit	10055547 KIT CONTROL BOX KCB-VA + Adapter Cable Set for 22 mm kit	10058366 KIT CONTROL BOX KCB-VA + Adapter Cable Set for CCD-SSI HS Kit
KIT CONTROL BOX KCB-VA		
Connecting Cable USB A-B 1m (for connection of PC with Kit Control Box)		
Instruction Leaflet Kit Control Box		
Kit Control Box - Adapter Cable for KCD-BC/Sx 36 mm Kit	Kit Control Box - Adapter Cable for KCD-BC/Sx 22mm Kit	Kit Control Box - Adapter Cable for CCD-SSI HS Kit

Additional adapter cable

10048949	Kit Control Box - Adapter Cable for KCD-BC/Sx 36 mm Kit
10055145	Kit Control Box - Adapter Cable for KCD-BC/Sx 22mm Kit
10058091	Kit Control Box - Adapter Cable for CCD-SSI HS Kit

User Annotation

Pease note, that no responsibility is assumed by POSITAL for any consequences arising out of the use of this material. This document is not intended as an instruction manual for untrained people.

POSITAL welcomes all readers to send their feedback about this document.

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Authors: JSC, KMA, YTR, SHI, HYA

INSTRUCTION LEAFLET
KIT CONTROL BOX WITH GUI

1. Electrical Connection

The Kit Control Box can be connected to:

- On-Axis Absolute Kit encoder with BiSS C interface (type KCD-BC0xB-xx17-xxxx-xxx)
- On-Axis Absolute Kit encoder with SSI interface (type KCD-Sx0xB-xx17-xxxx-xxx)
- Hollow Shaft Absolute Kit encoder with SSI interface (type CCD-Sx0xB-xxxx-xxxx-xxx)

1.1 Connector

Connector Type on On-Axis Absolute Kit Encoder side: BM08B-GHS-TBT (JST)

Pin No.	Function	Remark
1 (blue)	GND	
3 (grey)	UART Rx/Tx	TTL Level
8 (red)	VCC	+5V

Table 1: JST connector allocation of On-Axis Absolute Kit Encoders

Connector Type on Hollow Shaft Absolute Kit Encoder side: SM10B-GHS-TB (JST)

Pin No.	Function	Remark
8 (blue)	GND	
3 (grey)	UART Rx/Tx	TTL Level
7 (red)	VCC	+5V

Table 2: JST connector allocation of Hollow Shaft Absolute Kit Encoders

Connector Type on Kit Control Box side: D-Sub High Density 15 pin female

Pin No.	Function	Remark
11 (blue)	GND	
10 (grey)	UART Rx/Tx	TTL Level
15 (red)	VCC	+5V

Table 3: D-Sub High Density 15 pin connector allocation

1.2 Electrical Characteristics

Item No.	Parameter	Symbol	Min.	Typ.	Max	Unit	Remark
	Input Voltage		4,5	5	5,5	V	via USB
	Input Current				100	mA	via USB
	Short circuit protection			YES			
	Output Voltage encoder			12		V	Kit Control Box
	UART Voltage		3,3	5	5,5	V	Kit Control Box

Table 4: Kit Control Box electrical characteristics.

2. Software

On the following website https://www.posital.com/en/products/kit-encoders/kit-control-box.php you can find on the right side different information / files in the download section:

- GUI (graphical user interface) to operate the Kit Control Box under Windows operating system.
- Manual to operate the GUI and control box.

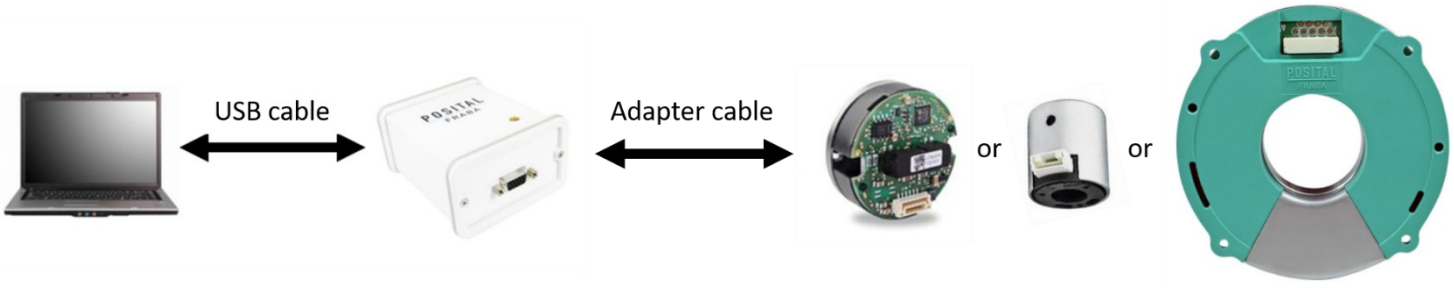
2.1 Installation

For installation of the GUI please download the ZIP file from the website as mentioned under chapter 2. Please extract the zip file before the Kit Control Box Installer is started with the file “setup.exe”.

Hint: for the software execution the Labview Run-Time Engine 2015 SPI (32 bit) is required, which is already included in the Installer package and a FTDI driver which is installed afterwards the application.

After installation and restart of the PC the KitControlBox.exe in the folder can be started.

Hint: FTDI driver can be also downloaded from manufacturer homepage (Link: http://www.ftdichip.com/Drivers/D2XX.htm).



2.2 Manual

Details about the graphical user interface to operate the kit control box can be also found on the website in the download section as pdf or video.

3. LED Meaning

LED red	Meaning
On	Software not started and / or logical connection setup
Off	No USB cable connected from PC to control box
Glow	Kit Encoder is supplied with power

LED green	Meaning
On	Active communication on Tx or Rx
Off	No active communication

Contact

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