





PC interface with USB/TTL converter

B 70.9720.3 Installation Instructions



06.08

1 Typographical conventions

1.1 Warning signs

Danger		This symbol is used when there may be danger to personnel if the instructions are disregarded or not followed accurately!
Caution		This symbol is used when there may be damage to equipment or data if the instructions are ignored or not followed accurately!
Note		This symbol is used when your special attention is drawn to a remark.
ESD		This symbol is used where special care is required when handling components liable to damage through electrostatic discharge .

1.2 Note signs

Reference		This symbol refers to further information in other manuals, chapters or sections.
Footnote	abc ¹	Footnotes are remarks that refer to specific points in the text. Footnotes consist of two parts: A marker in the text, and the footnote text itself. The markers in the text are arranged as continuous superscript numbers.
Read		This text contains important information, and it is vital that you read it before going any further.

1.3 Perform an action

Action instruction	*	This symbol indicates that an action to be performed is described. The individual steps are marked by this asterisk, e.g. * tighten screw
Command sequence	→	Small arrows between words indicate a chain of Commands to be executed in succession. File → save as

2 Introduction

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2.1 Preface



Please read these Installation Instructions before commissioning the instrument. Keep these installation instructions in a place which is accessible to all users at all times.

You comments could help us to improve these instructions.



These Installation Instructions describe the steps for setting up a link between the USB/TTL converter and the USB socket on the PC, via the PC interface.

Any manipulations that are not described in the operating instructions (or even expressly forbidden) will endanger your rights under the instrument warranty!

If you have any problems, please contact the nearest subsidiary or the head office:

Service phone: +49 661 6003-0
fax: +49 661 6003-607
e-mail: mail@jumo.net



All the necessary drivers can be found on the CD, or as download from <http://www.jumo.net>

2.2 Scope of delivery

- 1 PC interface with USB/TTL converter
- 1 meter USB cable PC to PC interface with USB/TTL converter
- 2 meters connecting cable device and PC interface with USB/TTL converter
- 1 adapter (socket) and 1 adapter (plug)
- CD-ROM with documentation and interface drivers



Use only the cables supplied in the specified lengths!

3 Before you plug in the USB connector...

3.1 Hardware requirements

- PC Pentium 100 or compatible
- 128 MB RAM, 16 MB free space on hard disk
- CD-ROM drive
- free USB interface

3.2 Software requirements

Microsoft ¹ Windows 2000/XP



Notes for Windows 2000/XP

If more than one user is administered by the computer, then the user who is logged in must be the one who will subsequently be working with the program.

The user must have administrator rights during the installation. After installation, the rights can be restricted again.

3.3 Application

- The PC interface with the USB/TTL converter is only designed for service use over a limited period, such as the transfer of setup data or controller optimization through startup programs.
- It is not suitable for unlimited operation of the interface in a fixed installation.
- It links JUMO devices to a PC through an electrically isolated connection. The RJ-45 connector is specially adapted to JUMO devices, and is not suitable for third-party equipment.



Do not confuse the RJ-45 socket with an ISDN or network connection!

1. Microsoft is a registered trademark of Microsoft Corporation

3 Before you plug in the USB connector...

3.4 Connection sequence

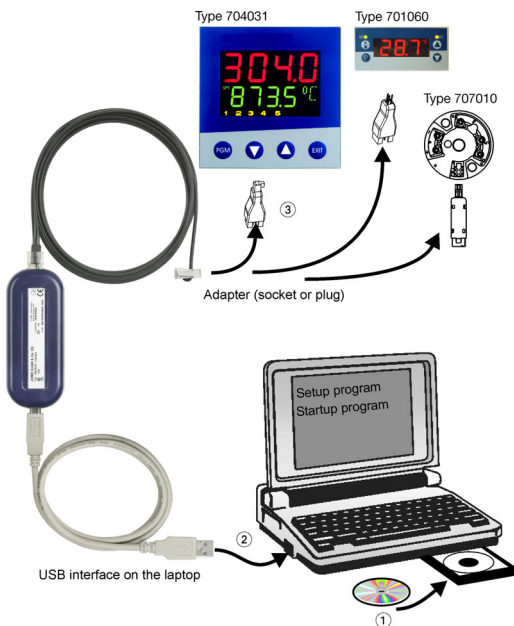


1.) First, make the USB connection 2 from the PC interface with the USB/TTL converter to the PC.

The driver is installed at this time



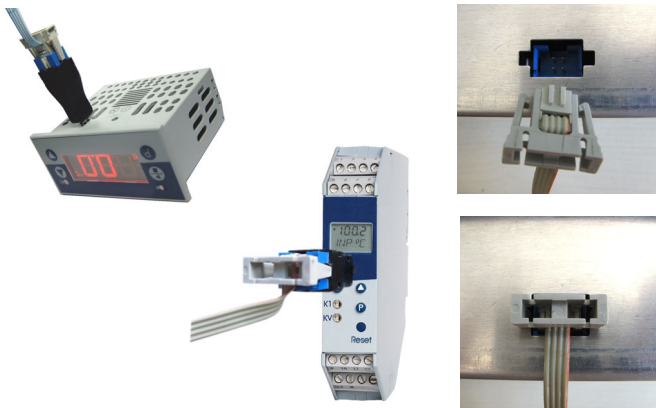
2.) Only then can you connect the device, via the adapter 3 (plug or socket), to the PC interface with USB/TTL converter. This ensures a safe grounding on the PC side.



2 Adapters ((plug or socket), are included.
On the device you can see which adapter fits exactly.

3 Before you plug in the USB connector...

3.5 Right connection



3.6 Wrong connection

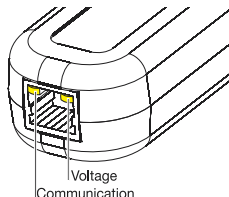


Do not plug black adapter into this blue Socket !

3.7 Significance of the LEDs on the RJ-45 socket.

The LED on the right (voltage) lights up as soon as the voltage is supplied to the PC interface with USB/TTL converter.

The LED on the left (communication) lights up when data are being transferred between the device and the PC.



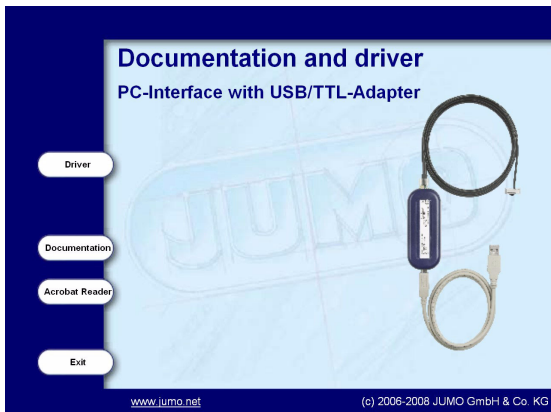
4 Driver installation

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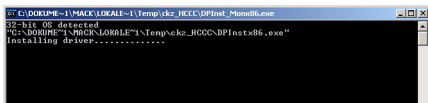
- * insert CD einlegen and Setup-Programm starts automatically.
If nothing happens, start the file: launch.exe on the CD.



- * select national language



- * click *Driver* and an DOS window opens



If this window is closed, the installation is finished.

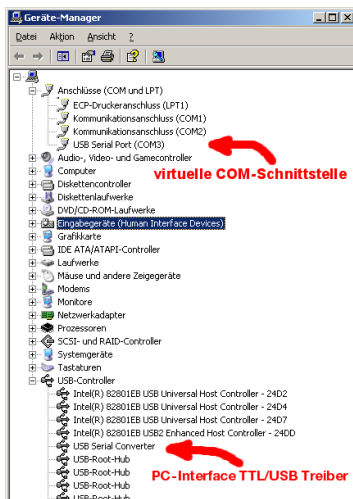
- * Plug in the USB connector on the PC interface with USB/TTL converter to the USB socket on the PC.

Der PC indicates, that a *PC-Interface TTL/USB* and a *USB Serial Port* was found.



4.1 Entry for the PC interface with USB/TTL converter in the Device Manager

The Assistant sets up a virtual COM interface that is entered in the System Controls (Control Panel) and is then subsequently available for selection in the setup program.



4 Driver installation

4.2 Create device link through the setup program

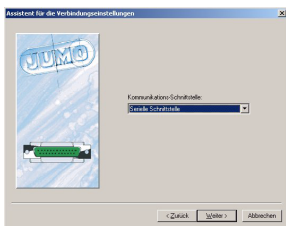
This example illustrates how a connection is set up between an IMAGO 500 multi-channel controller and a PC.

- * Connect the device to the RJ-45 socket of the PC interface with USB/TTL converter, by means of the connecting cable that is supplied and adapter (plug or socket) as required.



- * Enter a name for the link

- * Click on *Continue*

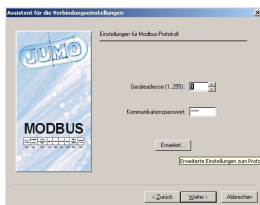


- * Select a serial interface, even though it is physically an USB interface.

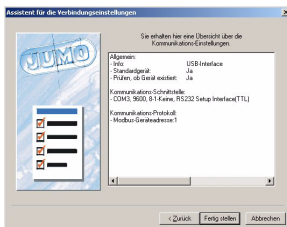
- * Click on *Continue*



- * Click on COM 3
This is the new (virtual) interface that has been set up in this example by the Assistant for the PC interface with USB/TTL converter.
- * Click on *Continue*



- * Enter the device address and password.
- * Click on *Continue*

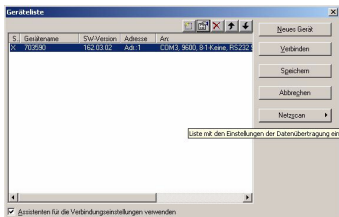


A summary of the settings will now be displayed.

- * Click on *Finish*

4 Driver installation

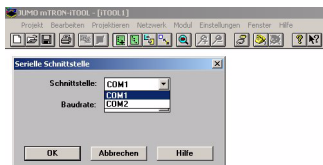
The connection has now been entered in the device list, and can be made directly.



* Click on *Connect* to make the connection.

4.3 Adapting the COM port setting for older setup programs

Many older setup programs only permit the setting up of low-numbered COM ports, e.g. only COM 1 or COM 2 for JUMO mTRON iTOOL.



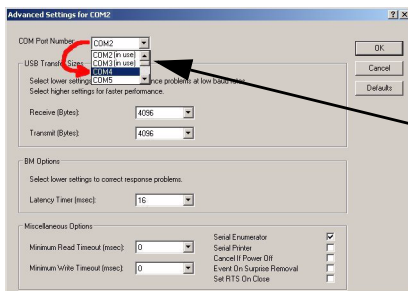
In this case, a low-numbered COM interface (for instance, COM 2) must be altered to a higher number.

This is done with the help of the operating system, in the System Controls (Control Panel).

* Call up: *Start* → *Settings* → *System Controls* → *System* → *Hardware* → *Device Manager*

* Make a right-click on *Properties* to open the required COM 2 interface.

Alter this to a higher free COM interface number (COM 4) in *Port Settings* → *Advanced* → *COM Port Number*



in use means that COM 2 is being used at the moment. The next free interface is COM 4.

* Use OK to confirm the alteration.


COM 2 will now be free, and can be used for the setup program.



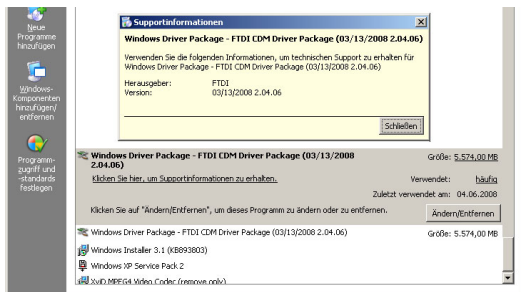
The alteration will only become visible when all open windows have been acknowledged by OK and the Device Manager is called up again!

5 Uninstalling PC interface with USB/TTL converter

5 Uninstalling PC interface with USB/TTL converter


 To uninstall use the function System control panel → Software of Windows.

* Remove entry *FTDI CDM Driver Package*



After uninstalling, the entry *FTDI CDM Driver Package* will no longer appear in the menu System control Panel → Software.

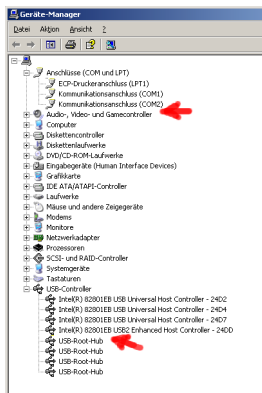


 A current connection between PC and device will be interrupted, because the driver was uninstalled.
An indication will be displayed, that the changes will become active after the PC was restarted.

5 Uninstalling PC interface with USB/TTL converter

After uninstalling, the entry will no longer appear in the Control Panel menu.

⇒ Chapter 4.1, "Entry for the PC interface with USB/TTL converter in the Device Manager"



6 Technical data

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Supply voltage: 5V DC (powered by USB bus)

Power consumption: $\leq 2.5\text{W}$

Electrical isolation: 50V DC

Permissible ambient temperature:

Operating temperature range: 0 to +40°C

Functional temperature range: -10 to +60°C

Permissible storage temperature: -20 to +70°C

Climate conditions: 93% relative humidity, no condensation

Electromagnetic compatibility

Interference emission: EN55022, Class B

Interference immunity: EN55024

Weight: approx. 75g

Housing: polycarbonate, RAL 5013



JUMO GmbH & Co. KG

Street address:

Moritz-Juchheim-Straße 1

36039 Fulda, Germany

Delivery address:

Mackenrodtstraße 14

36039 Fulda, Germany

Postal address:

36035 Fulda, Germany

Phone: +49 661 6003-0

Fax: +49 661 6003-607

e-mail: mail@jumo.net

Internet: www.jumo.net

JUMO Instrument Co. Ltd.

JUMO House

Temple Bank, Riverway

Harlow, Essex CM 20 2 TT, UK

Phone: +44 1279 635533

Fax: +44 1279 635262

e-mail: sales@jumo.co.uk

Internet: www.jumo.co.uk

JUMO Process Control, Inc.

8 Technology Boulevard

Canastota, NY 13032, USA

Phone: 315-697-JUMO

1-800-554-JUMO

Fax: 315-697-5867

e-mail: info@jumo.us

Internet: www.jumo.us