TROX TECHNIK

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the software

Table of contents

General information

These instructions describe the installation and commissioning of the EasyConnect configuration software. The EasyConnect program can be used to perform commissioning, maintenance and diagnostics of the basic components of the TROX UNIVERSAL, EASYLAB TCU3 controllers and the FMS monitoring system.

Before installing the software for the first time, please read the manual carefully and follow the instructions and notes.

Please note that in order to use the software, it must first be activated by TROX Head Office in Germany. Take into account the possible time differences due to geographical time zones.

The manufacturer does not accept any liability for any malfunction or damage resulting from non-compliance with this manual or non-compliance with relevant statutory regulations.

Symbols used in this manual

DANGER
Designates danger to life and limb due to electrical voltage.

CAUTION
Potentially hazardous situation which, if not avoided, may result in minor injury or

Texts that appear in screen dialogs, e.g. in dialog boxes or buttons, are displayed in italics.

Example: *Confirm* or *Cancel*

General information regarding safety

Comply with any applicable regulations and follow the code of good practice during all work on the base components, the expansion modules and monitoring systems.

In particular

- the Equipment and Product Safety Laws
- the Industrial Health and Safety Regulations and accident prevention regulations
- General regulations
- Accident prevention regulations for electrical installations and operating means

Qualification of the personnel

Only specialist personnel are allowed to perform the described work.
Only skilled qualified electricians are allowed to work on electrical components.

Knowledge of the PC and the Microsoft Windows operating system is required for installation and operation of the software.

TROX ® TECHNIK

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the software

Correct use

The EasyConnect software supplements the EASYLAB system, the TROX UNIVERSAL controller and the FMS monitoring system, with PC-supported configuration, adjustment, maintenance and diagnostics.

To do this, this software is installed on a PC with Windows operating system and the PC is connected to the device.

All relevant configuration settings of the connected components can be changed with the help of the configuration program. The software provides extensive functions for checking and fault diagnosis.

The configuration software communicates with the controller hardware, depending on the ordered version, via a serial interface according to RS485 standard or via serial communication via Bluetooth.

In the **EasyConnect-CAB** version, the PC communicates with the components via the USB – RS485 interface adapter supplied. The interface adapter is plugged into the USB slot available on all PCs / notebooks. The required communication cable is part of the supply package. The cable can be connected to the fume cupboard or room control panels, in some cases with the supplied parameter setting adapter, or to the device which is to be configured.

In the **EasyConnect-BC** version, the PC communicates via Bluetooth using the BlueCON Bluetooth adapter module supplied. The BlueCON adapter module can be connected to the fume cupboard or room control panels, in some cases with the supplied parameter setting adapter, or to the device which is to be configured. The PC must have a Bluetooth interface.

Residual risks

Changing the configuration settings can lead to impairment or failure of the control function of the controller or the FMS. This may be associated with a failure of the planned ventilation function in the zone where the control devices are used.

This can result in personal injury or damage to property, particularly in critical areas such as laboratories or when pressure controls are used.

General safety measures

Be careful when changing the configuration setting of the electronic controller.
Changes are only allowed to be made by instructed personnel who can evaluate the consequences of the changes to the settings.

Caution when laying the configuration cable
Secure the loosely laid connection cable to avoid dangerous tripping hazards or damage to the interface adapter.

Technical data and system requirements

EasyConnect PC software

for Microsoft Windows operating systems
- Windows 7
- Windows 10
- Windows 11

Ordering options

EasyConnect-CAB

This includes a complete set of the necessary components:

1 × software license for one workplace
    The latest software is obtained by downloading
1 × PC interface adapter USB ↔ RS485

1 × plug-in EasyConnect configuration cable
approx. 5 m long with RJ45 plug connection and 9-pin D-SUB socket

1 × parameter setting adapter for operating device

EasyConnect-BC

This includes a complete set of the necessary components:

1 × software license for one workplace
    The latest software is obtained by downloading
1 × Bluetooth adapter module BlueCON

1 × parameter setting adapter for operating device

TROX TECHNIK

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the software

Download the EasyConnect software

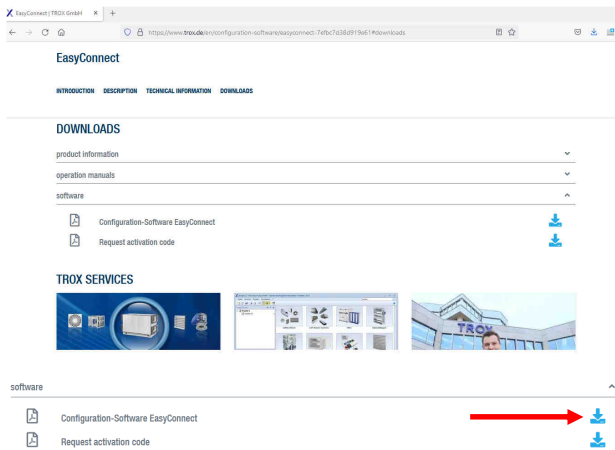The EasyConnect software is downloaded and subsequently activated via the Download Center on the TROX homepage.

Either open the download form via the link
https://www.trox.de/en/easyconnect/configuration-software-easyconnect-26870cf3fc900819

or call up the homepage www.troxtechnik.com

Navigate to:

Home / PRODUCTS / Control systems / EASYLAB - LABCONTROL control systems / Configuration software / EasyConnect

In the *DOWNLOADS* section, open the software section:

Select *EasyConnect Configuration Software*.

The download form will open. Fill out the form completely and *send it*. The fields marked in bold must be filled in.

By e-mail, you will receive a link to download the TROX EasyConnect software.

Follow the link and select *Download Software EasyConnect*:

Download the **EasyConnect_Version-x.x.x.x.zip** file.

TROX TECHNIK

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the software

Software installation

Step 1a: Install USB RS485 interface adapter

Plug the USB RS485 interface adapter into a free USB port of the PC / notebook. The Windows operating system recognizes the new hardware component and automatically installs the correct driver if an Internet connection is available.
If this is not the case, install the interface driver from the enclosed driver CD.
Subsequently, the interface adapter is integrated in the system and provides a COMxx communication port. This can be checked in the Device Manager of the Windows Control Panel. There in the area:
- Ports (COM and LPT) or
- USB Controller (USB Serial Converter)
find the number (xx) of the communication port created for the interface adapter.
This number must be set later in the EasyConnect software at the beginning of use.

Step 1b: Install BlueCON adapter module

Connect the BlueCON adapter module to the controller via the interfaces shown below. The port supplies the adapter module with voltage.

Pair TROX BlueCON with Windows 7:
1. In Bluetooth environment → Add device
2. Select the TROX BlueCONxxxx adapter that is found and click *Next*
3. Select "Enter pairing code of the device"
4. Enter pairing code **0000** in the text box and click *Next*.
5. Remember the displayed COMxy port of the connected Bluetooth adapter module. (This can also be looked up later in the Windows Device Manager)

Pair TROX BlueCON with Windows 10:
1. In the Windows Control Panel, select the Devices / *Bluetooth & other devices* section
2. Select *Add Bluetooth or other device*
3. Select *Bluetooth*
4. Select the TROX BlueCONxxxx adapter that is found
5. Enter PIN **0000** in the text box and click *Connect*.
6. The COM port used (outgoing direction) can be looked up in the COM Ports tab of the *More Bluetooth Options*.
7. Remember the displayed COMxy port of the connected Bluetooth adapter module.

Step 2: Install the EasyConnect software

First, the previously downloaded program file EasyConnect_x_x_x.zip must be unpacked.

Then run the *setup.exe* file to start the installation. The few user dialogs of the installation program are always in English.

Confirm the Welcome to the EasyConnect Setup dialog with the *Next* button

Select Installation Folder dialog box:
- If necessary, change the *Target directory*
- If necessary, select Installation for all users
- Confirm dialog with *Next*

Confirm the *Confirm Installation* dialog box with the *Next* button: The installation process begins.
Confirm the *Installation Complete* dialog box with the *Close* button.

Start EasyConnect from the installation folder in the Start menu of the Windows operating system:
Programs / TROX GmbH / EasyConnect

Note 1:
If the EasyConnect software was previously installed, the updated version can be installed directly. The activation of the license is taken over from the directly previous version.

Note 2:
If the installation detects that Microsoft .NET Framework version 3.5 is not currently installed on the PC, it is automatically installed in advance from the software package. To do this, the message dialog boxes that appear must be confirmed.
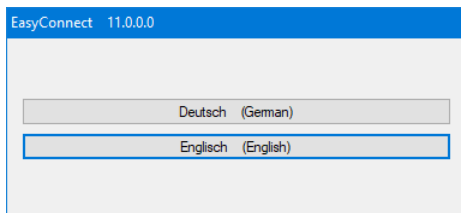

TROX® TECHNIK

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the software

First program start and activation

Setting of the dialog language

After EasyConnect is started for the first time (from *Programs / TROX GmbH / EasyConnect*), you are asked to select the language for the dialog texts.

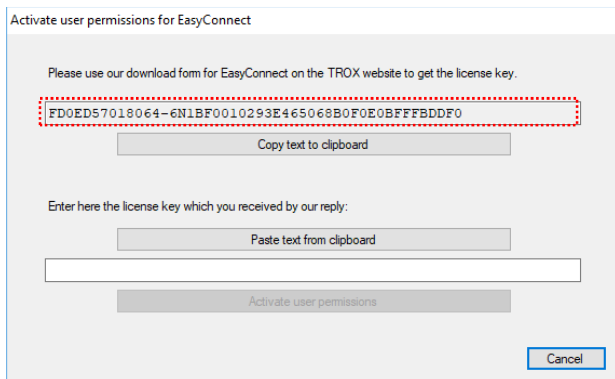Selecting with the button sets the language which will be used for the dialog texts.

Note:
After the program has been activated, the language for the dialog texts can be changed in the Options menu area.

Activation

The first time you start the program, you need to activate the software.
For this purpose, a dialog box for activating the program and the user rights appears on the screen:

To request an activation code, use the activation form on the website www.troxtechnik.com
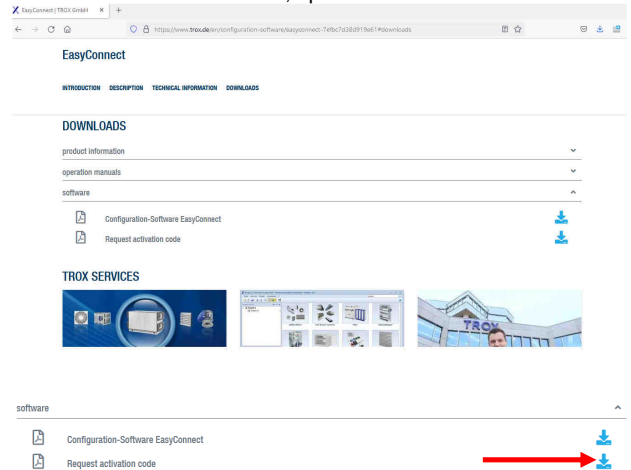
Either open the activation form via the link
https://www.trox.de/en/easyconnect/request-activation-code-3f049d872d1f56ef

or call up the homepage www.troxtechnik.com

Navigate to:

Home / PRODUCTS / Control Systems / EASYLAB - LABCONTROL Control Systems / Configuration Software / EasyConnect

In the *DOWNLOADS* section, open the *software* section:
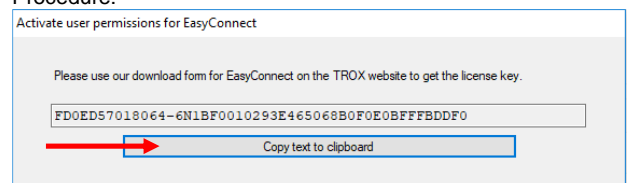

Select *Request activation code*.

The form for requesting the activation code opens. Fill out the form completely and *send it*. The fields marked in bold must be filled in. Please have the TROX VK order number of the EasyConnect purchase order ready.

Enter the activation data from the activation dialog in the **"Copied activation data from the "Activation of user rights for EasyConnect" dialog of the EasyConnect software"** field.
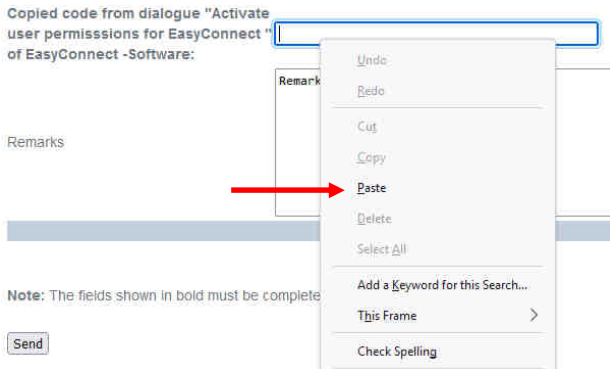This is done via the clipboard

Procedure:

TROX ® TECHNIK

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX
UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the
software

Copy the code from the activation dialog to the clipboard using the button.

Then paste the data into the dialog box in the activation form. This can be done by right-clicking in the dialog box and selecting Paste or by pressing Ctrl+V (paste) in the dialog box.

TROX Head Office in Neukirchen-Vluyn, Germany will use the complete information to generate the activation code valid for your PC and send it to you at the e-mail address entered in the form.

Please allow for a reasonable processing time as this process is not automated, and bear in mind possible time differences due to geographical time zones.
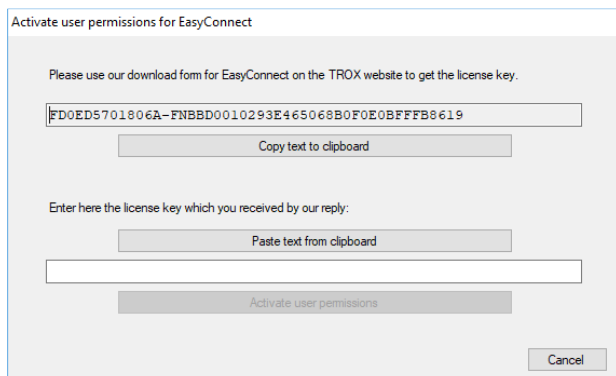
The activation code obtained in this way must then be entered in the text box in the lower area of the *Activation of user rights for EasyConnect* dialog box and confirmed with the *Activate user rights* button.

We recommend transferring the activation code via the clipboard.

Mark the activation code in the e-mail and copy it to the clipboard. (Key combination Ctrl+C or activate shortcut menu via right mouse button and select *Copy*)
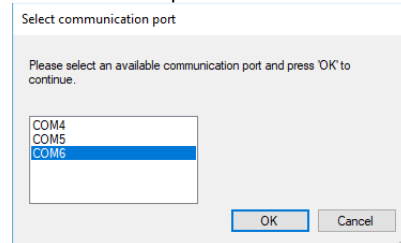
In the EasyConnect program:
- Insert the activation code into the box using the *Paste text from clipboard* button
- The activation code appears in the dialog box
- Confirm the activation code via the *Activate user rights* button
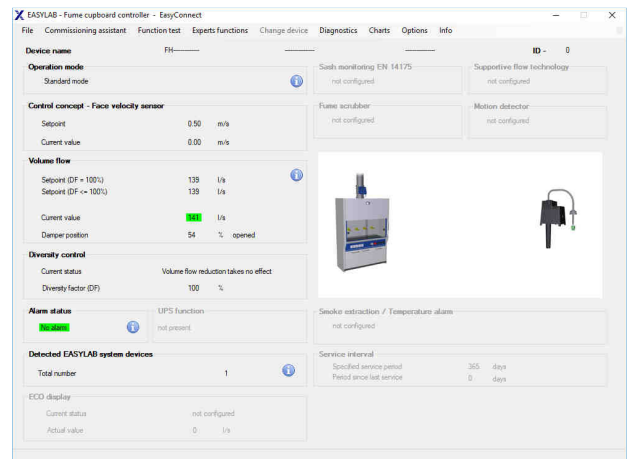

Selection of the communication interface

After successful program activation, the communication port for the interface adapter must be selected.
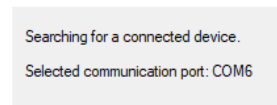

When a device that is ready to operate is connected, the EasyConnect software reports with the start screen of the respective device.

Example start dialog: Fume cupboard controller:

If no connection can be established to the connected device, a message text is displayed instead of the current device status:

Searching for a connected device.

Selected communication port: COM6

Possible error causes:
- No TCU3 or FMS controller connected!
- Connected device is not ready for operation (supply voltage OK?)
- Incorrect communication port set

Another communication port can be set in the *Options* menu using *Change communication port (COM) to device*.
If you are not sure which port belongs to the interface adapter, you can consult the Device Manager of the Windows operating system.

TROX ® **TECHNIK**

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX
UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the
software

Setting additional program options

Further settings can be changed in the *Options* menu:

Options	Info
German	
✓ English	
✓ Volume flow unit [l/s]	
Volume flow unit [m³/h]	
Volume flow unit [cfm]	
✓ Face velocity unit [m/s]	
Face velocity unit [fpm]	
✓ Temperature unit [°C]	
Temperature unit [F]	
Change communication port (COM) to device	
Change license key	

TROX ® TECHNIK

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the software
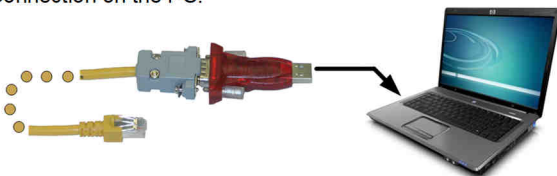
Electrical connection

Danger
Danger of electric shock! Do not touch any live components!
Do not open the PC controller TCU3 or FMS!

Connection setup PC – controller with USB RS485 interface adapter and cable

Connect PC or notebook with the configuration cable to the controller TCU3, FMS or the control panels connected to the device.

Connection on the PC:

USB slot

Use any USB slot.

Important note
We recommend always using the same USB slot for the interface adapter. This means that when the interface adapter is used again, the same communication port is used for the software and there is no need for reconfiguration.

CAUTION
Material damage to due to overvoltage. Connecting the USB RS485 adapter to a USB port without equipotential bonding can cause irreparable damage to the adapter. To avoid damage to the adapter, use either a battery-operated, mobile computer (without mains connection) or make sure that the USB port used is galvanically isolated.

Connection on the device

Variant 1: On the EASYLAB control panels

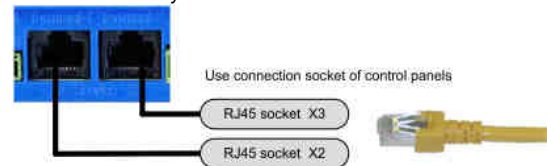BE-SEG-02   BE-SEG-01
With parameter setting adapter

BE-LCD

Variant 2: Directly to the controller TCU3 or FMS

Use connection socket of control panels

RJ45 socket X3

RJ45 socket X2

Connection setup PC – controller with BlueCon adapter module

Connection on the device

Connect the BlueCON adapter module to the controller via the interfaces shown below. The port supplies the adapter module with voltage.

BE-SEG-02   BE-LCD
With parameter setting adapter

Variant 2: Directly to the controller TCU3 or FMS

TROX TECHNIK

TROX GmbH
Heinrich-Trox-Platz
47504 Neukirchen-Vluyn,
Germany
www.troxtechnik.com

EasyConnect – First Steps

Configuration Software for TCU3 EASYLAB controller, TROX UNIVERSAL, FMS monitoring system

Download, installation, activation and initial start-up of the software

Brief overview of EasyConnect functions

EasyConnect menu items
File
The following program functions are presented here:
- Log configuration settings to PDF text file
- Save configuration settings in the device (backup function), only for TROX trained experts
- Restore configuration settings from the backup stored in the device (restore function)
- Exit program

Commissioning wizard
The wizard starts the user-guided setting of all configuration settings of the connected device. At the beginning, the basic functions and equipment features are defined and, depending on them, the required settings are queried step by step. At the end of the process, the new settings must be transferred to the device. The wizard then guides you through other important commissioning functions such as zero point correction or the recording of switching positions, or the direction of action of switch contacts. This option is available for selected controller functions.

Expert area
This program area is only accessible to specially trained TROX experts.

Diagnosis
Display of additional information about the connected device:
- Device equipment
- I/O overview (inputs and outputs of the controller)
- Volume flow rates (setpoints and actual values, assignments)
- Operating modes (what leads to the current operating mode)
- System overview (communication system KL)
- Alarm overview
- Magnifying glass function
  (enlarged display of the most important operating values)

Diagram
Temporal recording of various actual and setpoint values as well as other control signals in the form of a diagram.

Options
Switching program settings as previously described. (Dialog language, unit of volume flow rate, colour scheme, communication port, change activation code)
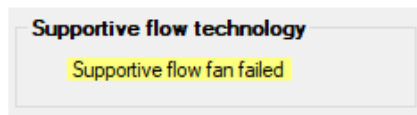
Info
Display of the version of the EasyConnect program.

General information
Highlighting of special operating conditions
Exceptional operating states are visually highlighted by a coloured background
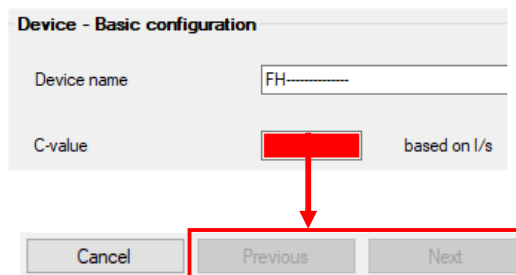
Examples:

References to detailed information

Clicking the Info icon displays more detailed information about specific areas.

Incorrect entries in the commissioning wizard
Incorrect or missing entries are indicated by a red background in the input field.

In some cases, additional help texts appear for explanation.

As long as there are still incorrect entries on a dialog page, the dialog page cannot be exited via Previous or *Next*.