

TCP3

Authentication / Release Station

USER MANUAL



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1 INTRODUCTION

1.1 ABOUT THIS MANUAL

This user manual is intended for the user and enables a safe and appropriate handling of the product. It gives a general overview, as well as important technical data and safety information about the product. Before using the product, the user should read and understand the content of this user manual.

For the sake of better understanding and readability, this user manual might contain exemplary pictures, drawings and other illustrations. Depending on your product configuration, these pictures might differ from the actual design of your product.

The original version of this user manual has been written in English. Wherever the user manual is available in another language, it is considered as a translation of the original document for information purposes only. In case of discrepancy, the original version in English will prevail.

1.2 SCOPE OF DELIVERY

1.2.1 COMPONENTS AND ACCESSORIES

Depending on your product configuration, the product is delivered with different components and accessories, such as cables, as part of a kit. For more information about the delivered components and accessories, refer to your delivery note, consult the ELATEC website or contact ELATEC.

1.2.2 SOFTWARE

The product is delivered ex-works with a specific software version (firmware). Refer to the label attached to the product to find the software version installed ex-works.

1.3 ELATEC SUPPORT

In case of any technical questions, refer to the ELATEC website (www.elatec.com) or contact ELATEC technical support at **support-rfid@elatec.com**

In case of questions regarding your product order, contact your Sales representative or ELATEC customer service at **info-rfid@elatec.com**

1.4 REVISION HISTORY

VERSION	CHANGE DESCRIPTION	EDITION
03	Editorial changes (layout change), new chapters "Introduction", "Intended Use" and "Safety Information" added, chapters "Technical Data" and "Compliance Statements" updated, new chapter "Appendix" added	03/2022
02	Chapter "Compliance Statements" updated	09/2020
01	First edition	09/2020

2 INTENDED USE

The primary use of a TCP3 converter is to provide an on-ramp for USB data to reach a network server which implements authentication and optionally a Pull Printing feature. TCP3 can be configured as a two-port network router that is designed to be connected between a network printer and a print server. TCP3 is equipped with two USB 3.0 ports. A card reader or keypad can be connected to either or both of these two ports and can be used to send data to the authentication server. This is typically used to enable card-based authentication and to release print jobs from the print server to the attached network printer. TCP3 can also be used in an industrial setting to enable card-based authentication for industrial robots or other manufacturing equipment.

The product is for indoor use and may not be used outdoor.

Any use other than the intended use described in this section, as well as any failure to comply with the safety information given in this document, is considered improper use. ELATEC excludes any liability in case of improper use or faulty product installation.

3 SAFETY INFORMATION

Unpacking and installation

- The product contains sensitive electronic components that require particular attention when unpacking and handling the product.
Unpack the product carefully and do not touch any sensitive components on the product.
In case the product is equipped with a cable, do not twist or pull the cable.
- The product is an electronic product whose installation requires specific skills and expertise.
The installation of the product should be done by a trained and qualified personnel only.
Do not install the product by yourself.

Handling

- The product is equipped with light-emitting diodes (LED).
Avoid direct eye contact with the blinking or steady light of the light-emitting diodes.
- The product has been designed for a use under specific conditions (refer to the product data sheet).
Any use of the product under different conditions might damage the product or alter its performance.
- The user is liable for the use of spare parts or accessories other than the ones sold or recommended by ELATEC.
ELATEC excludes any liability for damages or injuries resulting from the use of spare parts or accessories other than the ones sold or recommended by ELATEC.

Maintenance and cleaning

- Any repair or maintenance work should be done by a trained and qualified personnel only.
Do not try to repair or carry out any maintenance work on the product by yourself.
Do not allow any repair or maintenance work on the product by an unqualified or unauthorized third party.
- The product does not need any special cleaning. However, the housing may be carefully cleaned up with a soft, dry cloth and a non-aggressive or non-halogenated cleaning agent on the outer surface only.
Make sure that the used cloth and cleaning agent do not damage the product or its components (e.g. label(s)).

Disposal

- The product must be disposed of in accordance with the EU directive on waste electrical and electronic equipment (WEEE) or any applicable local regulations.

Product modifications

- The product has been designed, manufactured and certified as defined by ELATEC.
Any product modification without prior written approval from ELATEC is prohibited and considered improper use of the product. Unauthorized product modifications may also result in the loss of product certifications.

If you are unsure about any part of the safety information above, contact ELATEC support.

Any failure to comply with the safety information given in this document is considered improper use. ELATEC excludes any liability in case of improper use or faulty product installation.

4 TECHNICAL DATA

Power supply

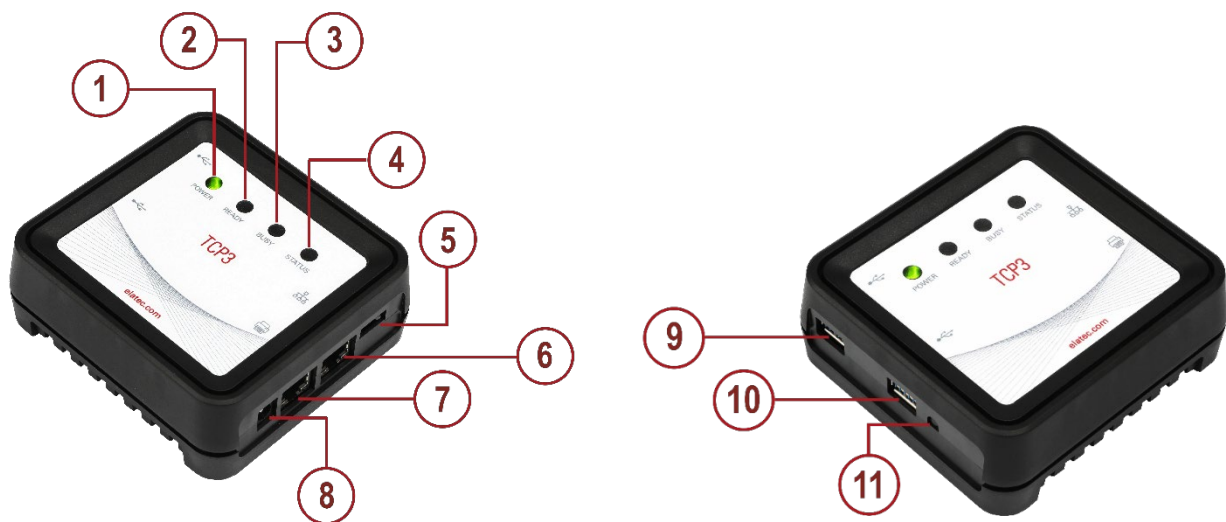
External power supply 5 V or internal Power over Ethernet

Current consumption

Max. 3 A depending on external load

Hardware

The following LEDs and connectors are located on the TCP3 converter:



1 "POWER" LED

2 "Ready" LED

3 "Busy" LED

4 "Status" LED

5 Foreign Device Interface

6 Ethernet port 1

7 Ethernet port 2

8 DC power supply

9 USB port 1

10 USB port 2

11 Input button. This button can be used to activate additional functions. When the input button is held, the Busy LED will blink at a rate of once per second. Hold the button and release it after a particular number of blinks to activate the associated function:

- 3 blinks will print a TCP3 configuration page to the attached printer.
- 8 blinks will reset the TCP3 configuration to factory defaults and will force a reboot. Note that this will not reset the password. That can only be done by reloading the firmware.

USB ports

Users can connect a USB card reader to either of the 2 USB ports on TCP3. Up to two readers can be connected simultaneously. Currently USB Human Interface Device also known as keyboard mode is supported.

TCP3 can provide up to 1.5 A current shared between the two USB ports. This means if the peripheral connected to one port is drawing 1.0 A, the second peripheral can draw up to 0.5 A before both ports will be turned off by the over current protection circuit. Removing the second USB peripheral will enable the port to self-reset.

Note that only tested and approved USB devices will be allowed to operate on TCP3. This will enable ELATEC to provide support for only those devices for which our support team has been trained. Following is the current list of tested and approved devices:

MANUFACTURER	DEVICE	USB VID	USB PID
ELATEC	TWN3 RFID Reader	0x09D8	0x0310
ELATEC	TWN4 RFID Reader	0x09D8	0x0410
ELATEC	TWN4 SafeCom Reader	0x09D8	0x0206
ID Tech	MiniMag II™ MagStripe reader	0x0ACD	0x0001
ID Tech	Barcode Reader	0x0ACD	0x2420
MagTek	Dynamag Reader	0x0801	0x0520
MagTek	MagStripe Reader	0x0801	0x0001
Honeywell	Model 3800 Barcode Reader	0x0536	0x02E1
Honeywell	Model 3800 Barcode Reader	0x0C2E	0x0B01
Honeywell	Model 1250G Barcode Reader	0x0C2E	0x0B41
Symcode	Barcode reader	0x0483	0x0011
Motorola	Model DS9208 2D Barcode Reader	0x05E0	0x1200
Perixx	Peripad-201 Plus PIN pad	0x2A7F	0x5740
Perixx	Peripad-201 PIN pad	0x1C4F	0x0043
Perixx	Peripad-202 PIN pad	0x04D9	0xA02A
HCT	Numeric PIN Pad	0x1C4F	0x0002
Valley Enterprises	USB to RS232 converter	0x0403	0x6001
Manhattan	28 port USB hub	0x2109	0x2811
NT-Ware	TWN4 for NT-Ware	0x171B	0x2001
Lenovo	KU-9880 USB numeric Pin Pad	0x04F2	0x3009
Targus	AKP10-A USB numeric Pin Pad	0x05A4	0x9840
Targus	AKP10-A USB numeric Pin Pad	0x05A4	0x9846

Table 1 - supported USB devices

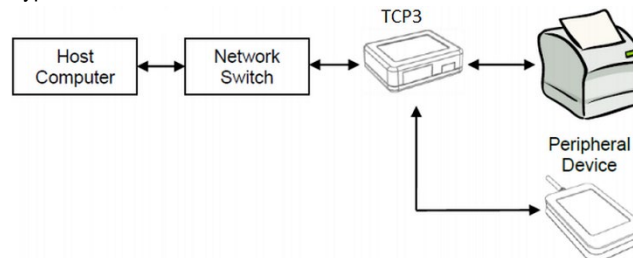
Ethernet ports

There are also two Ethernet ports on TCP3: the Host port is used to connect TCP3 to the local network and the Printer port is used to connect a printer to TCP3.

5 MODE OF OPERATION

5.1 TYPICAL APPLICATION

A typical application is to extend the feature set of a network device (i.e. a network printer), by enabling connection of a local peripheral device such as a card reader or keypad.



5.2 POWER UP

TCP3 is offered with either a 5-volt wall power supply or Power over Ethernet (PoE). As TCP3 powers up, its operating status can be determined through the LED panel located on the face of the unit. The converter typically takes 45 seconds to boot up. This time will be extended by up to two additional minutes if there is no host network connection as the converter continually attempts to connect. The operation mode of the device can be determined based on a combination of LED signals. Here are a few of the possible states.

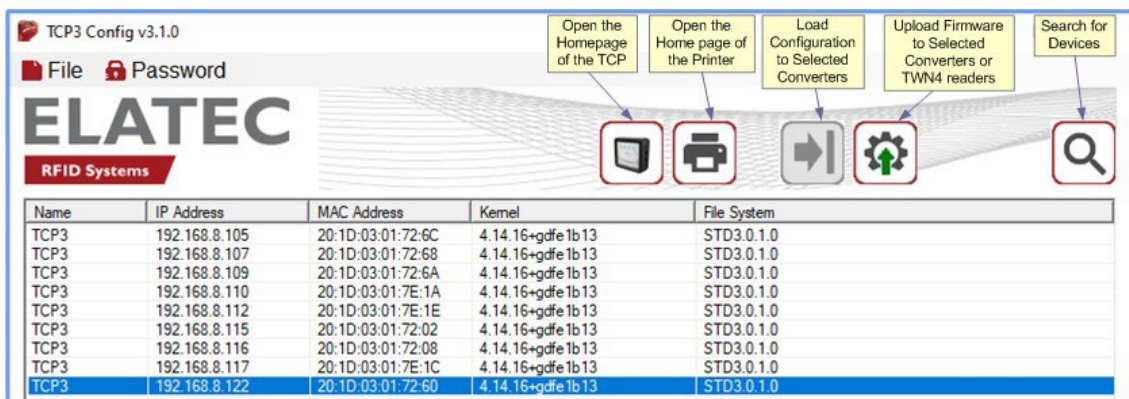
- “Power” LED displays Green when power supply is connected and orange if there is a power fault.
- “Ready” LED displays Green in normal operation and can turn off during certain conditions (refer to the Technical Manual).
- “Busy” LED displays Red when the device is initializing. It will blink during a software upgrade or when the input button is pressed. It is off at other times.
- “Status” LED displays Green when all conditions are normal. It will display red if there is a loss of the host network and orange if it is not able to communicate with the printer.

6 CONFIGURATION

6.1 REQUIREMENTS

1. Download the TCP3 AdminPack from the ELATEC website (under *Support/Software Downloads*). It contains the TCP3 firmware, the TCP3 Technical Manual, the installer for the TC3 Configuration application and several sample subnet search files.
2. Unzip the AdminPack, then run the TCP3 Config installer by double clicking on TCP3Config.msi. This will install the TCP3 Config tool on the PC.
3. Devices must be on the same subnet as the PC operating the TCP3 Config discovery tool. Devices on a different subnet can be discovered with additional steps addressed in the Technical Manual.

6.2 TCP3 CONFIG



TCP3 Config is a tool that can be used to discover all of the TCP3 devices connected to the network. It can also read the configuration of the selected converter, enable editing of that configuration and can send that updated configuration back to the same converter to multiple converters.

6.3 CONFIGURATION VIA WEB PAGE

Alternatively, TCP3 can also be configured over the network via its web browser interface when you select “Open the Homepage of the selected TCP3” in the TCP3 Config screen.

Once a TCP3 has been selected from the list, clicking on “Open the Homepage of the TCP3” or typing the <ip of a TCP3>:81 in the web browser will launch the homepage of the TCP3. If prompted, enter the user name and password. The default user name is “admin” (lower-case, without quotation marks). The default password is the last 8 numbers in the Host MAC address which is printed on the back of TCP3. For example if the Host MAC address is 20:1D:03:01:7E:1C, enter 03017E1C as the password. Note that the password is case sensitive and must be entered as upper case.

Once the password has been entered, a user may change the factory password to something easier to remember. There are currently no constraints on minimum password length or password complexity.

Once the user finishes configuring TCP3, they need to select “Reboot”, which is visible from any web page. When the Homepage opens, one can navigate to the set-up pages for Network, USB, Password, System or Status. Context sensitive Help is also available for each screen.

6.4 REFRESH THE FIRMWARE ON TCP3

As a customer of ELATEC, each user can receive a link for the TCP3 AdminPack. The compressed AdminPack for TCP3 contains the following files:

- Technical Manual
- Zipped Firmware Image
- TCP3 Config Tool
- Sample JSON Configuration file
- Factory Default JSON Configuration file
- Sample sub-network search files

TCP3 is equipped with the ability to upgrade its firmware using 3 different methods:

1. Remotely using the TCP3 Config tool
2. Remotely from the TCP3 System web page
3. Locally via a USB flash drive

Please refer to the Technical Manual for more information about the firmware upgrade.

6.5 FIRMWARE HISTORY

You will find a detailed history of the TCP3 firmware in the TCP3 Technical Manual (refer to Chapter 10 "History of Changes").

7 COMPLIANCE STATEMENTS

7.1 EU

TCP3 is in compliance with the EU directives and regulations as listed in the respective EU declarations of conformity (cf. *TCP3 EU Declaration of Conformity* and *TCP3 POE EU Declaration of Conformity*).

7.2 FCC

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.

Note

This equipment has been designed for Commercial Use only and has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

Caution

Changes or modifications made to this equipment not expressly approved by Manufacturer may void the FCC authorization to operate this equipment.

Warning

This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

7.3 IC

This device complies with RSS-210 of Industry 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.

Le présent appareil est conforme à la norme CNR 210 d'Industrie Canada. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage;
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Note

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

7.4 UNITED KINGDOM

TCP3 complies with the requirements of the UK legislations and other regulations as listed in the respective UK declarations of conformity (cf. *TCP3 UK Declaration of Conformity* and *TCP3 POE UK Declaration of Conformity*). The importer is responsible for applying the following information to the packaging of the product:



- the importer company's details, including the company's name and a contact address in the United Kingdom.
- UKCA marking

APPENDIX

A – TERMS AND ABBREVIATIONS

TERM	EXPLANATION
DC	direct current
FCC	Federal Communications Commission
IC	Industry Canada
LED	light-emitting diode
PoE	Power over Ethernet
RFID	radio frequency identification
UKCA	UK conformity assessed
WEEE	Waste of electrical and electronic equipment. Refers to Directive 2012/19/EU of the European Parliament and of the Council of the European Union

B – RELEVANT DOCUMENTATION

ELATEC documentation

- TCP3 data sheet
- TCP3 Technical Description
- TCP3 Technical Manual
- TCP3 Quick Start Guide



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