# ELATEC TCP3 Authentication/Release Station User Manual



ELATEC
RFID Systems

**TCP3**
**Authentication / Release Station**
**USER MANUAL**

Contents



# 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 |
|---|---|
| 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 |
| 02 | Chapter “Compliance Statements” updated |
| 01 | First edition |

## 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 led ionic product whose installation requires specific skills and expertise. The installation of

the product should be done by 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 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 pads or accessories other than the ones sold or recommended by ELATEC.

**Maintenance and cleaning**

- Any repair or maintenance work should be done by trained and qualified personnel only.
  Do not try b repair or cany 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.

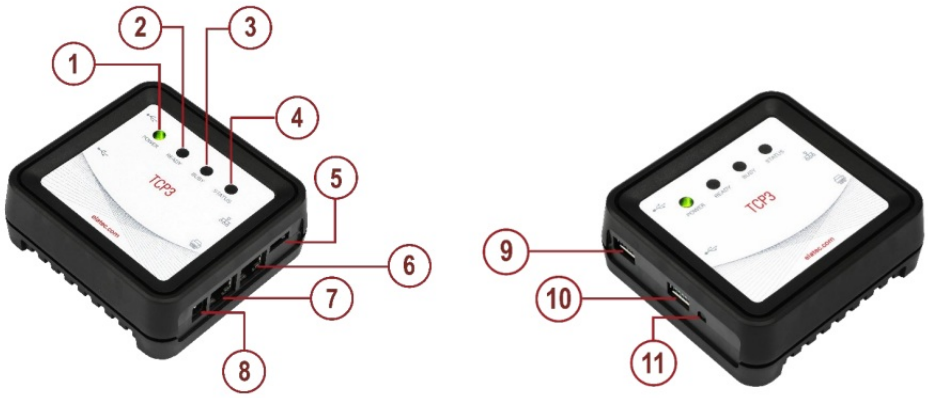
Any failure to comply with the safety information is given in this document is considered improper use. ELATEC excludes any liability in case of improper use or faulty product installation.

## 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, t after a particular number of blinks to activate the associated function:<br>• 3 blinks will print a TCP3 configuration page to the attached printer.<br>• 8 blinks will reset the TCP3 configuration to factory defaults and will force a reboot. Note that this v |

**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 PD |
|---|---|---|---|

| | | | |
|---|---|---|---|
| ELATEC | TWN3 RFID Reader | 0x09D8 | 0x0310 |
| ELATEC | TWN4 RFID Reader | 0x09D8 | 0x0410 |
| ELATEC | TWN4 SafeCom Reader | 0x09D8 | 0x0206 |
| ID Tech | MiniMag IITM' MagStripe reader | Ox0ACD | Ox0001 |
| ID Tech | Barcode Reader | Ox0ACD | 0x2420 |
| MagTek | Dynamic Reader | Ox0801 | 0x0520 |
| MagTek | MagStripe Reader | Ox0801 | Ox0001 |
| Honeywell | Model 3800 Barcode Reader | 0x0536 | Ox02E1 |
| Honeywell | Model 3800 Barcode Reader | Ox0C2E | Ox0B01 |
| Honeywell | Model 1250G Barcode Reader | Ox0C2E | Ox0B41 |
| Symcode | Barcode reader | 0x0483 | Ox0011 |
| Motorola | Model DS9208 2D Barcode Reader | Ox05E0 | Ox1200 |
| Perixx | Period-201 Plus PIN pad | Ox2A7F | 0x5740 |
| Perixx | Period-201 PIN pad | Ox1C4F | 0x0043 |
| Perixx | Period-202 PIN pad | 0x04D9 | OxA02A |
| HCT | Numeric PIN Pad | Ox1C4F | 0x0002 |

| | | | |
|---|---|---|---|
| Valley Enterprises | USB to RS232 converter | 0x0403 | 0x6001 |
| Manhattan | 28 port USB hub | 0x2109 | 0x2811 |
| NT-Ware | TWN4 for NT-Ware | Ox171B | 0x2001 |
| Lenovo | KU-9880 USB numeric Pin Pad | Ox04F2 | 0x3009 |
| Targus | AKP10-A USB numeric Pin Pad | 0x05A4 | 0x9840 |
| Targus | AKP10-A USB numeric Pin Pad | 0x05A4 | 0x9846 |

Table 1 – supported USB devices

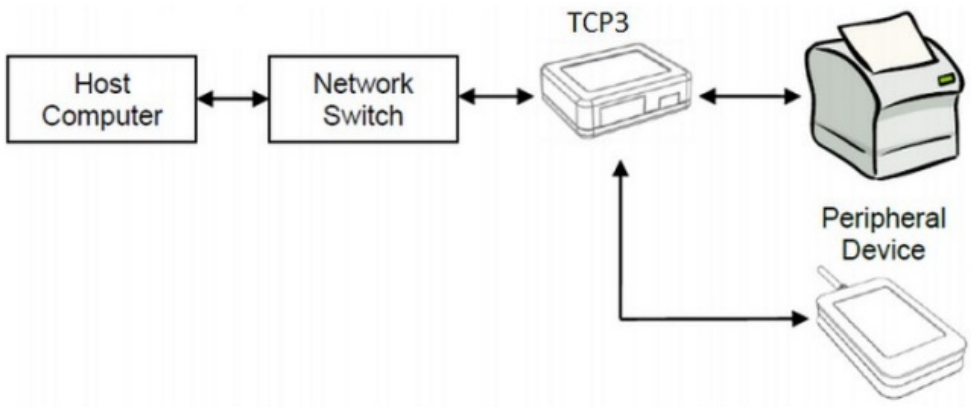
**Ethernet ports**

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.

## MODE OF OPERATION

#### TYPICAL APPLICATION

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




#### 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.

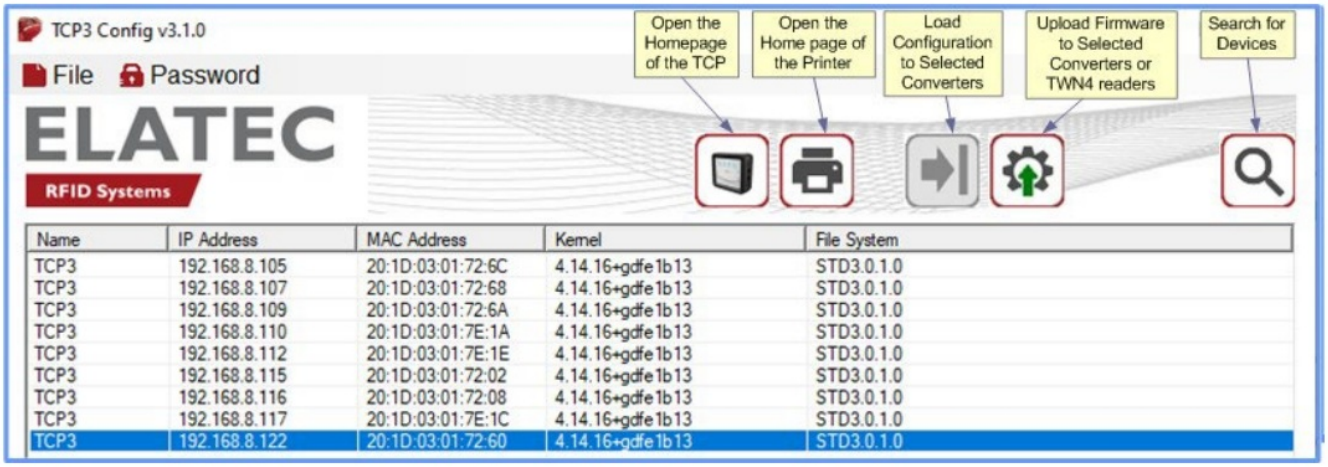
- “Power” LED displays Green when the power supply is connected and orange if there is a power fault.
- “Ready” LED displays Green in normal operation and can turn off during certain conditions (refer to the Technical Manual).
- “Busy” LED displays Red when the device is initializing. It will blink during 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.

## CONFIGURATION

#### 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.

#### 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.

#### 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.

#### FIRMWARE HISTORY

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

## COMPLIANCE STATEMENTS

#### 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).

#### 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 the 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.

**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.

**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.

**UNITED KINGDOM**

TCP3 complies with the requirements of the UK legislation 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:

UK CA

• 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 |
| UK | UK conformity assessed |
| WEEK | Waste of electrical and electronic equipment.<br>Refers to Directive 2012/19/EU of the European Parliament and of the Council of the European Union |

B – RELEVANT DOCUMENTATION

**ELATEC documentation**

- TCP3 datasheet
- TCP3 Technical Description
- TCP3 Technical Manual
- TCP3 Quick Start Guide

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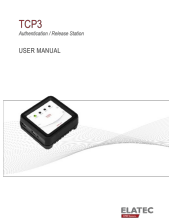
## Documents / Resources

| | |
|---|---|
|  | ELATEC TCP3 Authentication/Release Station [pdf] User Manual<br>TCP3, Authentication Release Station, TCP3 Authentication Release Station |

## References

- Authentication Solutions by ELATEC
- Authentication Solutions by ELATEC