EN CMC-TC Transponder Handle for TS 8 with Integral Legic Reader

DK 7320.781

Assembly, Installation and Operation

FRIEDHELM LOH GROUP

A 37175 08 IT 74

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Table of Contents

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1 Documentation Notes

The audience for this guide is the technical specialists familiar with the assembly, installation and operation of the CMC-TC.

- You should read this operating guide prior to the commissioning and store the guide so it is readily accessible for subsequent use.

Rittal cannot accept any liability for damage and operational malfunctions that result from the non-observance of this guide.

1.1 Associated documents

The guides for other CMC-TC components and their safety notes also apply together with this guide.

This guide is also provided as a file on the accompanying CD-ROM:

German: 7320100VXXd.pdf

English: 7320100VXXe.pdf

To view the guide you require the Acrobat Reader program; Acrobat Reader can be downloaded from www.adobe.com

You can download current firmware updates and operating guides from www.rimatrix5.de.

1.2 Retention of the documents

This guide and all associated documents are part of the product. They must be given to the operator of the unit and must be stored so they are available when needed.

1.3 Used symbols

The following safety and other notes are used in this guide:

Symbol for a handling instruction:

- This bullet point indicates that you should perform an action.

Safety and other notes:

Danger!
Immediate danger to health and life!

Warning!
Possible danger for the product and the environment!

Note!
Useful information and special features.

2 Safety Notes

Observe the subsequent general safety notes for the installation and operation of the unit:

- Assembly and installation, in particular for wiring the enclosures with mains power, may be performed only by a trained electrician. Other tasks associated with the CMC-TC, such as the assembly and installation of system components with tested standard connectors, and the operation and configuration of the CMC-TC may be performed only by instructed personnel.
- Observe the valid regulations for the electrical installation for the country in which the unit is installed and operated, and the national regulations for accident prevention. Also observe any company-internal regulations (work, operating and safety regulations).
- Prior to working at the CMC-TC system, it must be disconnected from the power supply and protected against being switched on again.
- Use only genuine spare parts and accessories approved by the manufacturer that serve to ensure the safety of the unit. The use of other parts can void the liability for any resulting consequences.
- Do not make any changes to the CMC-TC that are not described in this guide or in the associated guides.
- Only the prescribed network cables may be used operationally (see page 10, “Technical Specifications”).
- The operational safety of the unit is guaranteed only for its approved use. The limit values stated in the technical specifications (see page 10, “Technical Specifications”) may not be exceeded under any circumstances. In particular, this applies to the permitted ambient temperature range and to the permitted IP protection category. When used with a higher required IP protection category, the Rittal CMC-TC must be installed in a housing or enclosure with a higher IP protection category appropriate for the required IP protection category.
- The operation of the CMC-TC system in direct contact with water, aggressive materials or inflammable gases and vapours is prohibited.
- In addition to these general safety notes, also observe any special safety notes listed for the specific tasks in the individual sections.

EN

3 Unit Description

The CMC-TC comfort handle for TS 8 with integral Legic reader system consists of three components:

3.1 Enclosure

3.1.1 TS 8 comfort handle with integral Legic reader

This is a Rittal TS 8 comfort handle with an integral Legic reader in the lower part of the handle. All enclosures equipped with a TS 8 comfort handle can also be equipped with the comfort handle with integral Legic reader. Only holes on the enclosure door for accepting the cables must be made.

3.1.2 Legic unit

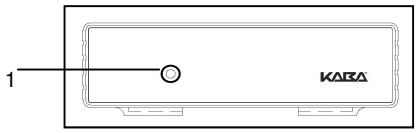

Abb. 1 CMC-TC Legic unit front side

Key

1 Power supply LED

The Legic unit is located in a standard housing of the CMC-TC. The housing is installed in the 1 U mounting unit or in the enclosure using the mounting bracket. An LED (1) which indicates the presence of mains power is located on the front side of the unit.

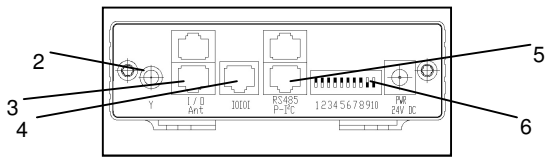

Abb. 2 CMC-TC Legic unit rear side

Key

2 Antenna connection

3 “Ant” connection

4 “IOIO” connection

5 “P-I²-C” connection

6 DIP switch

The antenna connection (2) is located on the rear side of the housing. The antenna connection is marked with a Y character.
The "Ant" connection (3) is reserved for the handle connection.
The "IOIOI" connection (4) is used for connecting to the Processing Unit.
The "P-I²-C" connection (5) is used for connecting to the CMC-TC Access Unit.
The ten DIP switches (6) are used to code the operational variant. For coding, see chapter 4.1 “Assembly notes”.

3.1.3 Transponder card

All Legic transponder media that have a carrier frequency of 13.56 MHz can be used.

3.2 Power supply

The power supply is established using the connection to the CMC-TC system.

3.3 System requirements

- 1 Processing Unit II (7320.100) with software version as of 2.30
- 1 Access Unit (7320.220)
- 1 Access Sensor (7320.530)
- 2 RJ45 connection cables (7320.470) (for variant 2)
- 1 RJ45 connection cable (7320.470) (for variant 2)
- 1 RJ12 connection cable (7320.814) (for variant 1)

3.4 Scope of supply

The unit will be delivered in a packaging unit in fully-assembled state.

- Check the delivered components for completeness.
- Check that the packaging does not show any signs of damage.

Scope of supply	
1	Legic unit
1	TS8 comfort handle with integrated Legic reader, including assembly kit and connection cables
3	Transponder boards
1	RJ12 connection cable (RJ12 connector to Molex connector)
1	Antenna connection cable (socket to plug)

Tab. 1 Lieferumfang

3.5 Accessories

3.5.1 Required accessories

Depending on the country-specific specifications, you require an appropriate connection cable for the power pack of the CMC-TC Processing Unit II.

3 Unit Description

Acces-sories	Designation	Packs of	Re-quired	Model No.
Power supply	Installation power pack 24 V IEC 100-230 V AC, UL approval, 3 A SELV	1	Yes, depend-ing on power supply	7320.425
	Installation power pack 24 V IEC 48 V DC	1		7320.435
Connec-tion cable for power pack	Connection cable IEC con-nector Country version D	1	Yes, 1x for power pack	7200.210
	Connection cable IEC con-nector Country version GB	1		7200.211
	Connection cable IEC con-nector Country version F/B	1		7200.210
	Connection cable IEC con-nector Country version CH	1		7200.213
	Connection cable IEC con-nector Country version USA/CDN, UL approval FT1/VW1	1		7200.214
	Extension cable IEC connector and socket	1		7200.215
Installa-tion	1 U mounting unit	1	Optional	7320.440
	1 U single moun-ting unit with strain relief	1		7320.450
	1 cable clamp strap	1	Only for 1 U mounting unit (7320.44 0)	7611.000
Program-ming cable	Programming cable D-Sub 9 to RJ 11	1	Yes, max. 1	7200.221
Connec-tion cable	RJ45 connection cable	4	Yes, 2 units	7320.470
	RJ12 connection cable	2	Yes, 1x	7320.814
Units	Processing Unit II	1	Yes, 1x	7320.100
	Access Unit	1	Yes, 1x	7320.220

Tab. 2 Required accessories

3.6 Proper use

The Rittal CMC-TC Legic system serves as an enclosure monitoring system for the monitoring and administration of various enclosure parameters.

A use different from that described here is considered to be an improper use. Rittal cannot accept any liability for damage resulting from the improper use or the non-observance of this guide. The guides for the used accessories may apply.

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4 Assembly

4.1 Assembly notes

Install the CMC-TC system in an enclosure or in a suitable housing system so that it also has additional protection from external effects. Also consider the permitted ambient temperature and humidity operational areas and the application-related required IP degree of protection (see page 10, “Technical Specifications”).

Note!
The system can be integrated in the CMC-TC system in two different variants. For variant 1, all 16 digits of the card number are fetched and compared with the authorisation database. In this case, the system can analyse exactly which card owner has initiated a door release.

For variant 2, the transponder card fetches only the final four digits of the card. This variant, however, can represent a safety risk. For example, the final four digits of the card number can be identical for two transponder cards. In this case the system cannot analyse which card owner has initiated a door release.

Note!
Because the wiring differs, decide prior to the installation of the CMC-TC Legic system which variant you require. The following pages explain the two assembly variants.

4.2 Assembling CMC-TC

4.2.1 Assembly with the mounting module

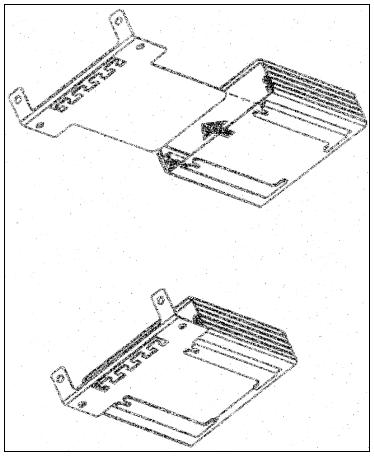

Abb. 3 Assembly with the mounting module

- Move the CMC-TC Legic unit on the retaining plate of the mounting module. Ensure that the retaining plate sits between the guide rails of the CMC-TC Legic unit.

4.2.2 Assembly with Velcro fasteners

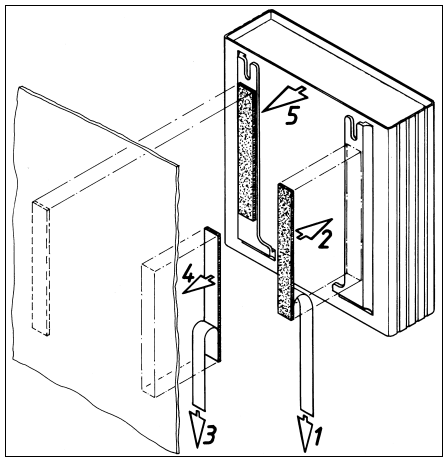

Abb. 4 Assembly with Velcro fasteners

- Take the self-adhesive Velcro fasteners from the supplied accessories and remove the protective foil from the Velcro fasteners.
- Ensure that the adhesion surfaces are free from grease and dust.
- Attach the Velcro fasteners to the housing of the CMC-TC Legic unit and position the CMC-TC Legic unit at the required attachment location.

4.2.3 Assembly with 1 U mounting unit

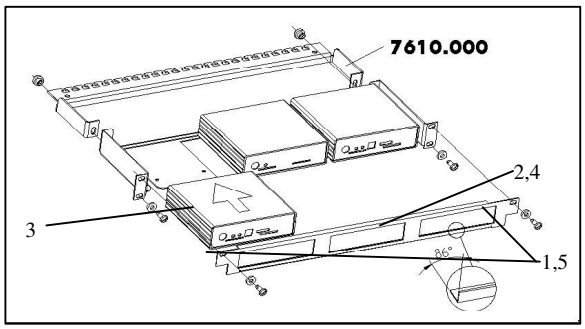

Abb. 5 Assembly with 1 U mounting unit

1. Remove the two upper screws of the trim piece.
2. Remove the trim piece.
3. Move the CMC-TC Legic unit on the retaining plate of the mounting unit. Ensure that the retaining plate sits between the guide rails of the CMC-TC Legic unit.
4. Replace the trim piece on the mounting unit.
5. Screw the trim piece back on the 1 U mounting unit.

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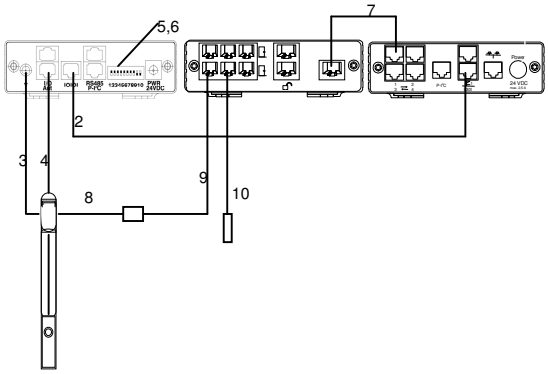
5 Installation

Danger!
The assembly and installation may be performed only by trained specialists.

5.1 Safety and other notes

- The Rittal CMC-TC system may be operated only with connected protective earth conductor. The protective earth conductor connection is made by plugging in the IEC connection cable. This requires that the IEC connection cable at the power supply side be connected with the protective earth conductor.
- The electrical connection voltage and frequency must conform to the rated values specified at the rear of the housing and in the technical specifications (see page 10, “Technical Specifications”).
- Before commencing work on the Rittal CMC-TC system, it must be disconnected from the mains power supply and protected against being re-connected.
- Protect the connection cables using cable ties on the used housing or enclosure.
- To prevent unnecessary cable losses, the used cable lengths must not exceed the lengths specified in the technical specifications (see page 10 “Technical Specifications”).

5.2 Installation variant 1 (PU)



1. Remove the power supply plug from the CMC-TC Processing Unit.
2. Insert the RJ12 connection cable in the IOIOI socket of the Processing Unit and insert the other end in the IOIOI interface of the Legic unit.
3. Insert the antenna cable of the handle in the antenna socket of the Legic unit and screw it to the connection. Insert the other end of the antenna cable in the rear circuit board of the handle.
4. Insert the flat RJ12 Legic reader connection cable of the handle in the RJ12 socket with the "Ant" designation of the Legic unit.
5. Set the DIP switches as shown in the following table.

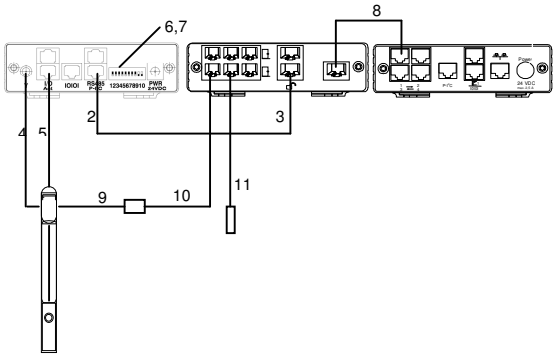
1	2	3	4	5	6	7	8	9	10
on	on	on	on	on	on	on	off	off	on

6. Check the DIP switch settings.

Note!
Damage can occur to the Legic unit if you have set a different switch combination.

7. Establish the connection between the Processing Unit and the Access Unit (refer to the Processing Unit operating guide).
8. Insert the thin communications cable of the handle in the provided adaptor cable.
9. Insert the adaptor cable in the required RJ12 socket on the Access Unit.
10. Insert the Access Sensor cable in the same door system of the Access Unit on which you have also inserted the handle. Insert the other end in the RJ12 socket of the Access Sensor.
11. Reconnect the mains power supply.

5.3 Installation variant 2 (AU)



1. Remove the power supply plug from the CMC-TC Processing Unit.
2. Insert the RJ45 patch cable in the P-I²C socket of the Legic unit.
3. Insert the other end of the patch cable in a read unit socket of the Access Unit.
4. Insert the antenna cable of the handle in the antenna socket of the Legic unit and screw it to the connection. Insert the other end of the antenna cable in the rear circuit board of the handle.
5. Insert the flat RJ12 Legic reader connection cable of the handle in the RJ12 socket with the "Ant" designation of the Legic unit.
6. Set the DIP switches as shown in the following table.

1	2	3	4	5	6	7	8	9	10
on	on	on	on	on	on	on	on	off	off

7. Check the DIP switch settings.

Note!
Damage can occur to the Legic unit if you have set a different switch combination.

8. Establish the connection between the Processing Unit and the Access Unit (refer to the Processing Unit operating guide).
9. Insert the thin communications cable of the handle in the provided adaptor cable.
10. Insert the adaptor cable in the required RJ12 socket on the Access Unit.
11. Insert the access sensor cable in the Access Unit.
12. Reconnect the mains power supply.

6 Commissioning

6.1 Commissioning variant 1 (PU)

1. Use the text editor to create an empty file with the name "access.cmc".
2. Open the text editor and write the command: "kaba_mpr=1". Save this file with the name "options.cmc".
3. Open the command prompt on your computer.
4. Log on with FTP to the Processing Unit (refer to the Processing Unit operating guide).
5. Go to the upload directory.
6. Send the two files to the Processing Unit.
7. Reboot by removing and reinserting the mains plug of the Processing Unit. Wait until the boot operation has completed. This is indicated with the operation LED of the Processing Unit.
8. Hold each card successively in front of the Legic reader on the handle. The beeping sound confirms the successful reading.
9. Open the command prompt on your computer.
10. Log on with FTP to the Processing Unit.
11. Go to the "upload" directory.
12. Copy the "kaba.codes" file to your computer.
13. Use the text editor to open the "kaba.codes" file on your computer.
14. The following example shows the typical appearance of the file:

Card identification number		Door opening
„0123456789012345“	,	„0000“
„0123456789012346“	,	„0000“

15. Change the door release as required.

"1234..." , "0102" = user

- "1234...": User identification: this optional maximum 8-digit decimal number (10000-99999999) can be used to specify whether a user identification will be sent with the trap message.
- =: Separator: ´=´
- "0102": Door release: this 4-digit number contains a decimal number 0...3 for each of the four possible Access Units. This number specifies which door is to be released:
  0 – do not release any door
  1 – release door 1
  2 – release door 2
  3 – release door 1 and 2
  This number must always contain four digits, irrespective of how many Access Units are connected; a '0' must be specified for any Access Units that are not present.
- ,: Separator: ´,´
- user: The card identification number of the transponder cards must not be changed.

16. Confirm each input at the line end by pressing the Enter key.
17. The file you created could have the following appearance.

Card identification number		Door opening
„0123456789012345“	,	„0001“
„0123456789012346“	,	„0221“

18. Save the changed file with the name "access.cmc" on your hard disk.
19. Use FTP to copy the new "access.cmc" file to the Processing Unit.
20. Reboot the system by removing and reinserting the power supply plug.

EN

6.2 Commissioning variant 2 (AU)

1. Open the command prompt on your computer.
2. Log on with FTP to the Processing Unit (refer to the Processing Unit operating guide).
3. Go to the upload directory.
4. Delete the "access.cmc" and "options.cmc" files.
5. Close the command prompt.
6. Open the web browser on your computer.
7. Enter the current IP address of the Processing Unit.
8. Log on to the Processing Unit.
9. Click the tool icon for the Access Unit.
10. Click Access Codes.
11. Enter the final four card digits in the list and set the door release.
12. To confirm, click Accept.

7 Operation

Hold the transponder card in front of the Legic handle. The card detection will issue an acoustic signal on the handle. If the card code is correct, the door handle will be released after 1-2 seconds. To open the door, press the silver-coloured button on the handle to release the handle lever.

If the card code is not correct, the door remains locked.

8 Storage

If the device is not used for a longer period, we recommend that the device is disconnected from the mains power supply and is protected from dampness and dust.

Further information concerning the operating conditions is contained in the technical specifications.

9 Disposal

Because the CMC-TC Processing Unit consists primarily of the housing and PCB, the unit must be disposed of through the electronic waste recycling system when it is no longer required.

10 Customer Service

If you have any technical questions or questions concerning our product spectrum, contact the following service address:

Tel.: +49 (0)2772/505-1855
http://www.rimatrix5.de
E-mail: info@rittal.de

Note!

To allow us to process your enquiry quickly and correctly, please always specify the article number in the subject line for e-mails.

Further information and the current operating guides and updates of the Rittal CMC-TC are available for download under Security on the Rimatrix5 homepage.

11 Technical Specifications

Designation	CMC-TC
Housing	
Housing type	Plastic covering with metal trim
Height	1 U [1]/44.5 mm
Width	136 mm
Depth	129 mm
Weight without packaging	approx. 0.6 kg
Potential equalisation	- [2]
Earthing	- [2]
Protection category	IP 20 to EN 60529
LED display	1 x (operating LED)
Acoustic signal	1 x piezo signal transmitter
Legic carrier frequency	13.56 MHz
Operational area	
Temperature	+5 to +45°C +42 to +113°F
Humidity	5 – 95 %
Storage temperature	-20 to +60°C -4 to +140°F
Rated voltage	1 x 24 V DC, 200 mA

Technical specifications

[1] Height unit

[2] Not required because safety extra-low voltage 24 V DC

12 Maintenance and Cleaning

The Rittal CMC-TC Legic unit is a maintenance-free system. The housing does not need to be opened for the installation or during operation.

Note!

Opening the housing or any accessory components will void any warranty and liability claims.

12.1.1 Cleaning

Warning!

Danger of damage!
Do not use any aggressive substances, such as white spirit, acid, etc., for cleaning because such substances can damage the unit.

Use a slightly moistened soft cloth to clean the housing.