

GCD7.1000

Dispensing Station for RFID Data Carriers in ISO Card Size



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Contact

The contact information for questions regarding this product or for general inquiries is listed below:

Contact address of manufacturer

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Important Information

Dear Customer,

Our aim is to ensure that our product operates with safety and to your complete satisfaction. To achieve this aim, please take this opportunity to familiarize yourself with the following guidelines.

- Pay attention to the safety messages in this manual. The messages are indicated by the signal words "DANGER", "WARNING", or "CAUTION", and inform you about hazardous situations and how to avoid them.
- Pay attention to messages indicated by the "NOTICE" signal word. These messages include important information for avoiding property damage.
- Pay attention to the symbols and safety messages on the product.
- Read all instructions in this manual carefully before installing or operating the product.
- Where not otherwise specifically documented, the appropriate installation, commissioning, operation, and maintenance of the product is the customer's responsibility.
- Keep this manual in a safe place for quick reference.

Notation of Safety Information and Safety Symbols

This manual includes important safety messages and symbols intended to inform the user about potentially hazardous situations or important information for the safe and proper use of the described product(s). The safety messages also include directives on how to avoid hazardous situations. These safety messages and directives must be read and observed.

The structure of the safety messages and the meaning of the symbols used in this manual are described in this section.

1. Safety Messages for Personal Injury

Personal safety messages contain a signal word, describe the nature of the hazard, and indicate how to avoid the hazard.



The safety alert symbol used without a signal word always precedes important safety information that must be read, and the instructions carefully observed. Not doing so may cause personal injury.

Format of safety messages that apply to an entire section:

These safety messages may be used with or without a symbol.

CAUTION



Electrical shock

- Touching current-conducting parts may result in injury due to electrical shock.
- Do not remove safety protection and covers.
 - Do not touch the electrical connections while power is being supplied.

Format of safety messages that are embedded in text and apply to a specific point:



CAUTION! Electrical shock. Never remove safety protection and covers. Do not touch the electrical connections while power is being supplied.

2. Property Damage Messages

Property damage messages are used to describe potentially hazardous situations that may lead to property damage. These messages have the same layout as safety messages but use the signal word "NOTICE" instead of "CAUTION".

Format of property damage messages that apply to an entire section:

NOTICE
Risk of damage to the device and connected devices
Risk of malfunction
- Read the following instructions carefully before installing the device. - Always adhere to the instructions.

Format of property damage messages that are embedded in text and apply to a specific point:

NOTE! Risk of damage to the device and connected devices. Read the following instructions carefully before installing the device.

3. Definition of the Signal Words

	Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.
	Indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

4. Definition of the Safety Symbols

	Caution: General Information This symbol indicates general warnings or cautions that are not related to a particular type of hazard.
	Caution: Electrical Shock This symbol indicates warnings related to electrical hazards (danger due to high voltage).
	Prohibited: Do Not Disassemble This symbol indicates warnings about not disassembling certain components or equipment. Disassembling may lead to damage or malfunction of the device.
	Mandatory Action: General Information This symbol indicates general information that must be read and followed before proceeding with the accompanying instructions.
	Mandatory Action: Read Instructions This symbol indicates information referring to an important description in the manual, or other documentation, which must be read and followed.

⚠ Important Safety Information ⚠



- The installation, commissioning, and servicing of our products must be performed only by suitably trained personnel. In particular, electrical connections must only be made by correspondingly qualified specialists. Always observe the relevant installation regulations in accordance with the national Electrical Engineers Association.

➔ Unqualified personnel may potentially perform actions that result in injury due to electrical shock.



- Where not otherwise stated, installation and maintenance work on our products must be carried out when disconnected from the power supply. This applies in particular to appliances that are normally supplied by low-voltage current.

➔ If the appliance is not disconnected from power, touching terminals or other internal parts of the appliance may lead to injury due to electrical shock.



- It is prohibited to alter the products (devices, cabling, etc.).

➔ Alterations to the products may subsequently result in personal injury, property damage, or damage to the products.

- Do not remove protective shields and covers.

➔ Removing protective shields and covers may result in personal injury or property damage.

- Do not attempt to repair a product after a defect, failure, or damage is detected. In addition, do not put the product back into operation. In such cases, it is essential to contact your GANTNER representative or the GANTNER support hotline.



- The installation, commissioning, operation, and maintenance of the product must be carried out in accordance with the technical conditions of operation as described in the corresponding documentation. Therefore, it is essential to read the corresponding chapter of this manual and observe the instructions and information therein.

- If there are still some points that are not entirely clear, please do not take a chance. All queries can be clarified by your GANTNER representative or by ringing the GANTNER support hotline.

- Directly on receipt of the goods, inspect both the packaging and the product itself for any signs of damage. Also check that the delivery is complete and includes all accessories, documentation, auxiliary devices, etc.



- If the packaging or product has been damaged in transport, or should you suspect that it may have a fault, the product must not be put into service. Contact your GANTNER representative who will endeavor to resolve the problem as quickly as possible.

- GANTNER Electronic GmbH accepts no responsibility for any injuries or damage caused as a result of improper use.

Although great care is taken, and we are continuously aiming for improvement, we cannot completely exclude the possibility of errors appearing in our documentation. GANTNER Electronic GmbH therefore accepts no responsibility for the completeness or the accuracy of this manual. The right is reserved to make alterations at any time without prior notice.

Should you discover any fault with the product or in its accompanying documentation, or you have any suggestions for improvement, you may confidently inform your GANTNER representative or GANTNER Electronic GmbH directly.

We especially look forward to hearing from you if you want to let us know that everything is functioning perfectly.



This product is in conformity with the following EC directives, including all applicable amendments:

- 2014/53/EU (Radio Equipment Directive)

The complete text of the CE Declaration of Conformity is available on the following internet link:

https://www.gantner.com/downloads-gcd7-1000_Jh45QPB71L



The WEEE symbol on GANTNER products and their packaging indicates that the corresponding material must not be disposed of with normal household waste. Such marked waste equipment must be disposed of by handing it over to a designated electronic waste recycling facility. Separating and recycling this waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. Please contact your local authority for further details of your nearest electronic waste recycling facility.



GANTNER is committed to meeting or exceeding the requirements of the RoHS directive (2011/65/EU). The RoHS directive requires that manufacturers eliminate or minimize the use of lead, mercury, hexavalent chromium, cadmium, polybrominated biphenyls and polybrominated diphenyl ethers in electrical and electronic equipment sold in the EU after July 1, 2006.

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1 INTRODUCTION

1.1 About this Manual

This manual contains all the necessary information required to install, commission, and operate the GCD7.1000. In addition, you will also find the service manual and disposal instructions as well as the technical specifications of the GCD7.1000.

The instructions required to configure the GCD7.1000 are also described in this manual. The configuration process is completed in a web browser directly via the web interface of the integrated controller or via G7 Connect (GANTNER Cloud). A detailed description of G7 Connect is available in a separate manual.

The instructions for integrating the GCD7.1000 into the management software of the leisure facility is not included in this manual. For further information, contact GANTNER Electronic GmbH or your local GANTNER partner.

1.2 Chapter Overview

In chapter 2 "GENERAL INFORMATION" you can find the intended use and functional description of the GCD7.1000, a system overview with the most important parts of the GCD7.1000 and the definition of the terms used frequently in this manual.

In chapter 3 "INSTALLATION" you will find the instructions on how to install the GCD7.1000 in the leisure facility.

In chapter 4 "ELECTRICAL CONNECTIONS" the description of the mains power and network cables is described together with the main protective elements (fuse).

In chapter 5 "STARTUP AND CONFIGURATION" you will find the configuration settings that must be defined in order to put the GCD7.1000 into service. The configuration can be completed via the web interface of the integrated GC7 controller. Only the functions that are required for configuration are described.

In chapter 6 "OPERATION" you will find information on how the GCD7.1000 is used in the facility. This includes the registration process for new visitors and how cards are withdrawn at the dispensing station. An overview of the integrated status signalization is also included in this chapter.

In chapter 7 "SERVICE AND MAINTENANCE" the service schedule for the GCD7.1000 is described. This includes the refilling of the RFID cards and how a broken fuse is replaced.

Chapter 8 "TECHNICAL DATA" contains the technical information and measurement drawings of the GCD7.1000.

1.3 Target Group

This manual contains information relevant for the different stages in the operating life of the GCD7.1000. Information about the installation, electrical connection, commissioning, and service / maintenance of the GCD7.1000 is separated into corresponding chapters. When a chapter is intended for a specific audience, this is clarified at the beginning of the chapter. Information for the following target groups is available in this manual:

- Installation technicians (installation, operation, configuration)
- Service personnel in the leisure facility (service and maintenance)
- End users of the GCD7.1000 (user manual)

Where not explicitly stated, the information in this manual is intended for all target groups in general.

⚠ CAUTION! Injury and property / equipment damage. The tasks described in each chapter must only be performed by the specified target group. Unqualified personnel who perform the described tasks risk personal injury or damaging property / equipment.

1.4 Formatting

The following formatting is used in this manual to indicate important but not safety-critical information.

i Information text Information text Information text Information text Information text Information text Information text Information text

Instructions that must be carried out by the user, and the result of each instruction step are formatted as follows.

- ▶ Instruction text
 - Result of carrying out the instruction.

1.5 Contact & Inquiries

If you have any questions concerning the GCD7.1000 or any of the associated hardware and software products from GANTNER, please get in touch with your local distributor or directly with one of the GANTNER branch offices. The contact details are listed on the cover of this manual.

2 GENERAL INFORMATION

2.1 Intended Use

The GCD7.1000 is a compact automat for dispensing RFID cards in leisure facilities such as swimming pools, water parks, and fitness centers.

Visitors use the dispensed cards for identification and access purposes in the leisure facility. This system provides maximum ease-of-use for visitors through contactless identification at entry control systems such as turnstiles and with electronic locker systems.

2.2 Functional Description

Customers of the facility are issued a PIN code. The customer visits the facility and enters their PIN code into the GCD7.1000. The management software checks the authorization and dispenses a card for the customer. The unique number of the card is sent to the management software.

The GCD7.1000 connects to the management software of the facility via an integrated Ethernet interface.

The practical design of the modular dispensing unit provides fast and easy access for refilling the GCD7.1000.

The robust housing is optically neutral and integrates seamlessly with the surrounding architecture and facility design themes. A customer-specific logo or design can be attached to the front of the dispensing station.

2.3 Highlights

- Automated dispensing of RFID cards
- Capacity for 550 cards
- Integrated MIFARE® reader
- Keypad for PIN code input
- Ethernet interface
- Easily accessible card dispensing mechanics
- Convenient card refilling operation performed from front side
- Front door can be customized with an individual logo or design
- Configuration via web interface
- Integration into G7 Connect (GANTNER Cloud)

2.4 Term Definitions & Abbreviations

This section describes defines the terms that are used frequently in this manual.

User / Visitor

The general terms "user" and "visitor" describe the people that use the GCD7.1000 for withdrawing their identification cards.

Facility / Site

These terms refer to the leisure facility where the GCD7.1000 is operating.

Computer / PC / Server

These terms are used to identify the computing hardware where the management software of the leisure facility is installed. This software is used to communicate with the GCD7.1000.

RFID (Radio-Frequency Identification)

Identification over a short distance using radio frequency. An RFID data carrier is used as identification media.

Data Carrier / Card

A data carrier is the general term for an RFID identification media that is used by the persons/visitors of a facility for identification at the various RFID devices. Data carriers are available in many different forms such as plastic wristbands or chip cards. Since the GCD7.1000 uses only data carriers in chip card size, the term "card" is mainly used in this manual.

Site Key

In MIFARE® systems a site key is used which is a combination of the FID (facility identification number) and the read and write keys. The FID and site keys are unique numbers for every leisure facility installation. These numbers are encoded in every data carrier and device and with this number it can be guaranteed that data carriers of one installation are not used in other installations.

G7 Connect / GANTNER Cloud

These terms describe the online cloud solution from GANTNER in which generation 7 devices, e.g., GT7 terminals and GC7 Controllers, can be integrated for easy device management in larger installations. The GCD7.1000 contains a GC7.3000 controller, which is used to integrate the GCD7.1000 into G7 Connect.

GC7.3000 Controller

Central control unit that is integrated in the GCD7.1000. The G7 Access App is installed on the GC7 and used for controlling the functions and authorizations of the GCD7.1000.

GR7.2310 Reader

Reading device with keypad installed on the front of the GCD7.1000. The reader is used to read data carriers via RFID (MIFARE) and to enter a PIN code for issuing data carriers.

2.5 RFID Technology

The GCD7.1000 has an integrated RFID (radio-frequency identification) reader, using a frequency of 13.56 MHz, for identification of the issued RFID cards. Only MIFARE® cards can be used with the GCD7.1000.



Different RFID technologies are available. The GCD7.1000 uses MIFARE® technology.

2.6 System Components

The following figure describes the most important parts of the GCD7.1000.

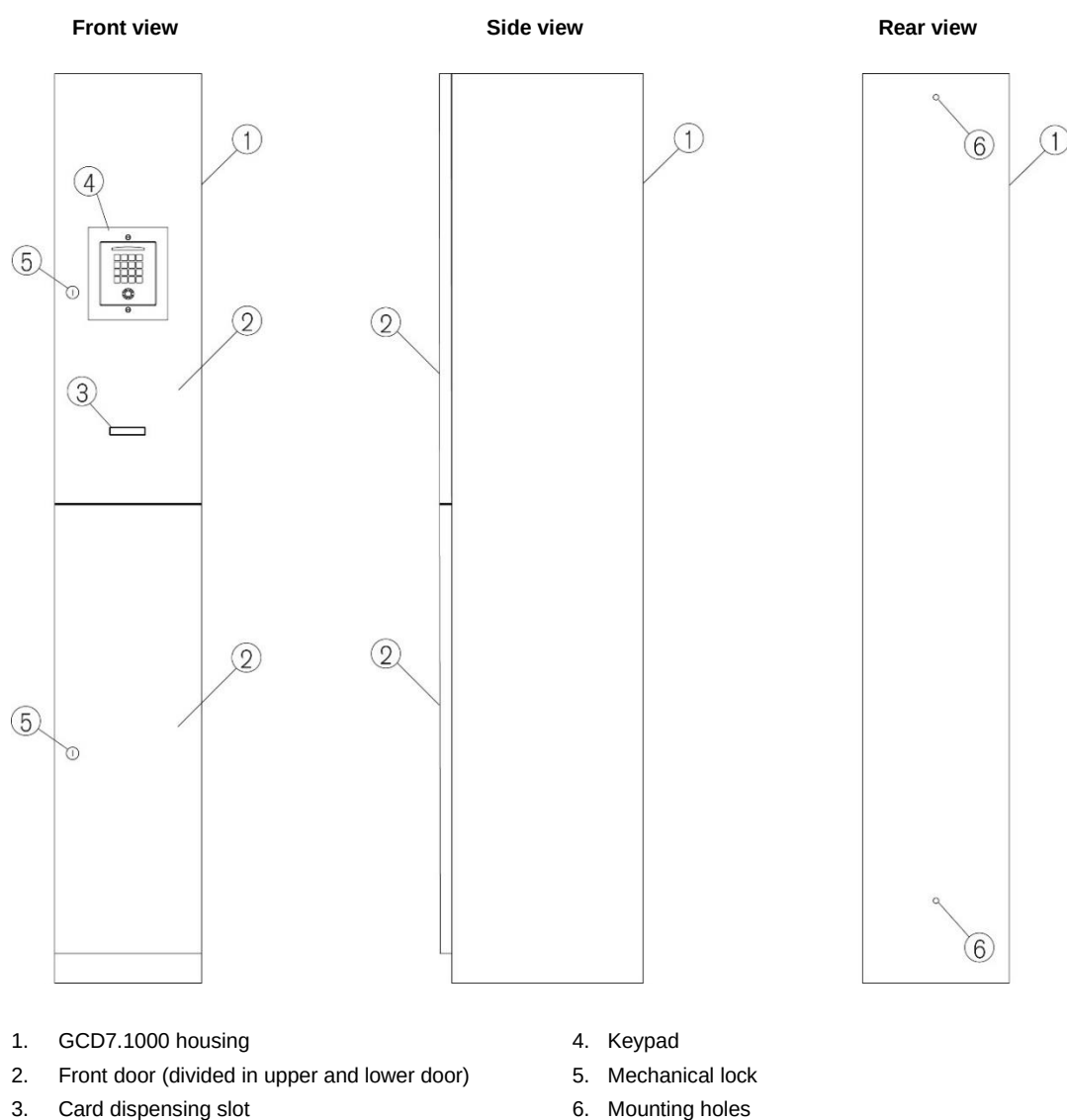


Figure 2.1 – Components of the GCD7.1000 system

The GCD7.1000 is delivered with the following additional parts required for operation or for optional use:

1. GCD7.1000 main device
2. Mains power cable
3. Mounting material
4. Spare fuse (located in the power supply box inside the GCD7.1000 housing)

3 INSTALLATION

This chapter describes the process required to install the GCD7.1000 on-site. The electrical connection is described in the next chapter.

NOTICE

Risk of damage or failure to the GCD7.1000

- *Read the information in this section carefully before installing the GCD7.1000.*
 - *Install the GCD7.1000 in a dry place, protected from rain and dripping water.*
 - *The measurement diagrams are not drawn to scale.*
 - *Use the correct tools to mount the GCD7.1000. These depend on the type of floor, where the GCD7.1000 is mounted.*
-

3.1 Target Group

This chapter provides information for technicians responsible for installing the GCD7.1000 in the leisure facility. Experience in mechanical installation work of electronic devices is assumed. Prior knowledge of the GCD7.1000 or GANTNER access control systems is not required.

3.2 General Information for Installation

Install the GCD7.1000 in a location that is convenient for guests of the facility to access. The unit must be placed on a level surface and within 2 m of mains power / Ethernet outlets. Make sure that the power outlet is easily accessible.

To prevent the GCD7.1000 from overturning, two holes are provided in the rear of the housing that are used to attach the unit to the wall.

⚠ CAUTION! Injury and property / equipment damage. Do not use the wall mounting points to support the weight of the GCD7.1000 as they are not designed to hold the weight of the unit. Doing so could cause injuries to people and damage to the device and facility if the GCD7.1000 were to detach from the wall mounting points.

3.3 Installation Instructions

- ▶ Ensure the unit is placed on a level surface, against a wall, and within 2 m of power / Ethernet outlets.
- ▶ Unlock and open both doors of the GCD7.1000 in order to access the mounting holes.
- ▶ Mark out and drill the location of the rear mounting holes.

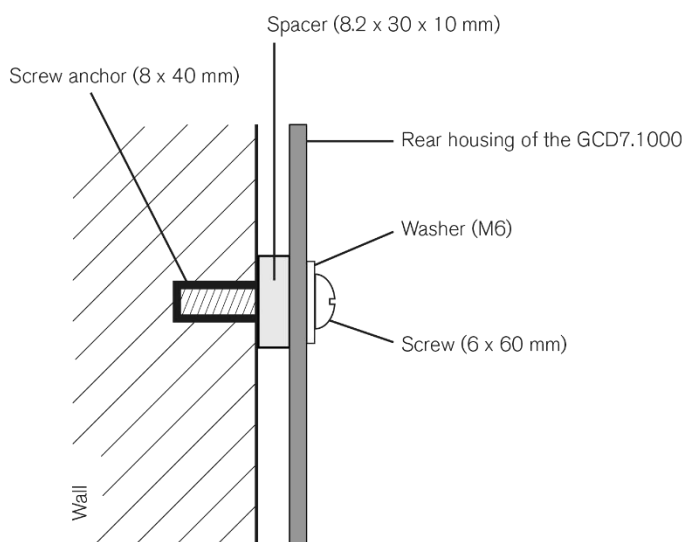


Figure 3.1 – Rear mounting holes

- ▶ Attach the GCD7.1000 to the wall using mounting hardware for the two mounting holes as shown in the diagram.

⚠ CAUTION! Wrong mounting hardware. Mounting hardware (screws, anchors, spacers) suitable for masonry walls is supplied with the unit. The supplied mounting hardware guarantees stability. If the supplied mounting hardware is not suitable for the wall material, source appropriate hardware from a specialized dealer.

- The installation is complete. The electrical connections (Ethernet and power cabling) are described in chapter "4. ELECTRICAL CONNECTIONS".

4 ELECTRICAL CONNECTIONS

This chapter describes the electrical connection of the GCD7.1000. This includes the cabling for the interface (Ethernet) and power supply connections.



⚠ CAUTION

Electrical shock

- ➔ *Touching current-conducting parts may result in injury due to electrical shock.*
 - *Always disconnect power before opening the GCD7.1000 and refilling cards.*
 - *Do not remove safety protection and covers.*
 - *Do not touch the electrical connections while power is being supplied.*
-

4.1 Target Group

This chapter provides information for electricians responsible for connecting the GCD7.1000 to the network and power supply infrastructure. These tasks may only be performed by qualified electricians.

4.2 Overview

Two connections are required for the GCD7.1000.

- Network
- Power supply

The following figure shows an overview of the connections required for the GCD7.1000.

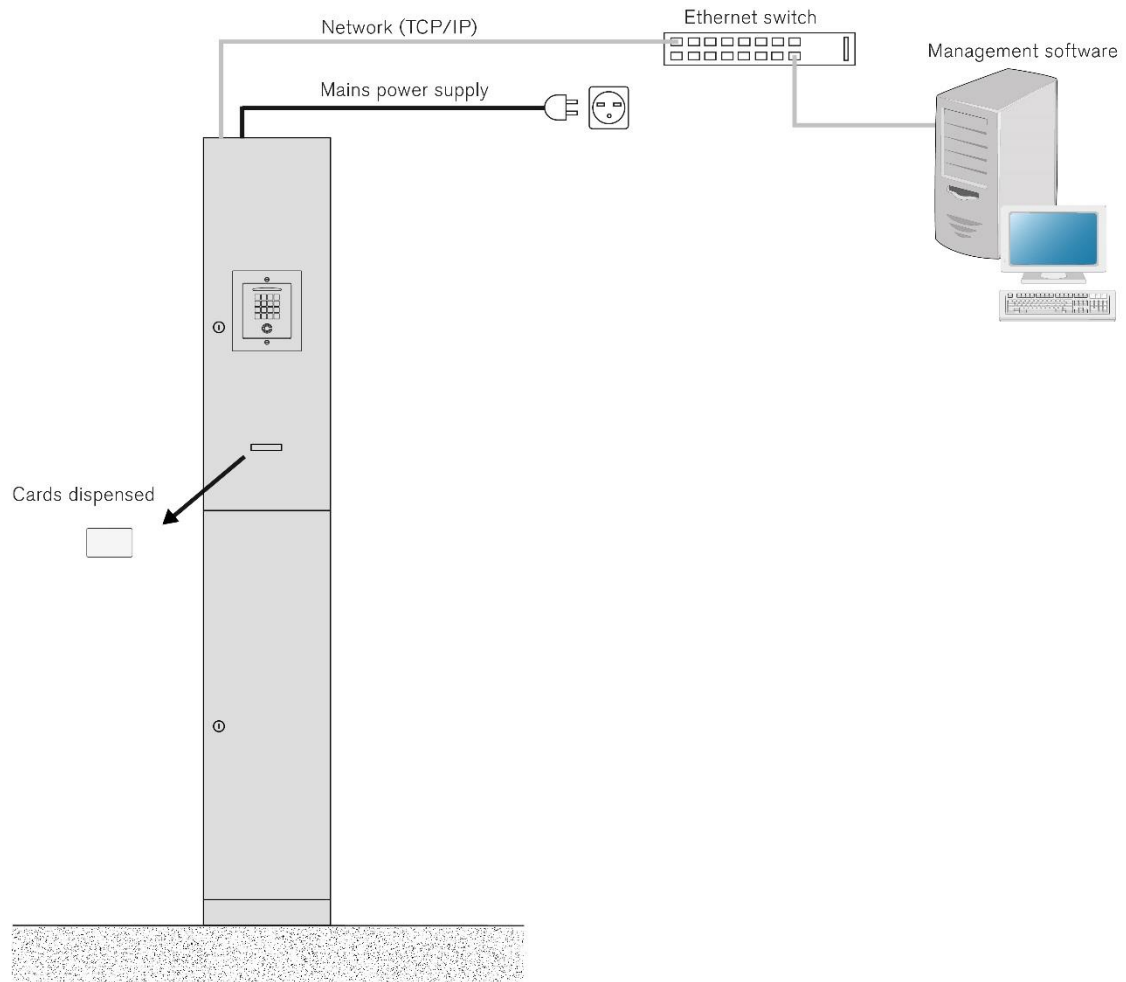


Figure 4.1 – Electrical connections at the GCD7.1000

4.3 Network Connection

The network connection is required for the GCD7.1000 to communicate with the management software running on the server. The network connection is completed via Ethernet.

- Connect the pre-attached Ethernet cable of the dispensing station to a port at the network switch.

NOTE! The Ethernet connection must be established before connecting the dispensing station to power.

The recommended cabling for Ethernet connections between the GCD7.1000 and the network switch is min. CAT 5 (STP) for 100 MBit.

4.4 Power Supply

The GCD7.1000 requires mains power supply. It works with AC 230 V nominal voltage (also see chapter "8. TECHNICAL DATA"). The GCD7.1000 is supplied with a mains power cable with a plug type suitable for the type of power outlets at your facility. The power outlet must be easily accessible and within 2 m of the GCD7.1000.

⚠ CAUTION! Electrical Shock. Connection of the power supply cable must only be performed by qualified personnel (electricians).

⚠ CAUTION! Earthed power outlet. The mains power cable must be connected to an earthed power outlet.

⚠ CAUTION! Use the supplied mains power cable. The mains power cable must comply with the required standards of your local electrical installation regulations. Therefore, always use the supplied mains power cable.



Always ensure that the GCD7.1000 is disconnected from power when performing the power supply connection described below.



Do not alter any of the internal electrical connections.

- ▶ To connect the power cable, open the top door of the GCD7.1000 using the mechanical key.
- ▶ Open the power supply box inside the GCD7.1000 as shown in the following figure.

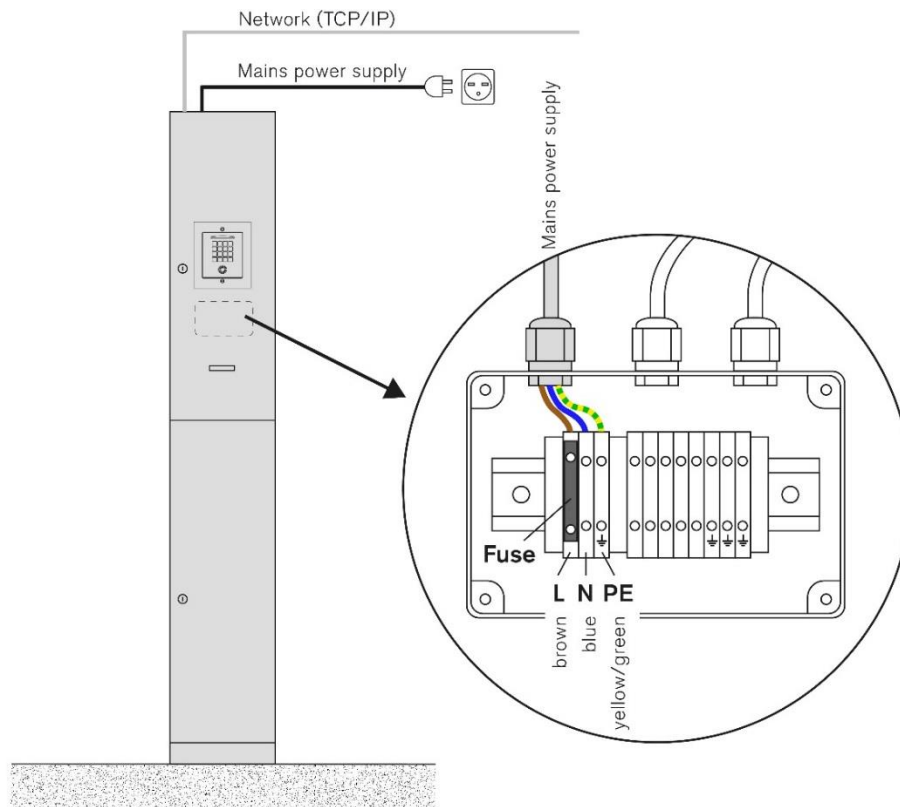


Figure 4.2 – Connection of the power cable

- ▶ Feed the power cable into the housing through the hole at the top-rear corner of the dispensing station.
- ▶ Connect the wires of the power cable as shown in the previous figure.
- ▶ Check that the correct fuse is inserted (see next section).
- ▶ Close the power supply box.
- ▶ Close the door of the dispensing station and lock it using the mechanical key.

⚠ CAUTION! High voltage. The mains power supply must be protected with a residual current device (RCD) in compliance with the local electrical installation regulations.

4.5 Main Fuse

A fuse is required as protective element of mains power input (see "8. TECHNICAL DATA" details). The fuse is located at the "L" screw terminal of the mains power connector in the power supply box. Upon delivery, the fuse is already inserted in this terminal. A second spare fuse is included in this terminal in case the first fuse needs to be replaced after a fault.

⚠ CAUTION! Electrical Shock and device damage. Only fuses of the following type may be used.

- Fuse 3.15 A, T 5x20 mm, 250 VAC -> GANTNER Part No. 829019

The fuse must be inserted before connecting the GCD7.1000 to the mains power outlet.

Instructions on how to replace a broken fuse are provided in chapter "7. SERVICE AND MAINTENANCE".

5 STARTUP AND CONFIGURATION

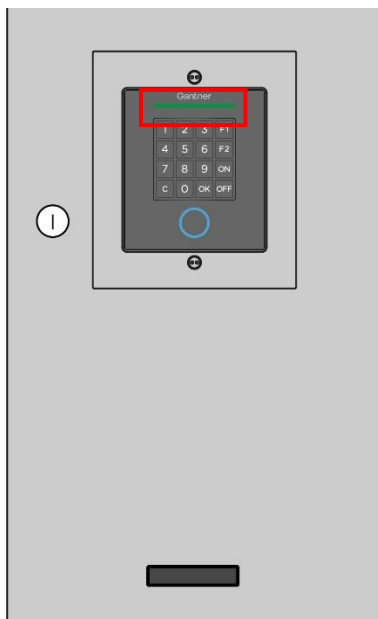
This chapter describes the process required to configure and commission the GCD7.1000. This process usually only needs to be done once after installation of the GCD7.1000.

5.1 Target Group

This chapter provides information for technicians responsible for commissioning the GCD7.1000 and configuring the station for the correct operation. Experience with the GANTNER devices, especially the GC7.3000 controller and GR7.2310 reader, is helpful but not necessary.

5.2 Power Supply

The GCD7.1000 starts automatically as soon as mains power is supplied. The LED bar on top of the GR7.2310 reader at the front of the card dispensing station flashes in different colors during startup.



After about 1 minute, the middle LEDs of the LED bar illuminate red, and the card dispenser is ready for operation.

5.3 Configuration Settings

The GCD7.1000 has two TCP/IP communication channels, one for the integrated GC7.3000 controller, and one for the ComConverter Moxa that the dispenser is connected to. Both devices are configured separately, as described in the following sections.

5.3.1 Configuration of the Integrated GC7.3000 Controller

The configuration settings of the GCD7.1000 are viewed and modified using a web browser and the web interface. As the dispensing station uses a GC7.3000 controller internally with an external reader connected, configuration of GCD7.1000 means basically to configure the internal GC7.3000 controller. This section provides an overview on how to define the configuration settings in the web interface.

i An alternative option is to configure the GCD7.1000 via G7 Connect (gantner.cloud). As the settings and configuration process there is basically the same, only the direct configuration via web interface is described here. To configure the GC7.3000 controller via G7 Connect, the GCD7.1000 must be integrated into G7 Connect. Please read the G7 Connect manual for more information about this configuration process.

In order to configure the GCD7.1000, you must know certain communication settings, e.g., the IP address (will be set automatically with DHCP) for TCP/IP configuration, which is the default communication mode. You can use the GANTNER software GAT Device Finder to search the network for the GCD7.1000 (displayed as "GC7.3000").

- Open a web browser and enter the IP address of the GC7.3000 into the address bar.
Example: "http://10.1.112.49".
 - The login screen opens.

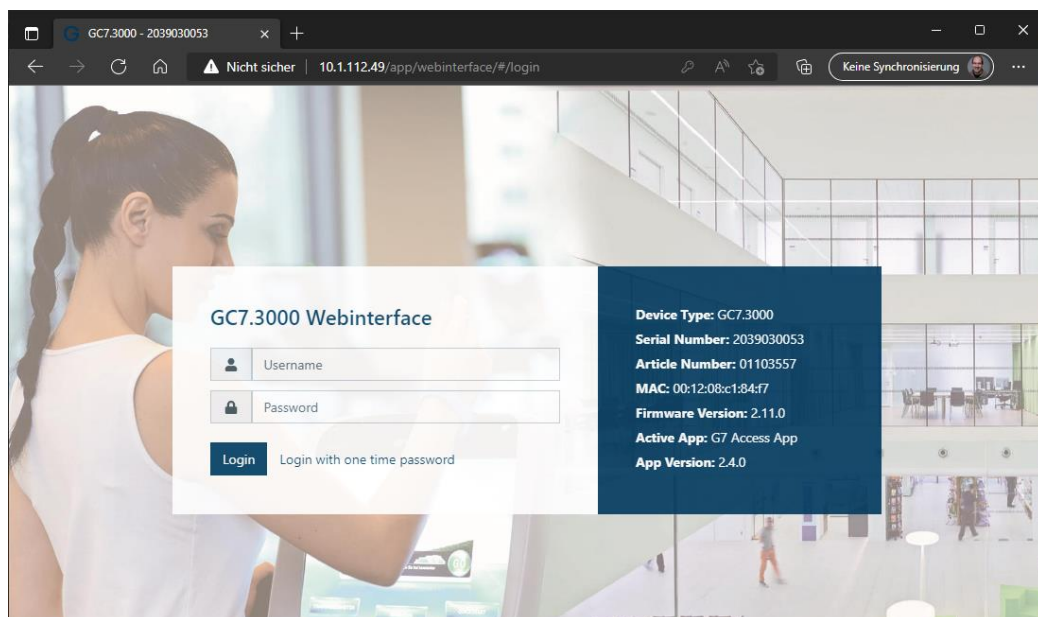


Figure 5.1 - GC7.3000 web interface login screen

- Enter your username and password and press "Login".
NOTE! The default username is "admin" and the default password is "GAT". Please change the password to a secure password after the initial login (menu "Device Configuration" -> "Security and user").
 - The "Dashboard" of the web interface is displayed.

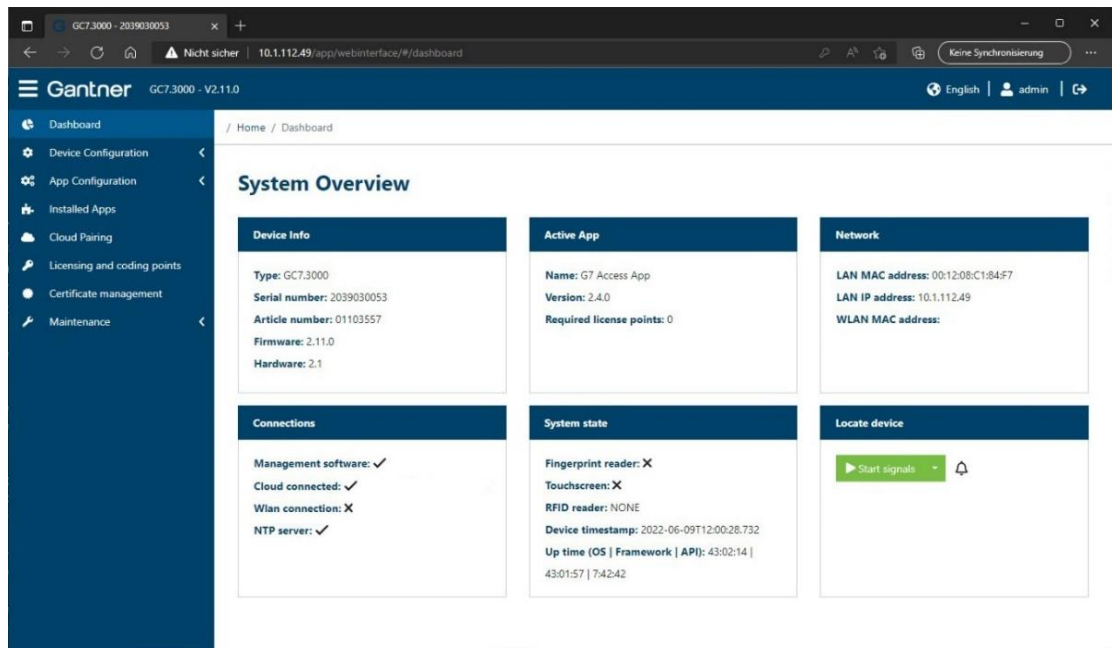


Figure 5.2 - Dashboard of the GC7.3000 web interface

- On the left side is the main menu that provides access to all the configuration pages.

Note: Only those settings that are necessary for the operation of the GCD7.1000 are described here. Information about how to install apps, update firmware, and the general device configuration settings of the controller are described in the GC7.3000 manual.

Network Settings

- ▶ Select "Device Configuration" -> "Network" from the menu.
- The following screen is shown.

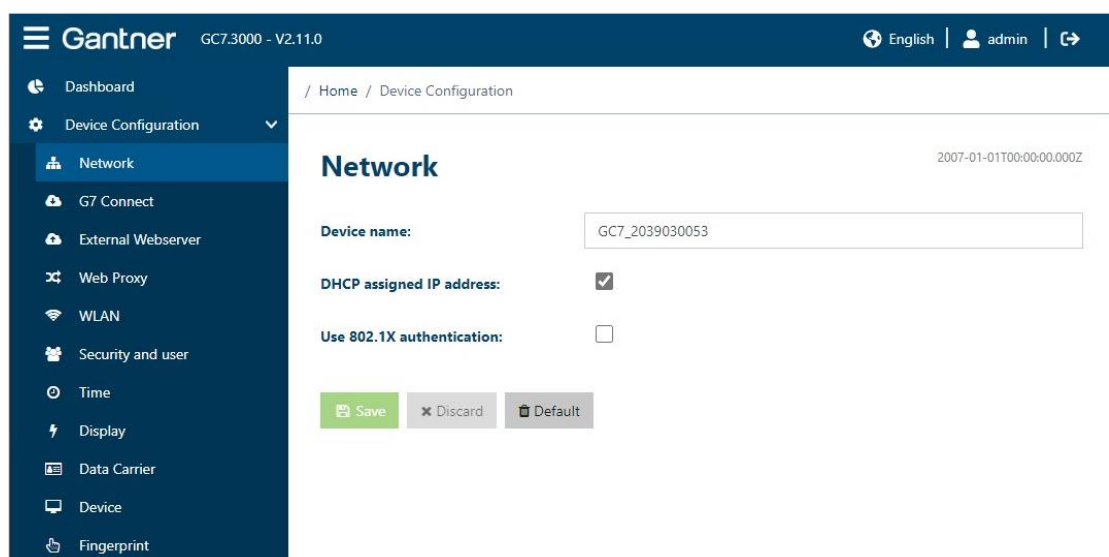


Figure 5.3 - "Network" configuration settings

- ▶ Here you can enter a name for the GC7.3000 controller. This is the name that is displayed when searching for the controller on the network.
- ▶ When the IP addresses in the network are assigned automatically via a DHCP server, select the "DHCP assigned IP address" option. If not selected, the IP addresses can be entered manually.
- ▶ To secure the network communications, you can select the option "Use 802.1X authentication" and then select the desired authentication protocol.

Data Carrier Settings

In this menu, it is possible to configure the detailed settings for the different types of RFID data carriers that will be read and processed by the controller. Since the GCD7.1000 uses a PIN-code input from the reader and is not reading data carriers, these settings can be ignored.

Figure 5.4 - "Data Carrier" configuration settings

Device Settings

- ▶ Select "Device Configuration" -> "Device" from the menu.
 - The following screen is shown.

The screenshot shows the 'Device Configuration' page in the Gantner web interface. The left sidebar contains a menu with options: Dashboard, Device Configuration, Network, G7 Connect, External Webserver, Web Proxy, WLAN, Security and user, Time, Display, Data Carrier, Device (selected), Fingerprint, and Barcode Interface. The main content area is titled 'Device' and shows the following settings:

- Location: Rezeption
- Serial number: 2039030053
- Article number: 01103557
- Sound Volume: 80 %
- Pincode Configuration menu: 0815
- Log Level: WARNING

At the bottom of the settings area are three buttons: Save, Discard, and Default.

Figure 5.5 - "Device" configuration settings

The serial number and part number of the GC7.3000 are shown here. The volume of the internal beeper is also shown, but this setting has no effect since the beeper is not used with the GCD7.1000. The "Pincode Configuration menu" also has no function for the GCD7.1000 and can be ignored. You can however define the following settings:

- ▶ Enter a name for the location where the GCD7.1000 is being used.
- ▶ With the "Log Level" setting, you can define which types of system messages to save in the internal log file. The messages may be helpful for service purposes and can be viewed via the menu with "Maintenance" -> "Log Viewer".

Reader Settings on the Addon Bus

- ▶ Select "Maintenance" -> "Addon Bus" from the menu.
 - The following screen is shown.

The screenshot shows the 'Addon Bus' page in the Gantner web interface. The left sidebar contains a menu with options: Dashboard, Device Configuration, App Configuration, Installed Apps, Cloud Pairing, Licensing and coding points, Certificate management, Maintenance (selected), Device, Update Firmware, Addon Bus, and Log Viewer. The main content area is titled 'Devices:' and shows a table of connected devices:

Type	Serial number	Article number	Firmware	Hardware	Number	Group	Channel
GR7.2310	1740000031	01105590	02.02	02.00	Reader 1		

Below the table are three buttons: Search new devices, Drop Firmware here, and Update Firmware.

Figure 5.6 - "Addon Bus" configuration settings

The devices connected to the GC7.3000 are displayed here. In this case, the GR7.2310 reader that is connected to the controller and located on the front of the GCD7.1000 is displayed. Also shown are the serial number and firmware and hardware versions of the reader and it is also possible to update the reader firmware here. This page is mainly for information purposes and no further configuration is necessary.

G6 Compatibility Mode

This mode is used to simulate the generation 6 devices of GANTNER. This mode must be enabled for the GCD7.1000 and its respective GC7.3000 controller.

- ▶ Select "App Configuration" -> "G6 Compatibility Mode" from the menu.
 - The following screen is shown.

The screenshot shows the Gantner web interface for configuring the G6 Compatibility Mode. The left sidebar contains a menu with options: Dashboard, Device Configuration, App Configuration (selected), Access, Check-In, Display Texts, Emergency Mode, G6 Compatibility Mode (highlighted), PIN, Design, Installed Apps, Cloud Pairing, Licensing and coding points, Certificate management, and Maintenance. The main content area is titled "G6 Compatibility Mode" and includes a timestamp "2022-06-28T09:30:15.726Z". The settings are as follows:

Setting	Value
Enable G6 Adapter:	☒
Management software timeout:	10 s
Language Characterset:	1252_WesternEurope
Fingerprint mode:	Online controlled
Lockercheckin before CardIdent:	☐
Deny if Check-In failed:	☒
Extended barcode mode:	☐
Send Lockgroup 1:	☐
Send Lockgroup 2:	☐
Send custom segment data:	☐
Send Fitness member data:	☐
Button event:	Disabled

At the bottom of the settings area are three buttons: "Save", "Discard", and "Default".

Figure 5.7 - "G6 Compatibility Mode" configuration settings

- ▶ Select the "Enable G6 Adapter" option.
 - Several options are displayed.
- ▶ You can leave the default settings unchanged, as shown in the figure above.

5.3.2 Configuration of the Integrated ComConverter Moxa

The card dispenser is connected to the ComConverter Moxa. Follow these instructions to configure this device.

- ▶ Download the NPort Windows Driver Manager from the Moxa website:
<https://www.moxa.com/en/support/product-support/software-and-documentation/search?psid=50254>
- ▶ Install the NPort Windows Driver Manager on the PC. To do this, double-click on the downloaded file.



- The installation wizard will be opened.



Figure 5.8 – Nport Windows Driver Manager installation wizard

- ▶ Click on "Next >" and continue with the instructions shown by the installation wizard.
 - After the installation is complete, the following window will appear.



Figure 5.9 – The installation of the Nport Windows Driver Manager is completed

- ▶ After the Installation you can start the NPort Windows Driver Manager.
 - The main window is shown.

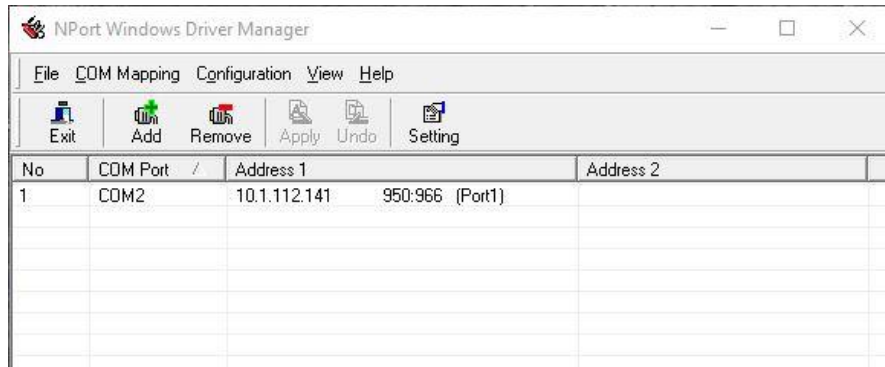


Figure 5.10 - Main window of the Nport Windows Driver Manager

- Click on the symbol "Add".
 - The import window is opened, where the already added ComConverter MOXA are listed.

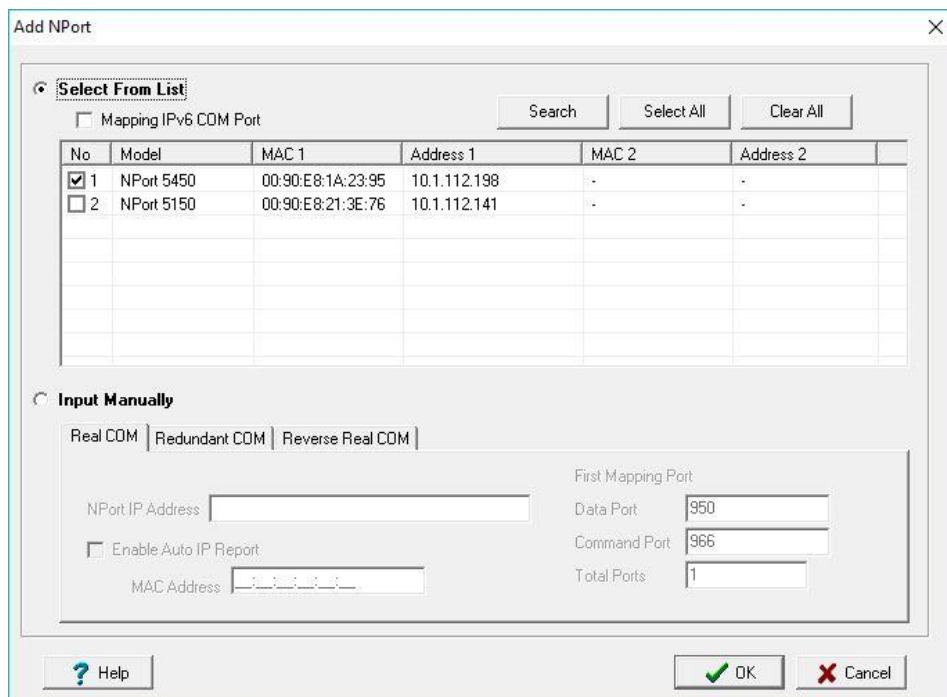


Figure 5.11 – Window for searching and importing of ComConvertern MOXA

- In order to search for a ComConverter MOXA, click on the button "Search".
 - The search window is shown and the NPort Windows Driver Manager searches the network for ComConvertern MOXA devices.

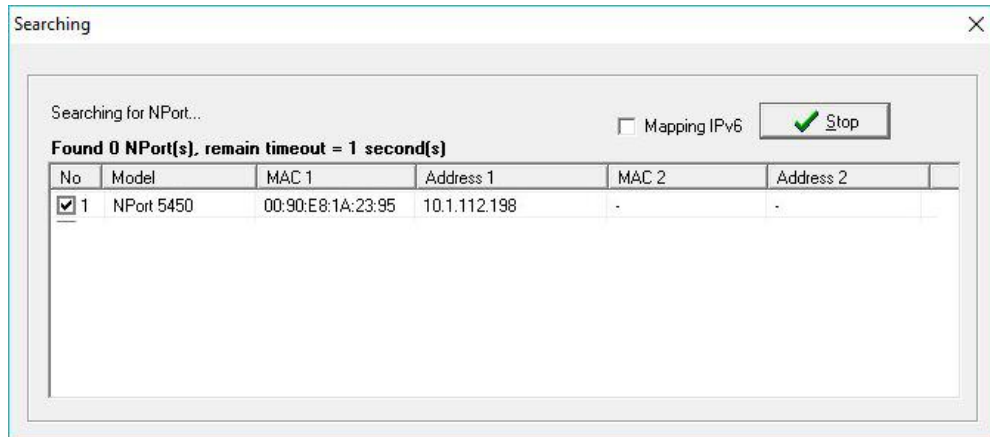


Figure 5.12 - Search window for ComConverter MOXA

- The list is permanently updated to show all detected ComConverter MOXA.
 - You can also stop the search early by clicking on "Stop".
 - After the search has been completed or "Stop" has been selected, the window is closed and the ComConverter MOXA found are displayed in the import window.
- Now search the desired ComConverter MOXA in the list in the import window and note its IP address.

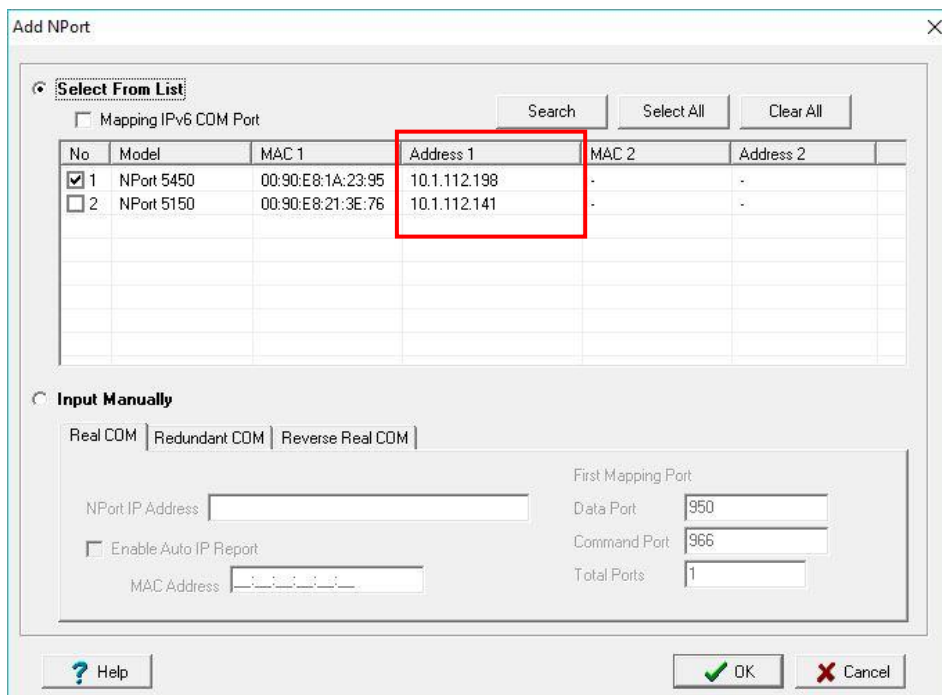


Figure 5.13 - IP addresses of the detected ComConverter MOXA on the network

- You can select a ComConverter MOXA and click on "OK". This will add the ComConverter MOXA to the list in the main window. This step is optional.

- Open a web browser and connect to the ComConverter MOXA by entering the IP address of the ComConverter MOXA in the browser.
 - The configuration page of the ComConverter MOXA is shown (see next image below).

i If the ComConverter Moxa requests a password, try “moxa”, which is the default password for this ComConverter.

- The following settings are important and must be set correctly. Usually, these settings are already correctly set upon delivery.

1. Serial Settings -> Baud rate = “9600”

Figure 5.14 – ComConverter Moxa - Serial Settings

2. Operating Settings -> Operation mode = “TCP Server Mode”

Figure 5.15 – ComConverter Moxa - Operating Settings

6 OPERATION

6.1 General

This chapter describes the operation of the GCD7.1000 by the end user, i.e., how the visitors of the leisure facility are first registered and then how they use the dispensing station to withdraw their access cards. The different operating states of the dispensing station are indicated by various LED signals, which are also listed in this chapter.

6.2 Registering and Withdrawing Cards

The GCD7.1000 is used to automatically issue cards to the visitors without needing reception staff or other personnel. The visitors need to be registered at the facility in order to assign the issued cards to the correct visitors in the management software.

6.2.1 Registering of Visitors

There are different possibilities for the registration of users, which depend on the leisure facility.

One possibility is for the users to register themselves online at home. The users go to the internet page of the leisure facility and enter their personal details. Following registration, the user receives their personal PIN code to be used for identification at the GCD7.1000.

Another possibility is to have registration terminals setup at the entrance to the leisure facility. Here the visitors can register themselves with their personal details and also receive their personal PIN code for identification at the GCD7.1000.

6.2.2 Withdrawing Cards

Following registration, the visitors must enter their PIN codes at a GCD7.1000 at the leisure facility to withdraw their personal authorization cards. To withdraw a card, the visitor must complete the following steps.

- ▶ Enter the PIN code using the keypad on the front of the GCD7.1000.
- ▶ After the PIN code is completely entered, press the “OK” key on the keypad.
 - The GCD7.1000 checks the PIN code with the management software and issues a card to the visitor. This card is linked to the registered user in the management software.

6.3 Signalization Overview

The LED bar above the keypad (reader) on the front of the GCD7.1000 displays status information and operating states through various flashing signals (red or green). The following table lists the meaning of each signal.

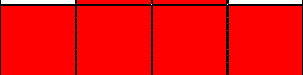
Status	LEDs	LED Bar	Description
Device active	Constant red		Idle state. The GCD7.1000 is waiting for a visitor's PIN code to be entered.
Denied	Constant red		The entered PIN code is invalid.
Accepted	Constant green		A valid PIN code has been entered and the card can be withdrawn.
Communication lost	Flashing red		The GCD7.1000 has lost communication to the server. No cards can be issued.
Start-up		All colors and sound signals on	Signalization when the GCD7.1000 is connected to mains power and starts-up.

Table 6.1 – Signalization overview (LED bar)

7 SERVICE AND MAINTENANCE

This chapter describes the tasks that are required to keep the GCD7.1000 in operation.

⚠ CAUTION



Electrical shock

- ➔ *Touching current-conducting parts may result in injury due to electrical shock.*
 - *Always disconnect power before opening the GCD7.1000 and refilling cards.*
 - *Do not remove safety protection and covers.*
 - *Do not alter any of the internal electrical connections.*
 - *Do not touch the electrical connections while power is being supplied.*
-

⚠ CAUTION



Injuries from moving parts or cog wheels

- ➔ *Touching moving parts or cog wheels when the GCD7.1000 is not turned off can lead to injuries of the touching body parts due to pinching.*
 - *Always disconnect power before opening the GCD7.1000 and refilling cards.*
 - *The GCD7.1000 has a security door sensor to prevent the dispenser from operating when the door of the unit is open.*
-

7.1 Target Group

This section is intended for the service personnel in the leisure facility where the GCD7.1000 is operating. These technicians should have good mechanical skills and basic knowledge of electronic appliances. Special knowledge of the GCD7.1000 is not required.

7.2 Refilling Cards

The GCD7.1000 uses a magazine unit to hold the RFID cards. Always check to ensure that there are enough cards in the magazine so that the users can withdraw their cards without delay. If the magazine becomes empty, the GCD7.1000 sends a signal to the management software to notify that the magazine must be refilled.

NOTE! Only use MIFARE® cards of the correct size according to ISO/IEC 7810 standard, format ID-1 (i.e., 85.6 x 54 mm, thickness 0.76 mm (equivalent to 3.370 x 2.125 in, thickness 0.030 in).

7.2.1 Refilling Procedure

- ▶ Disconnect the GCD7.1000 from the power supply.
- ▶ Unlock and open the top door of the GCD7.1000 using the mechanical key.
- ▶ Remove the card magazine from the GCD7.1000.
- ▶ Refill the cards into the magazine.
- ▶ Ensure that the cards are correctly aligned within the magazine and not stuck together.
- ▶ Remove any cards that are stuck together as these can lead to blockages.
- ▶ After refilling the cards, replace the magazine into the GCD7.1000.

NOTE! Ensure the magazine completely clicks into place in the catch spring and that the card weight is inserted. Otherwise, malfunctions and card damage may occur.

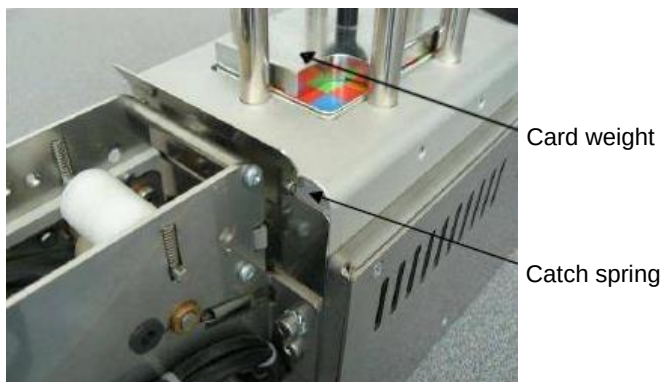


Figure 7.1 – Catch spring and card weight on the card magazine

- ▶ Close and lock the top door of the GCD7.1000.
- ▶ Reconnect the power supply.
 - The GCD7.1000 starts up, which takes approx. 1 minute. After the startup process is completed, the GCD7.1000 is operational. This is indicated by LEDs on the keypad.

7.3 Exchanging the Main Fuse

If the main fuse of the GCD7.1000 is broken (e.g., after a power failure), it must be replaced. The fuse is located at the "L" screw terminal of the mains power connector in the power supply box. A spare fuse is included with the terminal upon delivery.

⚠ CAUTION! Electrical Shock and device damage. Only use fuses of the following type.

- Fuse 3.15 A, T 5x20 mm, 250 VAC -> GANTNER Part No. 829019

⚠ CAUTION! Electrical Shock. Inserting the main fuse may only be carried out by qualified technicians (electricians).



Always ensure that the GCD7.1000 is disconnected from power when performing the power supply connection described below.

- ▶ Unplug the mains power cable from the mains socket.
- ▶ Open the top door of the GCD7.1000 using the mechanical key.
- ▶ Open the power supply box inside the GCD7.1000 as shown in the next figure.

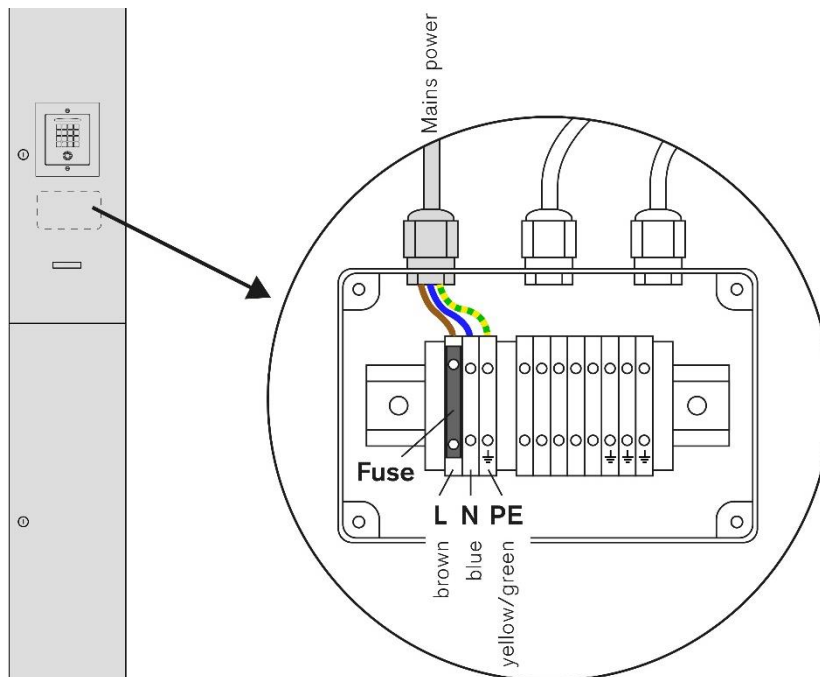


Figure 7.2 – Main fuse

- ▶ Open the cover above the L wire connector.
- ▶ Insert the correct main fuse and close the cover securely.
- ▶ Close the power supply box.
- ▶ Close the door of the dispensing station and lock it using the mechanical key.
- ▶ Plug the power cable into the mains power socket.
 - The GCD7.1000 starts up and is ready for operation after approx. 1 minute.

8 TECHNICAL DATA

8.1 Power Supply

Nominal supply voltage:	AC 230 V
Frequency:	50 Hz
Nominal current consumption:	2.3 A

8.2 Reading Field (RFID)

Reader type:	MIFARE®
Reading frequency:	13.56 MHz

8.3 RFID Cards

Card types:	GAT Chip Card 200
Card size:	85.6 x 54 mm, thickness 0.76 mm (3.370 x 2.125, thickness 0.030 in) (according to ISO/IEC 7810 standard, format ID-1)
Card capacity:	550

8.4 Signaling Elements

Status display:	Red-green LED bar Blue LED
Acoustic signals:	Beeper

8.5 Communication

Interface type:	Ethernet 10/100 Mbit/s
-----------------	------------------------

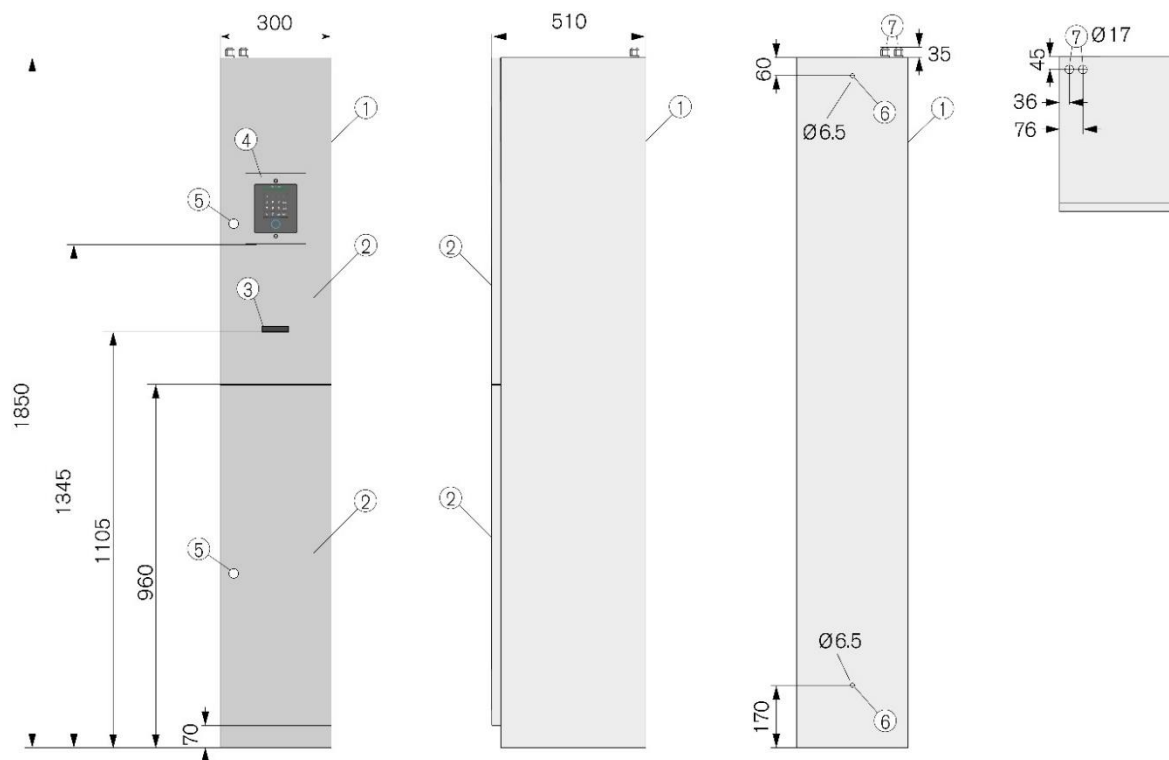
8.6 Housing

Mounting specifications:	Placement on a level surface. Two wall mounting points to prevent overturning.
Housing material:	Metal cabinet
Dimensions:	773 x 300 x 1850 mm (30.4 x 11.8 x 72.8 in)

8.7 Environmental Conditions

Perm. Ambient temperature:	0° C to +40°C
Environmental class:	II (conditions in indoor areas)

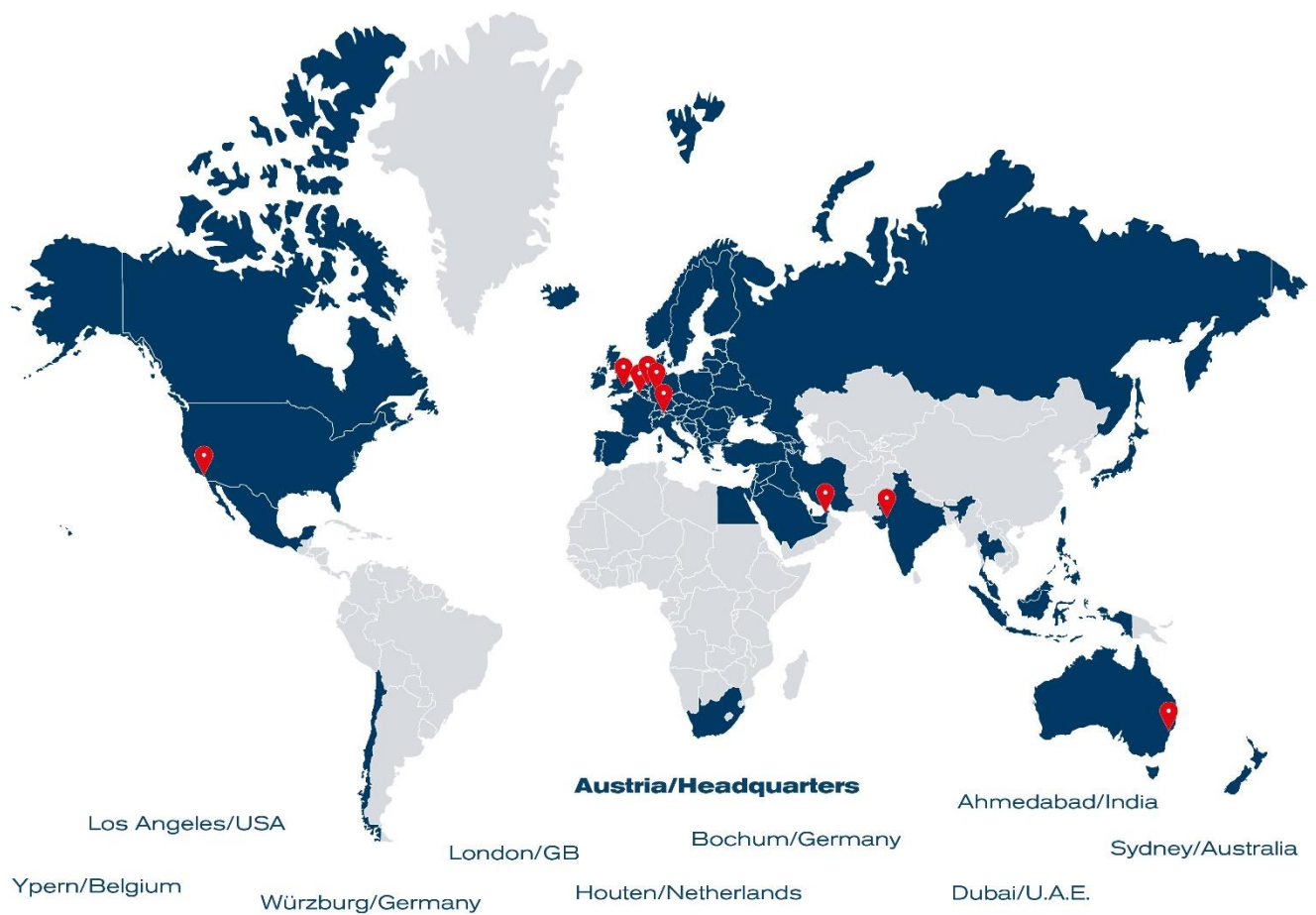
8.8 Dimensions



Measurements in mm

Notice:

This manual is valid from September 14th 2022. It is subject to change.
Amendments and changes can be made without prior notice at any time!



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