Gantner technologies

GAT Access 6600

Access Control Terminal

Installation, Operation, Configuration
Document version 1.1

General Warning and Safety Instructions

Dear customer,

We congratulate you on having selected a product (appliance or software) from GANTNER Electronic GmbH. Our aim is to ensure that our product operates with safety and to your complete satisfaction. To achieve this aim we take this opportunity to familiarize you with the following guidelines:

1. Installation, commissioning, operation and maintenance of the purchased product must be carried out in accordance with the instructions, i.e., in accordance with the technical conditions of operation as described in the corresponding product documentation.

2. Before installation, commissioning, operation or maintenance it is therefore essential that you read the corresponding chapter of this manual and observe its instructions.

3. If there are still some points on which you are not entirely clear, please do not take a chance. All queries can be clarified by your Gantner company representative, or by ringing the GANTNER Electronic GmbH hotline.

4. Where not otherwise specifically documented, the appropriate installation, commissioning, operation and maintenance of the product is the customer's responsibility.

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

6. 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. In this case, contact your GANTNER representative who will endeavour to resolve the problem as quickly as possible.

7. Installation, commissioning and servicing of our appliances must only be carried out by suitably trained personnel. In particular, electrical connections must only be made by correspondingly qualified specialists. Here, the appropriate installation provisions in accordance with the relevant national Electrical Engineers construction regulations (e.g., ÖVE, [Austrian] VDE, [German]...) must be observed.

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

9. It is prohibited to alter the device or to remove protective shields and covers.

10. Do not attempt yourself to repair an appliance after a defect, failure or damage, or to put it back into operation again. In such cases, it is essential you contact either your Gantner company representative or the GANTNER Electronic GmbH hotline.

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

12. Although every 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, and we may carry out alterations at any time without giving prior notice.

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

14. We especially look forward to hearing from you if you just want to tell us that everything is functioning perfectly.

We wish you a successful experience with our product and look forward to welcoming you again as a customer soon.

Contact address / manufacturer:
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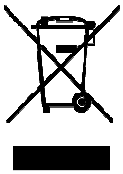
Website: www.gantner.com

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.

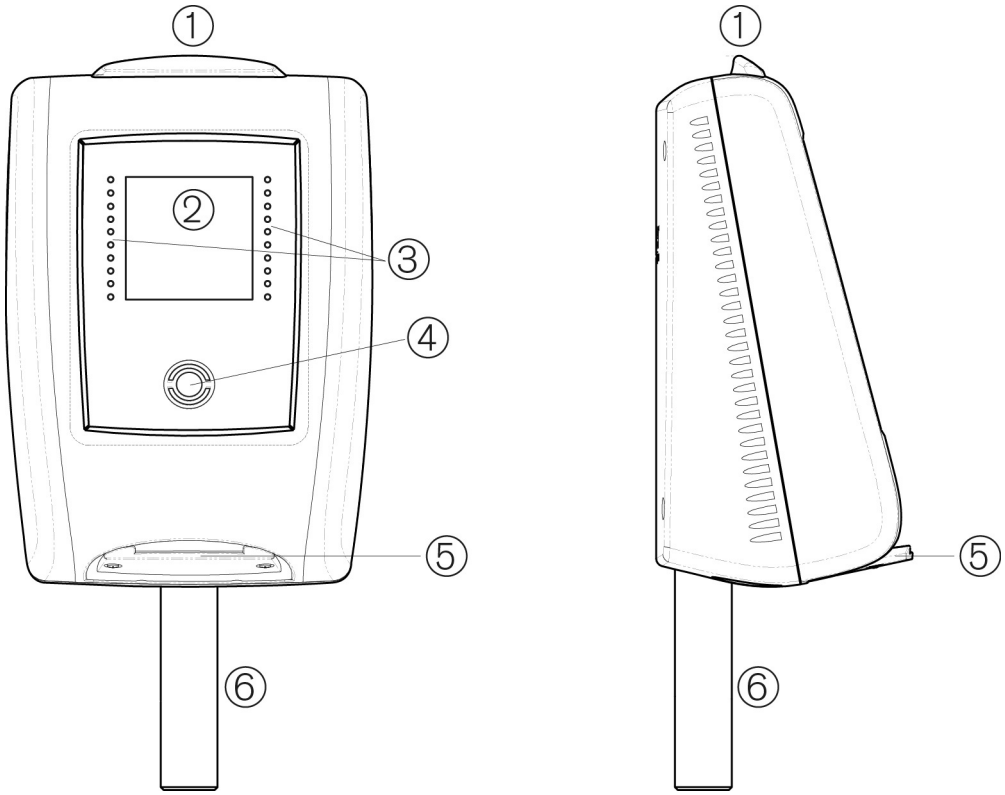


This WEEE symbol on GANTNER products and their packaging indicates that the corresponding material must not be disposed of with normal household waste. Instead, such marked waste equipment must be disposed of by handing it over to a designated electronic waste recycling facility. Separating and recycling 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 details on your nearest electronic waste recycling facility.

TABLE OF CONTENTS

1. GENERAL

This manual describes the installation, configuration and operation of the GAT Access 6600 access terminal. GANTNER Electronic GmbH also offers other types of access terminals which are described in separate manuals.



1...Multi-coloured LED for tariff and status display
2...Monochrome display (LCD)
3...Traffic light display (red/green)
4...Illuminated, round RFID scan field
5...Inset for barcode tickets (removable for larger barcodes or smartphones)
6...GAT Holder 60xx, Ø 30 mm

Figure 1.1 *- GAT Access 6600*

The GAT Access 6600 is a stylish terminal for access control in leisure facilities such as public swimming pools, indoor and outdoor water facilities and attraction parks. The terminal is mounted directly onto turnstiles or similar access control hardware and provides convenient operation for the facility guests. The GAT Access 6600 checks the authorisations of facility visitors and opens the turnstile or gate as required. The GAT Access 6600 is suitable for a variety of applications and is designed to operate in indoor and outdoor areas.

Identification at the terminal is achieved using barcode tickets (1D and 2D), QR-codes (e.g., displayed on a smartphone), or with contact-free RFID data carriers (Radio Frequency Identification). Data carriers are available in different forms such as wristbands or cards of standard ISO size. Data transmission between the data carrier and the GAT Access 6600 is coded for maximum security.

To read barcode tickets the terminal is equipped with a CMOS barcode reader. The large reading slot provides comfortable access for reading barcode tickets of different shapes and sizes. Remove the reading slot module and it becomes possible to read QR codes that are displayed on a smartphone screen.

Different RFID readers (all 13.56 MHz) are installed in the GAT Access 6600 to provide compatibility with different RFID technologies. The following codes are used for each model to indicate the type of RFID technology supported:

- GAT Access 6600 B: LEGIC® Prime
- GAT Access 6600 ISO: ISO 15693
- GAT Access 6600 F: MIFARE®

Supported Segments on Data Carriers
The memory on the RFID data carriers is segmented. Different types of segments are possible. For LEGIC® data carriers, the following segments are supported:
- Cash1
- Cash2
- Locker
- UserData

For MIFARE® data carriers, the segments for locker data are supported.

For ISO 15693 data carriers, the segments for locker data are supported.

1.1 Standard Operation

When a visitor of the leisure facility holds their data carrier over the illuminated round scan field of the RFID reader, the GAT Access 6600 reads the information on the data carrier. The GAT Access 6600 has a built-in RFID reader and the scan field is located on the front of the device.

After reading the data carrier, the information is sent over the network (usually Ethernet, alternatively serial RS 485 interface) to a server for evaluation. Following evaluation, a response is sent back to the GAT Access 6600. When access is permitted, the GAT Access 6600 activates a corresponding relay that unlocks the connected turnstile or gate for a certain time period.

Different functionality settings for the GAT Access 6600, e.g., the unlocking time of an access point or the text displayed on the device, can be defined in the terminal's configuration settings. See "4.3. Configuration Settings" for more information about configuring the GAT Access 6600.

1.2 Operating Modes

The GAT Access 6600 operates in “Online” mode and must always be connected to a server/host computer. In online mode, the GAT Access 6600 automatically sends the information of a read data carrier over the network to the host computer and waits for an appropriate response.

In instances where an error occurs or communication is interrupted, the GAT Access 6600 switches into “Emergency mode” or “Out of Order” mode (depending on the configuration).

See chapter "6. Communication" for more information about the operating modes.

1.3 Special Functions and Options

1.3.1 GAT Device Finder Support

The GAT Access 6600 implements “Device Finding” technology from GANTNER Electronic GmbH, which allows a terminal to be found on a TCP/IP network without knowing its exact IP address or network name. The GAT Device Finder software scans the TCP/IP network and returns a list of all found devices.

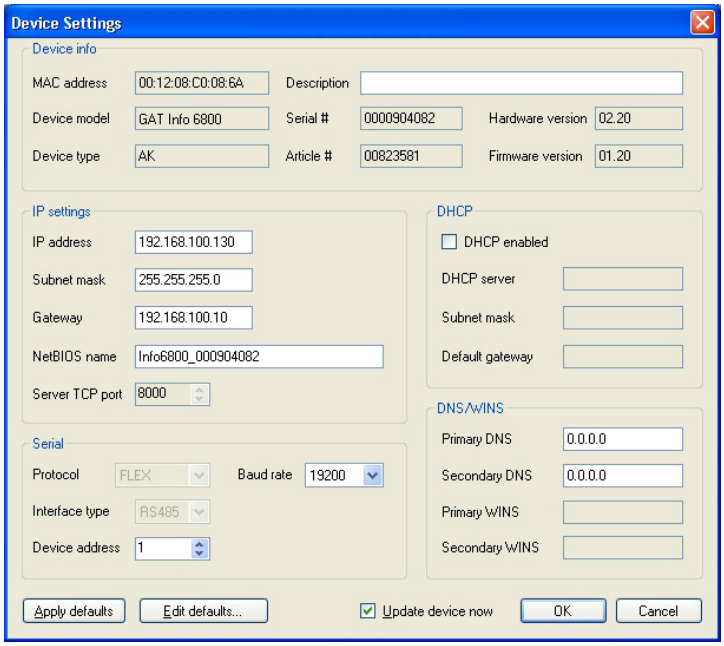


Figure 1.2 *- GAT Device Finder Support*

The Device Finding technology uses the UDP protocol and port 8216. All GAT Access 6600 terminals are set to use port 8216 by default.

2. INSTALLING THE GAT ACCESS 6600

In order to mount the GAT Access 6600 onto a turnstile, desk or from the floor, a tubular mounting holder with Ø 30 mm is used (see section “2.2. The GAT Holder 60xx Range). The connecting cables are fed through the tubular holder and into the housing.

2.1 Opening the Housing

The housing of the GAT Access 6600 must be opened to install the tubular holder. Follow these steps to prepare the terminal for this process.

- Unscrew and remove the four housing screws on the rear part while firmly holding the front part of the GAT Access 6600 to prevent it from falling.

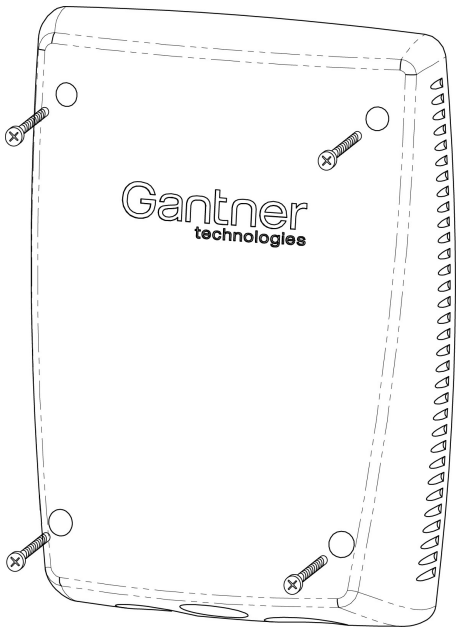


Figure 2.1 *– Removing rear housing part*

- Once the screws are removed, the front part can be lifted away.

- Two clamps inside the housing are used to fasten the tubular holder. The lower clamp (1) is directly accessible and can be loosened accordingly to allow the tubular holder to be inserted.

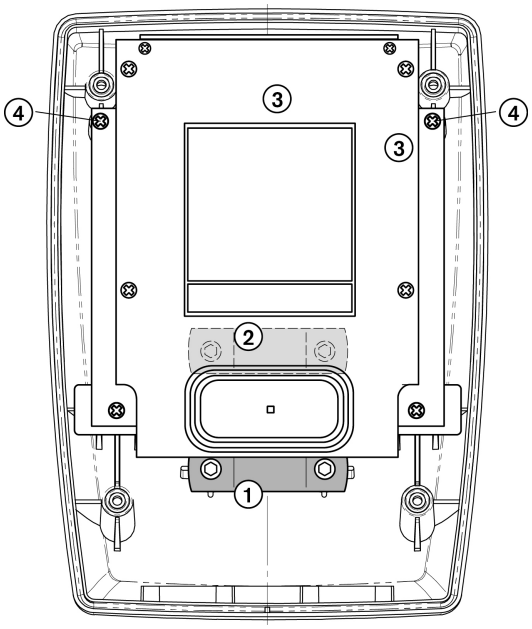


Figure 2.2 *- Mounting frame*

- In order to gain access to the second clamp (2), the electronics (3) must be removed. Loosen the two screws as indicated in the figure below (4) and swing the electronics 90 ° forward (5).

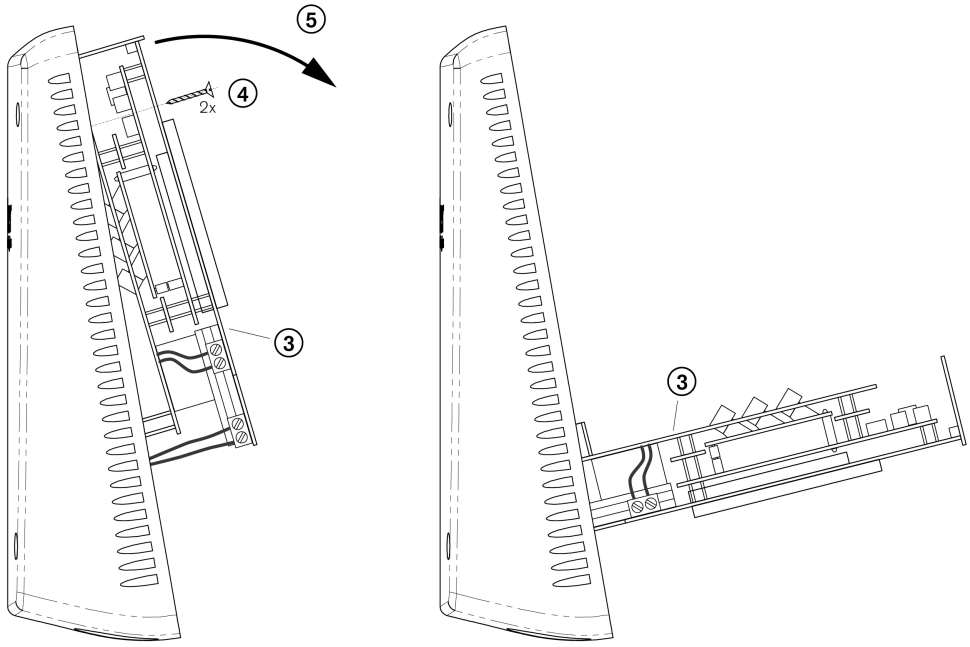


Figure 2.3 *- Mounting frame*

2.2 The GAT Holder 60xx Range

To allow the GAT Access 6600 to integrate with an access point such as a turnstile or door, GANTNER provides a range of tubular holders designed to suit different installation requirements. For all holders, the cabling is designed to be fed up through the pole to the terminal's electrical connections (see "2.4. Cable Installation"). The GAT Holder 60xx range is defined as follows.

Note: Additional documentation is available that describes the installation process for the GAT Holder 60xx range.

GAT Holder 6010 L
Used to mount the GAT Access 6600 on top of a turnstile, gate or desk. The holder has a 210 mm pole height from the mounting platform to the bottom of the terminal. The GAT Holder L has a 1-inch thread and requires a drill hole of min. Ø 35 mm in the mounting platform to allow installation.

GAT Holder 6020
Used to mount the GAT Access 6600 onto the floor. The holder has a 1209 mm pole height from the floor to the bottom of the terminal. Three mounting holes in the base of the holder provide a secure anchoring point.

GAT Holder 6030
Used to mount the GAT Access 6600 on a turnstile, gate or desk. In comparison to the GAT Holder 6010 L, the GAT Holder 6030 offers a higher pole height of 294 mm from the mounting platform to the bottom of the terminal.

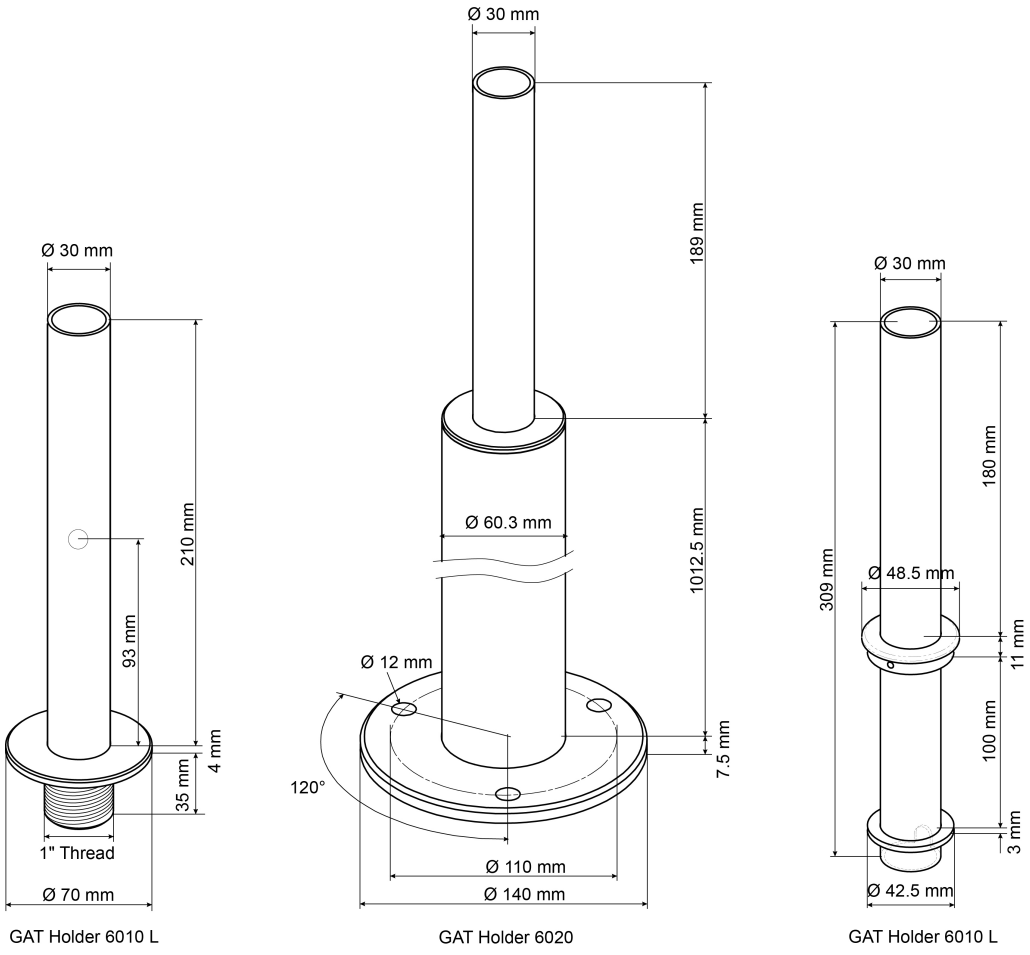


Figure 2.4 *– The GAT Holder 60xx range*

2.3 Attaching the GAT Access 6600 to the GAT Holder 60xx

After removing the front cover of the GAT Access 6600, moving the electronics section forward and loosening the two securing clamps (see section “2.1. Opening the Housing”), the GAT Holder 60xx can be attached to the terminal. The mounting procedure is as follows:

- Insert the GAT Access 6600 onto the GAT Holder 60xx (7) until the stop (6) is reached.

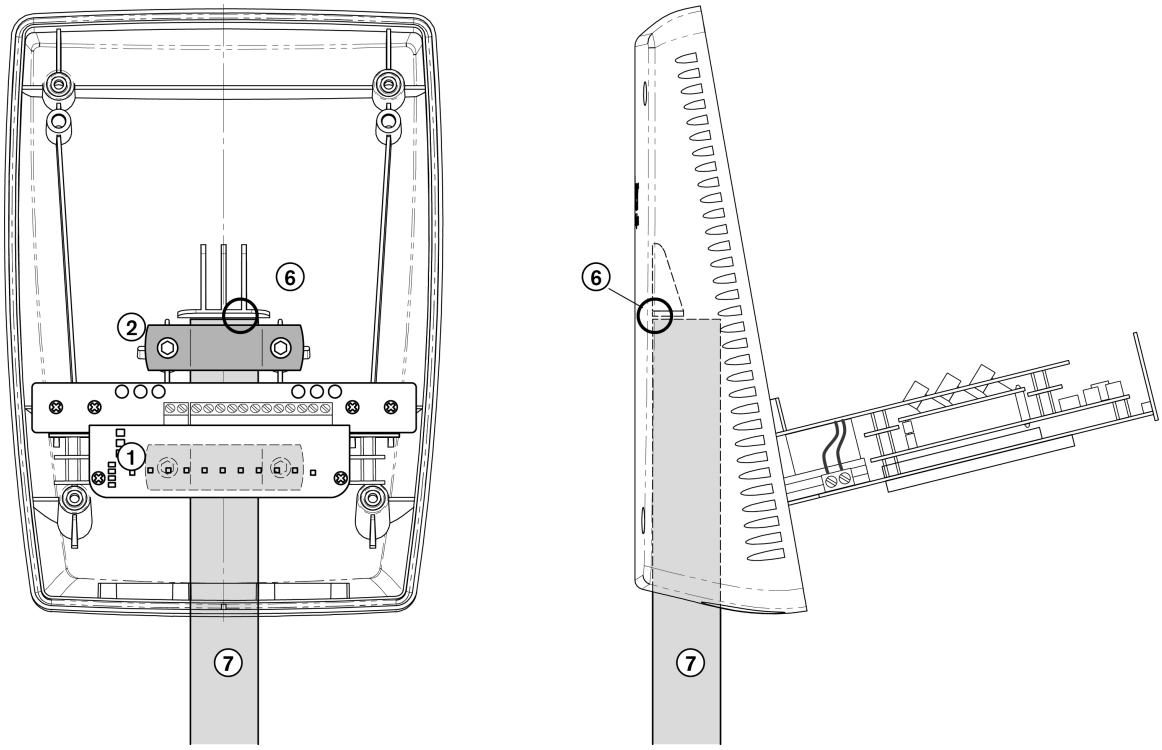


Figure 2.5 *– Attaching the GAT Holder 60xx*

- Tighten the bolts of the two clamps (1) + (2) firmly so that the GAT Access 6600 is secure and cannot be removed from the GAT Holder 60xx.

2.4 Cable Installation

The cabling for the GAT Access 6600 are fed up through the tubular holder to meet the terminal's electrical connections. See section "3. Electrical Connections" to determine the cabling requirements and information on how to terminate the cables. Ensure during the project planning phase that access to install the cabling is available and completed as required, e.g., access under the finished floor when using the GAT Holder 6020. The cable installation process is as follows.

- Feed the cables up through the GAT Holder 60xx.
- Connect cabling to the screw terminals (see "3. Electrical Connections").
- Use cable ties to secure the cables to the holes provided in the retaining strip (8).

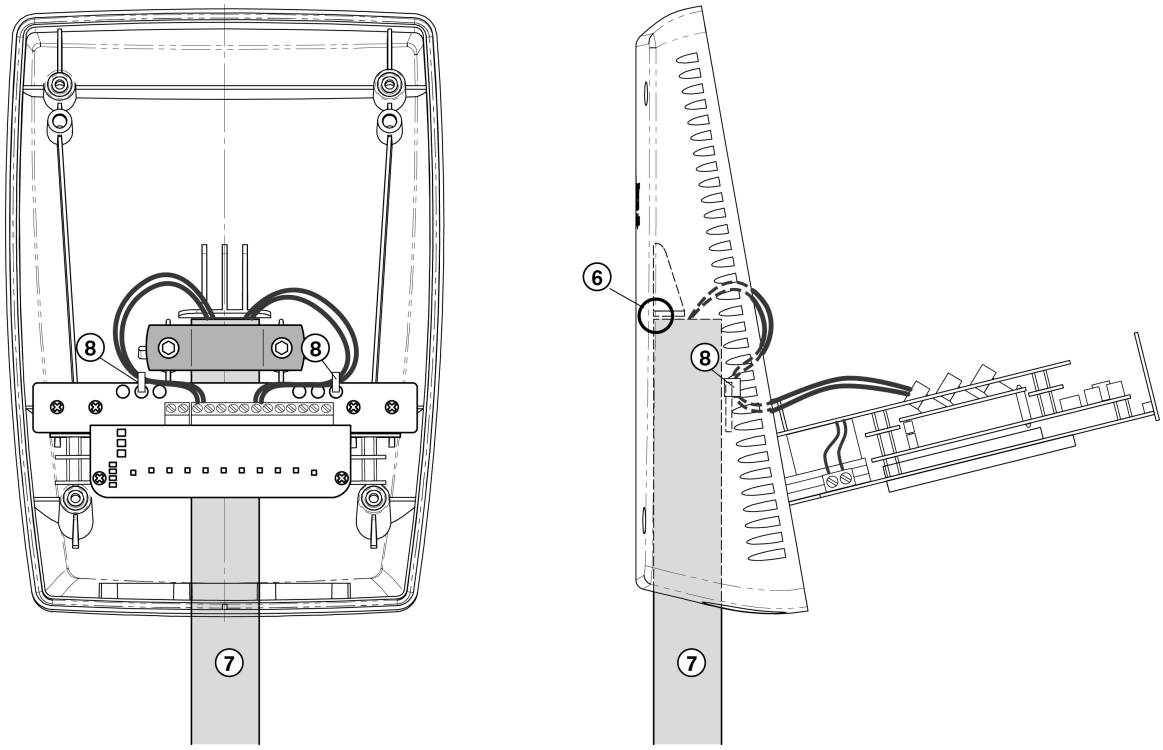


***Figure 2.6** – Attaching the GAT Holder 60xx*

- Remount the electronics in their original position and fasten the two screws. Take care not to damage the cabling.
- Close the housing by placing the front part of the housing onto the rear part and secure them with the four screws.

Attention: Take care to ensure the housing gasket is correctly inserted into the joint between the front and rear part and not damaged during this process.

3. ELECTRICAL CONNECTIONS

The connection cables for power supply, data signals and peripheral devices are connected at the screw and LSA (insulation displacement termination) terminals of the connector board in the mounting frame.

Attention: For safety and to prevent damage to the access terminal, always disconnect the power supply before terminating cables on the GAT Access 6600.

3.1 Power Supply

The GAT Access 6600 requires power supply between 12 and 24 VDC that complies with SELV (safety extra low voltage) and LPS (limited power source). Check the technical data in this manual. GANTNER offers the GAT NET.Power Supply 100-240V (part no. 369434) which can be used for power supply of the GAT Access 6600. When using the GAT NET.Power Supply 100-240V, the existing power plug must be cut off and the wiring terminated onto the “VIN+” and “GND” screw terminals.

There are two pairs of "VIN+" and "GND" terminals on the GAT Access 6600 (see Figure **3.1**). The connectors of these terminal pairs are connected to each other internally (i.e., VIN+ with VIN+ and GND with GND). The voltage input is protected against reverse polarity.

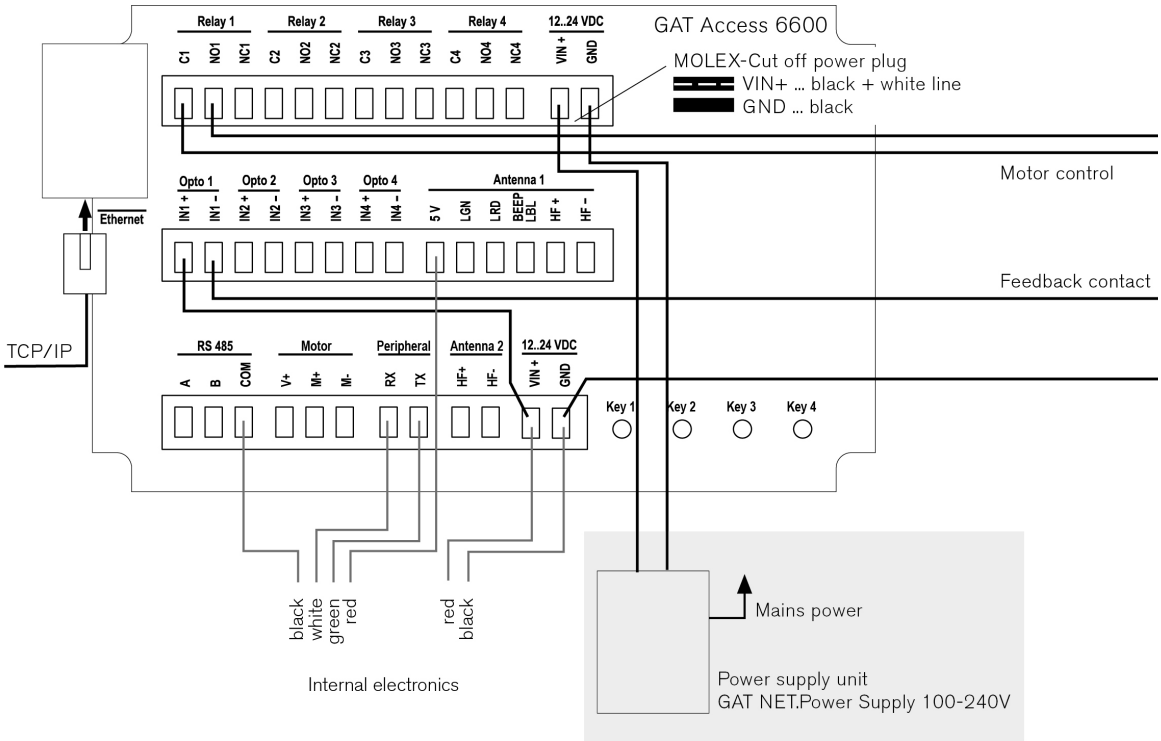


Figure 3.1 *- Power supply connection using the GAT NET.Power Supply 100-240V*

3.2 Network

The standard method for network communication for the GAT Access 6600 is via the Ethernet network. The recommended cabling for a 100 MBit Ethernet connection is a minimum of CAT 5 (STP). If an Ethernet network is not available, communication can take place via the serial RS 485 interface.

Attention: The RS 485 interface and Ethernet interface must not operate simultaneously.

3.2.1 Ethernet Network

An Ethernet network is the standard option for connecting the GAT Access 6600 to a server (host). The GAT Access 6600 supports 10 and 100 Mbit/s communication. It is recommended to connect each GAT Access 6600 directly to a separate switch or patch panel socket.

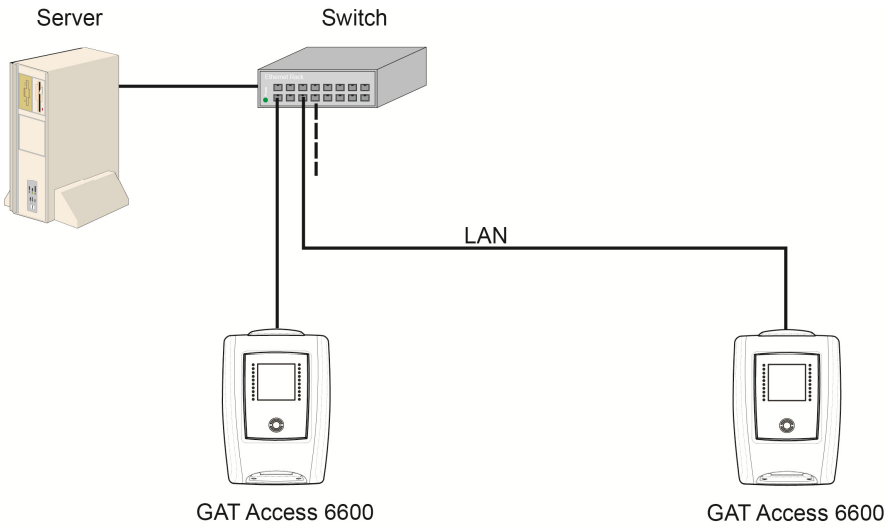


Figure 3.2 *- Ethernet network example*

The Ethernet network cable is connected to the GAT Access 6600 at the RJ45 socket labelled "Ethernet".

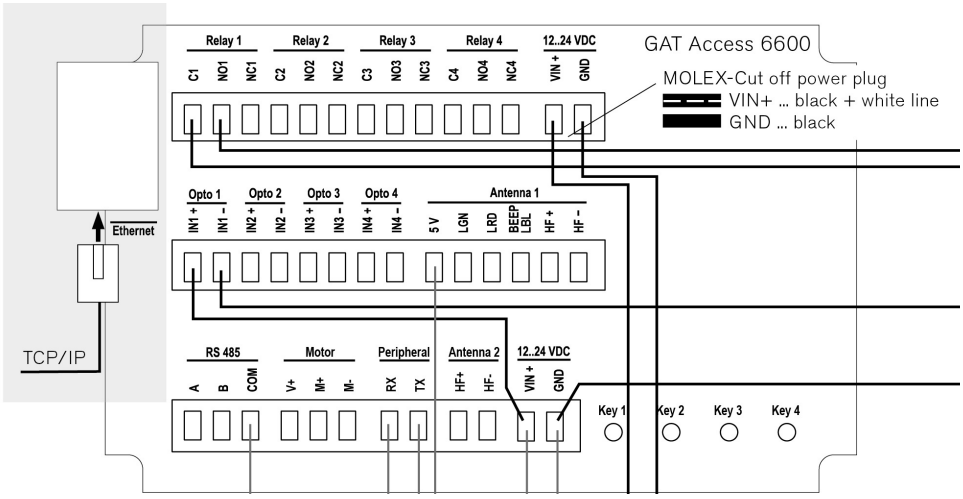


Figure 3.3 *- Network connection via Ethernet*

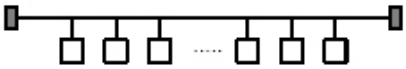
3.2.2 Serial RS 485 Network - Offline Operation

Note: This section describes the connection of GAT Access 6600 operating in offline mode. For online operation, see section "3.2.3 Serial Network RS 485 - Online Operation".

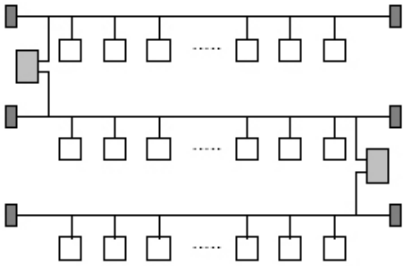
A serial RS 485 network has a lineal structure where each bus segment must be terminated with characteristic impedance on both ends. Branches can be organised by means of bi-directional signal amplifiers, so-called repeaters. Other types of branches are not permitted (no tree topology). The recommended cabling for an RS 485 bus network are minimum CAT 5 (STP) with power supplied via two wire-pairs.

The following figure shows a few examples of possible bus topology configurations. The different configurations are defined as follows:

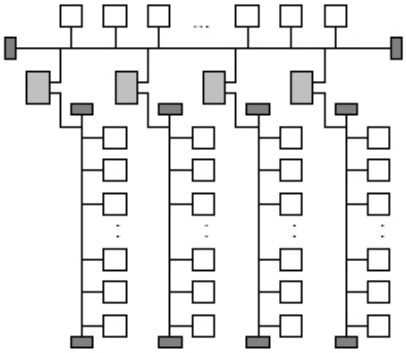
Simple line structure:



Extended line structure:



Line structure with branches:



□ …Bus user (e.g., GAT Access 6600)
□ …Repeater (e.g., IRK 100)
□ …Bus termination

Figure 3.4 *- Serial RS 485 network (Offline mode)*

Connection of the GAT Access 6600 terminals in offline mode to the network can be done via direct connection, where the incoming and outgoing bus lines are connected to the same screw terminal or by using a stub cable, which must not be longer than 30 cm.

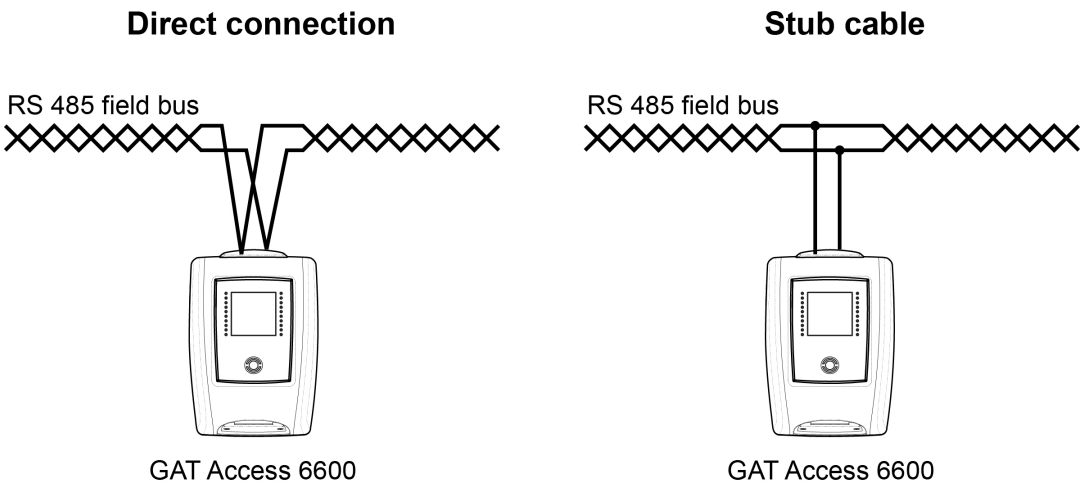


Figure 3.5 *- RS 485 network connection of a GAT Access 6600 in offline mode*

The maximum cable length for an RS 485 network depends on the transmission speed and the type of cable. The maximum line length for transmission speeds up to 93.75 Kbit/s is 1,200 meters. Up to 32 terminals can be connected to one bus segment. Further segments can be added using repeaters.

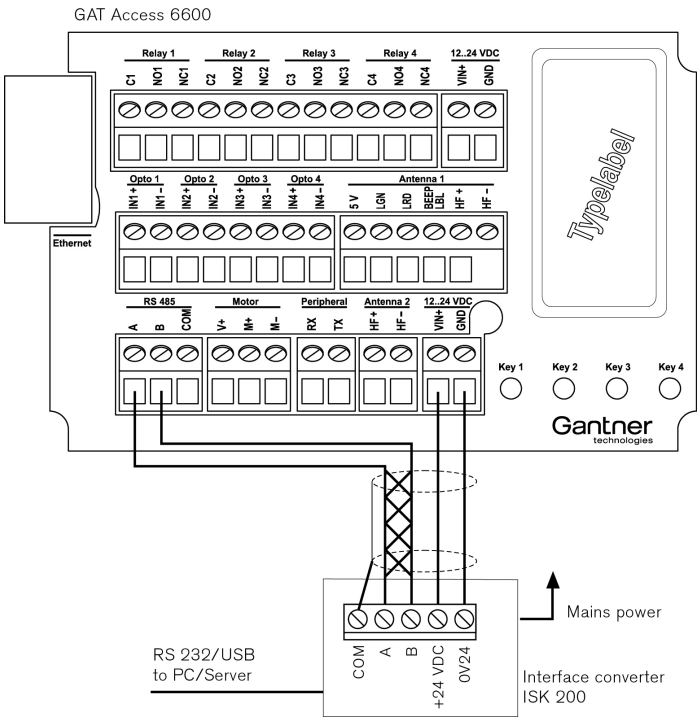


Figure 3.6 *– GAT Access 6600 electrical connections for RS 485 network in offline mode (power supply via ISK 200)*

Note: When using the RS 485 bus connection, only connect signal lines A and B at the GAT Access 6600 and not the shield.

3.2.3 Serial Network RS 485 - Online Operation

When the GAT Access 6600 is operating in online mode, only one terminal can be connected per RS 485 serial bus line to a PC/server.

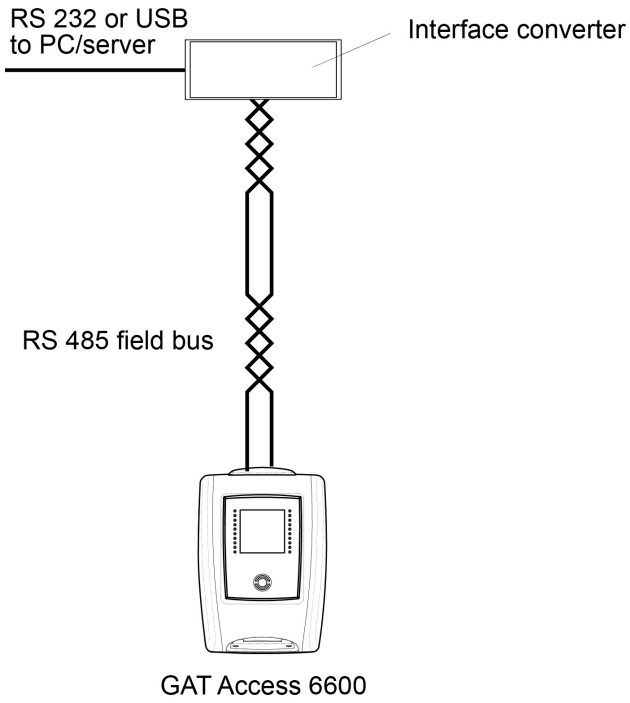


Figure 3.7 *- Connection of GAT Access 6600 via RS 485 for online mode*

The wiring is terminated to the GAT Access 6600 as shown in Figure **3.6**.

3.3 Connection to a Turnstile or Door

The GAT Access 6600 has four relay outputs for controlling an access point and four optocoupler inputs for status acquisition.

The outputs are potential-free relays and must be connected to the corresponding control inputs at the turnstile or door.

The inputs are optocoupler inputs and a corresponding supply voltage is required for switching the inputs. The supply voltage can be taken from the GAT Access 6600 or supplied by another source.

Attention: Pay attention to the maximum permitted switching voltages and currents, as indicated in section "9. Technical Information".

The following diagram shows how to terminate the wiring at the GAT Access 6600 and the general connection to a turnstile. Please read the turnstile or door documentation for more information about their electrical connections.

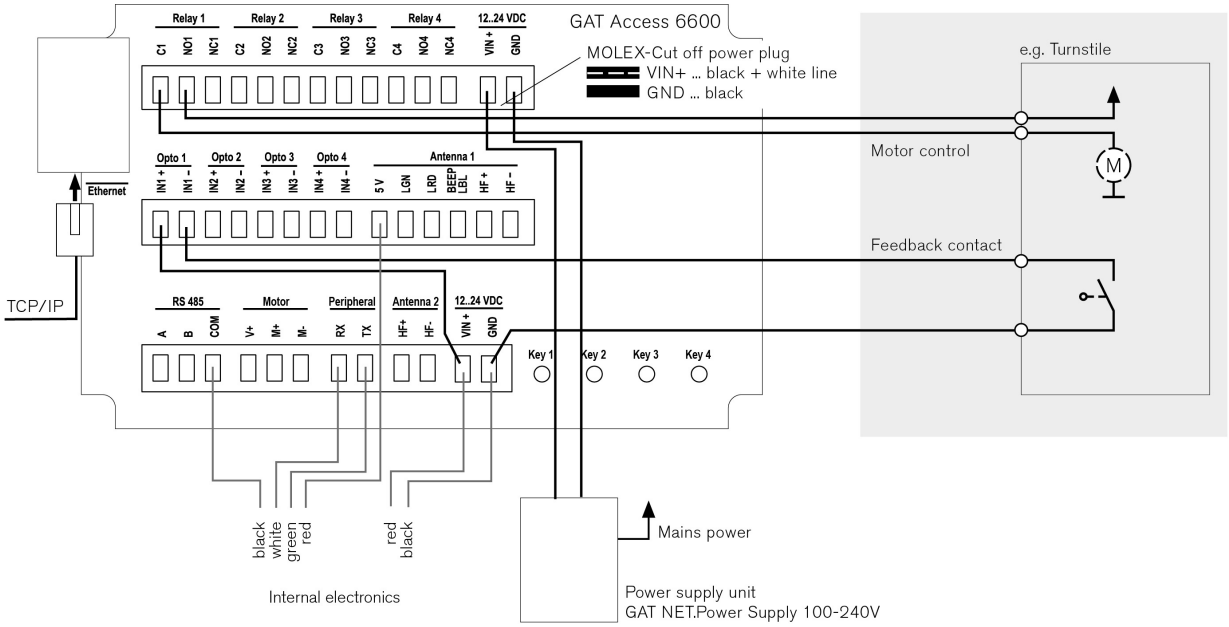


***Figure 3.8** – Connecting the GAT Access 6600 to a turnstile/door*

3.4 Antenna 1, 2 and Motor

The terminals labelled "Antenna 1", "Antenna 2" and "Motor" are not used and have no function at the GAT Access 6600.

3.5 Checklist for Final Installation

After installation and configuring the GAT Access 6600, complete the following checklist to ensure that every requirement has been performed and the device is ready for operation.

Installation:

- ☐ Terminal securely attached to the device holder
- ☐ Device holder tightly screwed to the turnstile or gate
- ☐ Cover of the terminal attached and all screws tightened
- ☐ Power supply connected
- ☐ Interface connected
- ☐ Host/server is running (for online mode)
- ☐ RFID Reader tested (hold data carrier next to scan field)

Configuration (see chapter "7. Configuration"):

- ☐ Latest software installed in the GAT Access 6600
- ☐ Network parameters set:
  - TCP/IP: IP address, network name, subnet mask, DNS
  - RS 485: device address
- ☐ Time settings in the GAT Access 6600 set correctly
- ☐ Configuration settings set (see "GAT Config Manager" manual)
- ☐ Site-key of the GAT Access 6600 set

4. START-UP AND CONFIGURATION

4.1 Starting the GAT Access 6600

For the configuration of the GAT Access 6600, the difference between the **system settings** and the **configuration settings** must be clarified. The system settings affect how the device communicates with the network and the configuration settings affect how the device operates and interacts with the user.

The GAT Access 6600 has a monochrome LC-display, status LEDs on each side of the display and on top of the terminal, and a backlit RFID reading centre to indicate status information. The terminal starts automatically as soon as the power supply is switched on.

The initialisation process starts after power is supplied to the terminal. The GANTNER logo and the currently installed software version ("BL-Vers.") is displayed, the status LEDs flash green and red alternately and the terminal searches for a connected network. The initialisation process takes about 20 seconds, after which the terminal displays the current system settings.

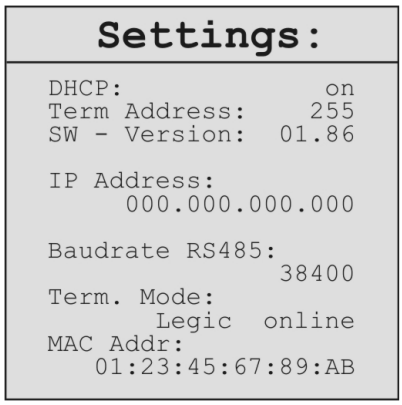


Figure 4.1 *- Start-up screen displaying system settings*

The settings displayed are the default settings of a GAT Access 6600. These settings can be changed in the service menu (see "4.2.1. Service Menu of the GAT Access 6600"). If the service menu is not opened during the initialisation process, the GAT Access 6600 continues to start before going into idle mode. The main screen is displayed and the status LEDs flash red when communication is not active.

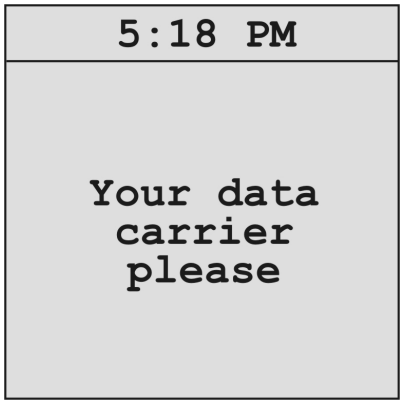


Figure 4.2 *- Main screen*

4.2 System Settings

The system settings of a GAT Access 6600 can be adjusted directly on-site via the service menu of the terminal. Alternatively, most of the settings can be defined via the network using GAT Config Manager.

4.2.1 Service Menu of the GAT Access 6600

The service menu can be accessed while the device settings (see Figure **4.1**) are shown on the display during start-up of the terminal. While this display is shown, the four keys next to the electrical connections must be pressed in the following sequence: 1 - 1 - 4 - 4 - 2 - 3.

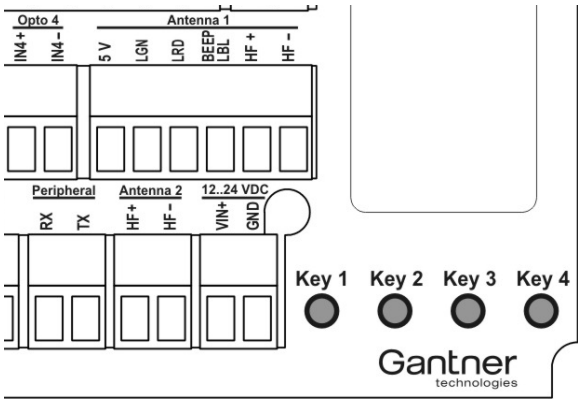


Figure 4.3 *- Keys for activating the service menu*

After pressing the keys in the correct sequence, the service menu is shown:

Figure 4.4 *- Service menu of GAT Access 6600*

Navigation within the service menu is done by pressing the corresponding keys. Take note of the indicated order of the keys as shown in Figure **4.5**. The current function for each key is shown at the bottom of the display.

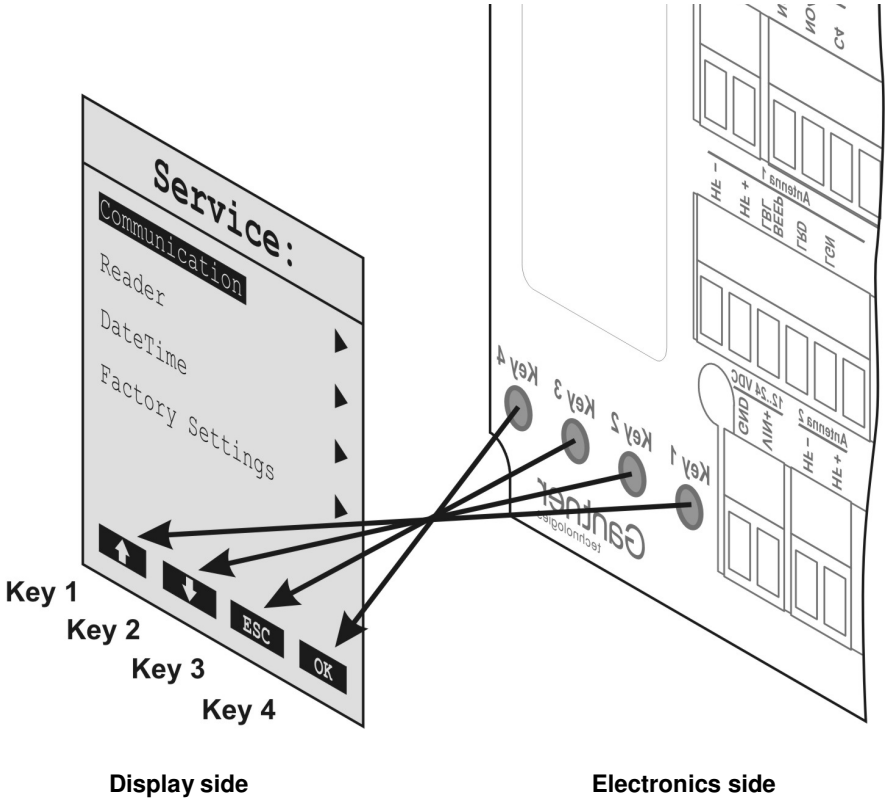


Figure 4.5 *- Key assignment in service menu*

To exit the service menu, press Key 3 ("ESC") and confirm in the next screen with "Yes".

4.2.2 Communication Parameters

Select the "Communication" menu item in the service menu and press key 4 "OK". This brings up the communication menu.

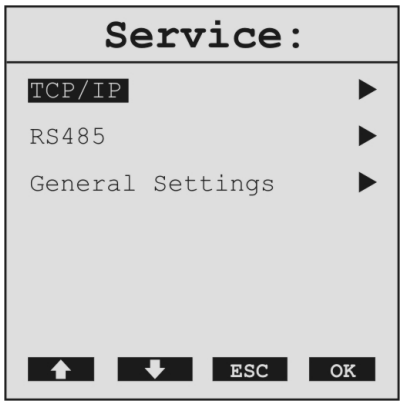


Figure 4.6 *- Communication menu*

Depending on the type of network connection in use, define either the TCP/IP settings (Ethernet) or the RS 485 settings (serial network). The following settings can be made:

TCP/IP:

- DHCP: Set to "on" if a DHCP server is used in the network. In this case, the remaining settings (IP address, subnet mask, gateway, DNS) are set automatically by the DHCP server.
- IP Address: If a DHCP server is not used for automatic IP assignment, enter the IP address of the GAT Access 6600.
- Subnet Mask: Definition of the network prefix.
- Default Gateway: IP address of the default gateway.
- Primary DNS: IP address of the primary DNS (domain name server).
- Secondary DNS: IP address of the secondary DNS (domain name server).
- Device Name: Network name of the GAT Access 6600. Standard is "GA" + part number (6 digits) + serial number (7 digits) of the device.
- MAC Address: The hardware MAC address of the GAT Access 6600. This cannot be changed.

RS 485:

- Baudrate: Define the baud rate for communication on the RS 485 serial bus. The baud rate used by the GAT Access 6600 is 38400 bit/s.

General Settings:

- Terminal Address: The GAT Access 6600 is uniquely identifiable via its terminal address. Each GAT Access 6600 on one bus line must have a unique address. The default address on delivery is 255.

4.2.3 Reader Settings

Depending on the type of GAT Access 6600, different settings for the RFID reader are available in this menu.

Figure 4.7 *- Reader settings menu*

The RFID reader type of the GAT Access 6600 terminal is displayed here, e.g., "Legic Reader". The following functions are available in this meu:

Read UID:
With this menu item the unique number (UID) of a data carrier, which is held next to the reading field, is read and displayed.

Figure 4.8 *- Reading the UID of a data carrier*

Read/Clear Authorisation
These menu options are only available for LEGIC® terminals (GAT Access 6600 B). In this menu, it is possible to view and delete the authorisation data of the internal LEGIC® reader.

4.2.4 Date and Time Settings

During operation, the GAT Access 6600 displays the current date and time. It is important that these settings are correct. To change the date and time select the "DateTime" menu item in the service menu.

Figure 4.9 *– Setting the time and date*

Select the value to change with key 3 (cursor right) and change the numbers at the cursor position with key 1 (cursor up) and 2 (cursor down). Confirm settings with key 4 ("OK").

4.2.5 Restore Factory Settings

Via the "Factory Settings" menu item in the service menu, it is possible to reset the system settings of the GAT Access 6600 to the default (factory) settings.

Figure 4.10 *– Restore factory settings*

Attention: After restoring the factory settings, the bus parameters must be reconfigured to enable communicate with the GAT Access 6600.

4.3 Configuration Settings

The configuration settings are the device functions that determine how the GAT Access 6600 interacts with the user. These settings can be viewed and modified using "GAT Config Manager" PC software. This section provides an overview on how to define the configuration settings with GAT Config Manager.

Note: A user guide is available when you install GAT Config Manager. This user guide contains detailed information about the use and possibilities of this software.

In order to configure a GAT Access 6600, you must know the communication settings such as the IP address and port number (default 8208) for TCP/IP configuration. To find this information see section "4.2. System Settings".

Configuration possibilities:
There are two ways to configure a GAT Access 6600 with GAT Config Manager.
- Direct configuration: A connection to the GAT Access 6600 must be established by entering all the communication settings required for a manual connection.
- Project configuration: A project is created where the GAT Access 6600 and its communication settings are defined once. Configuring the GAT Access 6600 is then done simply by clicking on the “Configure device” option in the project. One project can contain several devices.

To begin configuring a device first start GAT Config Manager via the start menu within Windows®. The default location of the software is "Programs > Gantner Electronic GmbH > GAT Config Manager".

4.3.1 Direct Configuration

After opening GAT Config Manager, complete the following steps to directly configure a GAT Access 6600.

- Click on the "Open Device" icon at the top of the program.
  - The device configuration wizard opens.

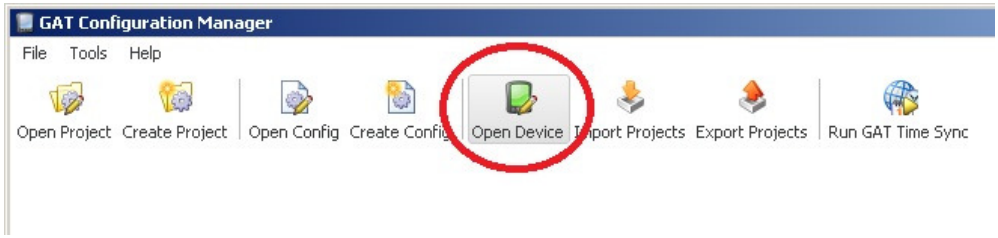


Figure 4.11 *- Open device for direct configuration*

- The wizard requests the information required to connect to the GAT Access 6600. Go to the next page of the wizard by clicking “Next”. To return to a previous page click “Previous” and to close the wizard click “Cancel”. The "Finish" button becomes available when the wizard has received all the necessary information.

- Select the communication type. Choose “TCPIP” then click “Next”.

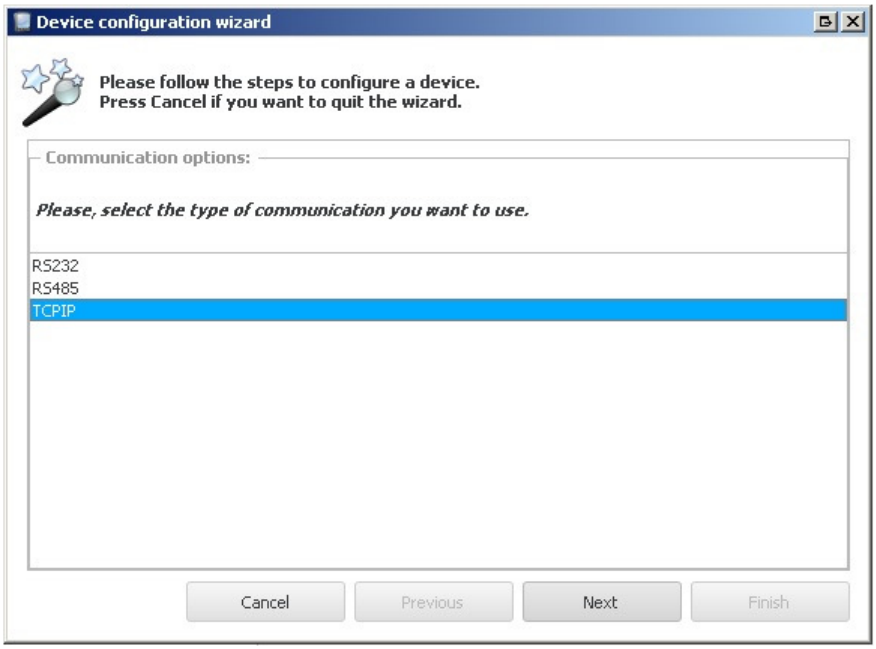


Figure 4.12 *- Open device for direct configuration (Wizard step 1)*

- Enter the IP address and port number of the GAT Access 6600 then click “Next”.

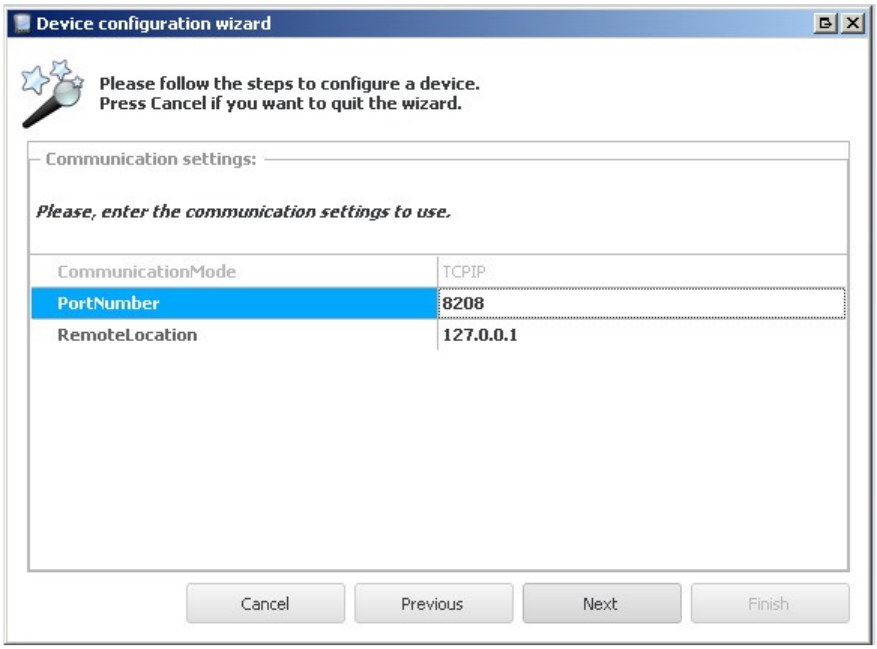


Figure 4.13 *- Open device for direct configuration over TCP/IP (Wizard step 2)*

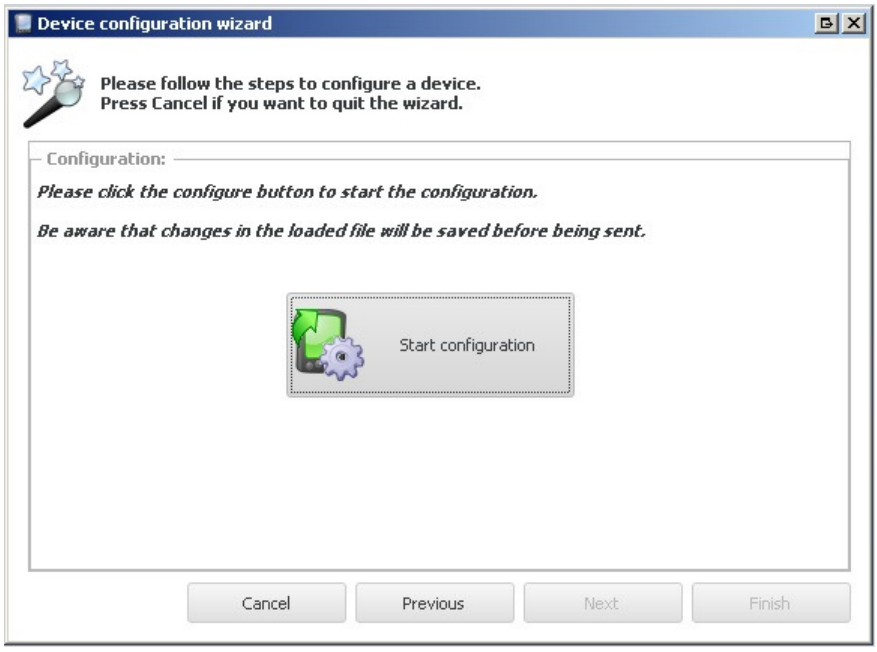


Figure 4.14 *- Ready to start configuration (Wizard step 3)*

- Press "Start configuration".
  - GAT Config Manager will connect to the GAT Access 6600 and after a short pause, upload and display the current configuration from the device.

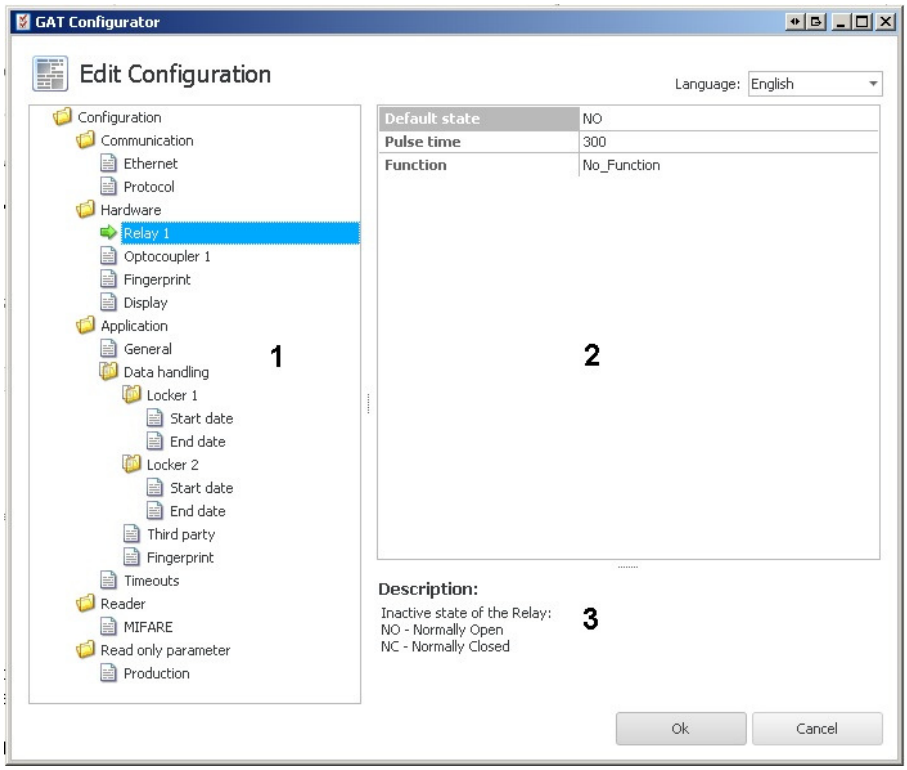


Figure 4.15 *- Configuration window*

The configuration settings of the GAT Access 6600 are organised into several categories. The directory on the left (1) lists the different configuration categories. Click on a category and the settings for this category can be viewed and adjusted in the field to the right (2). A short description of the setting is shown at the bottom of the window (3). An overview of all the configuration settings is available in Table **4.1**.

Note: A detailed description of all available settings can be found in the GAT Config Manager manual.

4.3.2 Project Configuration

Complete the following steps to configure the GAT Access 6600 via a project in GAT Config Manager.

- Click on the “Open Project” icon (1 in Figure 4.16) to find an existing project. Alternatively, click on the “Create Project” icon (2 in Figure 4.16) to start a new project.

***Figure 4.16** – GAT Config Manager - project setup*

- Once a project is established, click on the “Scan Device” icon (1 in Figure **4.17**).
  - The software scans the network and displays a list of all connected GANTNER devices.

- Select the GAT Access 6600 requiring configuration from the list. Use device details such as the IP and MAC address to identify the correct device.
  - The selected device is highlighted in blue as shown in Figure **4.17**.

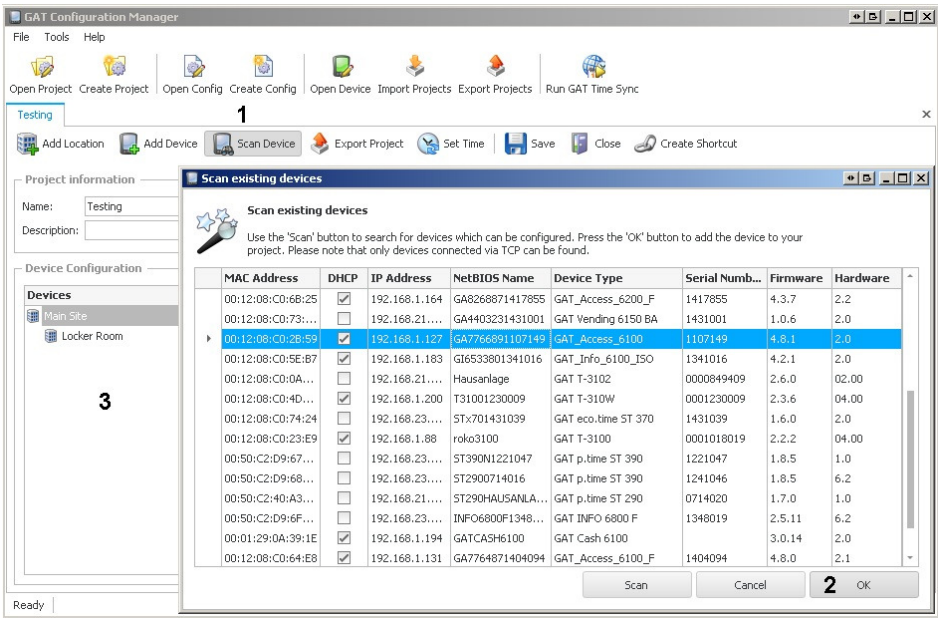


***Figure 4.17** – Search and select device*

- Click on “OK” (2 in Figure **4.17**)
    - The selected device is added to the “Devices” list (3 in Figure **4.17**).

The main project window displays all the project information that has been entered into GAT Config Manager. Click on the GAT Access 6600 in the “Devices” list and information about the selected device is shown to the right of the project tree. Here you can view the predefined device and interface settings.

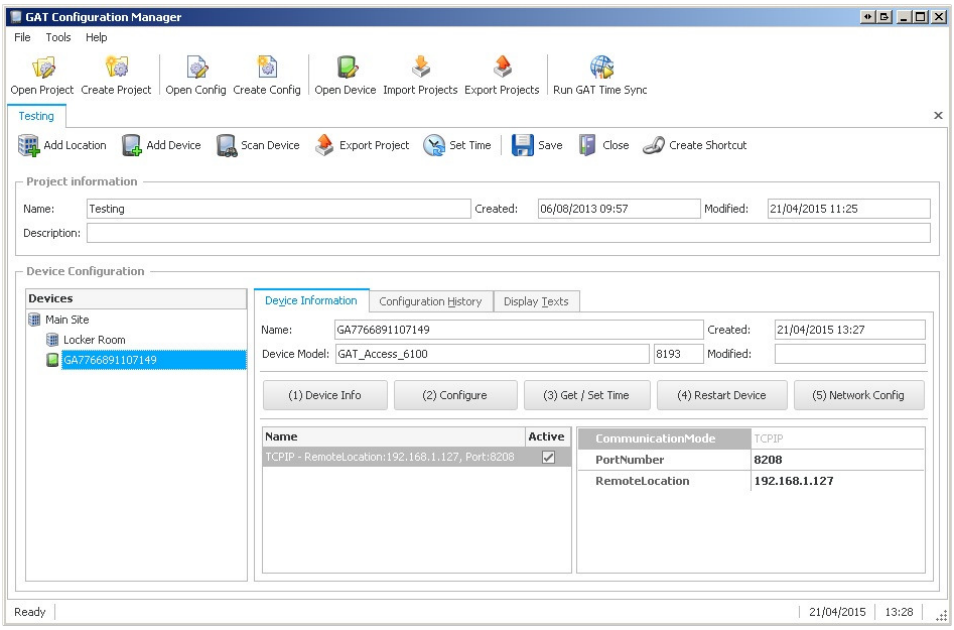


Figure 4.18 *- Project window*

To configure the display texts of the GAT Access 6600, click on the "Display Texts" tab. Here you can edit each individual message that is displayed on the selected terminal (see "4.3.4. Display Texts").

Click on the "(2) Configure" button to view and adjust the configuration settings of the GAT Access 6600. The existing configuration is uploaded from the terminal and displayed in the configuration window. See Figure ***4.15*** in the previous section for more information on the configuration window.

4.3.3 List of Configuration Settings

Table **4.1** lists all the configuration settings available for the GAT Access 6600 in GAT Config Manager. A brief description and the format (where applicable) for each setting are shown in the table. Make sure to enter data in the indicated format for settings such as time definitions, etc.

Options	Description	Format	Example(s)
Communication			
Ethernet			
MAC address	Shows the MAC address of the device		
DHCP enabled	If enabled, will use the IP settings from a DCHP server		
Static IP address	IP address of the device (if DHCP is disabled)		
Static subnet mask	Subnet mask of the device (if DHCP is disabled)		
Static default gateway	Default gateway of the device (if DHCP is disabled)		
Static primary DNS	Primary DNS address of the device (if DHCP is disabled)		
Static secondary DNS	Secondary DNS address of the device (if DHCP is disabled)		
NetBIOS name	NetBIOS name of the GAT Access 6xxx		
Port number	Indicates the port number for online communication		
Dynamic IP address	IP address got from the DHCP Server		
Dynamic subnet mask	Subnet mask got from the DHCP Server		
Dynamic default gateway	Default gateway got from the DHCP Server		
100 MBit Ethernet enabled	Enable 100 MBit Ethernet link, 10 MBit if disabled		
Protocol			
Terminal address	Address of the device	Integer	1 .. 255
Type	Protocol type	Text	
Mode	Operation mode (online or offline) of the device	Text	ONLINE / OFFLINE
Button event enabled	Enable the button event command		
Leisure Omron mode enabled	Indicate if OMRON mode for online communication is enabled (MIFARE® and ISO 15693 data will be sent as the old LEGIC® format).	Boolean	false
RS 485			
Baud rate	Data rate for RS 485 communication (bit per seconds)	Text	38400
Read only parameter			
Production			
Production Data	Production data for the device (set at manufacturer)		
Hardware Version	Hardware Version of the Device Hardware		
Serial Number	Serial number of the device		
Software Version	Software Version of the Application		
Application			
General			
Device Licence	Licence to enable special features from the software		
Time format	Format used to show time values at the device	Text	HH:mm, h:mm t
Emergency Mode enabled	Enable the Emergency Mode		
Data handling			
Deny if Checkin failed	Access denied if the LockerCheck-In fails		
Check validity date	Checks site number and validity date of data carriers, when the GAT Access 6xxx is in the Emergency Mode		
Locker 1			
Read	Indicates, if data must be read from the first locker segment of data carriers.	Boolean	true

Position on card	Defines the segment where locker data 1 is located on a data carrier	Integer	1 .. 255
Clear number	Clear the locker number from the data carrier.	Boolean	false
Start date			
Mode	Selection of the LockerCheckin Mode for the Start Date NONE: Value will not be changed DELAY: Sets the start date to now + start date value TIME: Sets the start date to today at start date value FOREVER: Sets the start date to valid forever	Text	NONE / DELAY / TIME / FOREVER
Hours	Hours of start date	Integer	0 .. 23
Minutes	Minutes of start date	Integer	0 .. 59
End date			
Mode	Selection of the LockerCheckin Mode for the End Date NONE: Value will not be changed DELAY: Sets the expiry date to now + expiry date value TIME: Sets the expiry date to today at expiry date value FOREVER: Sets the expiry date to valid forever	Text	NONE / DELAY / TIME / FOREVER
Hours	Hours of end date	Integer	0 .. 23
Minutes	Minutes of end date	Integer	0 .. 59
Locker 2			
Read	Indicates, if data must be read from the second locker segment of data carriers.	Boolean	true
Position on card	Defines the segment where locker data 2 is located on a data carrier	Integer	1 .. 255
Clear number	Clear the Lockernumber from the data carrier.	Boolean	false
Start date			
Mode	Selection of the LockerCheckin Mode for the Start Date NONE: Value will not be changed DELAY: Sets the start date to now + start date value TIME: Sets the start date to today at start date value FOREVER: Sets the start date to valid forever	Text	NONE / DELAY / TIME / FOREVER
Hours	Hours of start date	Integer	0 .. 23
Minutes	Minutes of start date	Integer	0 .. 59
End date			
Mode	Selection of the LockerCheckin Mode for the End Date NONE: Value will not be changed DELAY: Sets the expiry date to now + expiry date value TIME: Sets the expiry date to today at expiry date value FOREVER: Sets the expiry date to valid forever	Text	NONE / DELAY / TIME / FOREVER
Hours	Hours of end date	Integer	0 .. 23
Minutes	Minutes of end date	Integer	0 .. 59
User			
Read	Defines, if user data shall be read from data carriers	Boolean	false
Cash 1			
Read	Indicates, if data must be read from the first cash segment of data carriers.	Boolean	true
Cash 2			
Read	Indicates, if data must be read from the second cash segment of data carriers.	Boolean	false
Access			
Read	Indicates, if data must be read from the access segment of data carriers.	Boolean	false
Timeouts			
Access allowed screen	Duration in milliseconds for the access allowed process		
Access denied screen	Duration in milliseconds for the access denied process		

Hardware			
Antenna Selection	Selection of the internal or external antenna		Internal / external
Relay	Output for activation/unlocking of a turnstile or door		
Function	No function - Relay is not used Entrance - Relay will be activated as configured in 'Pulse time' ExternalLocking - Relay will be activated when a Data carrier was read by the reader, deactivated when the process ends		No_Function / Entrance / ExternalLocking
Pulse time	Duration in milliseconds how long the relay will be activated		
Default state	Inactive state of the Relay: NO - Normally Open NC - Normally Closed		NO / NC
Optocoupler	Input for feedback		
Function	No function - Optocoupler is not used Entrance - Feedback of an Entrance External locking - Input for the locking of the terminal		
Event trigger	An event is triggered if the Optocoupler Input signal reaches this configured value		
Barcode			
Enabled	Enable the connected barcode scanner		
Baudrate	Baud rate of the barcode communication. Standard: 8 data bits, no parity, 1 stop bit		
Reader			
LEGIC	Options for reading of LEGIC® data carriers.		
Site key	Site key of the device. All data carriers must have the same site key to be used at the device.	Hex	9999
Subsite	Additional key for division of site keys.	Hex	00
Subsite enabled	If enabled the subsite keys of data carriers will be checked.	Boolean	false
Same segments structure	Set this to true, if all data carriers use the same segment structure. Enables faster reading of data carriers.	Boolean	true
MIFARE	Options for reading of MIFARE® data carriers.		
Site key	Site key of the device. All data carriers must have the same site key to be used at the device.	Hex	73E0818B
Subsite	Additional key for division of site keys.	Hex	00
Subsite enabled	If enabled the subsite keys of data carriers will be checked.	Boolean	false
ISO	Options for reading of ISO 15693 data carriers.		
Site key	Site key of the device. All data carriers must have the same site key to be used at the device.	Hex	73E0818B
Subsite	Additional key for division of site keys.	Hex	00
Subsite enabled	If enabled the subsite keys of data carriers will be checked.	Boolean	false

Table 4.1 *- Configuration options for the GAT Access 6600*

Note for online mode: If the host computer only requires the unique number of a data carrier, deleting all reading options makes the process faster as the data carrier does not need to be read.

4.3.4 Display Texts

The messages that are shown on the display of a GAT Access 6600 can be edited in GAT Config Manager. In the project window of GAT Config Manager (see Figure **4.18**), click on the "Display Texts" tab.

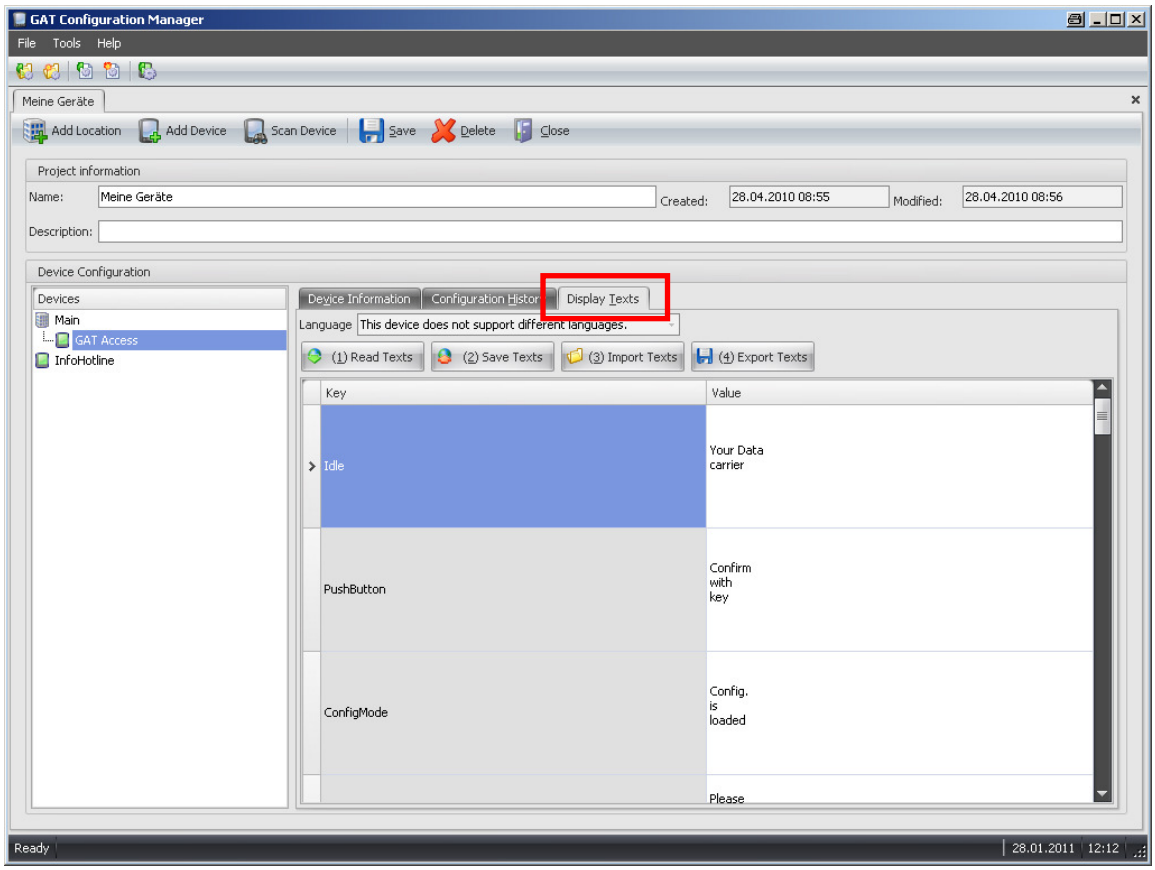


Figure 4.19 *- Display text configuration*

In the left column, the type of message is indicated (see below) and in the right column, the text can be entered. Each separate line of text is shown on a separate line on the display. The maximum length of one text line is 21 characters. If a line of text does not fit on the display of the GAT Access 6600 (using the standard font size), the GAT Access 6600 automatically uses a smaller font size to display the entire text line.

The access terminals can only show signs of windows code page 1252 (Western European), 1251 (Cyrillic) and 1257 (Baltic). All other signs will be shown as "*" on the display.

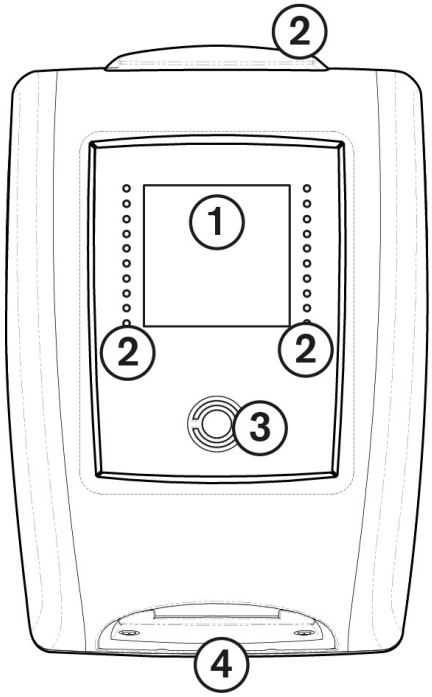
Definition of the messages:

- Idle: Displayed during standard online operation to instruct the user to hold their data carrier next to the reading field.
  Example: `;_;_;Your data;carrier;_;Ihr Datenträger;bitte;`
  Note: The example shown above is in “protocol” format – the format used to send text to the GAT Access 6600. Each line on the display is separated by a semicolon and the underscore "_" means a blank line. In GAT Config Manager, text lines are entered separately, as described above.
- PushButton: Is shown when a key must be pressed by the user (Second Ident, answer from Card_Ident status 240 - 255).
  Example: `;_;Confirm;with;acknowledge;key;_;_;`

- ConfigMode: Is shown when the host computer is the communication master, e.g. when a configuration file is loaded from or to the GAT Access 6600.
  Example: `;_;Config;is being;loaded;_;_;_;`
- ExternalLocked: Is shown when an optocoupler input is defined as "Ext_Locking“ (external locking), the optocoupler is active and the terminal reads a user’s data carrier.
  Example: `;Please;wait...;_;facility;is;in use;_;`
- CardAgain: Is shown when the Locker Check-In function is active and the user removes their data carrier before the terminal can completely delete the locker data.
  Example: `;_;Your;data;carrier;again;please;_;`
- FeedbackLocked: Is shown when the connected turnstile is still in use and the next user holds their data carrier next to the reading field, e.g., for entry or exit.
  Example: `;Please;wait...;_;Turnstile;is active;_;_;`
- Allow: Is shown when a user is granted access.
  Example: `;Access;allowed;`
- Denied: Is shown when a user is denied access.
  Example: `;Access;denied;`
- OutOfService: Is shown when communication to the host is interrupted and the online emergency mode function is not active.
  Example: `;Out of;Order;`
- RemoveCard: Is shown when the GAT Access 6600 reads the same data carrier more than once without it being removed first. The data carrier must be removed from the reading field.
  Example: `;Remove;data carrier;`
- WaitPermission: After the terminal has read a data carrier and sent a request to the host, this message is shown while the terminal waits for a response from the host.
  Example: `;Please;wait...;`
- Default_Deny_01 ... _19: Depending on the status response from the host, one of the following access denied messages is shown when a Card_Ident command is sent by the terminal.
  Example (1): `;Access;denied;`
  Example (2): `;Data carrier;invalid today;`
  Example (3): `;Data carrier;invalid yet;`
  Example (4): `;Data carrier;not in bath;`
  Example (5): `;2nd pass;not in bath;`
  Example (6): `;Access;currently denied;`
  Example (7): `;Today no;more access;`
  Example (8): `;Authorisation;elapsed;`
  Example (9): `;Data carrier;locked;`
  Example (10): `;No access;at this time;`
  Example (11): `;Data carrier;error;`
  Example (12): `;Unknown;data carrier;`
  Example (13): `;Please pay;at cash desk;`
  Example (14): `;No access;here;`
  Example (15): `;No access;Please remargin;`
  Example (16): `;Return cash;at cash desk;`
  Example (17): `;Please unlock;the locker;`
  Example (18): `;Bath crowded;Please wait;`
  Example (19): `;Manipulation;Please to cash desk;`

5. OPERATION

5.1 Control and Display Elements



1 ... Monochrome display (LCD)
2 ... Status LEDs
3 ... Illuminated, RFID scan field
4 ... Barcode reader

Figure 5.1 *- Control and display elements of the GAT Access 6600*

Identification of facility guests is done using RFID data carriers or via barcode tickets / QR codes. The data carriers are read by holding them next to the illuminated, RFID scan field (3). Barcodes and QR codes are read by holding them under the barcode reader (4).

The colour of the scan field changes accordingly to indicate different status information. Additionally, status information is indicated by the status LEDs located either side of the display and on top of the terminal. The GAT Access 6600 also has a monochrome display to show user information. The display language can be changed in the functionality settings (see "4.3. Configuration Settings").

5.2 General User Operation

To use a GAT Access 6600 terminal, the user must have a valid RFID data carrier (user-id), which are available in different forms such as cards or wristbands, or a valid barcode ticket. The data carrier must use the same technology supported by the GAT Access 6600:

- GAT Access 6600 B: LEGIC®
- GAT Access 6600 ISO: ISO 15693
- GAT Access 6600 F: MIFARE®

In standard operating mode, the GAT Access 6600 displays a message that invites the user to present their data carrier (Figure **5.2**). The language used for the display texts is set in the configuration settings (see "Configuration Settings"). The RFID scan field flashes blue and the controlled door or turnstile is locked.

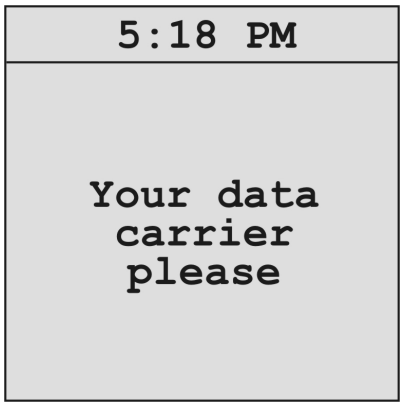


Figure 5.2 *- Start screen in standard operating mode*

To gain access to a restricted area, the user holds their data carrier next to the RFID scan field. The data carrier must be held steadily in front of the scan field while the GAT Access 6600 reads the data carrier. Do not remove the data carrier too early.

Note: When a barcode is used for identification, the barcode must be read by the barcode reader. An RFID data carrier is not required in this case.

Data Carrier Certificate:
The GAT Access 6600 first checks the data carrier certificate to confirm that it is a GANTNER data carrier. The standard configuration only allows GANTNER data carriers to operate with the GAT Access 6600.

Note: It is possible to order a device licence that deactivates the certificate test thereby allowing third-party data carriers to operate with the terminal.

If the data carrier is valid (certificate OK), the GAT Access 6600 sends the data carrier information to the host for evaluation. When access to the restricted area is granted, the terminal activates the applicable relay and unlocks the door or turnstile for the configured time.

To indicate whether access is granted or not, a message is displayed on the screen (see Figure **5.3** and Figure **5.4**). Additionally, the status LEDs and the scan field illuminate green (access allowed) or red (access denied) with one (access allowed) or two (access denied) acoustic signals generated.

Figure 5.3 *- Message after reading a data carrier (access granted)*

Figure 5.4 *- Message after reading a data carrier (access denied)*

If the data carrier is invalid (e.g., not a GANTNER data carrier or certificate not deactivated via licence), access is automatically denied without contacting the host.

5.2.1 Problem when Writing to the Data Carrier

If there is a problem when trying to write data onto the data carrier (e.g., with the locker check-in function), the GAT Access 6600 displays the following message (Figure **5.5**).
Common reasons for this error include not holding the data carrier for long enough in front of the scan field or a damaged data carrier.

Figure 5.5 *- Problems when reading the data carrier*

5.3 Online Mode and Emergency Mode

Online mode is the standard mode of operation. The GAT Access 6600 must always communicate with a server/host that decides whether the data carrier is valid and if the controlled door or turnstile can be unlocked.

If the server/host is not available or not responding to requests from the GAT Access 6600, the terminal switches into emergency mode (depending on the configuration). In this mode, the terminal only checks the site key of a data carrier (company identification number) and if this is the same as the site key in the GAT Access 6600, access is granted.

Note: Emergency mode is not indicated via the display or the status LEDs.

5.4 Out of Order Screen

If communication to the GAT Access 6600 is interrupted and the terminal is not configured for emergency mode operation, the terminal switches into out of order mode. This mode is indicated by the status LEDs flashing in red and the following message displayed on the screen.

Figure 5.6 *- Out of order screen*

Note: The GAT Access 6600 will continue to regain communication via the RS 485 interface (with the following configuration: baud rate = 38400, parity = None, data bits = 8, handshake = None, stop bits = 1) and via the configured TCP/IP port (default 8000). As only one connection is possible at a time, the GAT Access 6600 will give priority to the TCP/IP connection.

See chapter "6 Communication" for more information about how the GAT Access 6600 communicates with a server.

5.5 Locker Check-In

The GAT Access 6600 can be configured for locker check-in functionality. When this function is active, the GAT Access 6600 will automatically write or delete specific locker information on each data carrier.

Note: The RFID data carriers that are used for access control with the GAT Access 6600 can also be used with GANTNER developed electronic locker systems.

The action to be performed by the GAT Access 6600 at locker check-in can be defined in the configuration settings (see "4.3.3. List of Configuration Settings"). It is possible to delete the locker number from each data carrier that is read or to write a specific validity date onto the data carrier.

When locker check-in is active, the user does not need to perform any additional action besides the normal operation as described in "5.2. General User Operation". Locker check-in is performed automatically. Ensure that the data carrier is held in front of the reading field until the locker check-in process is complete. If the data carrier is removed before the process is complete, access is denied and the GAT Access 6600 displays the following message.

Figure 5.7 *- Information screen in Locker Check-In mode*

In this case, the data carrier must be read again by the terminal. Access is granted only once the data carrier is confirmed as valid and the check-in process is successfully completed.

6. COMMUNICATION

For configuration and general operation, the GAT Access 6600 communicates with a server/host computer. To enable communication, the terminal uses certain protocols that are described in separate manuals. For standard operation of the GAT Access 6600, it is not necessary to know the details of these protocols. The GANTNER developed software package, GAT DIRECT.Connect, provides a convenient method for configuring and operating GAT Access 6600 terminals. Refer to the GAT DIRECT.Connect documentation for more information on this implementation solution.

6.1 Online Mode

This is the standard operating mode for the GAT Access 6600. Online mode means that when a data carrier is read, the GAT Access 6600 sends the information over the network to the server/host and waits for a response. The server evaluates the information then sends commands and data back to the GAT Access 6600 to control the operation and the message to be displayed.

Master and Slave:
During online operation, the GAT Access 6600 is in master mode and the server/host computer is in slave mode. The GAT Access 6600 will periodically ask the host if it needs to switch to master mode (e.g., to upload a configuration to the GAT Access 6600 or to upload events). If the host changes to master mode, the GAT Access 6600 will change to slave mode. If no commands are received from the host after a certain time, the GAT Access 6600 automatically changes back to master mode.
If the host does not respond to any queries sent by the GAT Access 6600, the access terminal switches to either “out of operation” mode or “emergency” mode, depending on configuration.

6.2 Emergency Mode

If communication to the server/host is lost, the GAT Access 6600 switches to emergency mode. In this mode, the terminal only checks the site key of a data carrier (company identification number) and if this is the same as the site key in the GAT Access 6600, access is granted.

If the Locker Check-In function is activated, the GAT Access 6600 also performs the locker Check-In by writing or deleting certain data on the data carrier.

As soon as communication is reactivated, the GAT Access 6600 returns to standard online mode operation.

6.3 Out of Operation Mode

If the host computer does not respond within a certain time after receiving data carrier information from the GAT Access 6600, the access terminal switches to out of operation mode. In this mode, the GAT Access 6600 will not respond to any user action until communication is restored.

6.4 Command Overview

The GAT Access 6600 communicates with the host using the GANTNER FUNLINE protocol. This communication can take place via TCP/IP over Ethernet (standard) or via RS 485 serial interface.

Several commands are available to aid communication between a GAT Access 6600 and a host. Each command has a defined command code (CMD). For distinguishing commands (request telegrams) and the corresponding answers (response telegrams), bit 4 in the CMD command code of the response telegram is inverted.

Examples:

Request CMD	->	Response CMD
0x45	->	0x55
0xE3	->	0xF3

Note: If a GAT Access 6600 receives a telegram with a command code that is unknown, the information terminal responds with 0x99 in the TE_STATUS field.

A detailed description of every command is available in the protocol description of the GANTNER FUNLINE protocol documentation.

7. UPDATING THE GAT ACCESS 6600

GANTNER Electronic GmbH periodically releases updates for the GAT Access 6600. New firmware versions can be found and uploaded to the GAT Access 6600 using GAT Config Manager software.

Note: The firmware version currently installed in the GAT Access 6600 is displayed on the terminal information screen upon initialisation of the device (see Figure 4.1).

7.1 Updating with GAT Config Manager

The PC software GAT Config Manager is used to check for new firmware versions and to upload the update to the GANTNER device. An internet connection is required to allow GAT Config Manager to connect to the GANTNER server and check for updates.

Note: See the GAT Config Manager manual for detailed instructions on installing and operating GAT Config Manager.

See section “4.3. Configuration Settings” for instructions on how to add a GAT Access 6600 to a project in GAT Config Manager. Once the GAT Access 6600 is added to a project, complete the following steps to update the device.

Attention: Ensure there are no power or network interruptions during the update process.

- Right-click on the GAT Access 6600 in the device tree and select “Update Firmware” from the menu (Figure 7.1).
  - The device update wizard opens.

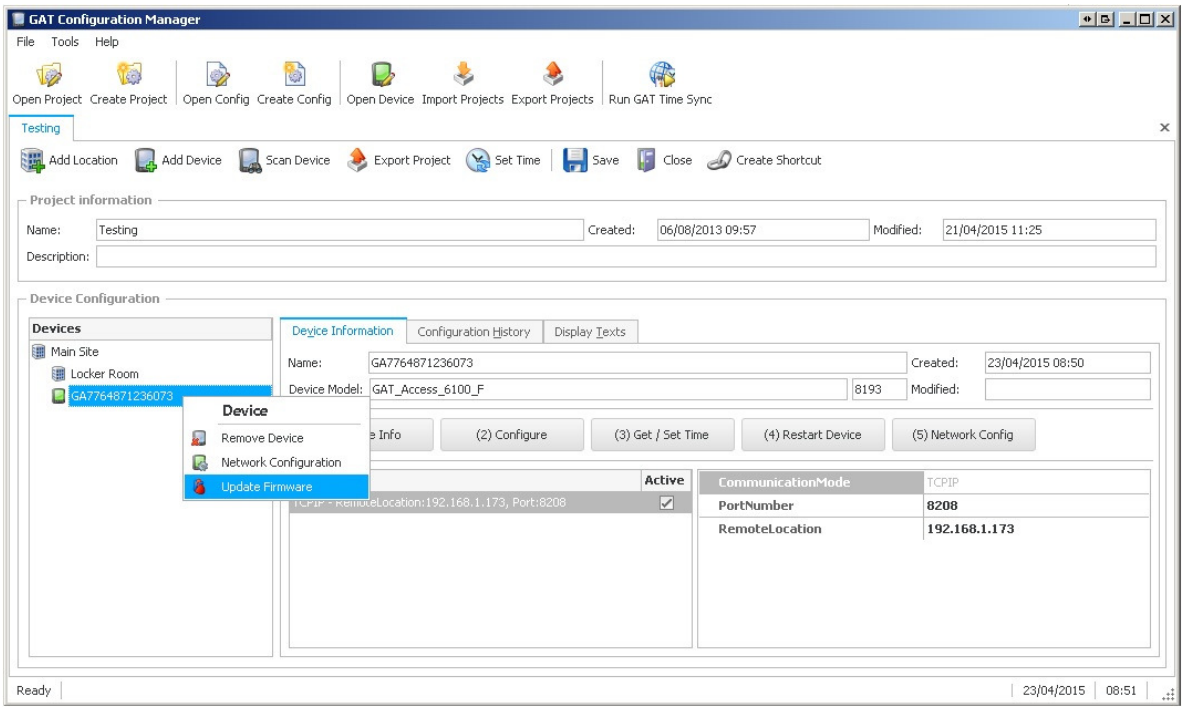


***Figure 7.1** – Update the GAT Access 6600 firmware*

- Select “Main Device” in the first window then click “Next” (Figure 7.2).
  - The wizard connects to the GANTNER server and returns a list of update packages.

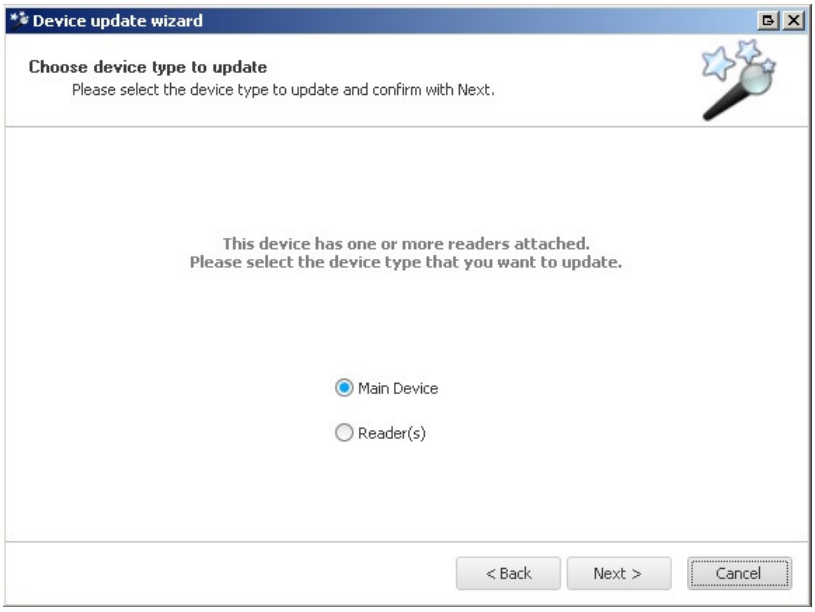


Figure 7.2 *– Device update wizard*

- If there is more than one update package available, select the newest version and click “Next”.

Note: A brief description of the changes included in the update is displayed when you mouse over the update package.

Figure 7.3 *– Select update version*

- The update wizard uploads the update to the GAT Access 6600. This process usually takes around one to two minutes depending on this size of the update, network speed, etc.

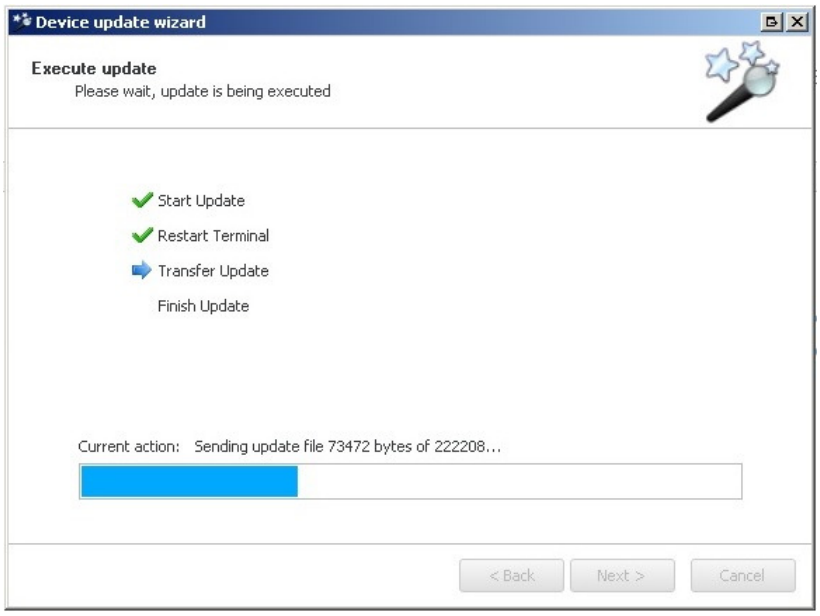


***Figure 7.4** – Uploading file to GAT Access 6600*

- The update wizard displays the following message when the process is finished. Click on “Finish” to close the wizard and return to the main page of GAT Config Manager.

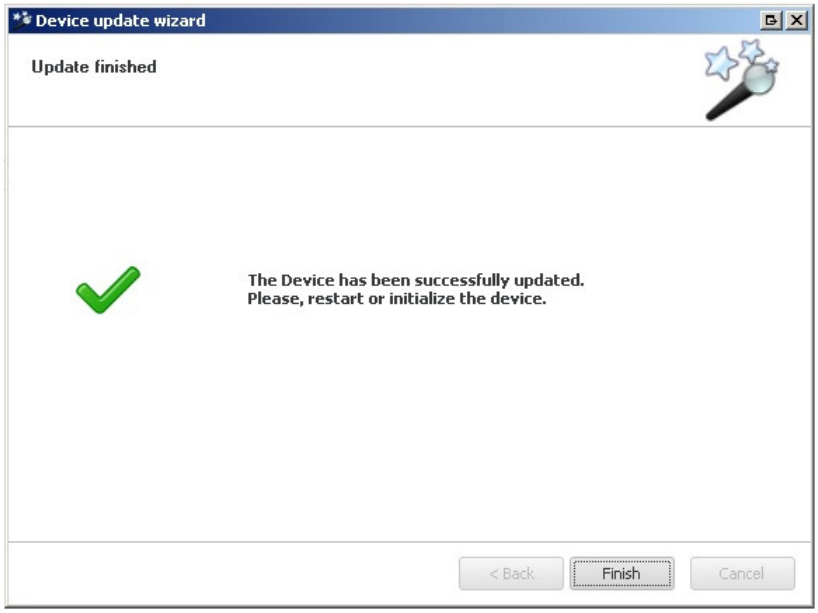


***Figure 7.5** – Update process successfully completed*

8. TROUBLESHOOTING AND FAQ

This chapter contains "frequently asked questions" about the GAT Access 6600 and the corresponding solutions. If you have any questions concerning the GAT Access 6600, please read this chapter before contacting your installation partner or GANTNER Electronic GmbH.

Note: A more detailed and continuously updated version of this FAQ list can be found on the GANTNER Electronic GmbH Homepage "www.gantner.com" in the "Partner Login" section.

8.1 How can I update the firmware of a GAT Access 6600?

With the GANTNER developed GAT Config Manager configuration software (see section “7. Updating the GAT Access 6600”).

8.2 How do I configure a GAT Access 6600?

The GAT Access 6600 can be configured in different ways:

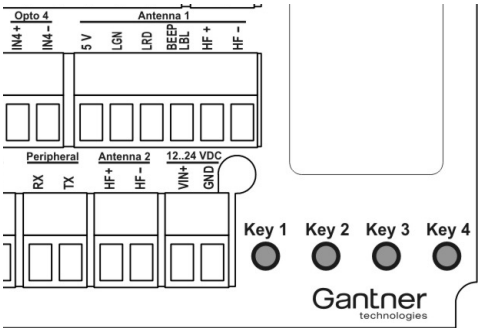
a) Directly at the device while the terminal is in service mode (see "4.2 System Settings").
Note: Only the system settings are configurable via service mode. The functionality settings are configured as described in step b).
b) Using the PC software "GAT Config Manager". This is done in three steps:
1. Starting the device configuration wizard.
2. Selecting the type of connection (serial RS 232 or TCP/IP) with the following parameters:
- RS 232: Selecting the COM port
Baud rate = 38400
8 data bits
1 stop bit
No handshake
No parity
- TCP/IP: Entering the IP address of the terminal
Port number = 8208
3. Start the configuration by pressing the "Start configuration" button.
- When the DHCP status is changed from "OFF" to "ON", the GAT Access 6600 will perform a reset.
- The baud rate is set to 38400 and cannot be changed
- If a relay has the function "External Locking", the relay "OnTime" is deactivated.

Note: Configuring a terminal via GAT Config Manager is described in section "4.3. Configuration Settings".

8.2.1 How do I activate service mode?

In service mode, the system settings (communication parameters, time and date, etc.) of a GAT Access 6600 can be changed directly at the terminal. To enter service mode, perform the following steps:

a) Disconnect and reconnect power to the terminal. The terminal resets and begins the initialisation process.
b) Wait until the first line on the screen displays "Settings".
c) Press the function keys of the GAT Access 6600 in the following sequence: 1 - 1 - 4 - 4 - 2 - 3. The service menu is displayed on the screen.



Note: See "4.2 System Settings" for more information about the service mode and service menu.

8.2.2 How do I access the function keys to activate service mode?

The function keys are located inside the terminal next to the electrical connections. Unscrew the four screws on the rear of the terminal and remove the front cover. Unscrew the two screws that secure the top of the metal electronics plate and flip the electronics forward. See section “2.1. Opening the Housing” for more information on this process.

8.3 Which TCP/IP ports can be used by a GAT Access 6600?

- Port 8000: For communication
- Port 8208: For configuration (GAT Config Manager)

8.4 Which bit rates are used by a GAT Access 6600 for Ethernet and is this configurable?

The GAT Access 6600 operates with bit rates of 10 and 100 Mbit/s. The terminal decides automatically the bit rate to use or you can configure the bit rate to a fixed 10 Mbit/s.

8.5 How do I set the date and time of a GAT Access 6600?

The date and time settings in a GAT Access 6600 can be adjusted in different ways:

a) With GAT Config Manager software (see "4.3. Configuration Settings").
b) Directly at the terminal via service mode (see 4.2. System Settings")
c) With the FUNLINE protocol command "Set_Date" and "Set_Address".
d) With GAT TimeSync, which is part of the GAT SyncManager software.

8.6 How do I change between the RS 485 and TCP/IP (Ethernet) connections?

By default, the GAT Access 6600 sends all commands via the serial RS 485 interface. As soon as a client connects via TCP/IP port 8000 to the GAT Access 6600, the terminal sends all commands via TCP/IP and this port. No further commands are sent via the serial RS 485 interface. If port 8000 is closed, communication automatically returns to the RS 485 interface.

8.7 How can I find the IP address of a GAT Access 6600 and change it?

There are different possibilities:

a) Directly at the terminal. The GANTNER logo is shown when the GAT Access 6600 powers on. After a brief pause, the "Settings" screen with information including the IP address, MAC address, DHCP ON/OFF, software version, terminal address and reader technology is shown (see "4.2. System Settings"). The IP address can be changed in the service menu (see "4.2.1. Service Menu of the GAT Access 6600").
b) With GAT Device Finder software.
c) With GAT Config Manager software.

8.8 How can I find the MAC address of a GAT Access 6600?

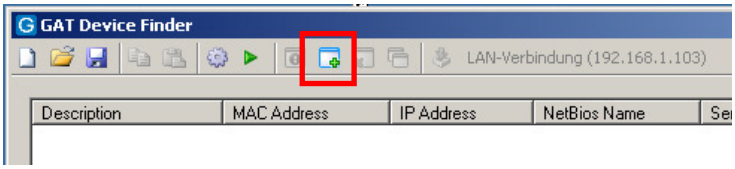
There are different possibilities:

a) Directly at the terminal. The GANTNER logo is shown when the GAT Access 6600 powers on. After a brief pause, the "Settings" screen with information including the MAC address, IP address, DHCP ON/OFF, software version, terminal address and reader technology is shown (see "4.2. System Settings").
b) The MAC address can also be seen in the service menu (see "4.2.1. Service Menu of the GAT Access 6600") by selecting "Communication" -> "TCP" -> "MAC Address".
c) Label on the processor of the GAT Access 6600.
d) With GAT Device Finder software.

8.9 How to set IP address when MAC address is not known and the terminal's IP address is 0.0.0.0?

There are different possibilities:

a) If DHCP is activated, install a DCHP server.
b) Use the serial RS 485 connection to read the configuration with the Config Tool and then set the IP address with this tool.
c) Restart GAT Device Finder and the GAT Access 6600. If DHCP is activated, it is possible to select the MAC address of the GAT Access 6600 via the "Add new Device" icon and then set the desired IP address.



8.10 Difference between "Time" and "Delay" in the "Mode" field for Locker Check-In configuration?

With "Time", the hours and minutes are written onto the data carrier exactly as they are entered in the "Hours" and "Minutes" fields.
With "Delay", the terminal adds the values entered in the "Hours" and "Minutes" fields to the current time of the terminal and writes the resulting values onto the data carrier.

Example:

Current date and time of the terminal:	November 24th 2010 12:31:00
Field "Hours":	02
Field "Minutes":	15

If mode is set to "Time", the terminal will write "24.11.2010 02:15:00" onto the data carrier.
If mode is set to "Delay", the terminal will write "24.11.2010 14:46:00" onto the data carrier.

8.11 Meaning of "Rising_Edge", "Falling_Edge" and "Rising- and Falling Edge" optocoupler settings?

Optocouplers are digital inputs used for status acquisition, e.g., when a turnstile or door connected to the GAT Access 6600 is opened or closed.

- Rising Edge: The terminal sends the "Action_Started" command in case the optocoupler is active (i.e., current being applied).
- Falling Edge: The terminal sends the "Action_Started" command in case the optocoupler is NOT active (i.e., current not applied).
- Rising and Falling Edge: The terminal sends the "Action_Started" command when the optocoupler is activated and again when it is deactivated.

8.12 How can the reader of a GAT Access 6600 B be authorised for LEGIC®?

To authorise the reader of the GAT Access 6600 B for LEGIC® means that the terminal is able to read and write segments of LEGIC® data carriers (e.g., locker segments). The terminal can be registered in different ways:

a) During normal operation (while the terminal is in online mode), hold the authorisation card (SM100 or SAM-63 resp.) next to the scan field for approx. 30 seconds.
b) In the service menu (see "4.2. System Settings"), select "Reader" -> "Read UID" and then hold the authorisation card (SM100 or SAM-63 resp.) next to the scan field for approx. 30 seconds until the UID number is shown on the display.
c) With the "Enable_Authorisation" command of the FUNLINE protocol (see protocol manual) and an authorisation card (SM100 or SAM-63 resp.).

Note: The site key in the configuration must be the same as the authorisation card's site key. In case of problems, also check the sub-site key and the groups.

8.13 How can I read or delete the authorisation data of a GAT Access 6600?

The authorisation data of a LEGIC® GAT Access 6600 B reader can be read or deleted in different ways:

b) In the service menu (see "4.2. System Settings"), select "Reader" and in the next menu either "Read Authoris." or "Delete Authoris." to show or delete the authorisation data on the display. Note that if the authorisation data is deleted, no further writing of LEGIC® data carriers is possible (e.g., for Locker Check-In).
c) With the "Read_Authorisation_Data" or "Clear_Authorisation_Data" command of the FUNLINE protocol (see protocol manual).

8.14 How can I configure the text displayed on the GAT Access 6600?

The texts displayed on the GAT Access 6600 are set by default; however, they can be modified using GAT Config Manager software (see "4.3.4. Display Texts").

8.15 The relay of the GAT Access 6600 is activated even if the host has denied access

The relay is configured as "External_Locking" and is activated as soon as the access terminal has read the unique number UID of a data carrier.

Solution:
Set the relay to the "No_Function" or "Turnstile" function.

8.16 Which FUNLINE protocol commands are supported by the GAT Access 6600?

Offline Commands:

- Set_Address
- Set_Date
- Ident_Read_Date
- Test_Connection
- Read_Event
- Repeat_Event
- Delete_Events
- Pass_Master
- TriggerMasterMode
- Reset
- Set_Addr_Extended
- Set_Protocol_Type
- Enable_Baptism
- Read_Baptism
- Clear_Baptism

Online Commands:

- Pass_Master
- Card_Ident
- Action_Started

8.17 Why does the GAT Access 6600 deny access with my data carrier in emergency mode?

In emergency mode, the terminal reads a specific data carrier segment (LEGIC®: configurable, MIFARE®: locker segment, ISO 15693: general segment). If the data carrier's site-key and the terminal's site-key are the same, access is granted. Otherwise, the data carrier is rejected and access denied.

8.18 What is the maximum start-up current consumption of a GAT Access 6600?

V_{In}	I_{max}
12 V	7 A
16 V	10 A
20 V	12 A
24 V	15 A

See section “9. Technical Information”.

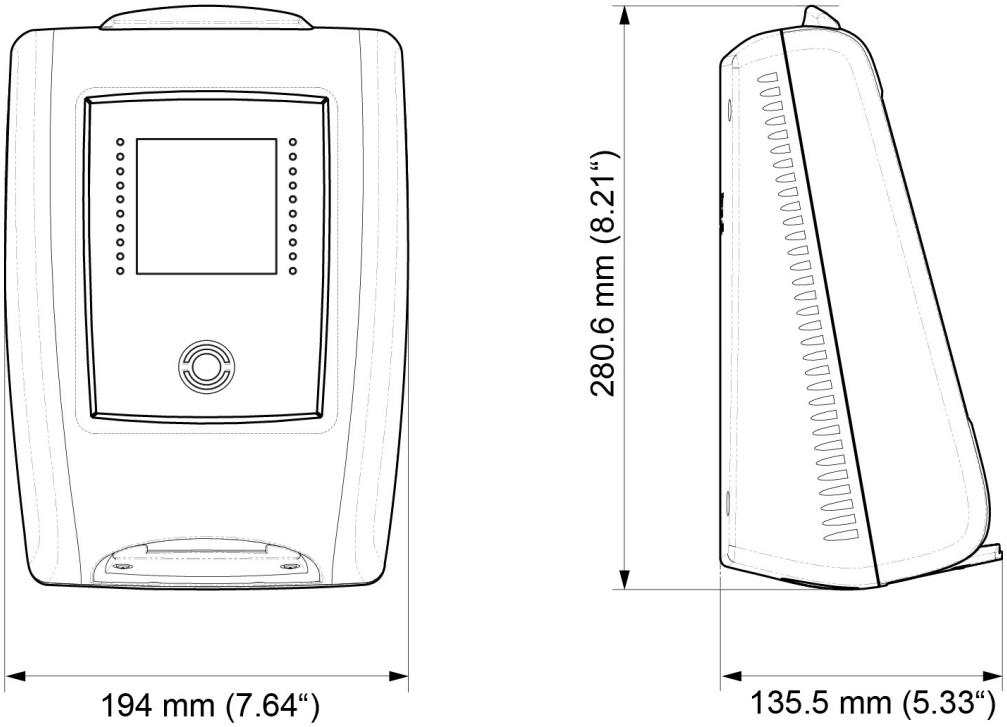
9. TECHNICAL INFORMATION

9.1 Technical Data

Nominal voltage:	12/24 VDC (SELV - safety extra-low voltage) LPS
Permitted input voltage:	10 to 26 VDC
Input current:	1.2 A
Data storage:	Internal flash memory for configuration and booking data storage, data preservation for min. 10 years
Internal clock:	Crystal-controlled real-time clock, data preservation approx. 12 h (gold-cap)
Reader types	
- GAT Access 6600 B:	LEGIC® Prime
- GAT Access 6600 ISO:	ISO 15693
- GAT Access 6600 F:	MIFARE®
Reader frequency:	13.56 MHz
Control elements:	- RFID reader at external antenna - Barcode reader
Display elements:	- Full graphics monochrome display with white LED background lighting, resolution 128 x 128 pixels, visible area 65 x 65 mm - Barcode reader slot - RFID reader (illuminated) - Integrated, multi-coloured LED for tariff and status signalling - Acoustic signal
Barcode reader:	- CMOS reader - Reads 1D / 2D barcodes - Reads barcodes on smartphone displays
Host interface:	Ethernet 10/100 Mbit/s and RS 485
Software integration:	via GAT DIRECT.Connect
Signal inputs:	4 x optocouplers (configurable) - Input voltage: 0 to 30 VDC, U_{Low} < 2 VDC, U_{High} > 6 VDC - Input current: 4.5 mA
Signal outputs:	4 x Relays (configurable NO/NC) - Switching voltage DC: max. 30 V SELV - Switching voltage AC: max. 15 V SELV - Continuous current: max. 1.8 A - Switching power: max. 54 W, 27 VA
Connection terminals:	0.5 to 1.5 mm^2

Housing material:	Plastic with safety glass front
Dimensions:	See diagram below
Permitted ambient temperature:	-25 to +50 °C (-13 to 122 °F)
Storage temperature:	-25 to +70 °C (-13 to 158 °F)
Relative humidity:	20 to 80%, non-condensing
Protection type:	IP X3
Protection class:	III
Weight:	Approx. 2 kg (4.4 lbs)
Environment class based on VDS 2110:	II (conditions in indoor areas)

9.2 GAT Access 6600 Dimensions



Note:
This manual is valid from June 8th, 2015. It is subject to change.
Amendments and changes can be made without prior notice at any time.

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