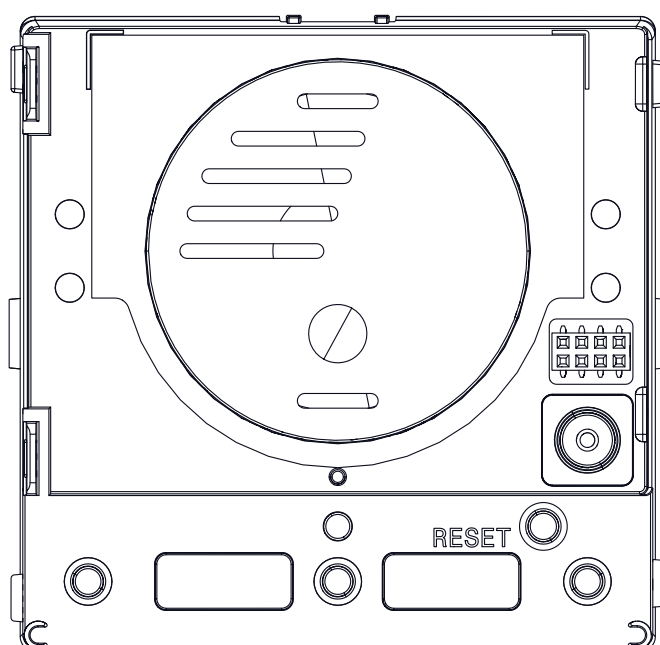


4G/LTE audio module for modular entry panel

FA02097-EN

MTMA/CONNECT

INSTALLATION AND CONFIGURATION MANUAL

CAME S.P.A.

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EN**English**

GENERAL PRECAUTIONS

Read the instructions carefully before beginning the installation and carry out the procedures as specified by the manufacturer. • Installation, programming, commissioning and maintenance must only be carried out by qualified, expert technicians and in full compliance with the applicable law. • Before carrying out any cleaning or maintenance, disconnect the device from the power supply. • Only use this product for its intended purpose. Any other use is hazardous. • Came S.p.A. is not liable for any damage caused by improper, erroneous or unreasonable use. • The product, in its original packaging supplied by the manufacturer, must only be transported in a closed environment (railway carriage, containers, closed vehicles). • If the product malfunctions, stop using it and contact customer services at <https://www.came.com/global/en/contact-us> or via the telephone number on the website.

 The manufacture date is provided in the production batch printed on the product label. If necessary, contact us at <https://www.came.com/global/en/contact-us>.

 The general conditions of sale are given in the official CAME price lists.

General precautions for using the device remotely

Some features of the system may be managed using smartphones or tablets via the corresponding apps. For remote use, the device must be connected to a network with internet access. This type of system requires a high-quality signal to the device to function properly. • This device requires a SIM card (not included), which must be enabled for LTE/4G voice and data traffic with VoLTE support. Check costs and availability with your local mobile telephone provider. • Data consumption depends on the number and type of devices associated with the module, and how they are used with the CAMEConnect system.

Regulations

This product complies with the applicable standards in force at the time of manufacturing.

RED

CAME S.p.A. declares that the product described in this manual complies with Directive 2014/53/EU and the Radio Equipment Regulations 2017.

The full EC declaration of conformity and UK Conformity Assessed (UKCA) marking information can be found at www.came.com.

Dismantling and disposal

Dispose of the packaging and the device responsibly at the end of its life cycle, in compliance with the laws in force in the country where the product is used. The recyclable components are marked with the material symbol and ID.

THE DATA AND INFORMATION IN THIS MANUAL MAY BE CHANGED AT ANY TIME AND WITHOUT NOTICE.

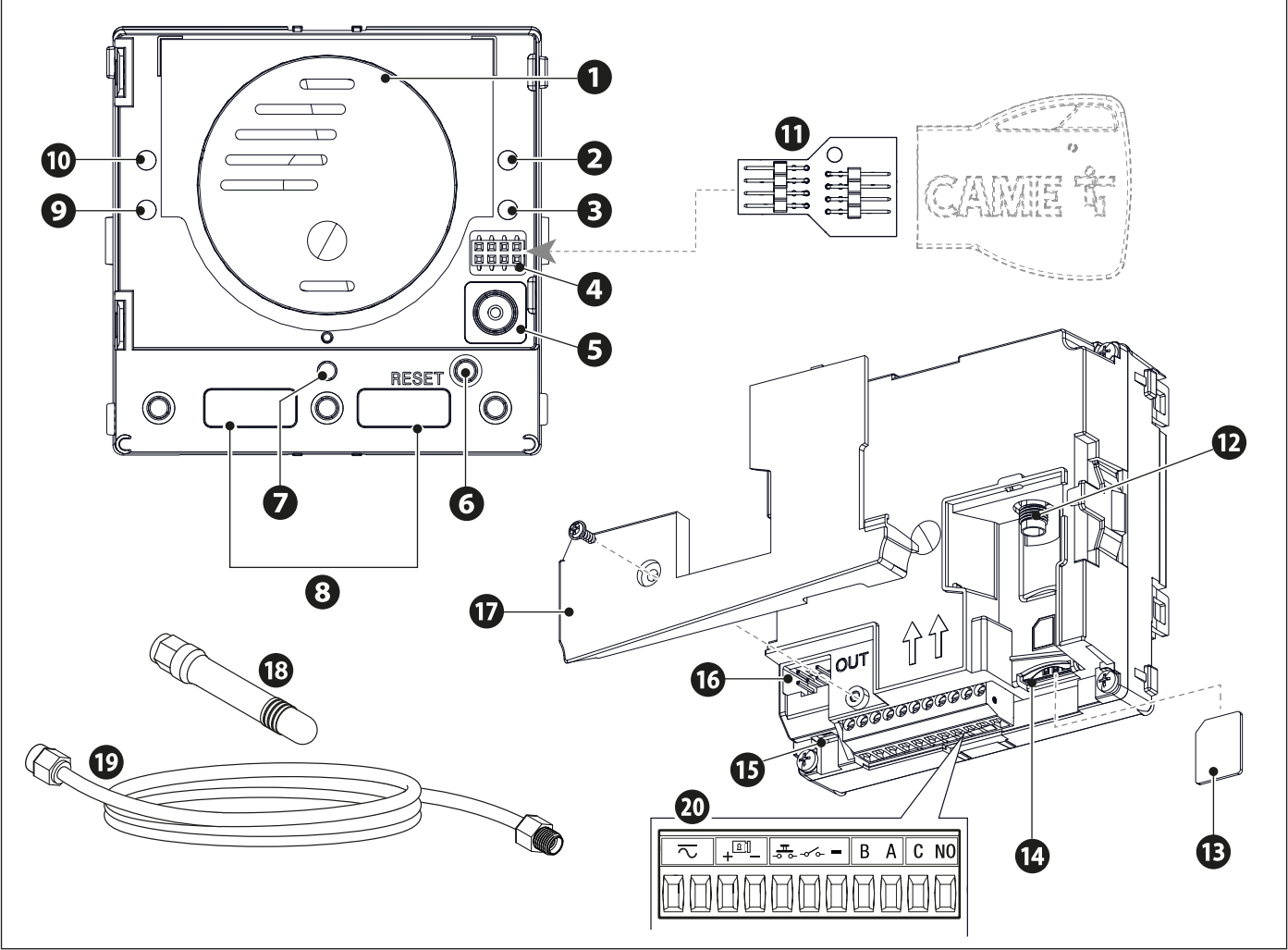
MEASUREMENTS ARE IN MILLIMETRES, UNLESS STATED OTHERWISE.

DESCRIPTION

MTMA/CONNECT (840AD-0010)

The MTM CONNECT 4G module can make audio calls in speaker mode to telephone numbers on fixed and mobile networks by pressing call buttons or entering codes on MTMKB keypads. You can open the door or activate the auxiliary relay using the numeric keypad during a call or via the dial-to-open function. It supports remote configuration and management via the CONNECT SetUp app and can be used with CAME Key. The MTM CONNECT can manage up to two CAME operators and offers gateway functionality. It also supports the sending of commands to access-control systems and operators via the Automation app.

Description of parts



- 1 Speaker
- 2 LED warning light: conversation in progress (yellow)
- 3 LED warning light: door open (green)
- 4 Connector for CAME KEY
- 5 Microphone
- 6 Reset button (restart the device)
- 7 Network diagnostics LED
- 8 Call buttons
- 9 LED warning light: user busy (blue)
- 10 LED warning light: call in progress (red)
- 11 CAME KEY adapter (88040-0055)
- 12 Antenna plug
- 13 Micro SIM card
- 14 Slot for Micro-SIM-CARD (Push-Push)
- 15 Hearing-impaired module housing
- 16 Additional module housing
- 17 Terminal cover
- 18 Antenna
- 19 Extension cable for antenna remote control

20 Terminal board for electrical connections		
	Power supply	
	Electric lock	Electric lock connection 12V max. 1A
	Door release button (NO)	
	Programmable input	See the section [Programming – Module management] for information on configuration from the app. By default, the input duplicates the function of call button 1.
	Earth	
	BUS CRP connection	Up to 2 devices can be connected.
	AUX 1A 30V ES1 (SELV) contact	Relay operating modes: - Pulse (See the section [Programming – Module management] to configure the relay activation time from the app) - Continuous activation* - Continuous deactivation

* Activation may be interrupted during programming or restarting, or where the power supply is unstable/absent.

Technical data

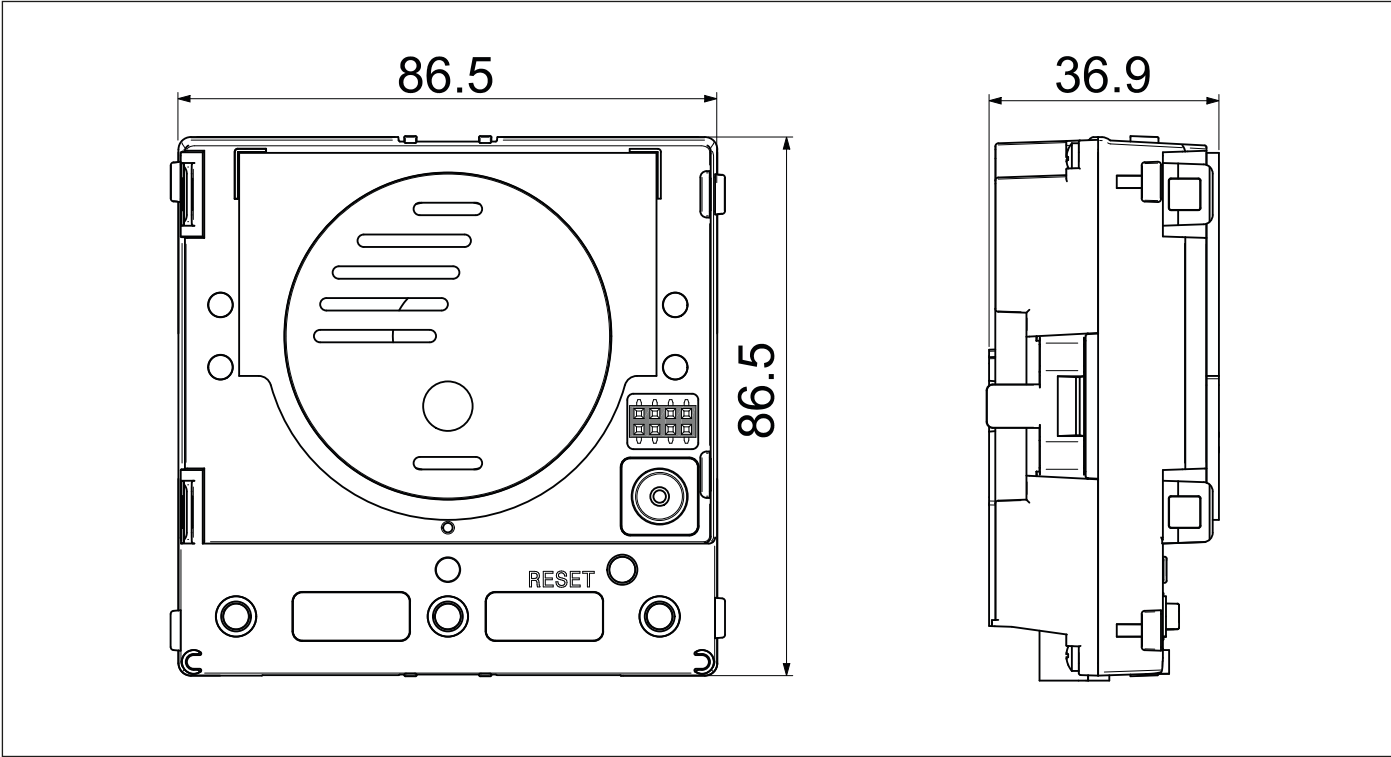
⚠ For the device to operate correctly, use a SIM card with LTE/4G technology and with the VoLTE service active. The device can operate with 2G technology, where required and supported by the network. With the VoLTE service deactivated or a 2G network, voice and data cannot be transmitted at the same time.

MODELS	MTMA/CONNECT
IP protection rating	54
Operating temperature (°C)	-25 ÷ +55
Storage temperature (°C)	-25 ÷ +70
Current draw (mA)	180
Current draw in standby mode (mA)	65
Power supply (V DC)	14 - 24 AC/DC
GSM transmission power – 900 MHz (dBm)	33 dBm
GSM DCS transmission power – 1800 MHz (dBm)	30 dBm
LTE transmission power (dBm)	23
LTE frequency bands	B1/B3/B7/B8/B20

(*) Before installing the product, keep it at room temperature where it has previously been stored or transported at a very high or very low temperature.

(**) The average product life specified should be understood purely as an indicative estimate. It applies to normal usage conditions and where the product has been installed and maintained in compliance with the instructions provided in the CAME technical manual. The average product life is also affected, including significantly, by other variables such as, but not limited to, climatic and environmental conditions (where present, see the MCBF table). The average product life should not be confused with the product warranty.

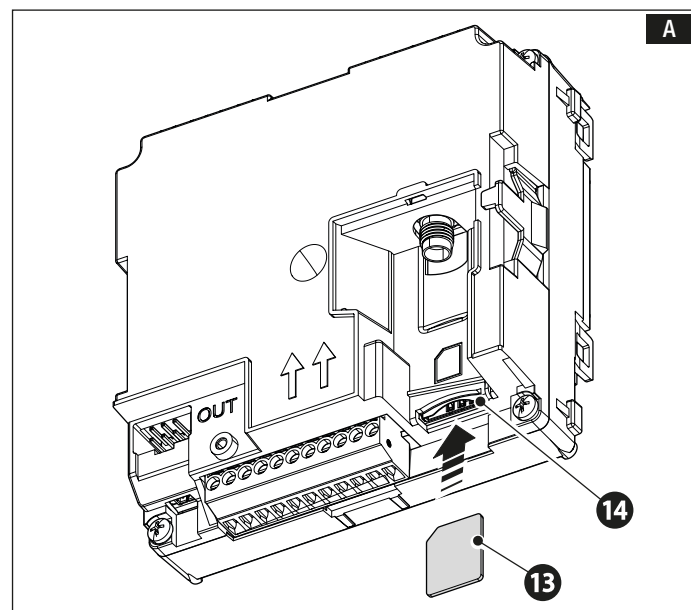
Size



INSTALLATION AND CONNECTIONS

Inserting the micro SIM card

⚠ Before performing the steps below, make sure that the module is disconnected from the mains power.

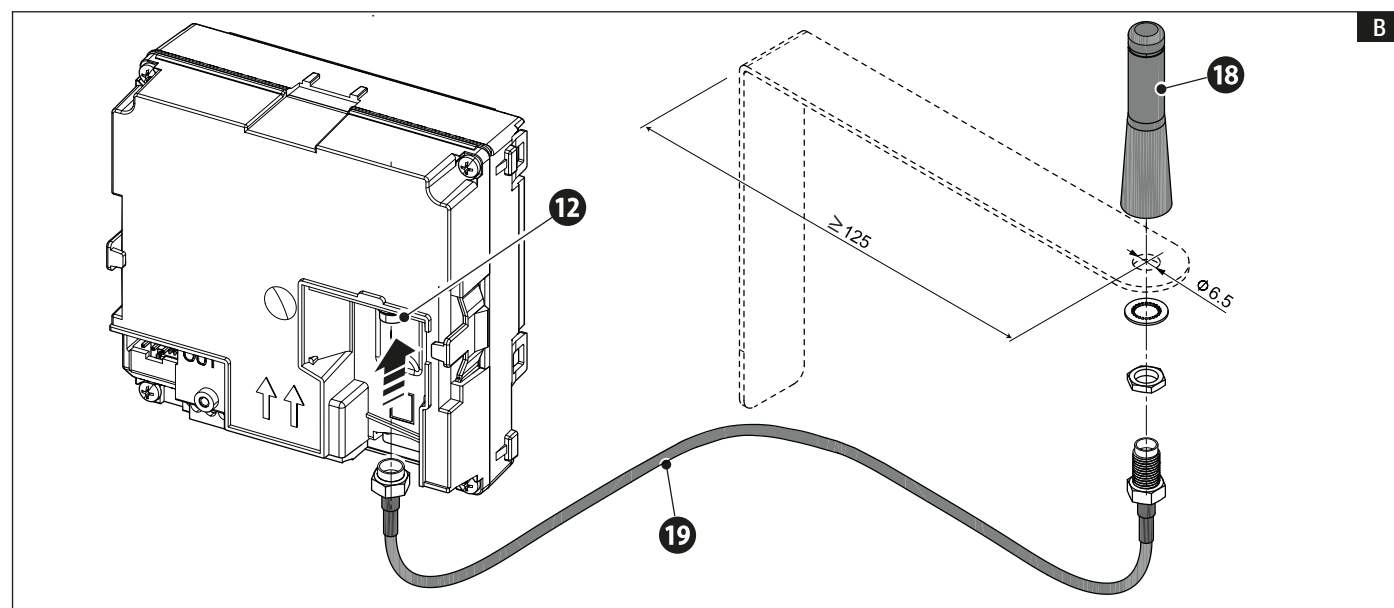


Insert the micro SIM card in the relevant slot. 14

Attaching the antenna

Connect the antenna to the relevant connector on the module. Use the extension cable for remote control of the antenna.

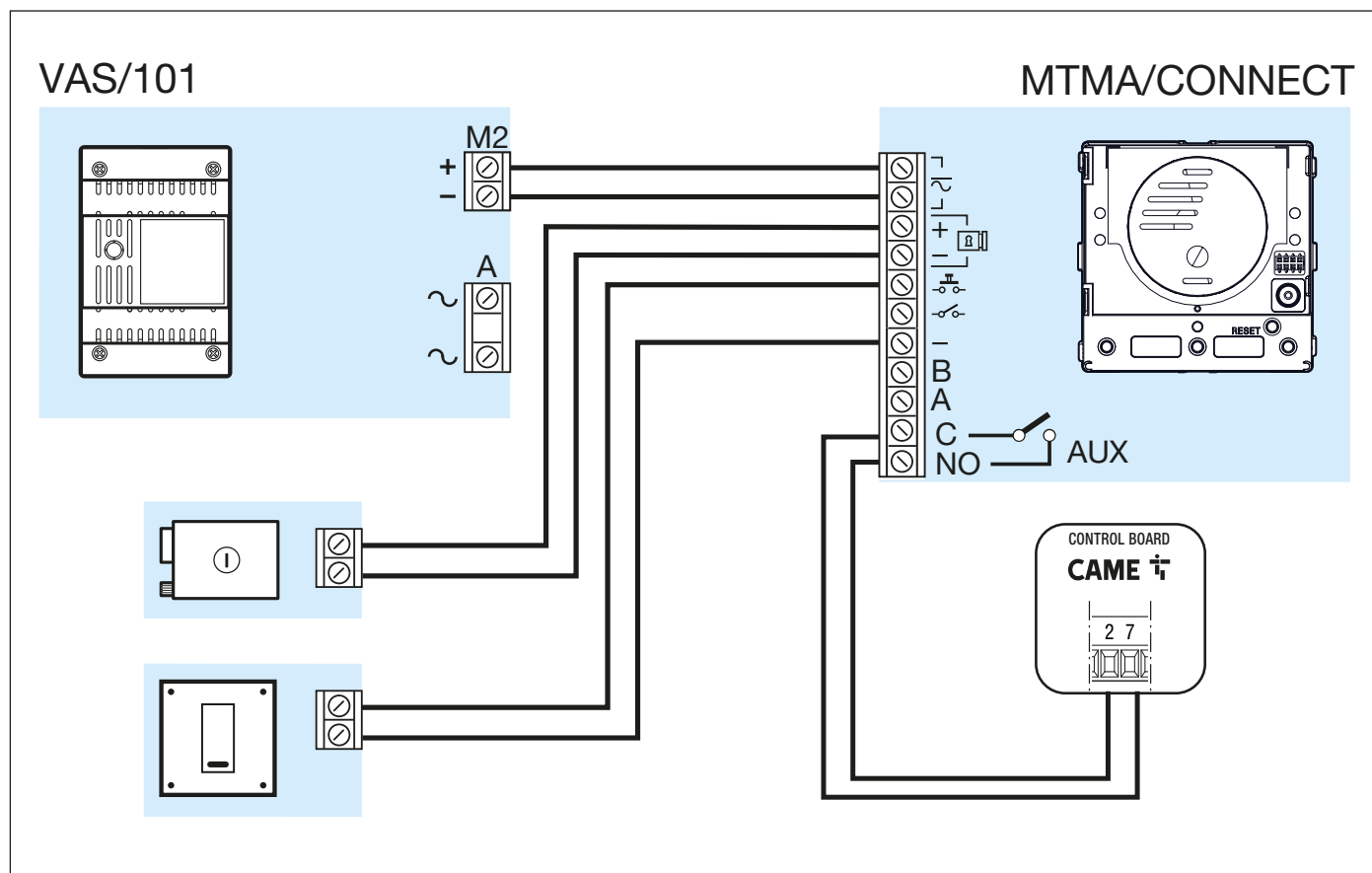
📖 To improve the antenna reception, use a metal support as shown.



Once the antenna has been fitted, power on the device.

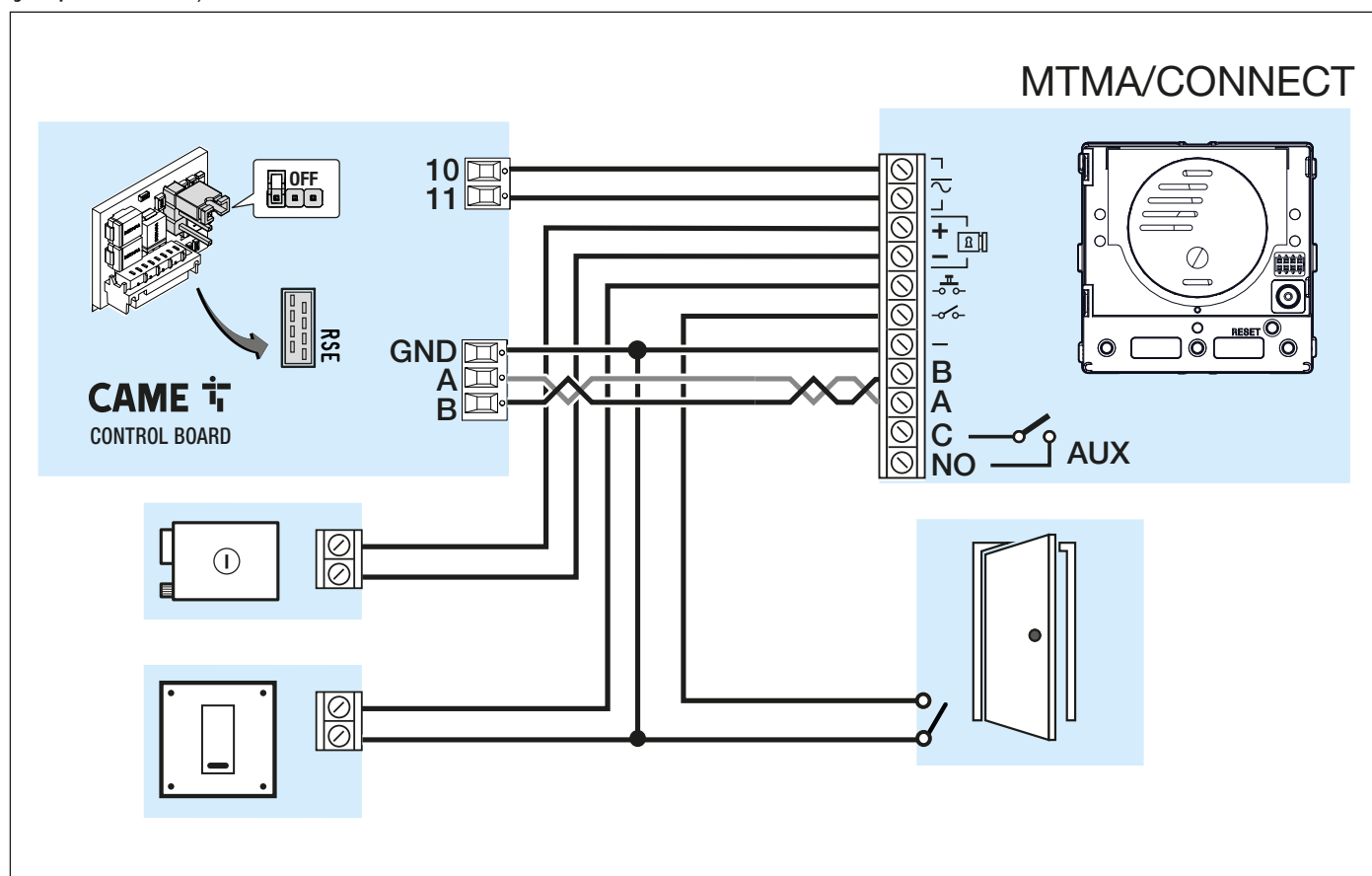
EXAMPLE SET-UPS

Connection with a specific power supply unit and generic operator



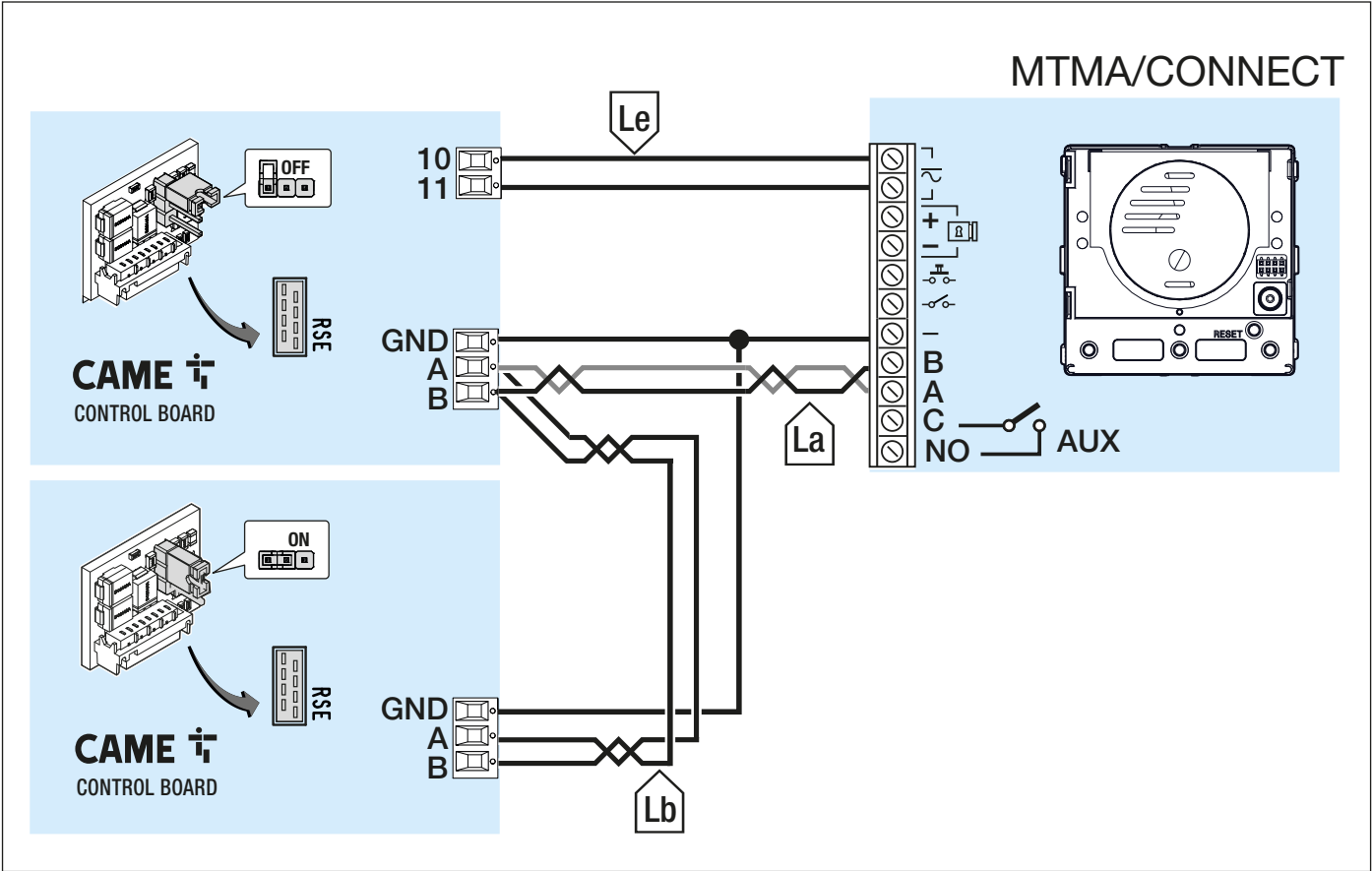
Power supply and connection to a single CAME operator with CRP protocol

⚠ If communication with the operator is unstable, it may be necessary to connect the line resistor to the RSE device (jumper set to on).



Connection with power supply from CAME operator and with two CRP nodes

⚠ The example shows the maximum system limit.



Cable length

Section	VCM/1D	UTP CAT5	2x2.5mm ²
La+Lb	-	≤ 1000 m	-
Le	≤ 25 m	-	≤ 60 m

PROGRAMMING

📖 Use the CONNECT SetUp app to configure the device.

The app is available for Android and iOS and can be downloaded from the Google Play Store and Apple Store respectively.



CONFIGURING THE SYSTEM

Enter your credentials to log in as an installer and start configuring the system.

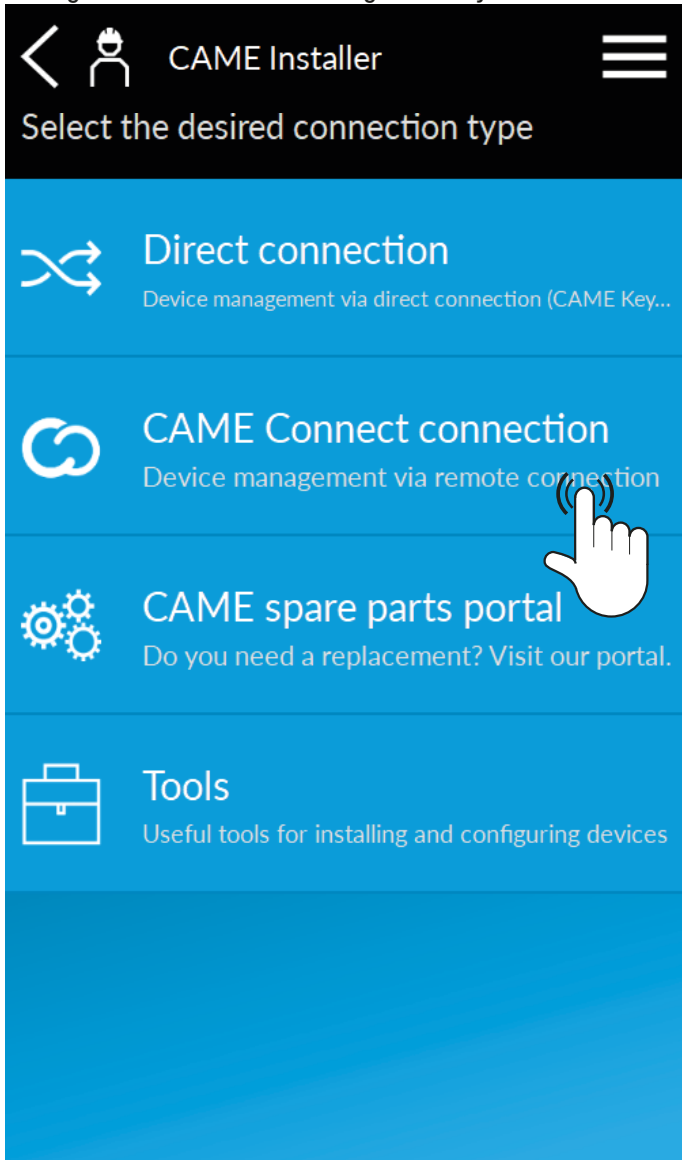
📖 If you don't have an account, you can create one by going to <https://www.cameconnect.net/signup/technician>

Types of access to CONNECT SetUp

- Installer - Access to all system configuration and programming functions.
- Owner - Access to all programming functions. System structure cannot be changed (e.g. adding or removing modules).
- User - If the installer/admin has shared the system, the user can view the installation configuration (operators and additional devices) and control any operators.

Creating a new system

📖 Log in as an installer to configure the system for the first time.



For the first system configuration, select the connection type via CAME Connect (remote connection).

Create a new installation under [Installation management]. Assign a name and a description to the new installation.

Click on the new system and then [Add gateway] to start associating the device.

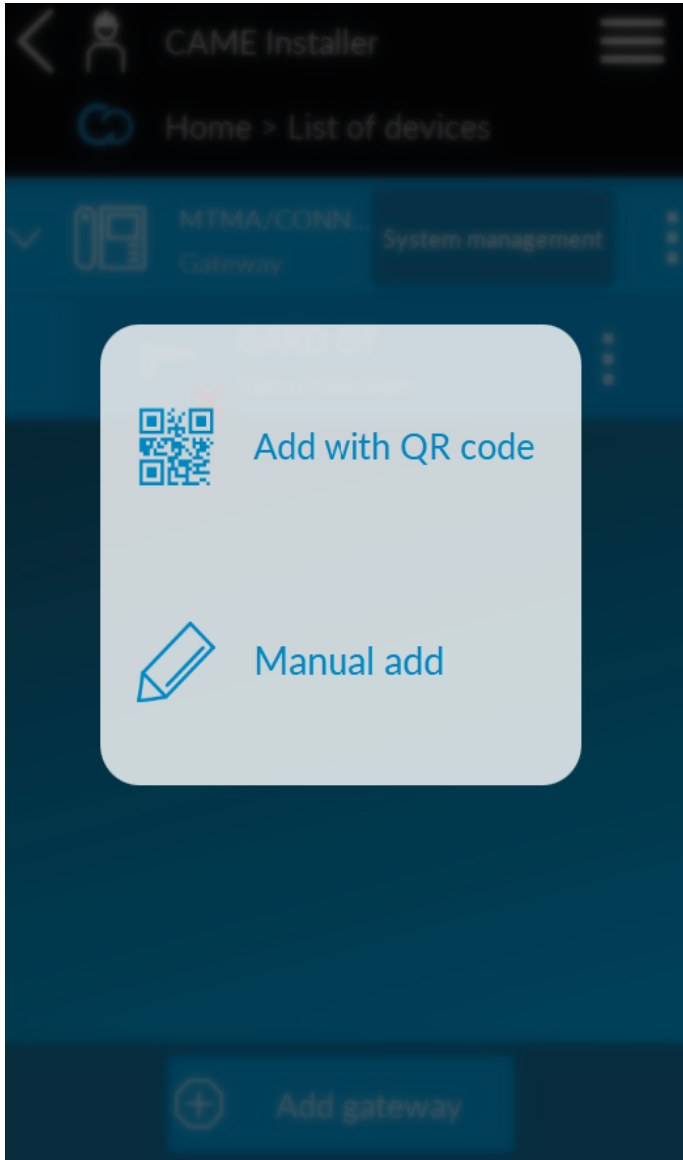
Associating a device

Adding a Keycode

Complete with the required information.

To associate a device, first choose between automatic Keycode recognition and manual add.

- » If you select “add with QR code”, you will be asked to scan the QR code on the MTMA/CONNECT label under [KEYCODE].
- » If you select “manual add”, you will need to enter the keycode on the MTMA/CONNECT label under [KEYCODE] manually.

A screenshot of the 'Add device' form in the CAME Installer app. The form is titled 'Add device' and is set against a dark background. It has several input fields: 'Keycode (*)' with the value '79A967CD710002A0', 'Name (*)' with the value 'MTMAC', and 'Description (*)' with the value 'Connected intercom system'. At the bottom right, there is a blue button with a floppy disk icon and the text 'Add'.

Select the type of network configuration:

- » Wi-Fi configuration - Select Wi-Fi configuration to associate the device via CAME KEY.
- » Unlocking the SIM and configuring the mobile network - Select SMS configuration to associate the device via mobile data (only available for firmware version V1.05.000 onwards).

Wi-Fi configuration

△ Use CAME KEY (806SA-0110) to configure.

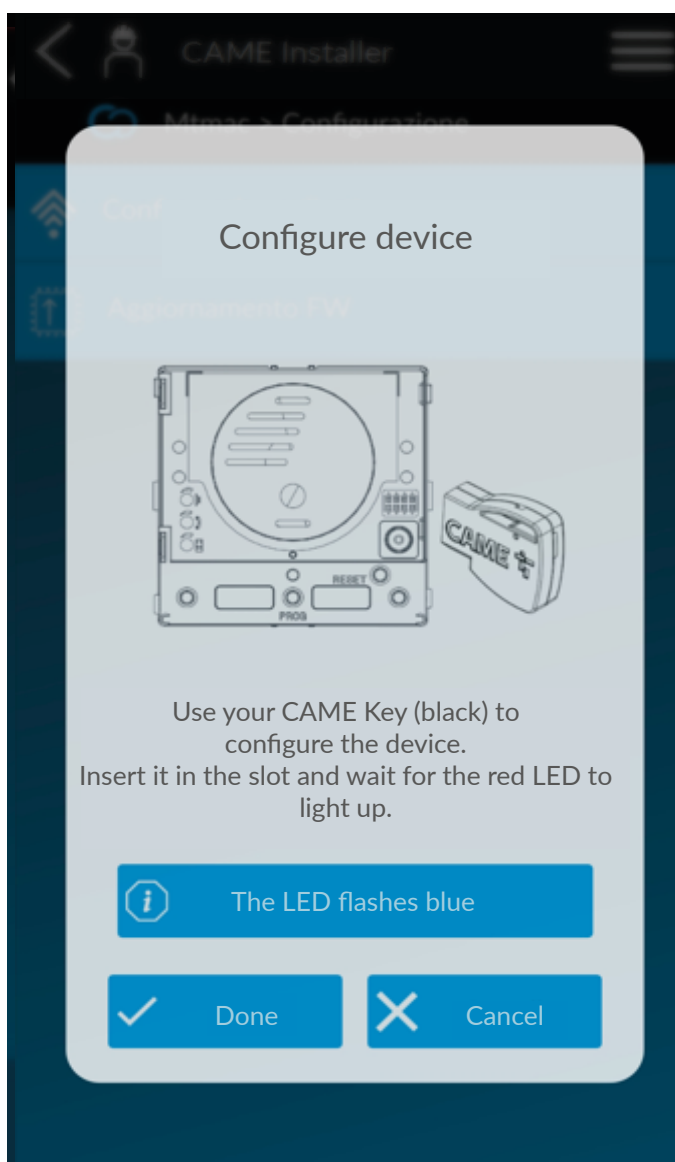
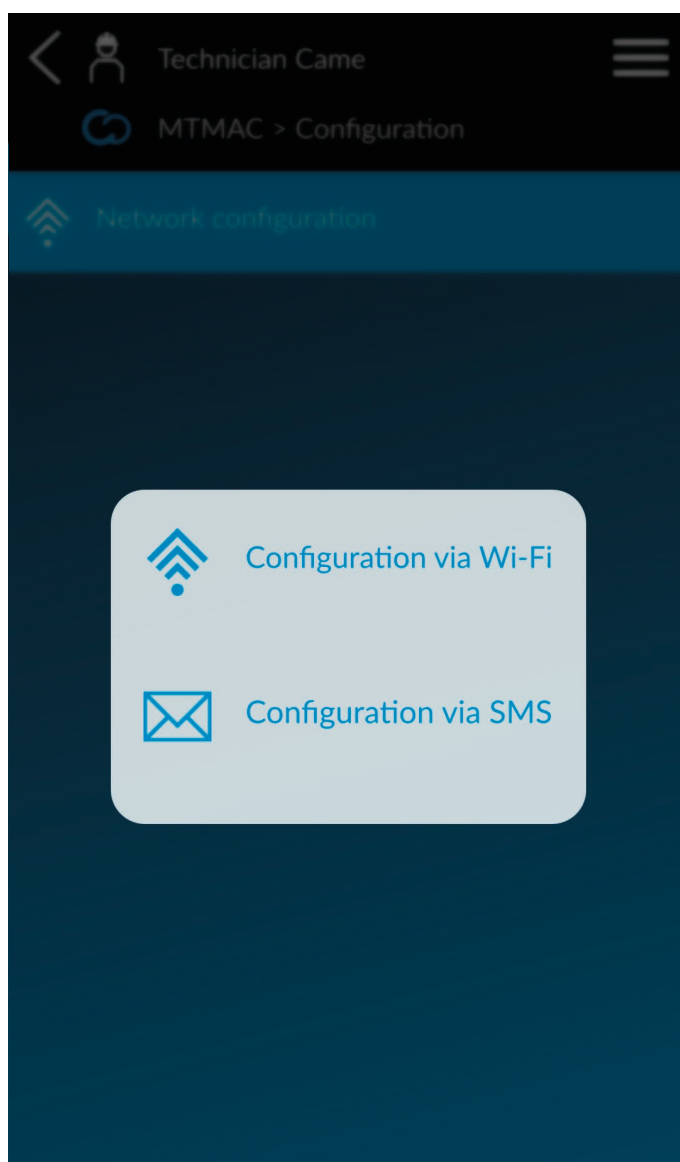
△ To complete the device configuration procedure, insert the CAME KEY into the MTMA/CONNECT connector using the relevant adapter.

The red LED on the CAME KEY will light up.

📖 If the blue LED on the CAME KEY flashes, a device is connected to the network. Wait for it to disconnect before continuing with configuration.

Connect to the CAME KEY Wi-Fi network.

📖 For more information about the Wi-Fi network and password associated with the CAME KEY, please see the manual for this accessory device.





Unlocking the SIM and configuring the mobile network

Enter the PIN code if requested.

If you enter an incorrect PIN 3 times in a row, you will need to insert the SIM card in another mobile phone and unlock it using the PUK code.

Enter the SIM card APN. The APN depends on the SIM card operator.

After the above operations, the LEDs will flash and the entry panel will restart.

Wait until it has fully restarted.

A progress bar displays when the device is restarting and trying to connect to the cloud. If the wait time exceeds 2 minutes, check the network and device connection status. [See the Network diagnostics LED key].

Remove the CAME KEY before continuing with device programming.

If the micro SIM card is later replaced, the operator APN and PIN will need to be set again. Use the CAME KEY to perform this new network configuration.

If the APN is incorrect, the device cannot connect to the internet and voice calls cannot be guaranteed.

Network diagnostics LED key

Number of flashes	Message	Action
1	SIM card not detected	Check the housing of the SIM card.
2	SIM card locked with PIN	Use the SetUp app to enter the PIN code.
3	Incorrect PIN code	Insert the CAME KEY again and correct the parameters in the [Configuration] section. See paragraph [Installations list].
4	Enter the SIM card PUK code	Use a mobile phone to unlock the SIM card by entering the PUK code.
5	No telephone service	Check the antenna has been correctly installed.
6	Enter APN	Use the SetUp app to enter the APN.
7	Incorrect APN	Insert the CAME KEY again and correct the parameters in the [Configuration] section. See paragraph [Installations list].
8	The device has not been correctly configured	Restore the entry panel to factory settings and repeat the configuration. See paragraph [Restore default settings].
9	NTP server error or server cannot be reached	Check the NTP server address is correct and the server can be reached.
10	Connection problems	Disconnect and reconnect the device power supply and try again. Check your SIM card plan includes data.
11	Not connected to CAME Cloud	Disconnect and reconnect the device power supply and try again. Check your SIM card plan includes data.
Slow flash	FW updating / programming	

Configuring APN via SMS

 **This option is only available for devices with firmware version V1.05.000 onwards.**

 The SIM card (not included) must be enabled for sending and receiving SMSs and the PIN code must not be active.

 Check the availability and cost of the required services with your mobile telephone provider. Data consumption depends on the number and type of devices associated with the module, and how they are used with the CAMEConnect system.

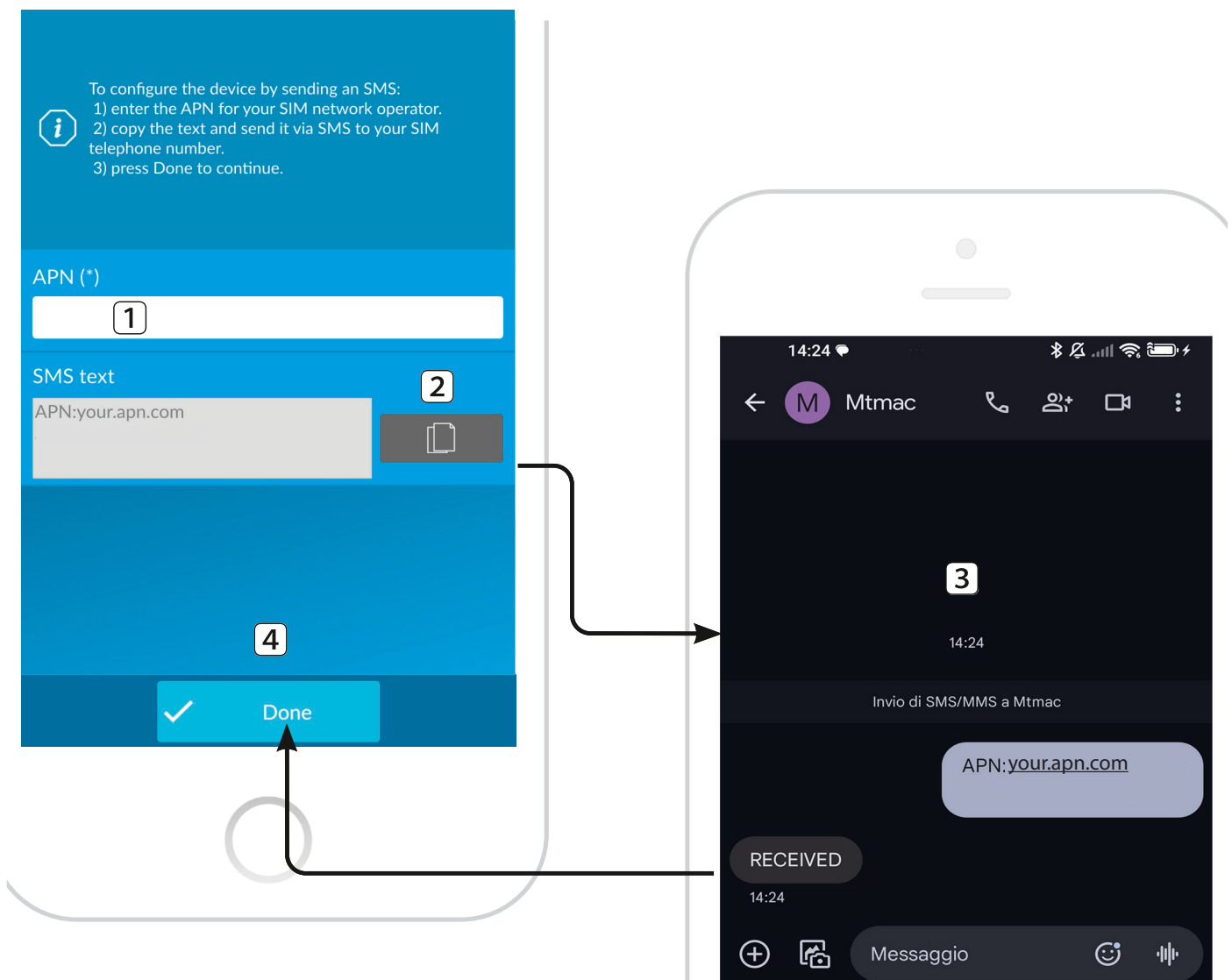
1 In the [APN] text box, enter the APN (Access Point Name) for your mobile network.

2 Copy the pre-filled message from the [SMS text] field using the relevant button.

3 Paste the message and send it via SMS to your entry panel SIM telephone number. The module will reply [RECEIVED] to confirm the message has been received. If the module replies to the message with [SMS ERROR], the procedure was not successful.

4 After you have sent the SMS and received the reply, press [DONE] on the app screen. The module reboots and connects to the server. The procedure may take a couple of minutes to complete; the device will remain disconnected for this time. You can still use the app while the procedure completes.

 If you change mobile operator for the SIM in the module, you can change the APN from the device network configuration menu (List of devices > Configuration > Network configuration) without repeating the procedure.

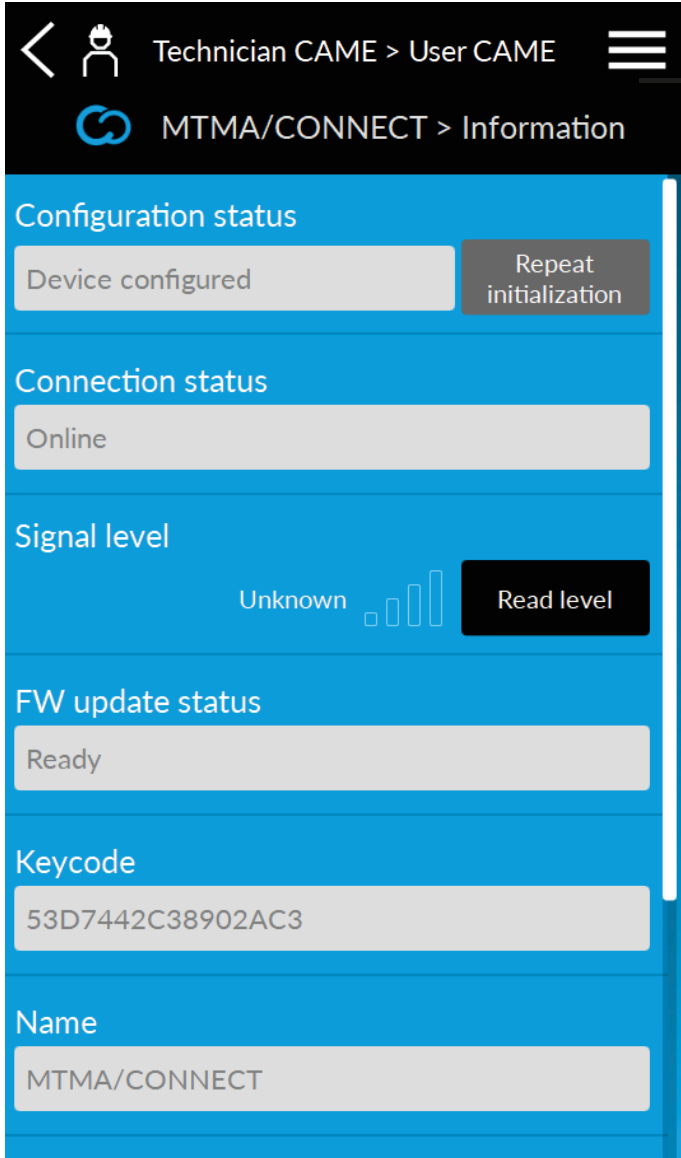
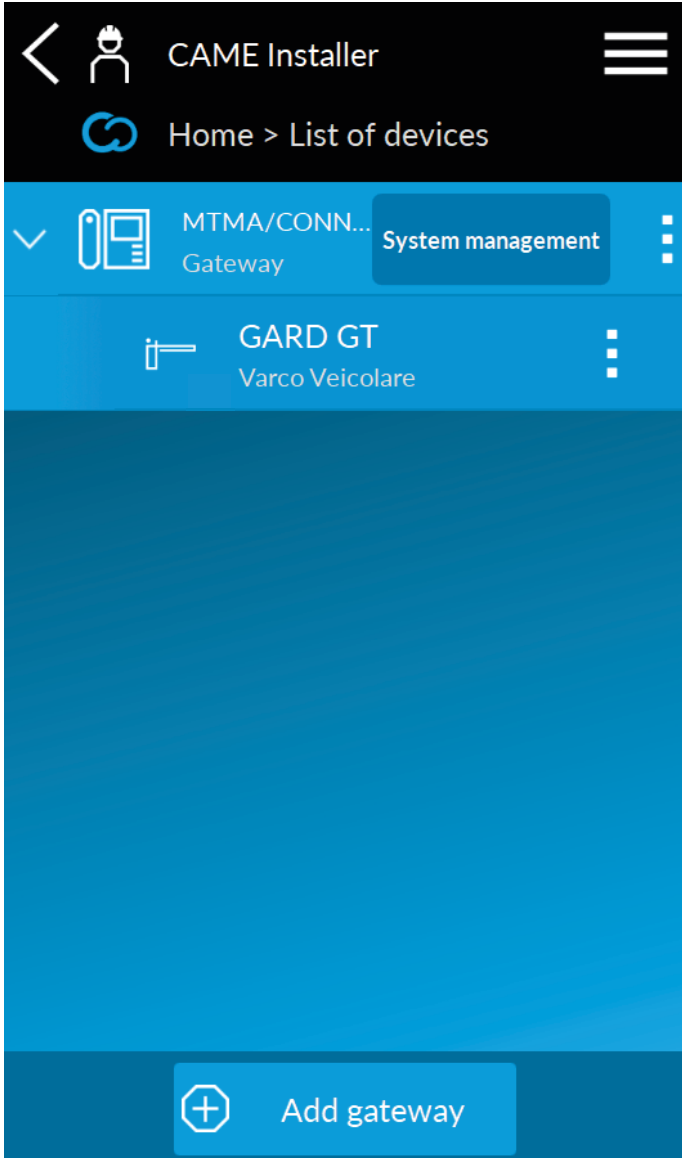


Installations list

The gateway is shown in the [Device list].

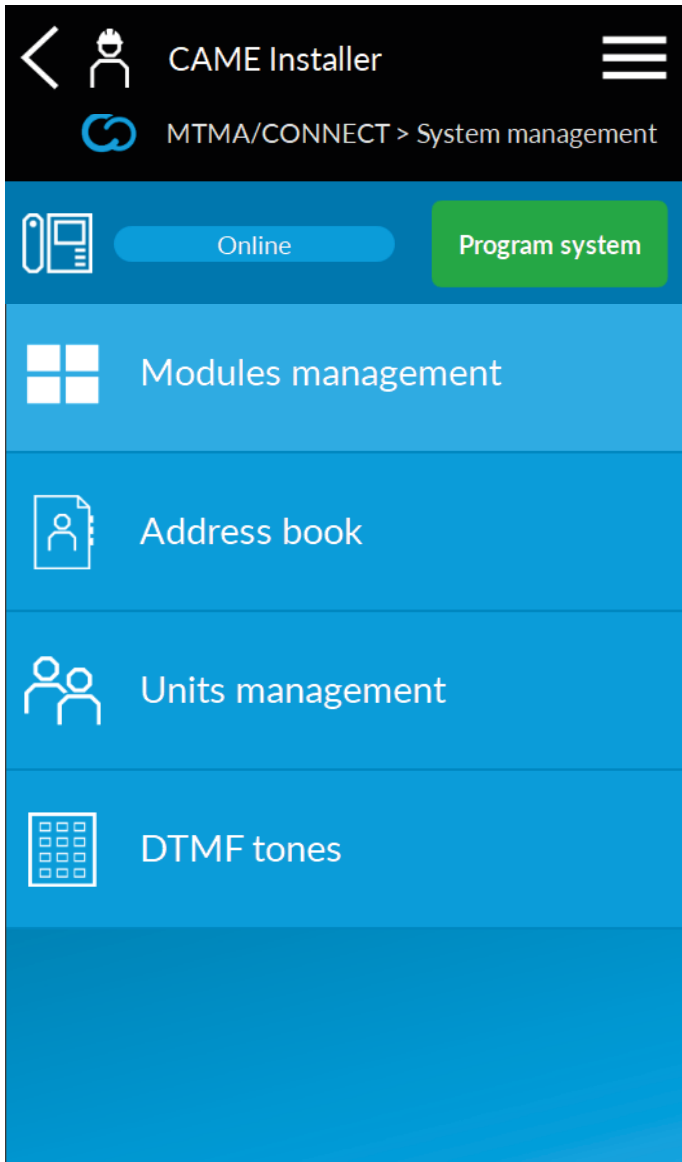
- Press the  symbol to perform the following operations.
- » [Add automation] is used to add a new operator associated with the registered device.
 - » [Information] is used to obtain information about the device and the network.
 - » [Configuration] is used to reconfigure the mobile network settings (SIM, APN).
 - » [Sharing device] is used to share the device with another user.
 - » [Edit device] is used to edit the information entered.
 - » [Delete device] is used to remove the device from the list.

View the [Signal level] under [Information] by clicking on [Read level].



Managing the system

You can now manage the system you have created.



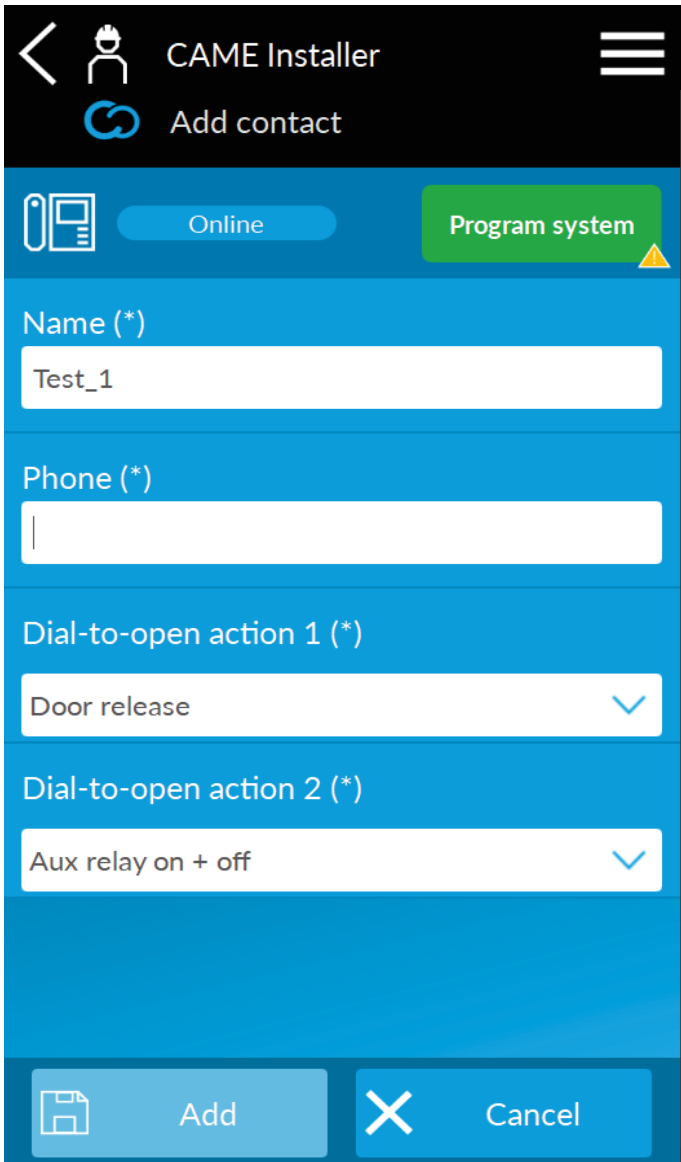
Creating users (Address book)

In the [Address book] section, add single entry-panel users and their phone numbers.

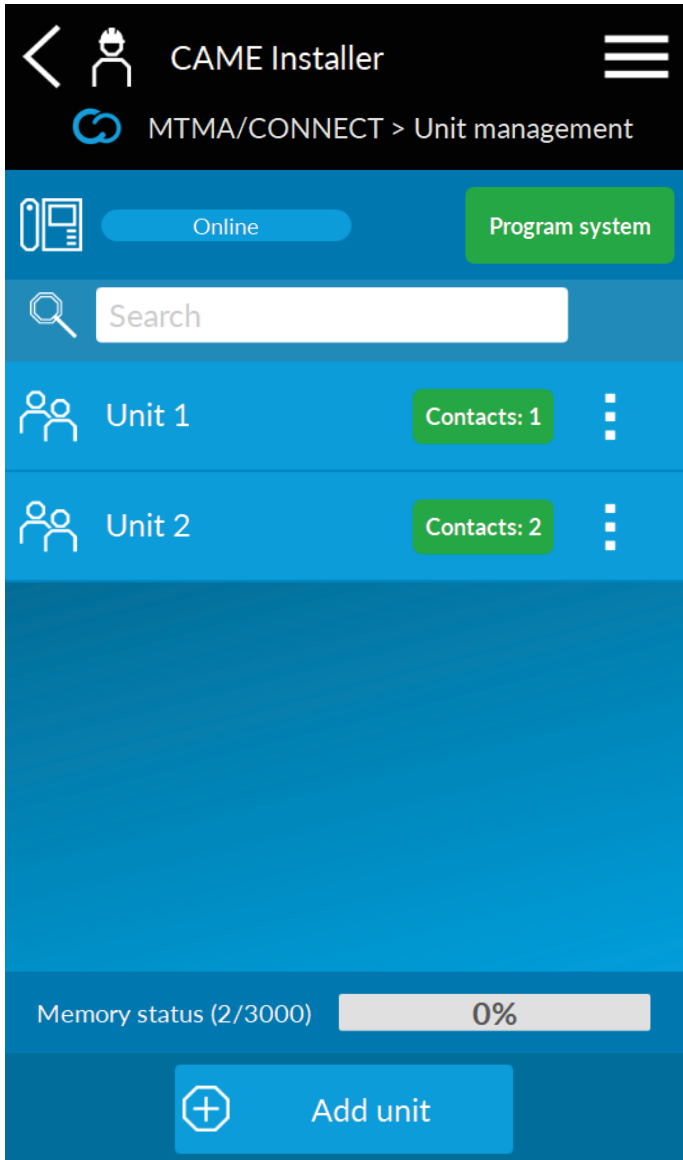
A specific [Dial-to-open action] can be assigned to each contact.

With the [Dial-to-open action], every time a user calls the entry panel phone number, the indicated actions are performed.

⚠ The [Dial-to-open action] is not available for anonymous calls.



Managing units



Under [Unit management], create the units to be associated with the entry-panel call buttons.

The units are made up of one or more contacts in the [Address book].

When a call button is pressed, the entry panel calls the first number that was added to the unit. If the call is not answered, the device calls the next number in the list, and so on through the other numbers in the order they were added.

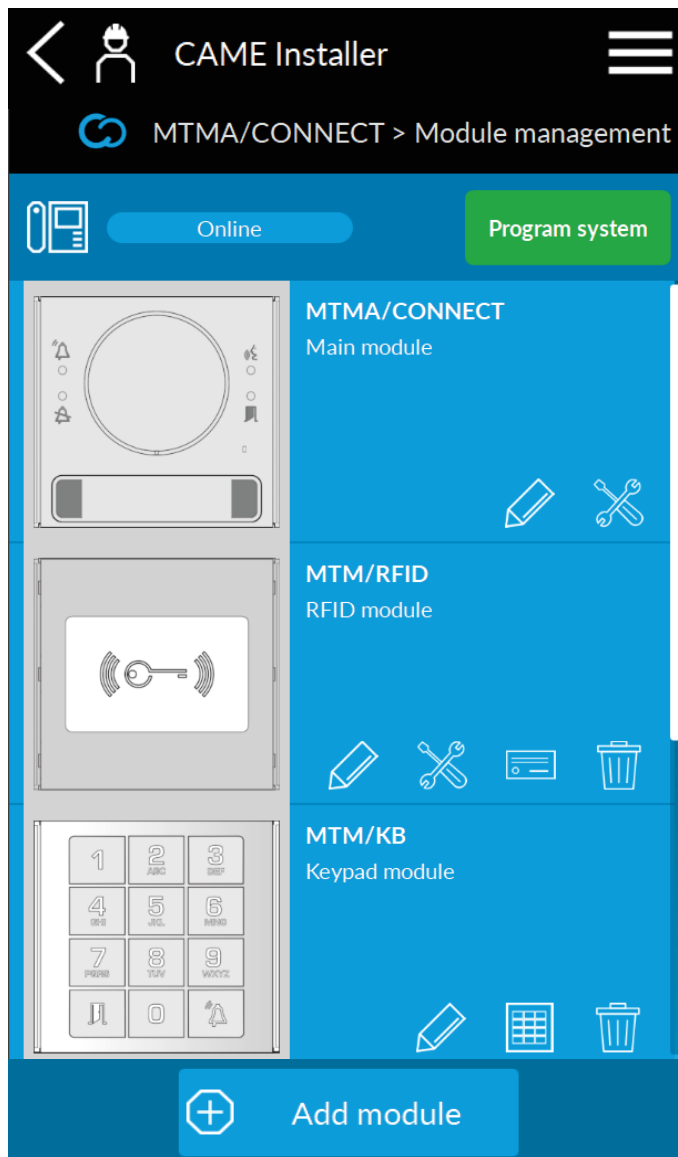
Call code from keypad*

* With MTMKB keypads only

A numerical code can be specified when adding a new unit or modifying an existing unit.

Enter the code using the MTMKB keypad to call the associated unit.

Managing modules and associating call buttons



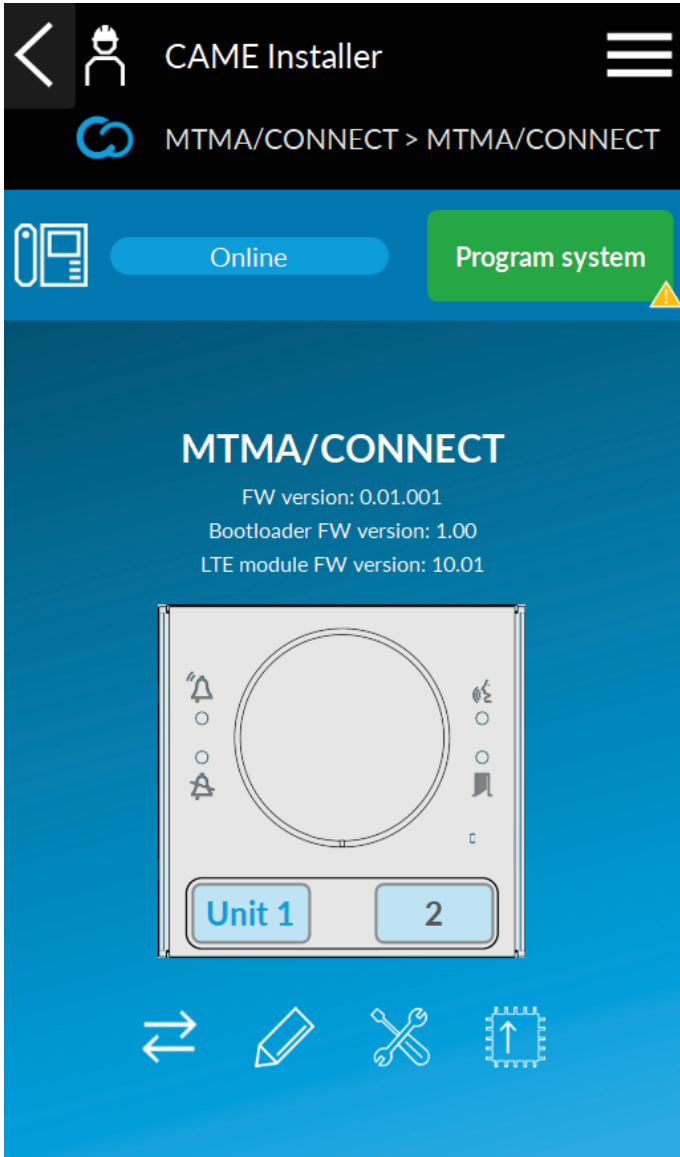
Under [Module management]:

- 1 • Add secondary modules to MTMA/CONNECT by pressing [Add module]
- 2 • Modify the information for the modules in the system by pressing
- 3 • Modify the settings for the modules in the system by pressing

Press the module image to access additional settings.

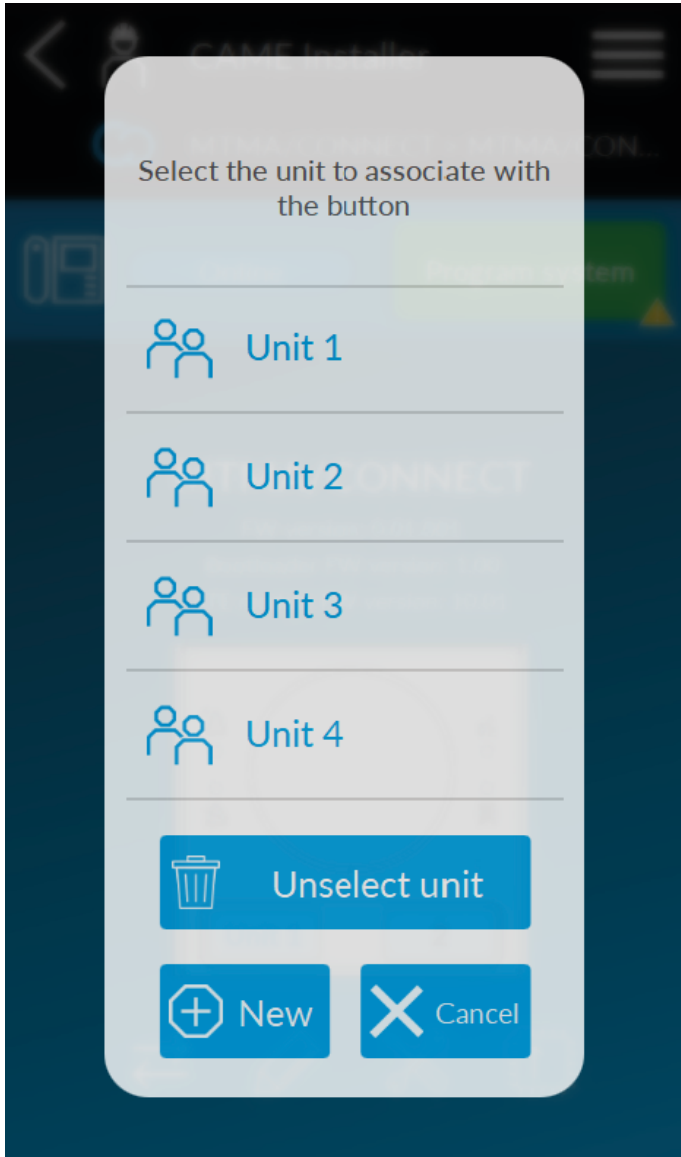
The  symbol is used to edit the image of the main module front.

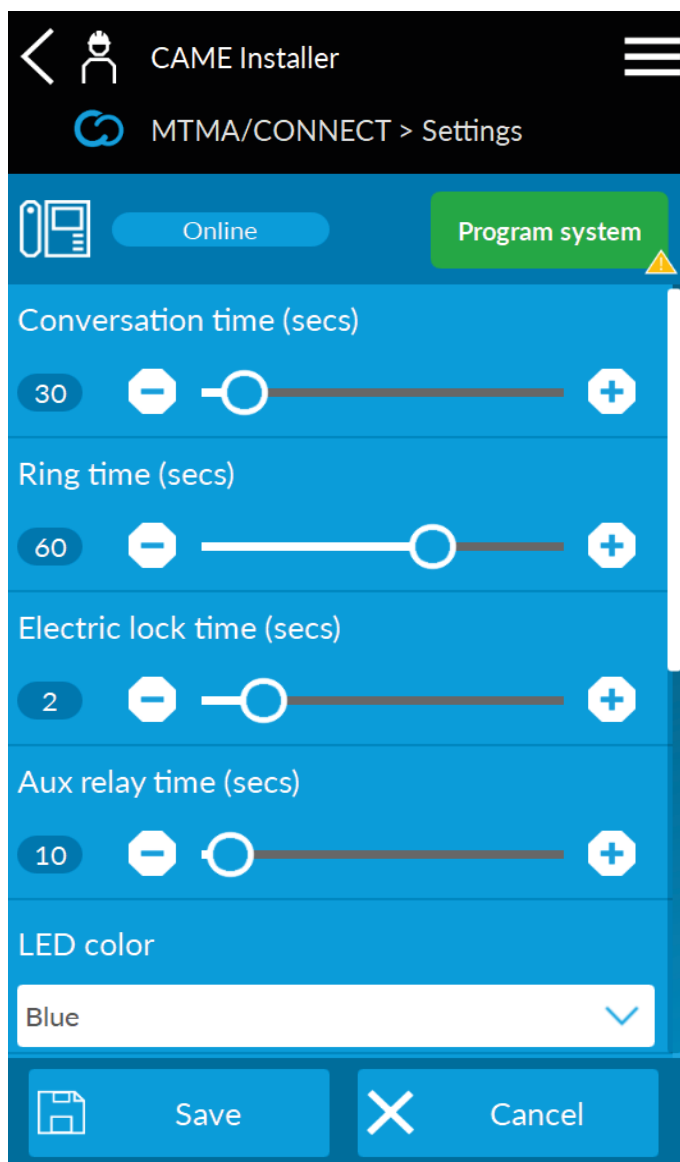
The  symbol is used for updating the module firmware. See paragraph [Firmware update].



Call buttons

Press the call buttons to assign a unit from the list to each one. If the unit is not in the list, create it by pressing [New].





Main module settings ✂

Conversation time

Under [Conversation time], set the conversation time with the entry panel. After the set number of seconds, the call will end.

📖 The time includes the receiver voicemail, where applicable.

Ring time

The [Ring time] defines the number of seconds after which the user is considered unavailable. If the unit called has multiple users, after the set ring time the second available number will be called.

Electric lock time

[Electric lock time] indicates the activation time for the electric lock connected to the relevant terminal. 

📖 The activation time may vary depending on the model of electric lock installed.

Relay activation time (pulse)

Set the relay activation time in pulse mode under [Aux relay time].

Adjusting the call button LEDs

Use [LED colour] and [LED brightness] to choose the colour and brightness of the button backlighting for all the modules in the system.

Adjusting the audio and volume

Use [Audio volume] and [Microphone volume] to set the volume for the entry panel.

📖 During a call, the volume can be adjusted using DTMF tones.

Enabling tones

Enable or disable the entry-panel tones from the dropdown menu.

📖 Depending on the chosen SIM card operator, some tones may not be available.

Input function

Under [Input function], associate one of the following functions:

- [Call button 1] (Default). The connected button will have the same function as call button 1. This is useful for increasing the accessibility of the entry panel.
- [AUX relay activation button]. The button activates the auxiliary relay.
- [Dusk sensor open/closed]. The input is connected to a dusk sensor.
- [Generic input]. This detects and signals the input status.

Call forwarding to voicemail function

This function allows the MTMA/CONNECT to distinguish between the user answering and the voicemail activating.

When the voicemail is activated for the number called, the user is considered to be unavailable and the call is forwarded to the next recipient in the unit list.

The user answering the call must press the # key on their telephone keypad to indicate they are available.

The # key must be pressed within the set time. When the set time is up, the user is considered unavailable. Set the time under [Time for call forwarding to voicemail].

Language

Select the preferred language from the dropdown menu. Select the language [Customised] to customise some of the text strings shown on the display.

 The MTMDY module must have been added to the system. The customised strings can be added from the settings  on the display module.

NTP server

Address of the server with which the device synchronises the date and time. It is pre-set by default.

Time zone

Select the correct time zone.

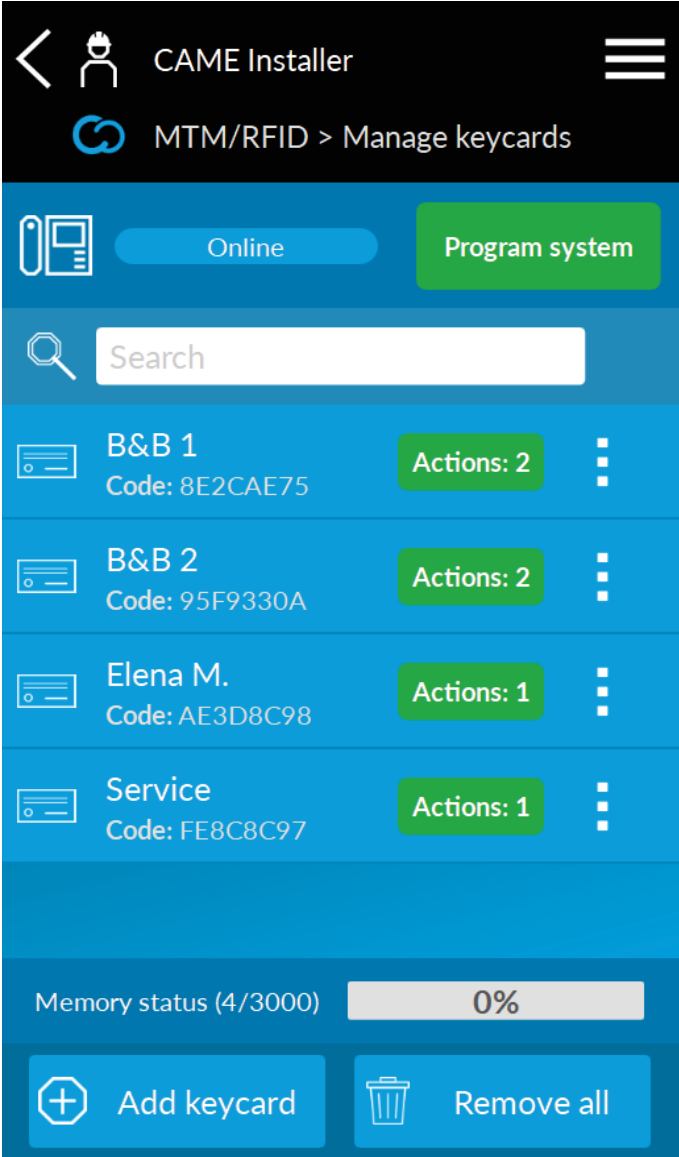
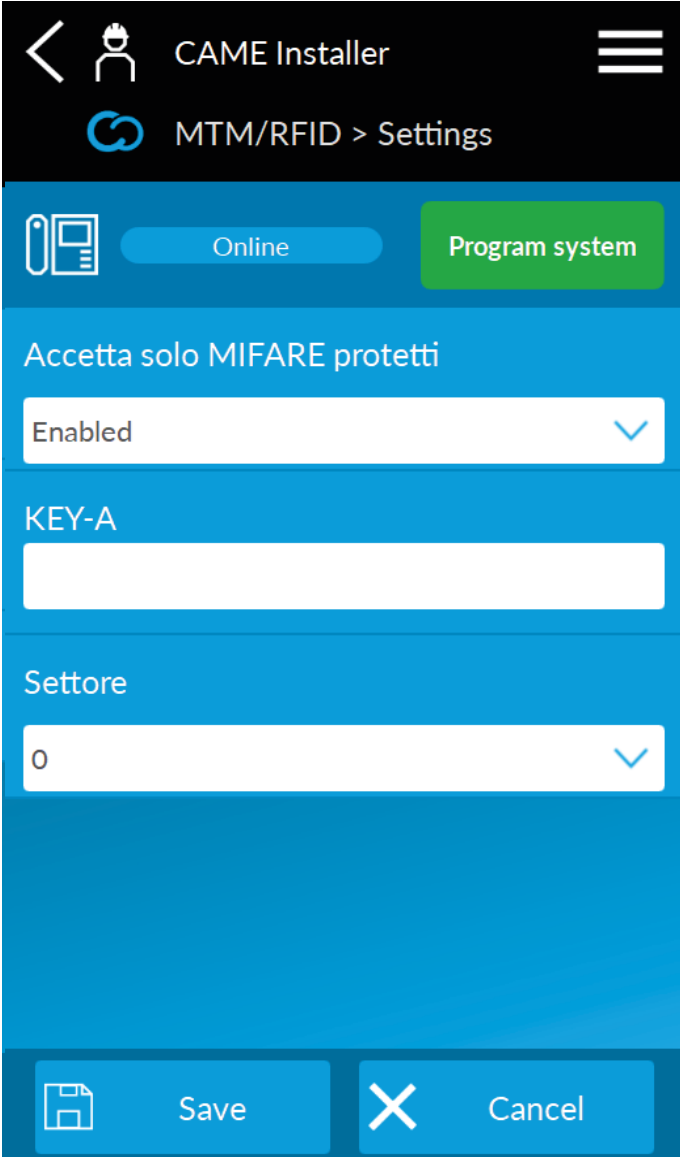
Managing secondary module - MTMRFID

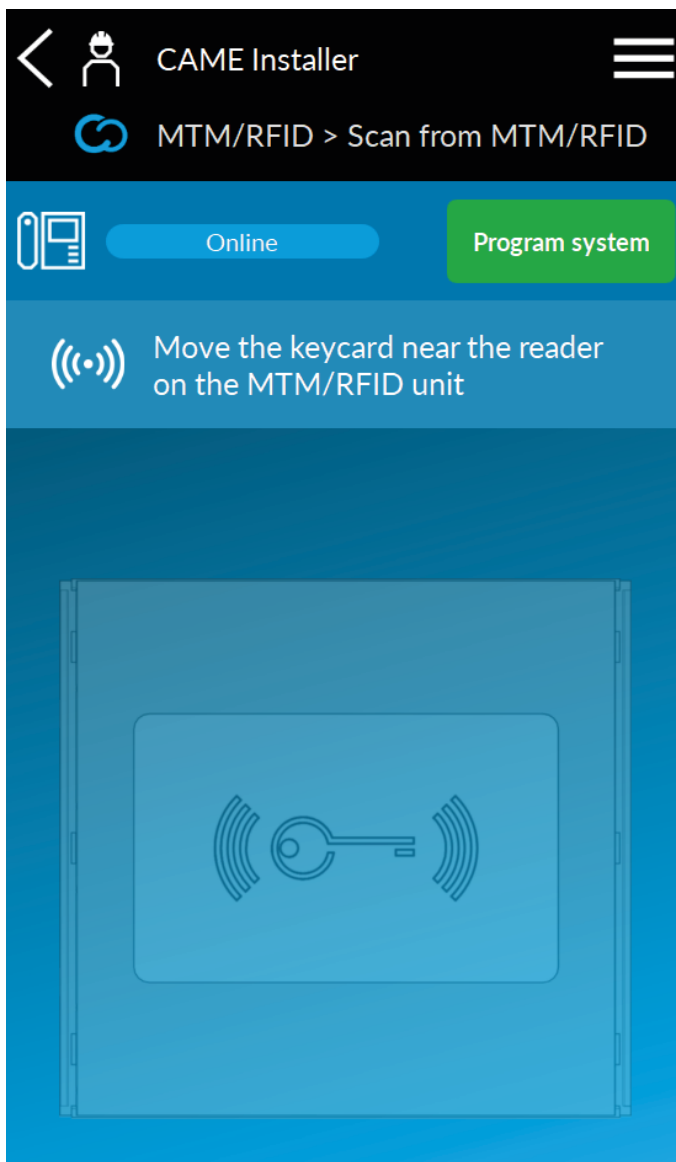
Module settings

From this screen you can set the requirements for accepting MIFARE keycards.
By enabling [Only protected MIFARE accepted], the RFID device recognises protected keycards only as valid. The protection is applied by writing a key in one or more sectors.
 The protection key (KEY-A) and sectors depend on the type of MIFARE keycard chosen.

Manage keycards

Press the  symbol on the RFID module to insert or remove keycards and tags.
Press [Add keycard] to choose the acquisition mode.





» [Local acquisition] is used to store information by resting the keycard on the MTMRFID module reader. The module must be connected during acquisition.

» [Add with QR code] is used to store the information by scanning the QR code on the keycard (where present).

» [Add with USB reader] is used to store the information using a USB reader (PC only).

» If you select [Manual add], you will need to enter the keycard code manually.

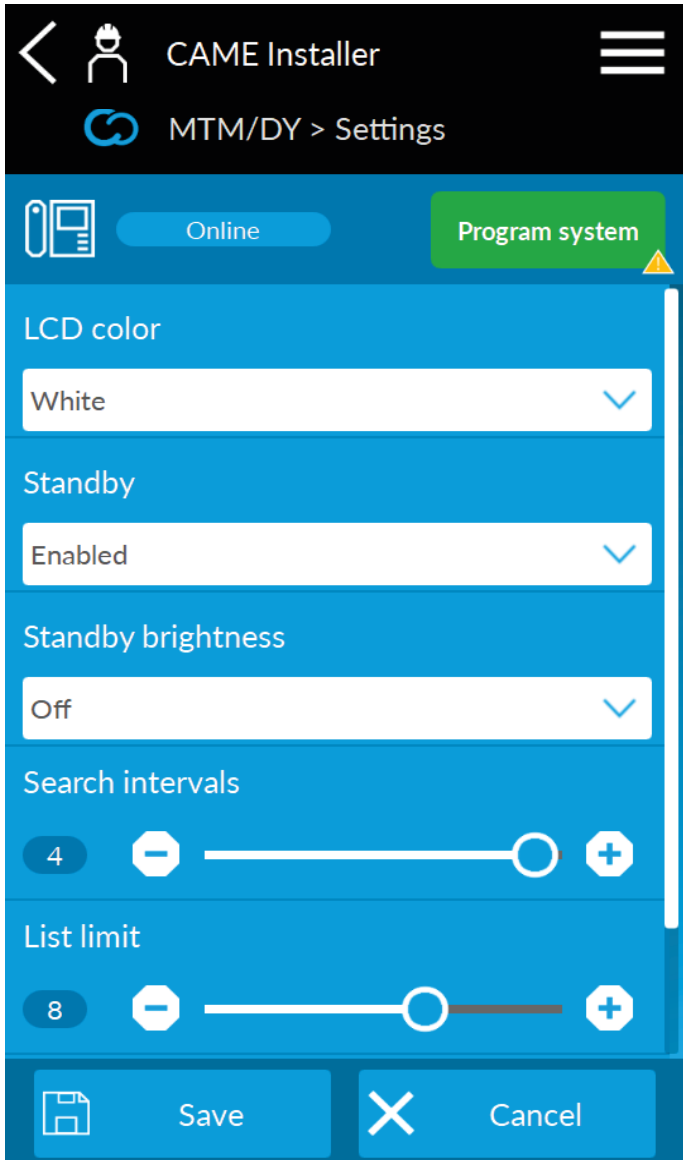
In all storage modes, one or multiple keycards can be added. Choose [Add multiple] to store multiple keycards one after the other.

A progressive number is added to the description entered before saving.

Assign at least one action to the keycards to finish storing. The entry panel will perform the action every time the keycard is read on the RFID module. By selecting [Add multiple], the same actions will be assigned to all keycards. Press [End reading] to end the procedure.

Keycards can also be added or edited from [Manage keycards] under [System management].

Managing secondary module - MTMDY



Module settings ✂

- » Use [LCD colour] and [LCD brightness] to change the colour and brightness of the module backlighting.
- » Use [Standby] to activate or deactivate module standby mode. The backlighting brightness in standby mode can be modified under [Standby brightness].
- » Use [Search intervals] to set the number of screens the contacts in the address book should be divided into, so as to make the information easy to view on the display. If 1 is selected, there will be one screen only with no divisions. The number of contacts shown per screen can be set under [List limit].

📖 Please see the specific manuals for the additional modules for further configuration information. Manuals can be found at docs.came.com

Welcome messages

Choose [Welcome messages] to set a message that will be shown as text on the display.

Custom language

Choose [Custom language] to set text strings that will be shown on the display.

📖 Set [Custom] under [Language] in the MTMA/CONNECT module settings.

Managing secondary module - MTMKB

CAME Installer

MTM/KB > Add keypad code

Online

Program system

Description (*)

Code (*)

Action 1 (*)

No action

Action 2 (*)

No action

Add

Cancel

Manage keypad codes

Press the  symbol on the keypad module to enter or remove keypad codes.

 Assign at least one action to the codes to finish storing. The entry panel will perform the action every time the code is entered on the keypad module.

 Keypad codes can also be added or edited from [Manage keypad codes] under [System management].

Firmware updates

Press  to update the module firmware.

The system automatically selects the latest firmware version available in the cloud. If there are any connectivity problems, update the firmware using the CAME KEY by selecting the desired FW version.

The LTE module firmware can also be updated from the main module menu.

DTMF tones

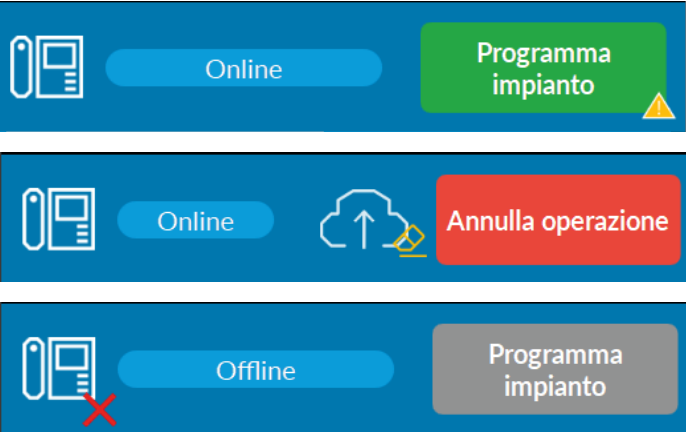
DTMF tones are adjustments and commands sent from your smartphone keypad during a conversation with MTMA/CONNECT. There is a numerical combination for each command followed by the # key.

1#	Speaker volume +	Adjust the MTMA/CONNECT speaker volume
2#	Speaker volume -	
3#	Microphone volume +	Adjust the MTMA/CONNECT microphone volume
4#	Microphone volume -	
5#	Door opening (electric lock)	
6#	Relay activation (pulse)	Activate the output controlled by the relay (if connected)*
7#	Relay activation	Activate, and keep active, the output controlled by the relay (if connected)*
8#	Relay deactivation	Interrupt activation or deactivate the output controlled by the relay (if connected)*
#	Signal call forwarding	See the [Time for call forwarding to voicemail] function

* The activation/deactivation command must be agreed during installation and depends on the auxiliary device connected to the system.

In addition to the pre-existing commands, customised commands can be added when configuring the entry panel.

FINAL OPERATIONS



Once configuration is complete, program the system to activate the settings chosen on the devices.
When the ⚠ symbol is shown on the [Program system] button, this means changes have been made from the app which still need to be sent to the device.
Press [Program system] to start the programming procedure.
Wait until the programming procedure has finished.

The device restarts automatically at the end of the procedure and remains offline until fully restarted.

📖 Once the first programming is complete, the system settings and configuration can be modified also via the cloud. Access CAMEConnect at www.cameconnect.net.

RESTORING DEFAULT SETTINGS

Remove the device power supply. Press and hold the two call buttons and power the device up again. Continue to press and hold until the call button LEDs stop flashing quickly.

📖 If the entry panel does not restart, it has not been restored to default settings.

LIST OF DTMF TONES

DTMF tones are adjustments and commands sent from your smartphone keypad during a conversation with MTMA/CONNECT. There is a numerical combination for each command followed by the # key.

1#	Speaker volume +	Adjust the MTMA/CONNECT speaker volume
2#	Speaker volume -	
3#	Microphone volume +	Adjust the MTMA/CONNECT microphone volume
4#	Microphone volume -	
5#	Door opening (electric lock)	
6#	Relay activation (pulse)	Activate the output controlled by the relay (if connected)*
7#	Relay activation	Activate, and keep active, the output controlled by the relay (if connected)*
8#	Relay deactivation	Interrupt activation or deactivate the output controlled by the relay (if connected)*
#	Signal call forwarding	See the [Time for call forwarding to voicemail] function

* The activation/deactivation command must be agreed during installation and depends on the auxiliary device connected to the system.

Call forwarding to voicemail function

This function allows the MTMA/CONNECT to distinguish between the user answering and the voicemail activating.

When the voicemail is activated for the number called, the user is considered to be unavailable and the call is forwarded to the next recipient in the unit list.

The user answering the call must press the # key on their telephone keypad to indicate they are available.

The # key must be pressed within the set time. When the set time is up, the user is considered unavailable. Set the time under [Time for call forwarding to voicemail].