



## MxDisplay+

This quick guide covers the initial operation and introduces the most important features.





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# 1

## **Initial Operation and Configuration**

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## Initial Operation

Make sure that the door stations and cameras are using a current camera software release 4.3.0 or higher. If this is not the case, upgrade to the most recent software. See "Compact Guide: Firmware Update" under **www.mobotix.com > Support > Manuals > Software > Compact Guide** for more information.

The MxDisplay is delivered with the newest software. If a new software release has been published in the meantime, you can update the MxDisplay software using a browser. To update the software, start a browser, enter the IP address of the MxDisplay unit (**user** admin, **password** meinsm) and then select **Update System Software**.

## Connect MxDisplay

If you are using a network cable for the network connection and the power supply of the MxDisplay, connect the network cable to the PoE switch. Switch on the power supply. If the network connection uses WiFi and a two-wire cable supplies the power, simply connect the two-wire cable and start configuring the MxDisplay. Next, set up the WiFi client of the MxDisplay unit (see section **Select the WiFi Mode**).



## Adding a Door Station

If you have already integrated the door station, you can skip this section and continue with the section **Adding Door Stations and Cameras to MxDisplay**.

Setting up the door station follows the steps outlined in Chapters 2 to 4 of the "T25 System Manual Part 2". The T25 System Manual is available at **[www.mobotix.com](http://www.mobotix.com) > Support > Manuals > IP Video Door Station**.

Overview over the most important steps:

### 1. Power and Network

Make sure that all devices are connected to the network and that the power supply has been established.

### 2. Execute Auto Configuration

Carry out the auto configuration at the door station (see Section 2.1.3 in the "T25 System Manual Part 2"). When using several door stations, choose one door station as a master and then carry out the auto configuration on that door station. The auto configuration is completed by entering the Super PIN at the access modules (KeypadRFID or BellRFID).

### 3. Configure Access Modules

The access modules of the system will now be set up one by one. This includes training the RFID cards, entering the contact/people/PIN numbers (if applicable) and configuring the bell buttons on the BellRFID modules (see sections 2.2 and 2.3 in the "T25 System Manual Part 2").

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**Note:** If you want to manage several door stations/cameras with the access control in MxDisplay, it is important that all door stations/cameras are trained with the same Admin RFID card. Otherwise, you cannot configure access times for user RFID cards.

#### 4. Reboot the MxDisplay

After the auto configuration has finished, the MxDisplay will reboot automatically and show the date and time view of the standby mode.








## Adding Door Stations and Cameras to MxDisplay

If the initial setup of the door station has been completed, you can add the door stations and cameras to the system.

### 1. Open the Installation Wizard

After starting the MxDisplay, it automatically shows the date and time in stand-by mode. Tap on the view and select the Installation Wizard.

### 2. Complete the Installation Wizard



Click on  in the upper right corner and complete the dialogs by specifying the following information:

- **Language:**

The factory default language is English. Select the desired language. This will change the language of the user interface as well as the default mailbox messages.

- **Camera List:**

Add the door stations and/or cameras that are not yet on the list:

- Tap on  and then on  to start the automatic search for cameras and door stations.

- 
- Select the desired video sources and tap on > .
  - Enter the camera access data (user name and password of a camera administrator). **Important:** You have to enter the Super PIN (the number you entered during auto configuration) as the password for the door stations.

- **Camera Configuration**

Use this dialog to deactivate the auto configuration and define any installed door sensors and door lock sensors on all door stations. You should activate recording on all cameras and door stations and adjust the remaining settings to match your requirements.

- **Assign Bells**

MxDisplay recognizes the bell buttons of the connected door stations and lists the buttons for each door station. Select the bell buttons that should trigger the doorbell at this MxDisplay by activating the corresponding sliders.

Click on ✓ to close the Installation Wizard.



## Setting Up MxDisplay

Next, configure the MxDisplay devices. Tap on **Settings > Installation > Display Configuration** in the main menu (see section **The Main Menu**) to do so.

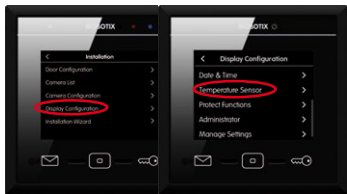


### Assign Bells

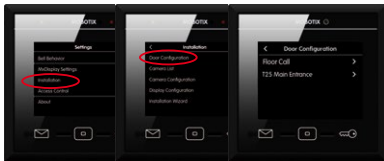
If you did not assign the bell buttons in the Installation Wizard, you should do this now (see above).

## Assign Signal Inputs/Outputs

If you have connected a temperature sensor, tap on **Temperature Sensor** and select the corresponding sensor.



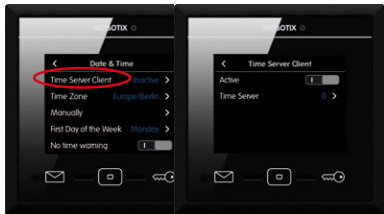
In case you have connected an apartment doorbell, a door sensor, a door lock sensor and a door opener, open the **Door Configuration** under **Settings > Installation**, tap on **Floor Call** (see section **Floor Call**) and assign the signal inputs and the output accordingly.





## Set the Date and Time

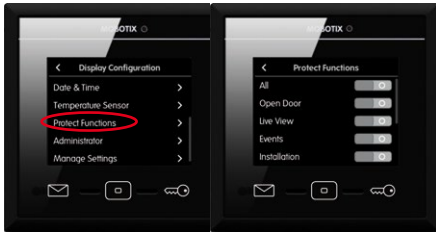
MxDisplay and all door stations and cameras should always use the same time. You can use a time server for this purpose, since it synchronizes the time of all attached devices.



1. In the Display Configuration, tap on **Date & Time > Time Server Client** and activate the slider.
2. Tap on Time Server and select a time server or manually add a time server.
3. Return to the **Date & Time** submenu and select the appropriate time zone. The system can now automatically switch between daylight savings time and regular time.
4. If no time server is used, you can also set the date and time manually. Tap on **Manually** and set the date and time.

## Protect Functions

It is possible to protect (i.e., lock) specific functions or even all functions. To do so, activate the sliders of the corresponding functions. Once protected, the users can access these functions only after entering a PIN. To assign the rights for executing specific functions for users and their PINs, open the **Access Control** dialog (see section **Access Control**).



## Change the Administrator PIN

By default, the administrator PIN has been set to "0202". If you want to change this PIN, open the Display Configuration, click on **Administrator**, enter the factory default PIN and then enter the new PIN.



## Copy Settings

When using several MxDisplay units, you can copy the settings from this device to other devices. On every other device, open **Display Configuration** and tap on **Manage Settings > Get from**. Select the desired MxDisplay device.









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## The MxDisplay - Overview

## At a Glance

MxDisplay automatically shows the date and time in stand-by mode after starting. In stand-by mode, you see at one glance:



- 1 The time and date of the selected time server.
- 2 The current temperature of the selected sensor.
- 3 If, when and how many visitors have rung the doorbell and how many events have occurred. Tap on the corresponding icon to open the event overview, which lists the event







images according to their type.

- 4 The WiFi status.
- 5 The bell muting status. In this case, the display alternates between the bell status and stand-by mode.



## Overview – Shortcuts of the Stand-By Mode

If the MxDisplay shows the stand-by mode, you can tap or tap and hold the different buttons and icons to **quickly** access the following functions without having to open the corresponding menu.

	Tap on Home button	Open main menu
	Tap and hold Home button	Open screensaver settings
	Tap on Letter button	Open mailbox event list
	Tap and hold Letter button	Open event overview
	Tap on Key button	Open Live view of first camera in camera list
	Tap and hold Key button	Open door of connected door station
	Tap on view	Open main menu
	Tap on view and hold	Open time and date settings
	Tap on Event icon	Open event overview
	Tap and hold Event icon	Set event filter
	Tap and hold WiFi icon	Open WiFi settings

## The Main Menu

From stand-by mode, you can enter the main menu either by tapping on the view **1** or by tapping on the Home button **2**.

In the main menu, you can activate the **Do not disturb** function **3** (for all connected devices) and the **Mute bell** function **4** (only for this device). In addition, the main menu shows the reference image **5** of the first camera in the camera list.












You can select cameras from the camera bar **6** by opening the bar and tapping on the camera you want to see. **7** shows the different camera statuses, **8** indicates new events and tapping on **9** opens the settings. The **Settings** include the basic settings as well as all settings required in daily use – from bell behavior to camera configuration and access control.



## Overview – Shortcuts of the Main Menu







The main menu also provides **shortcuts** to different functions by tapping or tapping and holding the different buttons and icons.

	Tap on Home button	Stand-by mode
	Tap and hold Home button	Create custom view(s)
	Tap on Letter button	Open mailbox event list
	Tap and hold Letter button	Open event overview
	Tap on Key button	Open Live view of first camera in camera list
	Tap and hold Key button	Open door of connected door station
	Tap on Event icon	Open event overview
	Tap and hold Event icon	Set event filter
	Tap on Moon icon	Activate "Do not disturb"
	Tap and hold Moon icon	"Do not disturb" function: Configure ringing
	Tap on Bell icon	Mute bell
	Tap and hold Bell icon	Open audio settings
	Tap and hold WiFi icon	Open WiFi settings



## The Camera Bar

The camera bar shows the preview images of all connected door stations and cameras. You can operate one camera using the controls while still keeping an eye on the other cameras. The controls have the following meanings:

 open door,  switch lights,  activate walk-through message (a sound plays when opening a door with door sensor),  open mailbox messages,  open event list,  open Player.

The camera bar is available in stand-by mode and in the main menu. Pull down the bar **1** to see the camera bar. If you tap into one of the preview images, the view changes to show the live image from the corresponding camera (see section **The Live View**).



## The Live View

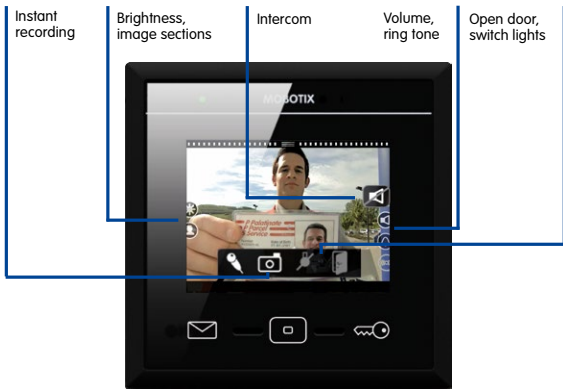
To see the live view of a camera, you can either tap on the camera image in the main menu **1** or you can pull down the camera bar **2** and tap on the image of the desired camera **3**.







The live view shows the live image of the selected camera; you can use the sliders to control the camera: Sliders are used to change the speaker volume, the image brightness, to select preconfigured image sections, adjust the volume of the ring tone as well as the ambient noise level, start a snapshot recording, talk to visitors at the door, open the door and switch lights. To show the controls, tap on the camera image.



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## **Live: Ringing**

A ringing door bell will immediately show the live image of the door camera with an icon to start the conversation.

## **Live: Intercom, Open Doors and Switch Lights**

To speak to a visitor at the door, tap on the large speaker icon. This activates the door intercom. If you do not want the visitor to hear you, tap on the live image to see additional icons, then tap on the microphone icon. To close the audio connection, tap on the speaker icon. To open the door, tap on the Door icon and to switch the lights, tap on the Light icon (if this camera can switch lights).

## **Live: Selecting Other Cameras and Detail View**





Tap on the Key button to show a different camera. Double-tapping into the live image shows an enlarged detail view. A second double-tapping returns to the regular view.

The camera list can show other cameras than the cameras you see when clicking on the Key button. Open the camera list, tap and hold the Home button to define the contents of the camera list as well as the “favorites” that are shown when tapping on the Key button.



## Overview – Shortcuts of the Live View

The Live view also provides **shortcuts** to different functions by tapping or tapping and holding the different buttons and icons.

	Tap on Home button	Stand-by mode
	Tap and hold Home button	Open camera configuration
	Tap on Letter button	Open mailbox event list
	Tap and hold Letter button	Open event overview
	Tap on Key button	Goto next camera live image
	Tap and hold Key button	Open door of connected door station
	Tap on view	Show controls

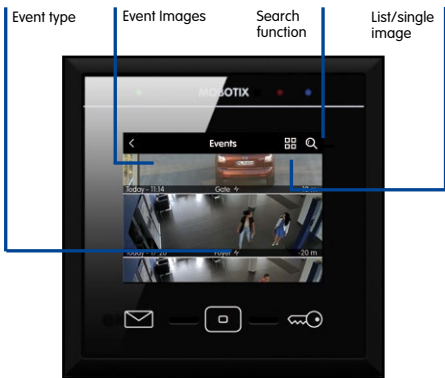
## Event Overview and Event Lists

New events (missed ringing and all other events) are indicated by a red counter at the event icons in the top left corner of the view **1**. Tap on the icons to open the event overview. The event overview shows all events grouped by event type: Ringing, mailbox messages, all other events, door opened, access denied and access granted.











A red counter at the event type indicates the number of new events detected. Tap on the event type to show the event list. It displays the recorded events with a preview image, the date and time of the event and the camera name. Note that you can show the event images not only as a list, but also as single images. To do so, tap on the List/Single Image icon. You can limit the displayed event images by selecting specific cameras and time ranges. Tap on the Search icon, select the camera(s) and the time range, then tap on **Search**.



## Overview – Shortcuts of the Event Overview and the Event List

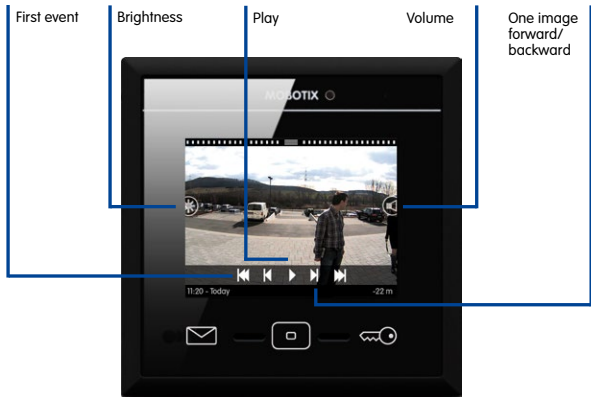
The event overview and the event list provide shortcuts to different functions by tapping or tapping and holding the different buttons and icons.


Event Overview		
	Tap on Home button	Open main menu
	Tap and hold Home button	Acknowledge all events
	Tap on Letter button	Open mailbox event list
	Tap on Key button	Open Live view of first camera in camera list
	Tap and hold WiFi icon	Open WiFi settings
Event List		
	Tap on Home button	Open event overview
	Tap and hold Home button	Open Settings menu
	Tap on Key button	Open Live view of first camera in camera list




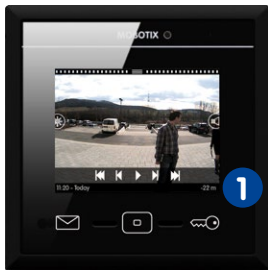
## The Player

You can open the player either from the **Event List** or from the **Camera List**. The player will show the recordings either by event type or by camera, depending on where you opened the player. If you tap on an event image in the event list, you can play back/fast forward/rewind the recordings to the events of this event type in the player.



If you open the camera list and then tap and hold one of the live images, different controls for this camera appear. Tap on **Play**  to open the player. In the player, you can play back all recordings of this camera, you can fast forward and rewind them.

Note that the player always provides quick access to the last four event images – starting from the current recording. This is done using the Event Info bar at the bottom of the player. The event info bar shows the time  since the last event occurred on the right-hand side. Tap and hold this part of the bar to show a small event image. Drag your finger to the left to see more event images.















## Overview – Shortcuts of the Player

The Player provides shortcuts to different functions by tapping or tapping and holding the different buttons and icons.

	Tap on Home button	Stand-by mode
	Tap on Letter button	Open event list for this event type
	Tap and hold Letter button	Open event overview
	Tap on Key button	Goto Live Image
	Tap and hold Key button	Open door of connected door station
	Tap	Jump to previous event
	Tap and hold	Jump to first event
	Tap	One frame backward
	Tap	Playback   Pause
	Tap	One frame forward
	Tap	Jump to next event
	Tap and hold	Jump to last event





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## **System Settings**

## All Settings at One Location

Regardless of whether you want to change the bell behavior, adjust device-specific settings, configure the cameras or the system, everything is located in one menu. To open this menu, tap on **Settings 1** in the main menu.





## Bell Behavior

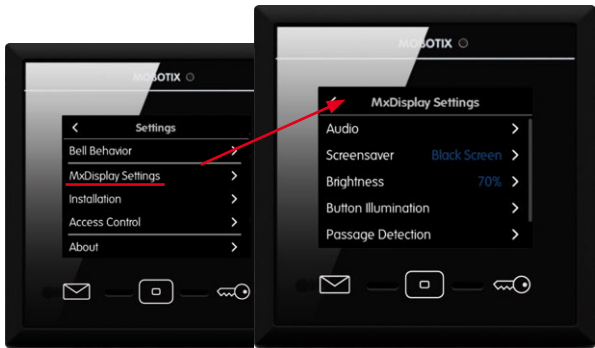
When adding a door station, MxDisplay recognizes the door station's bell buttons, allowing you to assign the desired doorbells to this MxDisplay.

The **Bell Behavior** submenu contains the options to set the behavior for each doorbell button. This includes setting the ring tone and the mailbox announcement. Tap on **Setting > Bell Behavior** to open the submenu. Select the desired doorbell in the top right corner and change the settings as required.



## MxDisplay Settings

Use this dialog to change the device-specific settings. This includes the language, audio settings of the MxDisplay, screen saver and walk-through message. If you activate the walk-through message in the camera bar (see section **Camera Bar**), a sound plays when a door opens that has a door sensor. Allows selecting the sound and the volume. Tap on **Settings > MxDisplay Settings** to open the settings.





## Installation

This menu contains the door configuration that allows creating a bell layout and provides for setting the bell behavior. It also contains the camera list for adding and deleting cameras and the camera configuration for setting up recording.

In addition, the Display Configuration contains the network settings, the time server and allows managing the settings. The Installation Wizard opens with the first start of MxDisplay; however, you can open it any time later from the **Installation** menu. Tap on **Settings > Installation** to open the **Installation** menu.



It is possible to protect the settings of the **Installation** menu. Tap on the red lock **1** and answer "Yes" to close the prompt. The **Protect Functions** dialog opens: Activate the **Installation** option. From now on, you can only change settings in this menu if you enter the administrator PIN ("0202" by factory default).



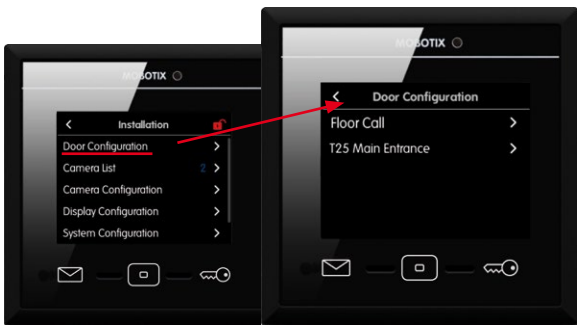




## Door Configuration

All door configuration settings can be changed in this menu. Tap on **Settings > Installation > Door Configuration**. The view shows the **Floor Call** option and all attached door stations.

**Note:** Since these settings are only needed when configuring for the first time and only by the administrator, access to these settings may be locked. In this case, you will have to enter the administrator PIN (set to "0202" by factory default).



## Floor Call

If someone rings the doorbell at the apartment door, you can now use the MxDisplay to talk to the visitor and to open the door. Before you can do this, however, the apartment doorbell needs to be connected to the MxDisplay and the signal inputs and outputs must have been assigned accordingly. To assign the inputs and outputs, tap on **Floor Call**.

1. Activate the slider for this option. Select a ring tone that is different from the one at the door station, so you can tell if someone is ringing at the door station or at the apartment door.
2. Tap on **Doorbell** and assign the corresponding signal input. To properly see the door status, assign the corresponding inputs to the **door sensor**

(door open/closed) and the **door lock sensor** (door locked/unlocked). Tap on **Door Opener** and assign the corresponding signal output.





## Door Configuration

Open this view to change the door station settings. Select the door station you want to configure.

- **Bell Layout**

Allows configuring the access modules of the corresponding door stations. Tap on **Bell Layout**. The attached access modules are displayed as graphics, allowing you to change the settings.

- **Bell Behavior**

Allows setting the desired behavior for each door station and doorbell (main door).

- **Auto Configuration**

Allows locking the auto configuration to avoid accidental reconfiguration.

- **Door Sensors**

Specify the sensors that are used as door sensors, door lock sensors and door opener (main door).



## Camera List

Use this list to add cameras and door stations and to edit them later on. Tap on **Settings > Installation > Camera List** to open the list.

- **Adding Cameras Using Bonjour**

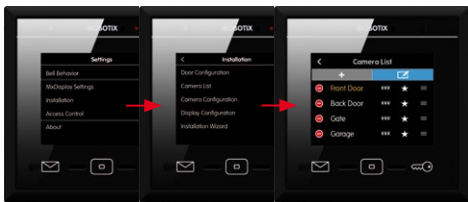
Tap on **+** and start the camera search (🔍). Select a camera, enter a name, then enter the camera user name and password.

- **Adding Cameras Manually**

Tap on **+** and then on **Add Manually**. Enter the camera name and the URL (incl. port), then enter the camera user name and password.

- **Editing the Camera List**

Click on **✕** to delete cameras, to change the sorting order and to select cameras that are shown in the camera bar **III** or as favorites **★**.





## Camera Configuration

The camera configuration is where you configure recording and where you select the events that will trigger recordings. For door stations, you can lock the auto configuration to avoid accidental reconfiguration. If required, you can also change the admin password for accessing the camera. To open the camera configuration, tap on **Settings > Installation > Camera Configuration**. Select the desired camera using the < and > arrows and change its settings.



## Display Configuration

You can assign the door bells to the MxDisplay, set the LAN network parameters and activate the WiFi module of the MxDisplay. You can also activate the time server client, protect specific functions, add a temperature sensor, manage the settings and change the administrator PIN ("0202" by factory default). To open the display configuration, tap on **Settings > Installation > Display Configuration**.

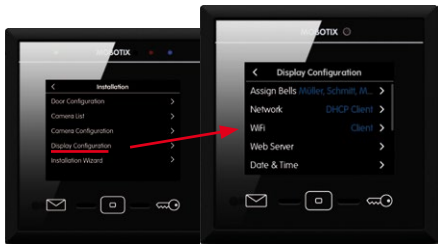


**Protect functions:** The following functions can be locked: To use a protected function, users need to enter their PIN code. To assign the rights for executing specific functions for users and their PINs, open the **Access Control** dialog (see section **Access Control**).



## Select the WiFi Mode

Tap on **Display Configuration > WiFi > Mode** to open the menu. The following operating modes are available for the MxDisplay:



- **Client:**

The MxDisplay can connect to a DSL router (or a different DHCP server) as WiFi client and can access the cameras on the local network.

- **Extend Network (AP):**

The MxDisplay is connected to a DSL router (or a different DHCP server) via LAN and extends the local camera network of the router by serving as a WiFi access point. Other devices (e.g., smartphones) can use the MxDisplay as WiFi clients to connect to the local camera network.

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- **Separate Network (AP):**

The MxDisplay is connected via LAN to the local camera network (DSL router or different DHCP server). At the same time, the MxDisplay serves as WiFi access point with its own DHCP server. Mobile devices (e.g., smartphones) can use the MxDisplay as WiFi clients to connect to the local camera network. For this purpose, the MxDisplay forwards the connection requests to the local network.

- **Camera Gateway (Client):**

The MxDisplay is connected via LAN to the local camera network. The MxDisplay uses WiFi (as client) to provide the connection to the DSL router. The router is connected to the Internet, but does not have a direct connection to the camera network. If the DSL router can be reached via the Internet from the outside (e.g., after registering with a DynDNS service), the MxDisplay will forward these connection requests to the cameras. Note that the DSL router must have port forwarding enabled and configured accordingly to forward the requests to the IP addresses of the cameras in the local network.





## System Configuration

Open this menu to select one of the attached devices as time server (**Settings > Installation > System Configuration**).

### Starting the Installation Wizard

The Installation Wizard helps you to add and configure door stations and cameras. The wizard opens automatically when starting MxDisplay for the first time, but you can also use it later on to add door stations and cameras. To open the wizard, tap on **Settings > Installation > Installation Wizard**. Complete all steps of the wizard.





## Access Control

This menu allows adding users and assigning RFID cards and PINs to these users. You can create new tenants, add RFID cards and activate/deactivate RFID cards. In addition, you can set access times for specific RFID cards. You assign additional PIN numbers, lock cards and assign rights. For example, you can specify which card opens which doors and which MxDisplay functions can be used by the individual users. Tap on **Settings > Access Control** to open the menu.



















To add a new card, hold the card next to the Home button and follow the instructions. When training the first RFID card, you will be asked to initialize the RFID system. You can initialize the system from a door station. Tap on  to do so. Or you can start the initialization by holding an admin card to the device. Tap on  and follow the instructions.

**Note:** If you want to manage several door stations/cameras with the access control in MxDisplay, it is important that all door stations/cameras are trained with the same Admin RFID card. Otherwise, you cannot configure access times for user RFID cards.



## Overview – Shortcuts of the Access Control

The Access Control provides the following functions:

Add Users	1. Tap on  and then on  .
Add Groups	1. Tap on  and then on  .
Assign a user to a group	1. Tap and hold on user name. 2. Tap on <b>Party</b> and then on the group.
Create and assign PINs	1. Tap on  and then on  , then enter the PIN. 2. Assign PIN to user: Tap and hold on PIN, click on User, then select the user.
Train RFID cards and assign to users	1. Train card: Hold card in front of the MxDisplay, then tap on  . Follow instructions on the MxDisplay. 2. Assign card: Tap and hold on RFID number, click on <b>User</b> , then select the user.
Set access rights for all door stations for groups, users or PINs/RFID cards	1. Tap on the access icon  /  /  in the first column. 2. Select type of access:  grant access,  deny access or  use access times. <b>Note:</b> If access times are used, the icon in the first column turns yellow  .



<p>Set access rights for <b>individual</b> door stations for groups, users or PINs/RFID cards</p>	<ol style="list-style-type: none"><li>1. Tap on the access icon // in the column of the door station.</li><li>2. Select type of access:  grant access for this door station,  deny access to this door station or  use access times.</li></ol> <p><b>Note:</b> If access times are used, the icon in the column turns gray ().</p>
<p>Delete groups, users, PINs and RFID cards</p>	<ol style="list-style-type: none"><li>1. Tap and hold on the corresponding row.</li><li>2. Tap on .</li></ol>
<p>Set rights for users to use specific functions</p>	<p>Functions of the MxDisplay can be protected. To use a protected function, users needs to enter their PIN code (see <b>Protect Functions</b>, section <b>Display Configuration</b>). To assign the rights for executing specific functions for users and their PINs, open the Access Control dialog:</p> <ol style="list-style-type: none"><li>1. Tap and hold on user.</li><li>2. Tap on <b>Rights</b> and activate the desired rights.</li></ol>
<p>Save settings</p>	<p>If settings have changed in this dialog, the  icon is flashing red.</p> <ol style="list-style-type: none"><li>1. Tap on the icon and then on  to save all settings of the MxDisplay and the door station.</li></ol>
<p>Backup and restore settings</p>	<p>You can backup all settings to one file and restore the settings from such a file:</p> <ol style="list-style-type: none"><li>1. Backup: Tap on  and then on .</li><li>2. Restore: Tap on , then on  and select a file.</li></ol>

## Personalized Interface Settings Fast and Easy

In order to quickly access often-used functions, you can create customized views. One view can be used to group up to nine functions with the corresponding icons and customized colors. To move from the main menu to the view(s), simply swipe over the view with one finger.





To define a new view, open the main menu (tap on the view in stand-by mode). Now tap and hold the Home key **1**. The edit mode is now active. Tap on Plus character in the top right corner. This creates a new view in the main menu. Then tap on **Plus** **2** in the center of the view to add function icons and to set their appearance for this view.









### **Additional Information**

For more information on installing and operating MxDisplay, please read the MxDisplay+ Quick Install, which is available from **[www.mobotix.com](http://www.mobotix.com) > Support > Manuals**.

### **Support**

Please see **[www.mobotix.com](http://www.mobotix.com) > Support** for information on how to reach our technical support team.



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