

ABB-Welcome

M22341-
M22343-
Basic 4.3" Video hands-free
indoor station



1	Safety	3
2	Intended use.....	3
3	Environment	3
3.1	ABB devices	3
4	Operations.....	5
4.1	Standard operations	5
4.1.1	Control elements	5
4.2	Control actions.....	8
4.2.1	Incoming call / In a call	8
4.2.2	Display & volume settings during calling.....	9
4.2.3	Communication menu.....	10
4.3	Settings.....	13
4.3.1	Overview.....	13
4.3.2	Intercom call settings	14
4.3.3	Switch actuator settings.....	16
4.3.4	Program button settings.....	17
4.3.5	Auto unlock settings.....	18
4.3.6	OS password settings.....	19
4.3.7	Ringtone settings.....	20
4.3.8	Volume settings	21
4.3.9	**Date and time settings	22
4.3.10	Other settings	23
4.3.11	**History review	24
4.3.12	Camera List	26
4.3.13	Language settings	28
4.3.14	Information.....	28
4.3.15	Reseting factory default	29
4.4	Cleaning	30
4.5	Adjusting the device.....	31
5	Technical data	32
6	Mounting / Installation.....	33
6.1	Requirements for the electrician	33
6.2	General installation instructions	34
6.3	Mounting.....	35

1 Safety



Warning

Electric voltage!

Risk of death and fire due to electrical voltage of 100-240 V.

- Work on the 100-240V supply system may only be performed by authorised electricians!
- Disconnect the mains power supply prior to installation and/or disassembly!

2 Intended use

The M2231x-x is an integral part of the ABB-Welcome door communication system and operates exclusively with components from this system. The device must only be installed in dry indoor rooms.

3 Environment



Consider the protection of the environment!

Used electric and electronic devices must not be disposed of with domestic waste.

- The device contains valuable raw materials which can be recycled. Therefore, dispose of the device at the appropriate collecting depot.

3.1 ABB devices

All packaging materials and devices from ABB bear the markings and test seals for proper disposal. Always dispose of the packaging material and electric devices and their components via the authorized collecting depots and disposal companies.

ABB-Welcome

ABB products meet the legal requirements, in particular the laws governing electronic and electrical devices and the REACH ordinance.

(EU-Directive 2002/96/EG WEEE and 2002/95/EG RoHS)

(EU-REACH ordinance and law for the implementation of the ordinance (EG)

No.1907/2006)

4 Operations

4.1 Standard operations

4.1.1 Control elements

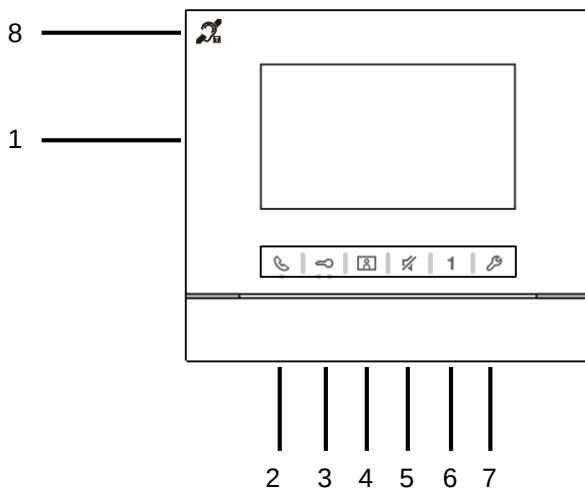


Fig. 1 Control elements

No.	Functions
1	4.3" Color display
2	Communication button 2A When a call is coming, press this button to activate the communication within 30 seconds and press it again to end the call. 2B In standby mode, press this button to enter the communication menu. If the LED flashes slowly, this means an incoming call. If the LED illuminates,, this means that a conversation is in progress. If the LED flashes rapidly, it means system is busy.
3	Unlock button 3A Press this button to open the door at any time. 3B Auto-unlock: the door is automatically opened after an incoming call (Hold this button for more than 10 seconds until the backlit LED turns on, Tthe same operation will switch off the function and LED will be turned off). If the LED illuminates, this means auto-unlock. If the LED flashes rapidly, it means that the door has been opened over the set time (The sensor must be connected first).
4	Surveillance button 4A In standby mode, press this button to survey the default outdoor station. 4B While the display is on, press this button to the survey the next outdoor station. (This function is available depending on the installation type) **4C While the display is on, hold this button to take a snapshot. 4D In standby mode, if the LED flashes, press this button to display the "History" record. If the LED flashes slowly, this represents a notification on a missed call.
5	Mute button 5A In standby mode, press this button to mute ringtone of the indoor station. 5B In standby mode, hold the button to mute ringtone of all indoor stations in the apartment. 5C When a call is coming, press this button to reject the call. 5D During the conversation, press this button to mute microphone. The LED illuminates to indicate mute status.
6	Programmable button 1 6A Release the lock connected with an outdoor station (COM-NC-NO)

	(default function). 6B In standby mode, hold this button for 3 seconds to send SOS alarm to the guard unit. If LED flashes slowly, it means success; and if flashes rapidly, it means failure. 6C *Programmable button for additional functions, e.g. call to guard unit, intercom.....
7	System setting button Enter the system setting menu for various functions of the device. If the LED flashes rapidly, it means that setting is busy.
8	**Induction loop function

* For use of those buttons, please contact your electrical installer.

** The function is only available in M22343-.

4.2 Control actions

4.2.1 Incoming call / In a call

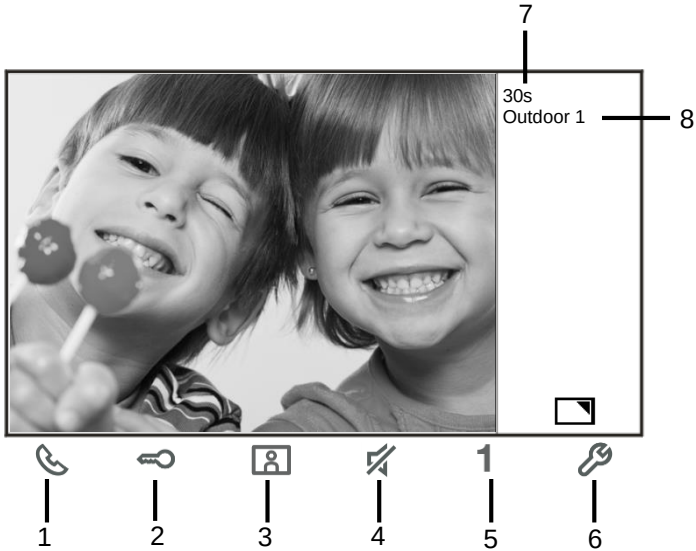


Fig. 2 Incoming call / in a call

During calls, the following functions are available:

No.	Functions
1	Press this button to accept the incoming call; In a call, press this button to end the call.
2	Press this button to open the door where the call is from.
3-A	Press this button to survey the analog camera of the outdoor station if there is one.
3-B	Hold this button to take a snapshot.
4	Press this button to mute the ringtone of an incoming call; in a call, press this button to mute the microphone.
5-A	Press this button to activate the function of the programmable button.
5-B	If the function "release 2nd-lock" or "control switch actuator" is assigned to The programmable button, press this button to activate the function.
6-A	Press this button to enable or disable the full-screen function.
6-B	Hold this button to enter the brightness and volume settings menu.
7	Time left of the connection.
8	Number of outdoor stations

4.2.2 Display & volume settings during calling

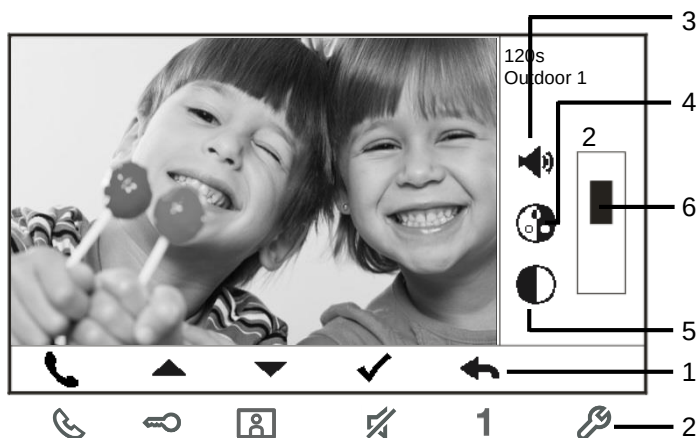


Fig. 3 Display & volume settings during calling

Hold button  for 3s to enter the display & volume settings menu during a call or conversation, the following functions are available.

No.	Functions
1	Navigation buttons (up / down / confirm / cancel, etc)
2	Press the navigation buttons as needed.
3	Speech volume(only can be adjusted during conversation)
4	Saturation
5	Brightness
6	Value set

4.2.3 Communication menu

4.2.3.1 Overview

Press button  to enter the communication menu. The following functions are available:

No.	Functions
1	Intercom call -Touch the existing call list to make an intercom call .
2	Call to guard unit -Call guard unit directly.
3	Broadcast -Enable the broadcast function in this menu.
4	Switch actuator -Activate the existing actuator list

4.2.3.2 Intercom call

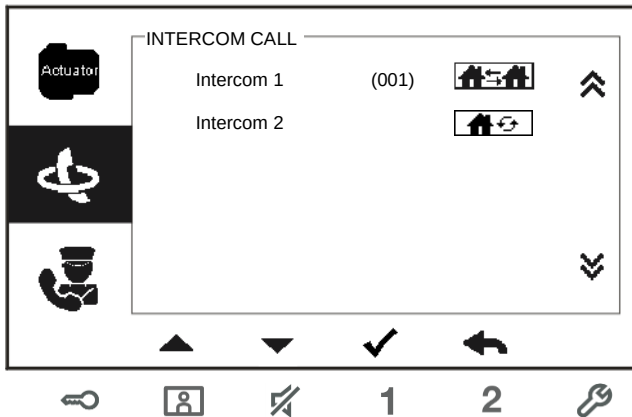


Fig. 4: Intercom call

Set intercom call lists in the “System settings-intercom settings” menu first. After choosing a list, press button  to make the call.

4.2.3.3 Call to guard unit

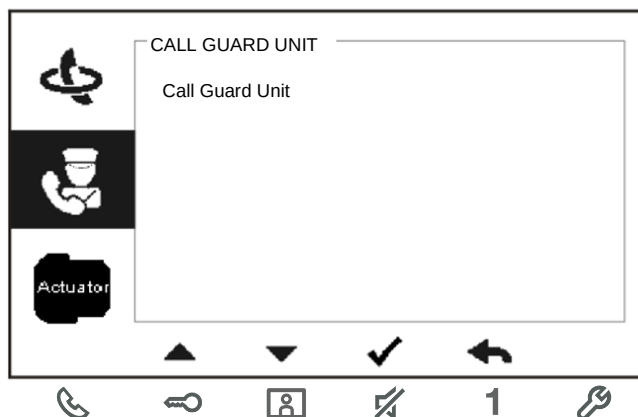


Fig. 5: Call to guard unit

4.2.3.4 Switch actuator

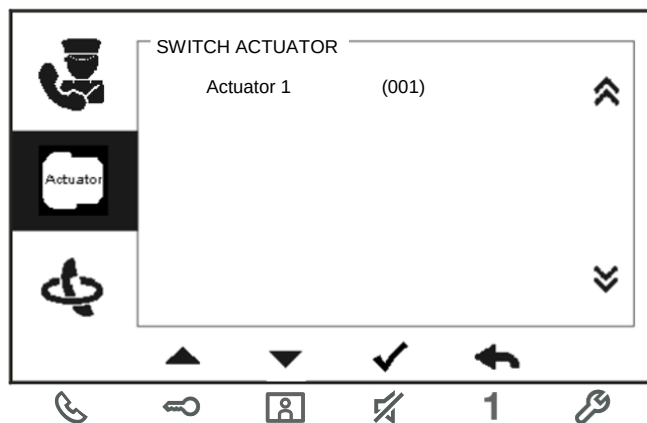


Fig. 6: Switch actuator

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Set the actuator list in the "system settings-switch actuator" menu first.
After choosing a list, press button  to enable the lock or light which is connected with the switch actuator.

4.3 Settings

4.3.1 Overview

Press button  to enter the system settings menu. The following functions are available:

No.	Functions
1	Intercom settings -Set intercom lists among different apartments or within the same apartment
2	Switch actuator -Set the actuator list in this menu
3	Program button -Set functions for programmable buttons
4	Auto unlock -Set the automatic unlock time range
5	Set OS password -Set a customized door open password, which is available together with a keypad at an outdoor station.
6	Ringtone -Set the ringtone for outdoor bells, indoor bell or others
7	Volume -Set ringtone volumes
8	Date and time -Set different times.
9	Other settings -Other settings, e.g. auto full screen
10	History -View all communication entries in the menu, e.g. received calls, missed calls,
11	Language -Set the local language
12	Information
13	Reset factory default

4.3.2 Intercom call settings

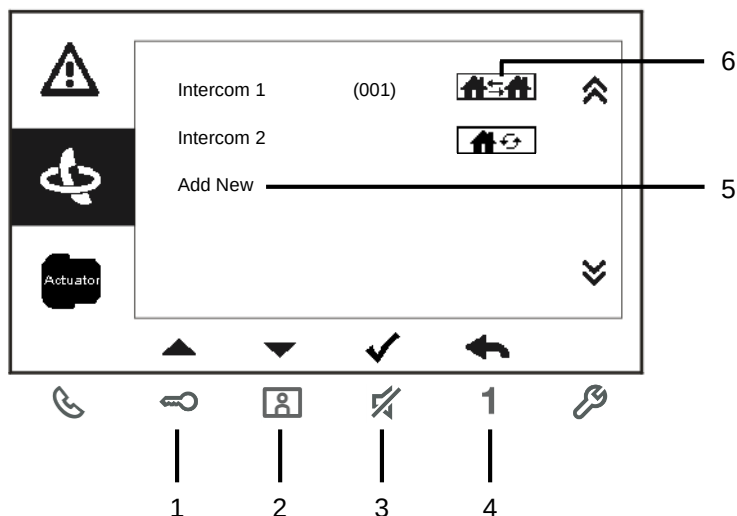


Fig. 7: intercom settings menu

No.	Functions
1	Choose the previous selection or scroll up
2	Choose the next selection or scroll down
3	Confirm the selection you choose or enter to edit it
4	Return to the previous screen
5	Add a new intercom list . In total, up to 32 intercom lists can be added.
6	Existing intercom list: Press button ✓ to modify the settings.  means an external intercom from different apartments. *For establishing an external intercom, each apartment must have a master indoor station.
7	Existing intercom list: Press button ✓ to modify the settings.  means an internal intercom in the same apartment.

Add a new list

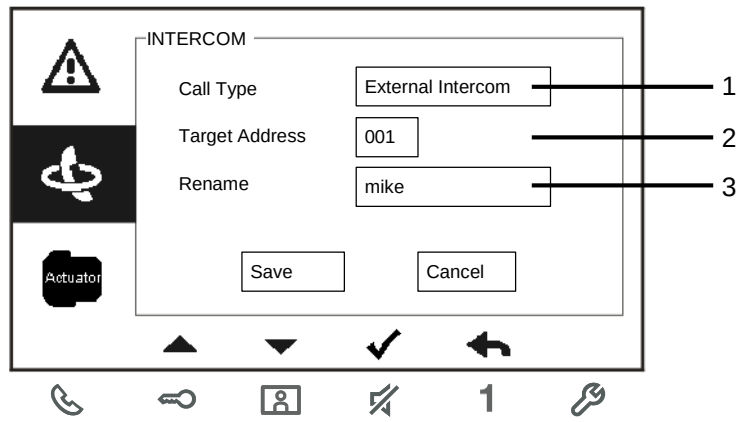


Fig. 8: Add a new intercom

No.	Functions
1	Enter to choose the call type : -an external intercom means a call from different apartments -an internal intercom means a call within the same apartment
2	Enter to change the target address, from 001 to 250. *If the call type is the internal intercom, there is no need to set the target address.
3	Rename the intercom list: Scroll through letters of the alphabet or numbers one by one with "+" or "-" button

After setting, press "Save" for confirmation.

4.3.3 Switch actuator settings

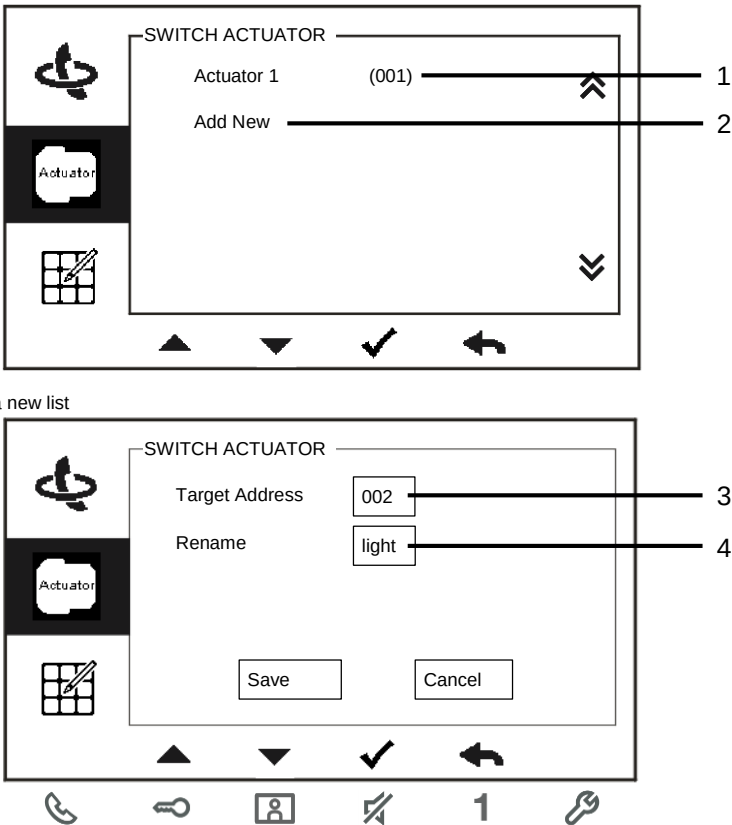


Fig. 9: Switch actuator settings

No.	Functions
1	Existing switch actuator list: Press button ✓ to modify the settings.
2	Add a new actuator list:Totally, up to 10 switch actuator lists can be added.
3	Enter to change target address with "+" or "-" button from 001 to 199.
4	Rename the switch actuator list: Scroll through letters of the alphabet or numbers one by one with "+" or "-" button

4.3.4 Program button settings

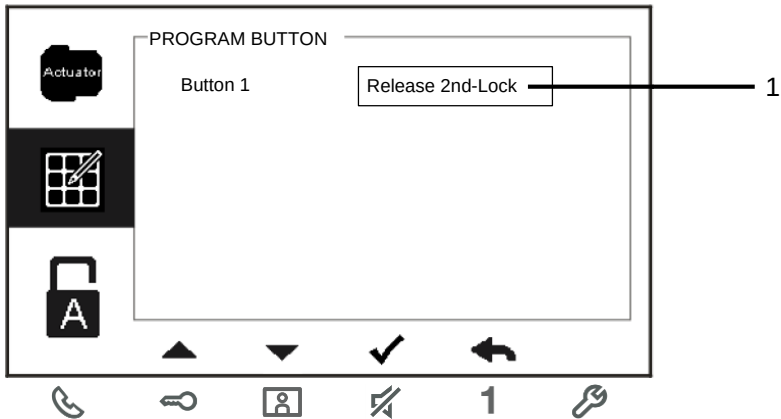


Fig. 10: Program button settings

No.	Functions
1	Set functions for the program button, e.g. releasing 2nd-lock, calling guard unit, intercom call, enabling the switch actuator. *2nd-lock means the lock is connected with an outdoor station (NC-NO-COM) *Only the existing intercom call list & switch actuator list can be assigned to the program button.

4.3.5 Auto unlock settings

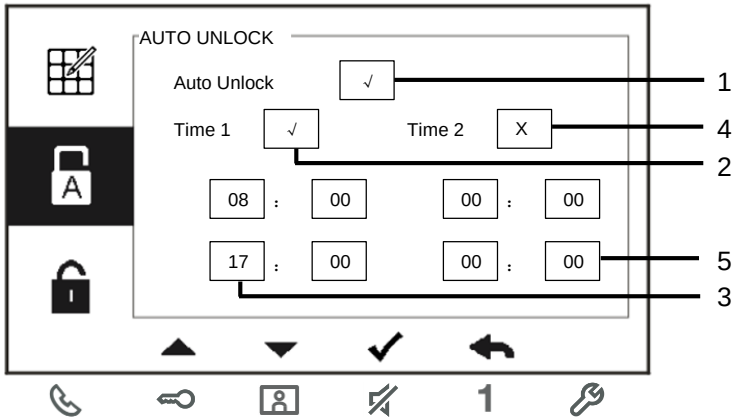


Fig. 11: Auto unlock settings

No.	Functions
1	Enable/disable the auto unlock function.
2	Enable/disable the auto unlock during Time 1.
3	Set starting time and ending time for Time 1
4	Enable/disable auto unlock during Time 2.
5	Set starting time and ending time for Time 2.

*If you activate the auto unlock function without setting exact working time, this function will be available for 10 hours.

*If the auto unlock function is activated, the call forward function will be disabled.

*The function only can be set in master indoor station.

4.3.6 OS password settings

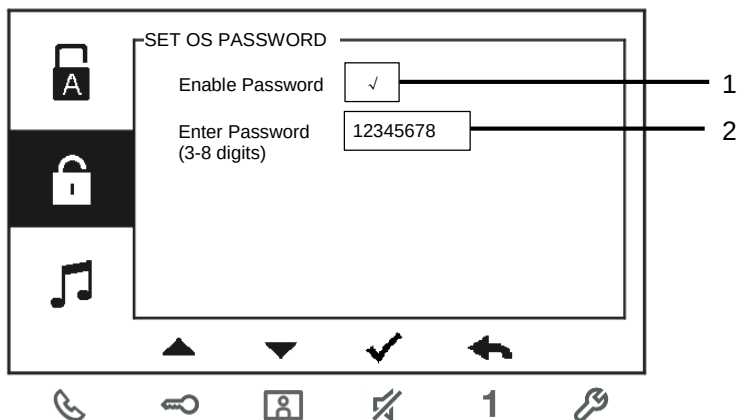


Fig. 12: OS password settings

No.	Functions
1	Enable/disable the password functions
2	Enter the password as you wish in 3~8 digits.

*only available with the keypad.

*The function only can be set in the master indoor station.

4.3.7 Ringtone settings

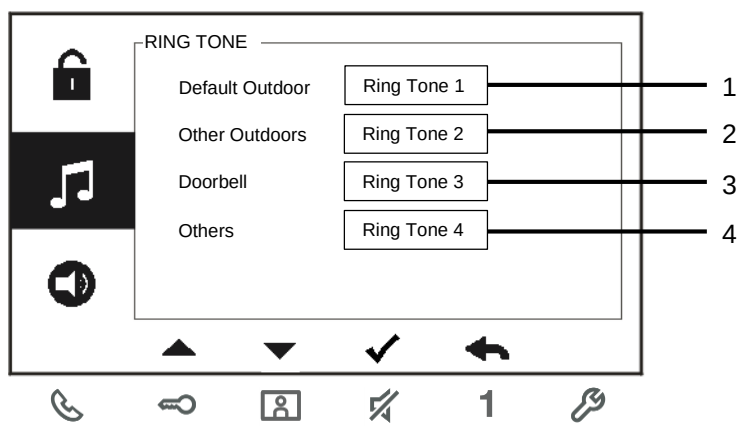


Fig. 13: Ringtone

No.	Functions
1	Select the bell sound for the default outdoor station.
2	Select the bell sound for other outdoor stations.
3	Select the bell sound for the apartment door.
4	Select the bell sound for others, e.g. a call from the guard unit, or an intercom call from other apartments.

4.3.8 Volume settings

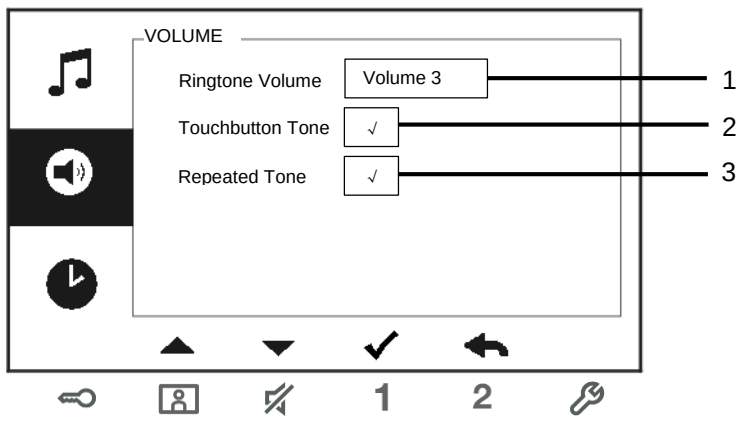


Fig. 14: Volume settings

No.	Functions
1	Set the volume of bell sound.
2	Enable/disable the feedback tone which sounds when the touch button is pressed.
3	The ringtone can be set fixed or cycled.

4.3.9 **Date and time settings

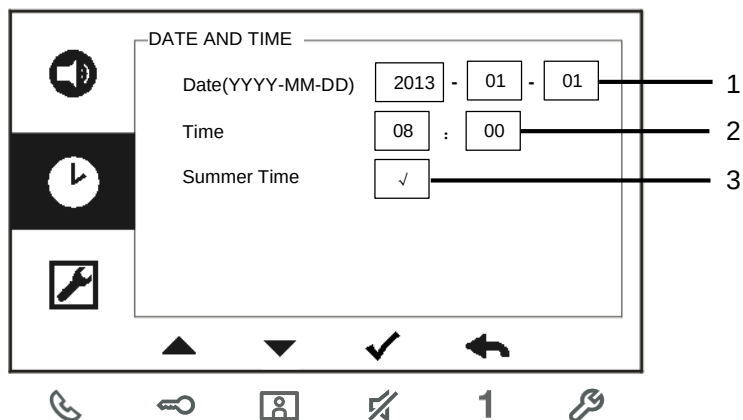


Fig. 15: Date and time settings

No.	Functions
1	Set the date.
2	Set the time.
3	Enable/disable the summer time function.

** The function is only available in M22343-.

4.3.10 Other settings

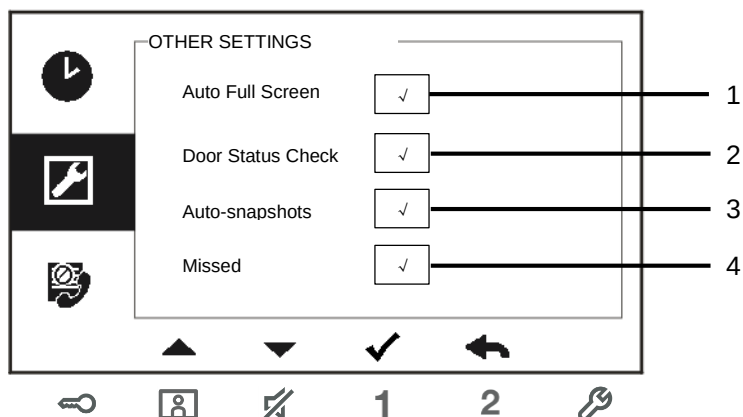


Fig. 16: Other settings

No.	Functions
1	Enable/disable the auto full screen function.
2	Enable/disable the door status check function(only available on condition that the sensor is installed with an outdoor station;  flashes when the door is open).
3	Enable/disable the auto-snapshot function.
4	Enable/disable the missed call function( flashes when there is a missed call).

4.3.11 **History review

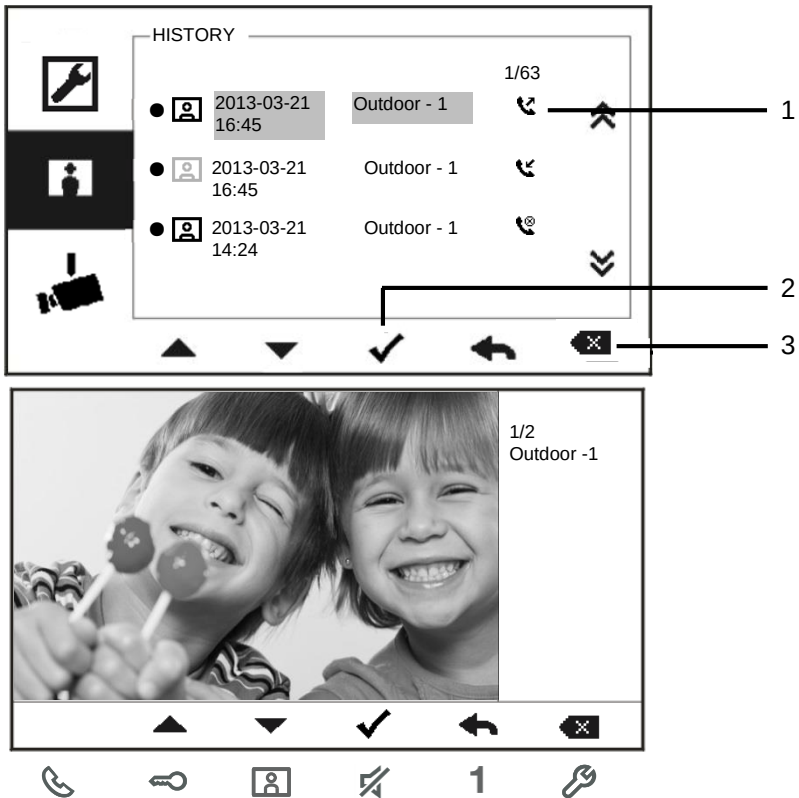


Fig. 17: History review

No.	Functions
1	Up to 100 events can be recorded in the history menu. -If the snapshot function is enabled, an icon is displayed.If no snapshot function, the icon is not displayed.. -Date, time and type of the event are recorded together with the snapshot. - Directions:  means dialing calls  means receiving calls

ABB-Welcome

	 means missed calls
2	Press this button to view details of this event. Two pictures are always made when a visitor rings the bell.
3	Press this button to delete a record item

** The function is only available in M22343-.

4.3.12 Camera List

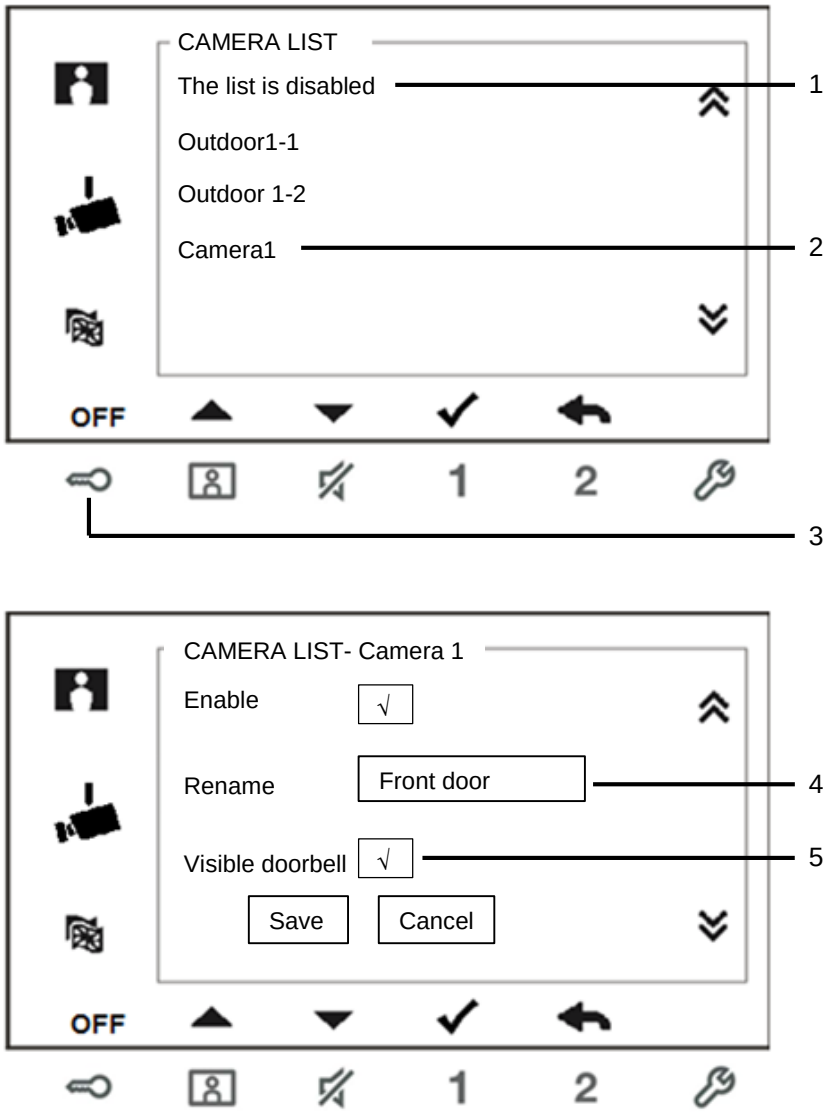


Fig. 18: Camera list

No.	Functions
1	Display the status of camera list. Only if the list is enable, user can make an surveillance according to this list, and also user can edit each surveillance object in the list. -
2	Display the camera from Camera interface.
3	Press this button to enable or disable camera list. Default is set as disable.
4	To set name of the camera.(1~14 characters) The characters only can be number or English characters.
5	Only when a Camera interface (mode=4) is associated with this Indoor station, this optional can be set. Only one camera can be set available. When press the level push button, the image from the camera connected to Camera interface will display on the Indoor station.

4.3.13 Language settings

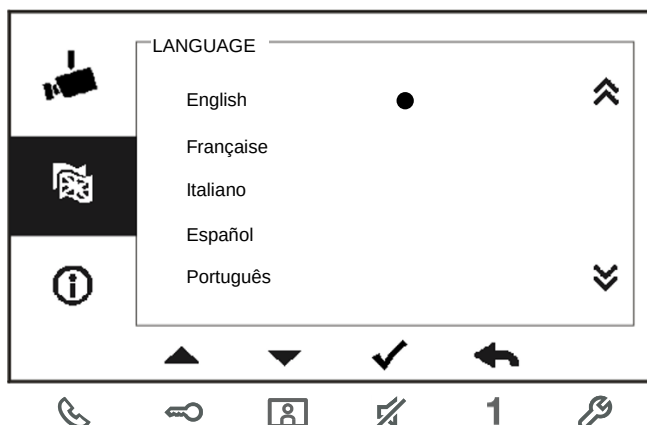


Fig. 19: Language settings

4.3.14 Information

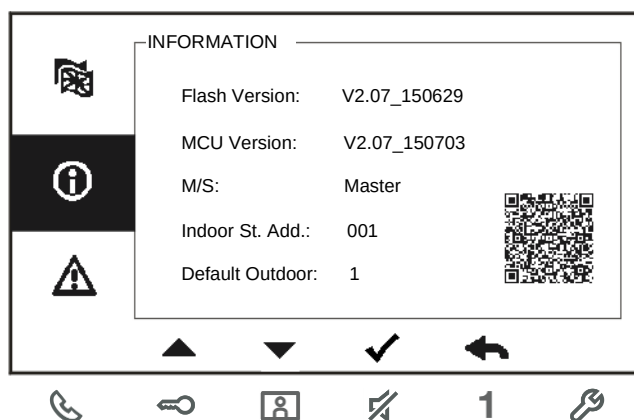


Fig. 20: Information of the indoor station (scanning the QR code to get the detailed instruction of the indoor station)

4.3.15 Reseting factory default

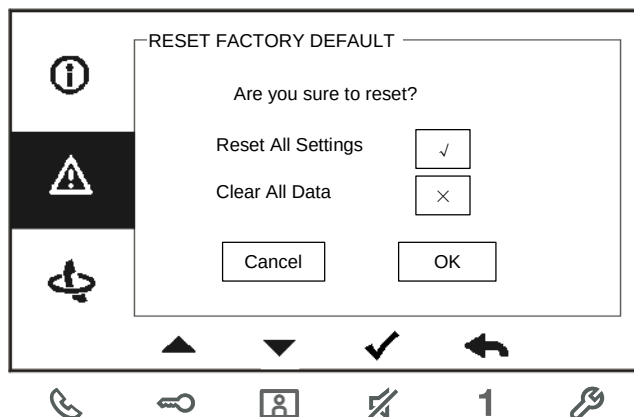


Fig. 21: Reseting factory default

No.	Functions
1	Reset all settings: Reset the device and restore all default configurations. The operation does not delete the programmed data and history, such as intercom lists and switch actuator lists.
2	Clear all data: Delete all programmed data and history. Also all configurations will be restored to factory default settings.

4.4 Cleaning



Caution

Risk of damage to the screen surface.

The screen surface can be damaged by hard or sharp objects!

Never use such objects for entries on the touch screen monitor.

- Use your finger or a plastic stylus.

The screen surface can be damaged by cleaning fluids or abrasive agents!

- Clean the surfaces using a soft cloth and commercially available glass cleaner.
- Never use abrasive cleaning agents.

4.5 Adjusting the device

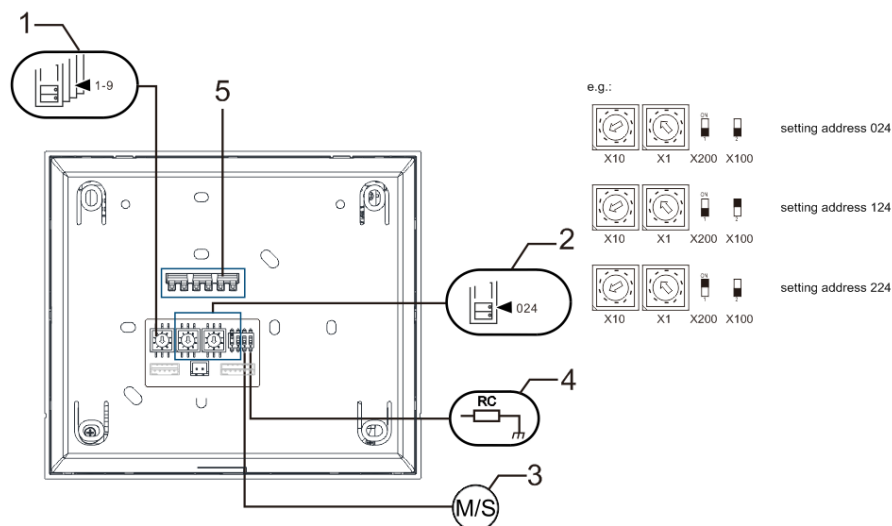


Fig. 22:

1. Station

Selector switch to set the address of default outdoor station.

2. X10 X1

Selector switches to set the address (tens and units digits) of the indoor station.

X200 X100

Dip-switches to set the address (hundreds digits) of the indoor station.

3. Master /Slave function

Only one indoor station in each apartment must be set as "Master" (Switch should be set as 'M/S on'). All additional indoor stations in the same apartment must be set as "Slave" (Switch should be set as 'M/S off').

4. Terminal resistor

In video installations or mixed audio and video installations, the Switch must be set as 'RC on' on the last device of the line.

5. a b = Bus connection

 = Door bell connection

DC GND = Additional power supply

6. Connector for induction loop

5 Technical data

Designation	Value
Display resolution:	480 x 272
Display size:	4.3"
Operating temperature	-10° C - +55° C
Storage temperature	-40° C – +70° C
Protection	IP 30
Single-wire clamps	2 x 0.28 mm ² – 2 x 0.75 mm ²
Fine-wire clamps	2 x 0.28 mm ² – 2 x 0.75 mm ²
Bus voltage	20-30 V
Size	154 x 134 x 23 mm

6 Mounting / Installation



Warning

Electric voltage!

Risk of death and fire due to electrical voltage of 100-240 V.

- Low-voltage and 100-240 V cables must not be installed together in a flush-mounted socket!

In case of a short-circuit there is the danger of a 100-240 V load on the low-voltage line.

6.1 Requirements for the electrician



Warning

Electric voltage!

Install the device only if you have the necessary electrical engineering knowledge and experience.

- Incorrect installation endangers your life and that of the user of the electrical system.
- Incorrect installation can cause serious damage to property, e.g. due to fire.

The minimum necessary expert knowledge and requirements for the installation are as follows:

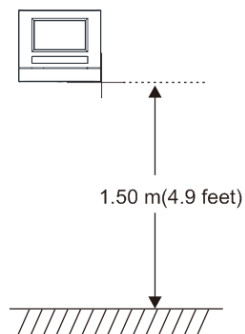
- Apply the "five safety rules" (DIN VDE 0105, EN 50110):
 1. Disconnect from power;
 2. Secure against being re-connected;
 3. Ensure there is no voltage;
 4. Connect to earth;
 5. Cover or barricade adjacent live parts.
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the type supply network (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).

6.2 General installation instructions

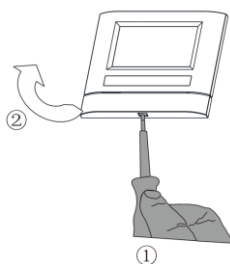
- Terminate all branches of the wiring system via a connected bus device (e.g., indoor station, outdoor station, system device).
- Do not install the system controller directly next to the bell transformer and other power supplies (to avoid interference).
- Do not install the wires of the system bus together with 100-240 V wires.
- Do not use common cables for the connecting wires of the door openers and wires of the system bus.
- Avoid bridges between different cable types.
- Use only two wires for the system bus in a four-core or multi-core cable.
- When looping, never install the incoming and outgoing bus inside the same cable.
- Never install the internal and external bus inside the same cable.

6.3 Mounting

Recommended installation height

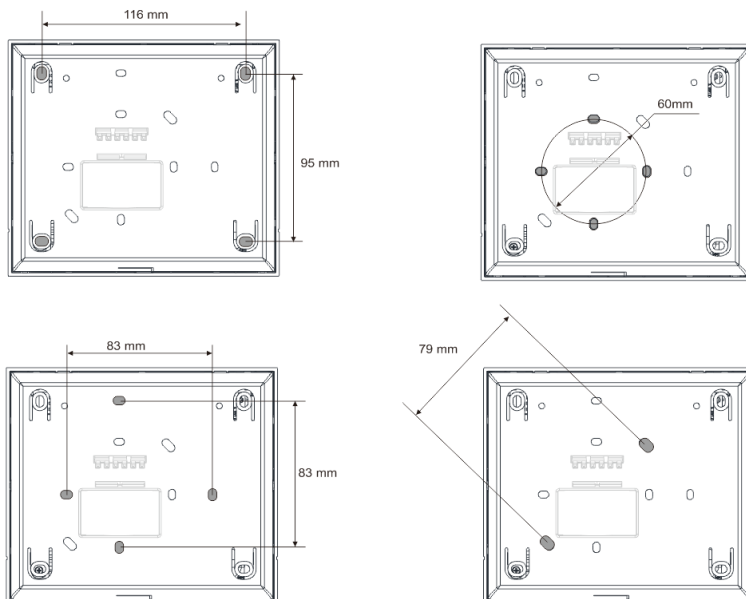


Dismantling



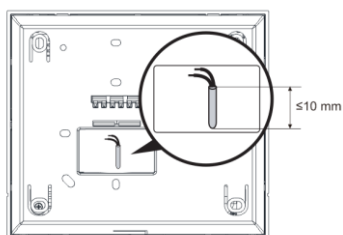
Open the housing of the panel by pulling the clamp at the bottom of the device.

Installation dimension



1. The bottom of the device has screw holes for fastening on the wall according to the above dimension instructions.
2. In addition, the bottom of the device can be fixed to the existing flush-mounted box. The dimension of the compatible flush-mounted box is shown in graphics above.

Wiring



Fix the bottom of the device and connect it in accordance with the graphics. The insulated section of the cable end must not be longer than 10mm.

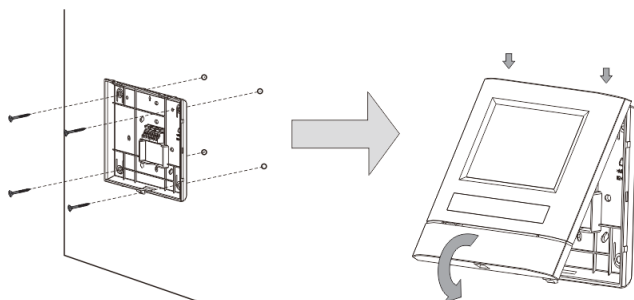
Settings

Set addresses of the preferred outdoor stations and the address of the indoor station on the jumper (see chapter " [Adjusting the device](#) ").

Three types of installation:

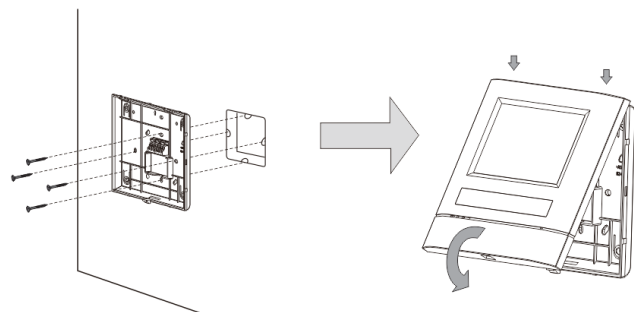
A. Surface-mounted

1) Mounted on the wall



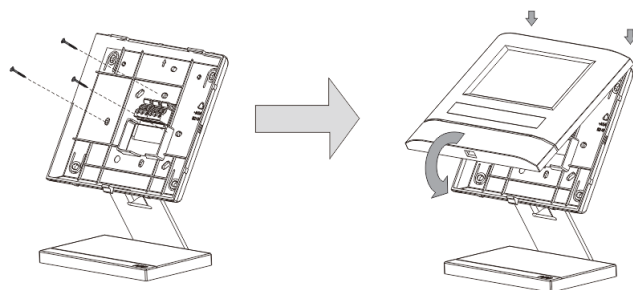
1. Fix the bottom of the device to the wall.
2. Latch the upper part of the device onto its bottom part: place the upper side of the device on the lock-in lugs and then press the bottom side onto the bottom part of the device until it is caught by the clamp.

2) Mounted with flush-mounted box



1. Fix the bottom of the device to the existing flush-mounted box.
2. Latch the upper part of the device onto its bottom part: place the upper side of the device on the lock-in lugs and then press the bottom side onto the bottom part of the device until it is caught by the clamp.

B. Desktop-mounted Mounted with desktop bracket



1. Fix the bottom of the device to the desktop bracket.
2. Latch the upper part of the device onto its bottom part: place the upper side of the device on the lock-in lugs and then press the bottom side onto the bottom part of the device until it is caught by the clamp.

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Notice

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