

Manual

ABB-Welcome System controller

ABB-Welcome System controller

83301-500



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1 Manual planning and Installation

1.1 System controller Mini and auxiliary power supply

The system controller supplies the other bus subscribers with voltage and controls communication on the 2-wire bus. Starting from the system controller, the 2-wire bus divides into two bus lines, the external bus and the internal bus line. A system controller Mini makes 31 consumer units available to the ABB-Welcome system. They are used to supply the connected devices.

The ABB-Welcome system controller additionally offers options for connecting a door opener and hallway or path illumination. The switching times can be set on the device.

1.2 Specifying the scope of the installation

1. Write the number of pieces for each device of the system in column # of the table
2. Multiply the number of pieces # with consumption value V
3. Total the results of all loads (the number of loads must not exceed 31 pieces)
4. Each audio device in parallel operation is counted as 2 devices.

1.3 Calculation of consumption of an ABB-Welcome system

Devices	V	#	Product
Indoor stations			
ABB-Welcome indoor audio station	1	X	+
ABB-Welcome indoor audio station with handset	1	X	+
ABB-Welcome indoor audio station with display	2	X	+
ABB-WelcomeTouch	11	X	+
IP gateway	11	X	+
ABB-free@homeTouch 7"	11	X	+
ABB-Welcome telephone gateway	1	X	+
Outdoor video stations			
ABB-Welcome outdoor video station, 1gang, 2gang, 3gang	8	X	+
Outdoor audio station			
ABB-Welcome outdoor audio station, 1gang, 2gang, 3gang	5	X	+

Devices	V	#	Product
ABB-Welcome outdoor audio station, 4gang, 6gang	6		
ABB-Welcome outdoor audio station, 8gang	11		11 
Outdoor video station with access control			
ABB-Welcome outdoor video station, 1gang and 2gang with fingerprint module	10		
ABB-Welcome outdoor video station with keypad module	8		
ABB-Welcome outdoor video station, 1gang and 2gang with keypad module	10		
ABB-Welcome outdoor video station, 1gang and 2gang with transponder module	10		
Outdoor station with access control			
ABB-Welcome outdoor station with fingerprint module	2		
ABB-Welcome outdoor station with keypad module	1		
ABB-Welcome outdoor station with transponder module	1		
Installation modules			
Audio module assembly	2		

Contents

Devices	V	#	Product
Keypad extension	1		
Camera module	4		
Fingerprint module	2		
Keypad module	1		
Transponder module	1		
System devices			
ABB-Welcome door/light switch actuator	2		
ABB-Welcome flush-mounted switch actuator	1		
Total of loads			
System controller, mini	31	 1	31 
Total of s uppliers			
Total of all s uppliers	Total of loads		Final result
			

1.4 Cable type and signal ranges

The following cable types with a diameter of 0.8 mm are recommended:

- Telecommunication lines J-Y(St)-Y
- Bell lines YR
- Telecommunication lines for outdoor A-2Y(L)2Y

The signal ranges for bus lines

The length of cables between the remotest indoor station and remotest outdoor station must not exceed the following values:

Bus line	Connected indoor or outdoor stations	Signal range
External bus/internal bus line	Audio	600 m
External bus/internal bus line	Audio/video	150 m ¹

Maximum number of devices on the internal bus line

The maximum number of devices per branch must be observed. It is dependent on the current consumption of the connected indoor stations:

Connected device type	Maximum number of indoor stations	Maximum length of cables between the remotest indoor station and remotest outdoor station
ABB-Welcome indoor audio station with and without handset	20 devices	600 m
ABB-Welcome indoor audio station with display	10 devices	600 m ²

¹ The signal range amounts to 150 m if only one ABB-Welcome outdoor video station is connected to the external bus line.

² The shortened length of cable in comparison to the signal range of the ABB-Welcome indoor audio station with display results from the increase in current consumption in comparison to the ABB-Welcome indoor audio station with handset. An auxiliary power supply must be used if the maximum number of devices at system controller Mini is exceeded. In turn, the number of devices and cable length limits specified in the table apply for each of the four outputs of the auxiliary power supply.

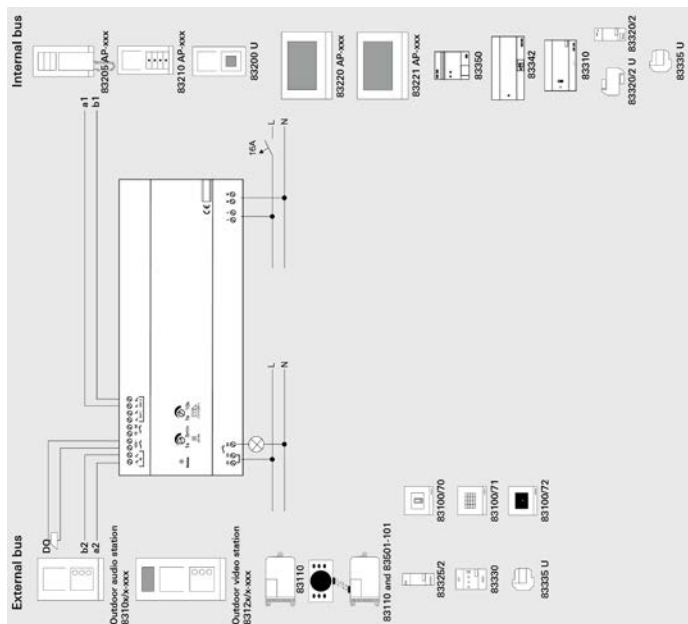
Connected device type	Maximum number of indoor stations	Maximum length of cables between the remotest indoor station and remotest outdoor station
ABB-Welcome indoor audio station with display	10 devices	600 m
ABB-Welcome IP gateway for Busch-ComfortTouch®	2 devices	150 m
ABB-WelcomeTouch	2 devices	150 m
ABB-free@homeTouch	2 devices	150 m

Note: The maximum cable length specified applies to cables with a diameter of 0.8 mm. For a diameter of 0.6 mm the cable length reduces by half.

Note: Each of the maximum number of devices applies only to one cable branch.

1.5 Connection to the internal and external bus of the system controller

For an ABB-Welcome system the communication is established on the internal bus via the door call via the external bus.



1.6 Notes on wiring and installation:

All branches of the wiring system should be terminated via a connected bus device (e.g., one indoor station, outdoor station or a system device). This means that no branches are to be open.

- The system controller Mini should not be installed in the immediate vicinity of bell transformers or other switched power supplies to prevent interference.
- Do not install the lines of the system bus together with 230 V cables.
- Connecting wires for door openers should not be placed in the same cable as the lines of the 2-wire bus. As door openers, high-resistance 12 V AC door openers with at least 20 Ohm are to be used.
- Avoid transitions between different cable types.
- In a cable with four or more wires, only one pair of wires should be used for the 2-wire bus.
- When looping the 2-wire bus to a bus that is incoming to or outgoing from a device, it should not be installed in the same cable.
- Internal and external bus must not be laid in the same cable.
- In an ABB-Welcome system a floor call button for connecting to an indoor station is provided for each apartment. If available, two wires of the cable can be used, which also includes the 2-wire bus. The maximum distance from the indoor station to the floor call button can be 50 metres.

1.7 Topology rules for ABB-Welcome systems

Indoor stations, outdoor stations and system devices must be connected to the system controller Mini according to the topology rules for ABB-Welcome systems.

1.7.1 Topology rules for audio systems

For planning an ABB-Welcome audio system in which, next to control information, only one audio signal is transmitted on a 2-wire bus.

Audio system: Connection of devices to the external bus

The following devices, in addition to the system controller Mini, are usually connected to the external bus of an audio system:

- ABB-Welcome outdoor audio station

- Audio module assembly/keypad extension
- Switch actuator, door/light
- ABB-Welcome flush-mounted switch actuator

Up to four outdoor stations can be operated in one ABB-Welcome system. The door opener and light switching function of door station 1 is implemented via the system controller Mini. For door stations 2-4 one door/light switch actuator for the door opening function and a further door/light switch actuator for a light switching function can be connected.

The connection is made directly on the external bus. With two or more outdoor stations, star-shaped wiring is to be selected. The star point is to be located as close to the system controller as possible.

It is irrelevant whether the external bus is terminated by an outdoor audio station or a switch actuator.

Note: Neither the ABB-Welcome outdoor audio station nor the switch actuator has a switch for the terminal resistor.

Audio system: Connection of devices on the internal bus

The following devices can be connected to an internal bus line of the system controller.

- ABB-Welcome indoor audio station
- ABB-Welcome flush-mounted switch actuator
- Telephone gateway
- ABB-Welcome auxiliary power supplies in systems in which more than 31 consumer units are connected.

There are two options for wiring the devices: Looping and branch line connections ("stub lines"). Both versions can be combined within the one system. (Fig. 1)

Audio system: Looping the internal bus

For a continuous bus line the incoming and outgoing 2-wire bus is connected in parallel on each device during looping. A device must be connected to the end of the bus line, to ensure that the bus line does not remain "open". In all devices of the audio system the terminal resistor should not be activated. The switch "RC" is always on "OFF".

Audio system: Internal bus with stub lines

As an alternative to looping, the devices can also be connected at the end of a branch line or stub line. A typical example of this type of installation is a rising mains in a building which connects the floors. The stub lines branch off to the apartments on the floors. A topology with a rising mains and several stub lines can easily be set up in an audio system. Here the bus lines are switched parallel to the branch connections.

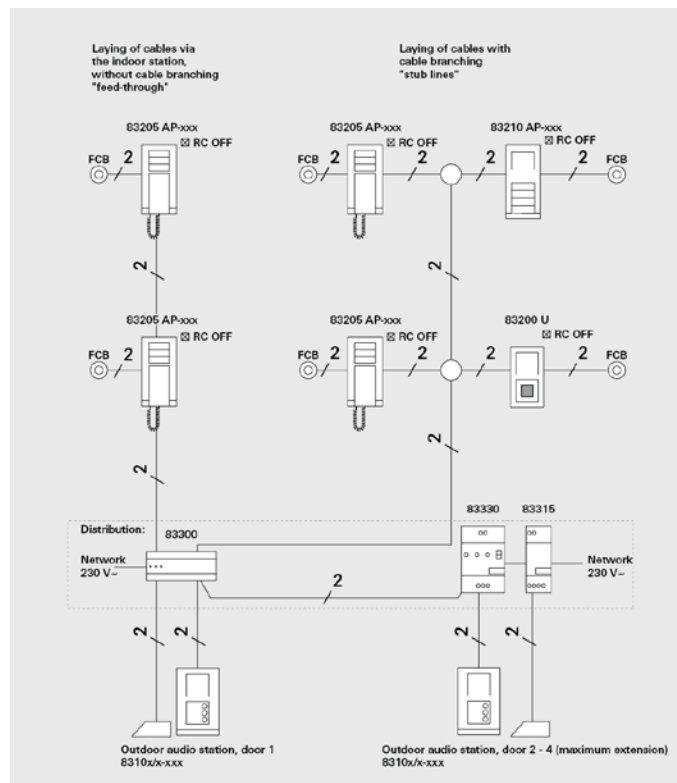


Fig. 1: Schematic setup of an ABB-Welcome audio system

1.7.2 Topology rules for video systems

An ABB-Welcome video system with transmission of the control information, of the audio signal as well as the video signal is planned as follows:

Video system: Connection of devices on the external bus

The devices used for setting up an audio system can also be used for setting up a video system. This means system controller Mini, ABB-Welcome outdoor audio station and indoor audio station.

In addition, the following devices are usually connected to the external bus of a video system:

- ABB-Welcome outdoor video station
- Audio module assembly/keypad extension camera module
- ABB-Welcome video outdoor distributor

For a video system, only branch connections with one outdoor video distributor each are permitted for wiring several ABB-Welcome outdoor video stations. Additional devices - such as the corridor/light switch actuators or ABB-Welcome outdoor audio station - can be connected via looping.

With two or more outdoor stations, star-shaped wiring is to be selected. The star point is to be located as close to the system controller as possible (Fig. 2).

It is irrelevant whether the external bus is terminated by an outdoor audio station, video station or a switch actuator.

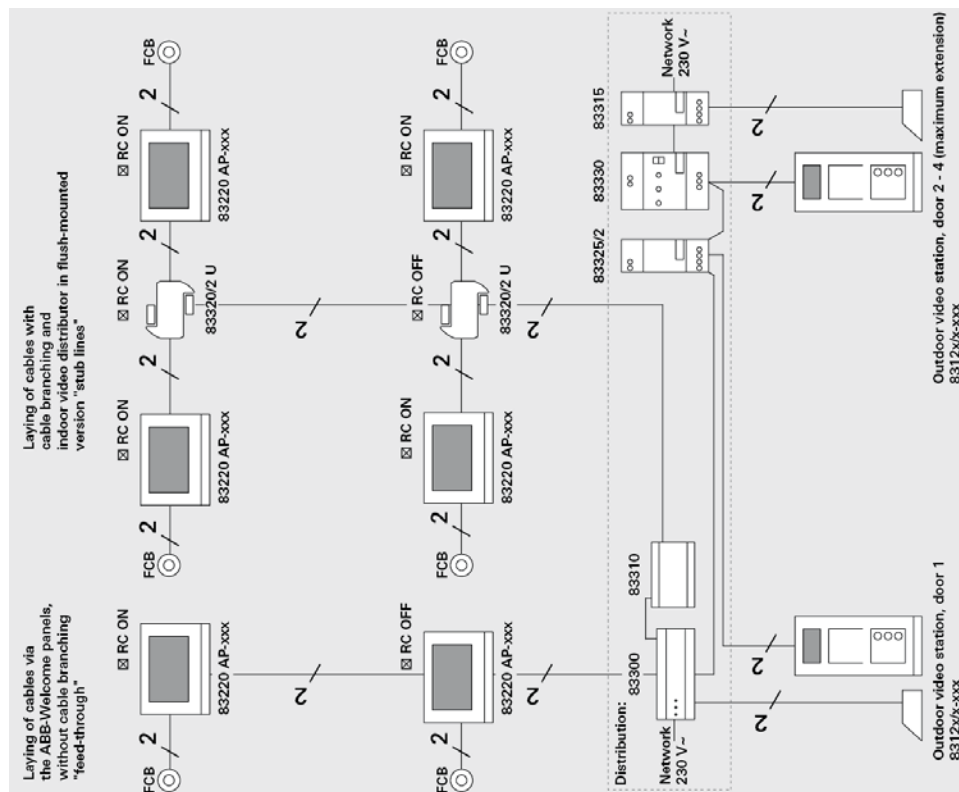


Fig. 2: Schematic setup of an ABB-Welcome video system

Video system: Connection of devices on the internal bus

In addition to the ABB-Welcome indoor audio stations, depending on the layout of the system, the following devices are connected to the internal bus:

- ABB-WelcomeTouch
- ABB-Welcome IP gateway
- Video indoor distributor
- ABB-Welcome flush-mounted switch actuator
- ABB-Welcome auxiliary power supplies in systems in which more than 31 consumer units are connected.

Video system: Looping the internal bus

The 2-wire bus for a video system can be looped from device to device similar to an audio system. This results in a continuous bus line. The terminal resistor must be activated on the last device of the bus line - the switch "RC" is set to "ON". For all other devices the switch is set on "OFF".

Video system: Internal bus stub lines (Fig. 3)

As an alternative to looping, the devices can also be connected at the video system via stub line. In this case a video distributor is to be used on all branch connections.

The video indoor distributors exist as MDRC unit for mounting in a sub-distribution or as built-in device for flush-mounted installation in a junction box. The terminal resistor must be activated on the last device of each stub line and at the end of the riser main - the switch "RC" is set to "ON".

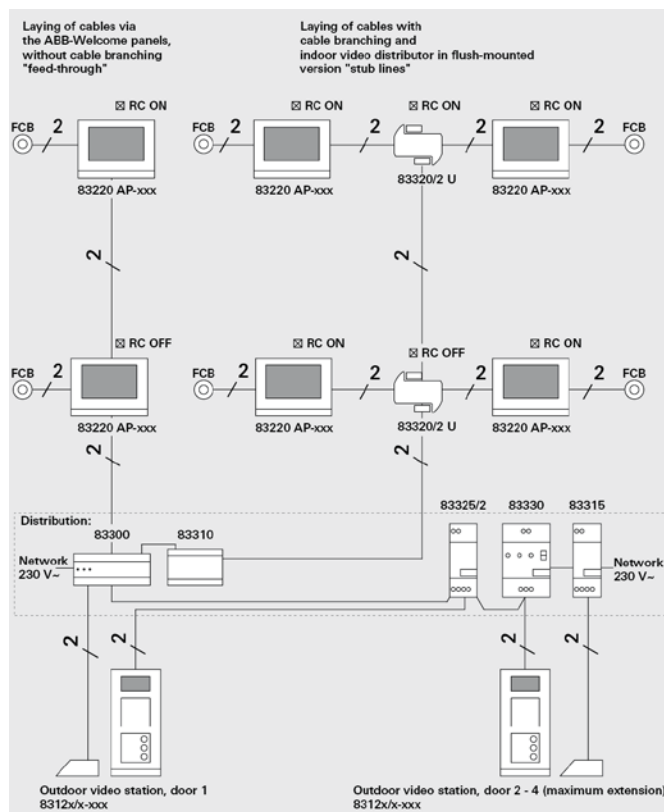


Fig. 3: Schematic setup of a mixed ABB-Welcome audio/video system

1.8 Installation of the outdoor stations (Fig. 4)

For all outdoor stations an installation box of matching colour is available for flush-mounting or surface-mounting.

Surface-mounting is suitable for all types of walls, whether rendered, clinker or hollow wall. It is recommended especially for walls with a thermal insulation composite system. Here the use of suitable mounting material should be ensured.

Also flush-mounting is possible on the same wall types. Because the installation box has a full perimeter frame. For flush-mounting in a cavity wall (thickness between 2 and 25 mm) a cavity wall mounting set consisting of mounting anchors is available.

To make plastering easy after a cavity has been cut into of the wall for flush-mounted installation, a flush-mounting box is available. This is inserted in the cavity. After plastering, the flush-mounted installation box can be inserted into the installation box. For dismantling the end strip, a distance of 1 cm should be kept to the right of the outdoor station.

To be able to change the name plates while the outdoor station is mounted, a distance of 10 cm should remain free below the outdoor station. If this is not possible, the outdoor station must be removed from the installation box to change the name plates.

Note: The camera of the ABB-Welcome outdoor video station should not be directed at strong light sources, such as street lights. This should be taken into consideration when choosing the correct position for mounting. Lamps in the entrance area should uniformly illuminate the face of the visitor. The recommended installation height is 1.50 m. This optimally captures persons of average body size. Bright or backgrounds with a deep contrast should be avoided. It could reduce the quality of the picture.

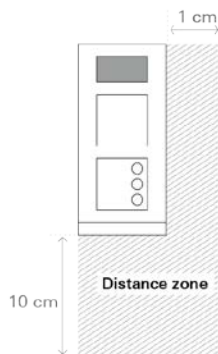


Fig. 4: The distance zones



Fig. 5: Detection angle of camera

1.9 Installation of indoor stations

The ABB-Welcome indoor audio station with handset, audio hands free and the ABB-WelcomeTouch are easy to install as surface-mounted devices with the aid of the enclosed mounting frame. The devices can also be mounted on a commercially available 58-type flush-mounted box.

The ABB-Welcome indoor audio station with display can be installed in the design of various switch ranges and so adapts to the other light switches and socket outlets in an apartment. Two 58-type flush-mounted wall boxes are required for the installation.

Additional information is contained in the operating manuals.

1.10 Installation instructions for system devices

Recommendation: All MDRC units should be mounted in the central distribution of the building. This can be altered depending on the size of the building and topology selected. For example, when installing an auxiliary power supply in the sub-distribution of the apartment, for connecting the devices. The ABB-Welcome indoor flush-mounted video distributor is suitable for mounting in rising mains below a floor call button in a deep flush-mounted box.

2 Examples of connection

In addition to the systems listed in the following, you will find numerous further, detailed documentation about circuits on the Busch-Jaeger homepage at the Internet address **www.busch-jaeger-katalog.de**.

The circuit diagrams are located at the outdoor stations under menu item "Circuit diagrams". Under '6gang video outdoor station', for example, you will find all circuit diagram documents for a system with 6 apartments.

2.1 System type: Access control, one outdoor station

Description of system:

The ABB-Welcome system consists of one ABB-Welcome outdoor station with access control, as well as the associated network supply devices and controllers. Selected can be a fingerprint module 83100/70-66x, a keypad module 83100/71-66x or a transponder module 83100/72-66x.

After commissioning and the setup of a user for the "door-opening" function, the access function is available at all times.

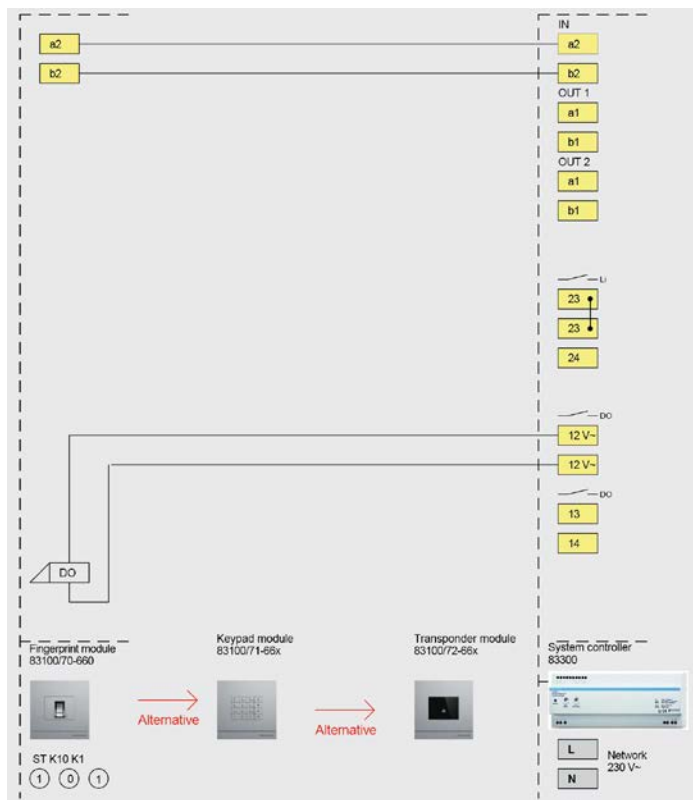


Fig. 6: Access control, one door station

2.2 System type: Audio outdoor station with access control via keypad module

Description of system:

The ABB-Welcome system consists of an ABB-Welcome outdoor audio station with keypad module 83102/71/1-66x-500 and a doorbell button, a switch actuator UP 83335 U-500, and an IP gateway 83342-500, a telephone gateway 83350-500, and the network supply devices and controllers.

The light can be switched with the switch actuator via the light button on the keypad module. An IP gateway can be used to make programming more comfortable. However, commissioning of the system is also possible without the IP gateway.

Doorbell buttons can be assigned to a telephone number in a telephone system by means of a telephone gateway. Via the keypad module up to 99 telephones can be called via the telephone system.

After commissioning and the setup of a user for the "door-opening" function, the access function is available at all times.

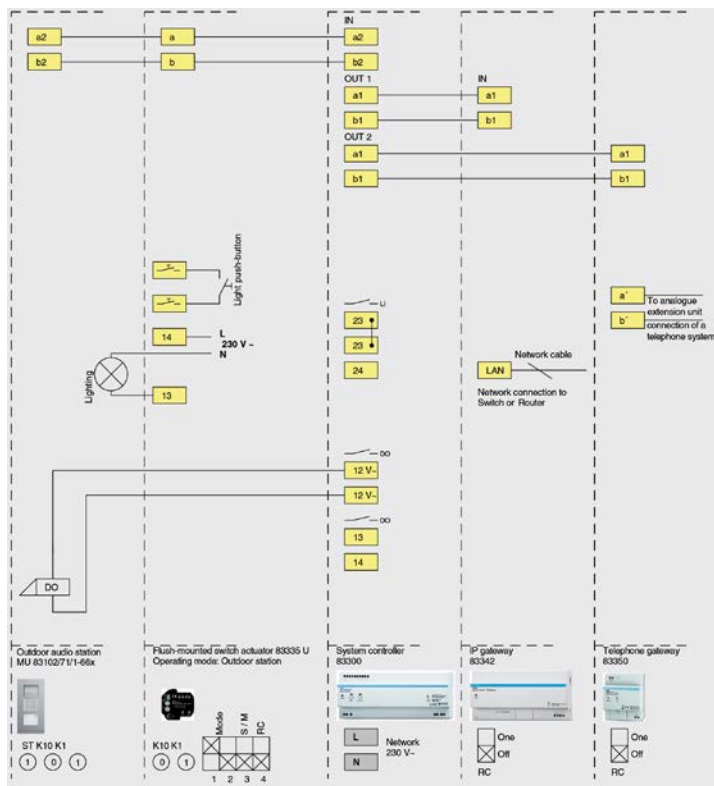


Fig. 7: Audio outdoor station with access control via keypad module

Application of business operation with reception

- Door communication via the telephone system: The telephone at the reception is called via the call button on the outdoor station.
- Keypad module: With the keypad module up to 99 telephones can be called via the telephone system.
- Call of the respective telephone via the indoor station address + button.
- To open the door, enter a 3 to 8-digit code + button.
- Switching of light via switch actuator 83335 U-500 with button.
- Comfortable programming via IP gateway 83342-500.

2.3 Outdoor video station, with integrated and external access control module

Description of system:

The ABB-Welcome system consists of two ABB-Welcome outdoor video stations with access control module, e.g. the ABB-Welcome outdoor video station with fingerprint module 83121/70/1-660 and a doorbell button and an ABB-Welcome outdoor station with fingerprint module 83100/70-66x, as well as an indoor station and network supply devices and controllers.

The door opener is activated via both access control modules.

The ABB-WelcomeTouch 83220 AP-xxx can be used as indoor station. An audio or a video connection is established by ringing the bell at the outdoor station or at the indoor station by switching on the microphone.

There is also the option for connecting a floor call button (FCB). There is an acoustic call tone difference between door call and floor call.

After commissioning and the setup of a user for the "door-opening" function, the access function is available at all times.

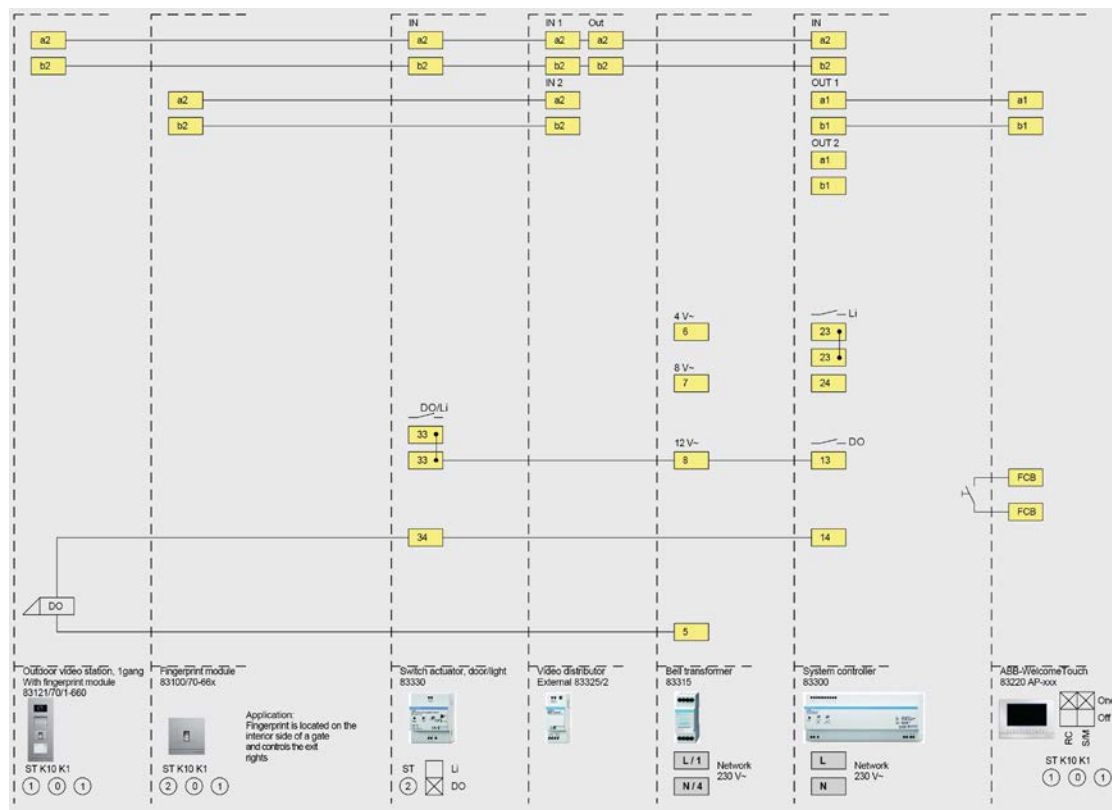


Fig. 8: Outdoor video station, with integrated and external access control module

2.4 System type: Outdoor video station with access control module and indoor video stations

Description of system:

The ABB-Welcome system consists of one ABB-Welcome outdoor video station with access control and three doorbell buttons, as well as an indoor station and network supply devices and controllers.

Selected for the outdoor station can be a fingerprint module 83121/70/3-66x, a keypad module 83121/71/3-66x or a transponder module 83121/72/3-66x.

The ABB-WelcomeTouch 83220 AP-xxx can be used as indoor station. An audio or a video connection is established by ringing the bell at the outdoor station or at the indoor station by switching on the microphone.

There is also the option for connecting a floor call button (FCB). There is an acoustic call tone difference between door call and floor call.

After commissioning and the setup of a user for the "door-opening" function, the access function is available at all times.

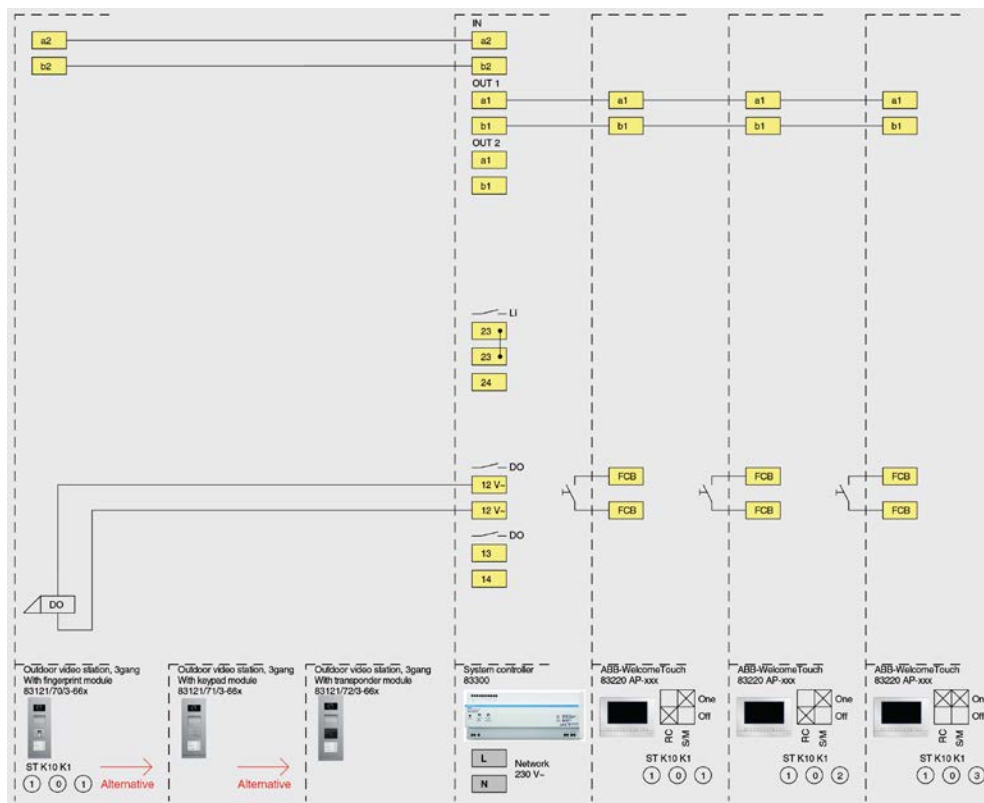


Fig. 9: Outdoor video station with access control module and indoor video stations

2.5 System type: Outdoor video station with access control module as assembly component

Description of system:

The ABB-Welcome system consists of an audio module assembly 83110 and camera 83501-101 with the option of connecting 8 onsite doorbell buttons, an ABB-Welcome keypad module assembly 83171-660 and network supply devices and controllers.

The ABB-WelcomeTouch 83220 AP-xxx can be used as indoor station. An audio or a video connection is established by ringing the bell at the outdoor station or at the indoor station by switching on the microphone.

There is also the option for connecting a floor call button (FCB). There is an acoustic call tone difference between door call and floor call.

After commissioning and the setup of a user for the "door-opening" function, the access function is available at all times.

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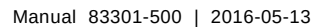


Fig. 10: Outdoor video station with access control module as assembly component

2.6 System type: Outdoor video station with access control module

Description of system:

The ABB-Welcome system consists of one ABB-Welcome outdoor video station with access control and three doorbell buttons, an ABB-Welcome outdoor station with access control, as well as an indoor station and network supply devices and controllers.

Selected for the outdoor video station with access control can be a fingerprint module 83121/70/3-66x, a keypad module 83121/71/3-66x or a transponder module 83121/72/3-66x.

Selected for the outdoor video station with access control can be a fingerprint module 83100/70-66x, a keypad module 83100/71-66x or a transponder module 83100/72-66x.

The ABB-WelcomeTouch 83220 AP-xxx can be used as indoor station. An audio or a video connection is established by ringing the bell at the outdoor station or at the indoor station by switching on the microphone.

There is also the option for connecting a floor call button (FCB). There is an acoustic call tone difference between door call and floor call.

After commissioning and the setup of a user for the "door-opening" function, the access function is available at all times.

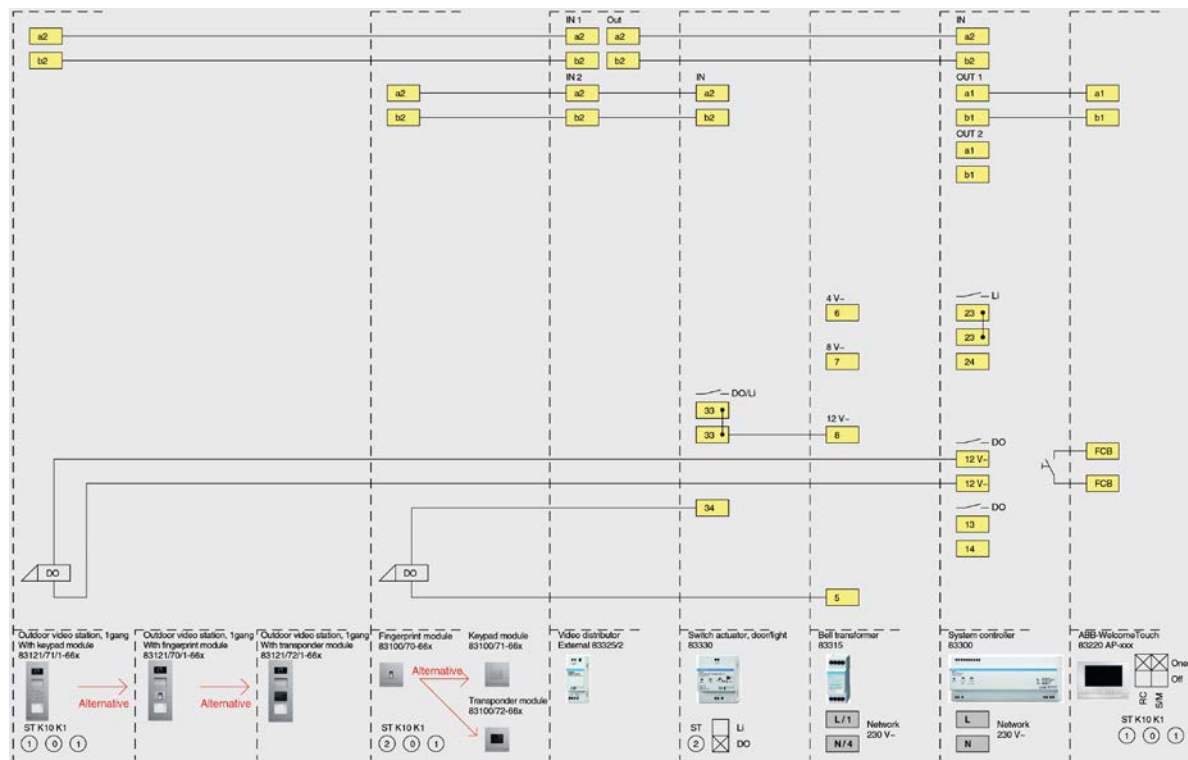


Fig. 11: Outdoor video station with access control module

2.7 System type: Audio SFH, one door station

Description of system:

The ABB-Welcome system comprises one ABB-Welcome outdoor audio station 83101/1-xxx with one doorbell button. Devices 83205 AP-xxx, 83210 AP-xxx or 83200 U can be used as indoor stations.

A connection is established by ringing the bell at the outdoor station or at the indoor station by switching on the microphone. An integrated monitoring barrier prevents a connection being established from the indoor station to the outdoor station if a connection already exists to a different indoor station. A connection lasts at the most two minutes after which it is automatically terminated.

There is also the option for connecting a floor call button (FCB). There is an acoustic call tone difference between door call and floor call. Five bell sounds are available for selection. The door opener function is possible at all times.

Additional functions:

It is possible to operate up to four indoor devices in parallel.

An onsite bell system can be activated with flush-mounted switch actuator 83335 U. The actuator also offers a binary input for the connection of a floor call button.

Note: Please observe the system-specific details for wiring, about transmission ranges, consumer units and system topology in chapter 1 (Manual planning and Installation).

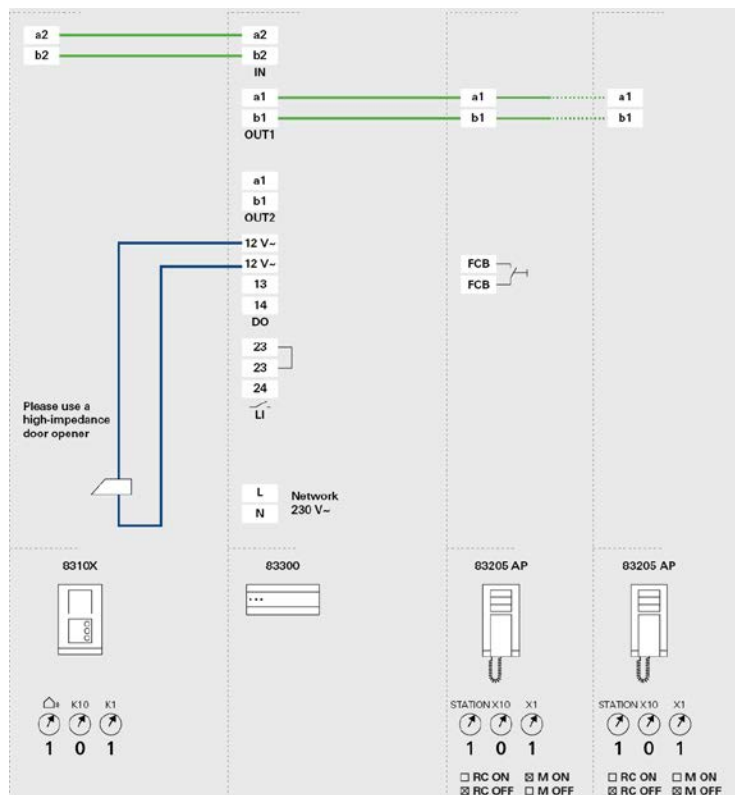


Fig. 12: Audio SFH, one door station

2.8 System type: audio MFH, one door station

Wiring: Rising mains with branch connections

Description of system:

The ABB-Welcome system comprises one ABB-Welcome outdoor audio station 8310x/x-xxx with up to 15 doorbell buttons. Devices 83205 AP-xxx, 83210 AP-xxx or 83200 U can be used as indoor stations.

A connection is established by ringing the bell at the outdoor station or at the indoor station by switching on the microphone. An integrated monitoring barrier prevents a connection being established from the indoor station to the outdoor station if a connection already exists to a different indoor station. A connection lasts at the most two minutes after which it is automatically terminated.

At every indoor station there is also the option for connecting a floor call button (FCB). There is an acoustic call tone difference between door call and floor call. Five bell sounds are available for selection. The door opener function is possible at all times.

Additional functions : For each apartment, and under consideration of the necessary consumer units, it is possible to operate up to four indoor devices in parallel.

An onsite bell system can be activated with flush-mounted switch actuator 83335 U. The actuator also offers a binary input for the connection of a floor call button.

Note: Please observe the system-specific details for wiring, about transmission ranges, consumer units and system topology in chapter 1 (Manual planning and Installation).

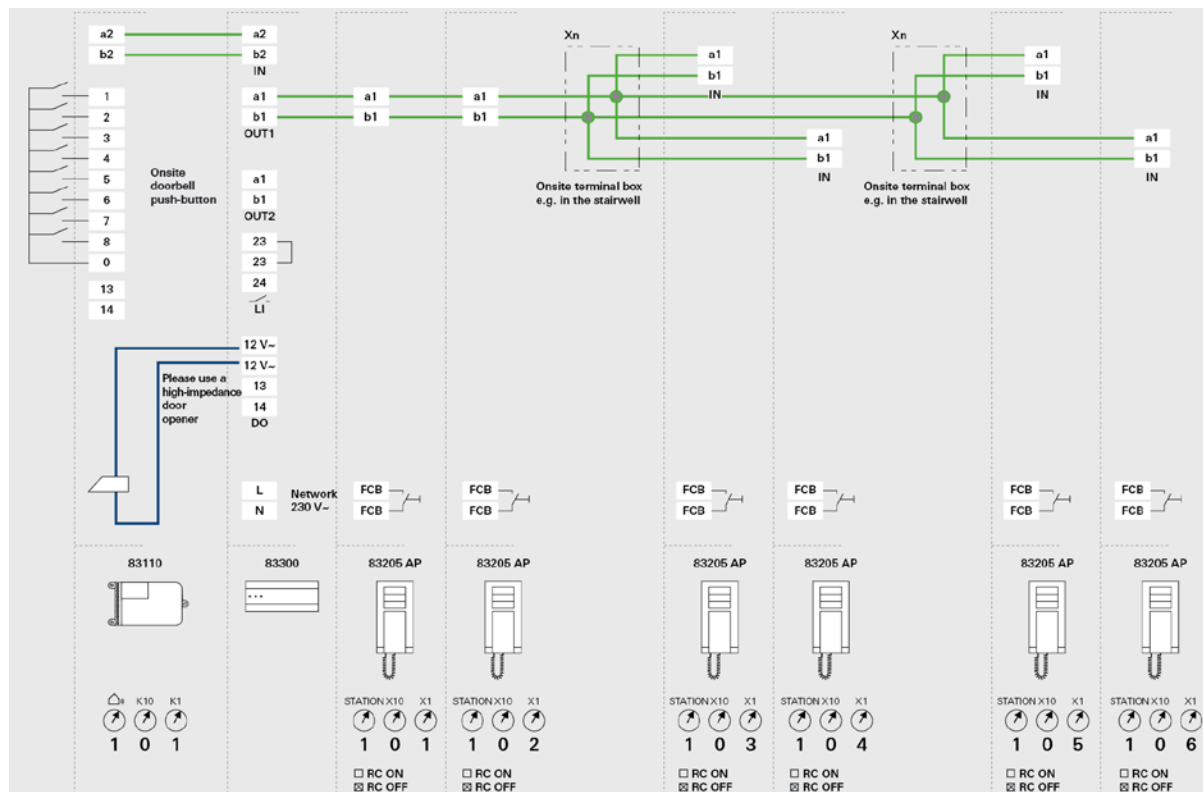


Fig.13: Audio MFH, one door station

2.9 System type: Audio with up to 2 door stations

Wiring of doors: Star-shaped

Description of system:

The ABB-Welcome audio system can be extended by up to two ABB-Welcome outdoor stations 8310x/x-xxx or module assemblies 83110-500 and 83111-500. Devices 83205 AP-xxx, 83210 AP-xxx or 83200 U-500 can be used as indoor stations.

For each additional door station an ABB-Welcome door/light switch actuator 83330-500 is required for activating a door opener. The additional door openers are supplied with voltage via bell transformer 83315-500.

A connection is established by ringing the bell to the calling outdoor station. The door opening function is assigned automatically via the bell call. Without a bell call the "Standard outdoor station" set at the indoor station is active.

Connections that are established at an outdoor station always have a higher priority than existing connections. This means that an existing connection is interrupted as soon as a different participant is called at the same outdoor station.

On two or more outdoor stations an existing call has priority, a further call from a different outdoor station receives a negative acknowledgement.

A resident cannot establish a connection to an outdoor station if one already exists (monitoring barrier). An occupied ABB-Welcome system is signalled on the indoor stations via a visual feedback.

Contents

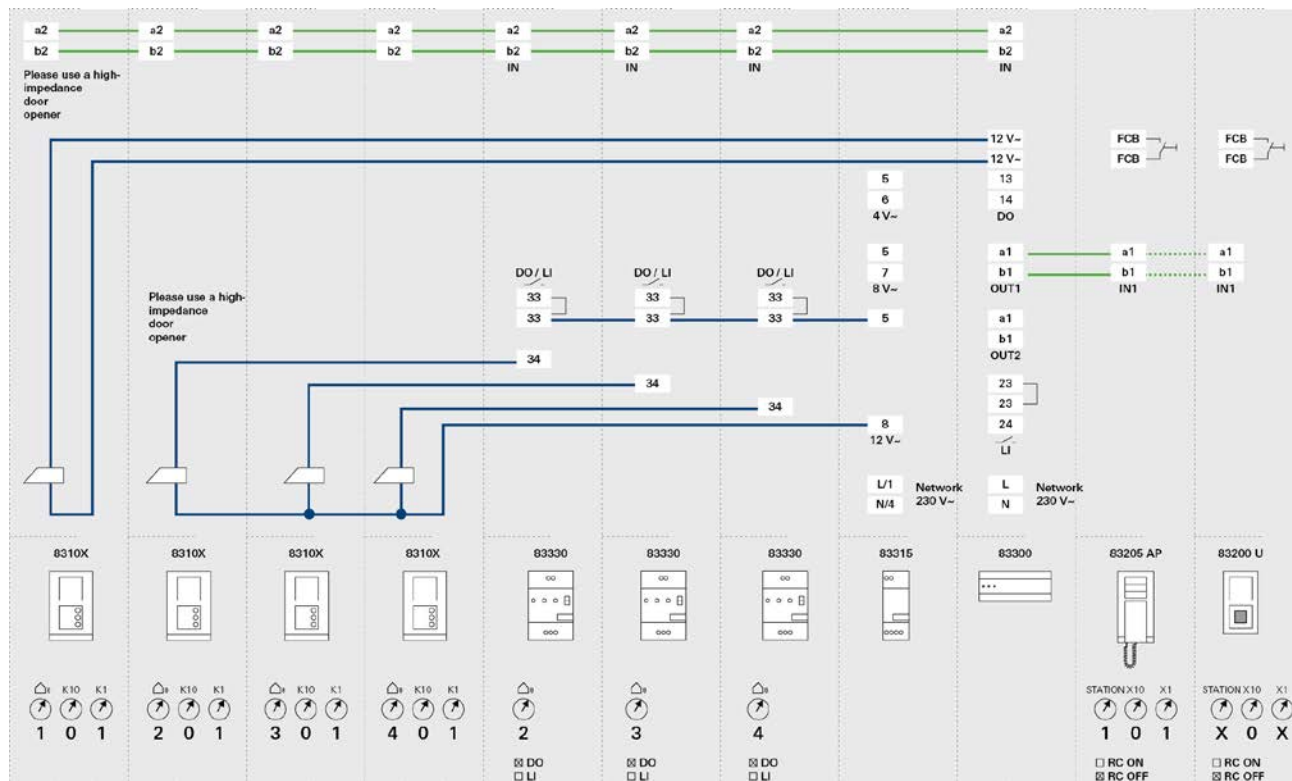


Fig.14: Audio with up to 2 door stations

2.10 System type: Video for 1-2 private apartments, one door station

Description of system:

The ABB-Welcome system consists of one ABB-Welcome outdoor audio station 8312x/x-xxx with up to 2 doorbell buttons under consideration of the necessary consumer units. The ABB-WelcomeTouch 83220 AP-xxx or audio devices 83205 AP-xxx, 83210 AP-xxx and 83200 U-500 can be used as indoor stations.

An audio or a video connection is established by ringing the bell at the outdoor station or at the indoor station by switching on the microphone. An integrated monitoring barrier prevents a connection being established from the indoor station to the outdoor station if a connection already exists to a different indoor station. A connection lasts at the most two minutes after which it is automatically terminated.

There is also the option for connecting a floor call button (FCB). There is an acoustic call tone difference between door call and floor call. Five bell sounds are available for selection. The door opener function is possible at all times.

Additional functions:

Under consideration of the necessary consumer units, it is possible to operate up to four indoor devices in parallel.

Note: Please observe the system-specific details for wiring, about transmission ranges, consumer units and system topology in chapter 1 (Manual planning and Installation).

Contents

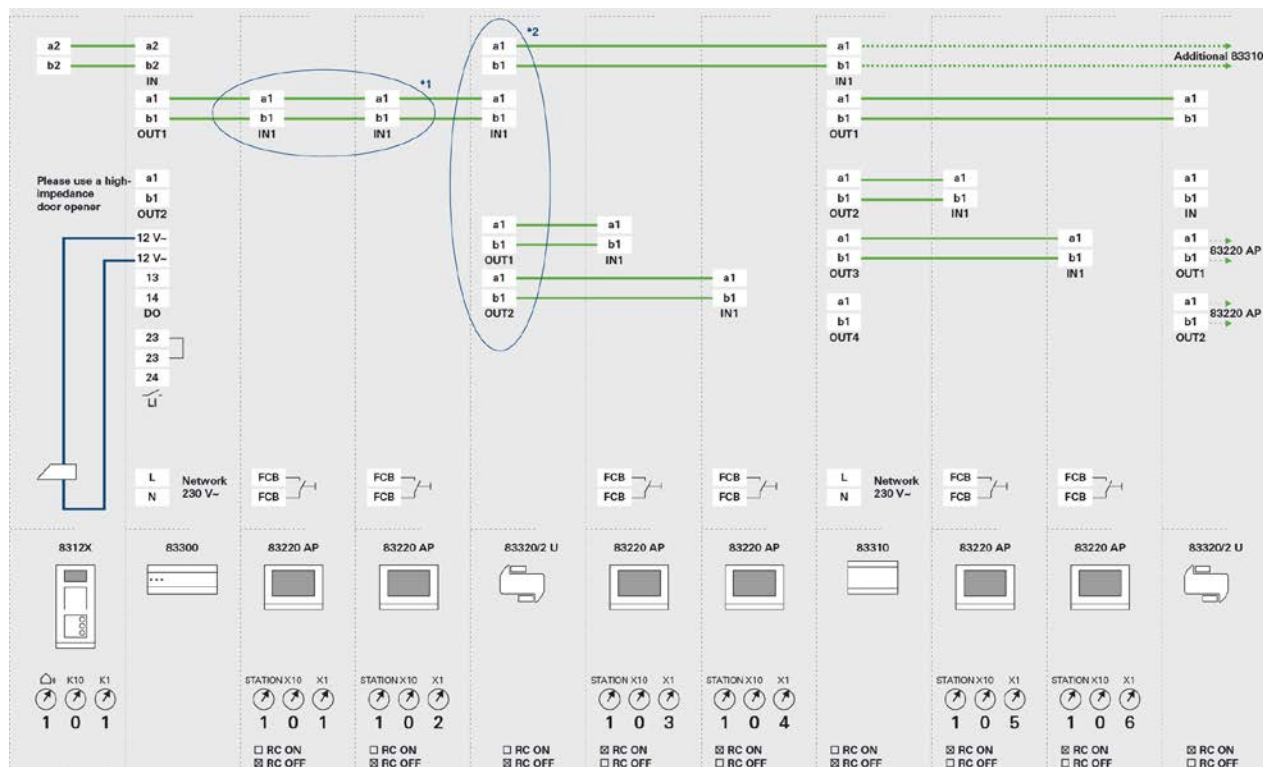


Fig.15: Video MFH, one door station

2.11 System type: Video with up to 2 door stations

Wiring of doors: Star-shaped

Description of system:

The ABB-Welcome video system can be extended by up to four ABB-Welcome outdoor stations 8312x/x-xxx or module assemblies 83110-500 and 83111-500.

The ABB-WelcomeTouch 83220 AP-xxx or audio devices 83205 AP-xxx, 83210 AP-xxx and 83200 U-500 can be used as indoor stations.

For each additional door station an ABB-Welcome door/light switch actuator 83330-500 and an outdoor video distributor 83325/2-500 is required. The additional door openers are supplied with voltage via bell transformer 83315-500.

A connection is established by ringing the bell to the calling outdoor station. The door opening function is assigned automatically via the bell call. Without a bell call the "Standard outdoor station" set at the indoor station is active.

Connections that are established at an outdoor station always have a higher priority than existing connections. This means that an existing connection is interrupted as soon as a different participant is called at the same outdoor station.

On two or more outdoor stations an existing call has priority, a further call from a different outdoor station receives a negative acknowledgement.

A resident cannot establish a connection to an outdoor station if one already exists (monitoring barrier). An occupied ABB-Welcome system is signalled on the indoor stations via a visual feedback.

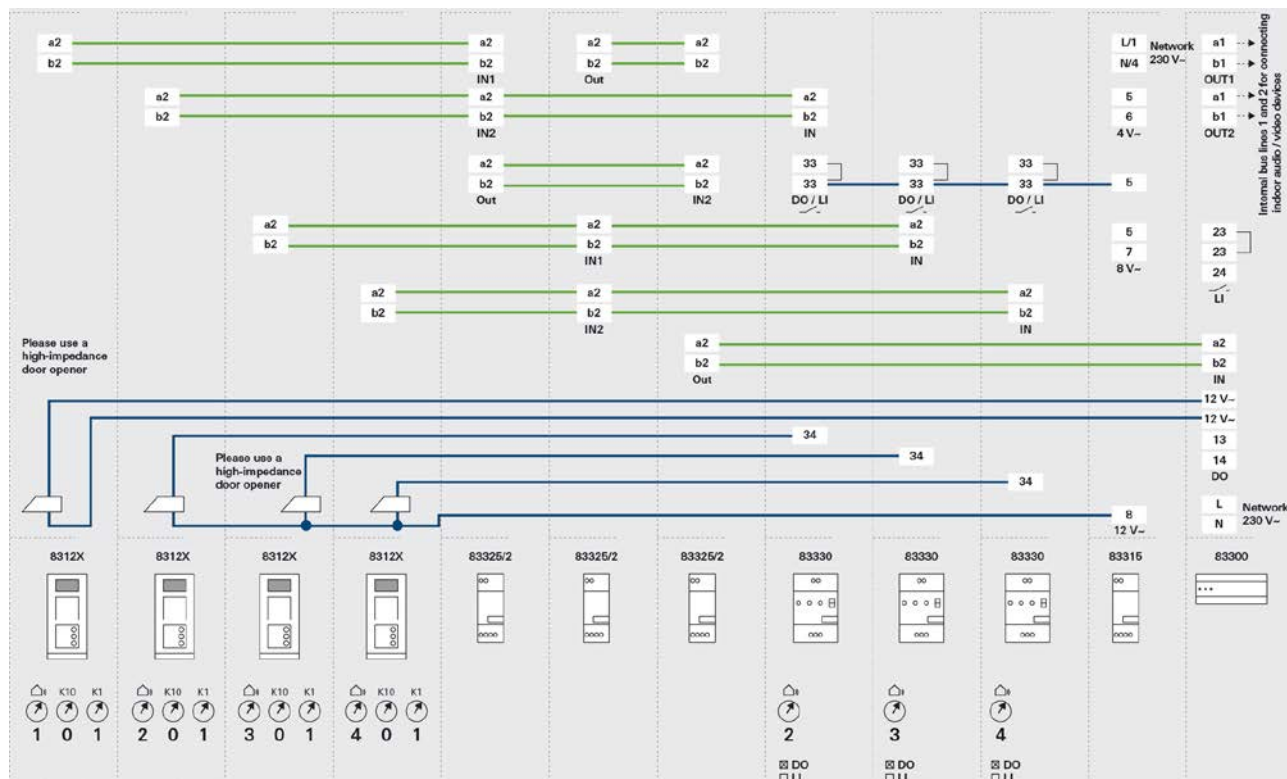


Fig. 16: Video with up to 2 door stations

2.12 Connection and use of the audio module assembly

Audio module assembly

The audio module assembly is the basic component. It has a loudspeaker and a microphone, a connection to the 2-wire bus, binary inputs for the connection of up to 8 doorbell buttons as well as interfaces for connecting with the keypad extensions and the camera module.

Camera module

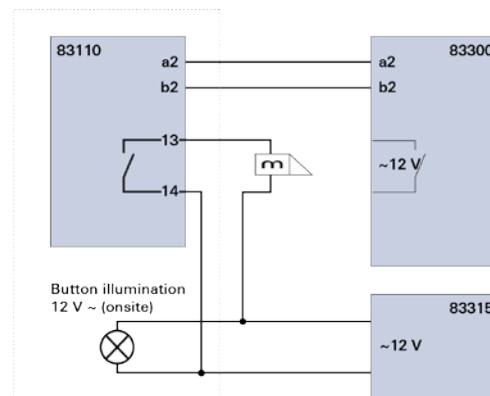
There are no standardized installation conditions for the camera module. The cut-out must be made specially to match the dimensions of the Busch-Jaeger camera module. This must be taken into consideration when ordering the intercom panel or the letterbox. The recommended installation height is 1.5 m.

Keypad extension:

The keypad extension adds further binary inputs to expand the audio module assembly. The audio module assembly can be linked with up to 8 keypad extensions, to make the connection of up to 99 call buttons possible.

Connecting the door opener

The audio module assembly has an integrated relay for switching the door opener (connecting terminals 13/14). This function is particularly interesting when renovating, where an old outdoor station is to be replaced and the door opener is already wired. The problem with this wiring lies in the system security.



If an unauthorized person opens the installation compartment of the letterbox, he can gain access by simply short-circuiting the wires. The recommendation therefore is not to use this type of wiring for security-critical areas (e.g. garden door).

Contents

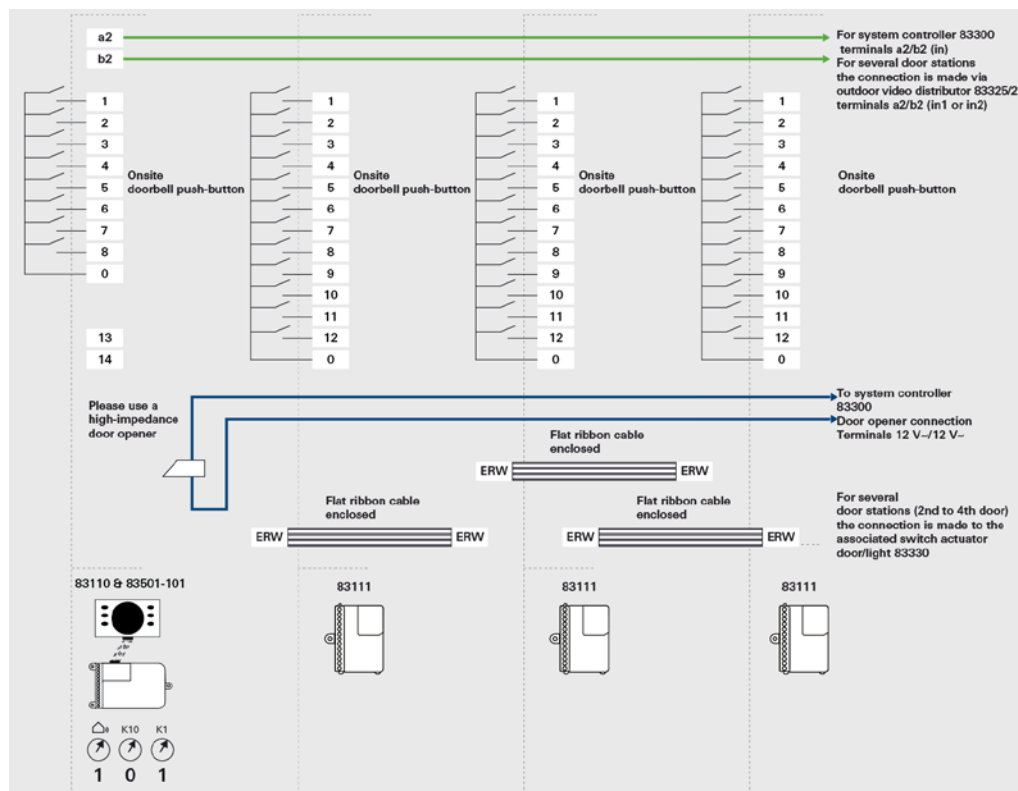


Fig. 17: Video with up to 2 door stations

2.13 System type: Video with IP gateway

Description of system:

As supplement to the permanently installed indoor stations, up to four participants can be integrated into the ABB-Welcome system via IP gateway 83342. Participants are smartphones, tablet PCs (Android from Version 4.0 and Cortex-A8 CPU and Apple from iOS 7), Busch-ComfortTouch® 8136/09-xxx and 8136/12-xxx or Busch-ComfortTouch® 8136. Different participants can be mixed, e.g. a Busch-ComfortTouch®, a tablet PC and two smartphones.

The IP gateway is configured comfortably via any web browser. The configuration page "App management" offers the option of coupling up to four mobile terminal devices. On configuration page "Associated Busch-ComfortTouch® 3.x", up to three user profiles with different rights for connecting Busch-ComfortTouch® 8136/09-xxx and 8136/12-xxx can be created.

One Busch-ComfortTouch® 8136 can be configured on configuration page "Associated Busch-ComfortTouch® 2.x".

Note: The IP gateway acts like an indoor station, i.e. it can only be assigned to one doorbell button. All participants connected to the IP gateway then operate in parallel.

Note: Wireless connections to mobile terminal devices (WLAN) can be interrupted, even when the network is normally stable. Recommended as supplement to mobile terminal devices is the installation of a cabled indoor station so as not to miss any calls.



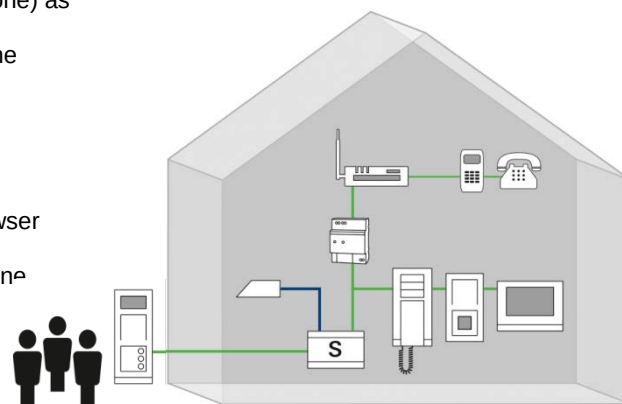
Fig. 18: Programming audio with the telephone gateway via an IP gateway

2.14 ABB-Welcome telephone gateway

The telephone plays an increasingly important role in more and more areas of daily life. Its benefits can also be used to advantage in modern door communication. This is now made evident with the ABB-Welcome telephone gateway. It can supplement the function of an ABB-Welcome indoor station and accept door calls, and with a telephone exchange redirect these to analogue fixed network, DECT, ISDN or mobile telephones.

The following contains several details on the ABB-Welcome telephone gateway:

- For connecting an ABB-Welcome system to the analog inputs of an existing telephone system.
- Permits the use of a telephone (e.g., DECT, ISDN, mobile telephone) as indoor door communication station.
- Communication, door-opening, switching of lights via the telephone keypad (DTMF)
- Switchover between freely programmable phone numbers via the telephone keypad (DTMF)
- PIN protection for all configuration settings
- For ABB-Welcome systems with up to 99 apartments.
- Programming via the telephone keypad (DTMF) or via a web browser (requires IP gateway 83342-500).
- 2 screw-type terminals for the analogue connection of the telephone system
- Consumer units: 1
- Protection class: IP 20
- Temperature range of device: -5°C to 45°C
- Dimensions (H x W x D): 90 mm x 72 mm x 65 mm
- Module width: 4 M



Contents

- 2.15 System type: Audio with telephone gateway
- 2.15.1 Programming the telephone gateway via a telephone system telephone (DTMF)

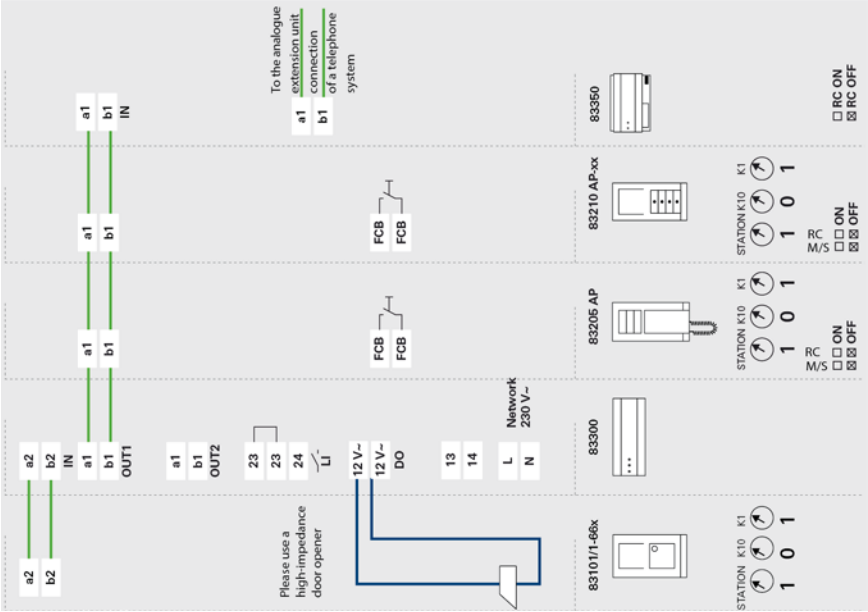


Fig. 19: Programming the telephone gateway via a telephone system telephone

2.15.2 Programming the telephone gateway via an IP gateway

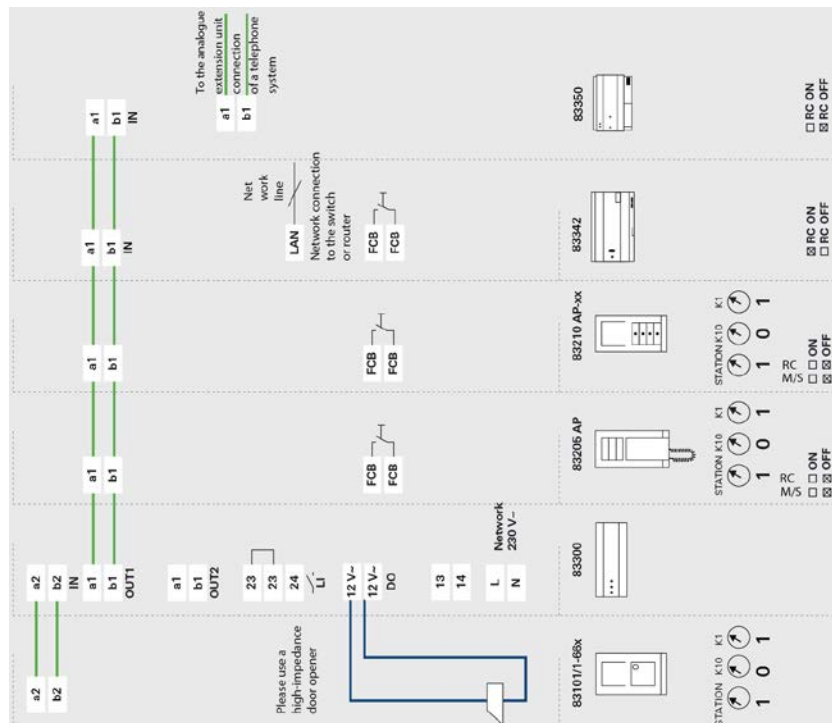


Fig. 20: Programming the telephone gateway via an IP gateway

Note: The telephone gateway does not have a rotary switch for setting addresses. The address of the indoor station (01) is set on the telephone gateway.

2.16 Flush-mounted switch actuator 83335 U-500

Indoor station operating mode

The flush-mounted switch actuator complements the ABB-Welcome system with one actuator for installation in a 55 mm ø flush-mounted wall box.

In "Indoor station" operating mode the actuator switches at an incoming door/floor call. A push-button connected to an extension unit functions as floor call button. All indoor stations with the same address trigger a floor call. The relay of the actuator switches.

Application: Activation of an onsite signal generator parallel to the indoor station (auxiliary signal function). Switch actuator and the indoor station receive the same address, the switch actuator operates as slave. The switching time of the relay can be set from one second up to one minute via a potentiometer.

The switch actuator can also be activated via a call button without a parallel indoor station. The device then operates as master and receives the address of the call button via which the actuator is to be activated.

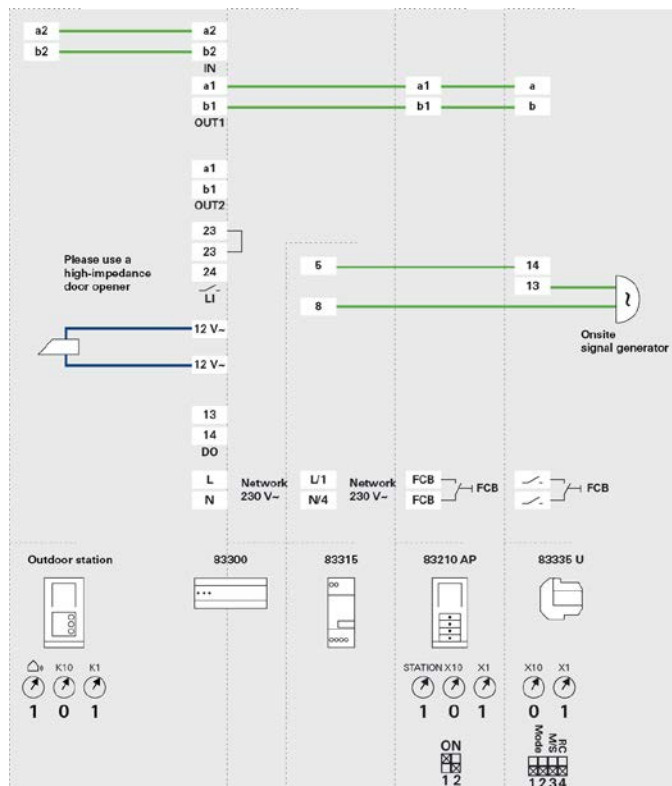


Fig. 21: Flush-mounted switch actuator 83335 U

3 Commissioning

3.1 Addressing

3.1.1 Assigning doorbell push-buttons to apartments

The indoor stations of the apartments can be assigned to the doorbell push-buttons of a door station by setting the address of the device. When the doorbell push-button is pressed the call is received at the fixed address.

3.1.2 The use of several outdoor stations: Uniform assignment of doorbell buttons

With several outdoor stations within an ABB-Welcome system the call buttons of each outdoor station are generally assigned similarly. This means that all apartments can be called from all outdoor stations. This is practical for buildings with several entrances - from each of which all apartments are accessible.

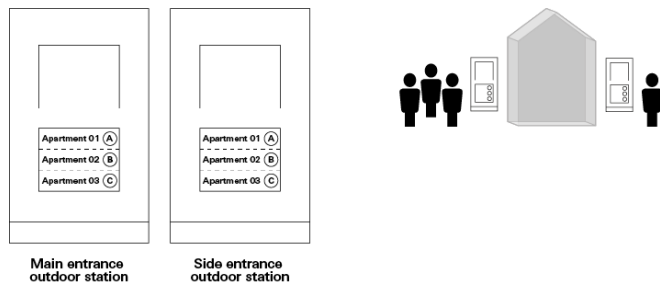


Fig. 22: The use of several outdoor stations: Uniform assignment of doorbell buttons

3.1.3 Assigning the doorbell push-button of an outdoor station to an apartment

Factory assignment of doorbell push-buttons

The doorbell push-buttons of an outdoor station are assigned to the apartments consecutively from top to bottom and left to right with the addresses 01, 02, etc. This assignment applies equally to several outdoor stations in a system. In the following illustration push-button A of every outdoor station is assigned to apartment 01 etc. This factory setting is fixed via two potentiometers on the rear of the outdoor station. "K10" must be set on "0" and "K1" on "1".

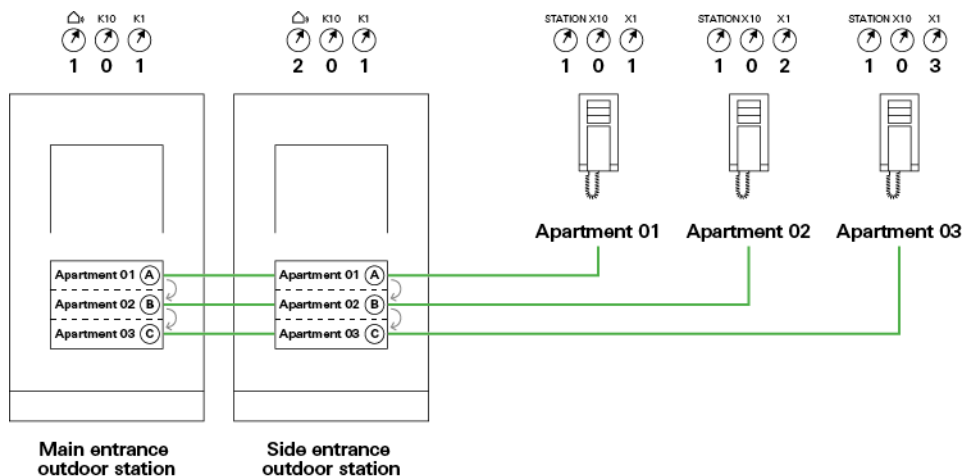


Fig. 23: Assigning the doorbell push-button of an outdoor station to an apartment - Factory assignment of the doorbell push-buttons

3.1.4 Change in the assignment of the doorbell push-buttons ("Offset")

The preset addresses of the doorbell push-buttons can be changed. This means that the top doorbell push-button on the left side is assigned to a different apartment.

The other doorbell push-buttons are consecutively assigned to the other apartments. The following illustration shows three outdoor stations.

The outdoor station at the gate entrance and the outdoor station at the left building show the factory assignment of the doorbell push-buttons. At the outdoor station of the building on the right an offset of 03 is set. The value of the "Offset" is fixed on two potentiometers at the rear of the outdoor station. Here "K10" indicates the tens digit (here "0") and "K1" the single digit (here "3"). The factory setting of the offset is on "01".

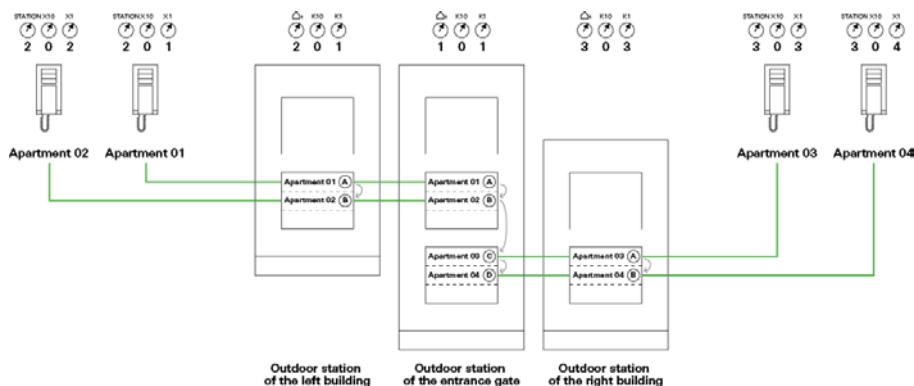


Fig. 24: Change in the assignment of the doorbell push-buttons ("Offset")

3.1.5 The use of several outdoor stations: Assigning the standard outdoor station

The ABB-Welcome system guarantees the opening of the door at several outdoor stations at which a visitor has rung the bell. The resident simply presses the button "Open door" at the indoor station. Also the associated light at the entrance can be switched on. Opening and switching in the apartment is also possible without an existing outside call.

For several entrances with an outdoor station, one standard outdoor station is defined for opening the door and switching the light. The setting is made at the indoor stations of each apartment. With the ABB-WelcomeTouch the camera image of an outdoor station can also be activated without having received a call. Here the camera image of the standard outdoor station is displayed.

3.1.6 Setting the address of the outdoor station

The allocation to one of the four inputs of the ABB-Welcome system is made on the outdoor stations and the associated switch actuators for door and light via the setting of the address. Here rotary knob house/outdoor is set on an address between 1 and 4. The knob is located on the rear of the outdoor station and the audio module or on the front of the MDRC switch actuator.

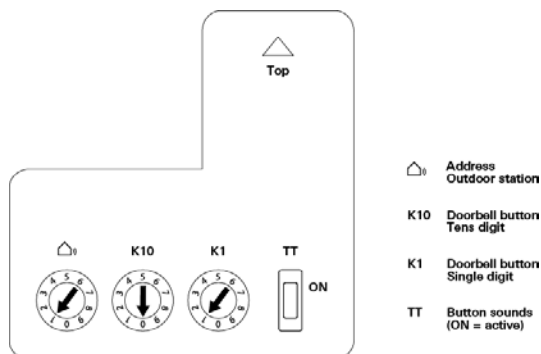


Fig. 25: Setting the address of the outdoor station

3.2 Setting the button sounds on/off

On the outdoor stations the acoustic feedback signal is switched on and off via the "TT" button sounds switch when a doorbell button is pressed. The switch is located on the rear of the outdoor station.

3.3 Setting the address of the indoor station

At the indoor stations the apartment is assigned via the setting of the address. Up to 99 apartments can be addressed within an ABB-Welcome system. In each of these up to four indoor stations with the same rights can be located with the same address. The four indoor stations are called when the assigned doorbell push-button is pressed.

The address of an indoor station (e.g. "15") is set with the aid of the rotary knobs "X10" and "X1" at the indoor stations, where "X10" specifies the tens digit (here "1") and "X1" the single digit (here "5"). The rotary knobs are located at the rear or outside of the indoor stations.

3.4 Setting of the "standard outdoor station"

For several outdoor stations in an ABB-Welcome system the "standard outdoor station" must be set on the indoor stations.

Here the rotary knob STATION is set on the address of the standard outdoor station between 1 and 4. The rotary knob is located at the rear or outside of the indoor stations.

3.5 Setting of the main indoor station

In each apartment the switch "M/S" must be activated on one indoor station. This means "M=ON". For additional indoor stations in the apartment the switch here must be on "M=OFF". The switch is located on the back or outside of the indoor stations.

3.6 Setting of the terminal resistor

The terminal resistor in ABB-Welcome audio only systems is always switched to "OFF". For video systems, the terminal resistors are to be switched to "ON" for the last devices of a branch and to "OFF" for all others.

The terminal resistors are set via the switch "R/C" on all indoor stations as well as video indoor distributors and auxiliary power supplies.

3.7 Setting of the door opener or light switch

The setting is only made on the door/light switch actuator. It shows the respective function of the device in the ABB-Welcome system. The sliding switch on the device is used for setting.

3.8 Setting of the door opener times and light times

This setting on the system controller and the door/light switch actuator determines the operating period of the door buzzer (from one to ten seconds). The light-on period can be set between one second and five minutes. A separate potentiometer for both is located on the system controller. In case of the switch actuator the same potentiometer is used for one of the two control values depending on the position of the sliding switch.

A member of the ABB Group

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NOTE

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