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ABB Welcome® Lift control module M2306 M2307



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1 Safety



Warning

Electric voltage!

Direct or indirect contact with live components can cause dangerous currents to flow through the body, which may result in electric shock, burns or even death.

- Always disconnect the main power supply prior to installation and/or disassembly.
- Work on the 110 V - 240 V supply system must be performed only by qualified personnel.

2 Environment



Consider the protection of the environment!

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



- The device contains valuable raw materials that can be recycled and should be disposed of at an appropriate recycling facility.

2.1 ABB devices

All packaging materials and devices from ABB bear the markings and test seals for proper disposal. Always dispose of the packaging material, electronic devices and their components via an authorized collection facility or disposal company.

3 Technical data

General	
Single-wire clamps	2 x 22 AWG - 2 x 18 AWG
Fine-wire clamps	2 x 22 AWG - 2 x 18 AWG
Bus voltage	20 V - 30 V DC
Size	4 U
Protection	IP 20
Operating temperature	-13 °F to +131 °F
Size	M2306: 8.50" x 4.33" x 1.77"
	M2307: 8.50" x 4.33" x 1.77"

4 Function

The lift control modules include the M adaptor (M2306) and lift control relay module (M2307). These two devices together ensure that elevator (lift) only goes to authorized floor(s).

If a resident presses the “unlock” button when receiving a guest's call from the outdoor station, or the authorized user swipes the registered card or enters the correct password, the elevator will automatically go down to the floor where the outdoor station is installed. The elevator will then go to the dedicated floor where that resident lives. It cannot go to unauthorized floors, even when other buttons are pressed.

Configuration should be performed using the dedicated configuration software by connecting the M adaptor to a computer.

5 Connection

5.1 M2306

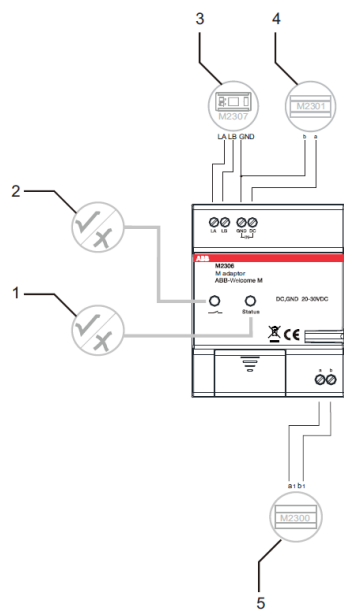


Fig. 1

No.	Function
1	Status <ul style="list-style-type: none">- ON = Connected with the system controller and internal bus- OFF = Not connected with the system controller and internal bus- Blinking = Working with the system controller and internal bus
2	- ON = Power on <ul style="list-style-type: none">- OFF = Power off- Blinking = Working
3	Connect with M2307
4	Power supply
5	Connect with the system controller and internal bus

5.2 M2307

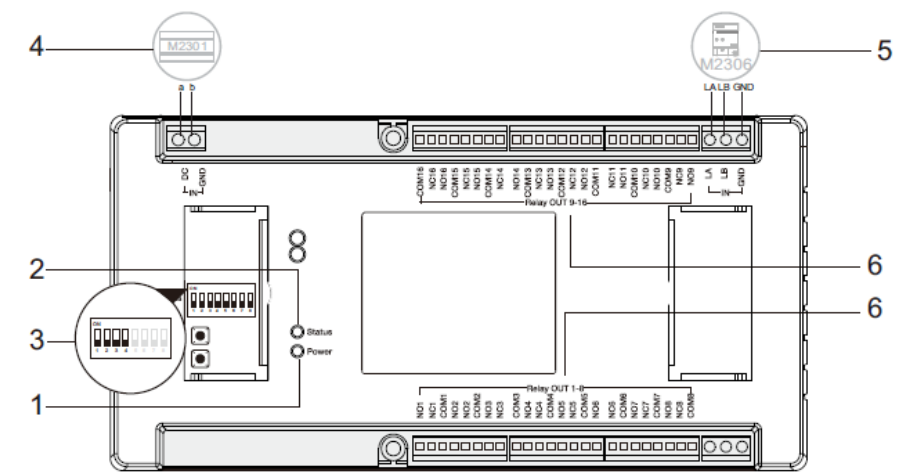
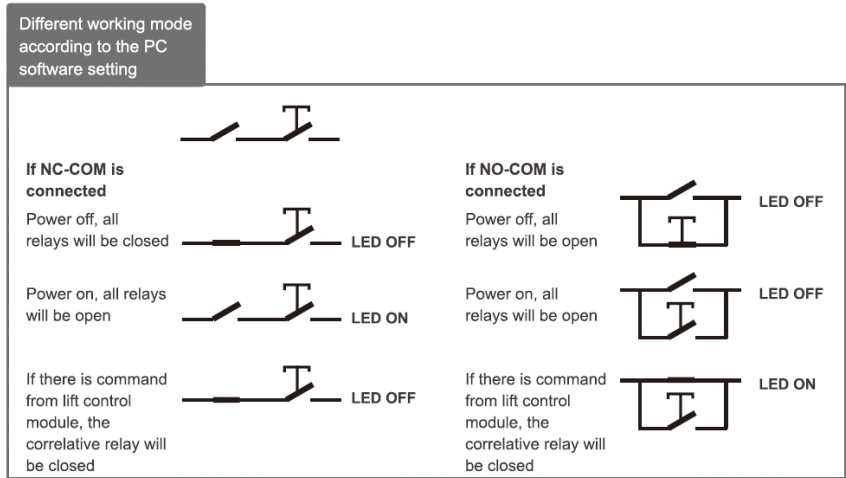


Fig. 2

No.	Function
1	Power LED - ON = Power on - OFF = Power off
2	Setting LED - Blinks when working normally.
3	Address Set the module address. The address range is 1-16. Only the left 4 bits are used.
4	Power supply
5	Connect with M2306
6	Connect with the lift controller



5.3 Lift control relay module address by binary setting

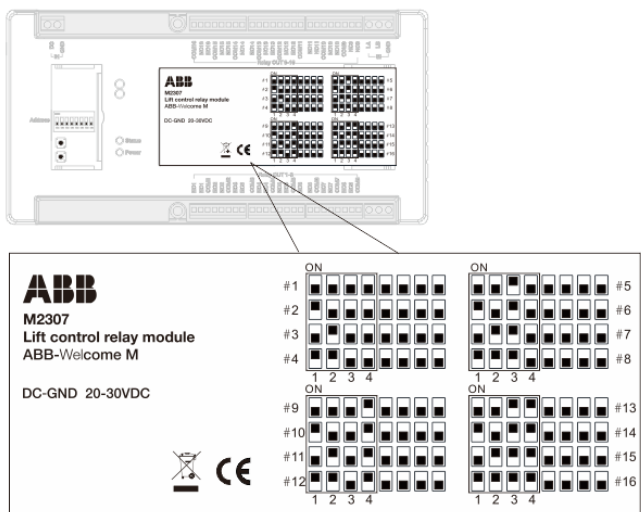
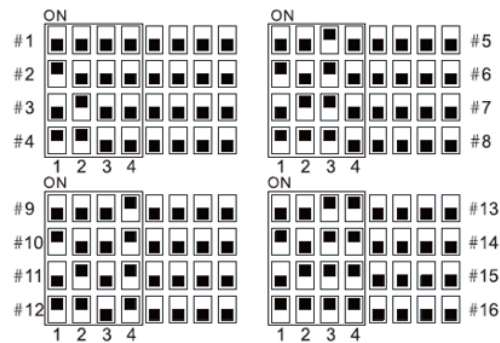


Fig. 3



- Installer need only read the labeling on the lift control module and adjust according to the given position.
- Only digits 1-2-3-4 are used.

6 Mounting and installation



Warning

Electric voltage!

Direct or indirect contact with live components can cause dangerous currents to flow through the body, which may result in electric shock, burns or even death.

- Always disconnect the main power supply prior to installation and/or disassembly.
- Work on the 110 V - 240 V supply system must be performed only by qualified personnel.



Warning

Electric voltage!

Always disconnect the upstream fuse when working on the lighting system.

6.1 Requirements for the electrician



Warning

Electric voltage!

Install the device only if you have the necessary qualifications.

- Incorrect installation endangers your life and that of the user of the electrical system.
- Incorrect installation can cause serious damage to property, such as a 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 the power;
 2. Secure against being reconnected;
 3. Ensure there is no voltage;
 4. Connect to earth;
 5. Cover or barricade adjacent live parts.
- Wear suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the type of 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 Mounting

The device must only be installed on mounting rails according to DIN EN 50022.

It is highly recommended that M2306 be installed in the elevator motor room on the top floor or the electrical riser, while M2307 should be installed in the elevator cabin.

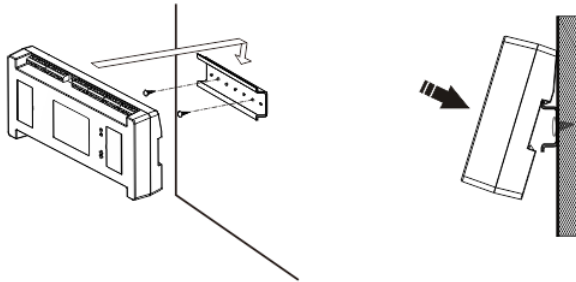


Fig. 4

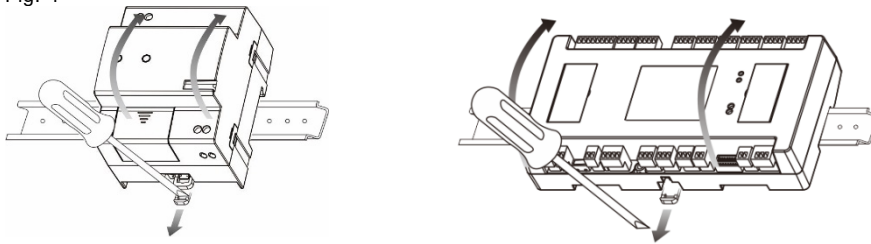


Fig. 5: Dismantle

7 Application examples

7.1 High building (no more than 16 floors) with one elevator

One M2306 and one M2307

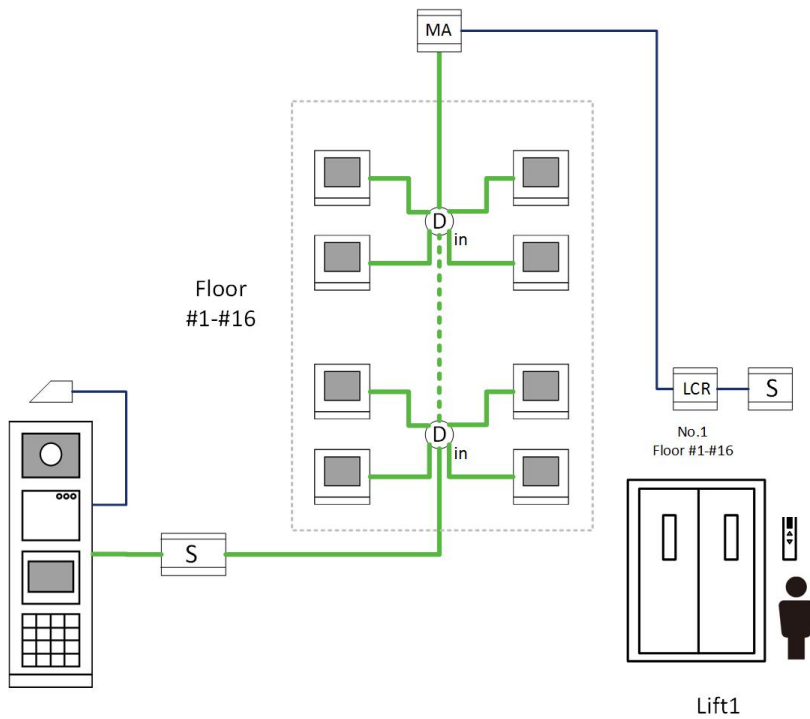


Fig. 6: Topology

Wiring with one M2306 and one M2307

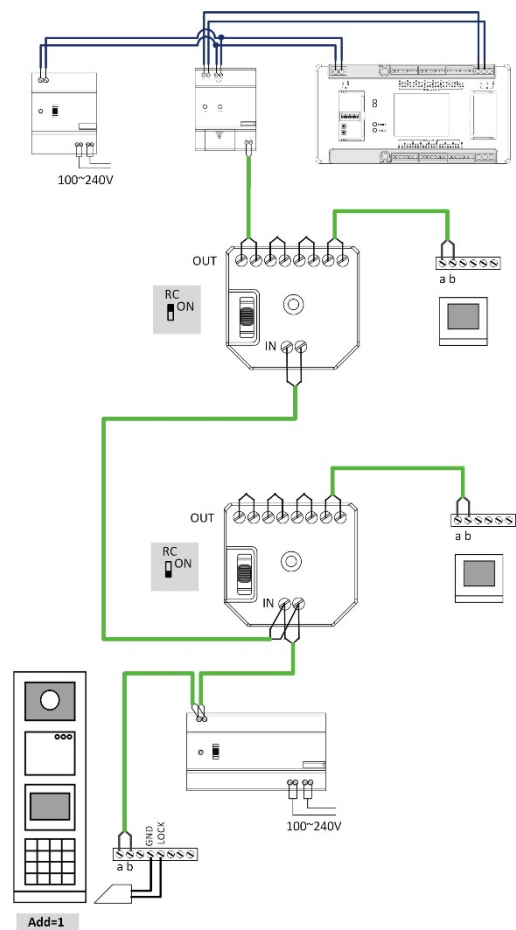


Fig. 7

7.2 High building (more than 16 floors) with one elevator

One M2306 and multiple (up to 16) M2307 units

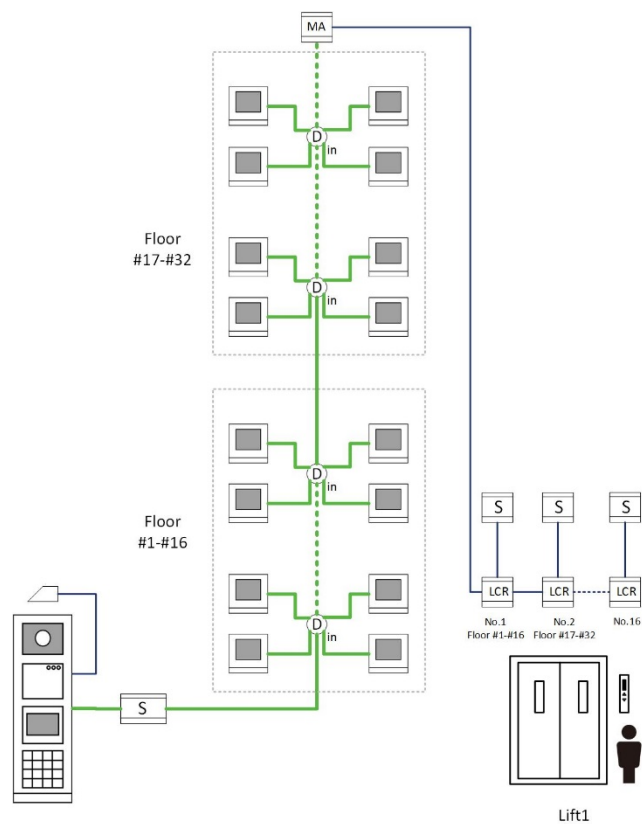


Fig. 8: Topology

Wiring with one M2306 and multiple M2307 units

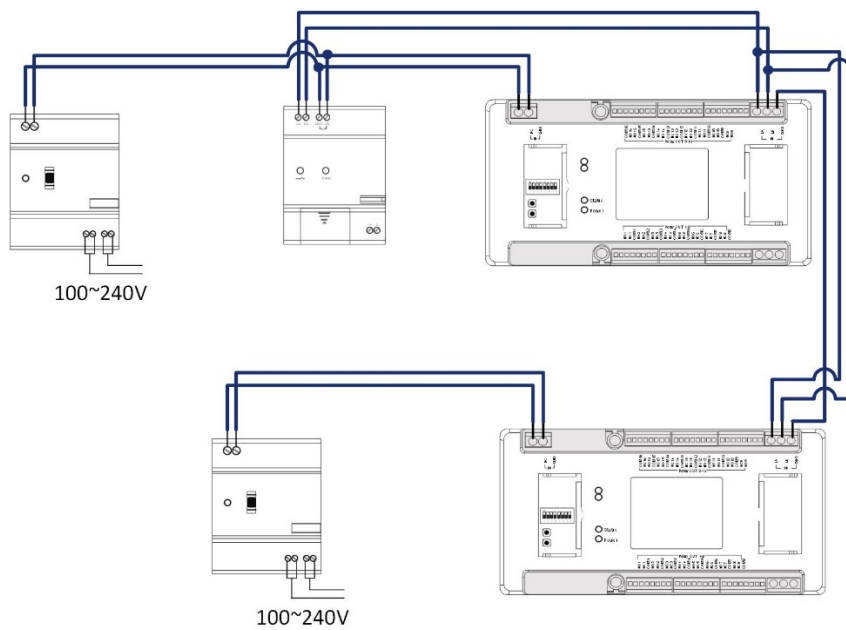


Fig. 9

Notes:

1. The first mini system controller (M2301) feeds one M2306 and one M2307.
2. An additional M2307 should be locally powered by one mini system controller.
For example, with four M2307 units and one M2306, four mini system controllers are needed.

7.3 High building (more than 16 floors) with two elevators

One M2306 and multiple M2307 units support two elevators

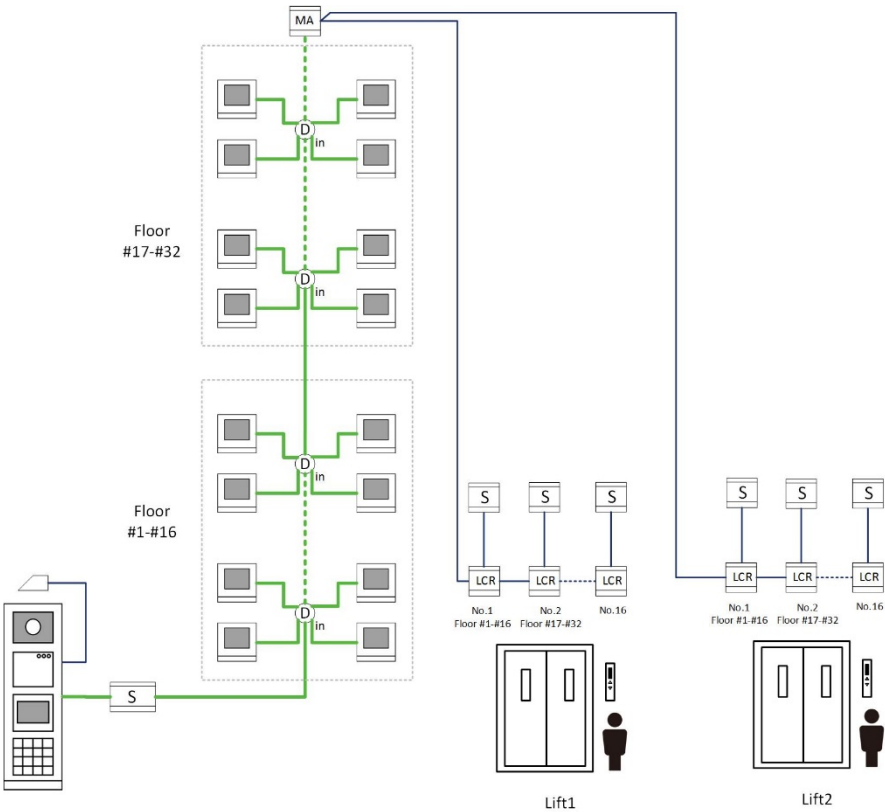


Fig. 10: Topology

Note: The address code cannot be repeated.

7.4 High building (more than 16 floors) with four elevators

Two M2306 and multiple M2307 units support four elevators

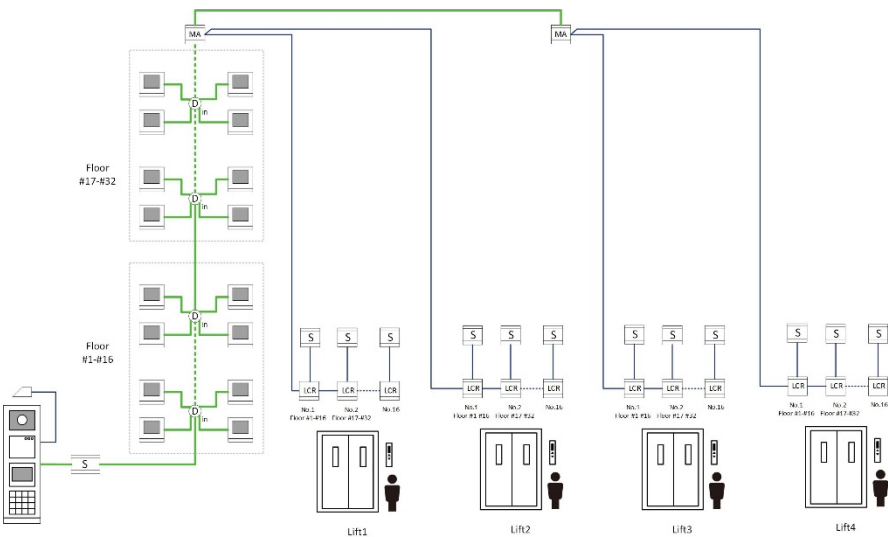


Fig. 11: Topology

Note: The address code cannot be repeated.

8 Operation

8.1 User scenario illustration of visitor target floor



Fig. 12

8.2 User scenario illustration of resident target floor



Fig. 13

Note: The lift control module will not function if the unlock button is pressed without a call from the building outdoor station.

9 Configuration through PC software

9.1 Connected to PC

During configuration, the lift control adaptor can be connected directly to the PC so that the installed software (ABB Welcome PC Configuration Tool) can be used. Essentially, there is no need for local power supply during configuration.

Upon completing configuration, click "Send the Configuration" to upload the configured file to the system. Refer to instructions below.

Note: Only supports Microsoft Windows.

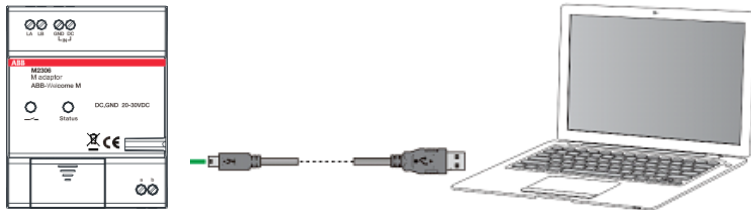


Fig. 14

9.2 Configuration

Basic Steps

Step 1: Set basic parameters of the apartment using the ABB Welcome configuration tool.

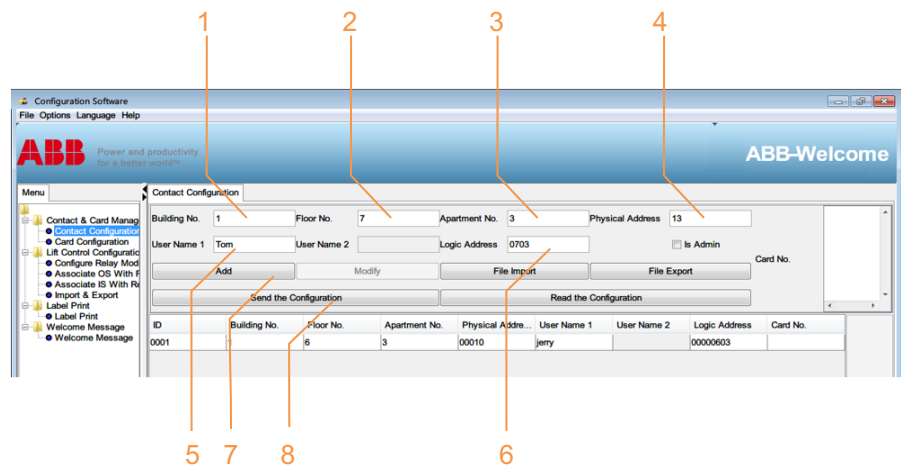


Fig. 15

No.	Function
1	Select building number.
2	Select floor number.
3	Select apartment number.
4	Set physical address (e.g., 13 indicates the IS address set by IS switches)
5	Set user name
6	Set logical address (e.g., 0703 indicates 7th floor, apartment number 3).
7	Add data from one apartment to project.
8	Upload configuration to system

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Step 2: Select building, M2307 and configure parameters of each relay

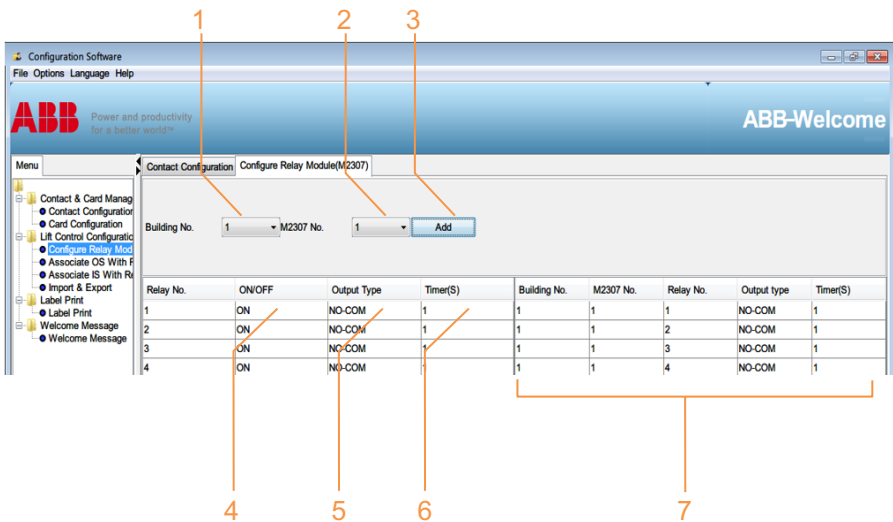


Fig. 16

No.	Function
1	Select building number.
2	Select M2307 number.
3	Click "Add" to add a new M2307.
4	Select ON or OFF for connecting the relay.
5	Select NO or NC for output type.
6	Set relay operation time (1-3,600 seconds).
7	Show all M2307 parameters.

Note: In order to ensure that the building is configured properly, please complete each step before starting installation in a new building.

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Step 3: Associate outdoor station with M2307

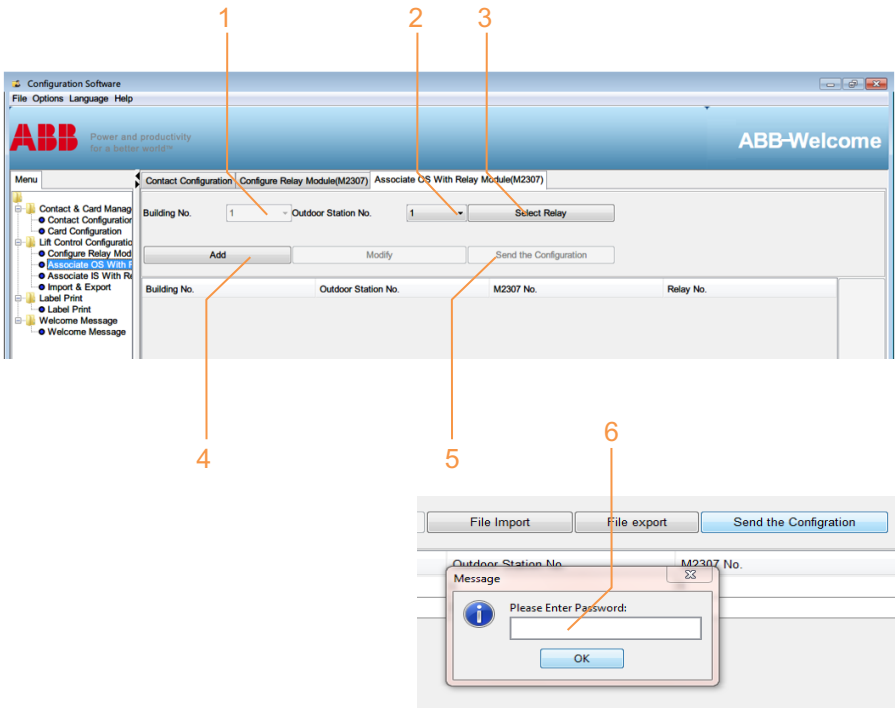


Fig. 17

No.	Function
1	Building number (same as step 2).
2	Select outdoor station number.
3	Select relay number of M2307.
4	Click "Add" to associate outdoor station with relay.
5	Send all parameters to M2306.
6	Input password.* Default password is 123456. *Please write down this password. If password is forgotten, software must be reloaded.

Step 4: Associate indoor station with M2307

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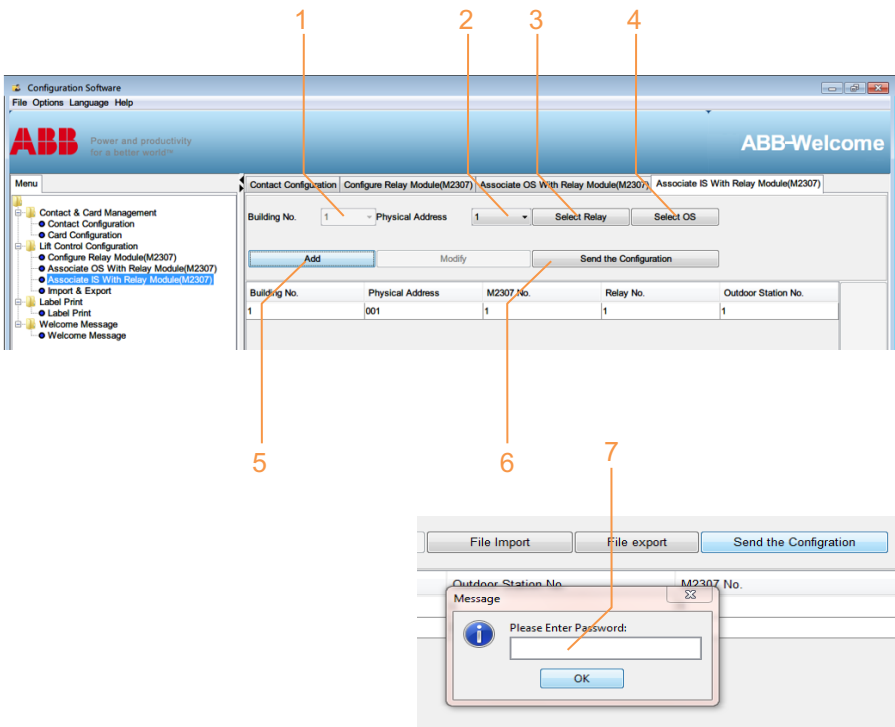


Fig. 18

No.	Function
1	Building number (same as step 2).
2	Select indoor station physical address.
3	Select relay number of M2307.
4	Select outdoor station number (floor number of outdoor station installed).
5	Click “Add” to associate indoor station with relay.
6	Send all parameters to M2306.
7	Input password. Default password is 123456.

Optional steps:

Step 5: Export all data from this project or import data for new project

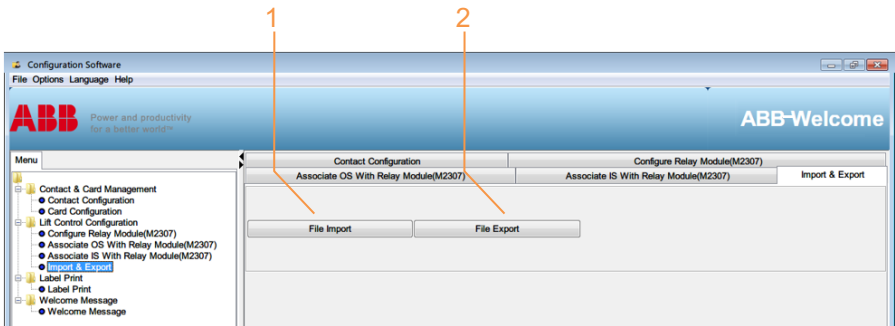


Fig. 19

No.	Function
1	Export all elevator control configuration data to one read-only Excel file. (Export the elevator control configuration of each building for future reference.)
2	Import data for a new project from Excel file.

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Step 6: Save as one new project

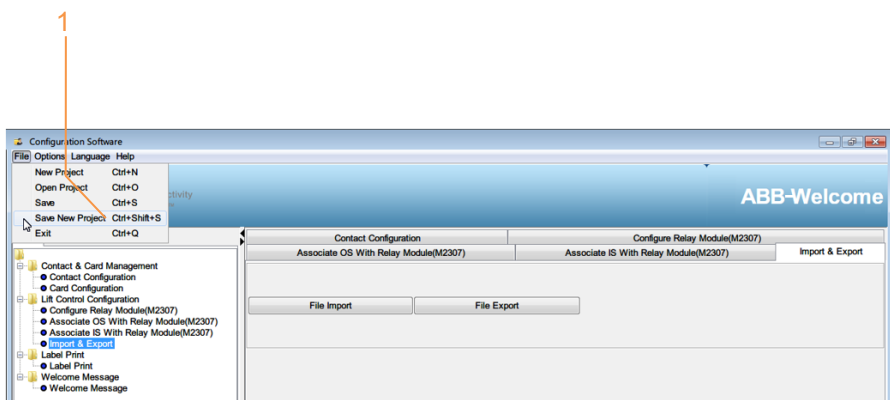


Fig. 20

No.	Function
1	Save as one new project: *.xml

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Step 7: Import existing project data to new outdoor station, guard unit and lift control

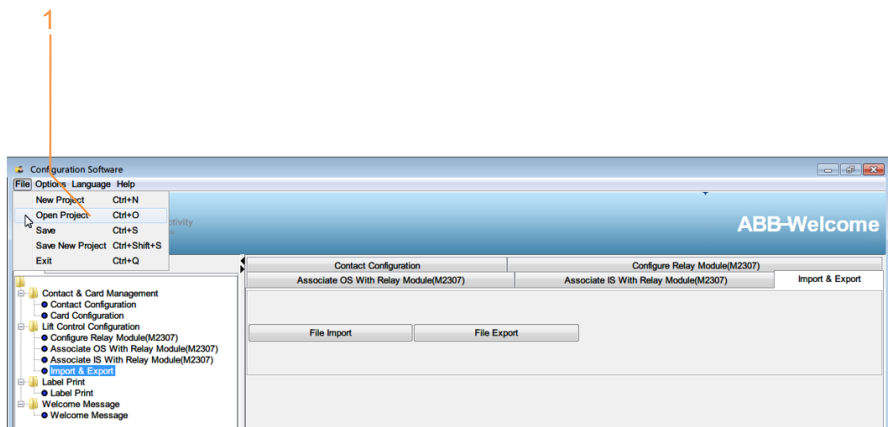


Fig. 21

No.	Function
1	Open one existing project: *.xml

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abbwelcomeinfo@us.abb.com

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elec_custserv@tnb.com

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lvps.support@us.abb.com

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