

ABB-Welcome

Lift control module
M2306
M2307



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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 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.

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 and electric devices and their components via the authorized collecting depots and disposal companies.

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)

3 Technical data

General

Single-wire clamps	2 x 0.28 mm– 2 x 0.75 mm;
Fine-wire clamps	2 x 0.28 mm – 2 x 0,75 mm;
Bus voltage	20 V DC – 30 V DC
Size	4 TE
Protection	IP20
Operating temperature	-25 °C – +55 °C
Size	M2306: 90 x 72 x 65 mm M2307: 216 x 110 x 45 mm

4 Function

The lift control modules include the M adaptor(M2306) and lift control relay module(M2307),these two devices together make the control ofthe lift only to authorized floor possible.

In case the resident presses the "unlock" buttonwhen receiving the guest's call from outdoor station, or the authorized user swipes theregistered card or enters the correct password ,the lift will go down automatically to the floor where installs the outdoor station. Then the lift will go to the dedicated floor where this resident lives, the lift cannot go to other floors even pressing the other floors' button in the lift.

The configuration should be done through the dedicated configuration software by connecting the M adaptor with PC/Laptop.

5 Connection

5.1 M2306

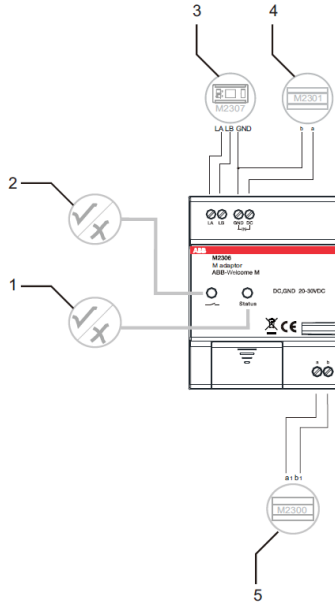


Fig. 1

No.	Function
1	Status - ON = Connected with the system controller / internal bus - OFF = No connected with the system controller / internal bus - Blinking = Working with the system controller / internal bus
2	- ON = Power on - OFF = Power off - Blinking = Working
3	Connect with M2307
4	Power Supply
5	Connect with the system controller / internal bus

5.2 M2307

5.2.1

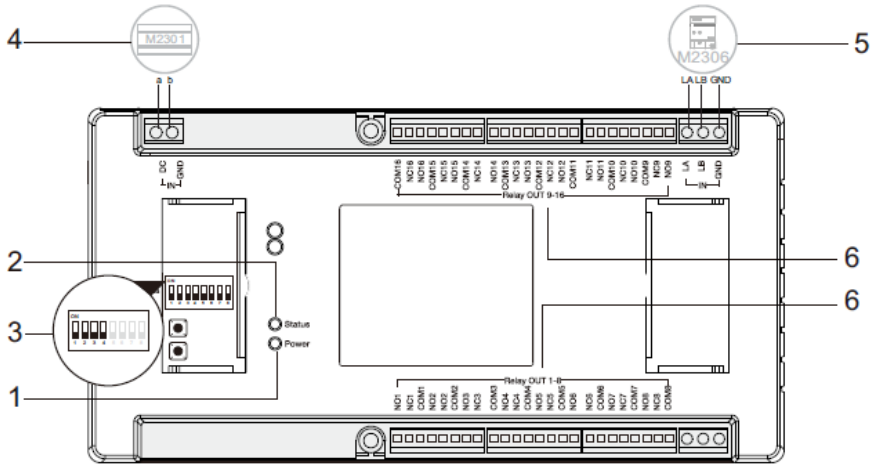
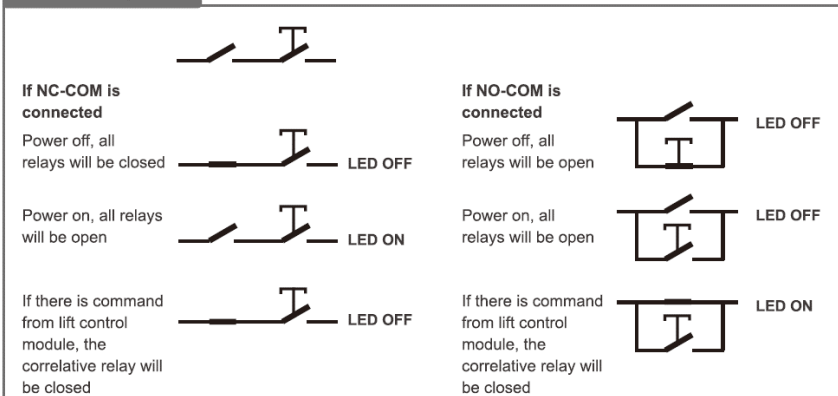


Fig. 2

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

Different working mode according to the PC software setting



5.2.2 Lift control relay module address by binary setting

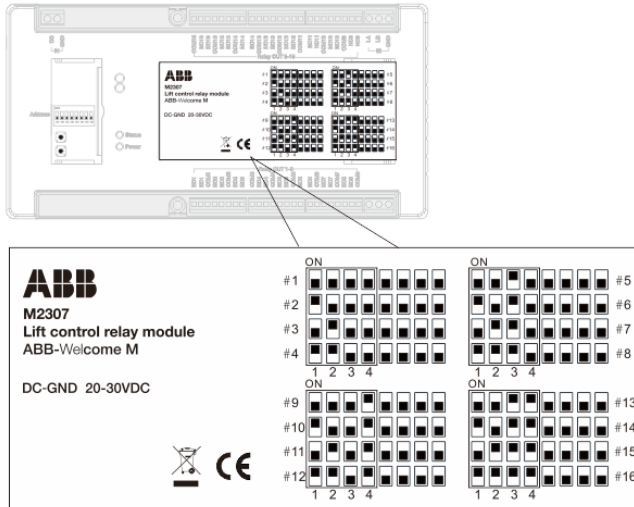
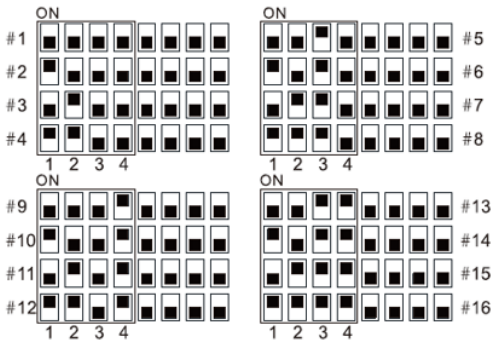


Fig. 3



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

6 Mounting / Installation



Warning

Electric voltage!

Risk of death and fire due to electric voltage of 230 V.

- Low-voltage and 230 V cables must not be installed together in a flush-mounted socket!
In case of a short-circuit there is the danger of a 230 V load on the low-voltage line.



Warning

Electric voltage!

The upstream fuse must be disconnected when working on the lighting system.

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 the power;
 2. Secure against being reconnected;
 3. Ensure there is no voltage;
 4. Connect to earth;
 5. Cover or barricade adjacent live parts.

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- Use 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. M2306 is highly recommended to install in the lift motor room on the top floor or the electrical riser; while M2307 is highly recommended to install in the lift cabin.

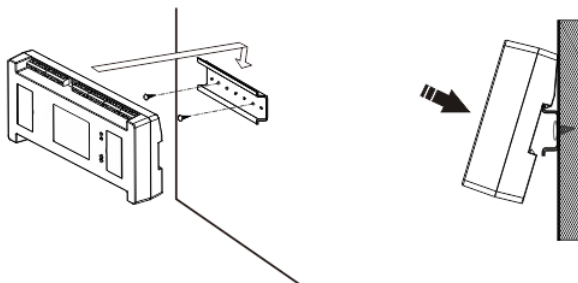


Fig. 4

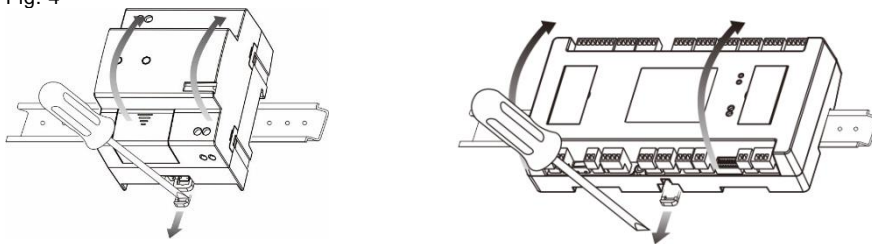


Fig. 5: Dismantle

7 User case

7.1 One M2306 and M2307

High building <=16 floors with one Lift

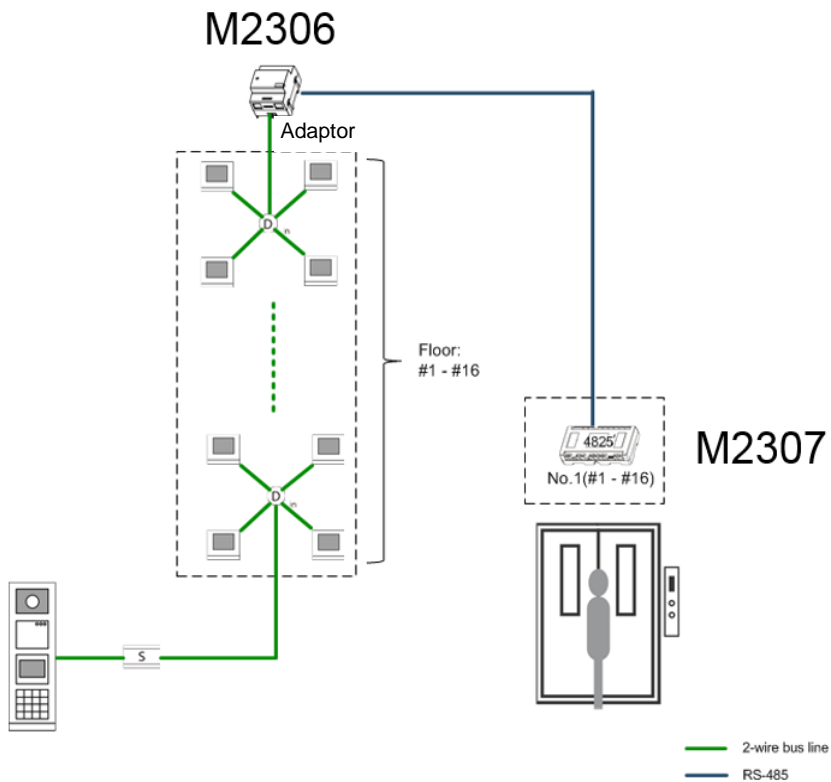


Fig. 6: Topology

Wiring by one M2306 and M2307

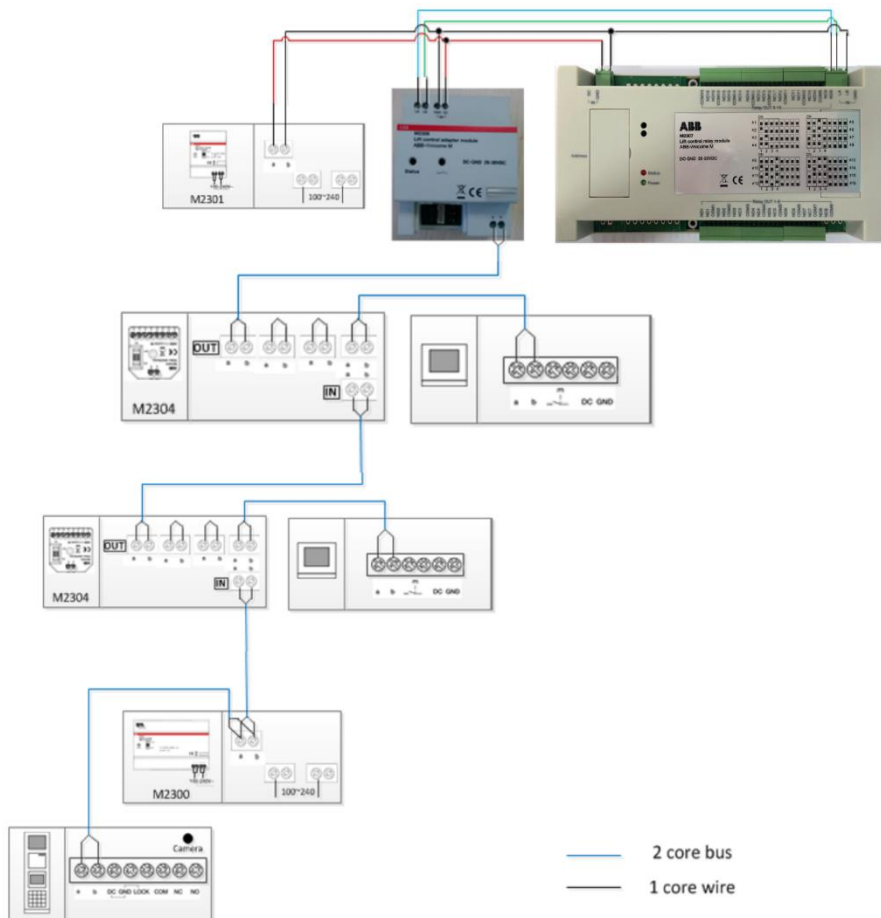


Fig. 7

7.2 One M2306 and M2307

High building >16 floors with one Lift

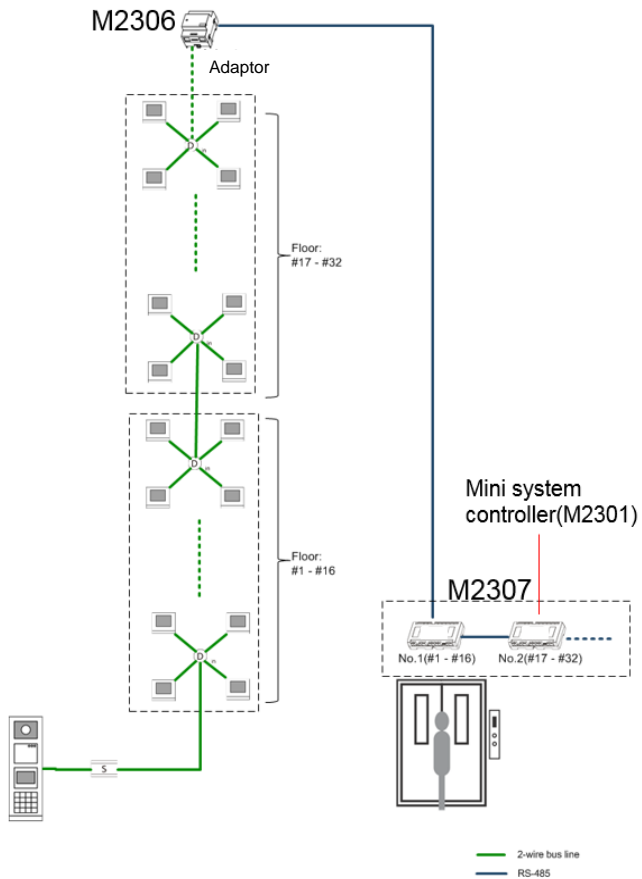


Fig. 8: Topology

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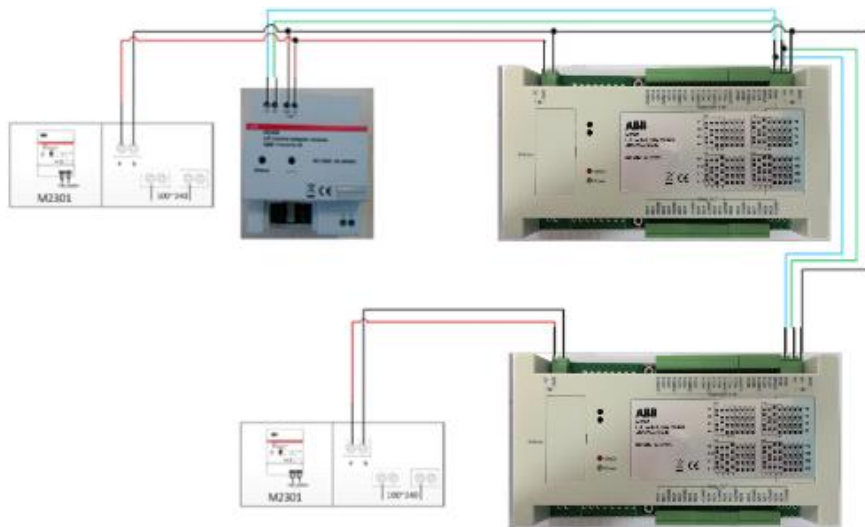


Fig. 9

Remarks:

- 1.The first mini system controller(M2301) feeds M2306 and 1 M2307.
2. Any one more additionalM2307 should be locally powered by 1 mini system controller. Eg. 4 M2307 + 1 M2306, totally, 4 mini system controllers are needed.

7.3 Up to two lifts per building

High building >16 floors

M2306

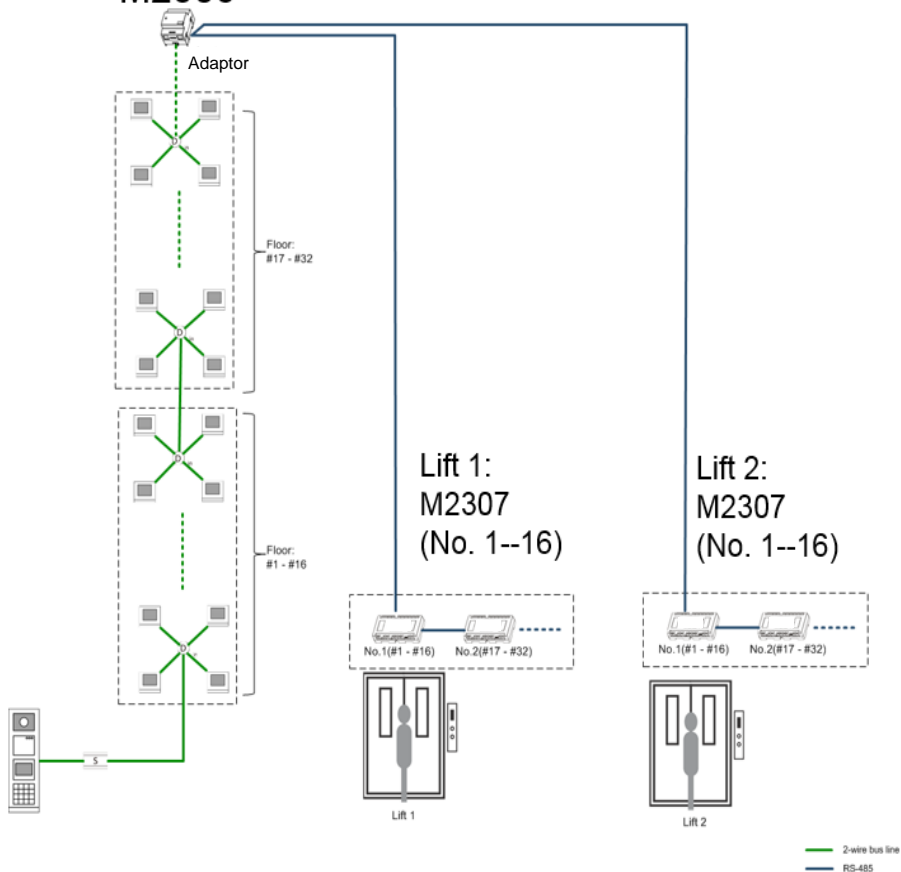


Fig. 10: Topology

Remark: The address code can not be repeated.

7.4 Up to four lifts per building

High building >16 floors

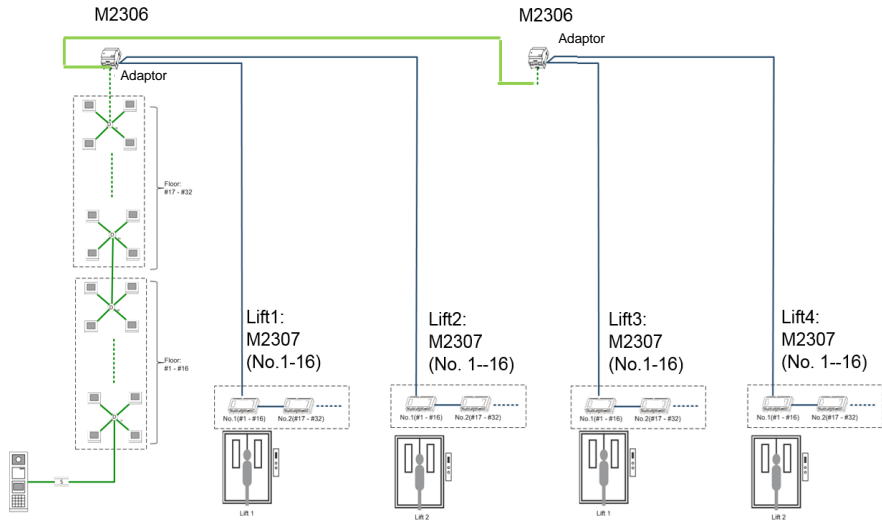
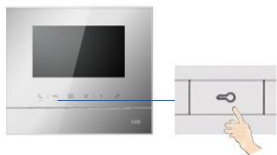


Fig. 11: Topology

Remark: The address code can not be repeated.

8 Operation

8.1 User Scenario Illustration of visitor target floor



2. The resident press the “unlock” button of any Welcome M Indoor Station.

4. Within the given set time (default as 10 minutes), the visitor can only activate the floor no. 12, while other floor no. will not be activated all the time.

If more than 10 minutes, the visitor needs to go to Outdoor Station to call again target resident.



3. The lift will go down to the Outdoor Station floor automatically, the visitor enters the lift.



1. Visitor inputs calling code of floor 12.

5. The visitor reaches floor 12.

Fig. 12

8.2 User Scenario Illustration of resident target floor

3. Within the given set time (default as 10 minutes), the resident can only activate the floor no. 12, while other floor no. will not be activated all the time.

If more than 10 minutes, the resident needs to go to Outdoor Station to input the password or swipe the card again.



2. The lift will go down to the Outdoor Station floor automatically, the resident enters the lift.

4. The resident reaches the floor 12.



1. The resident (living in floor 12) enters by inputting the password, or swiping the authorized card.

Fig. 13

Remarks: The lift control module will not function when pressing the unlock button without a call from building outdoor station. Eg. Unlock when there is a villa/floor outdoor station or gate station

9 Configuration through the PC software

9.1 Connected to PC

During the configuration, lift control adaptor can be directly connected to PC where the installed PC software (ABB Welcome M PC Configuration Tool) can be used. In another word, no need of local power supply during configuration.

Upon finishing the configuration, click “Send the Configuration” to upload the configured file to the system.

Refer to general step introduction in following slides.

Remarks: Only support Window PC

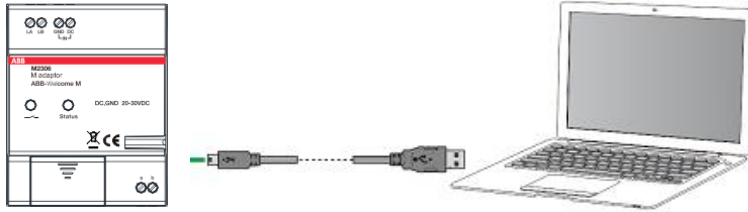


Fig. 14

9.2 Configuration

Basic Steps

Step1: Set basic parameters of the apartment via Welcome M configuration tool

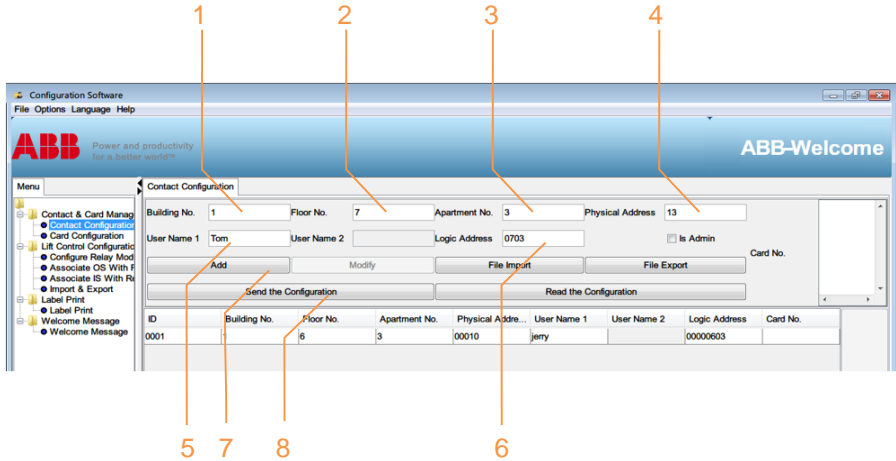


Fig. 15

No.	Function
1	Select Building No.
2	Select Floor No.
3	Select Apartment No.
4	Set Physical Add.(eg. 13 means the IS address set by IS switches)
5	Set User Name
6	Set Logic Add.(eg. 0703 means floor no. is 07, and apartment no. is 03)
7	Add one apartment data to project
8	Upload configuration to system

Step2: Select Building, M2307 and Configure parameters of each relay

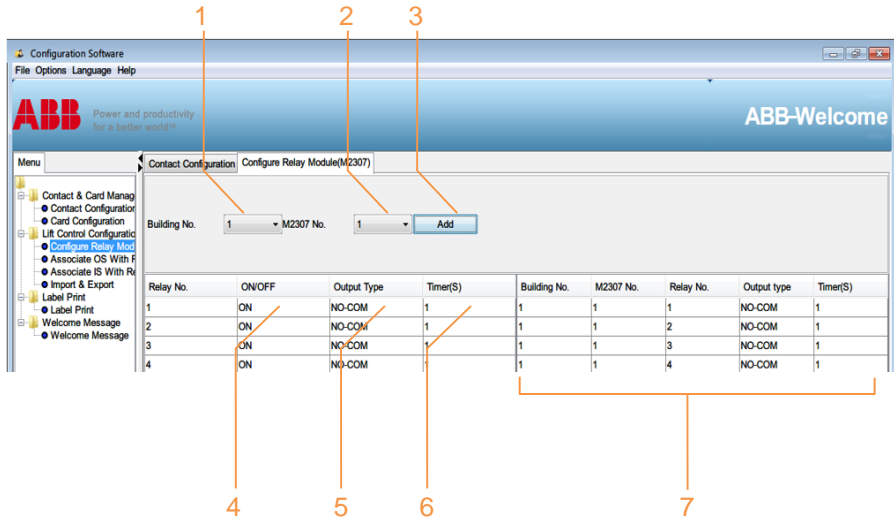


Fig. 16

No.	Function
1	Select Building No
2	Select M2307 No.
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---3600sec)
7	Show all M2307 parameters

Remark: In order to make sure one building is configured properly, for each building, please finish step2, step3, step4, step5 orderly, then start one new this circle for a new building.

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Step3: Associate OS with M2307

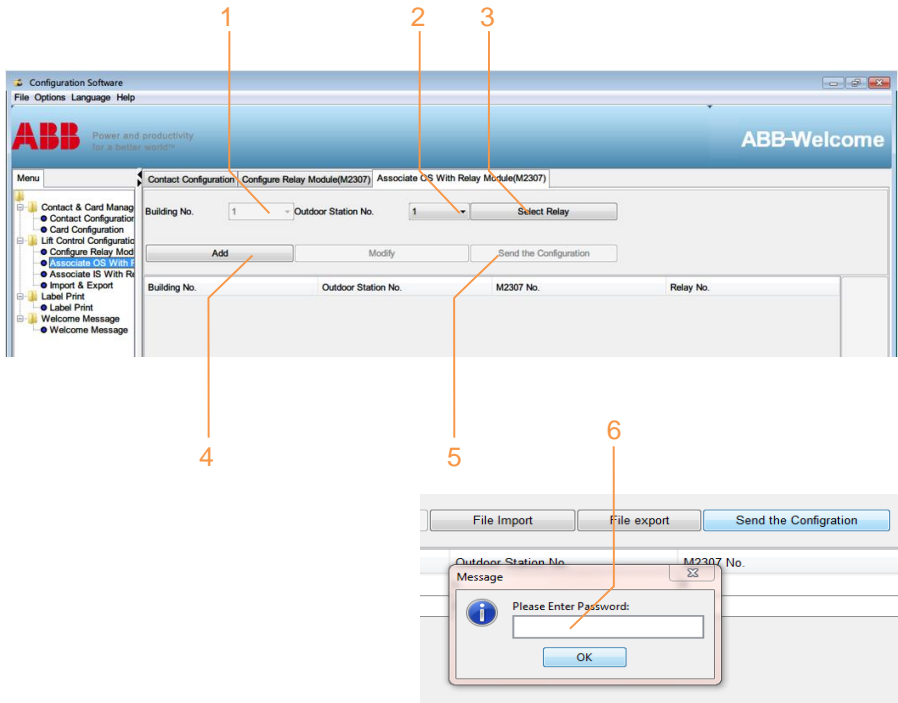


Fig. 17

No.	Function
1	Building No.(same as Step2)
2	Select OS No.
3	Select Relay No. of M2307
4	Click "Add" to associate OS with Relay
5	Send all parameters to M2306
6	Input password*(default password:123456) * please write down this password, if this password is forgotten, reload this software!

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Step4: Associate IS with M2307

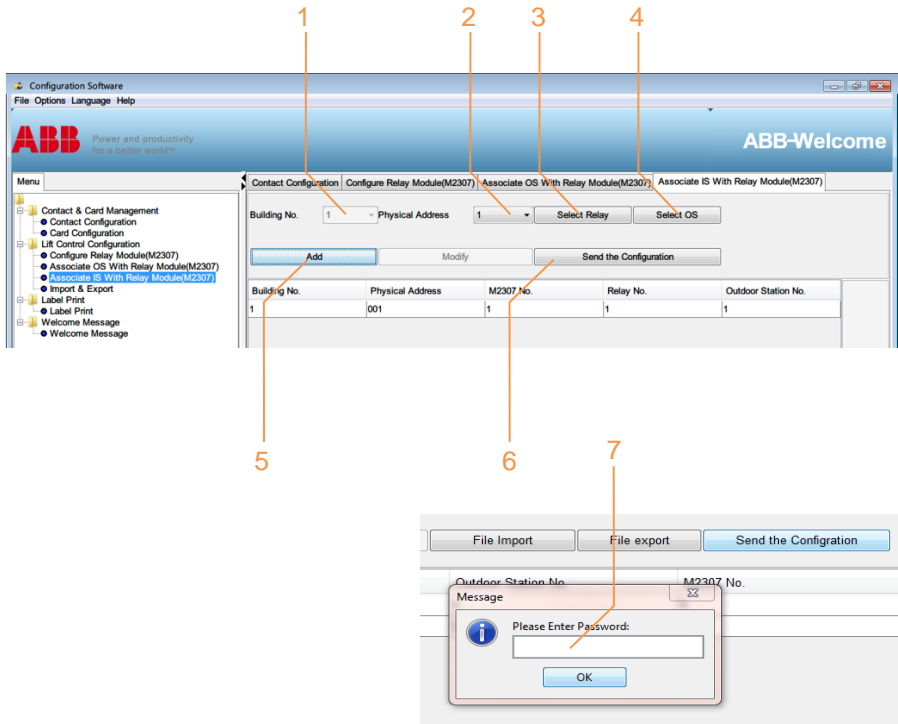


Fig. 18

No.	Function
1	Building No.(same as Step2)
2	Select IS Physical Add.
3	Select Relay No. of M2307
4	Select OS No.(floor no. of OS installed)
5	Click "Add" to associate IS with Relay
6	Send all parameters to M2306
7	Input password(default password:123456)

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Optional steps:

Step5: Export all data of this project or Import data for new project

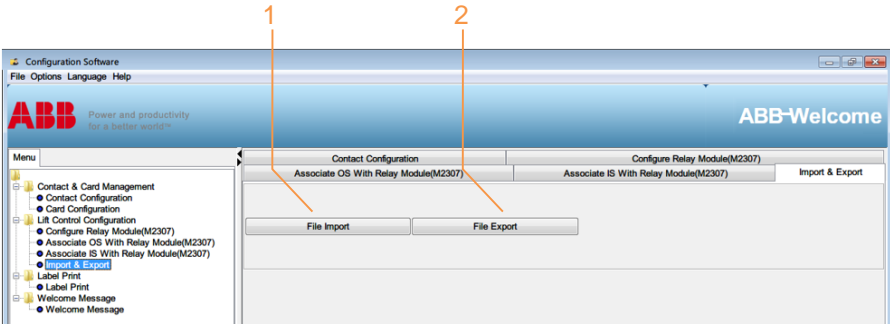


Fig. 19

No.	Function
1	Export all Lift Control Configuration data to one *.xls(read only) (Please export the Lift Control Configuration of each building after the configuration is sent for future use)
2	Import data for a new project from one *.xls

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Step6: Save as one new project

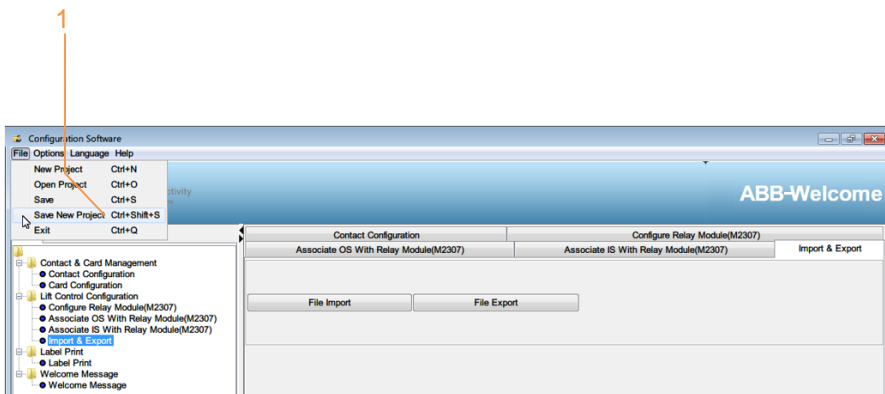


Fig. 20

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

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Step7: Open one existed project data to new OS, Guard Unit and Lift control

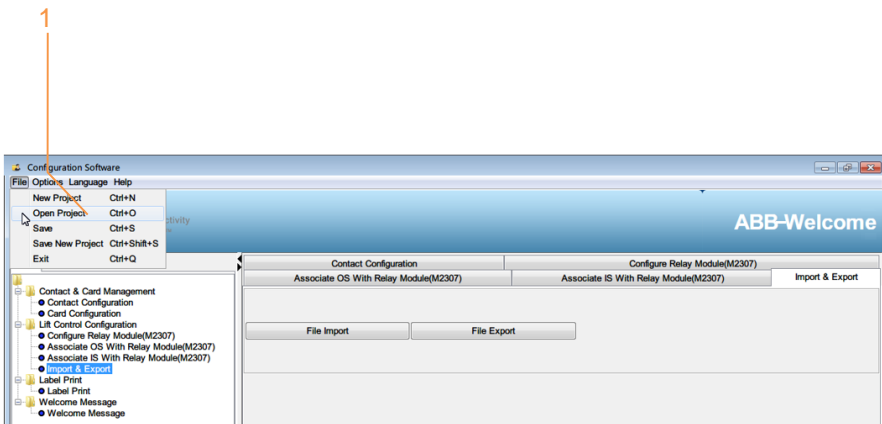


Fig. 21

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