CV-TAC4EH

Elevator Controller

Installation Guide

Camden DOOR CONTROLS

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1 Product Overview

Overview

This section describes the elevator access control system and how to set up the elevator access control. Configuration will proceed more quickly if elevator access control is set up before any suite information is entered into the system. This allows the elevator access information to be put into the suite configuration as the suite is being configured.

Elevator Access control requires careful planning and with planning setting up elevator access control is a straight forward operation. Using the grouping features significantly reduces the entries required.

Elevators are controlled using RLC16 relay cards. These are cards containing 16 relays that are controlled by the CV-TAC400 over the RS485 connection. The connection between the RLC16 relay card and the elevator depends on the type of elevator controller. Please consult the elevator manufacturer for detailed information on connecting to their systems.

2 Installation

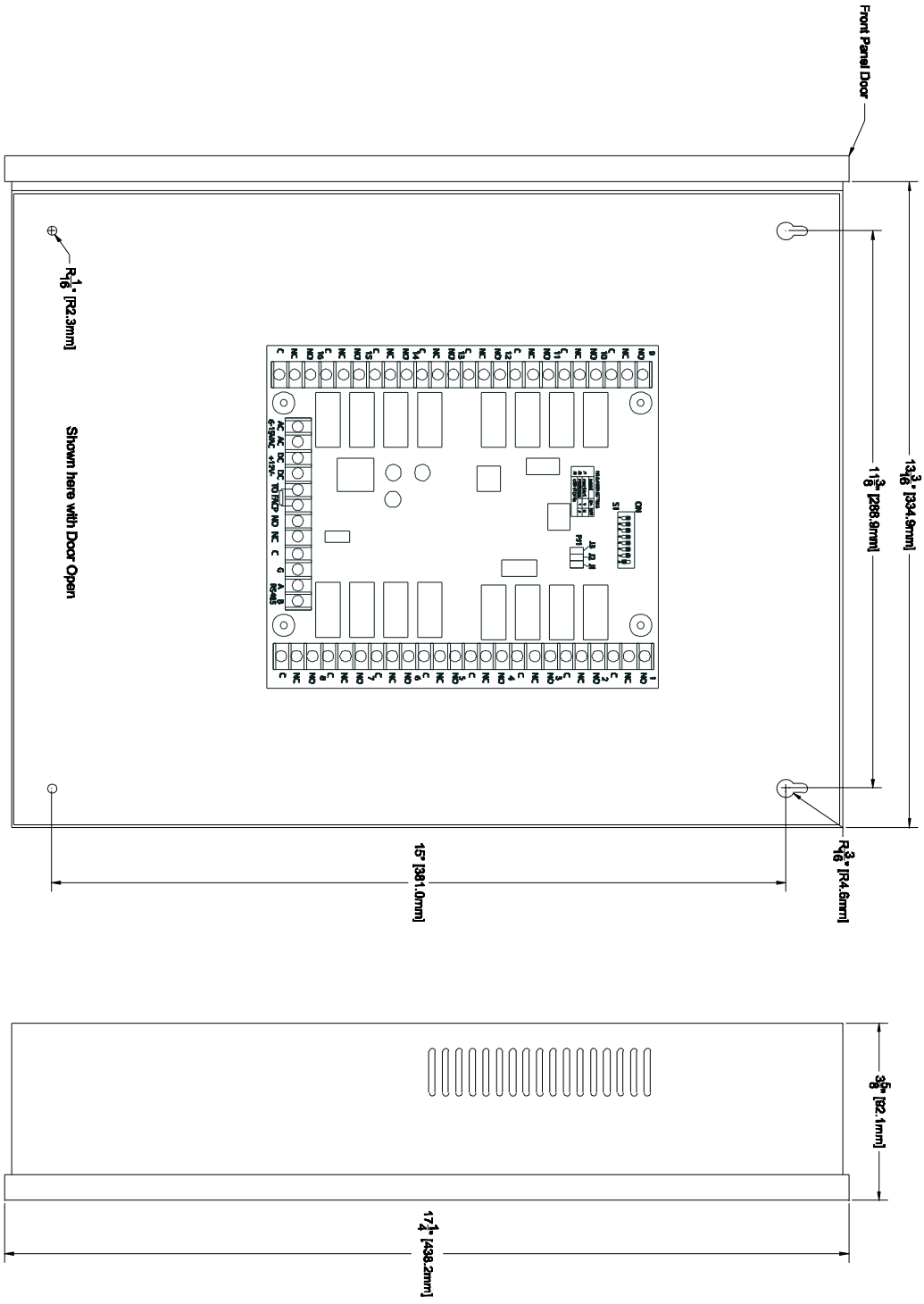


Figure 1 Mechanical Layout

Hardware Connections

All hardware connections are to be made before applying power to the unit.

1. Connect the RS-485 Communications Bus

Connect the RS-485 communications bus as shown below. Use #18 AWG two wire cable.

2. Connect the Power

Connect the power to the DC terminals using a +12 VDC supply or to the AC terminals using a 6 – 15 VAC supply.

S1 Function

DIP	FUNCTION (ON/OFF)
1	COMM FAIL SAFE
2	REVERSE RELAYS
3-8	DEVICE ADDRESS

SWITCH NO.		ADDRESS VALUE
8	OFF	1
7	OFF	2
6	OFF	4
5	OFF	8
4	OFF	16
3	OFF	32
TOTAL		63

Note: Add 128 to the dip settings.
eg: For address 158, set the dip switches to 30.

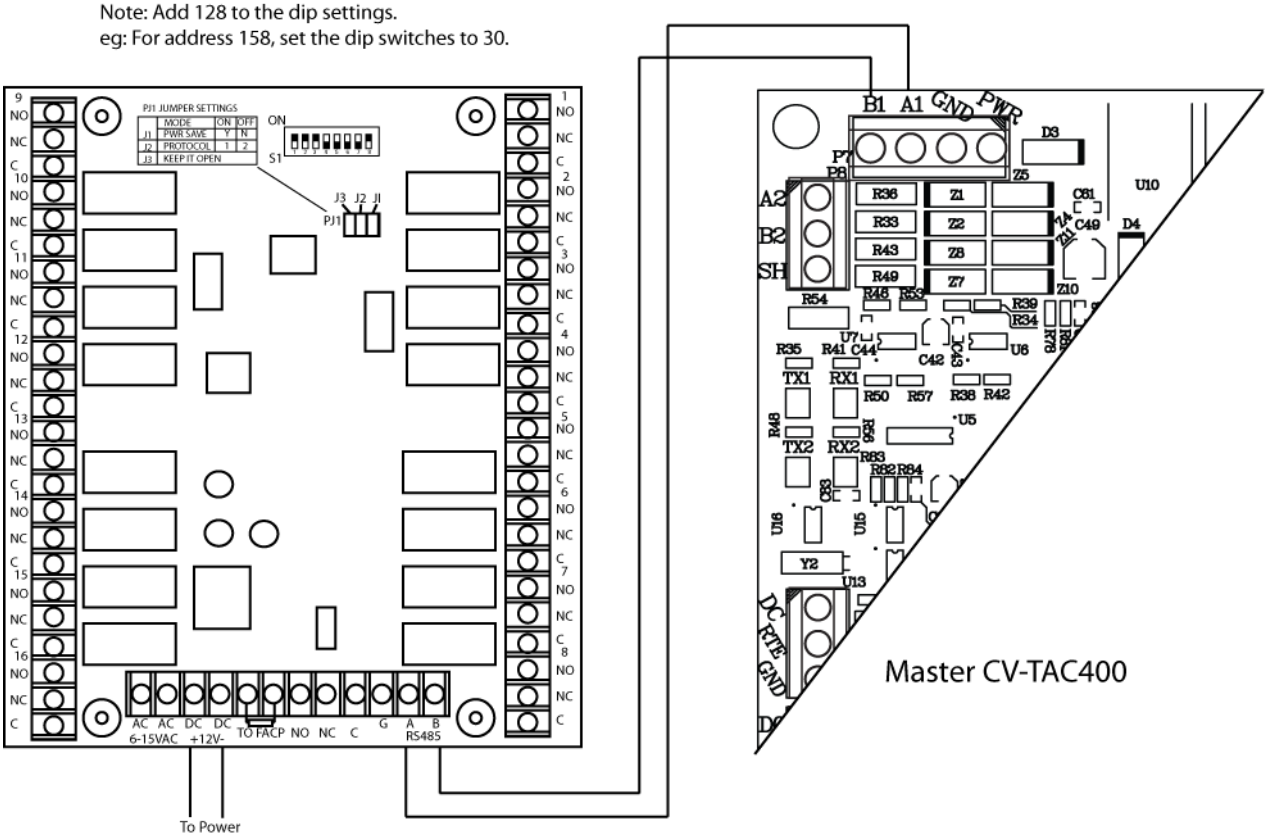


Figure 2 Wiring Connections

3 Configuration

Summary

The elevator access control system determines if a particular user is allowed to enter a particular floor and/or elevator cab at a particular time.

All users are allowed to go to the floor their suite is on regardless of the elevator access rules. The elevator access system is generally used for public floors or for staff who may enter only during specified time periods.

The Elevator Access control system is based on a series of rules. To make it easier to write the rules the components of the access control system are put into groups. The rules are then specified in terms of the groups.

All the Users in a suite are assigned an Elevator Access Level which determines which floors they allowed to go to and when they allowed to go to them. Elevator Access levels are composed of multiple combinations of Elevator Groups, Floor Groups and Time Groups.

Elevator groups are basically lists of elevator cabs containing a fob/card reader. Floor Groups are a list of floors and time groups are lists of time intervals.

For example if a building had 3 elevators and they all went to the same floors and accessed the same suites you may put them into a single elevator group and the same rules would apply to all of them. Another example of Elevator Groups would be if there were 3 elevators in a building but only one accessed the floor with the swimming pool you might make 2 Elevator Groups, One group for the elevator going to the swimming pool and the other group with the two elevators going to the suites.

Similarly an example of a floor group would be a building with the swimming pool on the 2nd floor and the gym on the 3rd floor. The Floor Group for the amenities would consist of the 2nd and 3rd floors. A floor group may have many floors or only one floor. For example if the swimming pool is on the second floor you may have a Floor Group consisting of just the 2nd floor.

Note: A Floor Group may have only one floor as well many floors.

A floor may have any 5 character name. This is very useful where you have particular elevators going to particular suites. For example a building has 2 elevators, a north elevator and a south elevator. The north elevator only opens onto to the north suites and the south elevator only opens onto to the south suites. In this example the actual floor may be entered into the CV-TAC400 as 2 floors, a South and North floor. For example the actual 4th floor may be entered as 4N and 4S. That way the floor entry in the suite information of 4th floor south suites would be 4S and 4th floor north suites would be 4N.

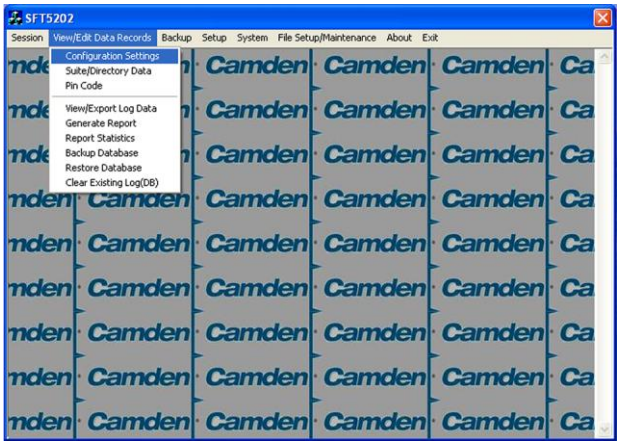
Each suite is assigned an elevator level. Each User in that suite is assigned that suites elevator level. To determine if access is allowed, that is which elevator control relays are activated, the system looks at the combination of elevator, time and floor for that user's Elevator Access Level. For example if user John Smith's Elevator Access Level allows elevator one to take him to floor 2 (the gym) between 6:00AM and 11:00PM when John Smith presents his fob to the reader in elevator one at 7:00AM the relay for floor 2 will be energized.

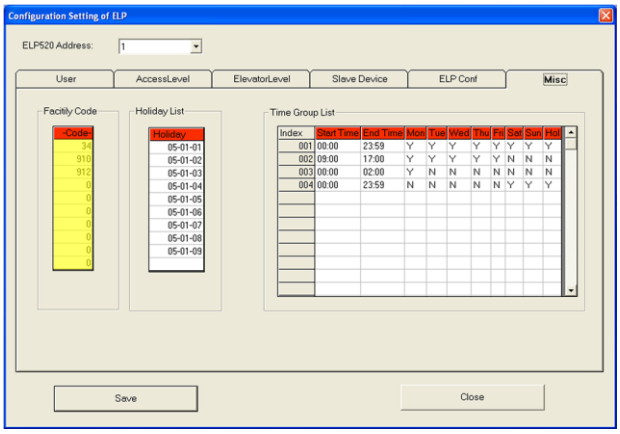
Configuring Floors and Relays

Configuring Floors and relays serves two purposes. It assigns the combination of floors and elevator cabs to specific relays and provides a list of floors for validating other table entries. The combination of floor and elevator cab are assigned to specific relays so different elevators may be programmed to behave differently even when landing on the same floor. This may be required if, for example, different elevators go to suites and common areas.

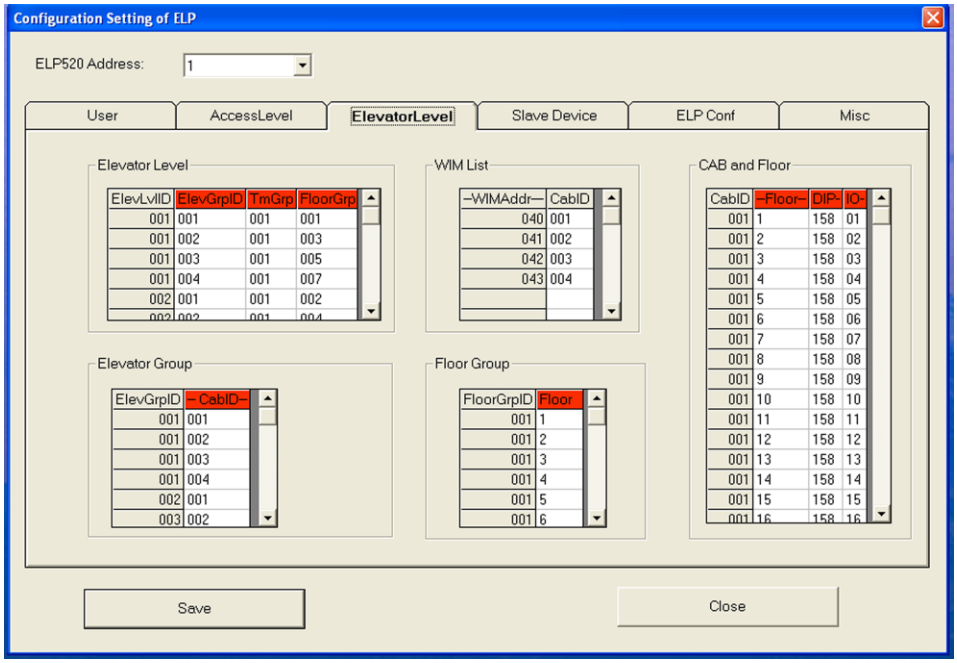
Configuring Floors and Relays is done in the “Cab and Floor” table in the configuration setting screen.
To configure Floors and Relays follow the steps below:

1) Start the SFT5202 Windows Client Software.
2) Download the initial information.
3) Select the “View/Edit Data Records” Menu. A list of submenus will be displayed
4) Select the “Configuration Settings” submenu. The Configuration setting window will be displayed. Do not change the CV-TAC400 Address field at the top of the window.

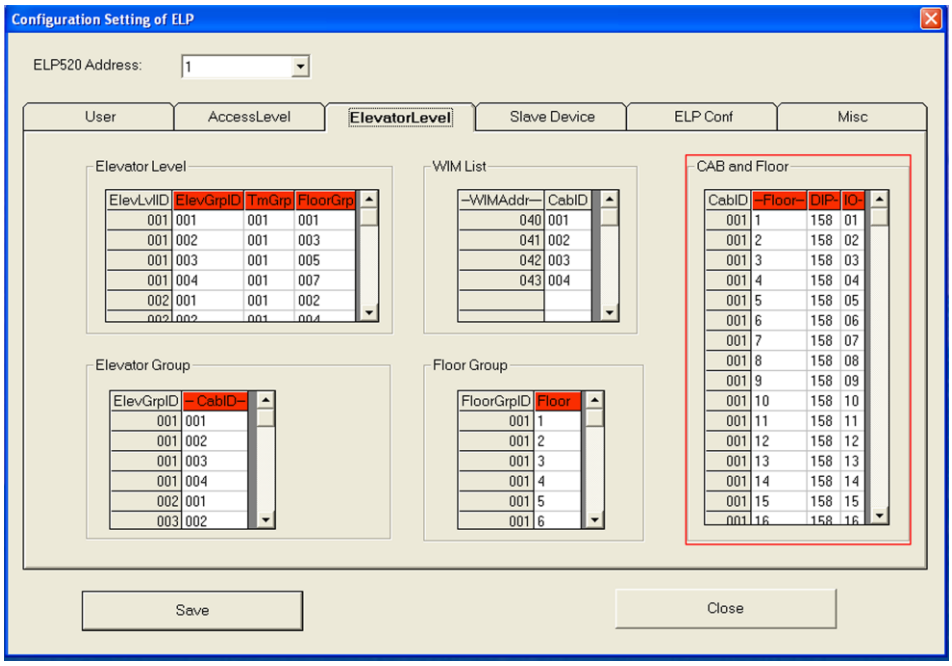




5) Select the “Elevator Level” tab. The elevator tables will be displayed.



6) If you wish to update the floor entry in the “Cab and Floor” table select (double click) the “Floor” entry you wish to edit.



7) Enter the “Floor” and then press “Enter”

Note: Relay entries are composed of two parts, the DIP address which is the address of the RLC16 board the IO number which is the relay number on the board.

8) If you wish to update the Relay entry in the “Cab and Floor” table select (double click) the “DIP” or “IO” entry you wish to edit.
9) Enter the “DIP” or IO information and then press “Enter”
10) When all the entries have been competed select the Save button.
11) To close the Form select the Close button
12) Save and Upload the changed information. Refer to the CV-TAC400 Installation Guide.

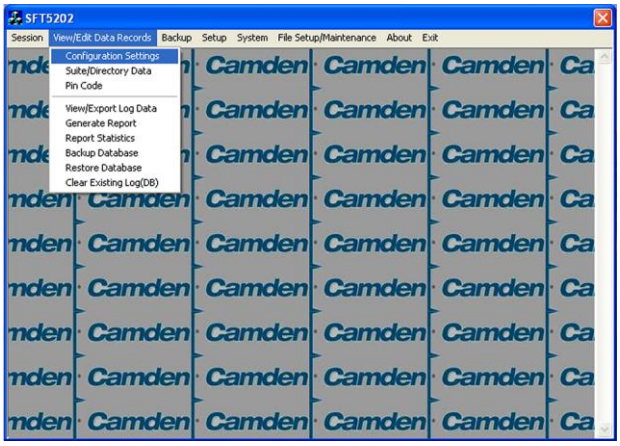
Configuring Floor Groups

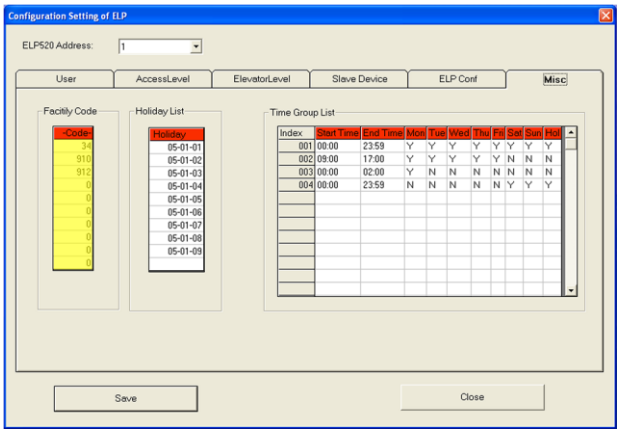
Configuring a Floor Group is adding a floor to the group. The floors are identified by their entry in the “Cab Floor” table

Each Floor Group has multiple entries in the Floor Group table. This is because a Floor Group may have more than 1 floor. Each row in the Floor Group table has a space for a floor and a Floor Group.
There are 8 Floor Groups numbered 1 through 8. Each Floor Group can have up to 16 floors assigned to it. By default the Floor Group table is empty.

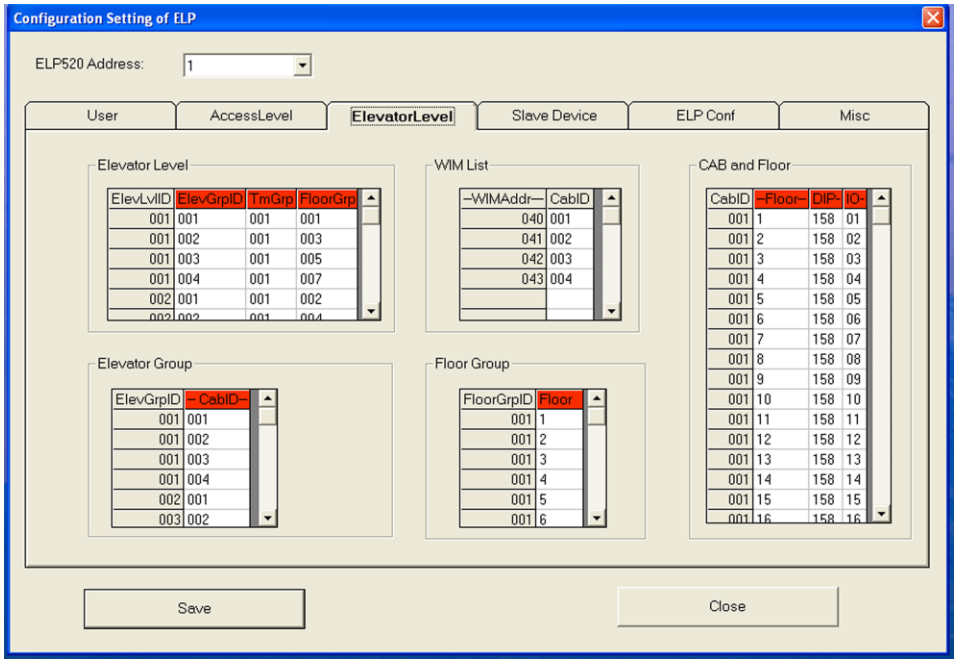
To assign a floor to a Floor Group follow the steps below:

1) Start the SFT5202 Windows Client Software.
2) Download the initial information.
3) Select the “View/Edit Data Records” Menu. A list of submenus will be displayed.
4) Select the “Configuration Settings” submenu. The Configuration setting window will be displayed. Do not change the CV-TAC400 Address field at the top of the window.

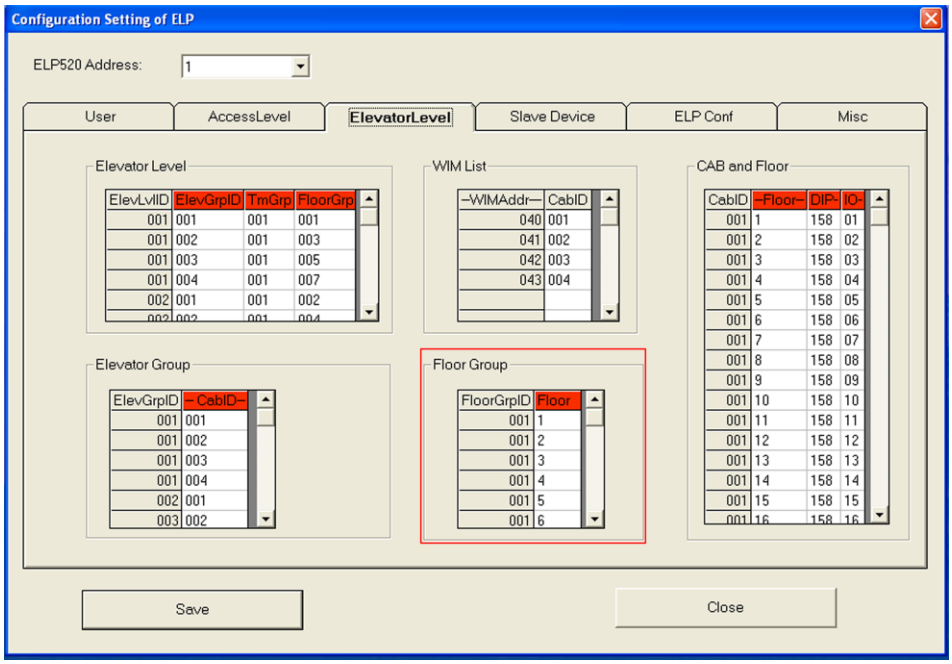




5) Select the Elevator Level tab. The Elevator tables will be displayed.



6) In the “Floor Group” table select (double click) the Floor entry you wish to edit.



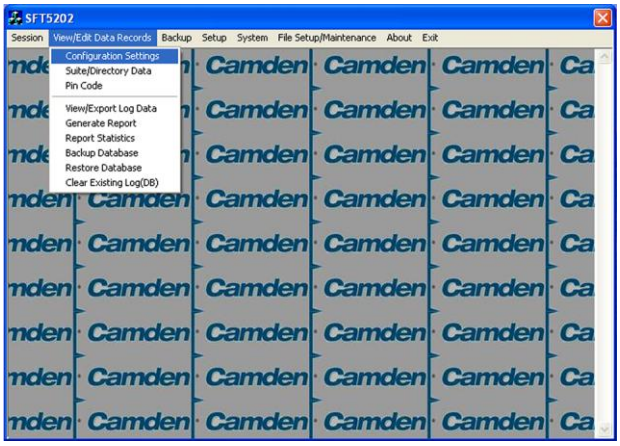
7) Enter the Floor information and then press “Enter”
8) When the editing for the selected Floor Group is complete select the “Save” button
9) Save and Upload the changed information. Refer to the CV-TAC400 Installation Guide.

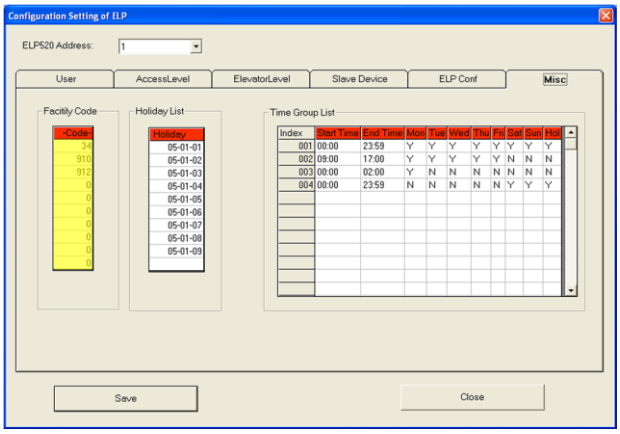
Configuring Elevator Groups

Configuring an Elevator Group is adding an Elevator (Elevator Cab) to the group. The Elevators are numbered 1 through 4. Each Elevator has WIM and card/fob reader associated with it. The DIP address of the WIMs are shown in the WIM List table. Each Elevator Group has multiple entries in the Elevator Group table. This is because an Elevator Group may have more than 1 Elevator. Each row in the Elevator Group table has a space for a Elevator and an Elevator Group. There are 8 Elevator Groups numbered 1 through 8. Each Elevator Group can have up to 4 Elevators assigned to it. By default the Elevator Group table is empty.

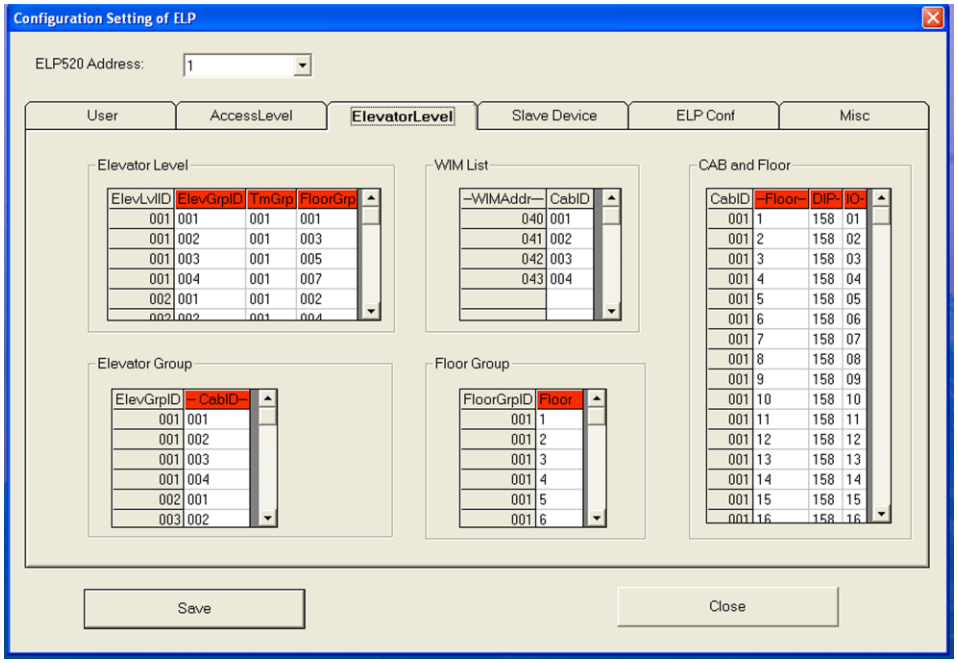
To assign an Elevator to an Elevator Group follow the steps below:

1) Start the SFT5202 Windows Client Software.
2) Download the initial information.
3) Select the “View/Edit Data Records” Menu. A list of submenus will be displayed.
4) Select the “Configuration Settings” submenu. The Configuration setting window will be displayed. Do not change the CV-TAC400 Address field at the top of the window.

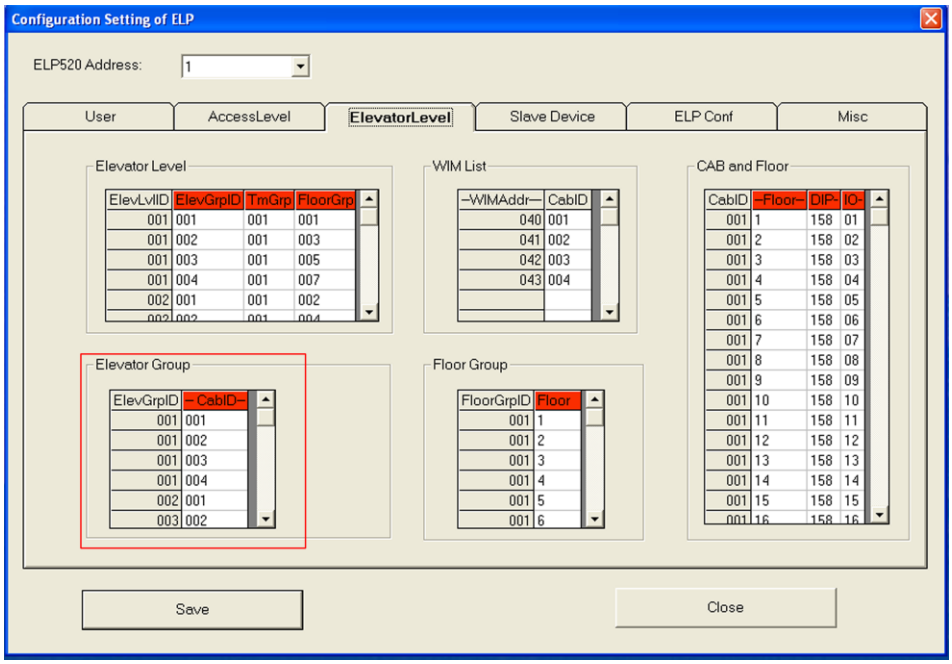




5) Select the Elevator Level tab. The Elevator tables will be displayed.



6) In the “Elevator Group” table select (double click) the Elevator entry you wish to edit.



7) Enter the Elevator information and then press “Enter”
8) When the editing for the selected Elevator Group is complete select the “Save” button
9) Save and Upload the changed information.

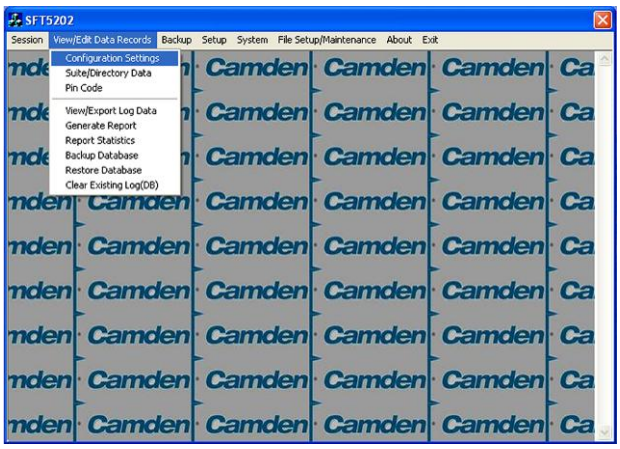
Configuring Time Groups

Configuring a Time Group means setting a start time, an end time and list of days of the week the time group is active. This is done in the Time Group List table.

To Configure a Time Group follow the steps below:

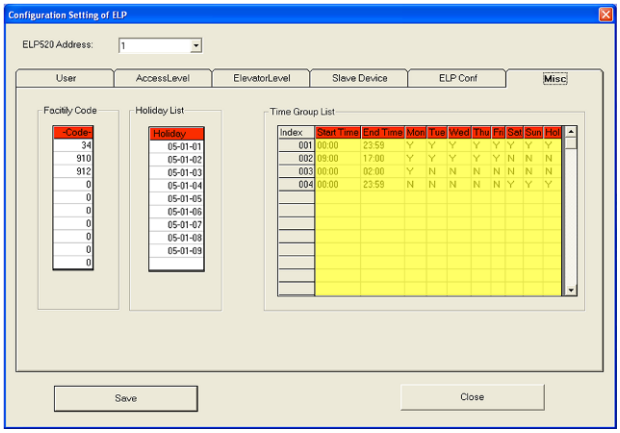
1) Select the “View/Edit Data Records” Menu. A list of submenus will be displayed
2) Select the “Configuration Settings” submenu. The Configuration setting window will be displayed. Do not change the CV-TAC400 Address field at the top of the window.

3)



4) Select the Misc tab. The miscellaneous tables will be displayed.
5) In the Time Group table select (double click) the Start Time entry you wish to edit.

6)



7) Enter the Start Time and then press “Enter”
8) In the Time Group table select (double click) the End Time entry you wish to edit.

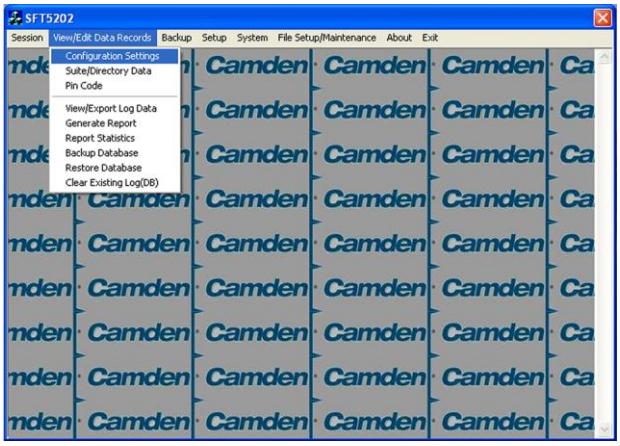
9) Note: The End Time is inclusive, that is, the End Time itself is included in the time group
10) Enter the End Time and then press “Enter”
11) Select “Y” in column for a day to include it, “N” to exclude it. All Holidays may be included or excluded by setting the HOL column.
12) When the editing for the selected Time Group is complete, select the “Save” button.

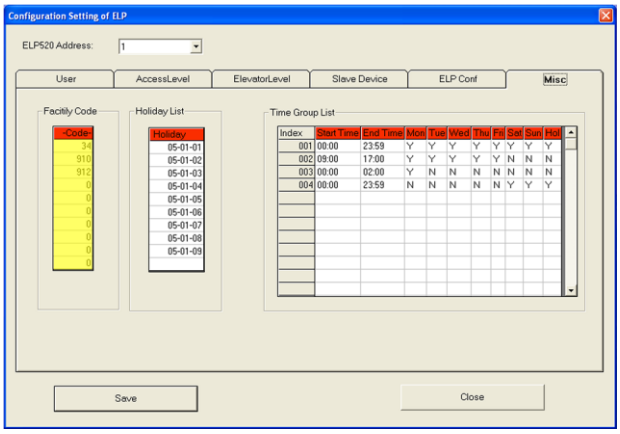
Configuring Elevator Access Levels

Configuring an Elevator Level is adding a combination of Elevator Group, Time Group and Floor Group to the Elevator Level. The Elevator Levels are numbered 1 through 8. Each Elevator Level has multiple entries in the Elevator Level table. This is because an Elevator Level may have more than 1 Elevator Group, Time Group and Floor Group combination assigned to it. Each row in the Elevator Level table has a space for an Elevator Level and Elevator Group, Time Group and Floor Group. There are 8 Elevator Levels numbered 1 through 8. Each Elevator Level can have up to 8 Elevator Group, Time Group and Floor Groups combinations assigned to it. By default the Elevator Group table is empty.

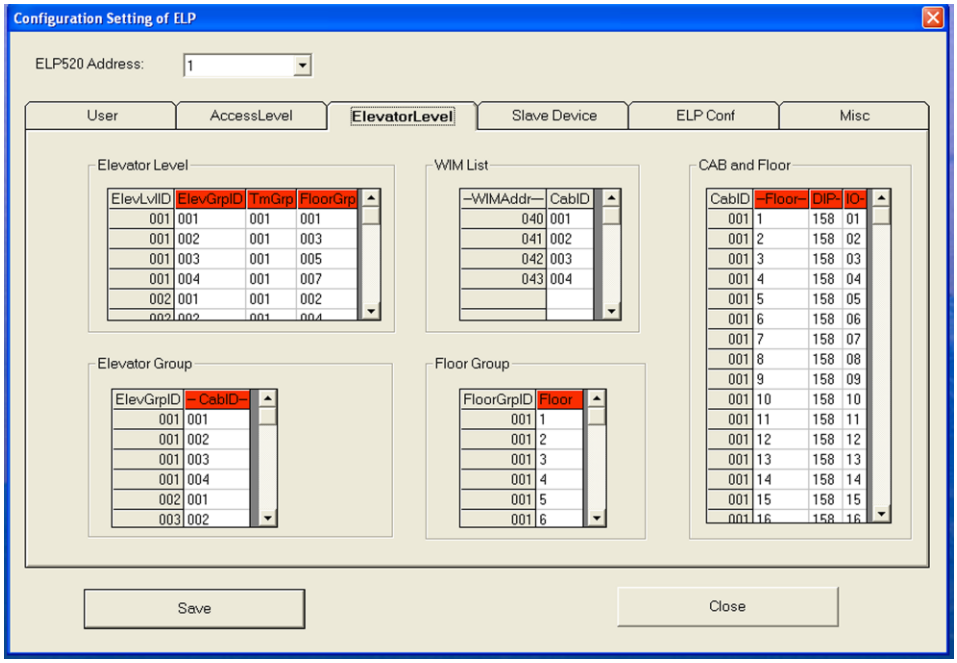
To assign an Elevator to an Elevator Group follow the steps below:

1) Start the SFT5202 Windows Client Software.
2) Download the initial information.
3) Select the “View/Edit Data Records” Menu. A list of submenus will be displayed
4) Select the “Configuration Settings” submenu. The Configuration setting window will be displayed. Do not change the CV-TAC400 Address field at the top of the window.

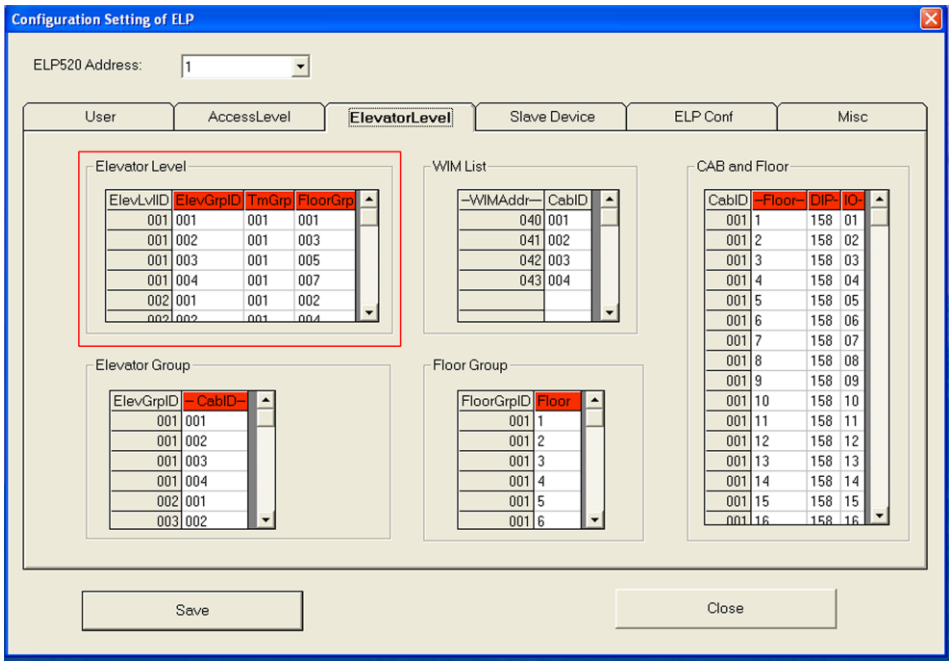




5) Select the Elevator Level tab. The Elevator tables will be displayed.



6) In the “Elevator Level” table select (double click) the entry you wish to edit.



7) Enter the information and then press “Enter”
8) When the editing for the selected Elevator Level is complete select the “Save” button
9) Save and Upload the changed information.

Push Buttons

Key Pads

Strikes

Magnetic Locks

Key Switches

Relays & Timers

Access Control