



CV-TACWM

Wiegand Controller
Installation Manual

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1 Product Overview

The Wiegand Interface Module (WIM) allows door access using HID and AWID compatible card readers external to the CV-TAC400 panels.

A self contained unit, the WIM can power and receive data from the card reader and control the door lock. Communication between the CV-TAC400 Master panel and the WIM is established through the RS485 interface bus.

Programming the WIM is done through the SFT5202 Windows Client software.

2 Installation

Connecting an Access Door WIM

The connections for a door access WIM are shown in Figure 1 and Figure 2 below.

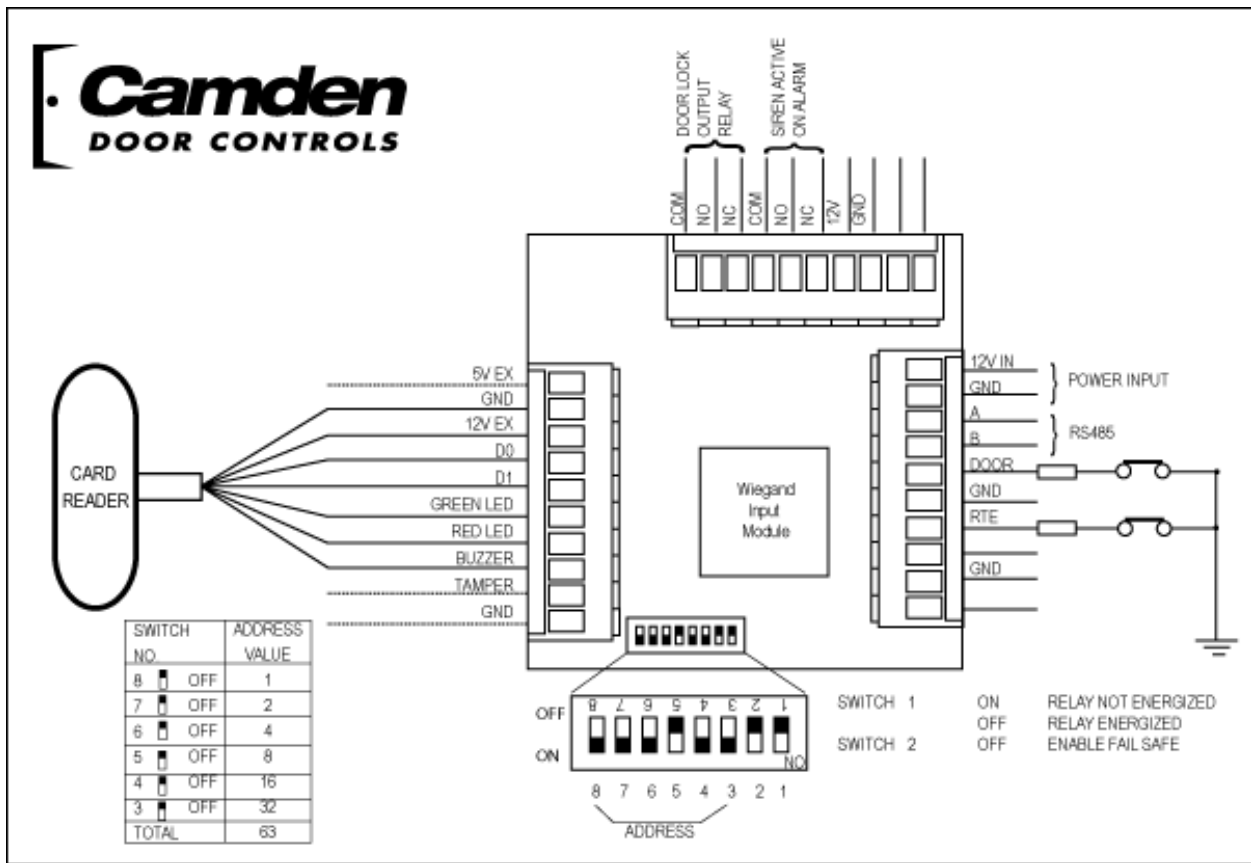


Figure 1 - WIM Hardware Connections

Power (+12VDC) is connected to +12V and GND. The NC, COM and NO connections are connected to the door lock. The connection depends on the type of door lock.

RTE (Request to Exit) is a Normally Closed pushbutton switch mounted inside the building which a resident pushes to unlock the door.

The Door Contact is a Normally Open switch that senses if the door is open or closed. The switch is open when the door is open and closed when the door is closed.

The card reader connections are shown below. The +5 and 12 V connections on the connector with the other card reader connections power the card reader. Choose the appropriate one for the installed reader.

Setting the DIP Switches

DIP Switch 1

This switch controls the door relay. The relay energized setting means the relay is normally energized and is de-energized to open the door.

DIP Switch 2

This switch controls fail safe mode. In fail safe mode any card with a recognized format will open the door if the controlling CV-TAC400 fails or becomes disconnected.

DIP Switches 3 to 8

These switches are used to set the device address.

WIM addresses may range from 2 to 13 for door access and 40 to 43 for elevator access..

Setting the Device Address DIP Switch

Each Auxiliary device connected to a network requires a unique address so the computer can identify it. The address is configured by setting the DIP switches on each item. Use the following to configure the DIP switch to a specific address:

SUBTRACT #	8 Pin DIP Switch	WIM DIP Switch
1	8	3
2	7	4
4	6	5
8	5	6
16	4	7
32	3	8
64	2	-
128	1	-

1. Obtain from the 'subtract #' column the closest number, without going over, to the address required.
2. Subtract this number from the address.
3. Obtain from the 'subtract #' column the closest number, without going over, to the result.
4. Subtract this number from the result.
5. Repeat steps 3 and 4 until the result is zero (0).
6. Each time a number from the 'subtract' column above is used, the corresponding switch number is set to the OFF position.

EXAMPLE: Address thirteen (13) on an 8-pin DIP switch setting is obtained by doing the following subtractions:

$$13(\text{address}) - 8(\text{subtract \#}) = 5(\text{result}) - 4(\text{subtract \#}) = 1(\text{result}) - 1(\text{subtract \#}) = 0(\text{stop at } 0)$$

From the above chart 'Subtract #' 8, 4, and 1 corresponded to switches 5, 6 and 8. Set each switch to OFF as illustrated on the following page.



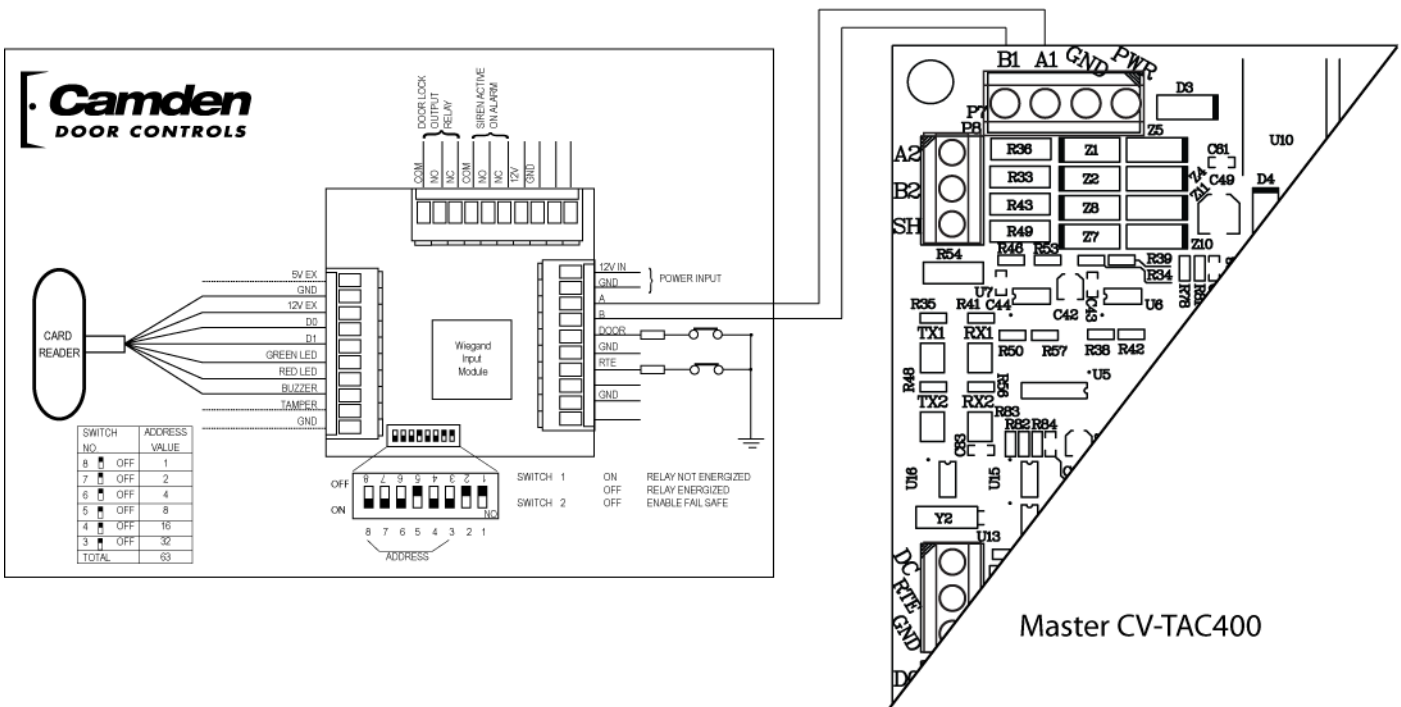


Figure 2 - WIM Connected in System

Cable requirements

Power:

- Power Supply to CRB6 Riser Board: 14/2
- CRB6 Riser Board to Suite Panel / Auxiliary Devices: 18/2
- Auxiliary Device to Auxiliary Device: 18/2

Data:

- Auxiliary Device to Auxiliary Device: 22/2 Twisted Shielded.

Card Reader to WIM: 22/7 Shielded

Monitoring Devices to WIM: 22 Solid (no. of conductors depends on requirements)

Monitoring Devices to Suite Panel: 22 Solid (no. of conductors depends on requirements)

Video: RG-59 or video mini co-ax cable is required.

Note: All cables are stranded unless specified.
If cable runs exceed 1000 ft. use 16/2 on trunk lines for power.

Cable Impedance:
Data < 120 Ohms

3

Programming

Programming the CV-TAC400

1. Starting the SFT5202 Windows Client Software

The following instructions apply only if the default file locations were used in the software installation. If any changes were made that location should be used.

To start the SFT5202 Windows Client Software open (double click) the SFT5202 icon on the desktop

If there is no SFT5202 icon on the desktop the following steps may be performed:

- a. select the Start Menu from the windows desktop
- b. select Programs from the start menu
- c. select the "remoteAdmin" folder
- d. select SFTD5202D from the list. The main SFT5202 Windows Client Software window will be displayed

2. Establishing a Connection with the CV-TAC400

The CV-TAC400 is remotely programmed via a Windows PC, using a dialup connection or optional USB to RS485 converter.

A. Remote Connection Using a Modem

Overview

The CV-TAC400 may be connected to a computer system over a telephone line. To do this the CV-TAC400 requires the modem module. The computer requires a modem connected to it and the SFTD5202 software.

Using the modem is identical to the RS485 connection after the connection has been made. Because a computer with a modem may be used to manage multiple CV-TAC400's the "Open Session" initialization is not used. Downloading and uploading data using the modem is described in section 4 above

The telephone number and password for each building may be entered into the system. When you wish to update that particular building the dialing information may be selected from that list.

Configuring the SFTD5202 Software for the Modem

Overview

Each time the modem is used the modem must be initialized. Once the modem is initialized it may be used until the SFTD 5202 software is closed.

Finding the COM Port

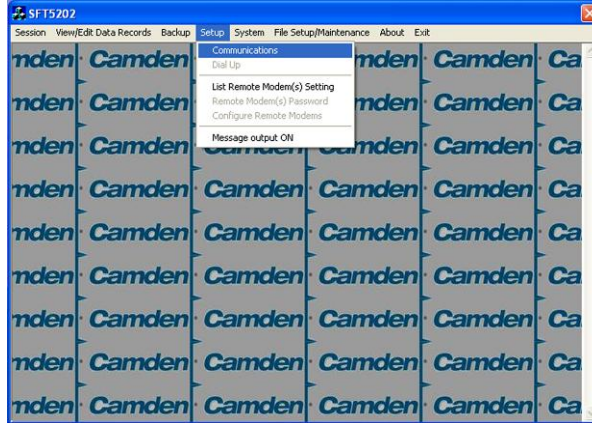
To identify the modem to the SFTD5202 software the computer system gives it a name, such as COM3. To use the modem you must know its COM port number. Determining the COM port varies depending on the computers operating system.

Different versions of the operating system will have different methods for determining the COM port. The following discussion may not exactly match your particular system. In general for Windows Operating systems the "Control

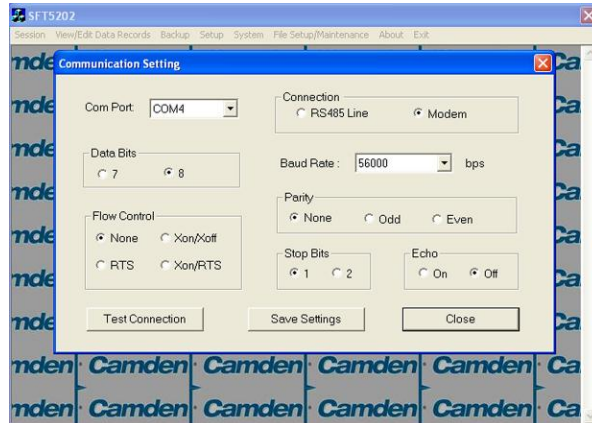
Panel” will have an icon for modem options. It may be under the “Hardware and Sound” Icon or directly visible. Selecting it will show which COM port the modem is connected to.

Changing the Settings

- To change the communications settings follow the steps below:
- Start the SFT5202 Windows Client Software (see page 4-)
- Select the “Setup” menu. A list of submenus will be displayed
- Select the “Communications” submenu. The “Communication Setting” form will be displayed



- In “Connection” box select Modem.



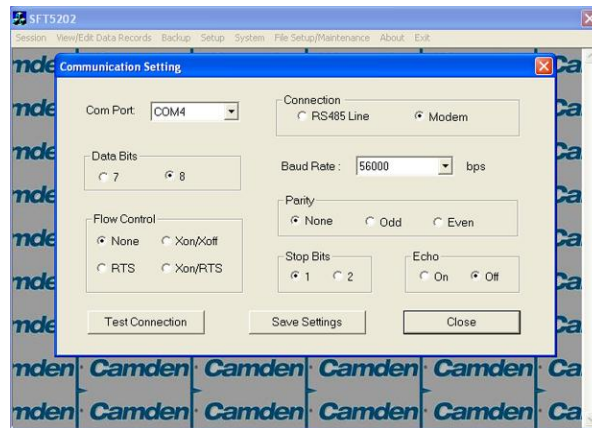
- In the “Com Port” drop down box select the COM Port the Modem is connected to.
- In the “Data Bits” box select 8.
- In the “Flow Control” box select “none”.
- In the “Parity” box select “None”.
- In the “Stop Bits” box select “1”.
- In the “Echo” box select “Off”.
- When you are done Save the settings by selecting the “Save Settings” button

Initializing the Modem

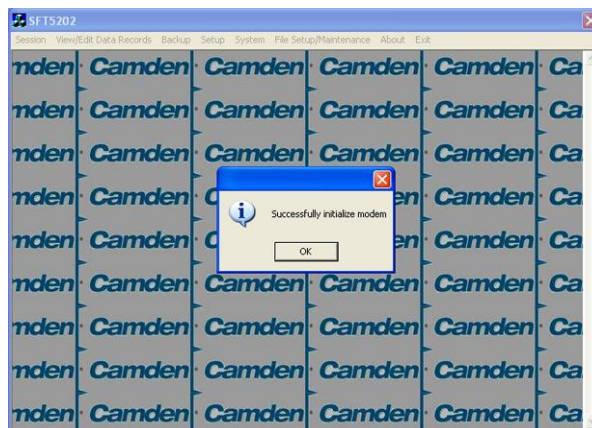
NOTE: The modem will remain initialized until the SFTD5202 software is shutdown. This initialization procedure must be performed each time the SFTD5202 software is restarted.

To initialize the modem follow the steps below:

- Ensure the “Communication Setting” form is displayed.



- b. Select the “Save” button.



- c. The modem is initialized.

Setting the Remote Modem

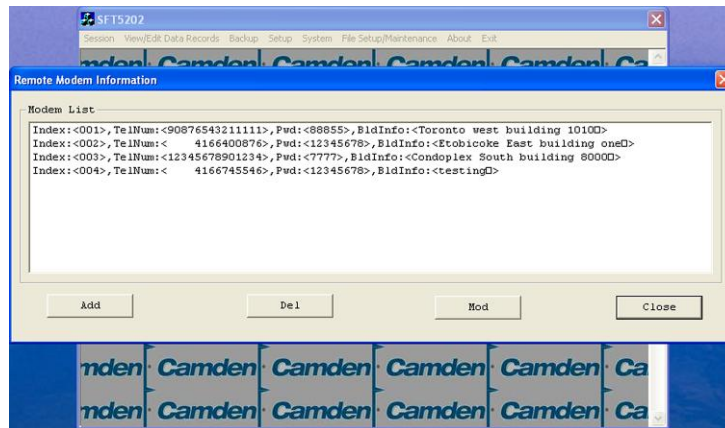
Overview

Each remote site that this system connects to will have an associated password and phone number. These may be stored in a list so that they may be easily accessed.

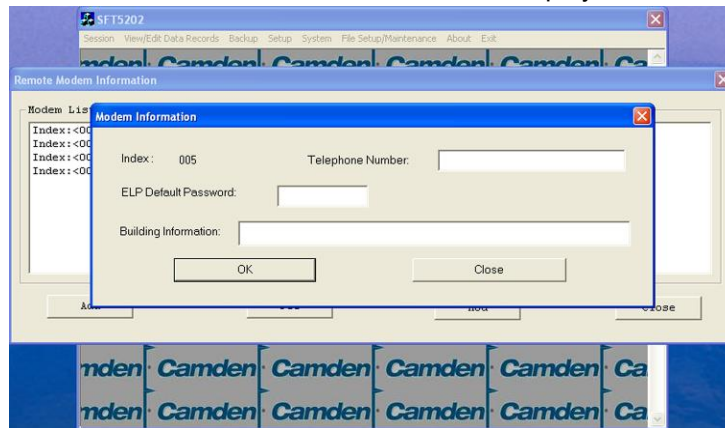
Setting up a Remote Modem

To add a remote site and its phone number and password to the list of sites follow the steps below:

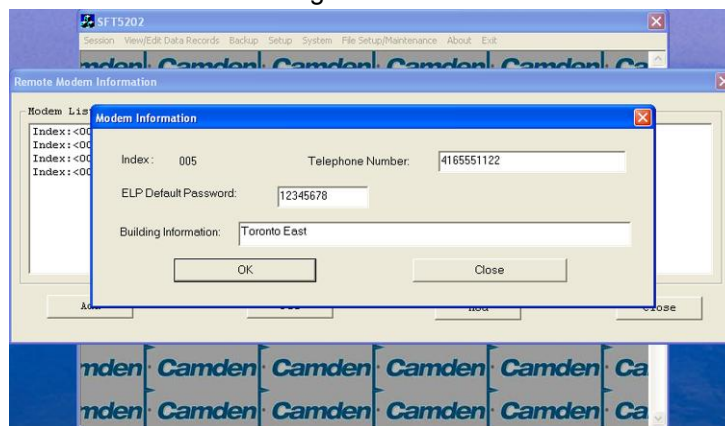
- a. Start the SFT5202 Windows Client Software.
- b. Select the “Setup” menu. A list of submenus will be displayed
- c. Select the “List Remote Modem(s) Setting” submenu. The “Remote Modem Information” form will be displayed.



- d. Select the “Add” button. The “Modem Information” form will be displayed



- e. Enter the Remote telephone number in the “Telephone Number” box.
 f. Enter the Remote modem Password in the “ELP Default Password” box.
 g. Enter the Building Identification in the “Building Information” box.



- h. Select “OK” to save the information or “Close” to exit without saving

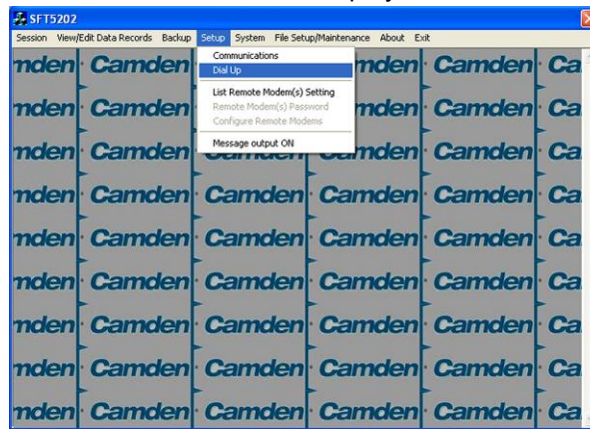
Starting a Connection

Overview

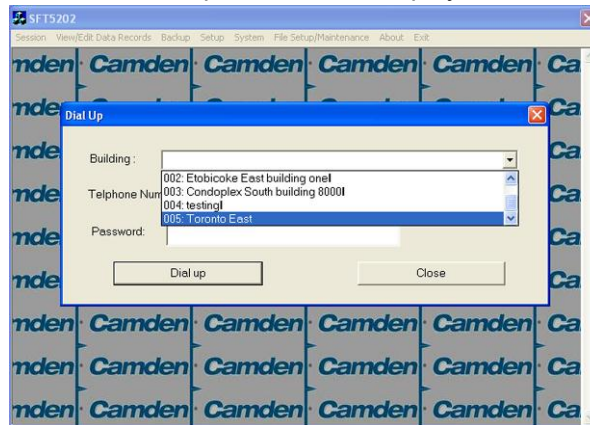
To communicate with a remote system via modem you must first start the connection. As the system does not know which system will be connected you do not use start session.

Starting the Connection

- a. To start a connection to a remote system follow the steps below:
- b. Start the SFT5202 Windows Client Software.
- c. Select the “Setup” menu. A list of submenus will be displayed



- d. Select the “Dial Up” submenu. The “Dial Up” form will be displayed.



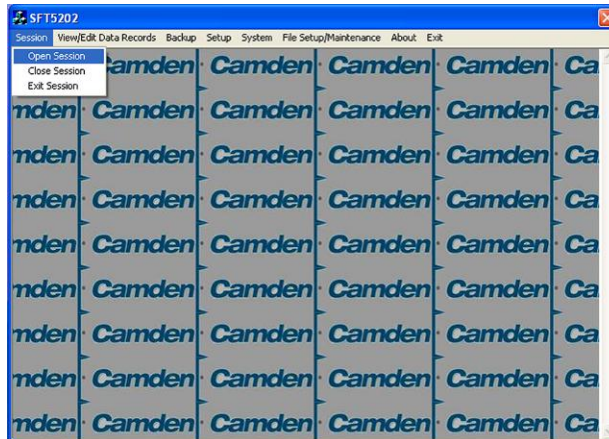
- e. Select the remote site from the list of remote sites in the “Building” drop down list. If the building is not in the list you may enter the information in the form.
- f. Select the “Dial up” button to start the connection or Close to exit with starting the connection.

B. RS485 to USB Convertor

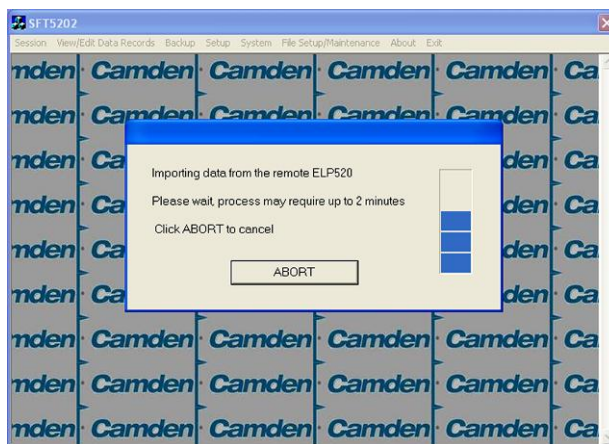
Simply connect the USB Converter to your computer.

3. Open a Session with the CV-TAC400 (Working Online with an RS485 Converter))

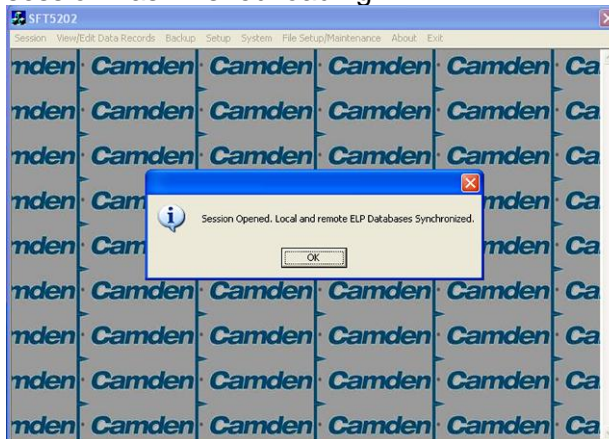
- a. Select the Session Menu.



- b. Select Open Session.

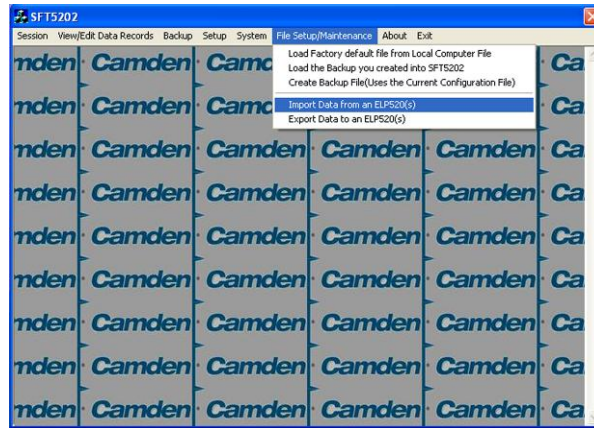


- c. Select OK when the session has finished loading.

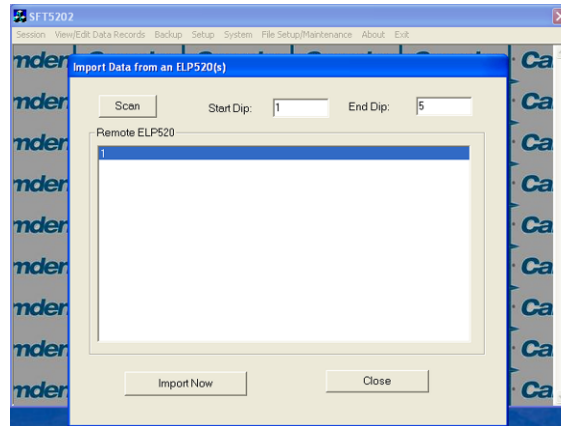


4. Open a Session with the CV-TAC400 (Working Online with a Modem Connection)

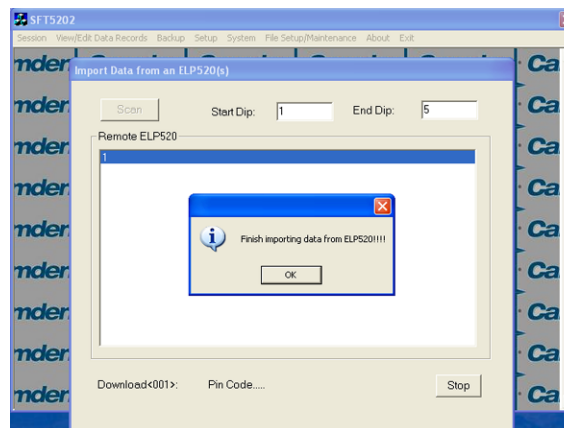
- a. Select the "File Setup/Maintenance" menu and select "Import Data from an CV-TAC400(s).



- b. Scan for Remote CV-TAC400s. Select the remote CV-TAC400 from the list you wish to communicate with.



- c. The CV-TAC400's data will be imported. The download from the remote CV-TAC400 can take up to 5 minutes.

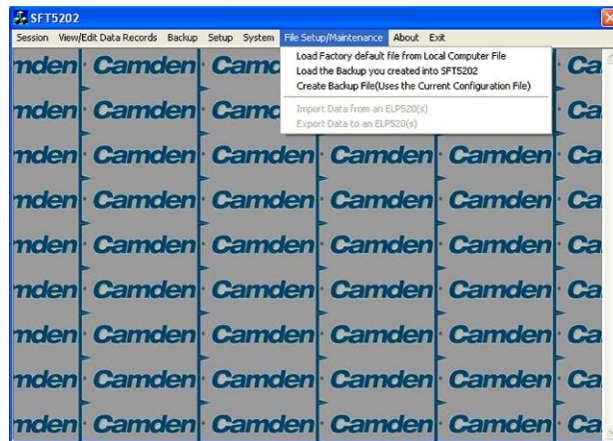


5. Load the Factory Default

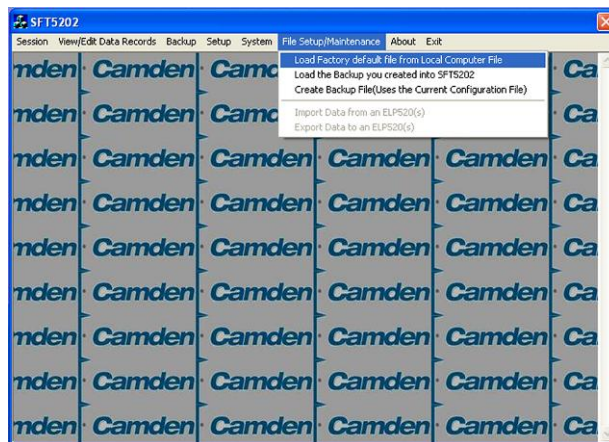
- ⚠ Using this file will erase all previously saved data.
- ⚠ The default factory file is located on the installation CD.

Start by selecting a file of current information. To do this, follow the steps below

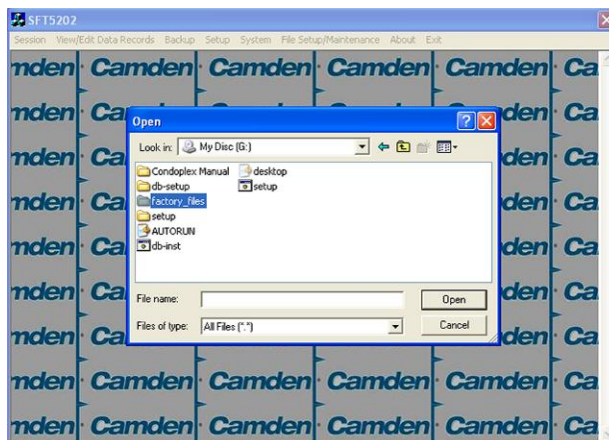
- a. Select the "File Setup/Maintenance" menu. A list of submenus will appear below.



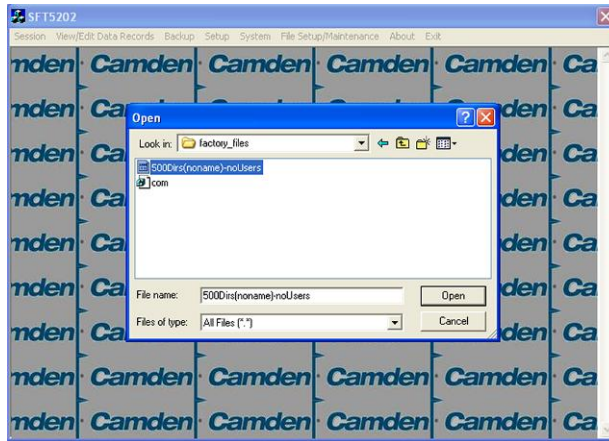
- b. Select the “Load the factory Default File into the computer” submenu. A file selection window will be displayed.



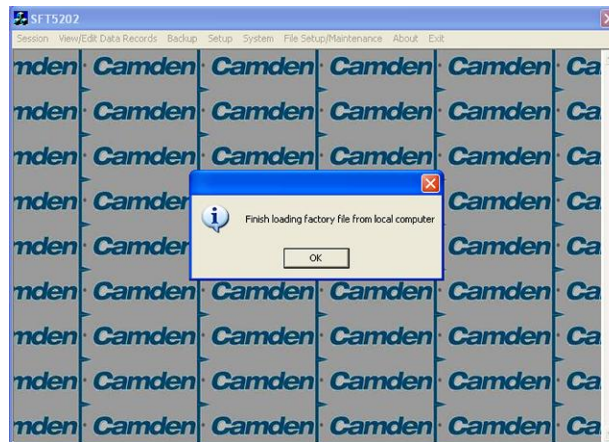
- c. Navigate the Explorer window to your CD Drive containing the installation CD.



- d. Select the ‘factory files’ folder.



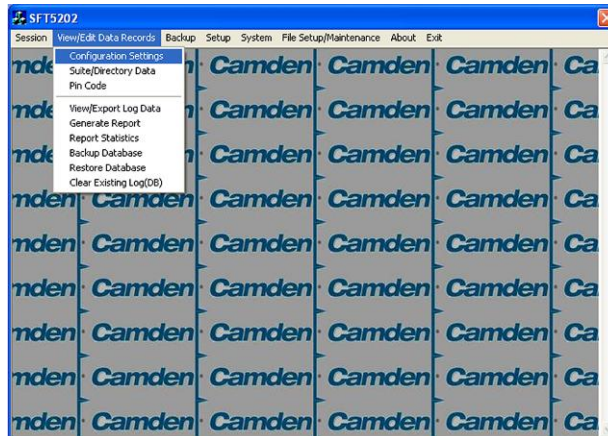
- e. Select the factory Default file -> 500Dlrs(noname)-nouser and then select “Open”



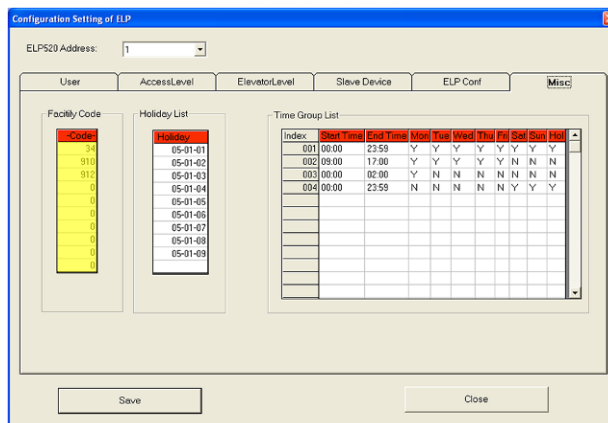
6. Set the Facility Code

To add or change a facility code, follow the steps below:

- Select the "View/Edit Data Records" Menu. A list of submenus will be displayed
- 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.



- Select the Misc tab. The miscellaneous tables will be displayed.



- In the Facility Code table select (double click) the Facility Code entry you wish to edit.
- Enter the Facility Code and then press "Enter"

Note: Adding a Facility code is done by replacing one of the "0" entries with the Facility Code you wish to add. Zero is not a valid facility code

- When all the entries have been completed select the Save button.
- To close the Form select the Close button
- Save and Upload the changed information. (see page **Error! Bookmark not defined.**)

7. Setup the Access Control Information

A. Default Settings

To assist you in configuring the CV-TAC400 the factory default file is set up with some useful default settings. Time Group 1 is set to allow access 24 hours per day 7 days per week holidays included.

Access Group 1 is doors number 1 through 8.

Access Level 1 is the combination of Time Group 1 and Access Group 1.

What this means is that to allow a user to always pass through door 1, 2, 3, 4, 5, 6, 7, or 8 that user should be set to Access Level 1.

The facility codes 34, 910 and 912 are already entered as factory default settings.

Note: Access level 1 allows 24 hour access through doors 1 through 8 (unless modified by the installer).

B. Configuring Access Groups

Configuring an Access Group means adding a particular door to the group. The doors are identified by a Door ID number. For doors the Door ID number is the same as the WIM DIP address. See the Hardware Configuration section for instructions on the electrical connection of the door.

Each Access Group has multiple entries in the Access Group table. This is because an Access Group may have more than 1 door. Each row in the Access Group table has a space for a door and an Access Group.

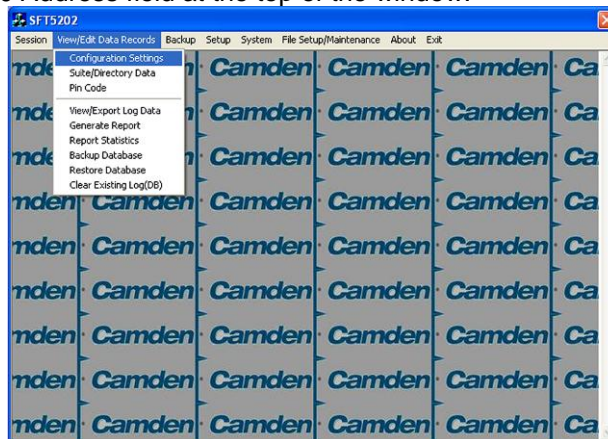
Door ID 1 is the door connected to the CV-TAC400 itself.

Which Door ID is connected to which WIM (DIP Address of WIM) is shown in the Door Information table under the Access Level tab.

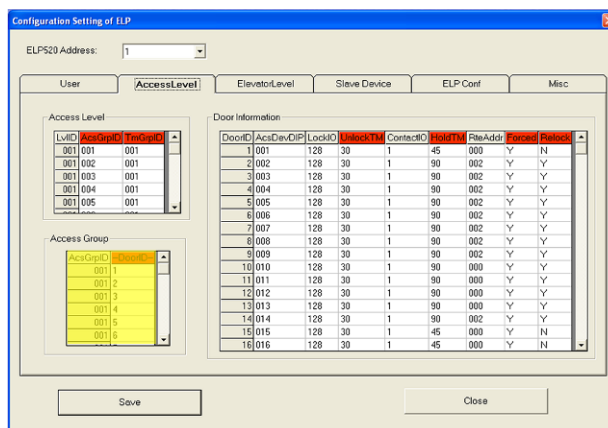
There are 8 Access Groups numbered 1 through 8. Each Access group can have up to 8 doors assigned to it. By default Access Group 1 has doors 1 through 8 assigned to it. There are a maximum of 16 doors.

To assign a door to an Access Group follow the steps below:

- Select the "View/Edit Data Records" Menu. A list of submenus will be displayed
- 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.



- Select the Access Level tab. The Access tables will be displayed.
- In the Access Group table select (double click) the Door ID entry you wish to edit.



- Enter the Door Id information and then press "Enter"

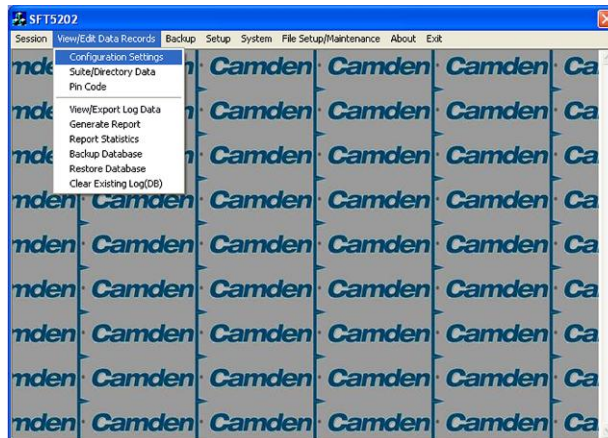
- f. When the editing for the selected Access Group is complete select the “Save” button (on the bottom left-hand side of the form).

C. Configuring Time Groups

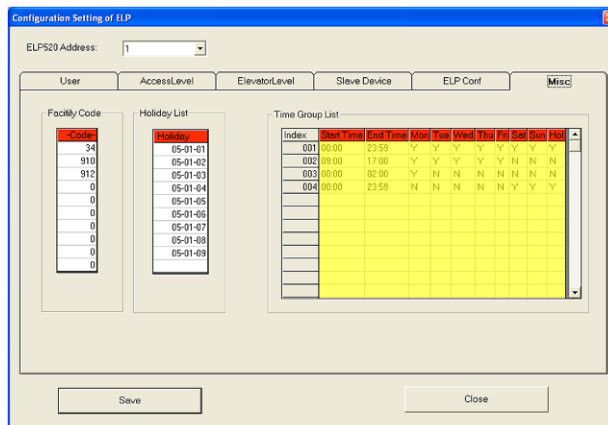
Configuring a Time Group means setting a start time, an end time and list of days of the week the time group is active. This is done in the Time Group List table.

To Configure a Time Group follow the steps below:

- Select the “View/Edit Data Records” Menu. A list of submenus will be displayed
- 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.



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



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

Note: The End Time is inclusive, that is, the End Time itself is included in the time group

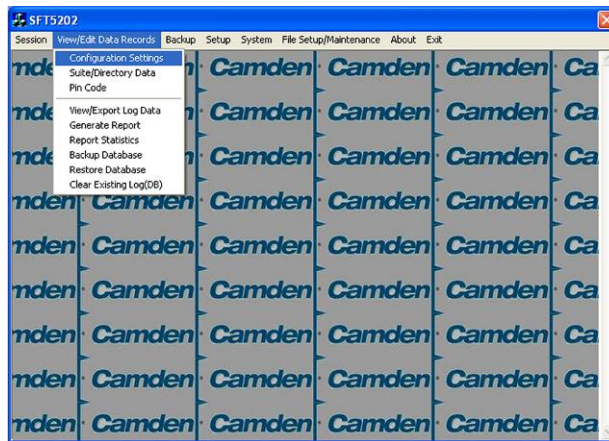
- Enter the End Time and then press “Enter”
- Select “Y” in column for a day to include it “N” to exclude it. All Holidays may be included or excluded by setting the HOL column.
- When the editing for the selected Time Group is complete select the “Save” button.

D. Configuring Access Levels

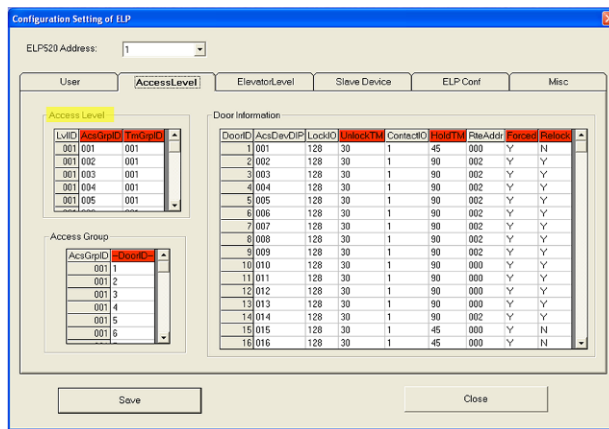
Configuring an Access Level means adding an Access Group – Time Group pair to the Access Level. An Access Level may contain up to eight Access Group – Time Group pairs.

To assign an Access Group – Time Group pair to an Access Level follow the steps below:

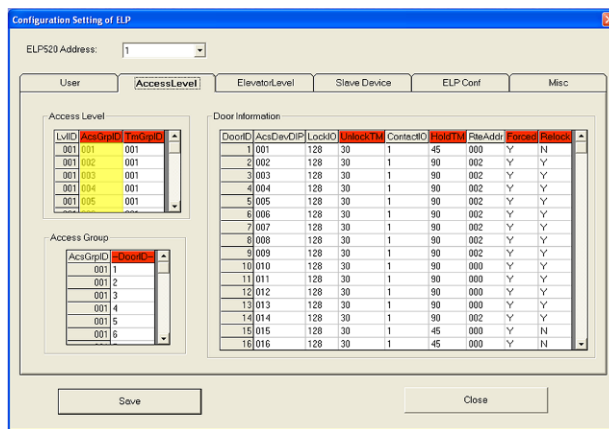
- a. Select the “View/Edit Data Records” Menu. A list of submenus will be displayed
- b. Select the “Configuration Settings” submenu. The Configuration setting window will be displayed. Do not change the CV-TAC400 Address field at the top of the window.



- c. Select the Access Level tab. The Access tables will be displayed.



- d. In the Access Level table select (double click) the Access Group ID entry you wish to edit.
- e. Enter the Access Group ID information and then press “Enter”



- f. In the Access Level table select (double click) the Time Group ID entry you wish to edit.
- g. Enter the Time Group Id information and then press “Enter”

The screenshot shows the 'Configuration Setting of ELP' window. The 'AccessLevel' tab is selected. It contains several tables and controls:

- ELP520 Address:** 1
- Access Level Table:**

LvlID	AccGrpID	TrnGrpID
001	001	001
001	002	001
001	003	001
001	004	001
001	005	001
- Access Group Table:**

AccGrpID	Display
001	
001	
001	
001	
001	
001	
001	
- Door Information Table:**

DoorID	AccDev/DIP	LockID	Relock	Contact	Hold	RteAddr	Forced	Block
1	001	128	30	1	45	000	Y	N
2	002	128	30	1	90	002	Y	Y
3	003	128	30	1	90	002	Y	Y
4	004	128	30	1	90	002	Y	Y
5	005	128	30	1	90	002	Y	Y
6	006	128	30	1	90	002	Y	Y
7	007	128	30	1	90	002	Y	Y
8	008	128	30	1	90	002	Y	Y
9	009	128	30	1	90	002	Y	Y
10	010	128	30	1	90	000	Y	Y
11	011	128	30	1	90	000	Y	Y
12	012	128	30	1	90	000	Y	Y
13	013	128	30	1	90	000	Y	Y
14	014	128	30	1	90	002	Y	Y
15	015	128	30	1	45	000	Y	N
16	016	128	30	1	45	000	Y	N

- h. When the editing for the selected Access Level is complete select the “Save” button (on the bottom left-hand side of the form).

8. Entering Suite Information

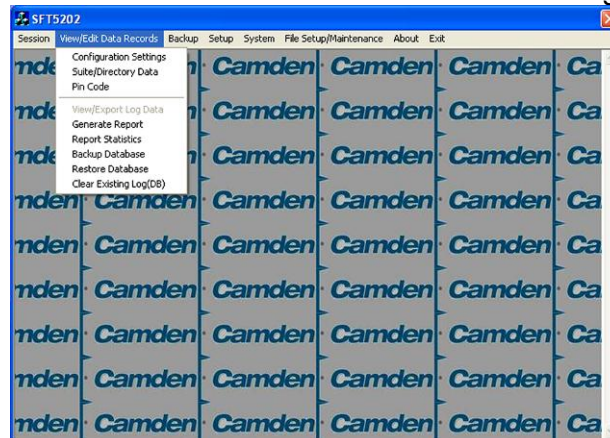
Changing/Adding Suite Information

Floor, Express Code, Display Name, Telephone Number

Note: All the Suite records are already in the factory default file. The information has been set to blank. To add a suite merely select a blank record and enter the information.

- Select the “View/Edit Data Records” Menu. A list of submenus will be displayed
- Select the “Suite/Directory Data” submenu. The Suite/Directory Data window will be displayed.

Note: The “Remote ELP DIP” field is not used and should not be changed.



- Select the suite to be changed from the drop down list in the Suite ID-Display Name field
- Note:** You may use the up or down arrows to scroll through the list of suites. You may also use the pg up

(page up) and pg dn (page down) keys to scroll the list quickly.

- If required, Select the **Floor** from the list of Floors in the pulldown menu
- If required, Edit the **Express Code** in the “Express Code” field
- If required, Edit the **Display Name** in the “Display Name” field
- If required, Edit the **Telephone Number** in the “Telephone Num” field.
- When the editing for the selected suite is complete select the “Save” button (on the bottom left-hand side of the form).

Note: If the user does not reside in a suite, for example a cleaner, select a Suite ID that is not used for an actual suite. If this unused suite has a blank "Display Name" it will not show up in the directory.

- d. Select the "Add User" button. The "Add New User" form will be displayed.

- e. Enter the user information as required.

Note: A User Name must always be entered so that the user may be listed in the reporting system.

- f. Click the "Save" button when completed. The "Suite/Directory Data" form is displayed.

Note: The close button closes the form and discards any changes.

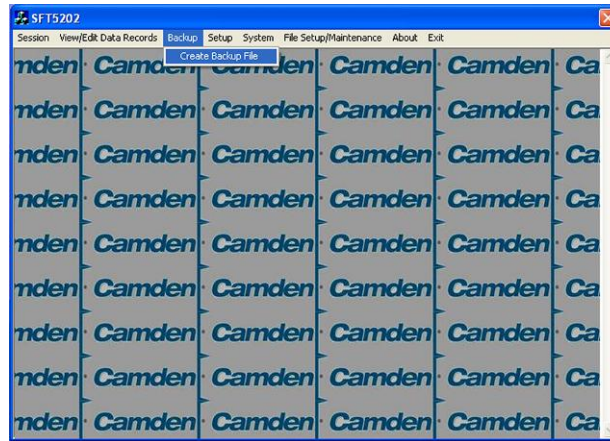
- g. Click the "Save" button.

- h. When you have completed all the User Access changes click the "Close" button.

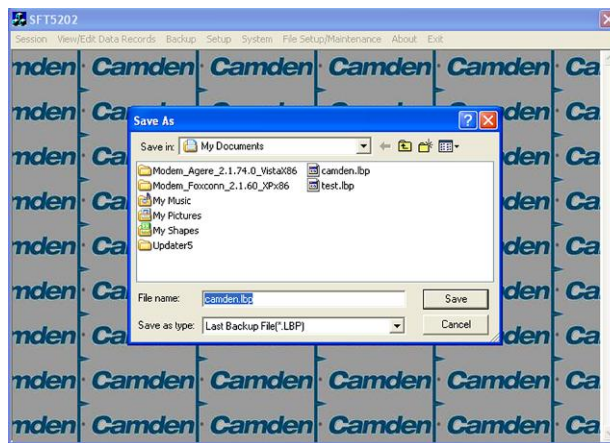
9. PIN Entry Information

The CV-TAC400 has a PIN entry function. When a user enters their assigned PIN (personal identification number) the CV-TAC400 grants access in the same way as if the number 6 was entered on a call to the suite. The CV-TAC400 maintains a list of PIN numbers and the associated Labels for the PIN. Each PIN number must be between 5 and 9 digits long.

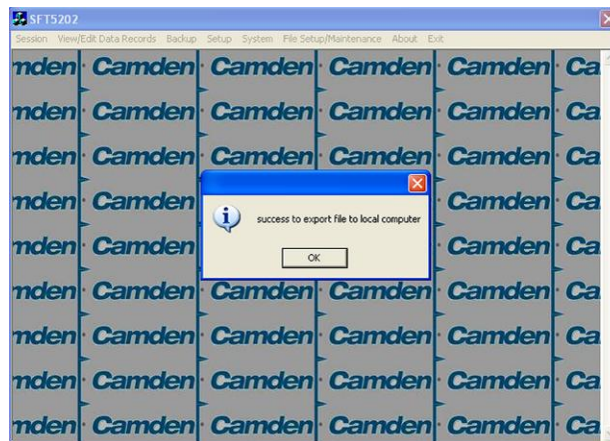
Error! Bookmark not defined.The PIN Code Label is a readable description of the PIN Code



b. Select Create Backup



c. Selection a location and create filename



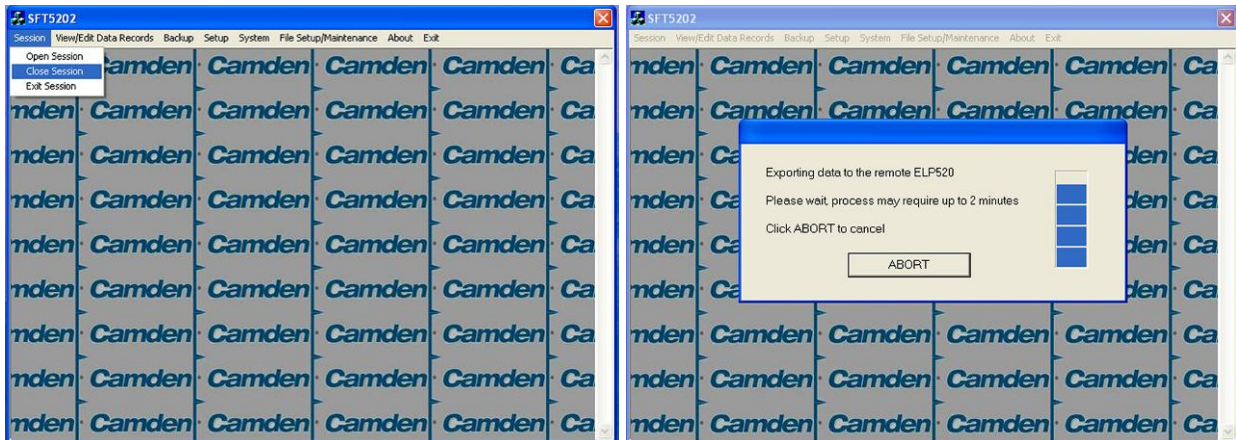
11. Uploading Saved Information into the CV-TAC400

A. Working Online Using the Rs485 Converter

If you have been working online throughout this guide, all you need to do is close the session.

a. Select the Session Menu

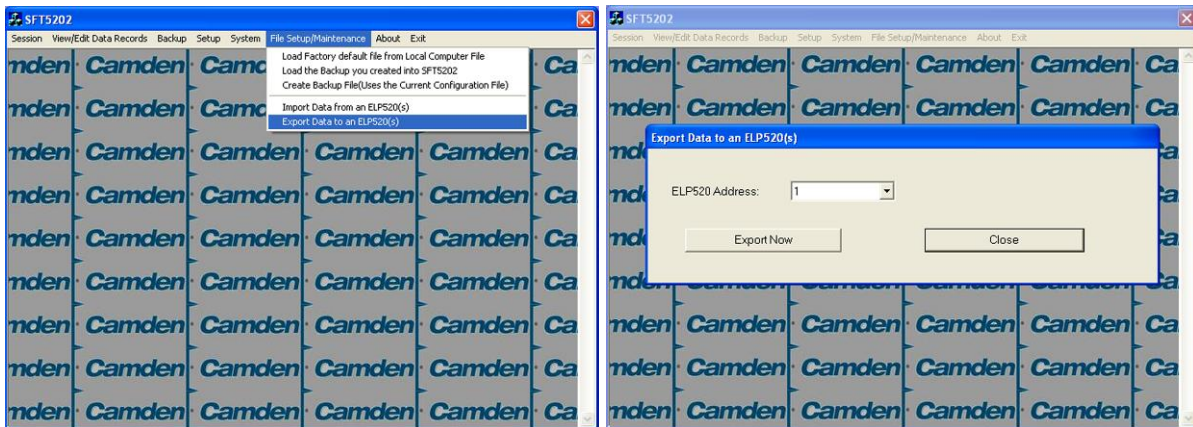
- b. Select Close Session. The new configuration data is automatically uploaded to the CV-TAC400.



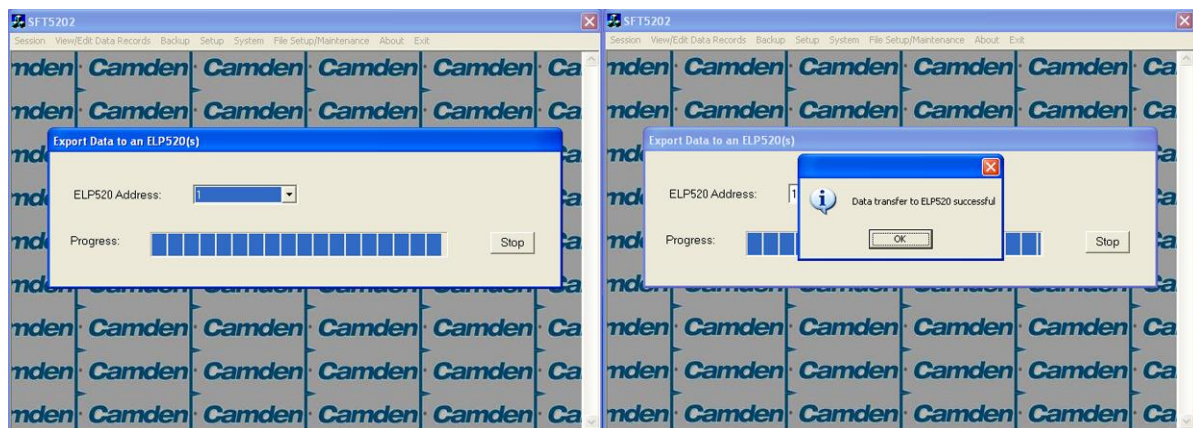
B. Working Online Using the Modem Module

If you have been working online using the Modem Module, you cannot simply close the session. The new data must be exported to the CV-TAC400.

- a. Select the “Export Data to an ELP520(s)” from the “File Setup/Maintenance” menu. Select the ELP520 Address from the pull down menu and hit Export Now.



- b. The new configuration data is exported to the remote panel.





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