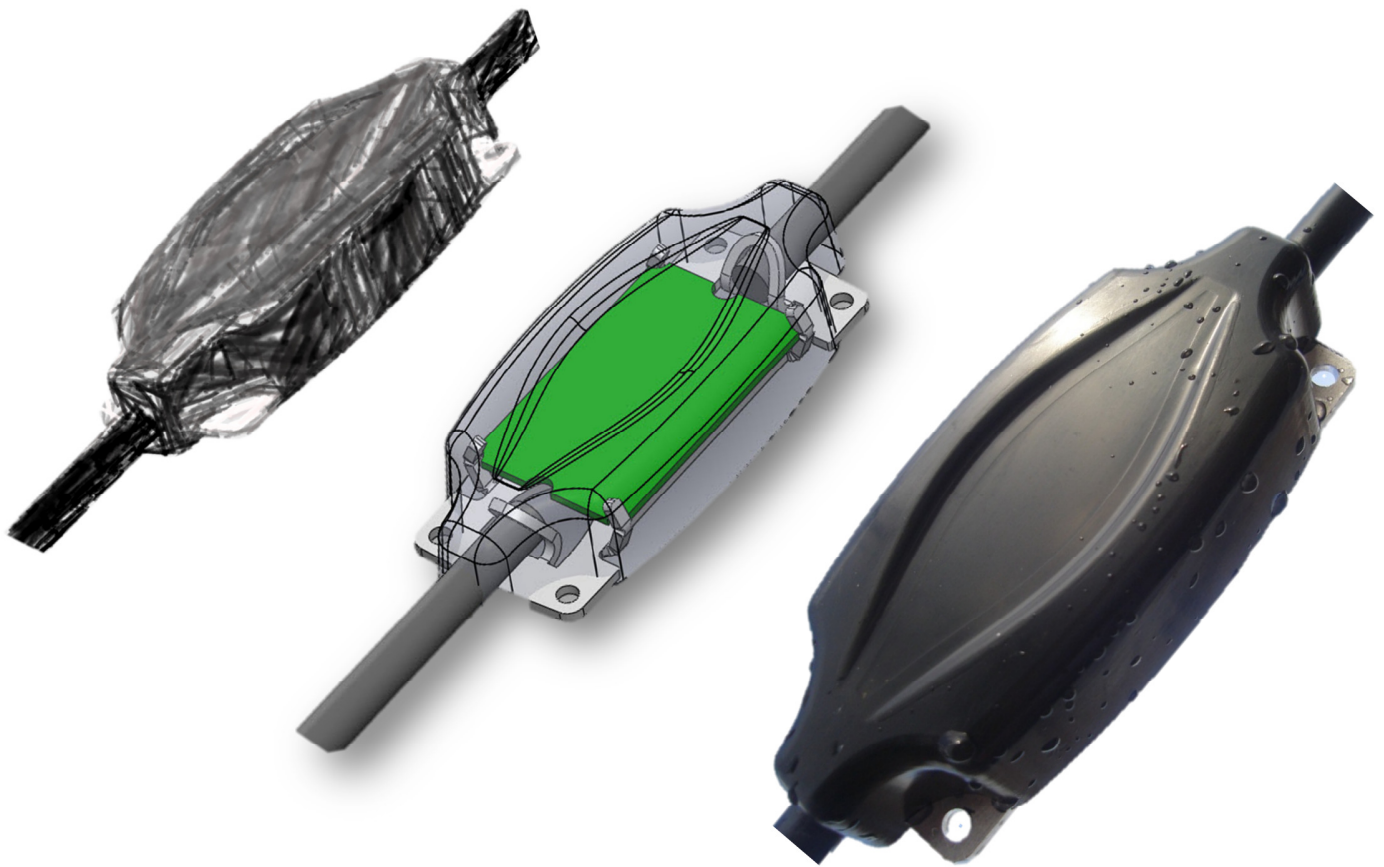


# **G.M. AFCON Security Technologies L.P.**



## **Setting Manager Manual**



**G.M AFCON Security Technologies Limited Partnership**  
PO Box 2327, Kfar Sava Industrial Area 44425, Israel  
Tel +972-9-7662965 Fax + 972-9-7662964  
E-mail: [info@gmsecurity.com](mailto:info@gmsecurity.com) Website: [www.gmsecurity.com](http://www.gmsecurity.com)  
Company Number: 550249312

## Table of Contents

1. INTRODUCTION .....	3
2. STEP-BY-STEP USE OF THE V-ALERTCOMM SETTING MANAGER.....	3
3. V-ALERT ZONE PROCESSING CARD – MAIN COMPONENTS .....	5
4. INSTALLING THE V-ALERTCOMM SETTING MANAGER.....	9
5. SETTING THE COM PORT .....	13
6. DESCRIPTION OF V-ALERTCOMM SETTING MANAGER BUTTONS & MENU'S.....	14
7. SETTING THE SENSOR PARAMETERS.....	21
8. V-ALERT APPLICATION SOFTWARE MAIN MENU - COMMUNICATION .....	25
9. V-ALERT APPLICATION SOFTWARE MAIN MENU- HELP.....	26
10. CHANGING THE 2 ZONE PROCESSOR CARD SETTINGS .....	26
11. CHANGING THE SENSOR SETTINGS .....	30
12. CONCLUSION .....	31
13. V-ALERTCOMM SETTING MANAGER – BLOCK DIAGRAM .....	32

# V-Alert Perimeter Intrusion Detection Security System

The V-ALERT Perimeter Intrusion Detection System is supplied with the V-AlertComm Setting Manager Application that is used to set the detection parameters of the V-Alert Sensors. The V-AlertComm Setting Manager is used after the V-Alert Sensors have been installed physically on the fence/wall or barrier.

The installation of the V-Alert System should be completed by a GM representative or authorized GM dealer trained in the installation of the V-Alert System and trained in the use of V-AlertComm Setting Manager.

Please refer to the V-ALERT INSTALLATION MANUAL for general guidelines in the installation of the V-ALERT PERIMETER SECURITY INTRUSION DETECTION SYSTEM.

## 1. INTRODUCTION

- 1.1. The V-AlertComm Setting Manager is a Window's-based software program designed to set the sensitivity and detection parameters of the V-Alert Sensor lines.
- 1.2. The objective of the V-AlertComm Setting Manager Manual is to describe the method of setting the detection parameters of the V-Alert Sensor with the aid of the V-AlertComm Setting Manager Software.
- 1.3. Each individual sensor can be set with different parameters depending upon the type of barrier on which it has been installed – such as different types of fences, walls, window bars etc.
- 1.4. The V-ALERT sensors are all supplied with the same detection parameters which need to be set with parameters that will enable reliable detection of the V-ALERT sensors on the barrier on which it is installed.
- 1.5. This manual will explain the following processes:
  - 1.5.1. Installation of the Application on the user's computer.
  - 1.5.2. Connection of the user's computer to the V-ALERT zone processor card.
  - 1.5.3. READING from and WRITING to the V-Alert zone processor card.
  - 1.5.4. Using the V-AlertComm Setting Manager together with GM's Technical Support.
- 1.6. This manual is designed to be used by authorized and trained installers of the V-Alert Intrusion Detection System

## 2. STEP-BY-STEP USE OF THE V-ALERTCOMM SETTING MANAGER

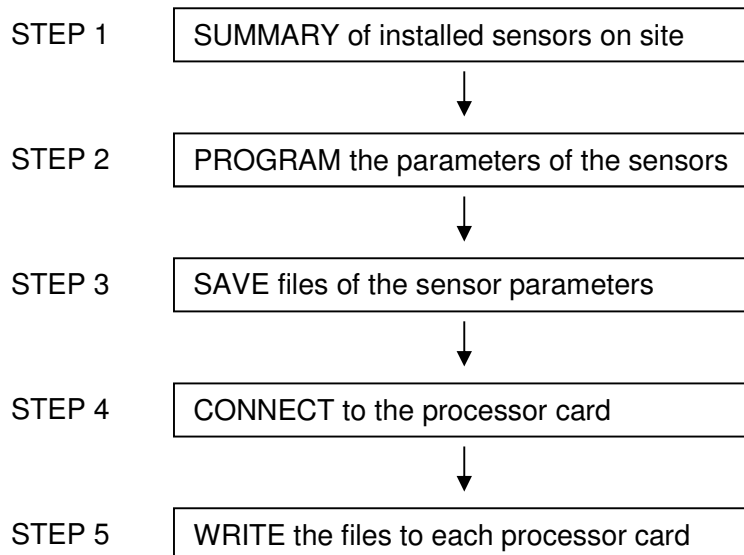
- 2.1. Having completed the mechanical installation of the V-Alert Sensor Lines and connected the sensor lines to the V-ALERT 2 Zone Processor Card (See figure 1 below), the user can now proceed to use the V-AlertComm Setting Manager in the following way:
  - 2.1.1. The installer will record the actual site installation configuration that will include the position of the installed cabinets on site, the number of sensors connected to each cabinet and the type of barrier that each sensor is installed on. The type of barrier will include different types of fences, walls and corner posts.

- 2.1.2. The installer will then use the V-AlertComm Setting Manager to program the sensor parameters of each sensor for each cabinet. The installer at this stage does not have to be connected to the V-ALERT 2 Zone Processor Card and the programming can be carried out in the office or any place convenient for the user.
- 2.1.3. At the end of the programming process the installer will have created a FILE for each 2 Zone Processor Card. The file can be identified with the suffix [given name of file].GMF. This file will contain all the sensor parameter data and settings for that 2 Zone Processor Card. The files will typically be stored in a FOLDER of the users computer for example:

Folder Name – V-Alert Airport Project USA

File Name – Cabinet 1, Cabinet 2 etc

- 2.1.4. The user will then go to each 2 zone processor card, connect the computer to the USB port of the 2 zone processor card and then WRITE the program parameters to the memory of the 2 zone processor card. The 2 zone processor card will automatically update the parameters of the sensors that are connected to that specific 2 zone processor card and the programming of the sensors will have been completed.
- 2.1.5. The following is a block diagram showing the step-by-step process:



- 2.1.6. The following sections of this manual will explain:

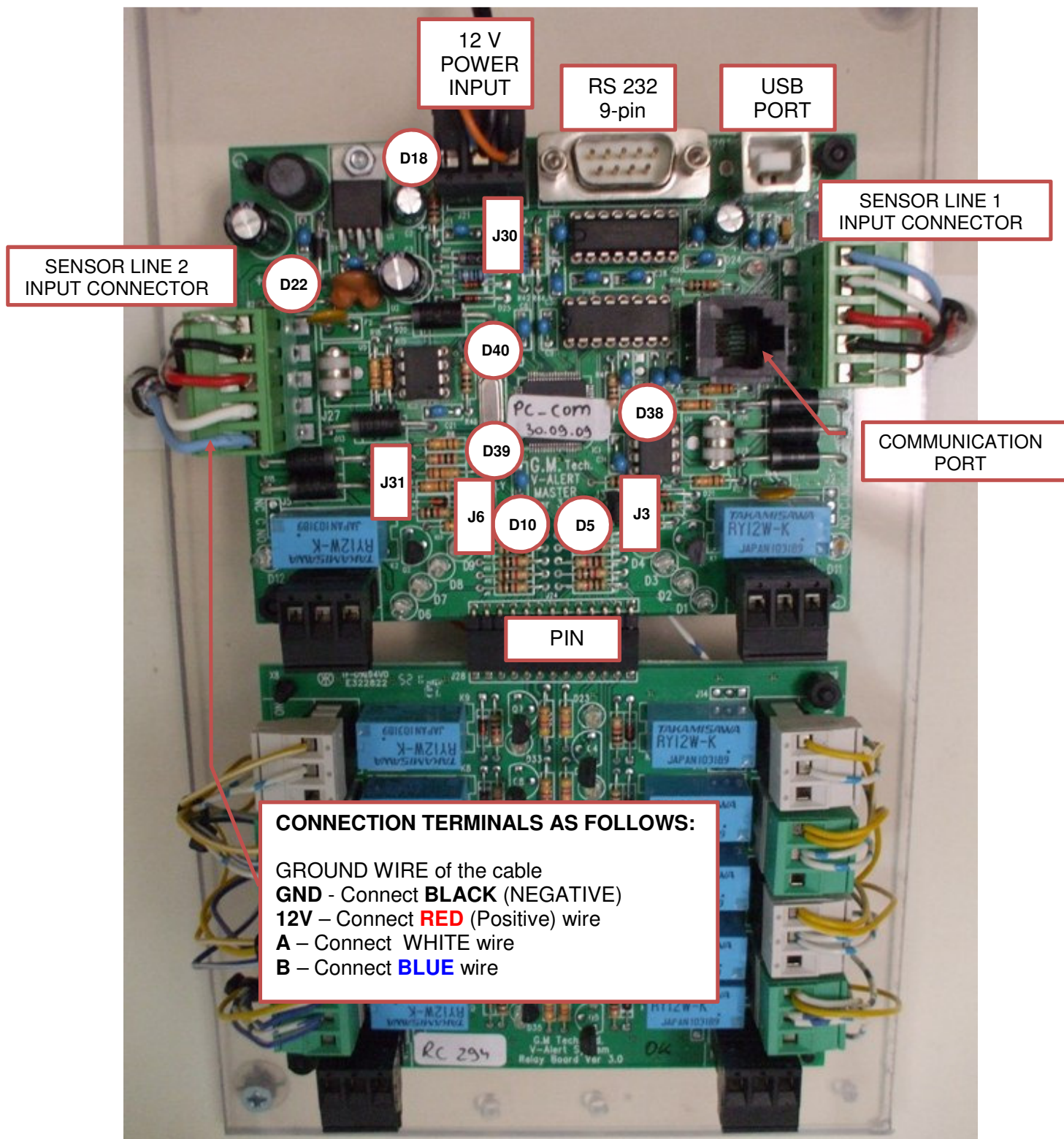
- a. V-Alert Processor Card – Main Components.
- b. Installing the V-AlertComm Setting Manager
- c. Description of the V-AlertComm Setting Manager Buttons & Menu's
- d. Setting the Sensor Parameters
- e. Reading and Writing from/to the 2 Zone Processor Card.
- f. Card and Sensor Settings with technical support.

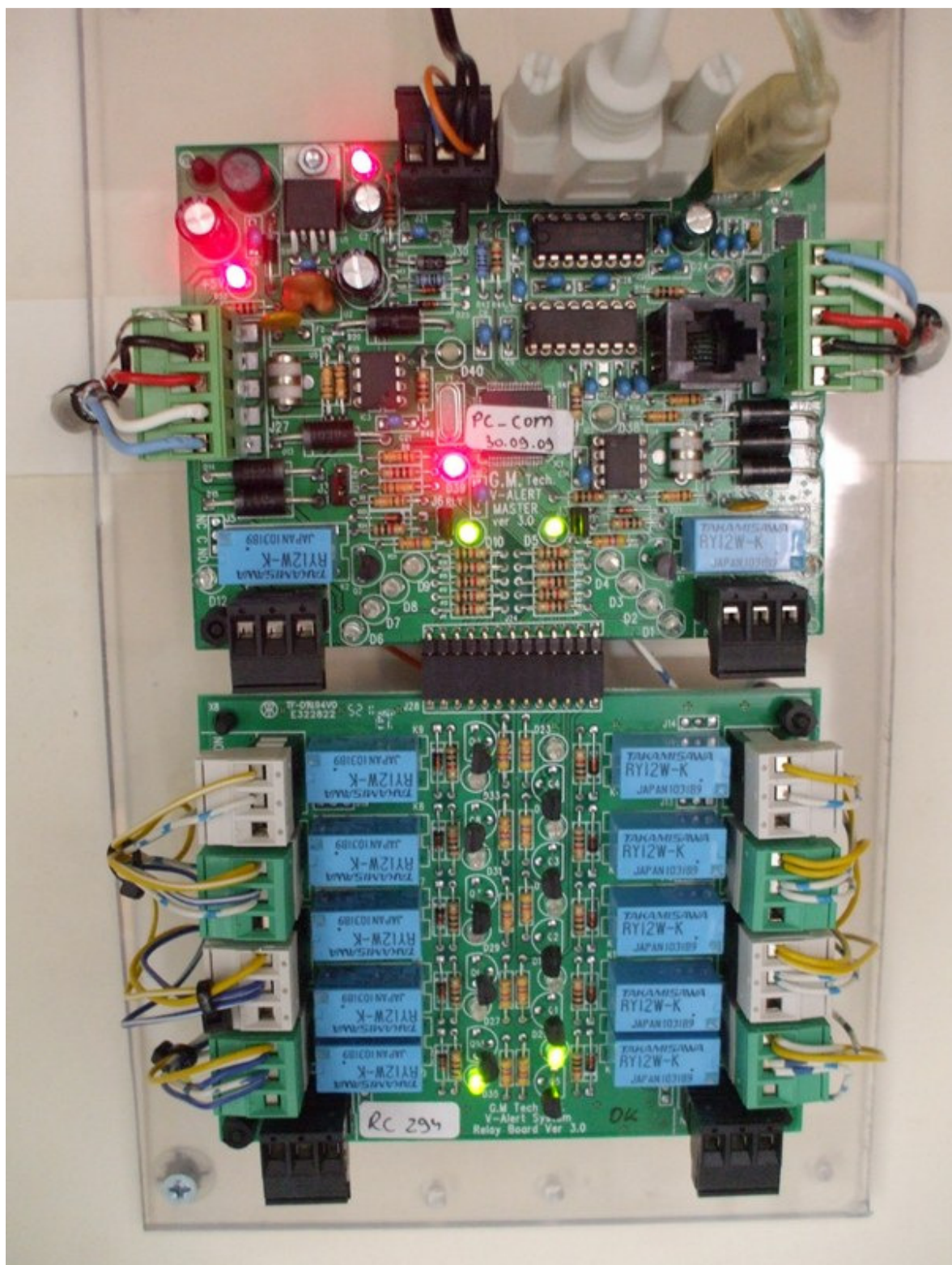
### 3. V-ALERT ZONE PROCESSING CARD – MAIN COMPONENTS

- 3.1. The following Table refers to the main components of the V-Alert Zone Processing Card shown in Figure 1 below.

Component	Description																					
USB PORT	Used to connect the Zone Processor Card to a computer in order to program the sensitivity of individual sensors																					
9-PIN RS 232 PORT	Used to connect the Zone Processor Card to GM's DUAL COMM Communication card using RS 232 communication. Please refer to the DUAL COMM Communication System Manual for a full explanation of the DUAL COMM System																					
E-PROM CHIP	E-PROM CHIP holds the sensor sensitivity data for the sensor lines connected to the Zone Processor Card																					
COMMUNICATION PORT	Used to program the Zone Processor Card by a GM technician only																					
TERMINALS	Terminals used to connect the sensor lines to the Zone Processor Card																					
PIN	Used to connect the RELAY CARD to the Zone Processor Card. The RELAY card is used when the user wishes to activate relays or when the user does not want to use GM's DUAL COMM Communication System																					
JUMPER J30	BRIDGED/NOT BRIDGED to switch the power to the processor card ON – OFF. Used when you want to RESET the card after programming.																					
JUMPER J31	BRIDGE this jumper in order to disconnect the sensor communication flow from the sensors to the card. LED D39 will flash slower. When jumper J31 is bridged you are able to program the sensor settings of the card. LED D38 and LED D40 will be extinguished when J31 is bridged.																					
JUMPER J6 JUMPER J3	<p>Used for saving power consumption. Disconnects the LED's D1, D2, D3, D4 and LED's D6, D7, D8, D9 on the card. Typically you use these LED's when you are not using the relay card in order to save the power consumption of the Processor Card.</p> <p>The following Led's work in parallel showing the same status on the Processor Card and Relay card when J6 and J3 are bridged:</p> <table><tr><th>Processor card</th><th>Relay card</th><th>Colour when lit</th></tr><tr><td>D1</td><td>= D17</td><td>(RED)</td></tr><tr><td>D2</td><td>= D19</td><td>(RED)</td></tr><tr><td>D3</td><td>= D21</td><td>(RED)</td></tr><tr><td>D4</td><td>= D23</td><td>(RED)</td></tr><tr><td>D5 (CUT)</td><td>= D25</td><td>(GREEN)</td></tr><tr><td>D6</td><td>= D27</td><td>(RED)</td></tr></table>	Processor card	Relay card	Colour when lit	D1	= D17	(RED)	D2	= D19	(RED)	D3	= D21	(RED)	D4	= D23	(RED)	D5 (CUT)	= D25	(GREEN)	D6	= D27	(RED)
Processor card	Relay card	Colour when lit																				
D1	= D17	(RED)																				
D2	= D19	(RED)																				
D3	= D21	(RED)																				
D4	= D23	(RED)																				
D5 (CUT)	= D25	(GREEN)																				
D6	= D27	(RED)																				

	D7 = D29 (RED) D8 = D31 (RED) D9 = D33 (RED) D10 (CUT) = D35 (GREEN)
LED D1 LED D6	LED's D1 and D6 will always switch on to show that an alarm has been received. This is used when you are not using the relay card.
LED D5 LED D10	LED's D5 and D10 show that there is a CUT alarm in sensor line 1 and sensor line 2. The LED colour will be GREEN when there is no cut alarm. The LED will be extinguished when there is a cut alarm
LED D39	D39 flashes fast in RED when jumper J31 is disconnected. LED's D40 and D38 will go out. LED D39 will flash continuously indicating that communication of the 2 Zone Processor Card and Sensor Lines is operating correctly.
LED D40 LED D38	<p>D40 and D38 will flash GREEN/RED if the sensor line has been programmed.</p> <p>LED D38 and D40 flash once a second. The LED colour is Green/Red indicating that the respective sensor lines and individual sensors are being scanned for data every second.</p> <p>When WRITING data to the sensor lines, these LED's will stop flashing during the WRITE process and will revert to the flashing mode after the WRITE process is complete.</p> <p>These LED's will be RED if the processor card does not have any data/sensor parameters written to the card.</p>
LED D9	LED D9 will light up when the communication between the 2 Zone Processor Card and the V-ALERT Set up application is connected via the USB ports and the communication is configured correctly.





#### 4. INSTALLING THE V-ALERTCOMM SETTING MANAGER

- 4.1. Insert the V-AlertComm Setting Manager disc in the computer's disk drive.
- 4.2. The following window will open automatically:



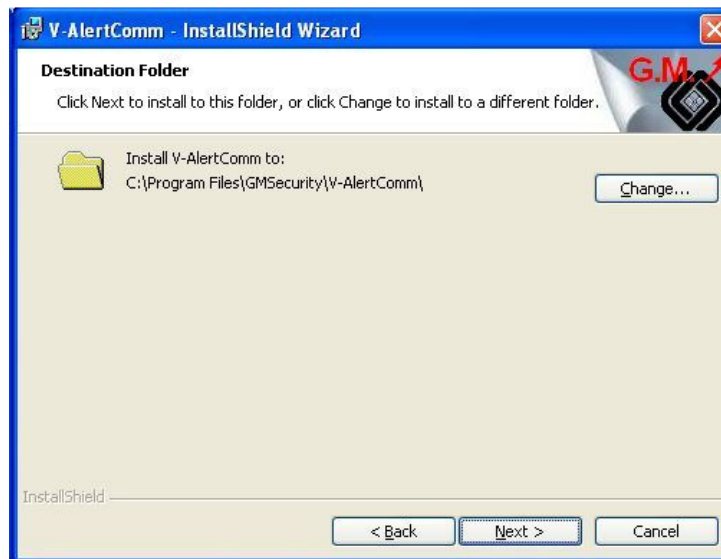
- 4.3. The installation disc contains the following applications and drivers which need to be installed:
  - 4.3.1. V-AlertComm Setting Manager
  - 4.3.2. USB driver
- 4.4. Clicking on the Install V-AlertComm Application button will open the following window:



- 4.5. Click on NEXT to continue the installation procedure. The following window will open:



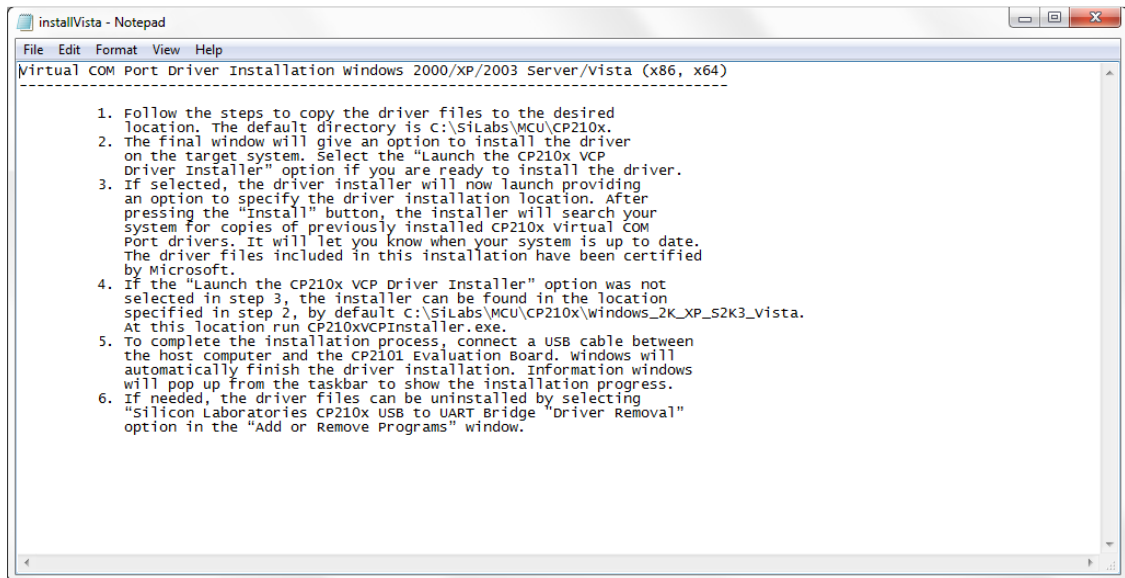
- 4.6. Mark "I accept the terms in the licence agreement" and then NEXT. The following window will open:



- 4.7. It is possible to save in the designated C:\Program Files\GMSecurity Folder or save to another folder of your choice. Click NEXT to open the next window:



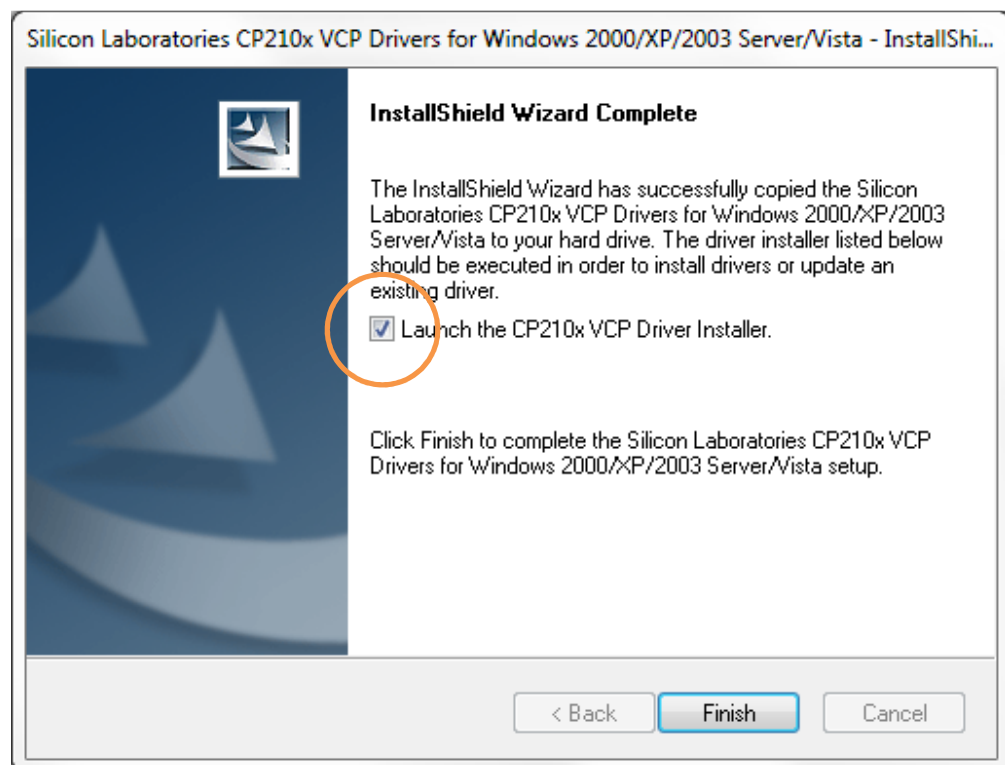
- 4.8. The installation is completed by clicking on FINISH.
- 4.9. It is now possible to install the USB Driver. Instructions for the installation of the USB driver can be found by pressing the USB Driver Installation Guide Button. The following window will open:



- 4.10. Follow the installation directions in a way similar to the installation of the V-AlertComm Setting Manager or according to the instructions from the USB Driver Installation Guide Button.

**IMPORTANT:**

When the following window opens check the LAUNCH THE CP210x VCP Driver Installer and click FINISH.



- 4.11. If the USB Driver already exists in your computer then there is no need to reinstall and you can exit the installation of the USB driver
- 4.12. In order to open the applications, open the program applications from the GMSECURITY FOLDER in the PROGRAM FILE FOLDER or from the shortcut on the desktop.



## 5. SETTING THE COM PORT

- 5.1. If the COM PORT does not get installed automatically, it may be required to set the COM PORT so that the 2 Zone Processor Card can communicate with the V-AlertComm Setting Manager.
- 5.2. Setting the COM PORT should be completed when the computer is connected to the 2 Zone Processor Card.
- 5.3. In order to find out what COM PORT is required to connect the Set-Up Application with the 2 Zone Processor Card, carry out the following steps:
  - a. Right Click MY COMPUTER on the DESK TOP.
  - b. Left Click PROPERTIES
  - c. Click on HARDWARE
  - d. Click on DEVICE MANAGER
  - e. Scroll down to PORTS
  - f. Look for the CP2101 USB to UART Bridge Controller as seen in Figure 1 below.
  - g. In the example below the relevant COM PORT is COM 7.

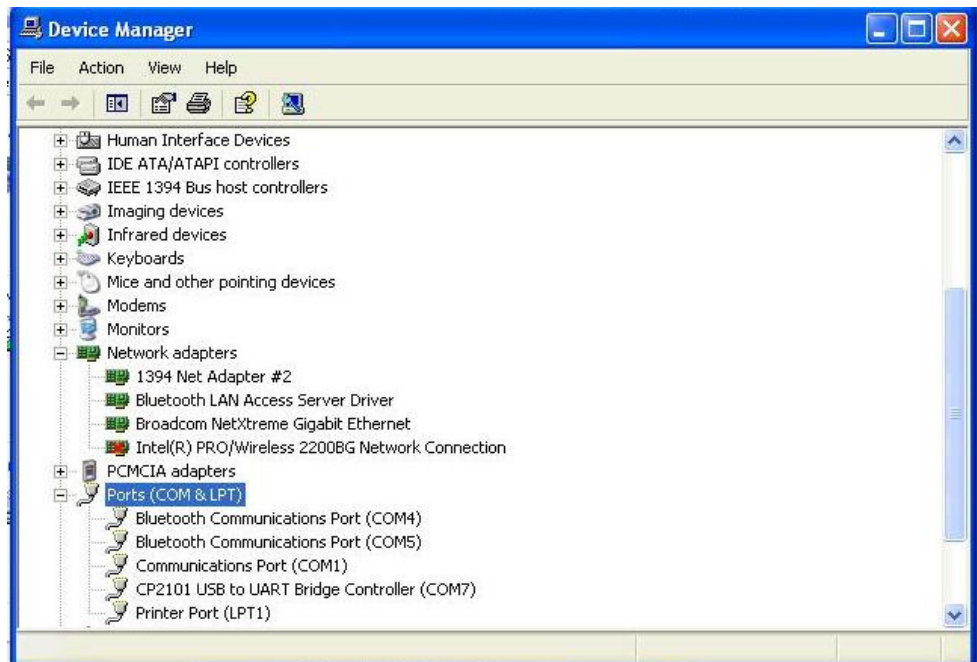



Figure 1: COM PORT Selection

- h. Close the DEVICE MANAGER and SYSTEM PROPERTIES windows.

- i. Click on the SELECT COM PORT  button.
- j. The following window will open:



- k. Chose the relevant COM PORT (COM 7 in the example above).
- l. You may now proceed to READ and WRITE data FROM/TO the 2 Zone Processor Card.

## 6. DESCRIPTION OF V-ALERTCOMM SETTING MANAGER BUTTONS & MENU'S

- 6.1. Installation of V-AlertComm Setting Manager will automatically create a V-Alert Icon on your desktop. Double clicking this icon will open the MAIN SCREEN of the V-AlertComm Setting Manager as shown in Figure 2 below.
- 6.2. The MAIN SCREEN has 3 MENU's – FILE, COMMUNICATION and HELP. Each of these MENU's has SUB-MENU's as shown in Figure 3 below.
- 6.3. Most of the SUB-MENU's have buttons that are found at the top of the MAIN SCREEN just under the FILE, COMMUNICATION and HELP MENU's. A small window with the button function will open up after a few seconds if you hold the mouse cursor over any one of the buttons. In addition the button function of any active button will be shown on the status bar at the bottom of your screen.
- 6.4. An explanation of the function of all of the BUTTON's and is found in the Table below.
- 6.5. Some of the buttons on the TOOLBAR will be depicted in the GREY BACKGROUND state if they are not currently active.

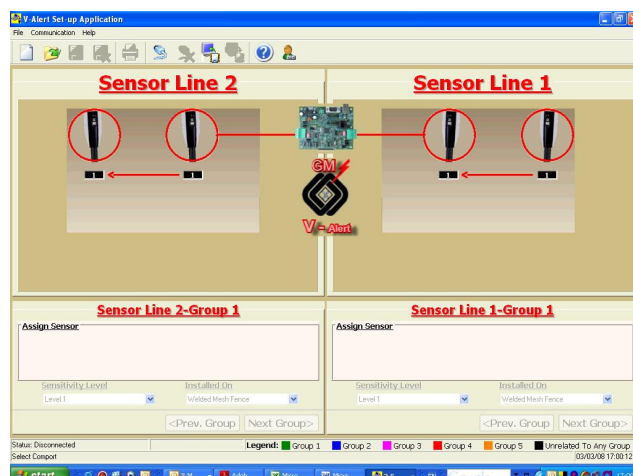


Figure 2: Main Screen

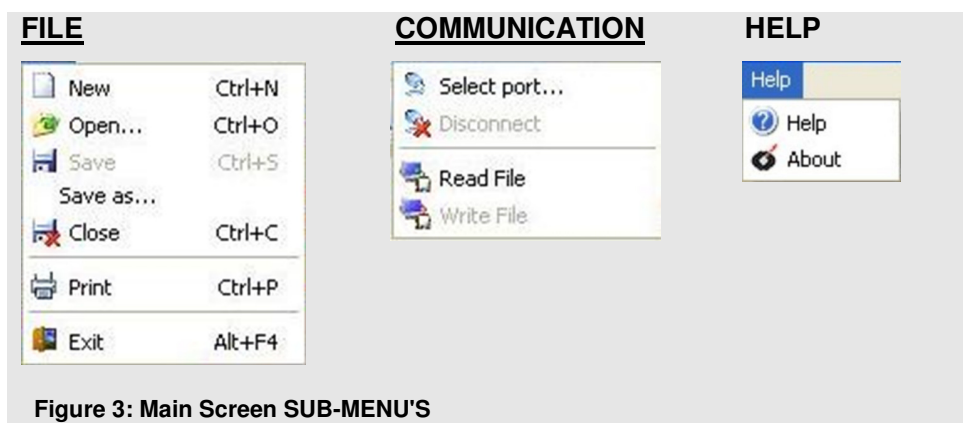








Figure 3: Main Screen SUB-MENU'S

MAIN MENU – <b>FILE</b>		
	NEW	CREATE NEW FILE
	OPEN	OPEN EXISTING FILE
	SAVE	SAVE FILE
	SAVE AS	SAVE FILE AS
	CLOSE	CLOSE FILE
	ENTER PASSWORD	ENTER PASSWORD to make changes to SENSOR and CARD settings
	PRINT	PRINT FILE
	EXIT	EXIT V-ALERTCOMM SETTING MANAGER
MAIN MENU – <b>COMMUNICATION</b>		
	SELECT PORT	SELECT COM PORT
	DISCONNECT	DISCONNECT FROM COM PORT
	READ FILE	READ FILE FROM 2 ZONE PROCESSOR CARD
	WRITE FILE	WRITE FILE TO 2 ZONE PROCESSOR CARD

MAIN MENU – HELP		
	HELP	V-ALERT HELP.PDF FILE
	ABOUT	GM CONTACT DETAILS

6.6. Figure 4 below shows 2 sensor lines that are connected to the 2 Zone Processor Card. In this example Sensor Line 1 consists of 50 sensors and Sensor Line 2 consists of 50 sensors.

6.7. The small boxes under the diagram of the sensors shows:

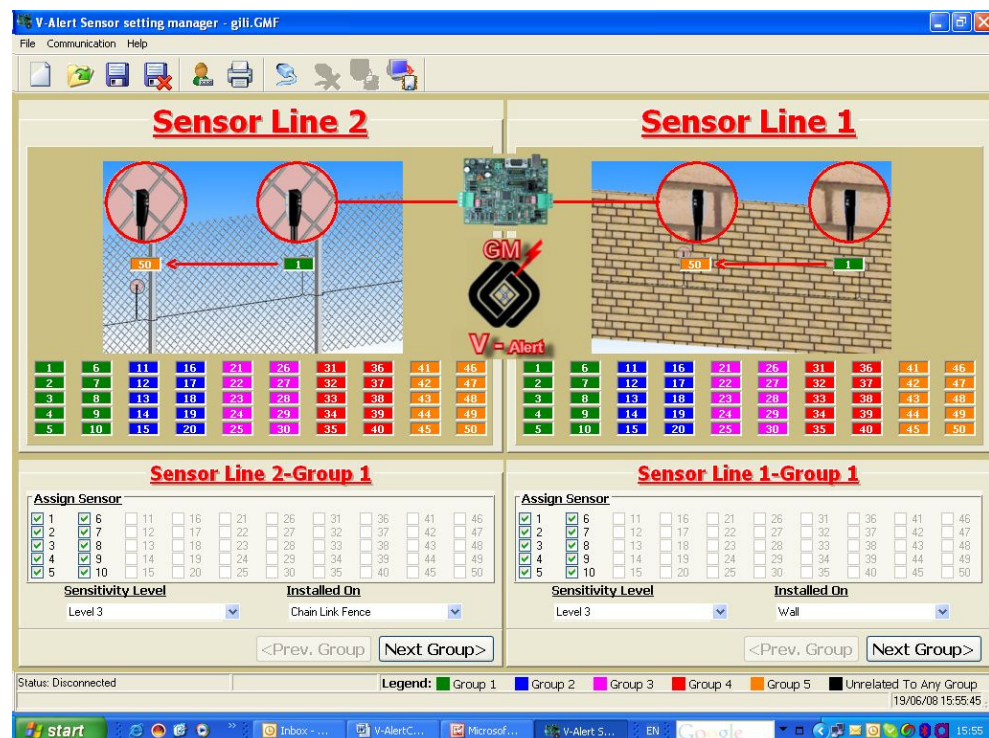
- The physical position of the sensors in relation to the 2 Zone Processor Card
- The number of sensors in that specific sensor line.

In Figure 4 these numbers mean the following:

Sensor Line 1	Sensor 1	Is furthest away to the RIGHT of the Processor Card
	Sensor 50	Is closest to the Processor Card
Sensor Line 2	Sensor 1	Is closest to the Processor Card
	Sensor 50	Is furthest away to the LEFT of the Processor Card

6.8. The sensor numbers and the order of the sensor numbers in relation to the 2 Zone Processor Card is the default number of the sensor and this number cannot be changed.

6.9. The colour of the sensor number will be determined according to which GROUP the sensor belongs to. This will be explained below.



**Figure 4: Sensor Line Status**

- 6.10. The different V-Alert Sensors are assigned with different SENSITIVITY LEVELS and divided into different GROUPS according to the type of barrier on which they are mounted. Figures 5 and 6 show the different possibilities.

### Sensor Line 1-Group 1

**Assign Sensor**

<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 6	<input type="checkbox"/> 11
<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 7	
<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 8	
<input type="checkbox"/> 4	<input type="checkbox"/> 9	
<input type="checkbox"/> 5	<input type="checkbox"/> 10	

**Sensitivity Level**  

Level 1

Level 1  
Level 2  
Level 3  
Level 4  
Level 5

**Installed On**  

Welded Mesh Fence

<Prev. Group
Next Group>

Status: Disconnected
Legend: ■ Group 1

Figure 5: Sensitivity Level

### Sensor Line 1-Group 1

**Assign Sensor**

<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 6	<input type="checkbox"/> 11
<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 7	
<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 8	
<input type="checkbox"/> 4	<input type="checkbox"/> 9	
<input type="checkbox"/> 5	<input type="checkbox"/> 10	

**Sensitivity Level**  

Level 1

**Installed On**  

Welded Mesh Fence

Welded Mesh Fence  
Corner Post  
Wire Fence-Mounted Post  
Wire Fence-Unmounted Post  
Chain Link Fence  
Wall  
Gate  
Window Bar

<P
p>

Status: Disconnected
oup 1

Figure 6: Installed on

6.11. The diagram of the different barriers from the various INSTALLED ON options changes according to the type of barrier chosen. This is shown in Figure 7 below:

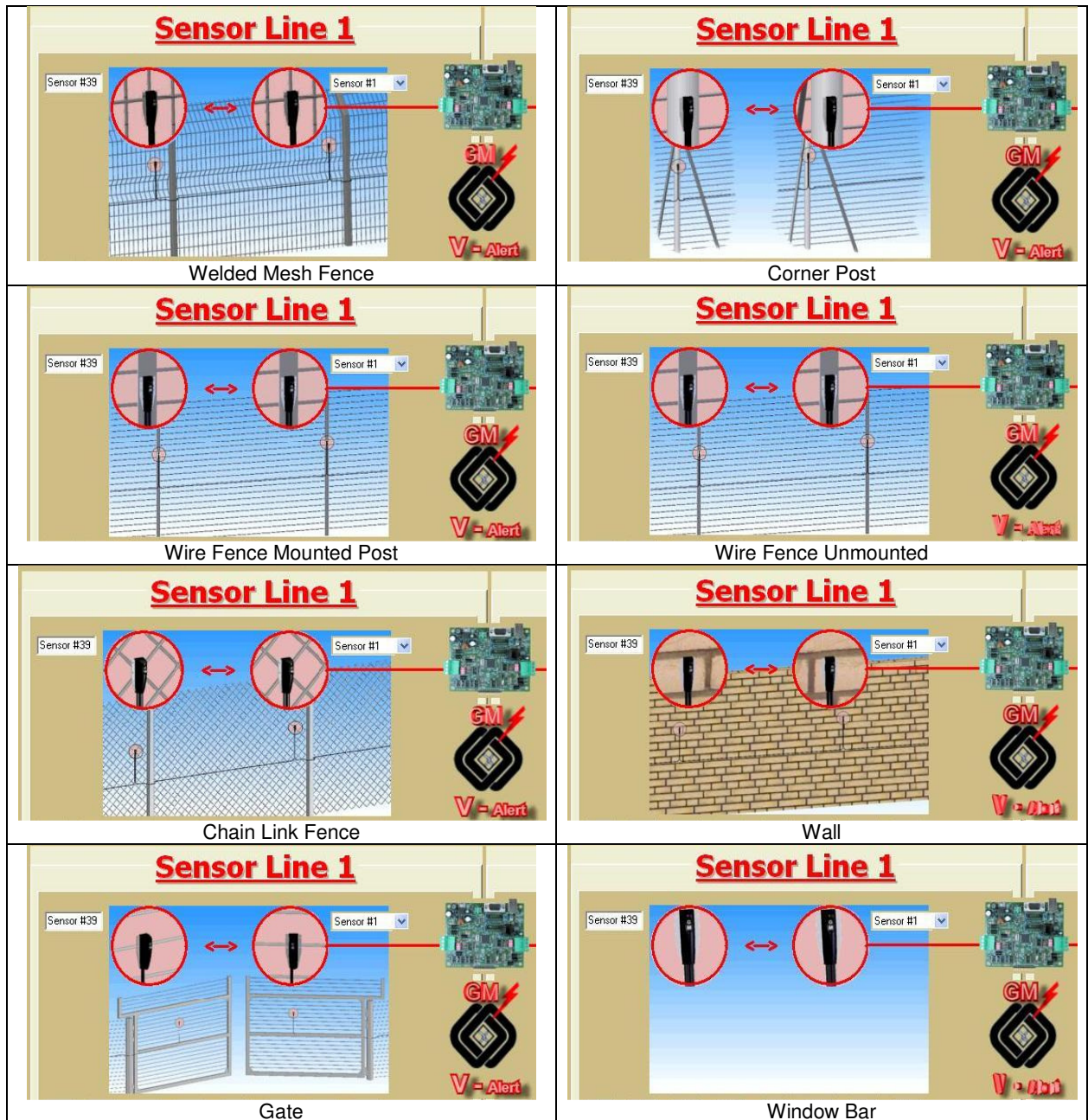




Figure 7: Different Barriers as depicted in the Set-Up Application

- 6.12. The user is required to assign sensors to different groups according to the barrier on which the V-Alert Sensor is installed. The Sensors are assigned by marking the relevant sensor check box as depicted by the green check sign  1 .
- 6.13. Once you have assigned the sensors of the first group, decided on the SENSITIVITY LEVEL and chosen the INSTALLED ON barrier, then it is possible to assign the next group as follows:

Click on ICON	Result																																								
 1	<p><b>Sensor Line 1-Group 1</b></p> <p><b>Assign Sensor</b></p> <table border="1"> <tr><td><input checked="" type="checkbox"/> 1</td><td><input checked="" type="checkbox"/> 6</td><td><input type="checkbox"/> 11</td><td><input type="checkbox"/> 16</td><td><input type="checkbox"/> 21</td><td><input type="checkbox"/> 26</td><td><input type="checkbox"/> 31</td><td><input type="checkbox"/> 36</td></tr> <tr><td><input checked="" type="checkbox"/> 2</td><td><input checked="" type="checkbox"/> 7</td><td><input type="checkbox"/> 12</td><td><input type="checkbox"/> 17</td><td><input type="checkbox"/> 22</td><td><input type="checkbox"/> 27</td><td><input type="checkbox"/> 32</td><td><input type="checkbox"/> 37</td></tr> <tr><td><input checked="" type="checkbox"/> 3</td><td><input checked="" type="checkbox"/> 8</td><td><input type="checkbox"/> 13</td><td><input type="checkbox"/> 18</td><td><input type="checkbox"/> 23</td><td><input type="checkbox"/> 28</td><td><input type="checkbox"/> 33</td><td><input type="checkbox"/> 38</td></tr> <tr><td><input checked="" type="checkbox"/> 4</td><td><input checked="" type="checkbox"/> 9</td><td><input type="checkbox"/> 14</td><td><input type="checkbox"/> 19</td><td><input type="checkbox"/> 24</td><td><input type="checkbox"/> 29</td><td><input type="checkbox"/> 34</td><td><input type="checkbox"/> 39</td></tr> <tr><td><input checked="" type="checkbox"/> 5</td><td><input checked="" type="checkbox"/> 10</td><td><input type="checkbox"/> 15</td><td><input type="checkbox"/> 20</td><td><input type="checkbox"/> 25</td><td><input type="checkbox"/> 30</td><td><input type="checkbox"/> 35</td><td></td></tr> </table> <p><b>Sensitivity Level</b> Level 1</p> <p><b>Installed On</b> Wire Fence-Unmounted Post</p> <p>&lt;Prev. Group   <b>Next Group&gt;</b></p> <p>Group 1 (Sensors 1 – 10) has been assigned</p>	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 6	<input type="checkbox"/> 11	<input type="checkbox"/> 16	<input type="checkbox"/> 21	<input type="checkbox"/> 26	<input type="checkbox"/> 31	<input type="checkbox"/> 36	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 7	<input type="checkbox"/> 12	<input type="checkbox"/> 17	<input type="checkbox"/> 22	<input type="checkbox"/> 27	<input type="checkbox"/> 32	<input type="checkbox"/> 37	<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 8	<input type="checkbox"/> 13	<input type="checkbox"/> 18	<input type="checkbox"/> 23	<input type="checkbox"/> 28	<input type="checkbox"/> 33	<input type="checkbox"/> 38	<input checked="" type="checkbox"/> 4	<input checked="" type="checkbox"/> 9	<input type="checkbox"/> 14	<input type="checkbox"/> 19	<input type="checkbox"/> 24	<input type="checkbox"/> 29	<input type="checkbox"/> 34	<input type="checkbox"/> 39	<input checked="" type="checkbox"/> 5	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 15	<input type="checkbox"/> 20	<input type="checkbox"/> 25	<input type="checkbox"/> 30	<input type="checkbox"/> 35	
<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 6	<input type="checkbox"/> 11	<input type="checkbox"/> 16	<input type="checkbox"/> 21	<input type="checkbox"/> 26	<input type="checkbox"/> 31	<input type="checkbox"/> 36																																		
<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 7	<input type="checkbox"/> 12	<input type="checkbox"/> 17	<input type="checkbox"/> 22	<input type="checkbox"/> 27	<input type="checkbox"/> 32	<input type="checkbox"/> 37																																		
<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 8	<input type="checkbox"/> 13	<input type="checkbox"/> 18	<input type="checkbox"/> 23	<input type="checkbox"/> 28	<input type="checkbox"/> 33	<input type="checkbox"/> 38																																		
<input checked="" type="checkbox"/> 4	<input checked="" type="checkbox"/> 9	<input type="checkbox"/> 14	<input type="checkbox"/> 19	<input type="checkbox"/> 24	<input type="checkbox"/> 29	<input type="checkbox"/> 34	<input type="checkbox"/> 39																																		
<input checked="" type="checkbox"/> 5	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 15	<input type="checkbox"/> 20	<input type="checkbox"/> 25	<input type="checkbox"/> 30	<input type="checkbox"/> 35																																			
<b>Next Group&gt;</b>	<p><b>Sensor Line 1-Group 2</b></p> <p><b>Assign Sensor</b></p> <table border="1"> <tr><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 6</td><td><input checked="" type="checkbox"/> 11</td><td><input type="checkbox"/> 16</td><td><input type="checkbox"/> 21</td><td><input type="checkbox"/> 26</td><td><input type="checkbox"/> 31</td><td><input type="checkbox"/> 36</td></tr> <tr><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 7</td><td><input checked="" type="checkbox"/> 12</td><td><input type="checkbox"/> 17</td><td><input type="checkbox"/> 22</td><td><input type="checkbox"/> 27</td><td><input type="checkbox"/> 32</td><td><input type="checkbox"/> 37</td></tr> <tr><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 8</td><td><input checked="" type="checkbox"/> 13</td><td><input type="checkbox"/> 18</td><td><input type="checkbox"/> 23</td><td><input type="checkbox"/> 28</td><td><input type="checkbox"/> 33</td><td><input type="checkbox"/> 38</td></tr> <tr><td><input type="checkbox"/> 4</td><td><input type="checkbox"/> 9</td><td><input checked="" type="checkbox"/> 14</td><td><input type="checkbox"/> 19</td><td><input type="checkbox"/> 24</td><td><input type="checkbox"/> 29</td><td><input type="checkbox"/> 34</td><td><input type="checkbox"/> 39</td></tr> <tr><td><input type="checkbox"/> 5</td><td><input type="checkbox"/> 10</td><td><input checked="" type="checkbox"/> 15</td><td><input type="checkbox"/> 20</td><td><input type="checkbox"/> 25</td><td><input type="checkbox"/> 30</td><td><input type="checkbox"/> 35</td><td></td></tr> </table> <p><b>Sensitivity Level</b> Level 1</p> <p><b>Installed On</b> Welded Mesh Fence</p> <p>&lt;Prev. Group   <b>Next Group&gt;</b></p> <p>Group 1 sensors (1 – 10) assigned have faded to grey and it is not possible to assign the same sensors again. Group 2 (Sensors 11 – 15) has been assigned.</p>	<input type="checkbox"/> 1	<input type="checkbox"/> 6	<input checked="" type="checkbox"/> 11	<input type="checkbox"/> 16	<input type="checkbox"/> 21	<input type="checkbox"/> 26	<input type="checkbox"/> 31	<input type="checkbox"/> 36	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input checked="" type="checkbox"/> 12	<input type="checkbox"/> 17	<input type="checkbox"/> 22	<input type="checkbox"/> 27	<input type="checkbox"/> 32	<input type="checkbox"/> 37	<input type="checkbox"/> 3	<input type="checkbox"/> 8	<input checked="" type="checkbox"/> 13	<input type="checkbox"/> 18	<input type="checkbox"/> 23	<input type="checkbox"/> 28	<input type="checkbox"/> 33	<input type="checkbox"/> 38	<input type="checkbox"/> 4	<input type="checkbox"/> 9	<input checked="" type="checkbox"/> 14	<input type="checkbox"/> 19	<input type="checkbox"/> 24	<input type="checkbox"/> 29	<input type="checkbox"/> 34	<input type="checkbox"/> 39	<input type="checkbox"/> 5	<input type="checkbox"/> 10	<input checked="" type="checkbox"/> 15	<input type="checkbox"/> 20	<input type="checkbox"/> 25	<input type="checkbox"/> 30	<input type="checkbox"/> 35	
<input type="checkbox"/> 1	<input type="checkbox"/> 6	<input checked="" type="checkbox"/> 11	<input type="checkbox"/> 16	<input type="checkbox"/> 21	<input type="checkbox"/> 26	<input type="checkbox"/> 31	<input type="checkbox"/> 36																																		
<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input checked="" type="checkbox"/> 12	<input type="checkbox"/> 17	<input type="checkbox"/> 22	<input type="checkbox"/> 27	<input type="checkbox"/> 32	<input type="checkbox"/> 37																																		
<input type="checkbox"/> 3	<input type="checkbox"/> 8	<input checked="" type="checkbox"/> 13	<input type="checkbox"/> 18	<input type="checkbox"/> 23	<input type="checkbox"/> 28	<input type="checkbox"/> 33	<input type="checkbox"/> 38																																		
<input type="checkbox"/> 4	<input type="checkbox"/> 9	<input checked="" type="checkbox"/> 14	<input type="checkbox"/> 19	<input type="checkbox"/> 24	<input type="checkbox"/> 29	<input type="checkbox"/> 34	<input type="checkbox"/> 39																																		
<input type="checkbox"/> 5	<input type="checkbox"/> 10	<input checked="" type="checkbox"/> 15	<input type="checkbox"/> 20	<input type="checkbox"/> 25	<input type="checkbox"/> 30	<input type="checkbox"/> 35																																			
<b>&lt;Prev. Group</b>	<p><b>Sensor Line 1-Group 2</b></p> <p><b>Assign Sensor</b></p> <table border="1"> <tr><td><input type="checkbox"/> 1</td><td><input type="checkbox"/> 6</td><td><input type="checkbox"/> 11</td><td><input type="checkbox"/> 16</td><td><input type="checkbox"/> 21</td><td><input type="checkbox"/> 26</td><td><input type="checkbox"/> 31</td><td><input type="checkbox"/> 36</td></tr> <tr><td><input type="checkbox"/> 2</td><td><input type="checkbox"/> 7</td><td><input type="checkbox"/> 12</td><td><input type="checkbox"/> 17</td><td><input type="checkbox"/> 22</td><td><input type="checkbox"/> 27</td><td><input type="checkbox"/> 32</td><td><input type="checkbox"/> 37</td></tr> <tr><td><input type="checkbox"/> 3</td><td><input type="checkbox"/> 8</td><td><input type="checkbox"/> 13</td><td><input type="checkbox"/> 18</td><td><input type="checkbox"/> 23</td><td><input type="checkbox"/> 28</td><td><input type="checkbox"/> 33</td><td><input type="checkbox"/> 38</td></tr> <tr><td><input type="checkbox"/> 4</td><td><input type="checkbox"/> 9</td><td><input type="checkbox"/> 14</td><td><input type="checkbox"/> 19</td><td><input type="checkbox"/> 24</td><td><input type="checkbox"/> 29</td><td><input type="checkbox"/> 34</td><td><input type="checkbox"/> 39</td></tr> <tr><td><input type="checkbox"/> 5</td><td><input type="checkbox"/> 10</td><td><input type="checkbox"/> 15</td><td><input type="checkbox"/> 20</td><td><input type="checkbox"/> 25</td><td><input type="checkbox"/> 30</td><td><input type="checkbox"/> 35</td><td></td></tr> </table> <p><b>Sensitivity Level</b> Level 1</p> <p><b>Installed On</b> Welded Mesh Fence</p> <p>&lt;Prev. Group   <b>Next Group&gt;</b></p> <p>At any stage it is possible to go to the NEXT GROUP or the PREVIOUS GROUP to change the sensors assigned to any specific group.</p>	<input type="checkbox"/> 1	<input type="checkbox"/> 6	<input type="checkbox"/> 11	<input type="checkbox"/> 16	<input type="checkbox"/> 21	<input type="checkbox"/> 26	<input type="checkbox"/> 31	<input type="checkbox"/> 36	<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 12	<input type="checkbox"/> 17	<input type="checkbox"/> 22	<input type="checkbox"/> 27	<input type="checkbox"/> 32	<input type="checkbox"/> 37	<input type="checkbox"/> 3	<input type="checkbox"/> 8	<input type="checkbox"/> 13	<input type="checkbox"/> 18	<input type="checkbox"/> 23	<input type="checkbox"/> 28	<input type="checkbox"/> 33	<input type="checkbox"/> 38	<input type="checkbox"/> 4	<input type="checkbox"/> 9	<input type="checkbox"/> 14	<input type="checkbox"/> 19	<input type="checkbox"/> 24	<input type="checkbox"/> 29	<input type="checkbox"/> 34	<input type="checkbox"/> 39	<input type="checkbox"/> 5	<input type="checkbox"/> 10	<input type="checkbox"/> 15	<input type="checkbox"/> 20	<input type="checkbox"/> 25	<input type="checkbox"/> 30	<input type="checkbox"/> 35	
<input type="checkbox"/> 1	<input type="checkbox"/> 6	<input type="checkbox"/> 11	<input type="checkbox"/> 16	<input type="checkbox"/> 21	<input type="checkbox"/> 26	<input type="checkbox"/> 31	<input type="checkbox"/> 36																																		
<input type="checkbox"/> 2	<input type="checkbox"/> 7	<input type="checkbox"/> 12	<input type="checkbox"/> 17	<input type="checkbox"/> 22	<input type="checkbox"/> 27	<input type="checkbox"/> 32	<input type="checkbox"/> 37																																		
<input type="checkbox"/> 3	<input type="checkbox"/> 8	<input type="checkbox"/> 13	<input type="checkbox"/> 18	<input type="checkbox"/> 23	<input type="checkbox"/> 28	<input type="checkbox"/> 33	<input type="checkbox"/> 38																																		
<input type="checkbox"/> 4	<input type="checkbox"/> 9	<input type="checkbox"/> 14	<input type="checkbox"/> 19	<input type="checkbox"/> 24	<input type="checkbox"/> 29	<input type="checkbox"/> 34	<input type="checkbox"/> 39																																		
<input type="checkbox"/> 5	<input type="checkbox"/> 10	<input type="checkbox"/> 15	<input type="checkbox"/> 20	<input type="checkbox"/> 25	<input type="checkbox"/> 30	<input type="checkbox"/> 35																																			

- 6.14. Each different group will be depicted by a different colour as shown in Figure 8. It is possible to assign up to 5 different groups for every sensor line that consists of up to 50 V-Alert Sensors. The different colours – GREEN, BLUE, PINK, RED and ORANGE represent GROUPS 1 to 5 respectively whilst BLACK represents sensors that have not been assigned to any group. This is shown on the sensors themselves and also on the toolbar at the bottom of the screen (see Legend:)

- 6.15. The following is a summary of the process of assigning sensors:
- Assign each sensor by checking the sensors of each group ( check boxes ☒ 1 )
  - Define the SENSITIVITY LEVEL of each group.
  - Define on what barrier the sensors have been INSTALLED ON.
- 6.16. It is not possible to assign the same sensor twice. If you want to assign a sensor to a different group of sensors then you need to remove the check mark for that specific sensor and reassign it in a different group of sensors.
- 6.17. It is possible to change the colour of the different groups of sensors by double-clicking on any one of the sensor groups on the sensor group legend found on the status bar at the bottom of the main screen.

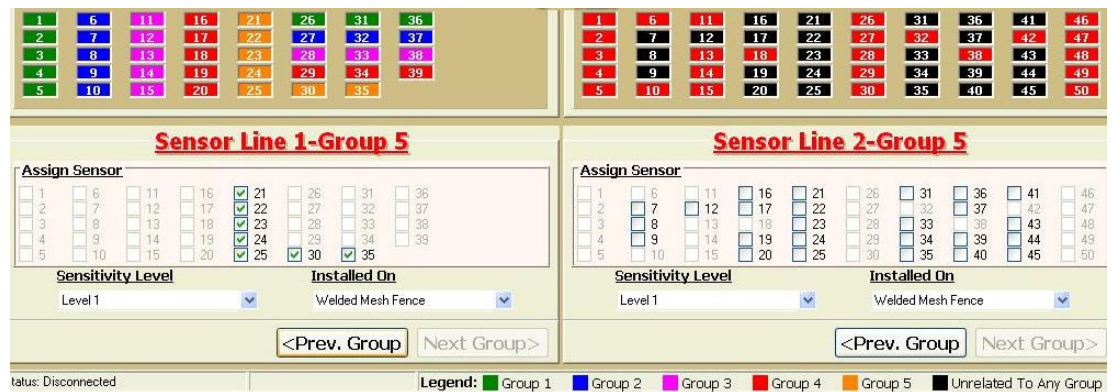
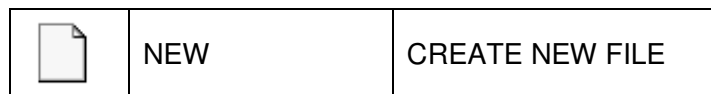


Figure 8: Different GROUPS depicted by different colours

## 7. SETTING THE SENSOR PARAMETERS

### MAIN MENU- FILE

#### 7.1. Create NEW FILE



- 7.1.1. It is possible to create a NEW FILE by clicking on the NEW button or opening FILE > NEW from the FILE Menu.

7.1.2. The following window will open (Figure 9):

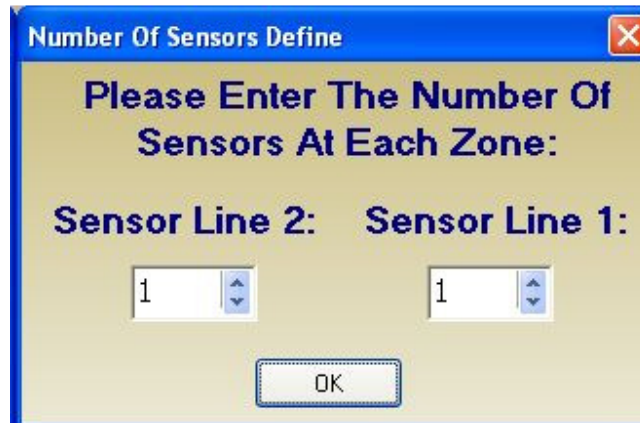





Figure 9: Enter Number of sensors in each zone

7.1.3. Enter the number of V-Alert Sensors in Line 1 and Line 2 by entering the number directly in the text window or using the   arrows found on the right hand side of the text window.

7.1.4. Clicking on the  button will open the following window (Figure 10):

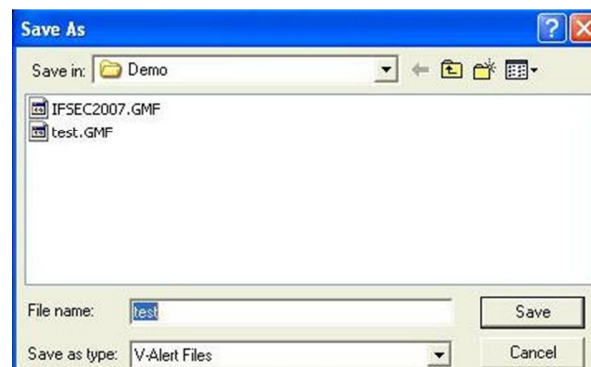



Figure 10: Save File

7.1.5. Save the file in a FOLDER for V-Alert Application Files and thereafter press the SAVE button.


- 7.1.6. This action will cause the following changes to the Main Screen:
- The SAVE FILE, CLOSE FILE and PRINT FILE buttons start functioning.
  - The number of sensors in each Sensor Line appear in the form of black squares under the diagrams of the type of barrier and under this as check boxes ☒ 1
  - It is possible to set the SENSIVITY LEVEL and the INSTALLED ON options as described in paragraph 5.12 above.

## 7.2. OPEN FILE

	OPEN	OPEN EXISTING FILE
---	------	--------------------

- 7.2.1. It is possible to OPEN an existing file by clicking on the OPEN button or opening FILE > OPEN from the FILE Menu.
- 7.2.2. Choose the file to open from the existing files in the folder.
- 7.2.3. Clicking on OPEN will open all the existing parameters of the file and the file can be used to set the sensitivity of the V-Alert sensors.

### 7.3. SAVE/SAVE AS


	SAVE SAVE AS	SAVE FILE SAVE FILE AS...
---	-----------------	------------------------------

- 7.3.1. It is possible to make changes to the existing file and then, either SAVE the existing file with the same file name, or SAVE AS a new file.
- 7.3.2. It is possible to save an existing file by clicking on the SAVE button or opening FILE > SAVE from the FILE Menu.
- 7.3.3. It is possible to save a new file by clicking on the SAVE AS button or opening FILE > SAVE AS... from the FILE Menu.
- 7.3.4. If you try to save the file without associating all of the sensors, the following warning window will appear:




- 7.3.5. The objective of this warning is to ensure that the user does not unintentionally forget to assign a sensor.

### 7.4. CLOSE FILE

	CLOSE	CLOSE FILE
---	-------	------------

- 7.4.1. It is possible to CLOSE an existing file by clicking on the CLOSE button or opening FILE > CLOSE from the FILE Menu.
- 7.4.2. PLEASE NOTE - should you wish to prepare the sensor settings for a number of different sensor lines (perhaps two separate projects), then after completing the sensor settings for the first project you should save and then use the CLOSE FILE button BEFORE opening a NEW FILE .

## 7.5. PRINT


	PRINT	PRINT FILE
---	-------	------------

- 7.5.1. It is possible to PRINT an existing file by clicking on the PRINT button or opening FILE > PRINT from the FILE Menu.
- 7.5.2. Printing any file will include the date, time and name of the file, as well as all the sensitivity settings of the sensor lines.
- 7.5.3. A typical print file is depicted in figure 11 below:



### V - Alert Intrusion Detection System

**G.M. Advanced Fencing and Security Technologies Ltd**



P.O. Box 2327 Kfar Sava Industrial Area 44425, Israel  
Tel +972-9-7662965 Fax + 972-9-7662964

E-mail: [info@gmsecurity.com](mailto:info@gmsecurity.com)  
Website: [www.gmsecurity.com](http://www.gmsecurity.com)

Printed: 18:40:03  
File Name: C:\Program Files\Alert Software\SLAS.DAT

**Sensor Line 2 Properties:**

**Group 1:**  
Sensors Associated: 1 6 11 16 21 26 31 36 41 46  
Security Level: Level 1  
Programme Type: Welded Mesh Fence

**Group 2:**  
Sensors Associated: 2 7 12 17 22 27 32 37 42 47  
Security Level: Level 2  
Programme Type: Corner Post

**Group 3:**  
Sensors Associated: 3 8 13 18 23 28 33 38 43 48  
Security Level: Level 3  
Programme Type: Wire Fence-Mounted Post

**Group 4:**  
Sensors Associated: 4 9 14 19 24 29 34 39 44 49  
Security Level: Level 4  
Programme Type: Wire Fence-Unmounted Post

**Group 5:**  
Sensors Associated: 5 10 15 20 25 30 35 40 45 50  
Security Level: Level 5  
Programme Type: Chain Link Fence

**Sensor Line 1 Properties:**

**Group 1:**  
Sensors Associated: 1 6 11 16 21 26 31 36 41 46  
Security Level: Level 1  
Programme Type: Welded Mesh Fence

**Group 2:**  
Sensors Associated: 2 7 12 17 22 27 32 37 42 47  
Security Level: Level 2  
Programme Type: Corner Post

**Group 3:**  
Sensors Associated: 3 8 13 18 23 28 33 38 43 48  
Security Level: Level 3  
Programme Type: Wire Fence-Mounted Post

**Group 4:**  
Sensors Associated: 4 9 14 19 24 29 34 39 44 49  
Security Level: Level 4  
Programme Type: Wire Fence-Unmounted Post

**Group 5:**  
Sensors Associated: 5 10 15 20 25 30 35 40 45 50  
Security Level: Level 5  
Programme Type: Chain Link Fence


Comments:

Figure 11: Print File Example

## 8. V-ALERT APPLICATION SOFTWARE MAIN MENU - COMMUNICATION

### 8.1. READ FILE

	READ FILE	READ FILE FROM 2 ZONE PROCESSOR CARD
---	-----------	--------------------------------------

- 8.1.1. It is possible to READ the data from an existing 2 Zone Processor Card that has already been programmed.
- 8.1.2. The READ FILE option can only be used when NO FILE IS OPEN IN THE APPLICATION SOFTWARE. If a file is open, then close it using the close button .
- 8.1.3. In order to READ FILE from the 2 Zone Processor Card, click on the READ FILE button or use the COMMUNICATION > READ FILE from the COMMUNICATION MENU.
- 8.1.4. After clicking the READ FILE button, the user will be asked to save the file as a new file on which the data that will be read from the processor card will be saved.
- 8.1.5. After saving the file, the application software will READ the file from the processor card and will display the file data on the main screen of the software application.
- 8.1.6. At the completion of the READ FILE process, a window will open advising that the READ FILE process has succeeded. Click OK to proceed.

### 8.2. WRITE FILE

	WRITE FILE	WRITE FILE TO 2 ZONE PROCESSOR CARD
---	------------	-------------------------------------

- 8.2.1. The WRITE FILE option is used to WRITE the sensor parameter data to the 2 Zone Processor Card. The WRITE FILE option can only be completed when there is a FILE OPEN on the main screen of the software application. This file will be WRITTEN and saved to the processor card and the sensor parameters of all the sensors in the sensor lines will be updated automatically.
- 8.2.2. In order to WRITE FILE to the 2 Zone Processor Card, click on the WRITE FILE button or use the COMMUNICATION > WRITE FILE from the COMMUNICATION MENU.
- 8.2.3. A small window indicating that the WRITE file is in process will open as follows:



- 8.2.4. At the completion of the WRITE FILE process, a window will open advising that the WRITE FILE process has succeeded. Click OK to proceed.

8.2.5. The zone processor data file will now be updated with the new data file.

## 9. V-ALERT APPLICATION SOFTWARE MAIN MENU- HELP


### 9.1. HELP

	HELP	V-ALERT HELP.PDF FILE
---	------	-----------------------

8.1.1. The HELP button will open the V-ALERT Application Software Manual in PDF format.

8.1.2. It is possible to access the HELP feature by clicking on HELP > HELP from the HELP MENU.

### 9.2. ABOUT

	ABOUT	GM CONTACT DETAILS
---	-------	--------------------

8.1.3. The ABOUT button will open a window with GM's contact details.

8.1.4. It is possible to access the ABOUT feature by clicking on HELP > ABOUT from the HELP MENU.

## 10. CHANGING THE 2 ZONE PROCESSOR CARD SETTINGS


10.1. The processes described up until this point in the manual can be defined as the standard use of the Set-Up Application by which the user groups the different sensors according to the predefined INSTALLED ON and SENSITIVITY LEVEL settings.

10.2. To open the CARD SETTINGS window, move the mouse cursor over the photograph of the 2 zone Processor Card in the middle of the main screen. Moving the mouse cursor over the photograph enlarges the photograph, and double clicking the photograph will open the CARD SETTINGS window.

10.3. The Card Settings window shown in Figure 12 below is divided into 2 main sections - the TOP and BOTTOM section. The TOP section refers to all the features above and including the RELAY LATCHED TIME setting.

10.4. The TOP section refers to settings of the RELAY card. The RELAY card is used when the user wishes to activate RELAYS in addition to using the DUAL COMM Communication System or alternatively when the user wishes to use RELAYS to integrate the V-ALERT system with other communication systems without using the DUAL COMM Communication System. The RELAY card is an additional card that plugs into the 2 Zone Processor Card.

10.5. The TOP section of the Card Settings feature enables the user to set groups of sensors that will activate up to 4 relays for each Sensor Line.

10.6. Grouping Sensors is possible using the up/down arrows 

10.7. As an example, Figure 12 below has the following relay settings:

Sensor Line 1		Sensor Line 2	
Relay 6	From Sensor 1 to 12	Relay 1	From Sensor 1 to 23
Relay 7	From Sensor 13 to 30	Relay 2	From Sensor 24 to 36
Relay 8	From Sensor 31 to 47	Relay 3	From Sensor 37 to 42
Relay 9	From Sensor 48 to 50	Relay 4	From Sensor 43 to 50

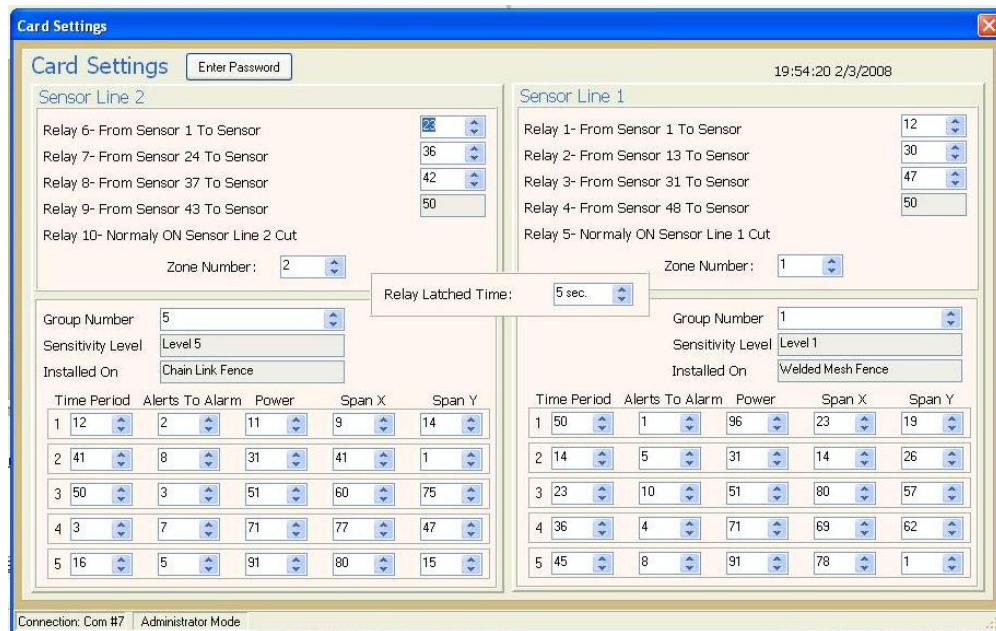


Figure 12: Card Settings

- 10.8. Relay 5 and Relay 10 are programmed to provide a CUT alarm in the event that the Sensor Line is cut. This relay is normally ON, so that a cut in the sensor line causes the relay to change state to OFF and in so doing provide an alarm indication. The Alarm indication provided will advise the position of the sensor line cut. If for example the Sensor line has been cut between sensors 20 and 21, then the sensor line cut alarm will advise "Sensor Line CUT Sensor 20".
- 10.9. It is also required to set the zone number for each sensor line. As an example, a site of 1200m will contain 4 Electronic Cabinets, each cabinet holding the 2 Zone Processor Card and if used a DUAL COMM Communication Card. Each cabinet is connected to (the maximum of) 50 sensors per Sensor Line. Typically the zones would be divided as follows (Please refer to Figure 13 below in which the zone numbers and sensor number positions marked 1 to 50 are clearly shown.)

Zone Number	Sensor Number	DUAL COMM Alarm Message
1	1-50	Alarm Zone 1, Sensor 1,2 ....
2	1-50	Alarm Zone 2, Sensor 1,2 ....
3	1-50	Alarm Zone 3, Sensor 1,2 ....
4	1-50	Alarm Zone 4, Sensor 1,2 ....
5	1-50	Alarm Zone 5, Sensor 1,2 ....
6	1-50	Alarm Zone 6, Sensor 1,2 ....
7	1-50	Alarm Zone 7, Sensor 1,2 ....
8	1-50	Alarm Zone 8, Sensor 1,2 ....

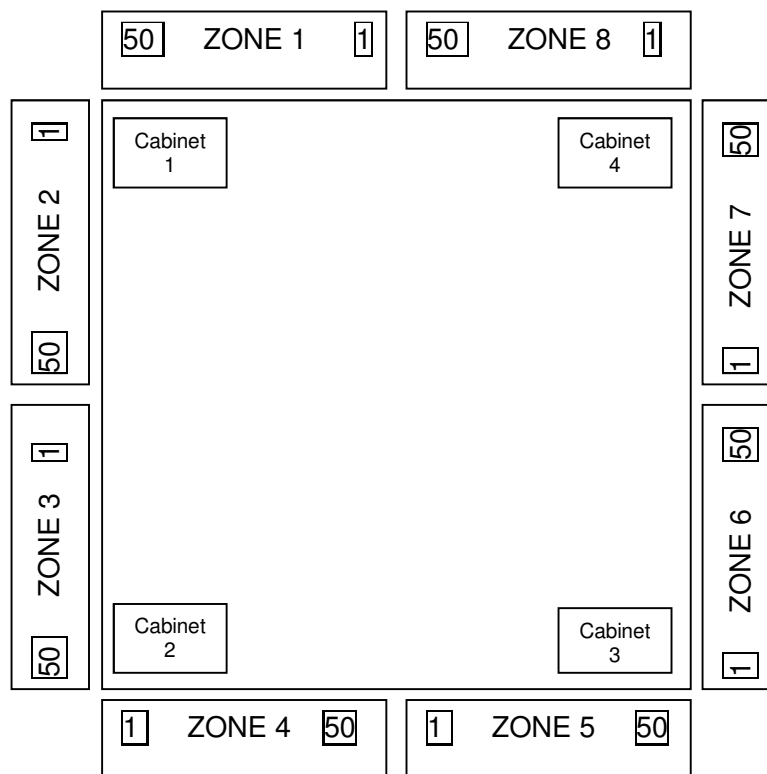



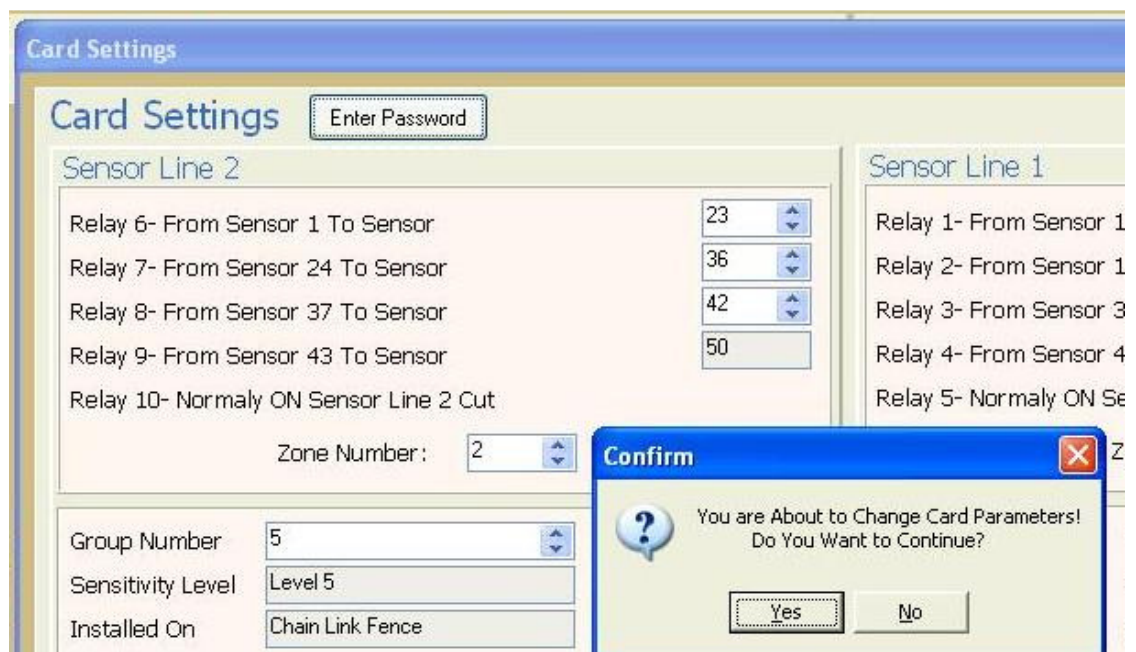
Figure 13: Typical Zone Configuration 1200 m site

- 10.10. If you are using the RELAY CARD it is possible to set the latched time of the RELAY CARD. The maximum latched time is 255 seconds. Changing the amount of latched time is possible by entering the latched time in the number box or using the up/down arrows.
- 10.11. The BOTTOM section of the CARD SETTING window enables the user to make changes to the parameters of different groups of sensors.
- 10.12. If you use the up/down arrows of the GROUP NUMBER text box, you are able to scroll between the different groups that you set on the main screen. Each group will show the group of assigned sensors with its associated SENSITIVITY and INSTALLED ON settings.
- 10.13. The V-AlertComm Setting Manager will be supplied with STANDARD SETTINGS for different types of installations and different sensitivity levels.
- 10.14. IT IS NOT POSSIBLE TO CHANGE ANY OF THESE SETTINGS INDEPENDENTLY WITHOUT GM'S TECHNICAL SUPPORT.
- 10.15. In order to access the card settings of the sensor groups it is necessary to enter a PASSWORD which will be provided by the Technical Support, or in the case of authorized and trained installers PASSWORDS will be provided using GM's PASSWORD GENERATOR. The PASSWORD will have a 24 hour validity.

- 10.16. It is possible to enter the password by clicking on the ENTER PASSWORD button which opens the following window and then clicking on the OK button.



- 10.17. Alternatively clicking on  ENTER PASSWORD button on the main screen will enable the user to open the CARD SETTINGS window and make changes to the settings of the bottom part of the window without clicking the ENTER PASSWORD button of the CARD SETTINGS window.
- 10.18. It is now possible to make changes to the numbers appearing in each of the TIME PERIOD (50), ALERTS TO ALARM (10), POWER (100), SPAN X (80) and SPAN Y (80) number cells. The numbers in brackets above refers to the maximum numerical value that can be entered in each number cell.
- 10.19. The number values to be entered will be provided by GM's technical support or changed by a trained GM installer.
- 10.20. After making changes to the CARD SETTINGS, close the window.
- 10.21. The following window will appear:



- 10.22. Clicking on the YES button will save the changes to the open file.  
 10.23. If the user has made any changes to the STANDARD GROUP SETTINGS, then the following icon will appear to the left of the sensitivity level number box



## 11. CHANGING THE SENSOR SETTINGS

- 11.1. After completing all of the operations described above the user is able to adjust the sensor settings of individual sensors. This enables the user to "fine tune" the sensitivity of an individual sensor which may not be detecting at its optimal detection capability.  
 11.2. It is possible to open the SENSOR SETTINGS window shown in figure 14 below by Double Clicking one of sensors on the main screen.  
 11.3. CHANGING THE SENSOR SETTINGS IS AN OPERATION THAT IS TO BE COMPLETED ONLY WITH THE TECHNICAL SUPPORT OF A GM TECHNICIAN.  
 11.4. The window contains the Sensor Number, Sensor ID, X1 (255), Y1 (255), X2 (255), Y2 (255), Level X (255) and Level Y (255). The numbers in brackets above refers to the maximum numeral value that can be entered in each number cell.  
 11.5. As in the CARD SETTINGS parameters explained above, changes to the SENSOR SETTINGS can only be carried out after entering a PASSWORD.  
 11.6. Closing the window will automatically save any changes made to the sensor settings.  
 11.7. It is possible to save the same sensor settings to groups of sensors by clicking on the COPY TO SENSORS button which will open the following window:

**Sensor Settings**

Sensor Line 2

Group Number: 36

Sensor ID Number: 0000000000000000 DEC

X1: 1

Y1: 1

X2: 1

From sensor: 1 To sensor: 50

OK Cancel

Copy to Sensors Enter Password

Connection: Com #7 Administrator Mode

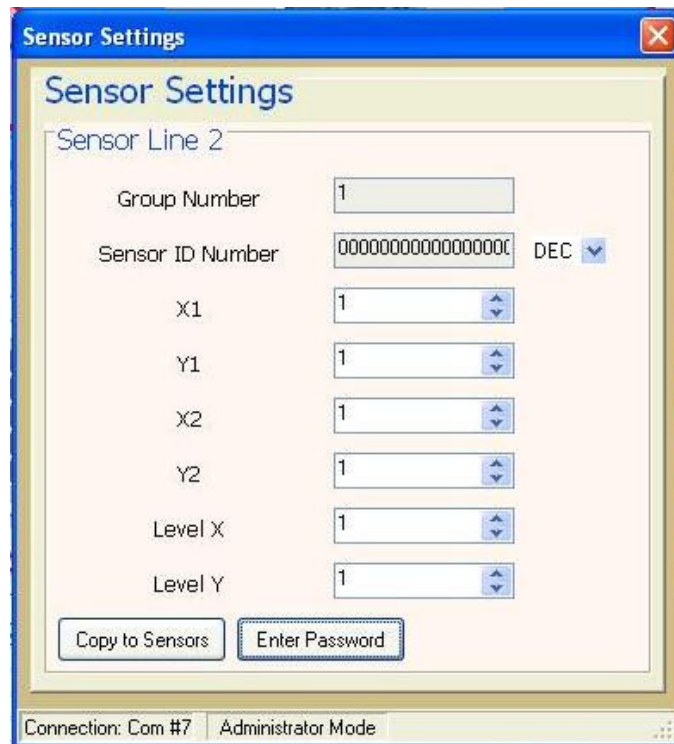


Figure 14: Sensor Settings

## 12. CONCLUSION

- 12.1. The V-AlertComm Setting Manager Manual provides the user with the initial tools required to install the V-ALERT System.
- 12.2. Please refer to the BLOCK DIAGRAM below for a summary of a typical V-ALERT installation the system
- 12.3. Please contact an authorized GM representative for any additional technical support that may be required.
- 12.4. PLEASE NOTE THAT A MORE DETAILED DESCRIPTION OF CHANGING THE CARD AND SENSOR SETTINGS WILL BE PROVIDED IN A SEPARATE DOCUMENT. THIS DOCUMENT WILL EXPLAIN THE LOGIC BEHIND THE V-ALERT TECHNOLOGY, AN UNDERSTANDING OF WHICH IS REQUIRED IN ORDER TO ACHIEVE RELIABLE DETECTION LEVELS AND IN ORDER TO ENSURE THE OPTIMAL PERFORMANCE OF THE SYSTEM.

### 13. V-ALERTCOMM SETTING MANAGER – BLOCK DIAGRAM

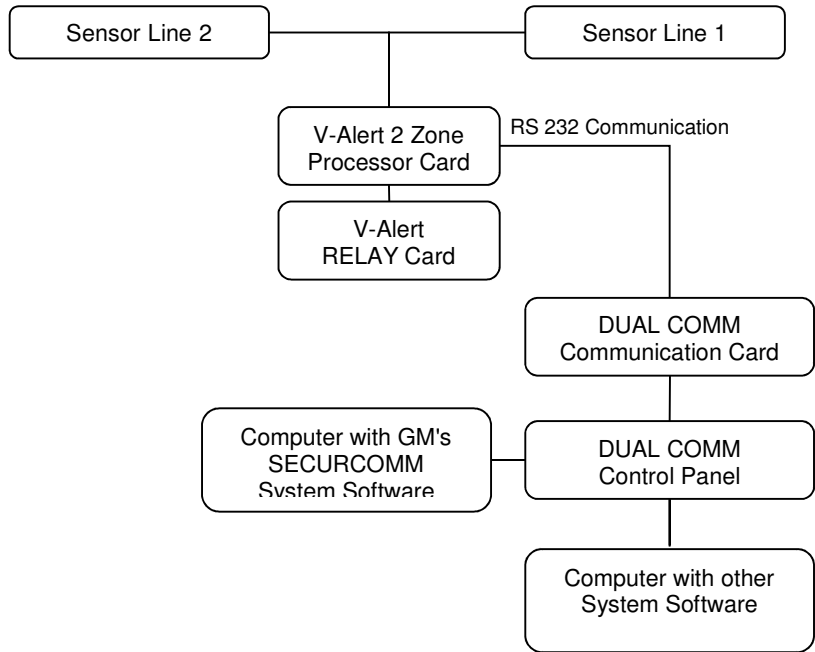


Figure 15: V-Alert System Block Diagram