SETTING UP A JVA GSM UNIT

1. **Energizer Set up**

   Before you start doing any programming ensure that the JVA energiser has the latest software on it being *7v90*. Then program the Energiser, which is going to be connected to the GSM Interface PCB. You need to program it as a *Master*, being *address 2601*. Then ensure that all the settings on the energiser are correct to what the site requirements are. Then you connect the key pad to the GSM interface PCB or on the Newer Version GSM Unit, making sure that the key pad address is changed to 4. Otherwise the system will not work properly.

2. **GSM and SIM Card**

   SIM Card, has it got airtime on? Is the Caller ID on? Has the SIM Card been RICA'd? Please check the Sim Card, by placing it into a cell phone, call the GSM SIM Card; ensure that the number is shown on the phone. Then make a call from the phone with the GSM SIM Card to a cell phone, does the number show. Done. If the later has been done all sorted. Insert the SIM card into the GSM unit; connect the **12v dc** to the connector from the JVA unit. Ensure that the key pad is wired to data, and 12v positive. Then power up the whole system and the GSM units LED will start flashing. A slow flashing LED means that the unit is looking for the Network. If the LED is solid then it cannot connect to the network or there is an issue with the SIM Card.

3. **Website and Login**

   Please ensure that a profile has been setup for you on the JVA website, if unsure email Dewald. For better and easy use please ensure you have *Firefox* or *Google Chrome* Internet Explorer is not so fast and gives issues. Then go to the JVA Security Website, www.jvasecurity.co.za click on GSM tab (top right) and a new page will open. Click on the *LOGIN Icon.* Type in your User name and password, Click on the login tab, and you are in. Remember, depending on what service provider you using, makes a big

difference when using the Web page. For instance in Nelspruit, the ADSL is running at 1744 kb/sec. A bit slow compared to a 3G Dongle. Better the internet speed the faster the information will be processed and sent to the GSM unit and vice versa. On Testing, it takes between 3 - 10 seconds for the command to be sent to the GSM unit from the Website.

4. **GSM UNITS AT THE BRANCH**

Dewald will stock transfer GSM units to each branch on the JVA Website under the person who will be handling the GSM Units. You will be able to allocate them to an Installer and program them. As a Branch Manager or designated staff member, you need to have access over the GSM units, Installers (Customers) plus the end user and control of the Energiser. Below is what you may configure, as a Branch User.

Configure
Installers
GSM Device

Allocation
To Installer

Click on GSM Device, then a list of all the GSM units will appear for your Branch or User(s).

HELP Search:

	Branch	Installer	Customer	Site Description	IMEI	Activated	Active	Version	Last Comm. Update	
	Nelspruit			Work GSM device	359193030120950			1.1.1	16/02/2012	**GSM History**
	Nelspruit			359193030120687	359193030120687			1.1.1	16/02/2012	**GSM History**
	Nelspruit	Robson Fencing	Tombo Farm	Tombo Farm	359193030120307		✔	1.1.1	31/05/2012	**GSM History**
	Nelspruit	Call in the Handyman	Allen Rainsford	359193030120265	359193030120265		✔	1.1.1	22/05/2012	**GSM History**
	Nelspruit	KNIGHTS FENCING	Birgit Oostheizen	Brondal Marathon	359193030120901		✔	1.1.1	31/05/2012	**GSM History**
	Nelspruit			359193030120281	359193030120281			1.1.1	16/02/2012	**GSM History**
	Nelspruit			359193030120257	359193030120257			1.1.1	16	

The above is all the GSM Units assigned to that particular Branch.
The list will tell you if they have been assigned to any installer and who the end user is; and if the GSM units are Active. The Active GSMs units are the ones tick under the Active Column. Notice also that the Branch is green for all units, which means that the unit is correctly assigned. The second to last column is the last update date, green being the GSM unit is working properly and Red is not Active or not communicating. Remember that the some of the above units have been assigned, but the GSM IMEI numbers highlighted are not.

5. **Creating an Installer Profile**

Before you can assign a GSM Unit to an Installer you need to create an Installer Profile. Under each Installer there will be users that will fall under that specific Installer Profile. The actual Profile does not actually do anything but the users under that Profile have access, depending on what Level they are given.

To create an Installer Profile

Click on the Installer tab, on the left under Configure.
Then a new screen appears.

Maintain Installer Details

	Branch	Installer ▼	Active	
🖊	Nelspruit	Call in the Handyman	✔	**Installer's Users** Emails
🖊	Nelspruit	KNIGHTS FENCING	✔	**Installer's Users** Emails
🖊	Nelspruit	Robson Fencing	✔	**Installer's Users** Emails

6. Click on the "✚" Icon, fill in all the necessary details of the Installer. Description, being the Installers Company Name etc. Ensure that the *ACTIVE* block is tick! If not do so, otherwise he cannot do anything. Then once all info is entered click on the 🖊 tab to save the Info of the Installer. Wait, and then click on the 🔄 tab to return to the above screen. You will that the Installer has been added.

7. **Installer Users**

Now we need to create users under the Installers profile, click on the "Installer's *Users*" then a new WEB TAB will pop up, with **Maintain Installer Users** on but it is blank, right. Click on the ✚ Icon fill in the Users details again and his Security Access level, do not forget that! Then ensure that the "*Active*" is ticked, and then save. Depending on the Installer you can add more users, but less the better for Security purposes.

8. **Security Profile**

This will be under the Configure Tab on the left. Click on Users, an alphabetical list of User Names will appear. Click on the 🖊 of the user you wish to access. All the customers' details will appear on screen, but the Security Access has not or not all have been ticked off.

Full Name: Chris

SECURITY PROFILE

ID: 840

ID Number: 1

Date Created: 30/05/2012

Cell No: 0762664814

Time Created: 11:42:26

	ADD	EDIT	VIEW
Branches:	☐	☐	☐
Installers:	☐	☐	☐
Customers:	☐	☑	☑
Sites:	☐	☑	☑
Users:	☐	☑	☑

Email: 1

Created By: RobsonR

Telephone No: 1

Date Last Updated: 30/05/2012

Fax No: 1

Time Last Updated: 16:07:41

Last Updated By: Dew ald

Login Name: Test Nels

Password: 2580

Address: 1

: 1

: 1

: 1

Active: ☑

Member of Web Access Group: Admin 100 🔍

You will need to tick the above as shown for the User to view the actual Energiser, alter the GSM and Edit customers. Etc. Click on the save Icon.

9. **Allocation of GSM Unit to Installer**

Go to the table menu on the left under Allocation and click on "*To Installer*".

Allocate GSM Units to an Installer

Enter the IMEI number of the GSM Unit: [   ] **Already Entered IMEI's**

Selected Installer: [   ] 🔍

Total Units Entered:0

Clear List and start Again

Allocate these JVA GSM Units Now

Print this List

Enter the GSM IMEI number and then look for the Installer in the next search box, enter the Installer by clicking on the Icon below, which has no details. (In the middle of the page) then click on "*Allocate these JVA GSM Units Now*". If there is more than one GSM unit that needs to be allocated, enter the IMEI number click on "*Already Entered IMEI's* "then add the next IMEI number for allocation. Once all the IMEI numbers have been entered then allocate all the units by clicking on the Icon below, which has no details. (In the middle of the page) then click on "*Allocate these JVA GSM Units Now*".
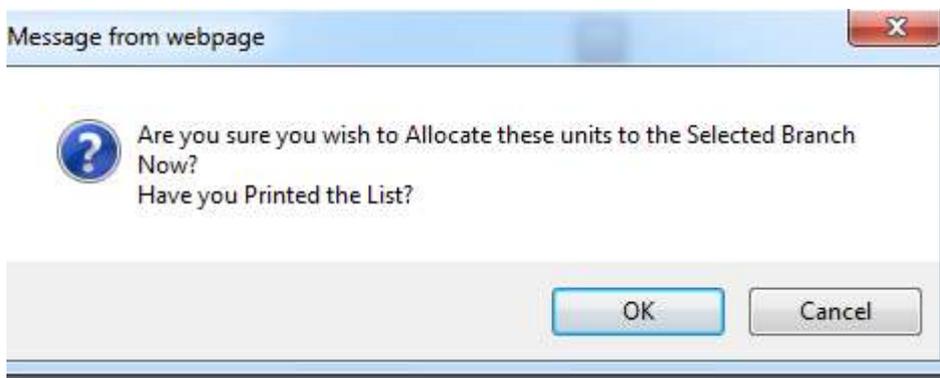
Click on Ok then the Unit(s) will be allocated.

10. **Programming the GSM Unit**

Now you need to Log out as Admin User and re-login as a Super User, click on GSM Device, a list will appear of all the GSM units for all Stafix Branches. Look for the Unit(s) that you need to program and click the Matrix programming page will open.

   a. Now you will need to type in the empty tab blocks the information needed, from site description to Contact details of the Installer and the GSM details. (Please fill all details).

   b. Then go to the "*Input/output*" section type in what Energiser it is or Zone, depending on the site configuration. If you going to monitor a gate input please name it as well. The "*AUX*" option is used for Relay three (3) (latched) which can turn on/ off lights, bypass siren etc. The next is Input 1, which is used to switch off the Energizer via sms (or Energizers), by sms the Command ENG ON. If you have a Two (2) Zone unit JVA Z28, and you only want to Disarm Zone 1 then sms *ENG OFF 1* to the unit. To Arm Zone 1 sms *ENG ON 1* to the unit. Input 2 can be used for various monitoring purposes; like ARM/Disarming of the Energizer wired from a relay output on the energizer.

   c. The Matrix settings; here you need to discuss with the Installer what they need for the site and apply the settings. Remember to tick the Input boxes. The CMS is used for the Alarm / Security Companies so they can monitor the fence as well.

   d. Once all the information is entered the tick the Active box, and save the configuration.

11. **Creating an Installer Customer (End User) Profile**

Now you need to log out as a Super User and login as the Installer; *Installer user.*
Here you are creating an *End User Profile*, name of the Farm or Business. E.g. Rainbow Chicken Farms. This is not the actual person who will be viewing the site.

Click on *Customers* on the left under Configure.

"**Maintain Customer Details**" heading will appear, click on the icon, fill in the Installers Customer (End User) details in, and ensure that the Active box is ticked. Save the customer details. Now you can you can create an End user, which will be able to view the site(s).
Go to Configure again, click on Customers, then click on the Edit tab next to the

End User Profile. Then click on `Customer Users`, then click on the where a new tab will open. Fill in the actual users details, like the Security Manager or person who will be viewing the site. Save the details and close the tab.
Now you will need to log out and log in as a Super User and go the newly created user. By going to Users, and searching for his name. Once you have found the person you will see the following.

Full Name:	Chris		ID:	840

SECURITY PROFILE

ID Number:	1

		ADD	EDIT	VIEW

Cell No:	0762664814

Date Created:	30/05/2012
Time Created:	11:42:26

Email:	1

Branches:	☐	☐	☐
Installers:	☐	☐	☐
Customers:	☐	☑	☑
Sites:	☐	☑	☑
Users:	☐	☑	☑

Telephone No:	1
Fax No:	1

Created By:	RobsonR
Date Last Updated:	30/05/2012
Time Last Updated:	16:07:41
Last Updated By:	Dew ald

Login Name:	Test Nels
Password:	2580

Address:	1
:	1
:	1
:	1

Active: ☑

Give the User, the correct Security level, ideally tick only Sites and users which he/she may edit & view. Then save the details.

Now the Unit can be allocated to a customer (End User) from the Installers profile.

12. **Allocating the GSM Unit From Installer to the Customer (End User)**

Now click on "*To Customer*" under Allocation and allocate the GSM to the customer. It is the same as when you allocated to the Installer, but now to the Customer.

13. **Customer Security Profile**

The as you did before for the Installer users, please confirm with the Installer as to what he wants the Customer to view.

14. **ACTIVING THE ENERGIZER**

Login as the Installer, the following will appear.

Customer:	Tombo Farm
GSM Unit Description:	
Energiser Description:	JVA Z28
Energiser Number:	1

ID:	158
Date Created:	13/12/2011
Time Created:	09:22:04
Created By:	JS

Date Last Updated:	21/10/2012
Time Last Updated:	15:20:10
Last Updated By:	RobbieR

Active: ☑

List My Energisers   **Save the New Description**

Ensure that the Active box is ticked and the Energiser description is entered, then save the details.

Then below, choose the Model of the JVA Unit and click on the Update energiser tab.

Status of Energiser as at: 21/10/2012   15:20:10

Model: `Z28` Type: `Two Zone` Energiser PIN: `_____` Action: `_____`

	ZONE 1	ZONE 2
Arm:	⦿	○
Disarm:	○	○
Return Volts:	9.3	9.6
High Power:	⦿	○
Low Power:	○	○

Update Energiser

**These Icons show your Energiser
Status, GREEN is GOOD, RED indicates TROUBLE**

List My Energisers   **Clear Alarm Memory**   **Connection History**   **Update Energiser**

Configure my GSM Device

 Fill in the Energizer details, model etc. Then click on the Active box, if you do not then anybody will be able to view the Energizer at all. Save the information and click on the icon, where you will see that the Energizer and GSM is activated.

15. **Testing the GSM with the Energizer on the Internet**

Ensure that all the wiring is done and is correct before you Test the system.

16. **WIRING DIAGRAM GSM UNIT**
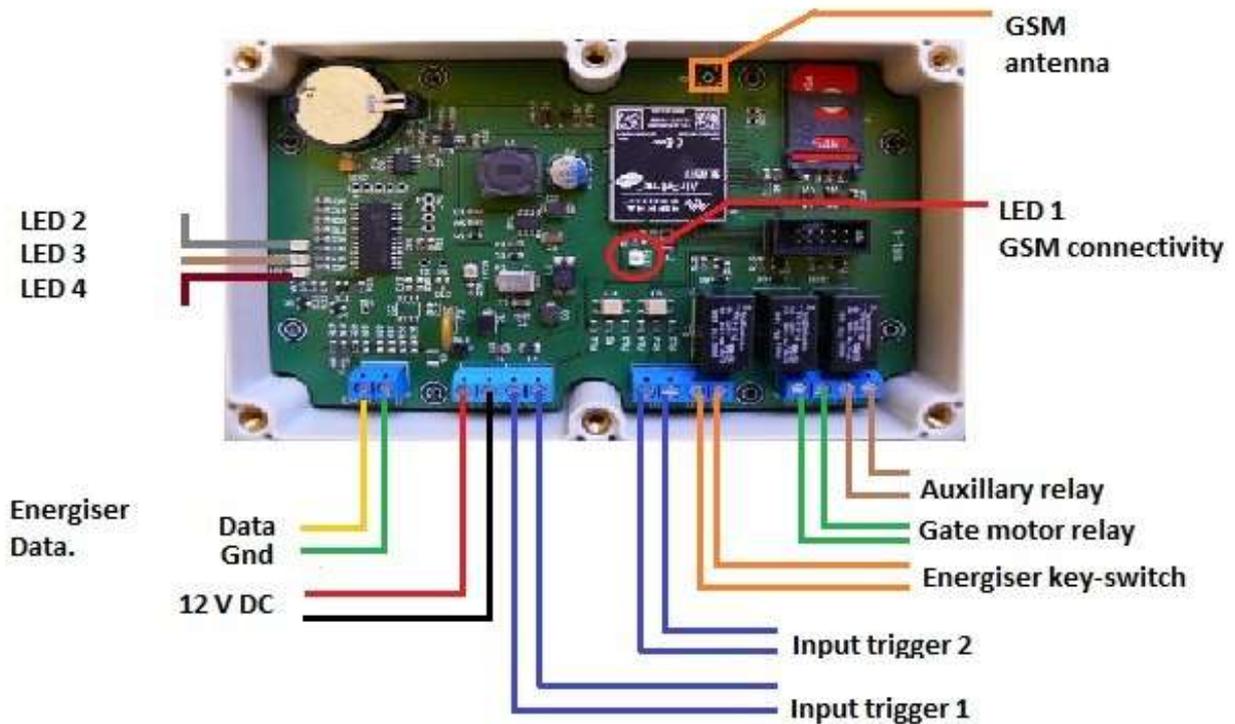
The above shows how to wire the GSM unit; power source, etc.

- If the Customer wants to know when the unit is Disarmed or Armed; program one of the output relays on the JVA unit to 02# and wire into input 1 of the GSM unit.
- If the customer wants to switch on/off the energiser via sms then a person can wire in from IN1 and Com to Output 1. From there it goes into IN1 (for the Z13, Z14 and Z18) and Input 1 and COM on the Z28.
- There is a Red LED (LED1) which indicates if the GSM unit is on or off. Slow flash means - It will commence flashing when it acquires the GPRS network.
- A Solid, slow flash, solid will indicate that there is an issue with the Networks or that the SIM card is not working properly.
- A Fast Flash is when the GSM unit is communicating with the Server.

17. **Testing the GSM Unit and Viewing from JVA Site**

Login in as the Installer or Customer, click on the Arm tab and update the Energiser. After 5 seconds click on the Connection History and you will see that the Command was sent to the GSM Unit.
Once the Voltage is displayed on the Internet, all is working. If nothing transpires after a while and the GSM LED 1 is flashing. Then check that the SIM card has airtime, the CLI is activated or that the key pad address has been changed etc.
Once the problem has find, then depower the system and insert the Sim Card and power up. Re-Arm the GSM via the internet. All done, now disarm the system by clicking on the Dis-Arm tab. Check the Connection History and you will see no voltage been displayed as the last history, which means the system is dis-armed.
Check if the unit goes into low voltage mode, do all necessary tests on the unit.

18. **SMS Command set**
The GSM device understands the following SMS commands.

REBOOT
Reboots the modem

TEST-RELAYS
Closes the relays sequentially for 5 seconds each
PULSE-WIDTH=
Sets the pulse width for relay 2 (gate) in 10ths of a second (0 < pulse <= 50)
STATUS=?
Returns the modem signal strength, supply voltage, GPRS status and gate pulse width to the caller. e.g.
Signal=22, Voltage=13541mV, GPRS=1, Gate Pulse=10
ENG OFF
Switches the connected energiser OFF (relay 1)
ENG ON
Switches the connected energiser ON (relay 1)
AUX OFF
Switches the relay 3 OFF
AUX ON
Switches the relay 3 ON
OTAP
This updates the version on the JVA GSM Unit

19. **Helpful Tips**

- Under GSM Details in the GSM configuration section, look for Current Version this displays the latest software version on the GSM, they all should have 1.1.5 on.
- Please check the signal strength of the GSM by SMS Status=?, if the Signal strength is above 16 the unit should be ok and GPRS is 1; then there is no problem. But if the signal strength varies, and goes lower please contact Dewald to arrange a stronger Aerial for the GSM unit
- A person can view all Energisers that are on one GSM unit by going to the Maintenance of Energisers. You will see all the Energisers in list form; you can also control them here as well and view the voltages. To see the actual energiser click on the edit tab, .

- When an alarm occurs the alarm bell will appear in Red , view the Connection History to see when the Fence went into alarm.
- To clear all alarms merely click on the Clear Alarm Memory, if you want.

- On the Energiser Page you will see the following in red, this is when the Site was last updated from the GSM Unit.

<p style="text-align:center;color:red;font-weight:bold;">Status of Energiser as at: 21/10/2012   16:21:06</p>

- ***Please note:*** Don't give out the *Passwords* of *ANY USERS* to anyone who does not need to know. This is a *Security Risk*!!!!
- If a customer wishes to change their Password, please let the Installer do it in their Own Privacy. The Installer can log into his Profile and open the Customer User and let the Customer change his Password. Or allow the Customer to have the Security to edit his own Profile.
- Last of all

SIM CARDS - RICA

The **Regulation of Interception of Communications and Provision of Communication-Related Information Act**

(RICA) is a South African law that regulates the interception of communications and associated processes such as applications for and authorisation of interception of communications. The law came into effect on 22 January 2003 when it was published in the Government Gazette of South Africa number 28075.

JVA GSM TRAINING

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