

DIGITAL GSM DOOR INTERCOM SYSTEM (Up to 1000 users)



TECHNICAL MANUAL
EDITION 1.0.1

VIDEX
The Power to Secure

CONTENTS

MANUAL INTRODUCTION	4
SYSTEM INTRODUCTION	4
PRECAUTIONARY ADVICE.....	5
SYSTEM COMPONENTS	6
POWER SUPPLY	7
WIRING DIAGRAMS.....	8
PUSH TO EXIT BUTTON AND AUXILIARY INPUTS/OUTPUTS	8
CABLE SIZE GUIDE	9
INSTALLATION	9
PANEL CARE.....	9
TESTING, POWER UP AND RESET	10
PROGRAMMING	10
PROGRAMMING BY PC.....	15
SYSTEM OPERATION	20
USER COMMANDS	20
CHECKING THE BALANCE (BAL)	21
UNDERSTANDING THE SIGNAL STRENGTH (SIG)	21
DIALLING INTO THE INTERCOM FROM ANOTHER TELEPHONE	21
RECORD SHEET	21
TROUBLE SHOOTING	22

MANUAL INTRODUCTION

The information in this manual is intended as an installation and commissioning guide for the digital GSM door intercom system. This manual should be read carefully before the installation commences. Any damage caused to the equipment due to faulty installations where the information in this manual has not been followed is not the responsibility of Videx Security Ltd.

VIDEX run free training courses for engineers who have not installed this system before. Technical help is also available on 0191 224 3174 during office hours or via e-mail tech@videx-security.com.

SYSTEM INTRODUCTION

The system is designed to work on the same technology as mobile phones. It enables a call to be made from an entry point (Door, gate etc), to any telephone number (mobile or land line). Up to 1000 apartments can be programmed into the door panel, each able to call two telephone numbers (If the first is busy or not answered, the call can be diverted to the second). Additionally, each user can have a unique access code up to 6 digits, an apartment number up to 6 digits, their numbers added to the dial to open list (to allow them to dial into the panel and release the door/gate), a time band to restrict when this apartment can receive calls and on the scroll panels, a user name up to 16 characters. Features of the system include a dry contact relay output, an open collector auxiliary output, push to exit input and switched 0V auxiliary input. Programming of the telephone numbers and additional features can be carried out via the panel or PC using a specially designed Windows program. An additional access control feature is included for all 2000 telephone numbers allowing a number of callers to open the gate/door simply by dialling the telephone number of the intercom panel (The intercom panel will not answer these calls but will activate the relay output).

A SIM card is required for this product but not supplied. It is recommended to choose the SIM card which has the best coverage for the area in which the intercom panel will be installed. Both contract and 'Pay as you go' SIM cards can be used but if using a 'Pay as you go' we would recommend setting up an automatic top up to avoid running short on credit and losing the use of the intercom panel. Alternatively if you already have a contract mobile phone it should be possible to get a second SIM card and telephone number on the existing account. For more information contact the SIM card provider or visit their web sites.

Network provider selection: It is imperative for the reliable operation of the system that the best network provider for the area is selected. Problems such as network disconnection can occur if the provider has signal or interference problems for that area. We would recommend using a GSM signal strength meter to survey the intended antenna location. Contact Videx for more information on where to purchase a tester. As an initial check, also go to www.sitefinder.ofcom.org.uk and enter the postcode of the intended installation. This will show all transmitters in the area. It is advised to choose the closest one or if there are many then choose a transmitter working on 900MHz as this frequency works best through obstacles such as walls, buildings etc. The antenna should always be mounted vertically at the highest point possible. Metal structures and sources of interference such as power cables, control panels etc can affect signals and so the antenna should be mounted away from these.

When registering a new SIM you may be asked for the IMEI number. This is the unique serial number of the GSM intercom and can be found on the rear of the module just below the SIM holder on a white label. It's the long number below the barcode.

PRECAUTIONARY ADVICE

- When mounting the GSM antenna, choose a location which is away from human interaction and away from the intercom panel. Route the GSM antenna cable from the intercom panel so that it is separate from the power supply cables and microphone wire. Always mount the antenna vertically.
- Always ensure the power is off to the intercom panel before inserting or removing the SIM card.
- New SIM cards will need registering before they can be used. Full details of how this is done can normally be found in the SIM card pack. It will normally require that the SIM card is inserted into a mobile phone, a number dialled and instructions followed. While the SIM is in the mobile phone it would be a good time to disable any PIN codes, call diverts, ring back and disable features such as voicemail and text alerts. Details of how to do this can be found on the SIM card provider's web site or by calling their customer services. Please use one of the following SIM card providers (Vodafone, T-Mobile, O2 or Orange). We do not recommend using 3 at this present time.
- To be able to receive text messages from the intercom panel, the SIM card will require an SMS service centre number. This is normally preinstalled on new SIM cards but if you are having trouble receiving SMS messages you will need to confirm this by inserting the SIM card into a telephone and using the telephones menu options to check it. If a number is not programmed then it should be programmed while in the telephone (The number can be obtained from the service provider).
- Voicemail and text alerts must be switched off on the SIM card when using the dial in to release the door/gate feature. For Vodafone and O2 this can be done while the SIM card is in the intercom panel. For Orange and T-Mobile the SIM card must be remove and put into a mobile phone.
- When storing the intercom panel's telephone number in your own mobile phone avoid using an obvious name such as 'Front Door, or 'My Gate' as this would make it easy to decipher if your phone was lost or stolen.
- The PIN request feature must be disabled on the SIM card before using it in the Intercom panel. It is likely on a new SIM card that it will not be enabled but if it is, it will prevent the system from working at all.
- This product may not be suitable for installation in hospitals, health care facilities or in the presence of flammable gases or liquids. Seek advice and authorisation before installing this product in these locations.

IMPORTANT NOTE ABOUT SIM CARD

When using a pay monthly SIM card you must ask the service provider to put a spend limit on the account (Vodafone call this service 'spend checker'). This is to safeguard against possible problems which could result in a large phone bill at the end of the month. All providers offer this service. You will need to either ring them or e-mail them to set this up. Automatic top ups should also have a monthly limit.

SYSTEM COMPONENTS

A system comprises of an intercom panel, power supply, SIM card and antenna. The intercom panel is of modular design allowing it to be customised to the installation requirements by including proximity access control, coded access or bioaccess.

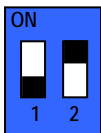
DIGITAL MODULE

The digital panel is available for the 4000 Series modular design or flush vandal resistant. There are two versions in the 4000 series design, name scroll facility which includes a numeric keypad and 3 buttons to navigate tenants/company names on the display and a alpha numeric version which includes a numeric keypad and letters A-F. The vandal resistant panel is also available with letters A-I.

DIP SWITCH SETTINGS

There are 2 dip-switches located on the back of the module. They can be used to alter the volume from the Door Intercom speaker. Additionally, the volume can also be adjusted during a call via the telephone keypad.

SPEAKER VOLUME



1	2	GAIN (dB)
ON	ON	6
ON	OFF	12
OFF	ON	18
OFF	OFF	23.5

LCD DISPLAY CONTRAST



Adjust the LCD contrast by turning the pot on the rear of the panel next to the terminal connector.

CONNECTION	DESCRIPTION	
+12V	12Vdc – 14Vdc input	
0V	Ground connection	
C	Common connection of dry contact relay	Relay contacts: 3A@24Vdc 3A@120Vac
NO	Normally open connection of dry contact relay	
NC	Normally closed connection of dry contact relay	
AO	Auxiliary output switched 0V (Open collector output)	
PTE	Exit button input switched 0V (0V to trigger)	
AI	Auxiliary input switched 0V (0V to trigger, triggers AO)	

ANTENNA

The GSM antenna connects to the SMA female bulkhead on the rear of the module. A GSM antenna with a SMA male connector should be used.

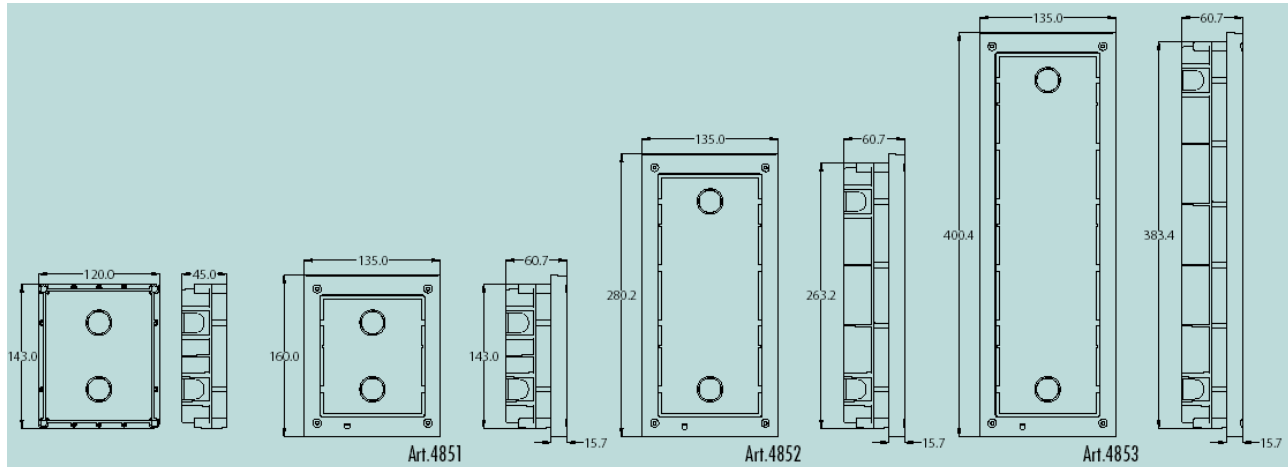
Note: An antenna must always be connected and positioned vertically.

Note: Always route the GSM cable away from the microphone wires and the power supply wires to avoid interference on the speech channels.

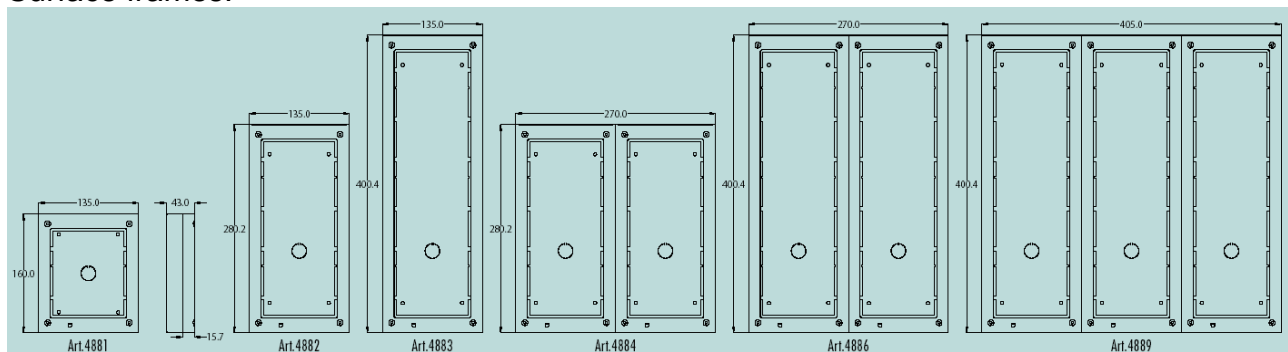
DOOR PANEL MOUNTING FRAMES

Both surface and flush mounting frames are available. The size of the frame will depend on the number of modules that make up the door panel. The last digit of the frame code indicates the number of modules it will take. Frames are available in gun metal gray finish, chrome finish (Suffix \C to the frame code) or gold finish (Suffix \G to the frame code).

Flush frames:



Surface frames:

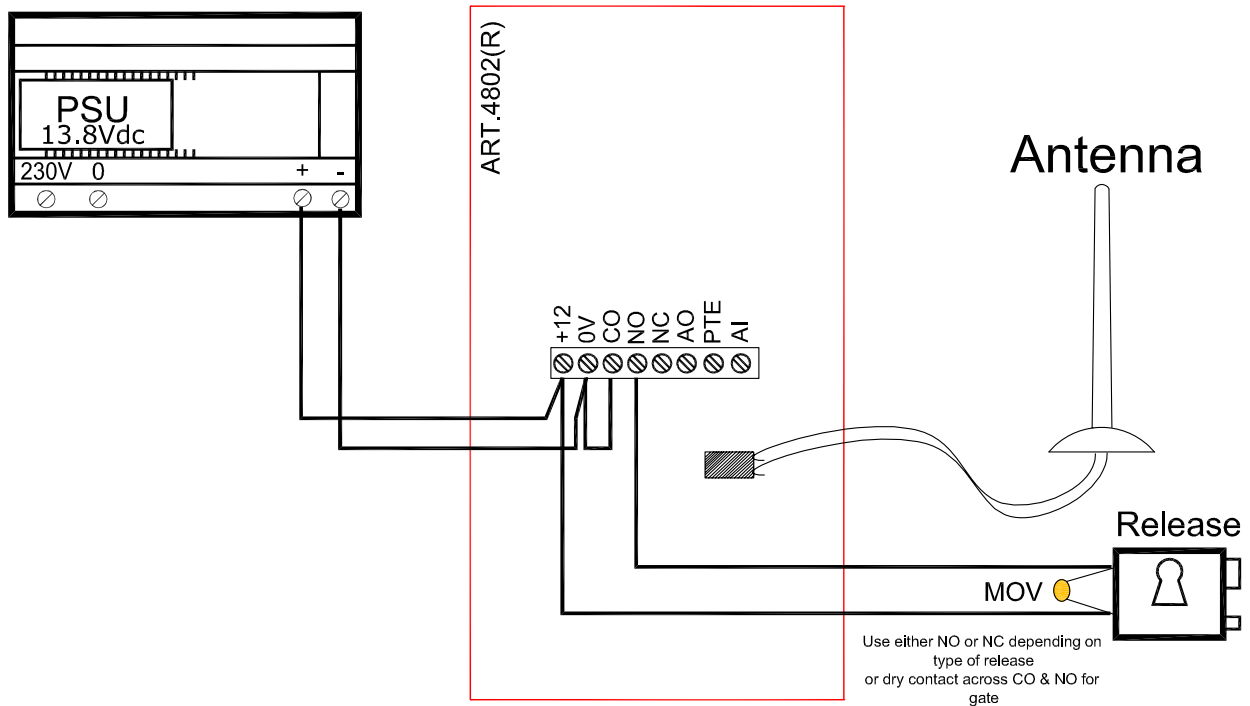


POWER SUPPLY

The GSM intercom panel is designed to work with power supplies in the range of 12-14Vdc. The power supply should be capable of supplying a constant current of no less than 1 amp (If the system is to work with failsafe lock releases or magnetic locks we would recommend a minimum of 2 amps). The following Videx power supplies can be used:-

AMR2-12	12-14Vdc 2A switched mode PSU
Art.521B	13.5Vdc 1A DIN box PSU
SP29	13.8Vdc 2A boxed PSU with battery backup facility
SP28	13.8Vdc 3A boxed PSU with battery backup facility

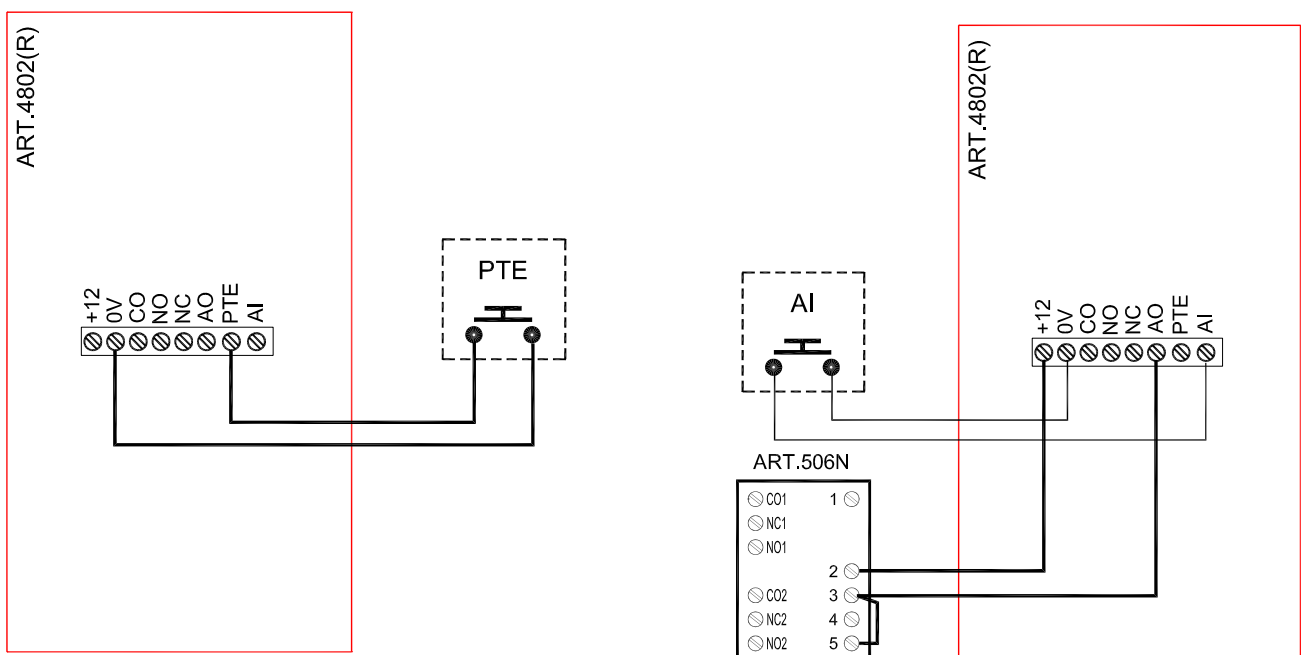
WIRING DIAGRAMS



PUSH TO EXIT BUTTON AND AUXILIARY INPUTS/OUTPUTS

Connections for push to exit button

Connections for auxiliary input (Switched 0V) and auxiliary output (Connected to 506N relay)
Auxiliary output is also triggered by pressing 6 on the handset during a call.



CABLE SIZE GUIDE

Connections for power supply output to intercom panel and lock release connections.

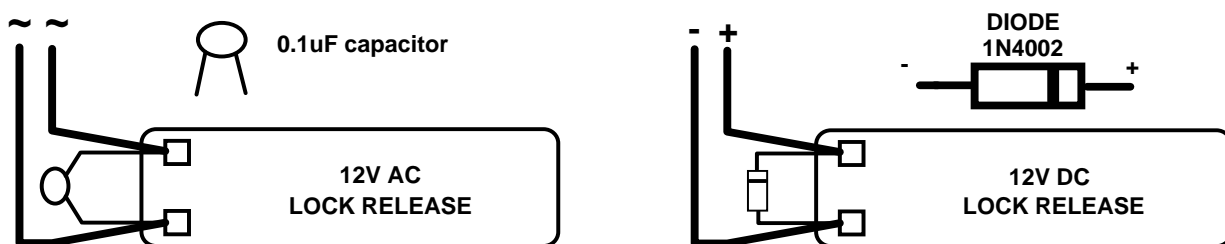
	20m	50m	100m
Connections	0.5mm ²	1.0mm ²	1.5mm ²

The power supply should be located as close to the intercom panel as possible for best performance.
Maximum acceptable resistance for above cables = 3Ω

INSTALLATION

- Check that all components are free from damage before installing (Do not proceed with installation in the event of damage).
- Keep all packaging away from children.
- Do not obstruct the ventilation openings or slots on any of the devices.
- All connections to mains voltages must be made to the current national standards (IEE Wiring regulations)
- Install an appropriate fused spur or isolation switch to isolate the mains.
- Isolate the mains before carrying out any maintenance work on the system.
- Avoid water ingress into the rear of the module, always seal the module frame after installation using a suitable silicon based sealant.
- All intercom and access control cables must be routed separately from the mains.

Lock release back EMF protection : A capacitor must be fitted across the terminals on an AC lock release and a diode must be fitted across the terminals on a DC lock release as shown in the diagrams below to suppress back EMF voltages.



PANEL CARE

The door panel's facia is either mirror finish stainless steel, brushed stainless steel or matt finish aluminium. It is important that the facia is cleaned on regular occasions to prevent dirt build up and tarnishing of the metal. A general household metal polish can be used but care should be taken to follow the grain of the metal when polishing and also avoid any polish build up around the call buttons which may prevent the buttons from operating correctly.

TESTING, POWER UP AND RESET

After connecting the power supply, antenna, lock output and auxiliary devices as shown in this manual and before powering up a SIM card must be installed. The SIM holder can be found on the back of the module under the label 'SIM'. A SIM card from any supplier can be used. Simply push the SIM card in (It will only fit one way). **IMPORTANT: Replace the label over the SIM hole.**

- Check all the connections have been made correctly and then power up the system.
- The GSM intercom requires approximately 30 seconds too initialise properly. We recommend not sending SMS messages or pressing buttons during this time.
- From power up; the panel display will first show the software version number for a few seconds and then 'WAIT'. After a delay the display will show the standby message.
- Once initialised, you can begin programming.

RESET TO FACTORY DEFAULTS

There are two reset modes available. The first will reset the master code only and the second will reset everything and clear all stored telephone numbers.

RESET THE MASTER CODE TO 1111

1. Power down the intercom panel
2. Hold down the 'Enter' button (on VR4802 or 4802) or the '4' button (on 4802R)
3. Power up continuing to hold the button
4. When the display shows 'OK' release the button
5. The master code is now reset to 1111

FULL RESET (WARNING: THIS WILL COMPLETELY FORMAT THE MEMORY)

1. Power down the intercom panel
2. Hold down the '9' button (on VR4802 or 4802) or the '3' button (on 4802R)
3. Power up continuing to hold the button
4. When the display shows 'WAIT' release the button
5. All settings are returned to factory defaults

The panel software is the same for both Alpha (VR4802, 4802) and scroll (4802R) style panels. To initially set the panel, power up with the '7' (on VR4802 or 4802) or for alpha power up with the '2' pressed (on 4802R). Keep the button pressed until the display reverts to the standby message.

PROGRAMMING

Programming can be carried out either by the panel keypad & display or by PC. Additionally, the following useful features are available using SMS.

FORCED DIAL (DLE)

A useful feature of the Intercom panel is its ability to call a number sent to it in a text message. This feature can be used when setting up the SIM card. For example, disabling the voicemail facility or disabling automatic SMS messages or missed calls. Any number up to 15 digits can be called and the call will last for a maximum of 40 seconds. The

example below would switch off voicemail on a Vodafone SIM card. Substitute the Vodafone number for other service providers (**See important note on page 19**).

1111DLE"1210" Dial 1210 for the intercom panel

Other useful numbers which can be used with this feature are as follows. Please also check the service provider's web sites for other useful codes.

	Vodafone	O2
Disable voicemail	1210	1760
Disable text alerts	#148#	1760

NOTE: Disabling voicemail and text alerts is very important as there is no way to retrieve either of these services from an intercom panel. Disabling these features will also prevent the intercom panel switching to voicemail or sending a text when dialling in from another phone.

STORE CREDIT BALANCE CHECK STRING (SDL)

Several network providers offer the facility to check available balance on their pay as you go tariffs. For example, on Vodafone the string is *#1345# and on O² the string is *#10#. Other networks may also have this feature. Because the intercom will not know the details of the network provider's SIM card which you have inserted it will be necessary to store the correct string in order to use the credit balance check features.

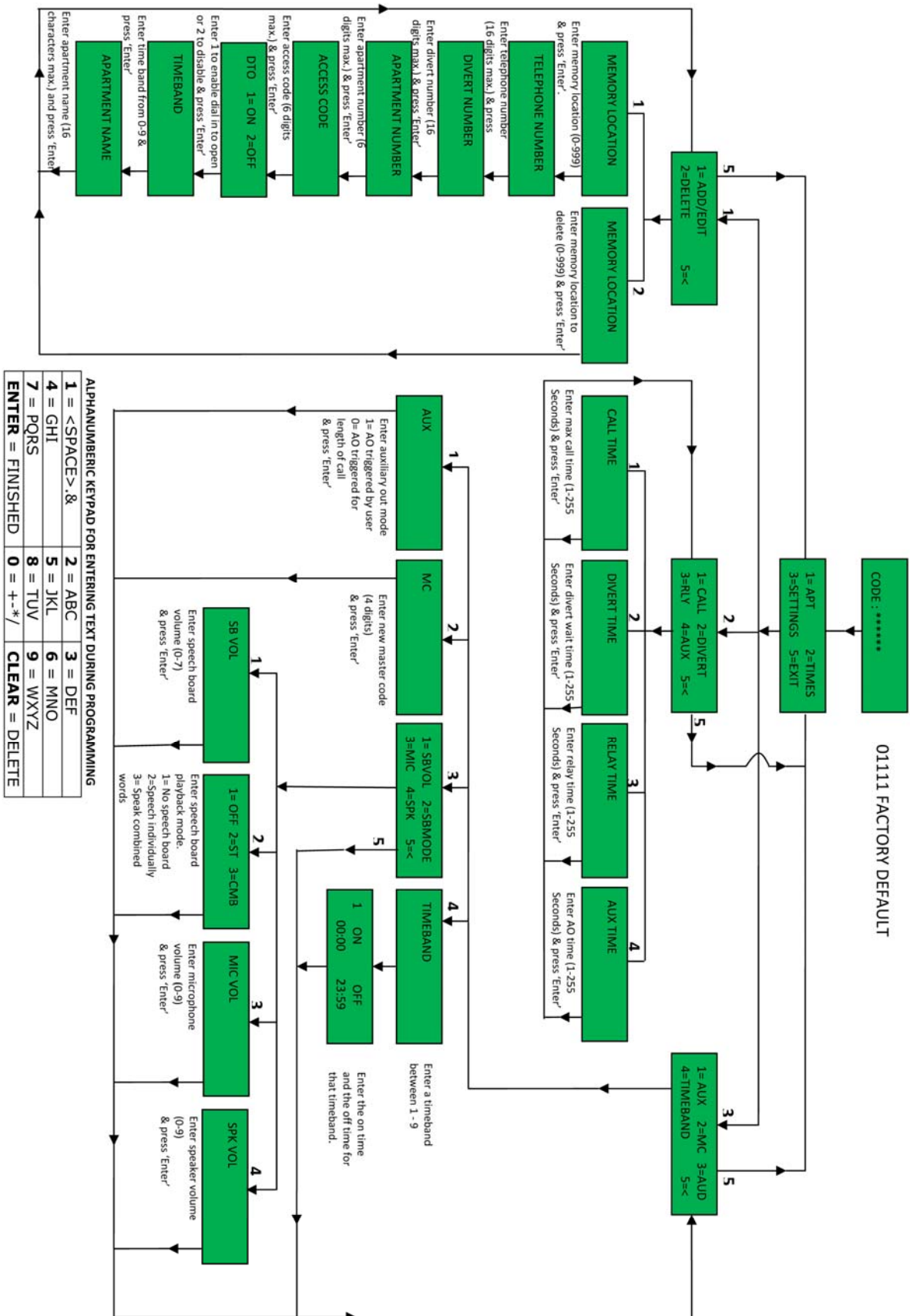
1111SDL"*#1345#" Store the balance check string for a Vodafone pay as you go.

1111SDL"*#10#" Store the balance check string for an O² pay as you go.

PROGRAMMING BY THE KEYPAD AND DISPLAY

The programming menu is protected by a 4 digit engineer's code. The factory default is 1111. To enter programming mode, press '0' followed by the 4 digit code and then press enter. The programming flow chart is on the following page. An explanation of each programming option can be found on the pages that follow.

PROGRAMMING FLOWCHART



ADD/EDIT or DELETE an Apartment

From the main menu page, press '1' for APT then press either '1' to add or edit an apartment, '2' to delete an apartment or '5' to return to the main menu page.

ADD/EDIT

MEMORY LOCATION; Memory locations are between 0 & 999. The memory location is simply a position in memory to store a single apartments/persons details.

TELEPHONE NUMBER; This is the first telephone number to be called when a user enters the apartment number for this user. The telephone number can be up to 16 digits.

DIVERT NUMBER; If the first number is not answered or busy then this number will automatically be called. The number can be up to 16 digits. Leave this blank if there is no number to divert to.

APARTMENT NUMBER; The apartment number is the number entered by the caller. The number can be up to 6 digits/characters.

ACCESS CODE; Each user can have their own personal access code to gain enter to the premises The access code can be up to 6 digits. When entered by a user it will activate the lock relay for the programmed time period. Leave blank if not required.

DTO; It is possible to allow users to dial the telephone number of the panel to activate the lock relay. To activate this feature enter '1'. To disable this feature enter '2'. When this feature is active, a user calling from either the telephone number or divert number will activate the relay for the programmed time. The call will then be dropped automatically. If this option is set to '2', the call will be dropped automatically.

TIMEBAND; A time band is used to set when a user can receive calls. For example a user may only want to receive calls during certain hours of the day. There are 10 time bands available (0-9). Time band 0 is set to all day (00:00 – 23:59) and cannot be changed where as all the other time bands can be programmed.

APARTMENT NAME; The apartment name feature is only used on the scroll style panels. On this type on panel it is possible for callers to scroll through these names on the panel. The names can be up to 16 characters long. Entering these names is similar to sending a text on a mobile phone. You use the numeric keypad as shown in the table on the previous page.

DELETE

MEMORY LOCATION; Memory locations are between 0 & 999. The memory location is simply a position in memory to store a single apartments/persons details. Enter the memory location to delete and press enter. All information in that memory location will be deleted.

ADJUSTING SYSTEM TIMES

From the main menu page, press '2' for TIMES then press either '1' for call time, '2' for divert time, '3' for relay time, '4' for aux out time or '5' to return to the main menu page.

CALL TIME; The call time can be between 1 - 255 seconds. The call time starts from when the enter button is pressed and is the time before the call automatically clears down.

DIVERT TIME; The divert time can be between 1 – 255 seconds. The divert time is the wait time for a call to be answered before it attempts to divert the call to the stored divert number (If available). If no number is stored, the call will continue with the first number until answered or the call time expires.

RELAY TIME; The relay time can be between 1 – 255 seconds.

AUX TIME; The auxiliary output (AO) time can be between 1 – 255 seconds.

ADJUSTING SYSTEM SETTINGS

From the main menu page, press '3' for SETTINGS then press either '1' to set the auxiliary mode, '2' to change the master code, '3' for audio options, '4' for timebands or '5' to return to the main menu page.

AUX MODE; The auxiliary mode controls how the AO output terminal operates. When set to '1' the output is manually triggered by the user by pressing 6 on the telephone during a call or by triggering the AI terminal (OV triggered). When set to '0' the AO terminal will trigger automatically during a call for the full duration of the call.

MC; The master code must be 4 digits but can be any 4 digit number. The factory default is 1111.

AUD; Entering this mode will take you to another menu page with the following options:-

The speech board 'SB' is the voice annunciation you here during a call. Both the volume and the setting of this can be adjusted. The MIC VOL and SPK VOL are the speech volumes during a call. Press 1 for speech board volume, 2 for speech board mode, 3 for microphone volume, 4 for speaker volume or 5 to return to the main menu.

SBVOL; The volume can be from 0 – 7. 0 = lowest, 7 = highest.

SBMODE; Press '1' to disable the voice annunciation, '2' to set the voice annunciation to speak numbers individually (i.e. 100 would be spoken as One, Zero, Zero) or '3' to set the voice annunciation to speak the numbers combined (i.e. 100 would be spoken as One Hundred).

MICVOL; The microphone volume can be between 0 – 9. 0 = lowest, 9 = highest.

SPKVOL; The speaker volume can be between 0 – 9. 0 = lowest, 9 = highest.

TIMEBAND; There are 10 time bands available (0-9). Each user can be attached to one time band. Time band '0' is the default time band and is set to all day (00:00 – 23:59) and can't be changed. On the time band page, press 1-9 and then 'enter' to edit one of the time bands. On the following page enter the ON time and the OFF time. The 24 hour clock must be used and the ON time must be lower than the OFF time. Any users attached to this time band will only be able to receive calls between this ON & OFF time. **Remember to use the 24hr clock.**

EXIT

To exit from the programming menu from the main menu press '5'. When exiting the programming the display will first show 'END' then show the signal strength received from the service provider and also the time & date sent by the service provider. The signal strength will be between 0 – 31 or 99. Ideally the signal strength should be as close to 31 as possible. The lower the number, the weaker the signal. Signal strengths lower than 10 may cause operational problems such as loss of speech quality (and possibly missing DTMF tones) and network loss. A signal strength of 99 indicates it couldn't be detected.

Exit from the programming will also happen automatically if no buttons are pressed for 30 seconds.

PROGRAMMING BY PC

USB DRIVER

IMPORTANT: Before connecting the GSM unit to the PC and before installing the GSM PC program, first install the driver for the USB adapter which can be found on the supplied CD in the following folder:-

D:\FT232Driver\CDM20814.exe

Where D is the letter of your CD drive.

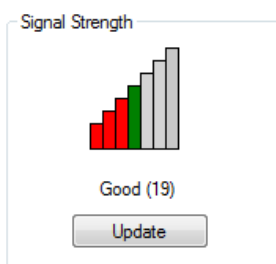
SOFTWARE SETUP

Run the setup program (setup.exe) from the CD. Follow the on screen instructions to complete the setup. Please note, the PC must be Window XP PRO or later and have the .NET 4 framework installed. (The .NET 4 framework can be found on the CD or will be downloaded from the internet during install).

After completing the setup, the program will be available from your start menu as Videx GSM. Before running the program, connect the supplied USB cable between a USB port on your PC and the GSM unit. Run the program and the following screen should appear:-



When the program loads, it checks all available ports for the GSM unit. If found, the GSM unit goes online with the PC. From the main screen it is possible to:-



Check signal strength:

Click on update to retrieve the signal strength from the unit. The signal strength will be between 1 & 31 whereby 31 is excellent and 1 is poor. A signal strength of at least 10 is required for the system to work satisfactorily.

Check balance on pay as you go SIM's:


For this to work you must first store the check string required by the service provider on the settings page. For example, the string *#1345# is used by Vodafone to retrieve your current balance. Once this has been stored and uploaded to the unit, clicking the Check Balance button will retrieve it.

Check firmware version:

Click the Check Firmware button to retrieve the firmware version of the GSM unit. This will be useful to technical support should you need to call and can also give you an indication of functions available as identified in the back of this manual.


Communication Port Setup

COM3



Communication Port Setup

COM4





Communication port setup:

Although the communication should setup automatically when the program is started it is also possible to manual setup the communication port.

To setup manually, first press the Refresh List button which will find all available communication ports, Then either select from the drop down list, the port which is connected to the GSM unit and press the Auto Detect button to check for the device or just simply click on the Auto Detect button to check all available ports. If the device is found, the status will change to online.

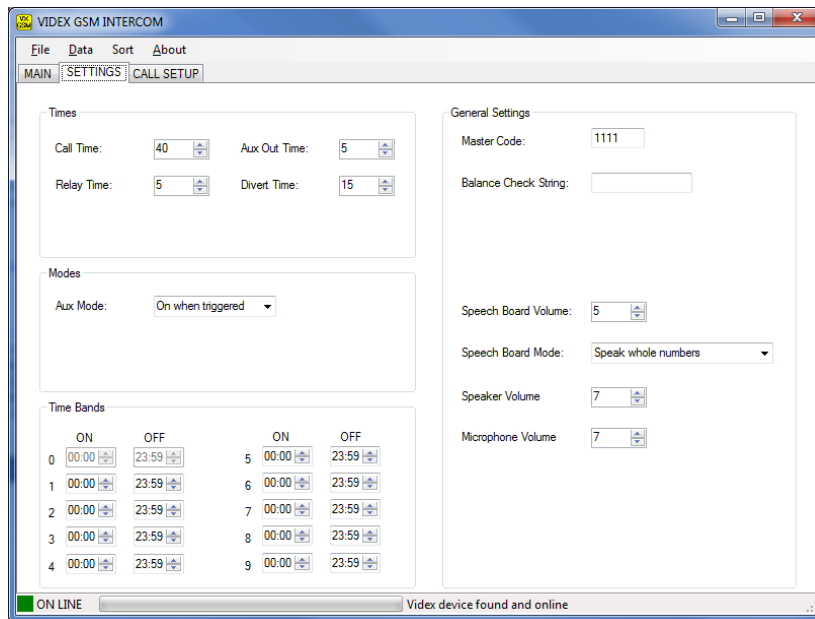


Mobile phone:

The mobile phone can be used like a normal mobile phone to make calls. This can be useful when setting up the GSM unit's SIM card with functions such as switching off voice mail and text alert or listening to the SIM cards balance through the intercom's speaker. Simply type the number to call on the keypad and click the send button . To end the call press the  button and to clear the display press the C button.

Please note: After making any changes to the settings and stored telephone numbers on the PC, they must then be uploaded to the unit before they will take effect.

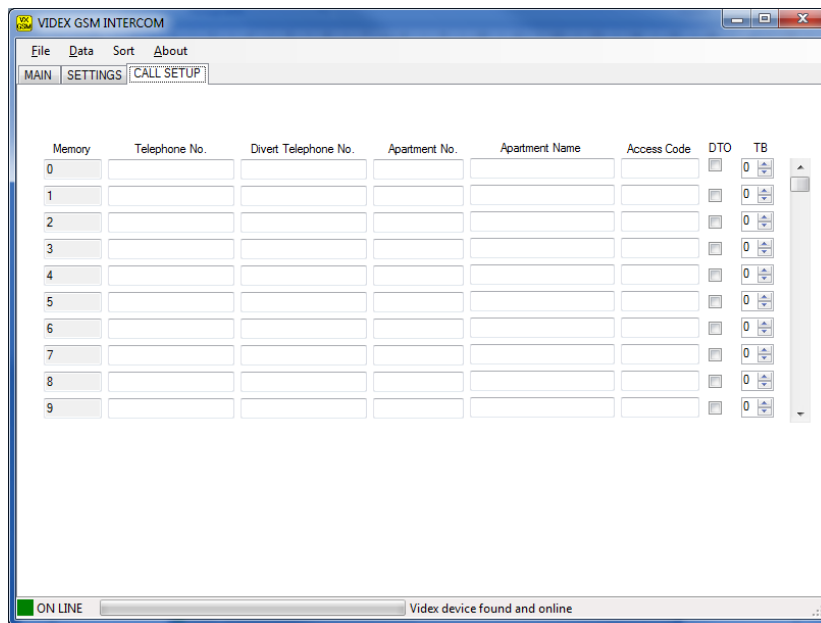
GENERAL SETTINGS:



The general settings page has the following programmable options:

- Call Time: Maximum length of a call before it automatically clear down (1-255 Seconds)
- Relay Time: Relay activation time (1 – 255 Seconds, 0 = latching)
- Aux Out Time: Auxillary output AO terminal, switched 0V time ((1 – 255 Seconds, 0 = latching)
- Divert Time: The time a phone is allowed to ring before the unit cancels the call and diverts to the second number, of programmed.(1 – 255 seconds)
- Aux Mode: The AO terminal is a switch 0V output. It can be programmed to trigger by the end user pressing 6 on their telephone during a call or can be setup to switch on when a call is made and stay on for the length of the call. The two options are available in the drop down box.
- Master Code: The master code must be 4 digits (Factory default 1111) and is required when using the SMS facilities on the GSM unit, entering the programming menu and also when dialling in to the unit from a number which is not stored.
- Balance Check String: The balance check string allows the balance on certain pay as you go SIM cards to be checked. This must be stored to allow the balance to be checked.
- Speech board Volume: The volume of the voice annunciation messages. The higher the number the higher the volume.
- Speech board Mode: The voice annunciation can be set to speak the number being called as a whole number (i.e. 100 would be spoken as 'One hundred') or can be set to speak the numbers individually (i.e. 100 would be spoken as 'One' 'Zero' 'Zero'). Alternatively the speech board can be disabled from the drop down menu.
- Speaker volume: The speaker volume can be between 0 & 9. The higher the number the higher the volume.
- Speaker volume: The microphone volume can be between 0 & 9. The higher the number the higher the volume.
- Time bands: There are 10 time bands. The first is fixed to all day and cannot be changed , the other 9 can be set to any times (Ensure the ON time is lower than the OFF time).

CALL SETUP:



Memory	Telephone No.	Divert Telephone No.	Apartment No.	Apartment Name	Access Code	DTO	TB
0						<input type="checkbox"/>	0
1						<input type="checkbox"/>	0
2						<input type="checkbox"/>	0
3						<input type="checkbox"/>	0
4						<input type="checkbox"/>	0
5						<input type="checkbox"/>	0
6						<input type="checkbox"/>	0
7						<input type="checkbox"/>	0
8						<input type="checkbox"/>	0
9						<input type="checkbox"/>	0

From the call setup page it is possible to assign up to 2 telephone numbers to each of the 1000 available locations. The divert telephone number will be used if the call is busy or not answered and will divert to this number after the divert time has elapsed. If no divert number is stored, the first number will continue to ring until the call times out.

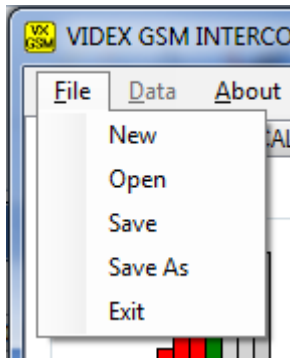
Apartment No. can be up to 6 digits and is the number entered by a caller to initiate a call.

Apartment Name is only used on panels with the scroll facility. It is used to store names which can be scrolled through on the panel. The names can be up to 16 characters long.

Access Code is a unique to each user code that can be used to release the door/gate via the door panel keypad. The code can be up to 6 digits.

DTO when set means that the telephone number and the divert number for that user can dial into the panel and release the door/gate.

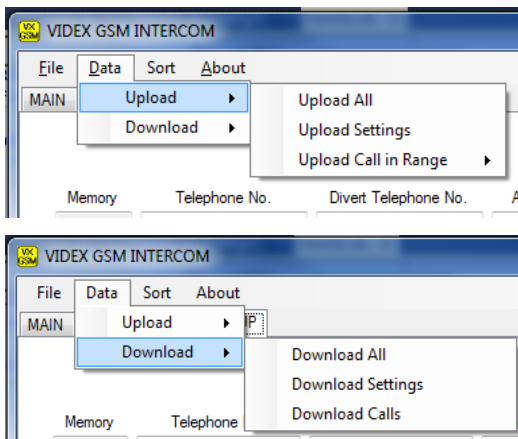
TB Select a time band for the user. This user will only be able to receive calls within this timeband.



FILE MENU:

From the file menu it is possible to create a new data file, open an existing data file and save the current data file. These options are available online or offline allowing the data file to be created on or off site for convenience.

The exit option will close the program.



DATA MENU:

The data menu is only available when online. From here it is possible to upload the information from the PC to the GSM unit and download information from the GSM unit to the PC. Both upload and download have several options which include the facility to upload/download all data or upload/download only a section of data which is required and has been changed. When uploading it is recommended to only upload the range of locations in use as the upload for the complete memory will take a long time.

SORT MENU:

From the sort menu it is possible to put all the users data in order of apartment name or apartment number. On panels using the scroll facility we would recommend sorting into apartment name order.

PC Requirements:-

Windows XP Service Pack 3 or Later
 .Net framework 4 or later
 CD Drive
 USB port

SYSTEM OPERATION

TO MAKE A CALL FROM THE INTERCOM PANEL

Enter the required apartment number and press 'Enter' or scroll to the required name and press 'Call' (Scroll panels only). If the apartment exists the panel will announce and display the calling progress. If the apartment does not exist, the display will show error and the panel will announce that an incorrect number has been entered. When the call is answered the display will show 'speak' and a conversation can take place. If the call is not answered and a divert number for that apartment is available, the call will be diverted to that number. If no divert number is available or the diverted number is not answered the calling will continue until the call time expires at which point the panel will show 'End' and revert to the standby state. If the panel shows 'Phone Off' and announces that the phone is off please try later, then this means that user does not want to receive calls at this time (This option is set through the time bands options). To end a call at any time press 'Clear'. During a call, press '3' to release the door/gate, press '6' to activate the AO or press '8' or hang up to end the call.

RELEASING THE GATE/DOOR BY DIALLING THE INTERCOM PANEL NUMBER

This feature only works if that users DTO setting is set to 1 (Ticked on the PC software). Simply dial the number of the intercom panel. The intercom panel will drop the call and then open the gate/door for the programmed time. If someone calls the panel from a number without this setting then the call will simply be dropped.

RELEASING THE GATE/DOOR USING THE CODED ACCESS FACILITY

Press '0' or 'Code' followed by the code and then press 'Enter'. If the code is correct then the display will show open and the relay will energise for the programmed time. If the code is incorrect then the display will show 'Error'.

USER COMMANDS

The following commands can be carried out during a call: (Note: Successful commands are signalled by two beeps from the telephone, errors are signalled by four beeps).

FUNCTION	1 st KEY TO PRESS	2 nd KEY TO PRESS
RELEASE THE DOOR OR GATE	3	N/A
ACTIVATE THE AUXILIARY OUTPUT	6	N/A
END A CALL	8	N/A

The following text messages can be sent while in standby (Examples show code as 1111):

FUNCTION	MESSAGE TO SEND
CHECK THE SIGNAL STRENGTH	1111SIG?
CHECK THE AVAILABLE BALANCE*	1111BAL?
CHECK THE SOFTWARE VERSION	1111VER?
RELEASE THE DOOR/GATE	1111RLY? (? Optional, send if a confirmation is required)
ACTIVATE THE AUXILIARY OUTPUT	1111AUX? (? Optional, send if a confirmation is required)
LATCH THE RELAY	1111RLA? (? Optional, send if a confirmation is required)
UNLATCH THE RELAY	1111RUL? (? Optional, send if a confirmation is required)
LATCH THE AUXILIARY OUTPUT	1111ALA? (? Optional, send if a confirmation is required)
UNLATCH THE AUXILIARY OUTPUT	1111AUL? (? Optional, send if a confirmation is required)

CHECKING THE BALANCE (BAL)

*Note: The balance can only be checked if the correct balance check string has previously been stored using the SDL code explained earlier in the manual.

The intercom also has the facility to monitor the available credit and then text you to inform you when it has fell below £5.00, €5.00 or \$5.00. It will then remind you with another text after every 20 calls until the credit is either increased or it runs out. To use this feature, the following settings must first be made:-

- o You must be using a Pay AS You GO SIM card from a provider that offers this service (Vodafone, O²)
- o The correct balance check string must be stored using the SDL code.
- o A mobile phone number in which to receive the balance low text must be stored in the telephone number field of memory location 999.

UNDERSTANDING THE SIGNAL STRENGTH (SIG)

When a request for signal strength message is sent to the intercom panel it will reply with a two digit signal strength code. The code will be between 0 – 31 or 99. Ideally the signal strength should be as close to 31 as possible. The lower the number, the weaker the signal. Signal strengths lower than 10 may cause operational problems such as loss of speech quality (and possibly missing DTMF tones) and network loss. A signal strength of 99 indicates it could not be detected.

DIALLING INTO THE INTERCOM FROM ANOTHER TELEPHONE

There are three possible outcomes to dialling into the GSM intercom depending on the telephone number you are dialling in from and the features setup during programming. The three possible outcomes are shown in the table below and are shown in order of priority (For example, if the number is programmed to automatically activate the relay, this will take priority over the following two options and if the telephone number is stored as a telephone number called from one of the push buttons, this will take priority over the last option.

FUNCTION	REQUIREMENT	PRIORITY
Dial in to open the door. After dialling the number, the relay will activate and the call will be dropped.	The telephone number of the telephone dialling in must be stored in memory and the DTO flag set to 1.	1st
Dial in to activate a call (Live speech, activate relay/AUXO) After dialling the number, the call will be answered and two beeps will be heard. The speech will then be live.	The telephone number of the telephone dialling in must be stored in memory.	2nd
Dial in from a number not stored in the panel. The call will be dropped.	If neither of the two requirements above are met.	3rd

RECORD SHEET

INTERCOM PANEL TELEPHONE No.	
IMEI NUMBER	
MASTER CODE	

TROUBLE SHOOTING

SYMPTOM	TEST
Interference on the speech	Check the signal strength '1111SIG?'. If the signal strength is to low the GSM module which increase it's power to compensate causing interference with the speech circuits. Try relocating the antenna or using a more powerful or directional antenna.
	Ensure the antenna cables are not running close to the power supply cables or the microphone wires inside the intercom panel
	Try a different SIM card from a different service provider as they may have better coverage in that area.
The intercom panel shows SIGNAL ERROR'	Check the power supply is of adequate voltage. 13.8Vdc
	Try a full reset as shown earlier in the manual (Powering up with C2 & PTE shorted).
	Try a different SIM card and or antenna
	Check the antenna is tight and in a good location.
Error is displayed when I try to call an apartment	No telephone number setup for that button. Check the programming.
	Check the SIM card is fitted correctly.
The intercom panel does not respond to SMS messages	Check the SIM card has a SMS service centre number stored. This will require putting the SIM card into a mobile phone to check. Contact the SIM card provider if you are not sure.
	Check the number you are sending the message to is correct (The number of the SIM card in the intercom panel)
	After sending a SM to the intercom panel. Listen for a single short beep from the Intercom panel. This will indicate that the message was received and understood. If a long beep is heard it indicates the message was either not understood or the 4 digit code was incorrect.
	Try resetting the 4 digit code to 1111 as shown earlier in this manual (Powering up with C1 & PTE shorted).
The call keeps dropping out	Increase the call time in programming.
	Check the signal strength and if necessary, move or change the antenna or try a different SIM card provider.
Speech echoes and feeds back	Try lowering the speaker volume using the dip-switches
	Try adjusting the volume using the programmable settings
	Check the microphone is fitted correctly in the intercom panel and that the mic hole is not blocked in any way.
ERROR message returned in SMS when programming or no SMS returned at all even though a ? was included at the end of the message sent.	Check over the message sent again and compare it with the examples in the manual. Common errors include:-
	<ol style="list-style-type: none"> Using two apostrophe marks side by side instead of “. Note that these look the same in the message. An easy way to see if this is the problem is to move the cursor along in the message and if the cursor can get between the two “ then it is not the connect character used. Lower case letters instead of upper case. For example using stn when STN should be used.

Enfora certifies that the Enfora Enabler IIG TM MHz GSM Radio Module (FCC ID: MIVMLG0208) complies with the RF hazard requirements applicable to broadband PCS equipment operating under the authority of 47 CFR Part 22 or Part 24, Subpart E of the FCC Rules and Regulations.

This certificate is contingent upon installation, operation and use of the Enabler IIG module and its host product in accordance with all instructions provided to both EOM and end user. When installed and operated in a manner consistent with the instructions provided, the Enfora Enabler IIG module meets maximum permissible exposure (MPE) limits for general population/uncontrolled exposure as defined in section 1.1310 of the FCC Rules and Regulations.

WARNING

To comply with FCC RF exposure requirements, a separation distance of 20cm (7.87”) or more must be maintained between the antenna of this product and all persons

Separate FCC approval for this product is not required as it will be classed as a fixed installation.

THIS PRODUCT IS NOT DESIGNED TO BE USED AS AN EMERGENCY CALL POINT



The product is CE marked demonstrating its conformity and is for distribution within all member states of the EU with no restrictions. This product follows the provisions of the European Directives 89/336/EEC & 92/31/EEC (EMC), 73/23/EEC (LVD) and 93/68/EEC (CE marking).

Date	Software Version	Revision
06/05/2011	GSM1.0.2	Launch of 4802



Northern Office

Videx Security Ltd
Unit 4-7 Chillingham Ind. Est.
Newcastle Upon Tyne
NE6 2XX
TEL 0870 300 1240
FAX 0191 224 5678

Southern Office

1 Osprey
Trinity Park
Trinity Way
London
E4 8TD
FAX 0208 523 5825

TECHNICAL SUPPORT

tech@videx-security.com
TEL 0191 224 3174
FAX 0191 224 4938
<http://www.videx-security.com>