



SED-SECURE INSTALL & PROGRAM GUIDE

V011 – OCT 2024

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Warranty & Liability

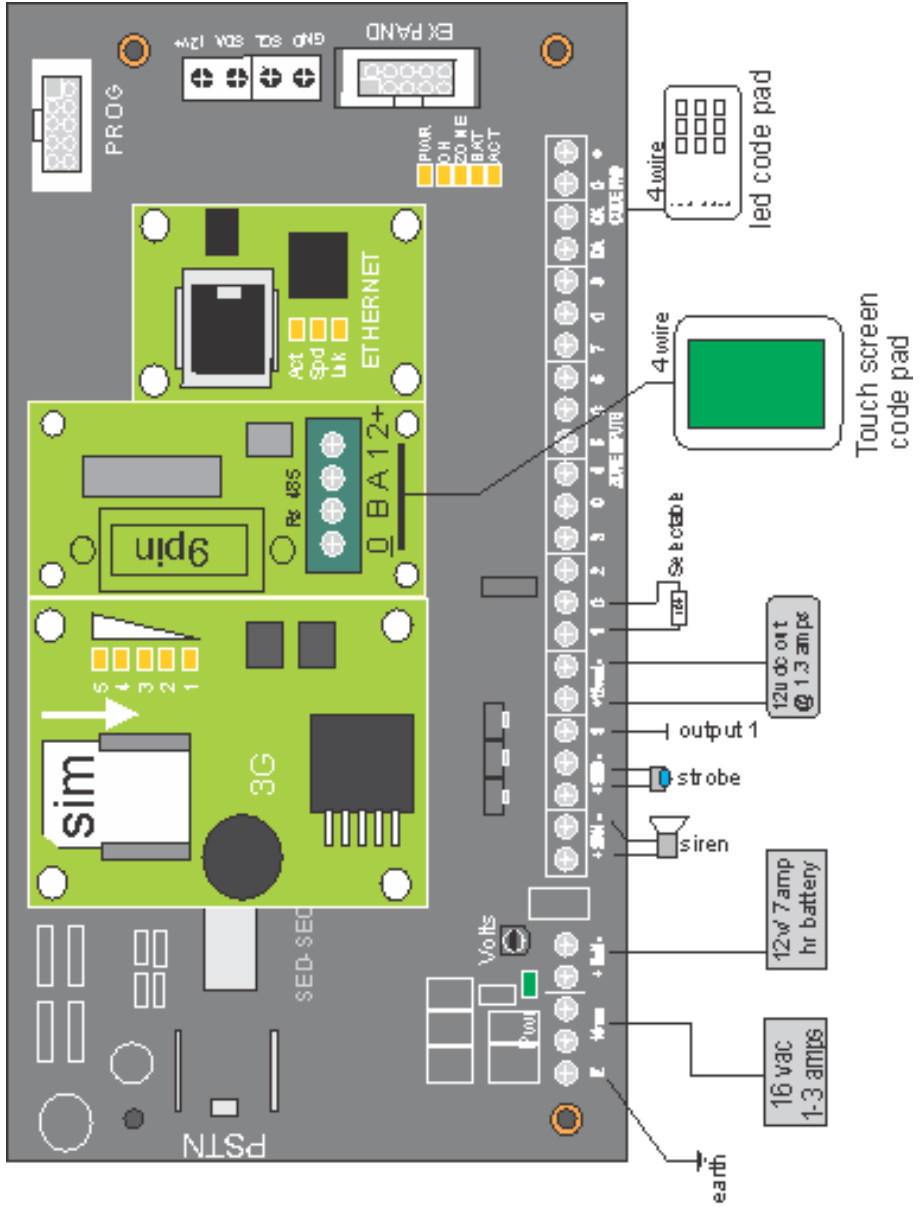
PRODUCT WARRANTY

This product is covered by a 12 month, **Back-to-Base Warranty**, from the date of purchase, and proof of purchase must be supplied. The warranty does not cover damage that has resulted in the incorrect installation or use of the product. The warranty does not cover damage by lightning, product misuse, electrical surges or natural disasters.

LIMITATION OF LIABILITY

Sec Eng Systems products are intended to reduce the risk of loss and damage to property in which the goods are installed to the extent which is practical. Sec Eng Systems does not accept any liability for the loss or damage to property or persons in relation to goods supplied. This disclaimer is only limited to the warranty of the goods supplied and the intended use of the goods.

A. System Hardware 4G / Ethernet / Serial / 485



C. Installation & Set up of 4G and IP Hardware

To install a 4G module, fit as shown into the GSM area

- 1/ Power down SED-SECURE
- 2/ Fit 4G module into the SED-SECURE as shown page 4
- 3/ Fit SIM Card as shown

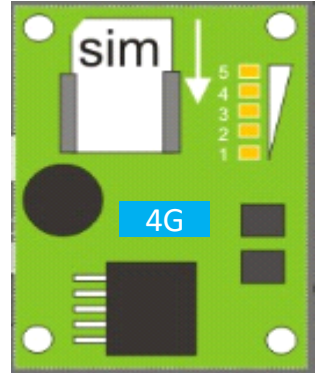
Note: The SIM Card must be **activated and no PIN request**

- 4/ Power unit up and the 4G module should register on the network within 10-20 seconds,
Signal strength is represented by LEDs 1-5

To enable the 4G module -

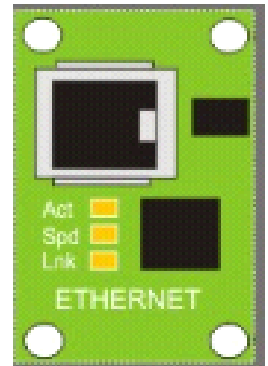
Ensure you have programmed the pathing (field 51)
You can select the paths individually, or by hierarchy.

Example: If you program pathing command 51=12 this means it will be PSTN as primary and GSM as a secondary path.



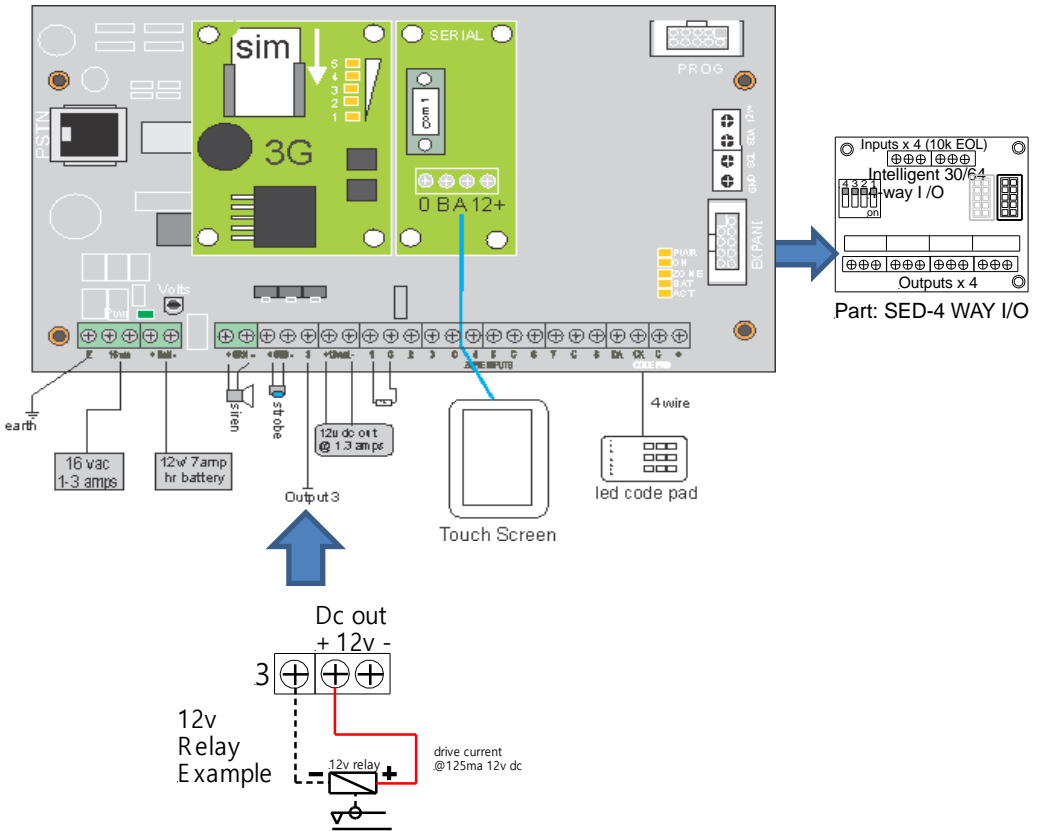
To install IP module - fit as shown in to the IP area

- 1/ Power down SED-SECURE module
- 2/ Fit IP module into area
- 3/ Once connected, power up and plug into Network.
- 4/ See IP Guide **Not in this manual**

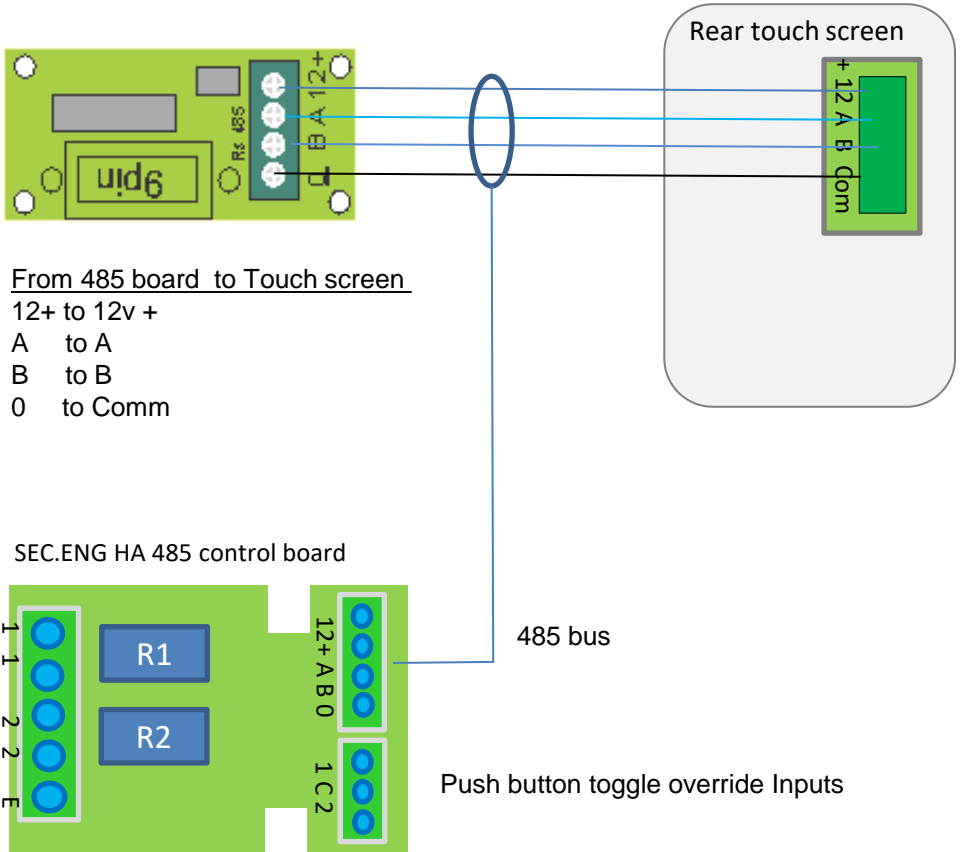


D. Installation & Output control systems

The SED-SECURE supports remote output controls via one onboard logic output and 4-way expansion I/O relay cards



E: Touch Screen Overview



F: Code Pad Overview









or



Code Pad LEDs & Operation

In normal operation, the code pad LEDs will indicate the following:

-  **LEDS** 1-8 = Zones 1 to 8 Indication
ON = Unsealed
OFF = Sealed
Flashing at a standard rate = previous Alarm on this zone
-  **BYPASS** ON = indication of isolated zones
OFF = no isolated zones
-  **SERVICE** Flashing = in program mode
-  **POWER** ON = power OK
OFF = No AC
Flashing indicates power issue (Check AC and Battery)
-  **ARM** OFF = System Disarmed
ON = System Armed
-  **Keys** 1-0 standard key operation for code entry
Star = OFF or Disarm
Hash = ON or Arm

Section 1 - Installer Programming & Defaulting By Touch screen

Entering Program Mode – Touch screen

Note: To enter program mode, the system must be **disarmed**

Pressing **Menu** icon

Enter the installer code **654321**

Press the **Program** icon

Viewing and changing a field once in Program Mode

Enter the field number and content of the field will be displayed

Example: To Read field 01 type 01

To change the content, hit the **Change** icon and enter the

required data then press **Change** icon again

Hit **Clear** to clear the display for a new entry

To factory default - if required

Enter installer code 654321

Enter the default code 99147369

Wait 10 seconds then Exit

Section 2 - Installer Programming & Defaulting By Code Pad

- **The LED Code Pad** allows programming and read back via its LED in decimal format
 - LEDs 1-8 Decimal numbers 1 - 8
 - LEDs Bypass =9
 - LEDs Power = 0
 - Service = Field view

- **Entering Program Mode -**
To enter program mode, the system must be **Disarmed**
This is done thru the Code Pad
Factory default code **654321#**

- **How to read and program fields -**
To enter program mode, **key in 654321#** and the Code Pad service LED will now light up - you are now in program mode
Note: Some Program fields are 2 digit or 4 digit + the data follow the function number for indication

- **Viewing a field once in Program Mode -**
Type **01#** to display the contents of field 01 (**service light flashing**)
i.e.: LEDs 654321 will be displayed in sequence
Note: Some fields require 4 digits to program & display

- **Programming data in -**
Once you view a field, you can change the data
Example: to program a field once you have displayed the field

You may now program in, while the **service light** is flashing, select*
followed by data you wish to enter followed by #.

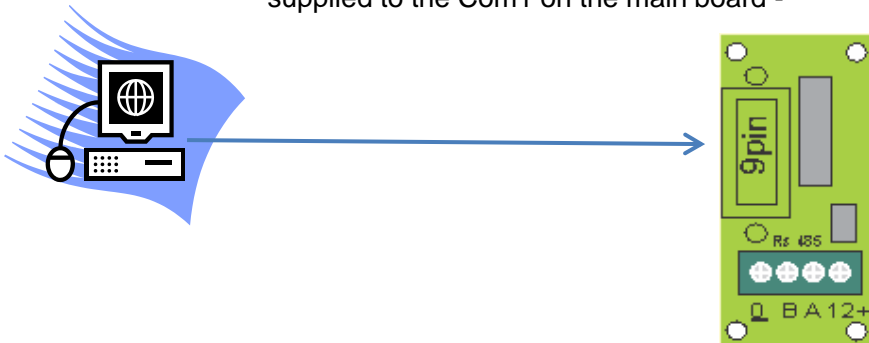
- **Exit program mode - 00# (hash)**

- **To factory default-**
Enter code via installer code (654321#) then Enter 99147369# wait 10 seconds then 00# to Exit

F: Section 3 - Programming via PC

•The SED-SECURE can be programmed via PC, using Windows HyperTerminal.

To do this, connect a PC with a Std 9 Pin D Cable supplied to the Com1 on the main board -



Once connected, using Windows HyperTerminal or an alternative program, ProComm or Ucomm

- 1/ Ensure the SED-SECURE is not armed, if so, disarm the system
- 2/ The PC port settings should be 8-N-1 115k

When connected, select Enter, and you will now be asked for a Password - type in your installer code (654321)

The screen should state Level 2, (you are now connected and can program the entire SED-SECURE from a HyperTerminal screen)

If you type **?P** you can now display the entire program settings.

To change any setting, select **ESC** at any stage, and then just type in your Program field followed by the data.

Example To change Master Code, which is field 01 type 01333333 then enter (333333 being the new master code)
To read back, type 01 then Enter, and it will now display the contents of field 01=333333
To exit at any stage, select ESC and type **PWD**

Section 4 - Quick Program Set up Guide

Quick set up guide (for contact id via PSTN with 4G back up)

1. Program user codes 1-16 = fields 0401 to 0416
2. Set up your entry / exit times = fields 15 & 16
3. Check your zone types 1-8 3001 to 3008 and change if required
4. Enter a client code - function 44
5. Set your receiver number - function 4801, 4802 & 4803
6. Set your communication path function 51=.1,2
i.e. PSTN, GSM or other
1. Set your daily test times if required - function 40 & 41
2. Ensure you change the Installer Code and Master Code

Quick set up guide (for SMS reporting)

1. Program user codes 1-16 = fields 0401 to 0416
2. Set up your entry/exit times = fields 15 & 16
3. Check your zone types 1-8 3001 to 3008 and change if required
4. Enable SMS function 54=1 & 55=1
5. Program SMS phone number 4901=PH 1
6. Set your communication path function 51=.8 SMS
7. Set your daily test times if required - function 40 & 41
8. Ensure you change the Installer Code and Master Code

Section 5 - Master / Installer Codes 1 - 3

Note: You must be in Program Mode to change fields

Function	Purpose
01	Master code 6 digits (Default 123456) Used to program user codes only
02	Install code 6 digits (Default 654321) Used to program system
03	Reserved for entry of factory code via SMS

To factory default

Enter code via installer code (654321)

Enter 99147369 ok

Section 6 - User Codes 1 - 16

Note: User codes are a 4 function field by 4 digit field

Example - to program user 1 in program mode would be **04011234**

Function	Purpose + Default
0401	User 1=1234
0402	User 2
0403	User 3
0404	User 4
0405	User 5
0406	User 6
0407	User 7
0408	User 8
0409	User 9
0410	User 10
0411	User 11
0412	User 12
0413	User 13
0414	User 14
0415	User 15
0416	User 16

Section 7 - System Features 10 - 20

Function	Purpose	Range Default
10	Firmware Version (read only)	Read only
11	Chime Mode Default=0 Allows entry / exit zones to beep when broken	1 = on 0 = off
12	Code Pad Duress Default=0 This will cause a silent duress to default = 0 be sent when any user code 's last digit is incremented by 1	1 = on 0 = off
13	Single Key Arm (0# to arm) Default=1 By selecting Zero and hash on the Code Pad this will arm the system with user xyz	1 = on 0 = off
14	Siren Pause on 1st key Default=1 Upon the siren sounding, press any key and it will suppress the sirens for 5 seconds	1 = on 0 = off
15	Exit Time (seconds) Default=10 This sets the Exit time for entry / exit zones in seconds	0 - 180
16	Entry Time (seconds) Default=10 This sets the entry time for entry exit zone in seconds	0 - 180
17	Siren Run Time (minutes) Default=5 This determines the siren run time in minutes	1 - 5
18	Code Pad Panic Siren enable Default=1 If Star, then Hash are pressed one after the other, this will cause a Code Pad panic to be sounded	1 = on 0 = off
19	Enable Siren Lock out Default=1 This will lock out zone once enabled	1 = on 0 = off
20	Site ID Number 1-10 (Char)	00000000

Section 8 - System Features 21 - 29

Function	Purpose	Range Default
21	Chubb medical (not used) Requires special version of code	0
2211 2212 2213	485 control module relay 1 via serial type or code pad, this will display a number of settings To set off time for relay 1 example type 2211hhmm i.e. 22111400 Turns off at 2pm To set on time for relay 2 example 2212hhmm ie 2212130 Turns On at 2pm To set name type 2213name ie 2213lights front	
2221 2222 2223	485 control module relay 1 via serial type or code pad this will display a number of settings To set off time for relay 1 example type 2221hhmm i.e. 22111400 Turns off at 2pm To set on time for relay 2 example 2222hhmm ie2212130 Turns On at 2pm To set name type 2213name ie2223lights front	
24-23	Reserved	
29	Zone names , must be done via Serial Terminal or via SMS Example 2901Name for zone 1 2902Name for zone 2 A total of 16 zone names can be set	

Section 9 - Zone Types 30 - 33

This section will deal with how zones are set up and will behave.

The first section will be zone types. All zone fields require a 2 digit sub-field.

Example: 30011 would be the programming of zone 1 now =type 1

30zz Zones 1-8	Zone Types 0 =disabled 1 = entry exit (std entry/exit timer) 2 = handover (must trigger entry/exit first to delay) 3 = standard secure (alarms when armed - sets off siren) 4 = silent (alarms when armed - no siren) 5 = 24 hr audible (triggers siren off 24 hrs zone) 6 = 24 hr silent (dialer only on 24 hrs zone) 7 = key switch (arms system via zone pulse) 8 = make input dialer (make zone a dialer input no visual on KP) 9 = key switch (arms system via zone violation - maintained)	Default Zones 1 = 1 2 = 3 3 = 3 4 = 3 5 = 3 6 = 3 7 = 3 8 = 3
31zz Zones 1-8	Enable multi-break Default =0 This enables or disables the zones from retriggering	1 = on 0 = off
32zz Zone 1-8	Input type Default =3 0 =analogue 1 = non terminated normally closed 2 = non terminated normally open 3 = Terminated EDOL	0 - 3
33zz	Reserved	

Section 10 - Zone Setting & Behavior 36 - 39

This section will deal with how zones are set up and will behave.
The below settings are global and effect all zones .

Function	Purpose	Range +Default
36	Input contact denounce time (20ms steps, default 5=100ms)	25
37	Termination resistor value, for inputs 1-8 input 0=1k0 1=1k2 2=1k5 3=1k8 4=2k2 5=2k7 6=3k3 7=3k9 8=4k7 9=5k6 10=6k6 11=8k2 12=10k 13=12k 14=15k 15=18k 16=22k	Default =12
38	Termination Resistor value, doubled input, low value 0-16 (default=12=10k) primary input	12
39	Termination Resistor value, doubled input, high value 0-16 (default=15=18k) doubled input	15

Section 11 - Test Reports 40 - 43

Function	Purpose	Range + Default
40	Test report time (hours) Default=24h Used for on board dialler test	1 - 168
41	Time to first report (hours) Default =25 Used for daily test call determine call before first test	1 - 168
42	Report isolate zones Default =1 This function determines that when a zone is Isolated it shall be reported	1=ON 0=OFF
43	Auto isolate modes Default =2 This function determines by mode if a user attempts to arm the system , by any arming method the follow shall applies Mode 0 = No auto isolate Mode 1 = auto isolate at end of exit time Mode 2 = no auto isolate but will not allow system to arm , while any zone is unsealed	Modes 0 1 2

Section 12 - Communications 44 - 50

Function	Purpose	Range +Default
44	Account code 4 digit (0000 = disable) 4 digit account code used by most contact ID receivers	0001-9999
45	Reserved	
46	Report restores Default=1	1=ON 0=OFF
47	Enable Open / Close reports Default=1	1=ON 0=OFF
4801 ph 4802 ph 4803 ph	Receiver phone numbers pp= 01-03 This is for dtmf for contact ID max 16 digits per number for a pause use XYZ Example 480113456789	16 digits
4901 ph to 4908 ph	SMS - set up for SMS reporting Default=0 Numbers pp= 01-08 Example 49010412123456 Note: You also need to set 54 and 55	10 digits
50	SMS Security Access Default=0 This, when set, only allows numbers that have been programmed into fields 49 to remote access the system	1=ON 0=OFF

Section 13 - Test Report Timing 51 - 65

Function	Purpose	Default
51	Report path (up to 8 paths, see below) 1 = PSTN (DTMF Contact-ID) 2 = 4G voice (DTMF Contact-ID) 3 = Sec Eng GPRS 4 = Sec Eng Ethernet 5 = Horizon GPRS 6 = Horizon Ethernet 7 = Serial Sec Eng 8 = SMS enable 9= Email enable <i>To set the order in which you would like to work</i> EXAMPLE:12=PSTN primary and GSM secondary	1,2
52	SEC ENG High Security IP/GPRS encryption engine	1=ON 0=OFF Default=0
53	GSM / 4G fail time 0-60mins	Default=8 0-60mins
54	SMS System alarm 0=none 1=all 2=all except test	Default=0 0,1,2
55	SMS send zone alarms via SMS 1=Enable 0=Disable	Default=0 1=ON 0=OFF
56	GSM receive audio level Used to adjust audio level of GSM	Default=0 1 – 9
57	GSM transmit audio level Used to adjust audio level of GSM	Default=0 1 – 9
58	GSM/4G modem bands selection 581= force GSM band 582= force to 4G 583= auto select 584= auto but pref GSM 585= auto but pref 4G	Default=3 3
59	Network technology (read only)	1=GSM 2=4G
60	Power-on restore Unit shall power up in the state it was depowered in	Default=1 1=ON 0=OFF
61	Siren output enable	Default=0 1=ON 0=OFF

Section 14 - System Settings 65 - 100

Function	Purpose	Range + Default
62	Siren sounder type Default = 0 0= hew haw (horn 8 ohm speaker) 1= woop woop (horn 8 ohm speaker) 2= woop woop (horn 8 ohm speaker) 3=12v DC output	0-3
63	Siren burst on Arm Default = 0 This enables the siren to burst for ½ a second upon exit time of the system	1=ON 0=OFF
64	Strobe test on Arm Default = 0 When armed and after exit time trigger for 1 second	1=ON 0=OFF
65	Output 3 function Default = 0 (this output sinks to ground 250ma) 0= off for sms control 1= follow siren 2= follow strobe 3= follow armed stated	0-3
67	Web server enable Default = 7 For use with the IP Interface 7=enable 0=disable	7
68	Enable NEXIS Platform Default = 0	1=ON 0=OFF
69	Dial Tone Detection Default = 1 0 = Disable 1 = Enable	1=ON 0=OFF
70	Disable battery test & AC power fail 0 = Disable 1 = Enable	1=ON 0=OFF
71	4 State monitoring Default = 0	1=ON 0=OFF
72	Disable self test restore Default = 1 0 = Disable 1 = Enable	1=ON 0=OFF
73	GSM / 4G modem Enable Disable Default = 1	1=ON 0=OFF

Section 14 - System Settings 65 - 100

Function	Purpose	Range + Default
74	This can set the on board clock Example to set date <code>yyyymmdd</code> type <code>740120100101</code> Example to set time <code>hhmmss</code> type <code>130000</code> Example region <code>1</code>	01= time 02 =date 03 –region

Contact ID event codes - SED-SECURE

Type	CID Code	User / Point
Alarms 1- 8	140	Zone number 1- 8
Panic	120	Std
Duress	121	By user number
AC Fail	301	Std
Low battery	302	Std
System Reset	305	Std
Battery Missing	311	Std
Comms faults GSM/4G	350	1=Sim 2,3=Signal/Modem
Comms faults general	354	1=PSTN 2=GSM
Daily Test	602	Std
User Open / Close	401	User 1-16
Quick Arm	401	User 31
Bypass	570	Zone Number 1- 8

Section 16 - Report Codes - Contact ID NEXIS

Contact ID event codes - NEXIS via SECURE

Type	CID Code
Zone 49 = Gas internal alarm	140
Zone 50 = Gas external alarm	140
Zone 51 = Efield Skimming alarm	140
Zone 52 = Drill Mat alarm	140
Zone 53 = Gas fault internal	140
Zone 54 = Gas fault external	140
Zone 55 = Efield fault	140
Zone 56 = Efield door inhibit alarm	140
Zone 57 = Shadow Shield fault	140
Zone 58 = NEXIS power fault	140
Zone 59 = Program tamper	140
Zone 60 = Spare	140
Zone 61 = Comms fail NEXIS	140

Section 17 - SMS Control Features Arm / Disarm

If required, you can set up and control the SED-SECURE from a mobile phone. **?S** will provide you status.

(This will sms basic status information direct to mobile phone)

Programming of the SED-SECURE via SMS to program any fields via SMS, type the field into a message ie. to reprogram function.

(**Note:** Use a **space** between arm and user code)

TO DISARM via SMS (disarm user code) Disarm 1234

TO ARM via SMS (arm user code) Arm 1234

Section 18 - SMS - Reporting via SMS

To set the **SED-SECURE** up so you can report alarms via SMS, you will need to program the following:

1/ Functions 4901 (mobile numbers) up to 8 mobiles

2/ Functions 54 = 2 and 55 =1

Section 19 - SMS System Messages

You can SMS the SED-SECURE for Control Indications and System Settings

?s = system status

Note past this you need to send it a

?gsm= GSM and 4G status

?P, followed by function number ie ?P10 this will now display programming from function 10 onward

?h will display basic history of last 5 events

?hc will display history of last 5 events

?hc10 will display history of last 10 events

Section 20 - SMS Panel Programming

Panel Programming via SMS

NOTE: The system must be disarmed, and you must have sent the unit an SMS first 02 installer code, you will get a response - please read below:

TO PROGRAM any field via SMS, you must send the SED-SECURE an SMS first to gain entry to program, ie.

01 MASTER code for user codes only **Default (01123456)**

02 INSTALLER code for major changes **Default (02654321)**

Example: SMS 02654321

If you gain access, you will receive a response of (installer access for 10mins)

Example: If you are changing user codes only, you would SMS first **01master code first (01123456)** You will then receive the following response - (installer access for 10mins)

For major program changes via SMS, you need to go into installer mode 02 INSTALLER code for major changes (02654321)

You can only change 1 item at a time,

Example: once access has been gained, if you wish to view field - zone 1

You would SMS 3001 you will get a response, 1 indicating it has been set to 1, which would = Entry / Exit

Example: To change the field, you would SMS the following:

(change zone 1 to hand over type 2)

SMS the following, 30012 this will change zone 1 to Type 2

Section 21 - System Testing

With the SED-SECURE programmed and set up, you can now perform basic testing -

Basic Alarm Testing

- 1/ Arm system and trip alarms
- 2/ Disarm system and trip alarms

If your Pathing is set (see function 51), you will need to test this. Please see below:-

Testing PSTN

- 1/ Arm system (wait for exit time to expire)
- 2/ Trip zone 1 – 8
(does OH light come on hard and do sirens go Off?)
- 3/ Disarm system

Testing 4G

Disconnect the PSTN line

- 1/ Arm system
- 2/ Trip zones 1-8
(The OH light should now flash to indicate dialing, via 4G)

Path Testing

- 1/ Disconnect PSTN and send alarms through. The unit should attempt to dial out on PSTN but revert to GSM after it has detected PSTN has failed
The SED-SECURE will send a 354 to the control room upon PSTN fail
- 2/ Reconnect PSTN

Section 22 - Client Guide - How to Arm, Disarm & Isolate

Arm

Arm (4 digit user & #) buttons

To Arm your system

1/ Ensure all your zones are sealed 1-8

2/ Enter your 4 digit user code followed by the **Arm** button

Once done, the Arm light will come on followed by the exit beeper

Quick Arm

Quick Arm (0 & Arm) buttons

To quick Arm your system

1/ Ensure all your zones are sealed 1-8

2/ Pressing **0** and **Arm** button will quick arm

Once done, the Arm light will come on followed by the exit beeper

Disarm

Disarming (4 digit user & Disarm button)

To Disarm, enter your 4 digit user code followed by the **Disarm** button

Isolate

Isolate Zones

To isolate a hit **Menu** button

Enter a 4 digit user code and select isolate

enter the zones you wish to isolate followed by the

Change key

Note: Zones will only remain isolated during the Arm process. Once Disarmed, they will deisolate.

Section 21 – Output control

The SED-Secure allows you to control the on board output 3 via SMS
Or

if you have a 4 way I/O output board it uses outputs 5,6,7,8

How to sms and control these outputs

Example for Output 3

Via **SMS** Type the following

Out3on to turn On

Out3off to turn Off

Out3on5 (Turns output 3 on for 5 seconds)

Out3on5m (Turns output 3 on for 5 minuets)

Example for I/O board

If you have an I/O expander plugged in, The output control starts at
Output 5 on-ward

And the following example shall apply

Via **SMS** Type the following

Out5on to Turns On

Out5off to Turns Off

Out5on5 (Turns output 3 on for 5 seconds)

You can always check the status of the Output command by **sms** the
unit

?Out