

**SED
SECURE
INSTALL
&
PROGRAM
GUIDE**

2018

SEC-ENG
S Y S T E M S

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Warranty & Liability

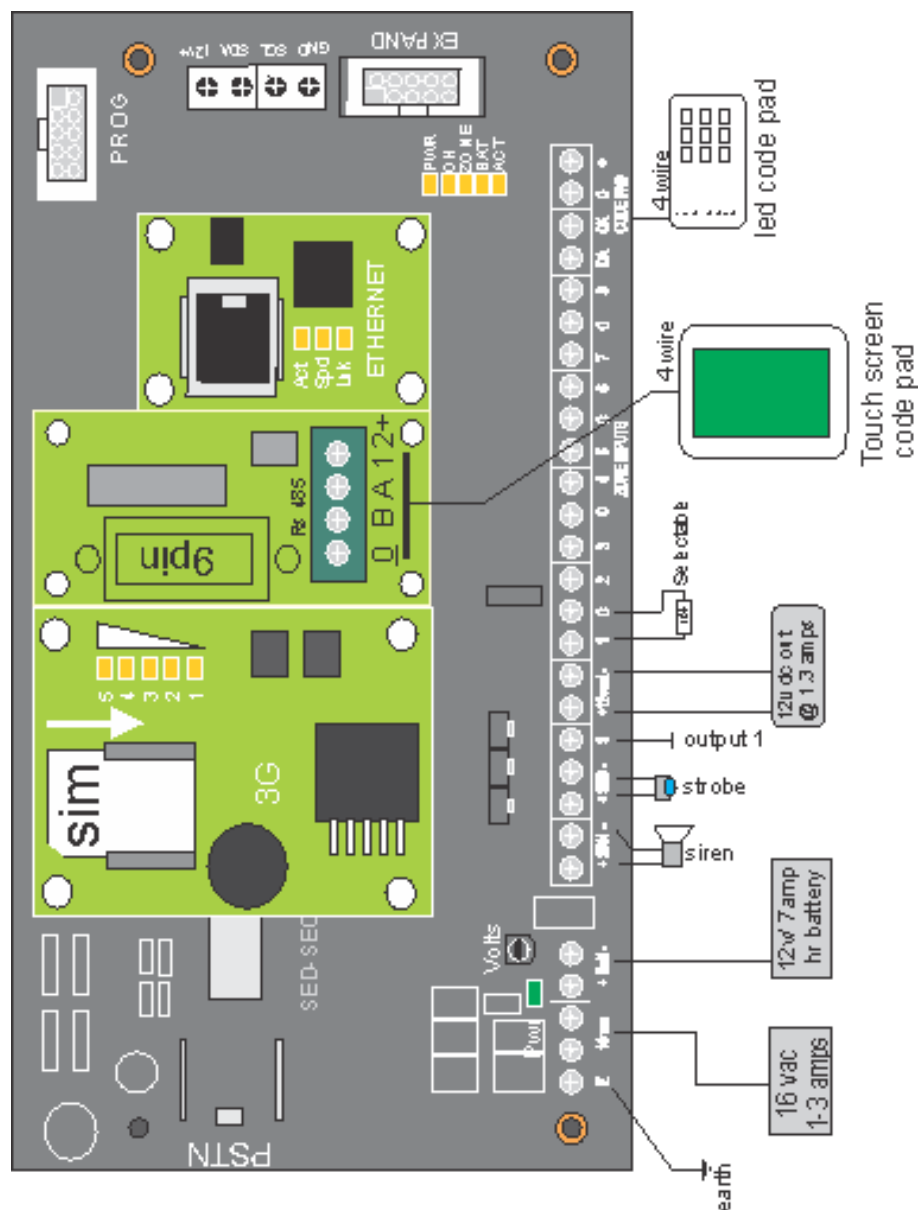
PRODUCT WARRANTY

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

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B. System Hardware 3G / Ethernet / Serial /485



D. Installation & Set up of 3G and IP Hardware

To install a 3G module, as shown into the 3G area

- 1/ Power down SED-SECURE module
- 2/ Fit module into area - See page 2 of this manual
- 3/ Fit SIM Card as shown

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

- 4/ Power unit up and the 3G unit should, if you have signal, allow the wake LED to flash and the status LED will be on.

Signal strength is represented by LEDs 1-5

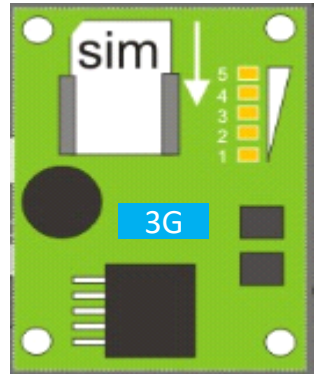
Acquire signal (see signal bar 1-5)

To enable the 3G module -

Ensure you have programmed the pathing (field 51)

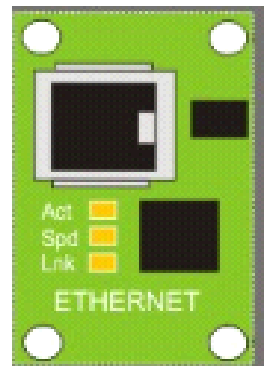
You can select the paths individually, or by hierarchy.

Example: If you program pathing command 51=12 this means it will be PSTN as primary and 3G as a secondary path.

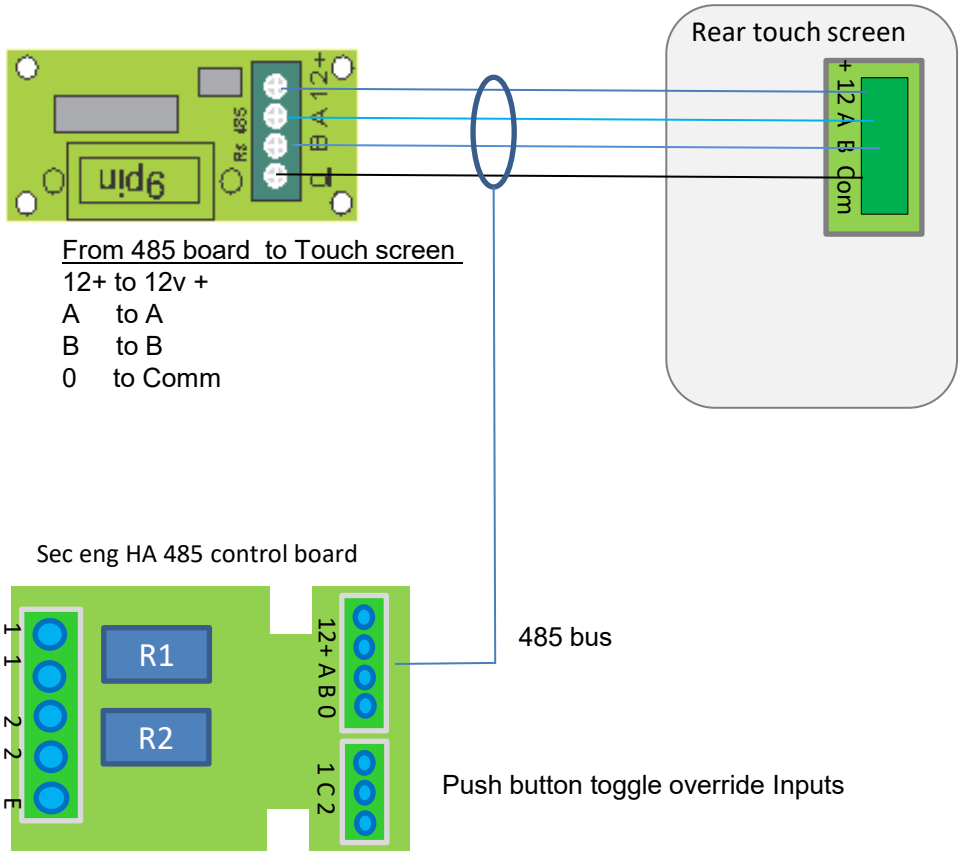


To install IP module - fit as shown in to the IP area

- 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**



E: Touch Screen Pad Overview



F. Installation & Output control systems

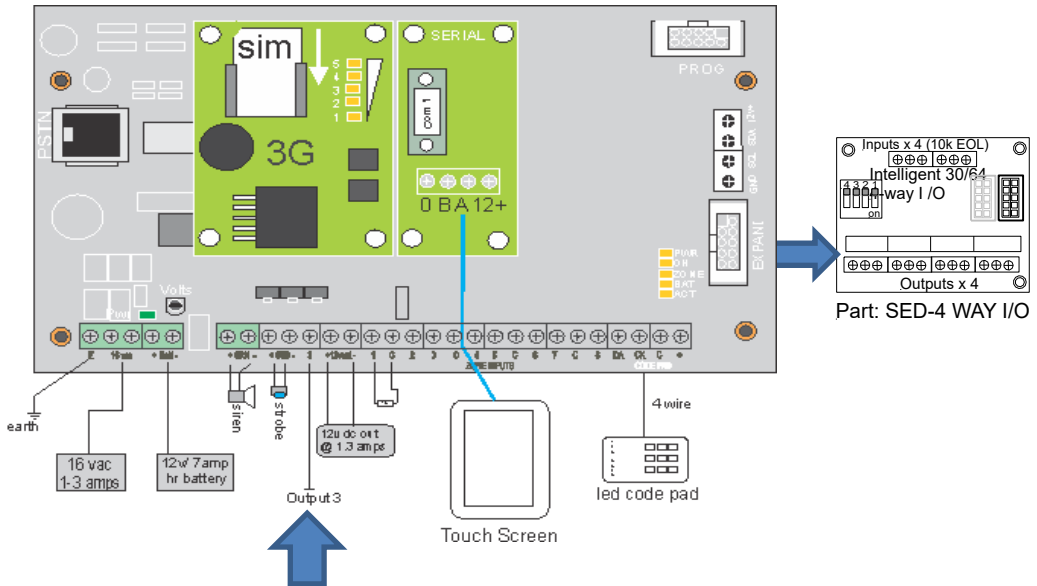
The Sed secure supports remote output controls via 1 on board logic output see wiring below

And via 4 way Sed 30 expansion I/O relay cards

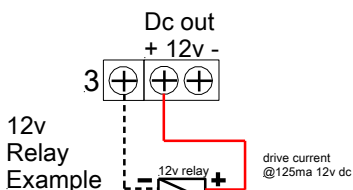
1/ Output 3 is wired to a 12v relay example as below

2/ The 4 way i/o board (Optional) –Plugs into the side Expansion bus as shown

Note : All dip switches should be off and requires a power down to initialize on the sed secure.



Part: SED-4 WAY I/O



Section 0 - Installer Programming & Defaulting Touch screen

Entering Program Mode – Touch screen

To enter program mode, the system must be **Disarmed**
This is done through the Code Pad
Hit Menu button then type 654321 then Ok and select
program button

Viewing a field once in Program Mode

Example Read field 01

Type **01** the display will automatically display the contents of field
01

To change hit the change key and enter the required data
Once done select the change button
And hit clear to clear the display for a new entry

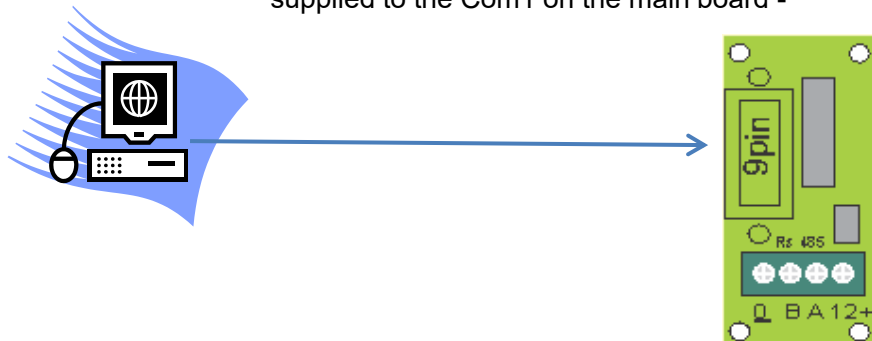
To factory default-if required

Enter code via installer code 654321 then Ok
99147369 wait 10 seconds then Exit

Section 1 - 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 2 - Quick Program Set up Guide

Quick set up guide (for contact id via PSTN with 3G 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 3 - 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 4 - 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 5 - 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)	000000000

Section 5 - 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 ie 22111400 Turns off at 2 pm To set on time for relay 2 example 2212hhmm ie2212130 Turns On at 2pm To set name type 2213name ie2213lights 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 ie 22111400 Turns off at 2 pm 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 Down to 2916Name for a maz of 16 zone name	

Section 6 - 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=std 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 pulse of zone) 8=make input dialer (make zone a dialer input no visual on KP)	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 7 - 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 8 - 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 9 - 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 10 - Test Report Timing 51 - 65

Function	Purpose	Default
51	Report path (up to 8 paths, see below) 1 = PSTN (DTMF Contact-ID) 2 = 3G 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 Default=0	1=ON 0=OFF
53	GSM / 3G 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/3G modem bands selection 581= force GSM band 582= force to 3G 583= auto select 584= auto but pref GSM 585= auto but pref 3G Default=3	3
59	Network technology (read only)	1=GSM 2=3G
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 11 - 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 / 3G modem Enable Disable Default = 1	1=ON 0=OFF

Section 11 - System Settings 65 - 100

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

Section 12 - Report Codes - Contact ID SED-SECURE

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/3G	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 13 - 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 14 - 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 15 - 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 16 - 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 3G 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 17 - 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 18 - 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 3G

Disconnect the PSTN line

- 1/ Arm system
- 2/ Trip zones 1-8
(The OH light should now flash to indicate dialing, via 3G)

Path Testing

- 1/ Disconnect PSTN and send alarms thru. 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 19 - 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

To Arm your system

1/ Ensure all your zones are sealed 1-8

2/ The **zero and Arm button** will quick arm

Beeper

Disarm

Disarming (4 digit user & Disarm button)

To Disarm, enter your 4 digit user no. 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 de isolate.

Section 20 - 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

To Arm your system

1/ Ensure all your zones are sealed 1-8

2/ The **zero and Arm** button will quick arm

Beeper

Disarm

Disarming (4 digit user & Disarm button)

To Disarm, enter your 4 digit user no. 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 de isolate.

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 minutes)

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