92-101-178

Web Site: http://www.melcomproducts.com

CE

Epsilon-UK

ST5500

Installation Manual

Epsilon-UK

CONTENTS

1.00 Control Panel Installation

1.01 Introduction to the Control Panel

The control panel has been designed for both installer and user friendliness. The factory default settings have been carefully selected to suit most installation needs. However most functions are fully programmable for flexibility when installing the system. All changes made are stored within a Non Volatile Memory (NVM) and are retained even when there is complete loss of power.

Please read these instructions carefully before attempting to install this control panel. Ensure the user instructions are given to the user after installation.

1.02 Pre-testing the Control Panel before Installing

1. Release keypad cover and unscrew the two screws from the front cover.
2. Remove the cover and put in a safe place with the screws. If connecting K6600LCD or SL6600 Sleepwatch remote keypad follow instructions as described within the keypad.
3. Connect a fully charged 12V 1.2 Ah sealed lead acid battery, black lead wire to the negative (-) of the battery terminal and the red lead wire to the positive (+) of the battery terminal.
4. The control panel day LED will flash and also the mains LED will illuminate red indicating running from battery power. The tamper LED will illuminate, indicating a tamper fault. Hold down the tamper spring and fix under the on-broad keypad the tamper will extinguish.

Note: If LCD display indicates low battery, change the battery before proceeding with testing the control panel.

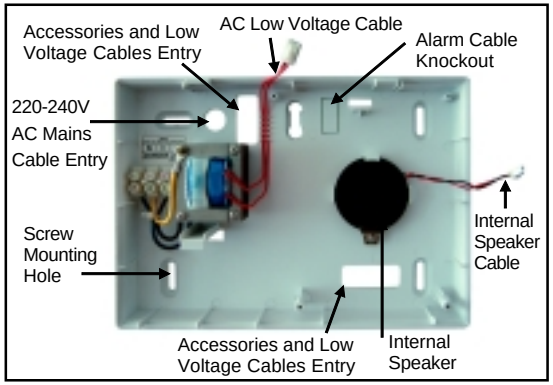
5. Press: (PROG)
6. Enter: (1) (2) (3) (4)
7. Press: (0) (5) Walk test (PA & Tamper give the same tone)
8. Remove and replace each zone link, the corresponding zone will be shown on the LCD display and also beep indicating which zone is activated. After testing all the zones and tamper, release tamper switch spring.
9. Press: (RESET) twice, disconnect and remove the battery.

These simple tests will demonstrate that the control panel (and remote keypad if fitted) are working correctly. Disconnect the battery from the control panel in preparation for wiring.

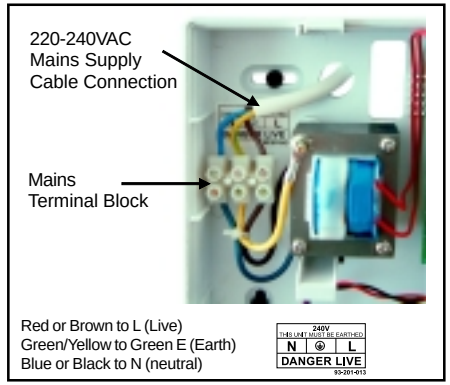
1.03 Mounting the Control Panel

The main control panel unit should be positioned out of reach of children in a secure place close to a mains electricity supply. The unit should not be fitted to a flammable or uneven surface.

1. Remove the PCB by disconnecting the AC supply cable from the transformer and also from the speaker connector, put the PCB in a safe place.
2. Using the rear panel as a template, mark the positions of the mounting holes. The mounting surface must be solid. Do not fit to a flammable or uneven surface. Drill mounting holes and fit wall plugs.
3. Thread the mains supply AC power cable through the smaller aperture in the rear casing.
   At this stage, do not connect the AC supply cable to the panel.
4. Attach rear panel to wall using at least three 30mm No.8 wood screws.
5. Replace the PCB and reconnect the AC and speaker connectors.



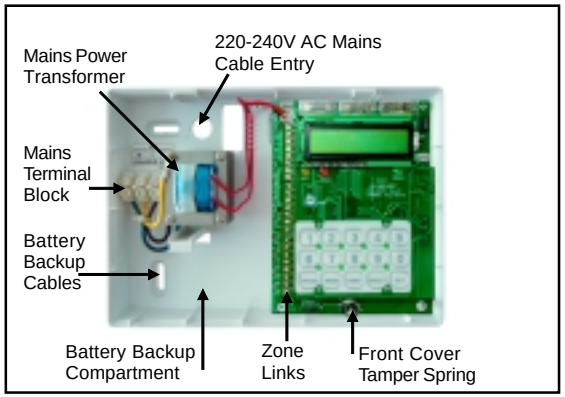
ST5500 BACK PLATE



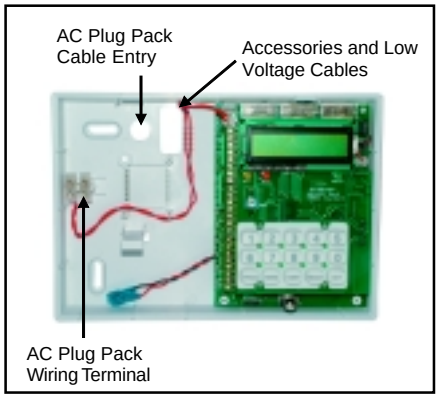
ST5500 Transformer Wiring

1.04 Wiring and Safety Instructions

WARNING: ELECTRICITY CAN KILL
Ensure electricity is switched off at the mains before installing and fitting the mains supply



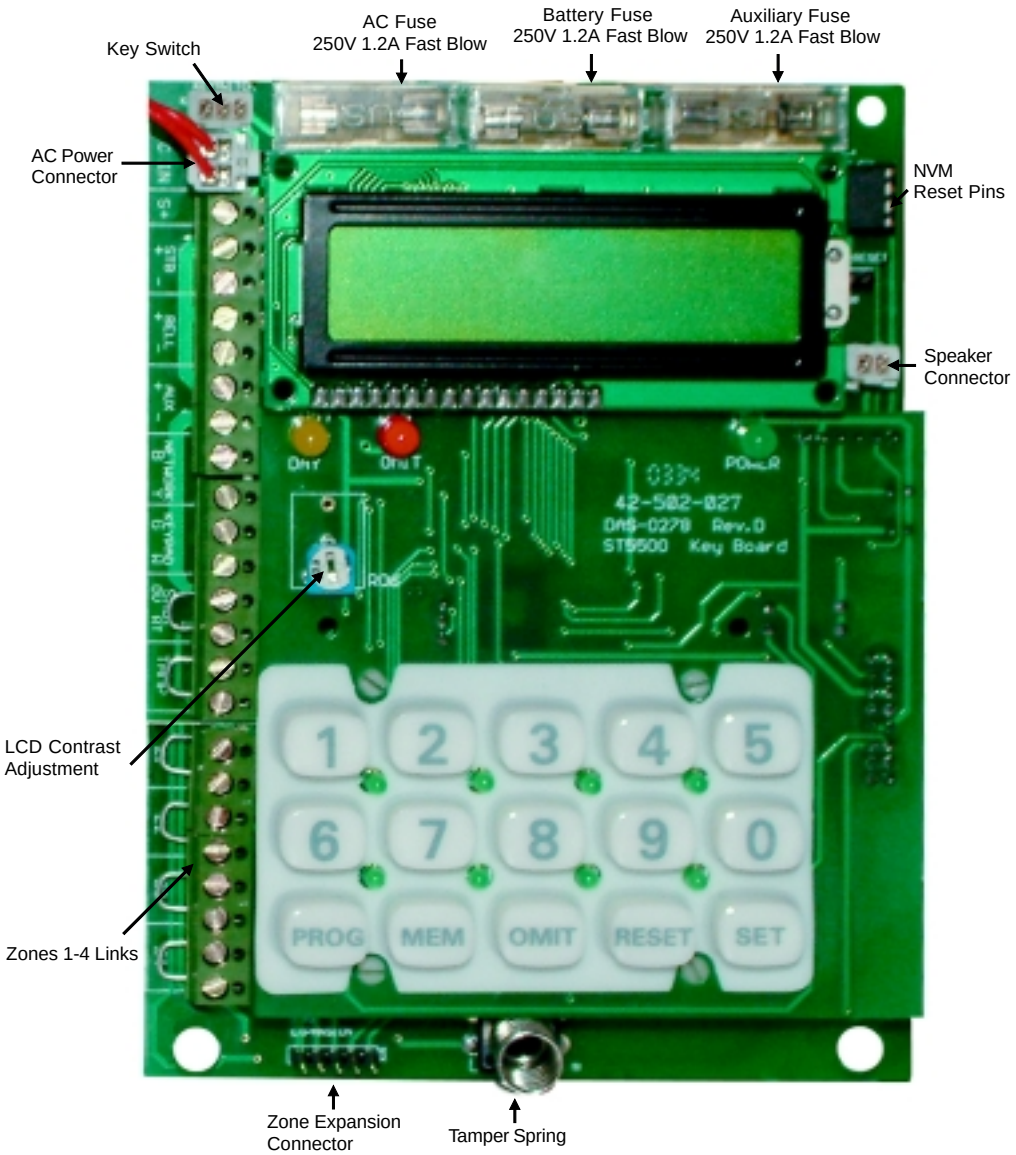
ST5500



ST5500 Low Voltage 16.5V AC Plug Pack Wiring

1. The control panel must be wired according to Current National Wiring Regulations if fitted with an internal transformer.
2. A readily accessible device for disconnecting from the mains (e.g. 3 amp un-switched fused spur) must be provided as part of the installation.
3. If the control panel is wired to a 13 amp wall socket, a 3 amp 250V fuse must be used
4. Use mains 2 core cable and earth cable capable of carrying the rated current (i.e. at least 1mm²). The control panel must be wired to earth.
5. Wiring of the mains supply to the transformer terminal block in the control panel should pass through the smaller aperture in the rear casing of the panel, NEVER connect the mains supply directly to the PCB.
6. The unit requires wiring to a suitable earth, refer to National Wiring Regulations.
7. It is recommended that the unit is wired by a qualified electrician. Check for hidden cables and/or pipes before drilling.
8. Use safety goggles when drilling or hammering in cable clips.

1.05 ST5500 Printed Circuit Board (PCB)



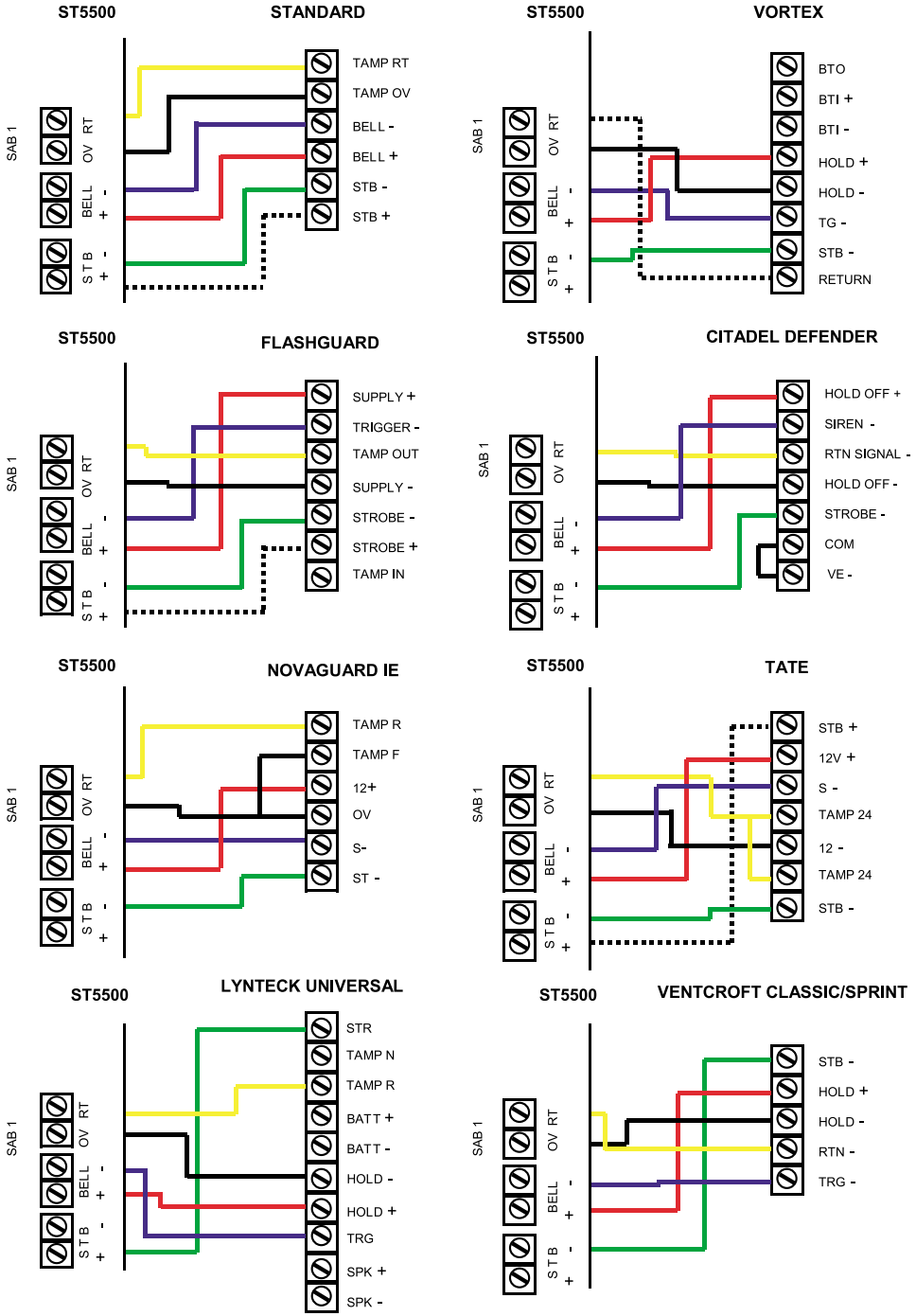
1.06 PCB Terminals ST5500

Terminal	Description	Remarks
AUX 1 -	Regulated Auxiliary Supply Negative	
AUX 1 +	Regulated Auxiliary Supply Positive	Maximum Output 250mA
SW +	Switched Positive Supply	Maximum Output 250mA
STB +	Latching Strobe Positive Supply	
STB -	Latching Strobe Negative Supply	
BELL +	Bell Positive Supply	
BELL -	Bell Negative Supply	
NETWORK B	Remote Keypad & Sleep Watch Data In	
NETWORK Y	Remote Keypad & Sleep Watch Data Out	
SAB 1 G/W	Self Contained Bell Output (SCB)	Leave Link In If Not Used
SAB 1 RT	Self Contained Bell Output (SCB)	
TAMP	Tamper Alarm Zone Loop	Leave Link In If Not Used
Z1-Z4	Normally Closed Positive Fully Programmable Zone Loops	Leave Link In If Zone Not Used

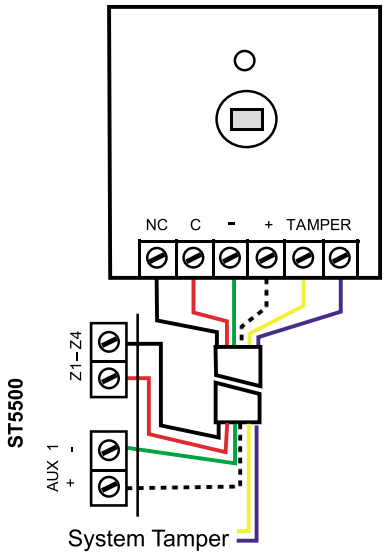
1.07 Fuses ST5500

Fuse	Description	Rating
AC	Power Supply Output Fuse	Fast Blow F1.2A, 250V, 20 X 5mm
AUX	Auxiliary Fuse	Fast Blow F1.2A, 250V, 20 X 5mm
BATT	Battery Fuse	Fast Blow F1.2A, 250V, 20 X 5mm

1.09 Bell Box Wiring



1.10 Wiring Passive Infrared Detectors



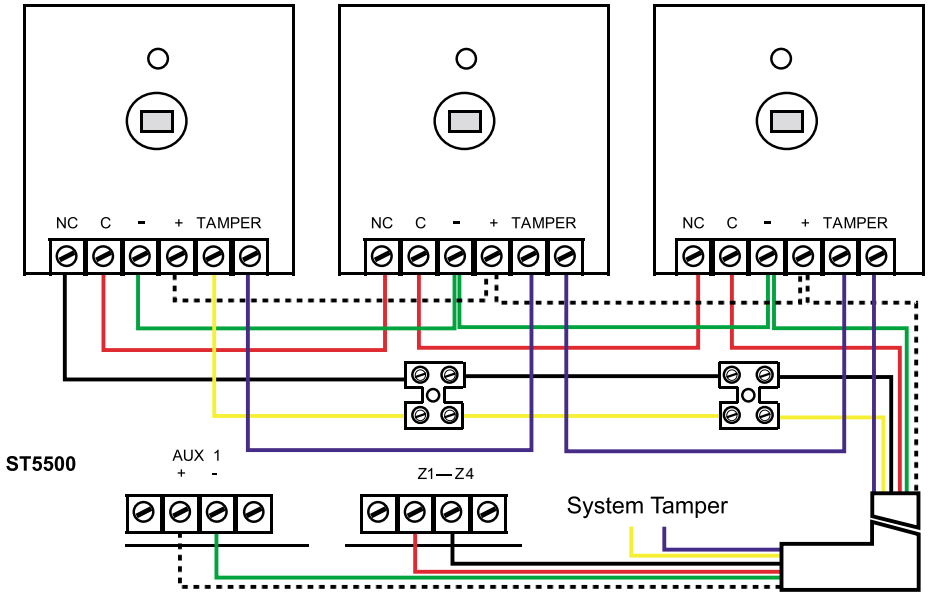
Single Passive Infrared Detector

Consult Passive Infrared Detectors manufacturers installation instructions before wiring to control panel.

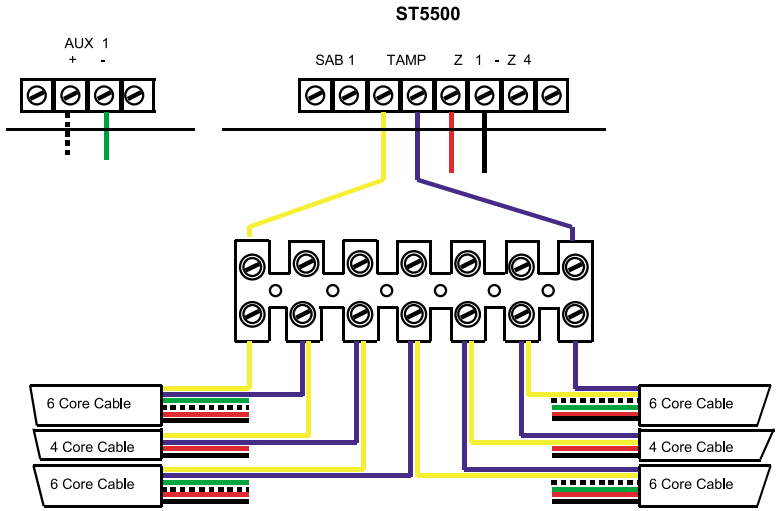
If two or more Passive Infrared Detectors are wired to a zone, wire power in parallel, wire alarm and tamper in series.

Use 6 core multi stranded cable .

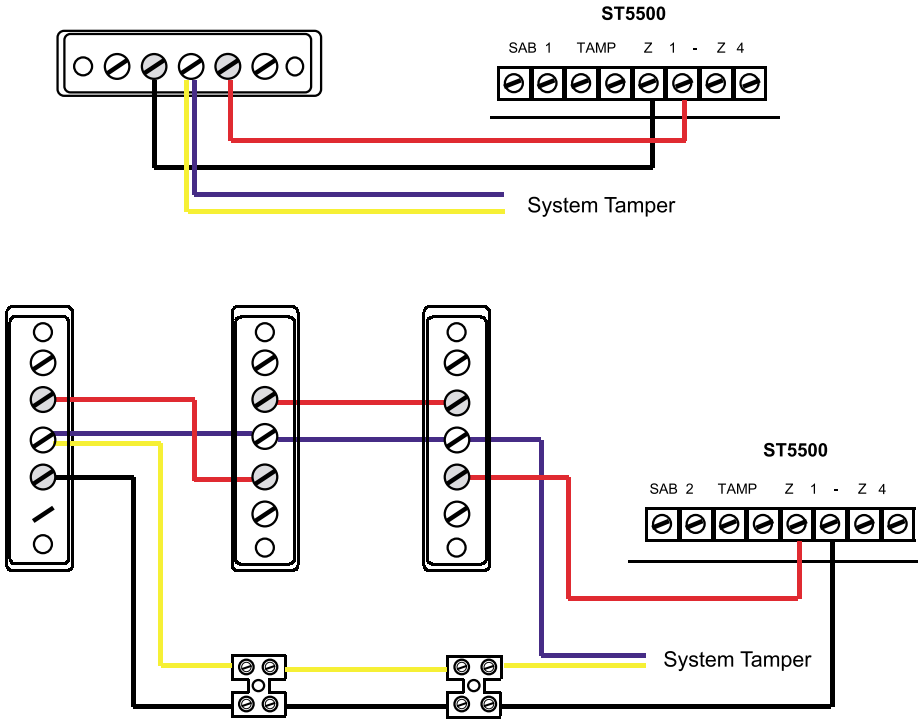
Terminal	Connection	Wire Colour
AUX 1 +	Detector Positive (12+)	White
AUX 1 -	Detector Negative (0V)	Green
Z1-Z4	NC	Black
Z1-Z4	C	Red
System Tamper	Tamper	Yellow
System Tamper	Tamper	Blue



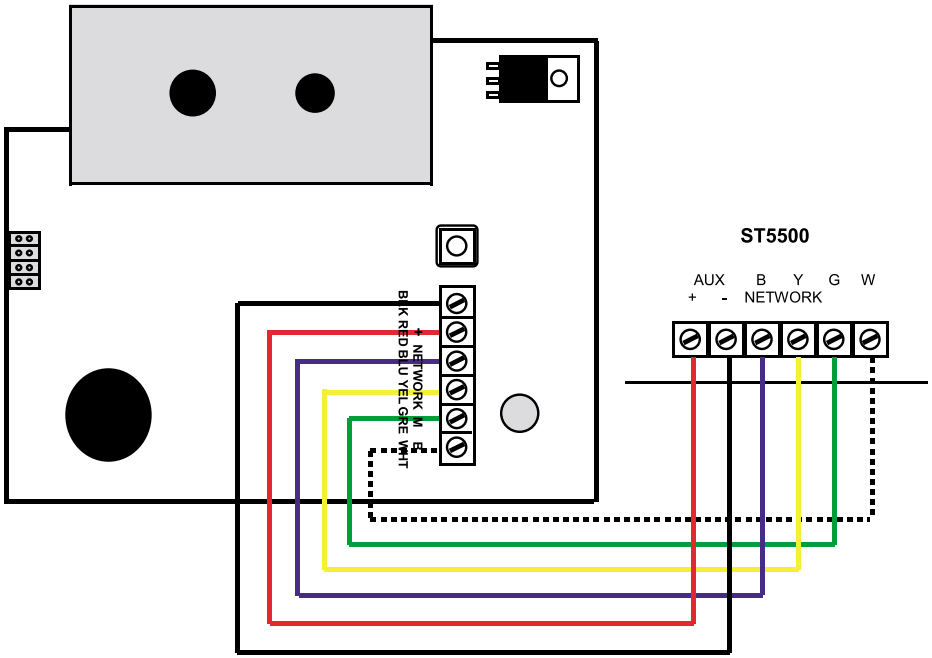
1.11 Wiring System Tamper



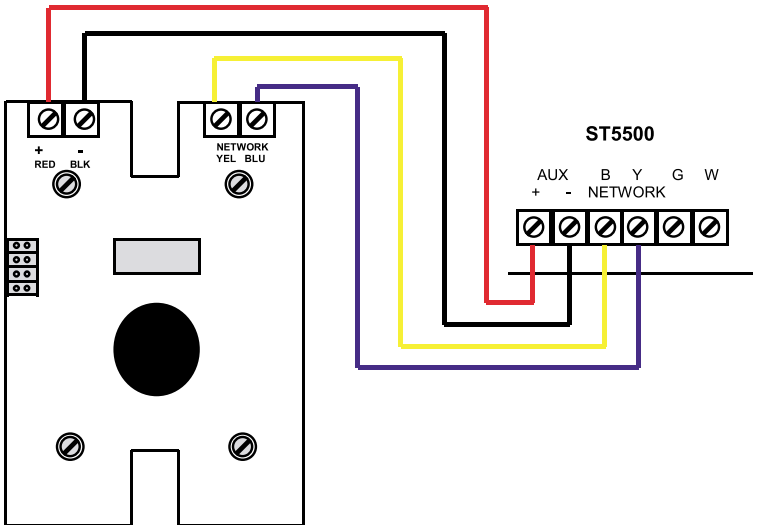
1.12 Wiring Magnetic Contacts

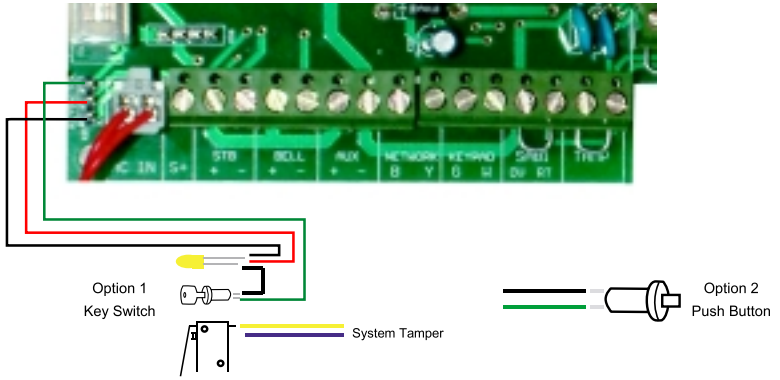


1.13 K6600 Wiring



1.14 Wiring SL6600 Sleep Watch Remote Keypad





Option 1 Key Switch Wiring		
Terminal	**Connection**	**Wire Colou**
G	To Common –ve	Black
L	To LED +ve	Red
K	To Key Switch	Green

Option 1 Key Switch Wiring		
Terminal	**Connection**	**Wire Colou**
G	To Push Button	Black
L	Not Used	Red
K	To Push Button	Green

Note: Use only a non latching momentary key switch with an LED or push button with this panel. The yellow LED operates exactly as the day LED on the control panel and therefore tells you if the panel is armed or disarmed. You can only wire either a key switch option number 1 or push button final set option number 2 , which is the factory default setting. If using option number 1, you must disable option 2 push button final set, in engineer programming under section number 2.20.

1.15 Commissioning the System

Fit a fully charged 1.2Ah 12Vdc sealed lead acid rechargeable battery to the connectors inside the control panel. After fitting the battery, the back LED will illuminate, Day LED will flash for a few seconds.

Replace the front cover of the main unit: tamper Fault goes off. Switch on the mains power, mains LED illuminate on the main control panel and K6600 LCD remote keypad if fitted.

Go to USER manual page No.14 testing system and follow the instructions.

IMPORTANT

There are no user serviceable parts contained within the control panel and keypads.

DO NOT attempt to interfere with, or alter any of the electronic components. To do so may damage the electronic circuitry and will invalidate your warranty.

The Epsilon-uk alarm system can provide valuable protection for your home and property if used properly. However, the system can not guarantee complete protection against burglary or robbery. Therefore, the manufacturer, distributor or supplier will not be held responsible for any loss or damage that may occur.

Every effort has been made to provide accurate information, however slight variations can occur. We also reserve the right to make changes for product improvement at anytime.

We recommend that you check your local by-laws relating to Intruder Alarm Systems. In certain countries you are required by law to:

1. Notify the local police, in writing, within 24 hours of the alarm being installed, the names and address of at least two key holders of the property protected.
2. Instruct the key holders in the operation and silencing of the alarm.
3. Within 48 hours of installation, inform the local Environmental Health Authority of the installation, and which local police station you have notified.
4. Inform the local police of any changes of the key holders, within 24 hours of the change.

1.16 Trouble Shooting

Always disconnect unit mains supply BEFORE removing the front cover

No Mains Power to the Control Panel

- Check the AC fuse on the PCB, if blown replace with 1.2Amp 250V fast blow fuse.
- Check for loose wiring into the mains terminal block.
- Check for loose wiring from mains supply.
- Check AC connector is connected correctly to the control panel PCB.

No Battery Power to the Control Panel

- Check the Battery fuse on the PCB, if blown replace with 1.2Amp 250V fast blow fuse.
- Check Battery wires are connected correctly to the battery; Red +, Black -.

Note: *If No Mains Power Supply and Low Battery this is Indicated on the LCD display.*

Unit Does Not Accept Code Upon Power Up

- If remote SL6600, K6600 LCD keypads are connected ensure each keypad has a different address.
- Check wiring of remote keypads.
- Disconnect power momentarily so that the system can configure all keypads connected to system.
- Reset NVM to factory default settings.

Unit Will Not Set and Tamper Fault displayed on LCD.

- Check system tamper, replace link into tamper zone and replace lid to see if this clears the fault.
- Check system tamper wiring.
- Check tamper wiring to detector and sensors.

Unit Will Not Set Fault Zone displayed on LCD

- Ensure the zone is closed (No movement in that area, windows and doors are closed).
- Check wiring to that zone, replace link and see if system sets.
- Check wiring to detector and sensors.
- If you have a meter, check the resistance to that zone.

Day LED Flashing Fault displayed on LCD

- Enter USER code to set system note which zone is in fault
- . Ensure the zone is closed (No movement in that area, windows and doors are closed).
- Check wiring to that zone, replace link and see if system sets.
- Check wiring to detector and sensors.
- If you have a meter check the resistance to that zone.

Tamper Fault

- Replace Tamper Link, press tamer spring if Tamper Fault clears,check wiring.
- Replace SAB Link, press tamer spring if Tamper Fault clears,check Bellbox wiring.

Unit Makes No Sound

- Ensure that the internal speaker is connected to PCB.

Remote Keypad Does Not Indicate Power

- Ensure you are using 6 core wire and that they are wired correctly to keypad and main unit.
- Check Power Fuse on Main Unit PCB, if blown replace with 1.2Amp 250V fast blow fuse.

External Bell Box Does Not Work

- Check wiring connections bell boxes on page 6.

Panic Button Does Not Work

- Ensure zone type is programmed as PA.
- Check wiring to control panel and panic button.
- Check panic button has been reset using the reset key.

Sleep Watch Keypad Does Not Work

- Ensure zones are programmed as Sleep Watch zones.
- Ensure each Sleep Watch Keypad has a different address to Remote Keypads or other Sleep Watch Keypads.
- Check wiring to control panel and Sleep Watch Keypad.
- Check Power Fuse on Main Unit PCB, if blown replace with 1.2Amp 250V fast blow fuse.

2.00 Engineer Installation Programming Section

2.00 Control Panel Factory Default Settings

Entry time	30 Seconds
Exit Time	30 Seconds
Alarm Time	15 Minutes
Part Guard Set Time	5 Seconds
Sleep Watch Zone Delay Activation Time	15 Seconds
Sleep Watch Zone Automatic Rearm Time	15 Minutes

	Full Guard	Part Guard
Zone 1	Timed Entry/Exit	Timed Entry/Exit
Zone 2	Walk Through	Walk Through
Zone 3	Instant	Timed Entry/Exit
Zone 4	Instant	Instant
Zone/Tamper	Tamper	Tamper

Chime Zones	Clear
Date & Time	Clear
Day LED On	Enabled
Disabled/Isolated Zones	Clear
Double Knock Zones	Clear
Engineer Code	9 9 9 9
Engineer Code Burn In	Disabled
Engineer Service Timer	Disabled
Engineer Reset	Disabled
Entry Time Timed Out Alarm	Disabled
Final Set	Disabled
Fire Zones	Clear
Master User Code	1 2 3 4
Push Button Final Set	Enabled
Quick Set	Disabled
Secure Zones	Clear
Sleep Watch Zones	Clear
Sleep Watch Keypad Disarm Part Guard	Disabled
Strobe Exit Flashes	Disabled
Switched Positive	Normal
User Codes 2,3,4,5,6	Disabled

2.01 Day Mode

This is the normal (default) setting of the control panel. The alarm will only activate if the PA, Fire Zones or Keypad PA are activated.

2.02 Engineer Installation Programming

To enter the engineer programming mode:

ST5500 & K6600 LCD Display

Press: (PROG)

Enter: (1) (2) (3) (4)

User Programming

Press: (PROG)

Enter: (9) (9) (9) (9)

Engineer Programming

You are now in Engineer Programming.
Parameters can be adjusted as described in sections 2.03 to 2.30.

Note: For user programming functions refer to engineer quick reference guide or user manual.

2.03 Exit Time Adjustment

This is pre-set at 30 seconds. Exit time is the maximum period of time between setting the alarm, and leaving the property via the EXIT route.

Exit Time 030

Press: (1)

Input a new Exit time (max. 255 seconds). Eg. for 70 seconds input 070, for 95 seconds input 095, etc. When the third digit is input the panel will give an acceptance tone and will revert back to ENGINEER PROGRAMMING MODE.

Engineer Programming

2.04 Entry Time Adjustment

This is pre-set at 30 seconds. Entry time is the maximum period of time between activation (opening of front door) of ENTRY/EXIT route and the alarm sounding. It will allow time to enter the property and switch off the system.

Exit Time 030

Press: (2)

Input a new Entry time (max. 255 seconds). Eg. for 45 seconds input 045, for 15 seconds input 015, etc. When the third digit is input the panel will give an acceptance tone and will revert back to ENGINEER PROGRAMMING MODE.

Engineer Programming

Note: To comply with EN50301-1 entry time should not exceed 45 seconds, alsointernal siren activates if user code not entered before timing out, full alarm 30 seconds later.

2.05 Siren Duration Time Adjustment

The Siren Duration time is pre-set to sound for 15 minutes, when activated. Do not set the alarm for a longer period than that specified by legislation. You can adjust the siren to sound for less than 15 minutes.

Press: (3)

Input a new Siren time (max. 255 minutes). Eg. for 10 minutes input 010, for 5 minutes input 005, etc. When the third digit is input, the panel will give an acceptance tone and revert back to ENGINEER PROGRAMMING MODE.

Siren Time 015

Engineer Programming

***Note: To comply with EN50301-1, siren time must be adjusted between 2 minutes (002) and a maximum duration of 1 5 minutes* (015).**

2.06 Part Guard Exit Time Adjustment

Part Guard set time is the maximum period of time between setting the alarm, and leaving the protected area, this is pre-set at 5 seconds.

Part Guard Time 005

Press: (4) (1)

Input a new time (max. 255 seconds). Eg. for 10 seconds input 010, for 25 seconds input 025, etc. When the third digit is input the panel will give an acceptance tone and revert back to ENGINEER PROGRAMMING MODE.

Engineer Programming

2.07 Set Zones Disabled/Isolated in Part Guard

In this location enter zones to be Disabled/Isolated in part guard arming.

Zones Disabled None

Press: (4) (2) Enter zone numbers to be omitted
To reset that zone, toggle the corresponding zone

Engineer Programming

Press: (RESET)

2.08 Set Sleep Watch Zone Delay Activation Time

In this location activation of a sleep watch zone will not activate a full alarm until after the zone delay time has timed out, this is pre-set at 15 seconds.

S/W Delay Time 015

Press: (4) (3)

Input a new time (max. 255 seconds). Eg. for 10 seconds input 010, for 25 seconds input 025, etc. When the third digit is input the panel will give an acceptance tone and revert back to ENGINEER PROGRAMMING MODE..

Engineer Programming

Note: ***If a sleep watch zone is activated a valid user code must be entered to stop activation sequence***

2.09 Enable Sleep Watch Zones Automatic Rearm

In this location, after the user has pressed the sleep watch button to disarm sleep watch zones, they will automatically rearm after the period of time programmed in location section 2.10 has timed out.

S/W Rearm Disabled

Press: (4) (4) Sleep Watch automatic rearm enabled.
Toggle Key 4 to disable function.

Engineer Programming

Press: (RESET) and revert back to ENGINEER PROGRAMMING MODE.

2.10 Sleep Watch Zone Automatic Rearm Time

In this location, set sleep watch zones automatic rearm time, this is pre-set at 15 minutes.

Press: (4) (5)

Input a new time (max. 255 minutes). Eg. for 10 minutes input 010, for 25 minutes input 025, etc. When the third digit is input the panel will give an acceptance tone and revert back to ENGINEER PROGRAMMING MODE.

S/W Rearm Time
015

Engineer Programming

2.11 Enable Sleep Watch Arm and Disarm Part Guard

The Sleep Watch keypad can be programmed to arm and disarm part guard by pressing the Sleep button for 3 seconds.

Press: (4) (6) Sleep Watch keypad disarm part guard enabled. Toggle Key 6 to disable function.

Press: (RESET) and revert back to ENGINEER PROGRAMMING MODE.

S/W Disarm Enabled

Engineer Programming

2.12 Set Installer Message

Enter the following options to display installer message on the ST5500 & K6600 remote LCD keypad when in normal operation mode.

Press: (4) (7)

16 characters can be programmed as the installer message. Enter the 2 digits to represent the character required to be displayed on the LCD keypad. To move the curser use the MEM key to move left and the OMIT key to move right.

Press: (RESET) When message is complete.

Message

Engineer Programming

00.	Space	14.	6	28.	K	42.	Y	56.	m
01.	(	15.	7	29.	L	43.	Z	57.	n
02.	)	16.	8	30.	M	44.	a	58.	o
03.	*	17.	9	31.	N	45.	b	59.	p
04.	,	18.	A	32.	O	46.	c	60.	q
05.	–	19.	8	33.	P	47.	d	61.	r
06.	.	20.	C	34.	Q	48.	e	62.	s
07.	/	21.	D	35.	R	49.	f	63.	t
08.	0	22.	E	36.	S	50.	g	64.	u
09.	1	23.	F	37.	T	51.	h	65.	v
10.	2	24.	G	38.	U	52.	I	66.	w
11.	3	25.	H	39.	V	53.	j	67.	x
12.	4	26.	I	40.	W	54.	k	68.	y
13.	5	27.	J	41.	X	55.	l	69.	z

2.13 Remote K6600 LCD Keypad Zone Location Display Names

Each zone can be given a location name from the list below. The location name will be displayed upon the ST5500 & K6600 remote LCD keypad display if that zone is activated or has a fault upon arming the system.

Press: (4) (8)

Enter corresponding zone name number from list below

Example: Zone 1 as Front Door enter 35

Press: (1)

Press: (3) (5)

Press: (RESET)

Press: (RESET) and revert back to ENGINEER PROGRAMMING MODE.

Zone Name

Zone 1

Zone 1
Front Door

Zone Name

Engineer Programming

01. Alarm	31. Floor	61. Outside
02. Apartment	32. Foyer	62. Panic
03. Auxiliary	33. Freezer	63. Patio
04. Babies Room	34. Fridge	64. Perimeter
05. Back Door	35. Front Door	65. Police
06. Back Yard	36. Gallery	66. Pool
07. Barn	37. Garage 1	67. Reception
08. Basement	38. Garage 2	68. Roof
09. Bathroom	39. Gas	69. Safe
10. Bedroom 1	40. Gate 1	70. Shed
11. Bedroom 2	41. Gate 2	71. Shop
12. Bedroom 3	42. Gymnasium	72. Skylight
13. Bedroom 4	43. Guestroom	73. Sliding Door
14. Boys Room	44. Hallway	74. Smoke Detector
15. Building	45. Hold Up	75. Store Room
16. Ceiling	46. House	76. Sons Room
17. Coatroom	47. Internal Door	77. Studio
18. Computer Room	48. Interior	78. Study
19. Daughters Room	49. Kitchen	79. Sun Room
20. Desk	50. Laundry	80. Tamper
21. Dining Room	51. Library	81. Utility
22. Dock	52. Loading Area	82. Vault
23. Downstairs	53. Lock	83. Ware House
24. Driveway	54. Lounge Area	84. Wash Room
25. East Room	55. Maids Room	85. West Room
26. Studio	56. Master Bedroom	86. Window
27. Emergency	57. Medical	87. Work Shop
28. Entry & Exit	58. Mothers Room	88. Yard
29. File	59. Nursery	
30. Fire	60. Office	

2.14 Miscellaneous Section 1

In this section under programming key 5 you can enable or disable any of the following features:

Section	Key No.	Description	Zone LED	Factory Setting
2.15	1	Quick Set	1	Disabled
2.16	2	Special Switch Positive	2	Disabled
2.17	3	Exit Strobe Flashes	3	Disabled
2.18	4	Engineer Reset Any Alarm	4	Disabled
2.19	5	Engineer Code Burn In	5	Disabled
2.20	6	Final Set Push Button	6	Enabled
2.21	7	Day Mode LED illuminated	PA	Disabled
2.22	8	Entry Time Timed Out Alarm	Tamp	Disabled
2.23	9	Switch Positive 0 Volts	Day	Disabled

Press: (5) if any features under this section have been enabled, displayed upon LCD.

Note: To enable or disable any of the above options, toggle the corresponding key number. After entering options under this section press RESET to save changes and exit this location.

2.15 Enable Quick Set

After enabling this option, the system maybe armed by pressing the set key for 3 seconds, this will begin the full set arming sequence without entering a user code.

Press: (1) Quick Set enabled

Quick Set Enabled

Note: If this function is enabled the installation will not comply with EN50130-1 requirements.

2.16 Enable Special Switched Positive

The programmable Switched Positive is a unique feature of this control panel. In the factory default, the Switched Positive behaves in a normal manner (going high when the panel sets and low when the panel is switched off) for latching passive infra-red detectors. In the Special Switched Positive, this output can be used for impact sensors which require the power to be removed to reset them.

This output will give out up to 200mA as a positive supply to these detectors, which will behave in the manner described below.

When enabled the Special Switched Positive will be high, but when the panel is switched on Switched Positive goes low for 5 seconds, to reset the sensors. In the case of activation, even if the panel is reset, the power will remain on the impact sensors until the panel is switched back on again. This enables the information from the impact sensors to be retained.

Press: (2) Special Switched Positive enabled.

Special Set Pos Enabled

2.17 Enable Exit Strobe Flashes

When this function is enabled upon setting the system in full guard the strobe will give 5 flashes indicating system is set.

Press: (3) Strobe Exit Flashes enabled..

Strobe Flashes Enabled

2.18 Enable Engineer Reset

When this function is enabled upon setting the system in full guard the strobe will give 5 flashes indicating system is set.

Press: (4) Engineer Reset enabled.

Engineer Reset Enabled

2.19 Enable Engineer Code Burn InS

When this function is enabled, the engineer code will be retained in the memory and can not be changed even if the control panel is reset to factory default setting. In the event you forget your code PCB must be returned to supplier for repair.

Press: (5) Engineer Code Burn In enabled.

Code Burn In Enabled

2.20 Enable Final Set Push Button

The Final Set push button is used to Final Set the system after you have entered a code to arm the system by pressing the button during exit time it will stop the exit timer and immediately arm the system. The button should be installed on the outside of the protected area. During Day Mode and Part Guard it will act has a door bell giving a chime sound when pressed. You can not use a key switch to arm and disarm system if Final Set push button enabled.

Press: (6) Engineer Code Burn In Enabled.

F/S Push Button Enabled

2.21 Enable Day LED

After enabling this option, the system Day LED will stay illuminated in Day Mode, when system is disarmed.

Press: (7) Engineer Code Burn In Enabled.

Day LED On Enabled

2.22 Entry Time Full Alarm

After enabling this option, the system will go into full alarm, if the entry time times out before a valid user code is entered.

Press: (8) Engineer Code Burn In Enabled.

Entry Alarm Enabled

2.23 Switched Positive 0 Volts

After enabling this option, the Switched Positive will act in the following way. In armed mode and day mode O Volts, any alarm activation 12 Volts. Enable this feature if using a Epsilon-uk AD1000 voice auto dialer.

Press: (9) Engineer Code Burn In Enabled.

Switched Pos 0V Enabled

Note: Special Switched Positive & Normal Switched Positive will not work if this location is programmed.

If you have enabled any of these options, Quick Set, Day LED or Entry Time Full Alarm the system will not comply with current European alarm installation regulations.

After entering options under section 5, press RESET key to exit this location.

2.24 Zone Description

Exit
With the panel in DAY mode, if a valid user code is entered, the control panel will go into it's armed sequence. If any zone is at fault, the control panel will stop it's count down until that zone is cleared or omitted from the system, then will carry on arming the system.

Entry
When the panel is set and the entry zone is triggered, the entry timer will begin its countdown. During this period, the remote keypad will give a repeated beep and will beep faster when nearly timed out. If the time is allowed to elapse before any valid user code is entered, the control panel will go into alarm state. In this case the system needs to be Reset by pressing the RESET key after a valid user code has been entered to disarm the system.

Walk Through
This zone allows access without the alarm activating provided that the exit/entry zone as been activated before this zone.

Instant
This zone will create an alarm condition immediately if the control panel is set.

24 Hour/Tamper
A Tamper zone activation will only generate an internal alarm if the panel is in DAY mode. Triggering of the tamper zone when the panel is set will always give an external as well as internal alarm

Personal Alarm (PA)
Triggering of the personal attack (P.A.) zone will always cause a full alarm regardless of whether or not the panel is set.

Fire Zone
Triggering of the fire zone will operate internal & external sounders giving an intermittent sound, which is easily distinguished from the normal alarm sound.

Note*: Fire zones are intended as an extra feature to the alarm system and must not be regarded as a total fire protection system.*

Final Set
If a Entry/Exit zone is programmed as final set, upon arming the system and leaving by the Entry/Exit route the system will arm immediately once the Entry/Exit zone is clear without waiting for the exit timer to time out.

Double Knock
When a zone is programmed as a Double Knock zone, it requires two activations within 30 seconds before creating an alarm condition when panel is set.

Disabled/Isolated
When a zone is programmed has a Disabled/Isolated zone, it is ignored in the event of any activation. It allows the user to continue using the alarm system even if a fault has been discovered on one or more zones.

2.25 Changing Full Guard Zone Type

All zones can be changed to any status listed below:

Key No.	Function	Zone LED	Factory Default
1	Timed Entry/Exit		Zone 1
2	Walk Through		Zone 2
3	Instant		Zone 3
4	Personal Alarm (PA)		Zone/PA
5	24 Hour (Tamper)		Zone/Tamper
6	Fire		Clear
7	Final Set		Clear
8	Double Knock		Clear
9	Zone Disable/Isolated		Clear

Changing a zone status:

Press: (6)

Enter zone number to be changed, the zone present status will be indicated on the LCD display

Press: (PROG) Enter required key function number.

Press: (RESET) Press: (RESET) to return back to engineer programming.

Zone Status Full Guard

Example: Programming zone 5 as Entry/Exit zone

Press: (6)

Press: (5)

Zone 5 Instant

Press: (PROG) Press: (1)

Zone 5 Entry/Exit

Press: (RESET)

Engineer Programming

To Change additional zones repeat these steps.

2.26 Changing Part Guard Zone Type

All Part Guard zones can be changed to any status listed below:

Key No.	Function	Zone LED	Factory Default
1	Timed Entry/Exit		Zone 1 & 3
2	Walk Through		Zone 2
3	Instant		Zone 4
4	Sleep Watch		Clear

Note: If a zone is programmed as PA, 24hr, Fire or disabled in full guard it is not possible to change the status in part guard.

Sleep Watch Zone
Sleep watch zones are like interior zones and can be armed and disarmed using the SL6600 sleep watch keypad. Sleep Watch zones are armed in part guard after the system is set and by pressing the sleep Watch button for 1 second. Upon a sleep watch zone being activated it will not instantly go into full alarm, but start a delayed activation time has programmed. This gives the user time to disarm the system if a sleep watch zone is activated accidentally by enter their code into the keypad.

Changing a zone status:

Press: (7)

Enter zone number to be changed, the zone present status will be indicated on the LCD display

Press: (PROG) Enter required key function number.

Press: (RESET) Press: (RESET) to return back to engineer programming.

Example: Programming zone 4 as Entry/Exit zone

Press: (7) — Zone Status Part Guard

Press: (4) — Zone 4 Instant

Press: (PROG) Press: (4) — Zone 4 Sleep Watch

Press: (RESET) — Engineer Programming

To Change additional zones repeat steps B,C and D.

2.27 Changing Engineering Code

Changing a zone status:

Press: (8) Type in new engineer code. — Enter New Code

After entering the forth digit the panel will give an acceptance tone and return to ENGINEER PROGRAMMING MODE, the new code will now be operative — Engineer Programming

2.28 Setting System Date

In the event of an alarm activation, the date is stored in the memory log.

Press: (9) (8) — Set Data 00-00-00

Enter date using 2 digits to represent Year, Month and Day. The year should be entered first, followed by month and day, date will be displayed on LCD DD-MM-YY.

After entering Day, it will revert back to engineer programming. To check date entered, enter this location again, re-enter date if wrong. — Engineer Programming

Note: In the event of complete power failure, the Date & Time must be RESET.

2.29 Setting System Time

In the event of an alarm activation, the time is stored in the memory log. The time is displayed in 24 hour format.

Press: (9) (9) — Set Time 00-00

Enter time using 2 digits to represent Hours, Minutes, HH-MM

After entering minutes, it will revert back to engineer programming. To check time entered you must enter this location again, re-enter time if wrong. — Engineer Programming

2.30 Exiting Engineer & User Programming

Press: (RESET) to exit engineer programming, Tamper LED on

Press: (RESET) to return to day mode, Day LED Flashing

2.31 Reset Control Panel to Factory Default Settings (NVM Reset)

To reset the NVM, power down the panel and short out the NVM pins, then power up and remove the short. This will reset panel to factory set condition, If you have changed the installer message. this will be retained in the keypad memory. If you wish to change the installer message the see section 2.12 for instructions.

2.32 Reset Control Panel without Losing Engineer Log

From Engineer Programming mode

Press: (MEM)

This will reset the panel to factory set conditions, but will not lose the engineers log.

3.00		Engineer Reference Guide		
		User Programming (PA, Tamper and Day LEDs On)	**User Manual**	**Page**
Press:	**PROG**			**11**
Press:	**1234**			
Press:	**0**	**System Test Mode**		**14**
Enter:	1	Strobe Test		
Enter:	2	Bell Test		
Enter:	3	High Sounder Internal Keypad		
Enter:	4	Low Sounder Internal Keypad		
Enter:	5	Walk Test (PA and Tamper Give Same Tone)		
Enter:	0	Exit Test Mode		
Press:	**2**	**To Set Second User Code**	**Default : 0000**	**11**
Press:	**3**	**To Set Third User Code**	**Default : 0000**	**11**
Press:	**4**	**To Set Forth User Code**	**Default : 0000**	**11**
Press:	**5**	**To Set Fifth User Code**	**Default : 0000**	**11**
Press:	**6**	**To Set Sixth User Code**	**Default : 0000**	**12**
Press:	**7**	**To Set Secure Zones = Secure Zone LED Flashing**	**Press: RESET**	**12**
Press:	**8**	**To Set New Master User Code**	**Default: 1234**	**11**
Press:	**9**	**To Set Chime Zones (PA and Tamper LED illuminated)**	**Press: RESET**	**13**
Press:	**RESET**	**Exit User Programming**		**13**
Press:	**MEM**	**Memory Recall Last Activation Shown First**	**Press: RESET**	**9**
		Engineer Programming	**Installation Manual**	**Page**
Press:	**PROG**	**All Zone and Day LEDs illuminated**		**13**
Press:	**1234**	**Master User Code Tamper and Day LEDs Stay illuminated**	**Default: 1234**	
Press:	**PROG**	**All Zone and Day LEDs illuminated**		
Press:	**9999**	**Engineer Programming Code (PA and Day LEDs illuminated)**	**Default: 9999**	
Press:	**1**	**Set Exit Time in Seconds**	**Default: 30 Seconds**	**14**
Press:	**2**	**Set Entry Time in Seconds**	**Default: 30 Seconds**	**14**
Press:	**3**	**Set Bell Rest Time in Minutes**	**Default: 15 Minutes**	**14**
Press:	**41**	**Set Part Guard Exit Time in Seconds**	**Default: 5 Seconds**	**15**
Press:	**42**	**Disable/Isolate Zones in Part Guard**	**Press: RESET**	**15**
Press:	**43**	**Set Sleep Watch Activation Zone Delay Time in Seconds**	**Default: 15 Seconds**	**15**
Press:	**44**	**Enable Sleep Watch Zones Automatic Rearm, Toggle Key 4**	**Press: RESET**	**15**
Press:	**45**	**Set Sleep Watch Zones Automatic Rearm Time**	**Default: 15 Minutes**	**15**
Press:	**46**	**Enable Sleep Watch to Arm/Disarm Part Guard Toggle Key 6**	**Press: RESET**	**16**
Press:	**47**	**Enter Installer Message Displayed on Remote LCD Keypad**	**Press: RESET**	**16**
Press:	**48**	**Enter Zone Description Displayed on Remote LCD Keypad**	**Press: RESET**	**16**
Press:	**5**	**Miscellaneous Section 1**		
Enter:	1	Enable User Quick Set	Toggle Key 1	18
Enter:	2	Enable Special Switched Positive	Toggle Key 2	18
Enter:	3	Enable Strobe Exit Flashes	Toggle Key 3	18
Enter:	4	Enable Engineer Reset	Toggle Key 4	18
Enter:	5	Enable Engineer Code Burn In	Toggle Key 5	18
Enter:	6	Enable Final Set Push Button	Toggle Key 6	18

Enter:	7	Enable LED Day Mode	Toggle Key 7	19
Enter:	8	Entry Zone Full Alarm	Toggle Key 8	19
Enter:	9	Switched Positive 0 Volts	Toggle Key 9	19
		After Entering Options Press: RESET		
Press:	**6**	**Change Zone Status Full Guard: Enter Zone Number Press**		**20**
Enter:	1	Timed Exit/Entry	Default: Zone 1	
Enter:	2	Walk Through	Default: Zone 2	
Enter:	3	Instant	Default: Zone 3-6	
Enter:	4	Personal Alarm (PA)	Default: Zone PA/7	
Enter:	5	24 Hour	Default: Zone Tamp	
Enter:	6	Fire	Default: None	
Enter:	7	Final Set	Default: None	
Enter:	8	Double Knock	Default: None	
Enter:	9	Disable/Isolate	Default: None	
		After Entering Option Press: RESET		
Press:	**7**	**Change Zone Status Part Guard: Enter Zone Number Press**		**21**
Enter:	1	Timed Exit/Entry	Default: Zone 1,3	
Enter:	2	Walk Through	Default: Zone 2	
Enter:	3	Instant	Default: Zone 4,5,6	
Enter:	4	Sleep Watch	Default: None	
		After Entering Option Press: RESET		
Press:	**8**	**Set New Engineer Programming Code**	**Default: 9999**	**21**
Press:	**9**	**Service Timer Section**		**22**
Enter:	1	No Service Timer		
Enter:	2	6 Weeks Service Timer		
Enter:	3	6 Months Service Timer		
Enter:	4	12 Months Service Timer		
Enter:	5	100 Events		
Enter:	6	200 Events		
Enter:	7	800 Events		
		After Entering Option Press: RESET		
Press:	**98**	**Set Date**		**22**
Press:	**99**	**Set Time**		**22**
Press:	**MEM**	**Reset Panel To Factory Default Setting Without Losing Engineer Log**		**23**
		Exit Engineer Programming		
Press:	RESET	Returns to User Programming		
		Exit User Programming		
Press:	RESET	Returns to Day Mode		
		Reset Panel to Factory Default Settings		**23**
		Short NVM Reset Pins, Disconnect Power, Return Power To The Unit and Remove Short From NVM Reset Pins.		

3.01 Engineer Programming Record		
Function	**Factory Settings**	**Installation Settings**
Entry Time	30 Seconds	
Exit Time	30 Seconds	
Alarm Time	15 Minutes	
	Full Guard	
Zone 1	Timed Entry/Exit	
Zone 2	Walk Through	
Zone 3	Instant	
Zone 4	Instant	
Fire Zones	Clear	
Final Set Zones	Clear	
Double Knock Zones	Clear	
Disabled/Isolated Zones	Clear	
Sleep Watch Zones Delay Activation Time	15 Seconds	
Sleep Watch Zones Automatic Rearm	Disabled	
Sleep Watch Zones Automatic Rearm Time	15 Minutes	
Sleep Watch Keypad Arm/Disarm Part Guard Arming	Disabled	
Installer Message	Epsilon-uk	
Quick Set	Disabled	
Special Switched Positive	Disabled	
Exit Strobe Flashes	Disabled	
Engineer Reset	Disabled	
Engineer Code Burn In	Disabled	
Final Set Push Button	Enabled	
LED Day Mode Illuminated	Enabled	
Entry Timed Out Full Alarm	Disabled	
Switched Positive O Volts Day & Armed Mode	Disabled	
Date	Clear	
Time	Clear	
	Part Guard	
Set Time	5 Seconds	
Zones Disabled/Isolated	None	
Zone 1	Timed Entry/Exit	
Zone 2	Walk Through	
Zone 3	Timed Entry/ExitInstant	
Zone 4	Instant	

	Sleep Watch Zones	Location
Zone 1	Clear	
Zone 2	Clear	
Zone 3	Clear	
Zone 4	Clear	

3.02	Customer Information
Installation Engineer:	
Installation Company:	
Address:	
Address:	
Telephone Number:	
Date of Installation:	
Maintenance & Call Out Record	

Maintenance & Call		
Date/Time	**Reason For Visit**	**Name of Engineer**

Note: These instructions *MUST NOT* be stored inside the control panel
The User instructions contain *ESSENTIAL SAFETY INFORMATION & MUST* be given to the user.

4.00 Electrical and Technical Specifications

Power Supply

Primary Mains Supply Voltage Rating:	230Vac/115Vac (±10%)
Secondary Input Voltage Rating:	16.5Vac
Maximum Total Current Rating:	900mA
Rechargeable Backup Battery:	12V Sealed Lead Acid 1.2 Ah

Environmental

Operating Temperature:	-10°C (14°F) to 50oC (122°F)
Storage Temperature:	-20°C (-4°F) to 60oC (140°F)
Maximum Humidity:	95% non-condensing
EMC Environment:	Residential/Commercial

Electrical

Current Consumption:	
Quiescent Current:	<90mA
Alarm Current:	<240mA
Auxiliary Voltage Output:	Regulated 12.5Vdc
Switched Positive Voltage:	
When Low:	1.0Vdc
When High:	12Vdc
Bell Voltage Output:	12Vdc
Speaker Voltage Output:	12Vdc
Strobe Voltage Output:	12Vdc
Internal Sounder:	0.50Watts 32 Ohms
Positive Loop Threshold (Zones 1-4):	
Minimum Open Resistance:	70kΩ
Maximum Closed Resistance:	10kΩ
Negative Loop Threshold (System Tamper):	
Minimum Open Resistance:	110kΩ
Maximum Closed Resistance:	20kΩ

Physical

Dimensions:	260mm X 225mm X 80mm
Housing Material ST5500:	Inflammable 94VO High Impact ABS Plastic
Weight ST5500:	1.30Kgs

K6600 Remote LCD Keypad

Electrical:	
Operating Voltage:	12Vdc
Quiescent Current LCD Back Light Off:	16.7mV
Current LCD Back Light On:	90mA
Current in Alarm	70mA
Wiring:	6 Core Multi-stranded Cable 7 x 0.20m2
Dimensions :	135mm X 108mm X 80mm
Housing Material:	ABS Plastic
Weight:	0.30Kgs

SL6600 Sleep Watch Remote Keypad

Electrical:	
Operating Voltage:	12Vdc
Quiescent Current :	16.7mV
Wiring:	4 Core Multi-stranded Cable 7 x 0.20m2
Dimensions :	135mm X 108mm X 80mm
Housing Material:	ABS Plastic
Weight:	0.20Kgs