

World Skills

Fire & Security

Competitor Specification



Texecom



HIKVISION

Contents

Introduction	3
Scope of Work	3
The System Layout and Orientation	4
Health and Safety	4
Signalling to the Alarm Receiving Centre	5
Installation	5
External Warning Devices	7
Programming	7
Setting of the System	7
Emergency Standby Capacity	8
Handover of the System.....	8
Completion of Documentation	8
Adjudication	9
Prize	9
Appendix 1	10
Appendix 2	11
Appendix 3	17

Client	Site
Specification Number	1001-19
Issue Number	1
Dated	

The I&HAS systems are to be installed to comply with the relevant British, European Standards and Fire Industry codes of practice.

In accordance with the European Standards EN50131, a site survey and risk assessment of the property has been carried out. The risk assessment relates solely to the grading and design and is based upon information available at the time of the survey.

Therefore, this system proposal has been specified as a Texecom Premier Elite 48 system fitted to grade 2. All equipment will conform to the standards of BS EN 50131, PD6662 and BS8243.

Scope of Work

The intruder alarm system has been designed to comply with the recommendations PD6662: BS8243. The programming of the I&HAS system should be via the cloud based software provided . The position of all the detection devices and CIE are taken from the observer standing outside facing the entrance to the booth as detailed in this specification and in conjunction with the installation drawings SEC-001 (See Appendix 1- Installation Drawings).

Health and Safety

The work undertaken by the service technicians must be carried out in accordance with the Health & Safety at Work Regulations 1974. Technician's should be wearing the correct the PPE, maintain a safe working environment, ensuring that the work space is clear of hazards and any tools are stored in a safe place when the workspace is unoccupied e.g. tea & lunch breaks.

Any specialised tools / equipment should have a valid calibration certificate / label.

Service technicians would be expected to wear the following equipment:

- Company Uniform
- High Vis Vest
- Safety Glass
- Safety Shoes
- Gloves

Signalling to the Alarm Receiving Centre

The method for setting the I&HAS system will be via a "Final Exit Door" operated by a Magnetic Reed Switch. The system will look for this device to open, and then close before the system will be set as a deliberate means of setting the system. Un-setting of this system should comply with the relevant standards.

The CSL communication device should be installed within a local PSU unit. The back-up battery provided in the PSU will be required to support the Dual Comm unit for a minimum of 12-hours.

The communication device shall have the ability to communicate using a primary and secondary path. For the purpose of the competition the intruder alarm system will require only a primary communication signal.

The I&HAS will signal the following information:

- PA
- Intruder
- Open / Close
- Zone Omit
- Confirmed Alarm
- Tamper Alarm

Installation

The installation of the intruder circuits shall be at intervals in accordance with BS7671 18th Edition. The diameter of the cable has been confirmed at 6mm and a suitable length has been supplied for the installation of the system.

The 230-volt supply should be terminated into a double isolation switch operated by a key that can be withdrawn to prevent unauthorised use. For the purpose of this competition a fly lead with a 13amp plug top will be terminated into the feed side of the double spur unit, this lead will be used to provide power to the control panel.

Sufficient cable will be issued to each team for the purpose of the installation, additional cabling will be available, however marks will be deducted if additional information is required to complete the installation.

The installation of the cable should include:

Location	Requirements
Cabling	Cable to be installed for signaling device SAB unit to be hard wired to control panel Expander to be cabled
Mains	Control Panel to be connected to double pole spur
Zone 1: Door contact	Texecom Premier Elite wireless door contact to be installed on the left-hand side of the door. This zone should be named as the FINAL EXIT DOOR and used to initiate a FINAL SET from the alarm system
Zone 2: PIR	Texecom Premier Elite wired Quad PIR, to be installed on the left side of the booth. This zone must be named as PIR LHS and be programmed as ENTRY ROUTE .
Zone 3: PA Button (PA Silent)	Texecom Premier Elite wireless double push panic button, to be installed on the left side of the booth. This zone must be named as PA BUTTON and used to initiate a SILENT PA signal to the intruder CIE.
Zone 4: Dualtech detector	Texecom Premier Elite wired Dual Tech, to be installed on the right-hand side of the booth. This zone must be named as PIR RHS and be programmed as INTRUDER .
Zone 5: Door Contact	Texecom Premier Elite wireless door contact to be installed on the right-hand side booth wall. This zone should be named as the SWITCH ROOM DOOR RHS and programmed as 24 hours

Zone 6: Carbon Monoxide Sensor	Texecom Premier Elite wireless Carbon Monoxide Detector Premier Elite CO-W to be installed on the left-hand side booth wall. This zone should be named as CARBON DETECTOR and programmed to initiate a FIRE alert if alarm is activated
Zone 7: Smoke Detector Sensor	Texecom Premier Elite wireless Smoke Detector Sensor: Premier Elite OH-W to be installed on the left-hand side booth wall. This zone should be named as SMOKE DETECTOR and programmed to initiate a FIRE alert if alarm is activated
Zone 8: Dual-tech detector	Texecom Premier Elite wired Dual Tech, to be installed on the lefthand side booth wall. This zone must be programmed as PIR LHS wall and programmed to initiate an INTRUDER signal upon activation.
Zone 9: 360 Detector	Texecom Premier Elite wireless AM 360 QD- W to be installed on the right-hand side booth wall. This zone should be named as 360 detector and programmed as INTRUDER and to initiate an alarm on activation
Control Equipment:	<ul style="list-style-type: none"> • One Texecom Premier Elite 48 control panel • The control panel will be located on the centre of the board The key pad will be located on the right side of the CIE

The 230-volt supply should be terminated into a double isolation switch operated by a key that can be withdrawn to prevent unauthorised use. The technician should contract the adjudicators when then would like to power up the CIE.

External Warning Devices

One Odyssey high quality external sounder unit installed to the right side of the booth as positioned on drawing SEC-001 (See Appendix 1- Installation Drawings).

The Odyssey bell is fitted with a high-powered siren (108dB), it will be set up as s Self Actuating Bell (SAB), backlight front cover and a flashing strobe light. All electronics are protected from the ingress of water.

The bell duration on the SAB should be set to 10 minutes. The bell will not be programmed with a bell delay.

Programming

The following programming information should be used for the system:

Entry Time	60 seconds
Exit	Final Exit
Bell Time	10 minutes
PA Silent	Non-Omittable (24 Hour PA)
User Code	2310
Engineer Code	1234

Setting of the System

The completion of the setting procedure, must be completed using one of the following methods:

- Protective switch (i.e. Door Contact) fitted to the final exit door of the alarmed premises /area
- Digital key

Emergency Standby Capacity

Using the information in this specification and the battery calculation the commissioning engineer should confirm the size of the emergency stand-by cells required for the system.

The following formula should be used:

$$1.25 [(I1 \times T1) + (I2 \times T2)]$$

Handover of the System

The technician will be responsible for handing over the system to the adjudicator, the handover should demonstrate the control functions of the control panel, functional testing of a device, instruction how to review information displayed on the key pad, setting and un-setting of the system with BS EN 50131 & PD6662, BS9263 & BS8243.

Completion of Documentation

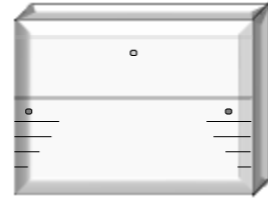
On completion of the competition the commissioning technicians should complete all supporting documentation included within the specification and provide a demonstration / handover to the client.

- Intruder Commissioning & Handover Checklist
- Intruder Acceptance Certificate

A copy of all required certificates can be found in Appendix 2- Commissioning / Testing Certificates.

Appendix 1

Installation Drawings



KEY



Texcom Elite Control Panel



Magnetic Reed Switch



Wireless Texcom PIR

Hardwired Texcom PIR

Texcom Vibration Detector

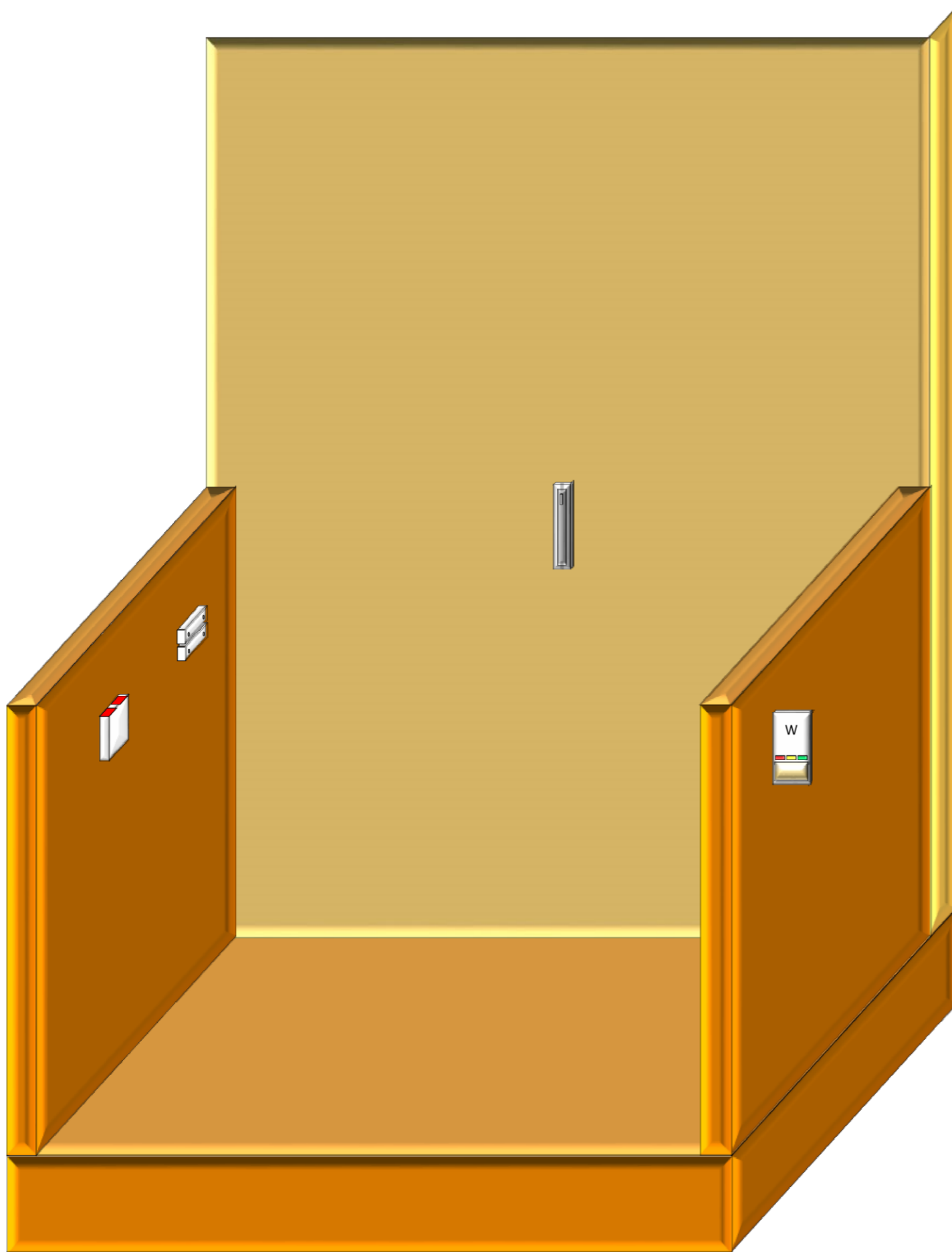
PSU with a DualCom Signalling Device

Texcom Keypad

Texcom External Warning Device

World Skills – Intruder Installation



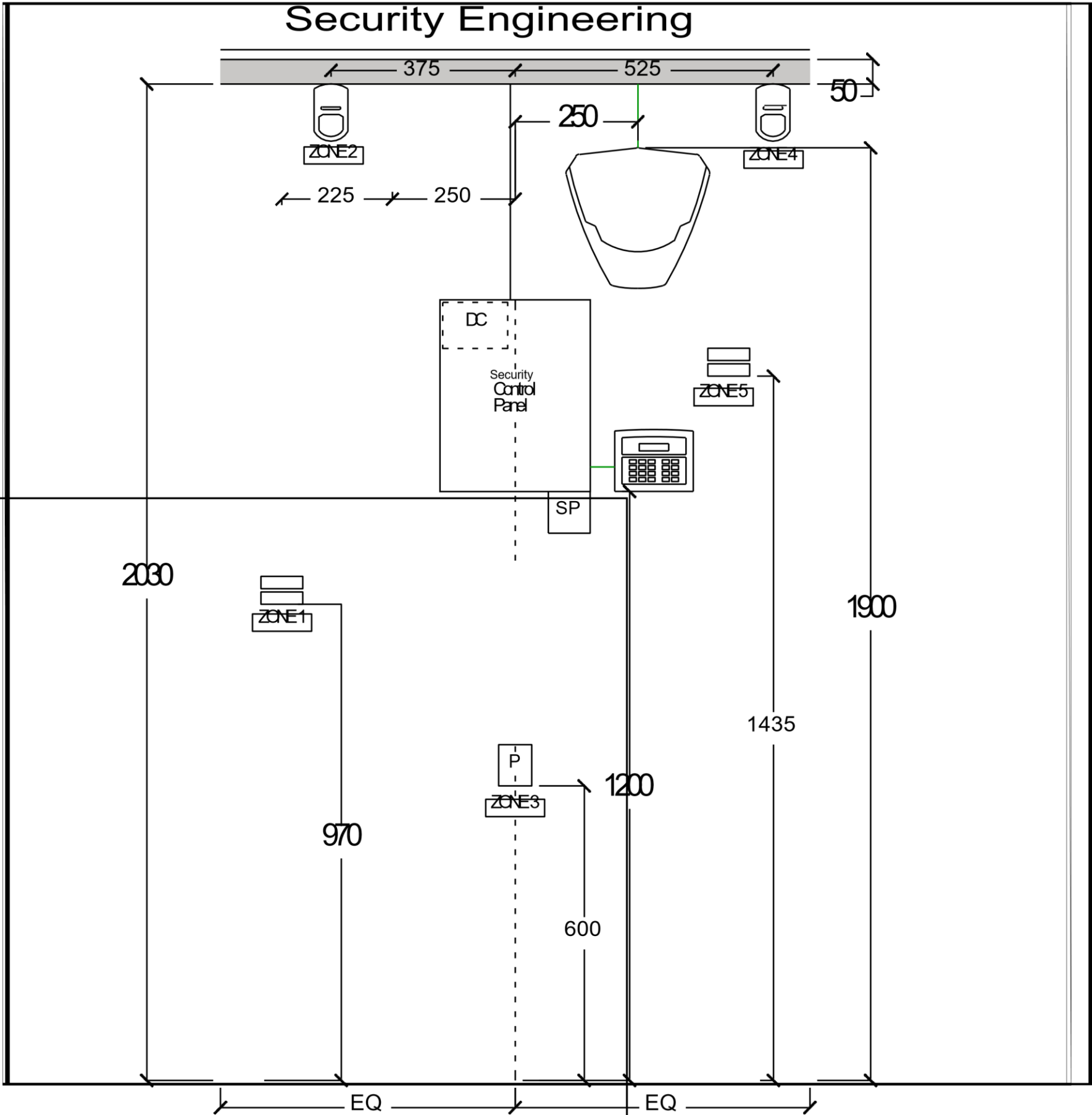


Texecom



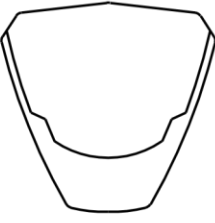









HIKVISION

Security Engineering



Key

- | | | |
|--|---|--|
|  PIR |  Door Contacts |  Bell Box |
|  Panic Button |  Keypad |  20mm PVC Conduit |
|  Cable |  Trunking | |
|  Spur |  DualCom | |

Security Engineering Competition
Final 2019

Texecom

HIKVISION

Project
Security Engineering Installation Project

Drawing Title
Installation Instructions

Client
Scale
NTS

Dwg No.

Date



Appendix 2

Commissioning/ Testing

Certificates

Intruder Commissioning & Handover Checklist

TO BS9263

PARAMETER & EQUIPMENT RECORD

Customer Name:	Spec No
Site Address:	Date:

INTRUDER COMMISSIONING / HANDOVER CHECKLIST Part 1

		Y	N	N/A
1	Is the wiring correctly terminated			
2	Are supply voltages correct at all appropriate points in the system?			
3	Does the audible alarm operate correctly upon activation or removal of the hold-off voltage?			
4	Does the remote signalling apparatus transmit all conditions?			
5	Has the system been set and a device operated resulting in an alarm condition being correctly signalled?			
6	Has every detector been tested for correct operation through to the control units?			
7	Is there adequate standby battery capacity to meet current standards and battery labelled with installation date?			
8	Does the system operate correctly under mains failure?			
9	Are anti-tamper switches fitted and operating at all devices and controls?			
10	Is the site 'As-fitted' Drawing correct? (Arrange amendment switch CAD Operator)			

PART 2 • INTRUDERPARAMETER & EQUIPMENT RECORD

Co ntr ols

Control Panel Make/ Model:

Signa lli ng Type :

Type	Location	Voltage Cutout / Inout	Current !Norman	Current !Alarml	Battery Ah	Battery Date
Control Panel						
Exte rnal Audible Device (1)						
External Audible Device (2)						
Signalling Equipment						
Remote Keypad (1)						
Remote Keypad (2)						
Remote Keypad (3)						
Remote Keypad (4)						
Power Supply (1)						
Power Supply (2)						
Power Supply (3)						
Power Supply (4)						

	A1	A2	A
Bell Delay			
Bell Cut-Out			

	A1	A2	A3	A4
Exit Time				
Entry Time				



Commissioning Eng.

Print Name

Signature

Date

Intruder Acceptance Certificate

Client

Site:

We being, the competent person(s) responsible (as indicated by our signatures below) for the acceptance of the intruder alarm system, particulars of which are set out below, ACCEPT the system on behalf of the client

Name:

Acceptance date:

Position:

Signature:

For and on behalf of:

The extent of liability of the signatory is limited to the system described below Extent of system covered by this certificate:

Intruder alarm system in the

- All installation work appears to be satisfactory
- The system can communicate signals as per the specification
- The facility for remote transmission of alarms to an alarm receiving centre operates correctly

The following documents have been provided to the purchaser or user

- As fitted drawings
- Operating and maintenance instructions
- Commissioning & Handover Checklists Completed
- A log book
- Sufficient representatives of the user have been properly instructed in the use of the system, including, at least, all, means of triggering fire signals, silencing and resetting the system and avoidance of false alarms
- All relevant tests, defined in the purchasing specification, have been witnessed.

The following work is required before the system can be accepted: