



Group Award Specification for:

**PDA Electronic Fire and Security Systems
at SCQF level 6**

Group Award Code: GJ7L 46

Validation date: June 2014

Date of original publication: July 2014

Version: 07 (November 2023)

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1 Introduction

This is the Group Award Specification for the PDA in Electronic Fire and Security Systems at SCQF level 6.

Qualification title

The title of the award reflects the outcome of the sum of the competences developed within the qualification, the outcome being that learners will develop knowledge, understanding and skills in the processes involved in the installation and maintenance of Electronic Fire and Security Systems.

Who the qualification is aimed at

- 1 Those in employment within the security industry who are attending college on a part-time basis and who will be undertaking concurrently the PDA in Electronic Fire and Security Systems, the SVQ in Providing Electronic Fire and Security Systems and the MA in Electronic Security Systems at level 3 over a period of three years.
- 2 Those within the security industry who may wish to up skill and acquire a formal qualification in electronic fire and security systems.
- 3 Those with an interest in gaining future employment in the security industry.

The current framework of qualifications in this sector in Scotland is:

Modern Apprenticeship in Electronic Security Systems at level 3

SVQ 3 Providing Electronic Fire and Security Systems at SCQF level 6

PDA Electronic Fire and Security Systems at SCQF level 6

2 Qualification Structure

The Group Award is made up of 12 SQA Unit credits. It comprises 96 SCQF credit points of which all are at SCQF level 6. A mapping of Core Skills development opportunities is available in Section 5.3.

2.1 Structure

PDA Electronic Fire and Security Systems at SCQF level 6

Unit No.	Unit Title	SQA Unit credit value	SCQF credit points	SCQF level
J6N7 33*	Electronic Fire and Security Systems Installation: Health and Safety Practices	1	8	6
J74D 33*	Electronic Fire and Security Systems: Installation Practices	1	8	6
J6S1 33*	Electronic Fire and Security Systems Installation: Introduction to Security	1	8	6
J6S2 33*	Electronic Fire and Security Systems: Electrical Engineering Principles	2	16	6
J6S3 33*	Electronic Fire and Security Systems: Video Surveillance System Installation*	1	8	6
J6S4 33*	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation	1	8	6
J7X2 33*	Electronic Fire and Security Systems: Access Control Systems Installation	1	8	6
J7X1 33*	Electronic Fire and Security Systems: Fire Alarm Systems Installation	1	8	6
J7C9 33*	Electronic Fire and Security Systems: Remote Monitoring and Communications	1	8	6
H6X2 33 OR	Electronic Fire and Security Systems Installation: Commissioning	1	8	6
J7YG 33*	Electronic Fire and Security Systems Installation: Commissioning	1	8	6

Unit No.	Unit Title	SQA Unit credit value	SCQF credit points	SCQF level
H6X4 33	Maintaining the Performance of Electronic Fire and Security Systems	1	8	6
Or				
J7YR 33*	Maintaining the Performance of Electronic Fire and Security Systems	1	8	6

*Refer to 'History of Change' section

All Units within the award are mandatory.

3 Aims of the qualification

Principal aim of the qualification

The principal aim of the qualification is to develop underpinning knowledge, understanding and skills required to complete the SVQ 3 Providing Electronic Fire and Security Systems at SCQF level 6 and the Modern Apprenticeship in Electronic Security Systems at level 3.

3.1 General aims

The general aims of this Group Award are to:

- 1 Develop Core Skills in *Communication, Numeracy, Problem Solving, Working with Others* and *ICT*.
- 2 Develop skills in planning and organising.
- 3 Develop skills in goal setting, managing time, meeting deadlines, punctuality.
- 4 Develop skills in working as an individual as well as with others.
- 5 Develop research and study skills.
- 6 Provide opportunities for career progression and employment opportunities.
- 7 Provide opportunities for continuing professional development.

3.2 Specific aims of the qualification

The specific aims of this Group Award are to:

- 1 Develop knowledge and skills in the installation and maintenance of electronic fire and security systems.
- 2 Develop skills that meet the current and emerging needs of the security systems sector, particularly in relation to the use of new technologies.
- 3 Provide underpinning knowledge and skills required to complete the SVQ 3 in Providing Electronic Fire and Security Systems at SCQF level 6.
- 4 Meet the requirements of the Modern Apprenticeship in Electronic Security Systems at level 3.
- 5 Formalise and standardise training in this sector for Scotland.

4 Recommended entry to the qualification

Access is at the discretion of the centre. It is recommended, however, that prospective learners have:

- 1 Attained qualifications which demonstrate competence in Numeracy at SCQF level 5, for example:

F3GF 11 *Numeracy (Core Skill Unit)*
C100 11 *Mathematics: Mathematics 1, 2 and 3 (Intermediate 2)*
C101 11 *Mathematics: Mathematics 1, 2 and Applications (Intermediate 2)*
C747 75 *Mathematics (National 5)*

- 2 Attained qualifications which demonstrate competence in Communication at SCQF level 5, for example:

F3GB 11 *Communication (Core Skill Unit)*
C270 11 *English (Intermediate 2) — Written Communication at SCQF level 5*
C724 75 *English (National 5)*

- 3 A science or technical qualification at SCQF level 5, for example:

C069 11 *Physics (Intermediate 2)*
3220 *Physics (Standard Grade General/Credit)*
C757 75 *Physics (National 5)*
C206 11 *Computing (Intermediate 2)*
0560 *Computing Studies (Standard Grade General/Credit)*
C716 75 *Computing Science (National 5)*
C033 11 *Graphic Communication (Intermediate 2)*
1330 *Graphic Communication (Standard Grade General/Credit)*
C735 75 *Graphic Communication (National 5)*

In addition to evidence of attained qualifications, centres may wish to consider using a pre-entry test and interview to ensure that each prospective learner has sufficient academic ability and the appropriate personal qualities to achieve the award.

4.1 Core Skills entry profile

Core Skill	Recommended SCQF entry profile	Associated assessment activities
Communication	5	Learners will need to have good communication skills, both written and oral. Learners will have to produce a variety of reports, communicate with customers both in writing and verbally.
Numeracy	5	Good numerical skills are essential for learners undertaking this qualification. Learners will have to carry out calculations using complex formulae.
Information and Communication Technology (ICT)	5	Learners will require good ICT skills. Learners will be required to access information from a variety of sources and carry out online searches as part of research activity. Learners will also use electronic portfolios.
Problem Solving	5	Problem Solving skills are essential for learners undertaking this qualification. Learners will experience a variety of situations where they will have to use skills in analysis and evaluation. For example, fault finding on systems.
Working with Others	5	Working with Others is an integral part of this qualification. Learners will participate in group activities as part of their college work. In employment they will be working with colleagues and customers.

5 Additional benefits of the qualification in meeting employer needs

This qualification was designed to meet a specific purpose and what follows are details on how that purpose has been met through mapping of the Units to the aims of the qualification. Through meeting the aims, additional value has been achieved by linking the Unit standards with those defined in National Occupational Standards and/or trade/professional body requirements. In addition, significant opportunities exist for learners to develop the more generic skill, known as Core Skills, through doing this qualification.

5.1 Mapping of qualification aims to Units — General Aims

Code	Unit Title	Aim 1	Aim 2	Aim 3	Aim 4	Aim 5	Aim 6	Aim 7
		Develop Core Skills in Communication, Numeracy, Problem Solving, Working With Others, ICT	Develop skills in planning and organising	Develop skills in goal setting, managing time, meeting deadlines, punctuality	Develop skills in working as an individual as well as with others	Develop research and study skills	Provide opportunities for career progression and employment opportunities	Provide opportunities for continuing professional development
J6N7 33*	Electronic Fire and Security Systems Installation: Health and Safety Practices	X	X	X	X	X	X	X
H6S5 33	Electronic Fire and Security Systems: Installation Practices	X	X	X	X	X	X	X
H6S3 33	Electronic Fire and Security Systems Installation: Introduction to Security	X	X	X	X	X	X	X
H6S4 33	Electronic Fire and Security Systems: Electrical Engineering Principles	X	X	X	X	X	X	X

*Refer to 'History of Change' section

Code	Unit Title	Aim 1	Aim 2	Aim 3	Aim 4	Aim 5	Aim 6	Aim 7
		Develop Core Skills in Communication, Numeracy, Problem Solving, Working With Others, ICT	Develop skills in planning and organising	Develop skills in goal setting, managing time, meeting deadlines, punctuality	Develop skills in working as an individual as well as with others	Develop research and study skills	Provide opportunities for career progression and employment opportunities	Provide opportunities for continuing professional development
H6X3 33	Electronic Fire and Security Systems: CCTV Installation	X	X	X	X	X	X	X
H6T7 33	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation	X	X	X	X	X	X	X
H6T9 33	Electronic Fire and Security Systems: Access Control Systems Installation	X	X	X	X	X	X	X
H6T8 33	Electronic Fire and Security Systems: Fire Alarm Systems Installation	X	X	X	X	X	X	X
H6TA 33	Electronic Fire and Security Systems: Signalling	X	X	X	X	X	X	X

Code	Unit Title	Aim 1	Aim 2	Aim 3	Aim 4	Aim 5	Aim 6	Aim 7
		Develop Core Skills in Communication, Numeracy, Problem Solving, Working With Others, ICT	Develop skills in planning and organising	Develop skills in goal setting, managing time, meeting deadlines, punctuality	Develop skills in working as an individual as well as with others	Develop research and study skills	Provide opportunities for career progression and employment opportunities	Provide opportunities for continuing professional development
H6X2 33	Electronic Fire and Security Systems Installation: Commissioning	X	X	X	X	X	X	X
H6X4 33	Maintaining the Performance of Electronic Fire and Security Systems	X	X	X	X	X	X	X

5.1 Mapping of qualification aims to Units — Specific Aims

Code	Unit Title	Aim 1	Aim 2	Aim 3	Aim 4	Aim 5
		Develop knowledge and skills in the installation and maintenance of electronic fire and security systems	Develop skills that meet the current and emerging needs of the security systems sector, particularly in relation to the use of new technologies	Provide underpinning knowledge and skills required to complete the SVQ 3 in Providing Electronic Fire and Security Systems at SCQF level 6	Meet the requirements of the Modern Apprenticeship in Electronic Security Systems at level 3	Formalise and standardise training in this sector for Scotland
J6N7 33*	Electronic Fire and Security Systems Installation: Health and Safety Practices	X	X	X	X	X
H6S5 33	Electronic Fire and Security Systems: Installation Practices	X	X	X	X	X
H6S3 33	Electronic Fire and Security Systems Installation: Introduction to Security	X	X	X	X	X
H6S4 33	Electronic Fire and Security Systems: Electrical Engineering Principles	X	X	X	X	X
H6X3 33	Electronic Fire and Security Systems: CCTV Installation	X	X	X	X	X

*Refer to 'History of Change' section

Code	Unit Title	Aim 1	Aim 2	Aim 3	Aim 4	Aim 5
		Develop knowledge and skills in the installation and maintenance of electronic fire and security systems	Develop skills that meet the current and emerging needs of the security systems sector, particularly in relation to the use of new technologies	Provide underpinning knowledge and skills required to complete the SVQ 3 in Providing Electronic Fire and Security Systems at SCQF level 6	Meet the requirements of the Modern Apprenticeship in Electronic Security Systems at level 3	Formalise and standardise training in this sector for Scotland
H6T7 33	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation	X	X	X	X	X
H6T9 33	Electronic Fire and Security Systems: Access Control Systems Installation	X	X	X	X	X
H6T8 33	Electronic Fire and Security Systems: Fire Alarm Systems Installation	X	X	X	X	X
H6TA 33	Electronic Fire and Security Systems: Signalling	X	X	X	X	X
H6X2 33	Electronic Fire and Security Systems Installation: Commissioning	X	X	X	X	X
H6X4 33	Maintaining the Performance of Electronic Fire and Security Systems	X	X	X	X	X

5.2 Mapping of National Occupational Standards (NOS) and/or trade/professional body standards

Code	Unit Title	National Occupational Standards				
J6N7 33	Electronic Fire and Security Systems Installation: Health and Safety Practices	SFS 2	SFS SYS 6	SFS SYS 8	SFS SYS 10	
H6S5 33	Electronic Fire and Security Systems: Installation Practices	SFS 2	SFS 4	SFS SYS 6	SFS SYS 8	SFS SYS 10
H6S3 33	Electronic Fire and Security Systems Installation: Introduction to Security	SFS 3	SFS 4	SFS 5	SFS 6	SFS 8
H6S4 33	Electronic Fire and Security Systems: Electrical Engineering Principles	SFS SYS 10	SFS SYS 11			
H6X3 33	Electronic Fire and Security Systems: CCTV Installation	SFS SYS 6	SFS SYS 8	SFS SYS 10	SFS SYS 11	SFS SYS 12
H6T7 33	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation	SFS SYS 6	SFS SYS 8	SFS SYS 10	SFS SYS 11	
H6T9 33	Electronic Fire and Security Systems: Access Control Systems Installation	SFS SYS 6	SFS SYS 8	SFS SYS 10		
H6T8 33	Electronic Fire and Security Systems: Fire Alarm Systems Installation	SFS SYS 6	SFS SYS 8	SFS SYS 10	SFS SYS 11	
H6TA 33	Electronic Fire and Security Systems: Signalling	SFS SYS 6	SFS SYS 8	SFS SYS 10	SFS SYS 11	SFS SYS 12
H6X2 33	Electronic Fire and Security Systems Installation: Commissioning	SFS SYS 11	SFS SYS 12	SFS SYS 17		
H6X4 33	Maintaining the Performance of Electronic Fire and Security Systems	SFS 4	SFS 5	SFS SYS 7	SFS SYS 13	

*Refer to 'History of Change' section

5.3 Mapping of Core Skills development opportunities across the qualification

The following table indicates where there are opportunities to develop Core Skills within the Units.

Unit Code	Unit Title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing and Co-operative Contribution
J6N7 33*	Electronic Fire and Security Systems Installation: Health and Safety Practices	SCQF level 5	SCQF level 6			SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	
H6S5 33	Electronic Fire and Security Systems: Installation Practices	SCQF level 5	SCQF level 6			SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	
H6S3 33	Electronic Fire and Security Systems Installation: Introduction to Security	SCQF level 5	SCQF level 6			SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	

*Refer to 'History of Change' section

Unit Code	Unit Title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing and Co-operative Contribution
H6S4 33	Electronic Fire and Security Systems: Electrical Engineering Principles	SCQF level 5	SCQF level 6	SCQF level 5				SCQF level 5	SCQF level 5		SCQF level 6	
H6X3 33	Electronic Fire and Security Systems: CCTV Installation	SCQF level 5	SCQF level 6			SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	
H6T7 33	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation	SCQF level 5	SCQF level 6			SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	
H6T9 33	Electronic Fire and Security Systems: Access Control Systems Installation	SCQF level 5	SCQF level 6			SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	
H6T8 33	Electronic Fire and Security Systems: Fire Alarm Systems Installation	SCQF level 5	SCQF level 6	SCQF level 5		SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	

Unit Code	Unit Title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing and Co-operative Contribution
H6TA 33	Electronic Fire and Security Systems: Signalling	SCQF level 5	SCQF level 6			SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	
H6X2 33	Electronic Fire and Security Systems Installation: Commissioning	SCQF level 5	SCQF level 6			SCQF level 6		SCQF level 5	SCQF level 5			
H6X4 33	Maintaining the Performance of Electronic Fire and Security Systems	SCQF level 5	SCQF level 6	SCQF level 5		SCQF level 6		SCQF level 5	SCQF level 5		SCQF level 6	

5.4 Assessment Strategy for the qualification

Unit code and title		Assessment Year 1					
		Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5	Outcome 6
J6N7 33	Electronic Fire and Security Systems Installation: Health and Safety Practices	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.			
H6S5 33	Electronic Fire and Security Systems: Installation Practices	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.		
H6S3 33	Electronic Fire and Security Systems Installation: Introduction to Security	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. Two hours approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling. Practical assessment.		
H6S4 33	Electronic Fire and Security Systems: Electrical Engineering Principles	Closed-book, timed and supervised. One hour 30 minutes approximately. No sampling. Practical assessment.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. Two hours approximately. No sampling. Practical assessment.	Closed-book, timed and supervised. One hour 30 minutes approximately. Practical assessment.	Closed-book, timed and supervised. One hour approximately. No sampling. Practical assessment.	Closed-book, timed and supervised. One hour approximately. No sampling. Practical assessment.

Unit code and title		Assessment Year 2					
		Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5	Outcome 6
H6X3 33	Electronic Fire and Security Systems: CCTV Installation	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.		
H6T7 33	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	
H6T9 33	Electronic Fire and Security Systems: Access Control Systems Installation	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. Two hours approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.			
H6T8 33	Electronic Fire and Security Systems: Fire Alarm Systems Installation	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.		

Unit code and title		Assessment Year 3					
		Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5	Outcome 6
H6TA 33	Electronic Fire and Security Systems: Signalling	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling.	
H6X2 33	Electronic Fire and Security Systems Installation: Commissioning	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling. Practical assessment.	Closed-book, timed and supervised. One hour approximately. No sampling. Practical assessment.	Closed-book, timed and supervised. One hour approximately. No sampling. Practical assessment.	Closed-book, timed and supervised. One hour approximately. No sampling. Practical assessment.	
H6X4 33	Maintaining the Performance of Electronic Fire and Security Systems	Closed-book, timed and supervised. One hour approximately. No sampling.	Closed-book, timed and supervised. One hour approximately. No sampling. Practical assessment.	Closed-book, timed and supervised. No sampling. Practical assessment.			

Assessments for this award can be carried out at the discretion of the centre in the following ways:

- ◆ Outcome by Outcome
- ◆ Combining Outcomes
- ◆ Holistic assessment of the Unit

6 Guidance on Approaches to Delivery and Assessment

Overview of qualification and what it aims to achieve —

This qualification aims to develop knowledge, understanding and skills required to work in the business of installing and maintaining Electronic Fire and Security Systems. It provides underpinning knowledge, understanding and skills required to complete the SVQ 3 in Providing Electronic Fire and Security Systems at SCQF level 6 and the Modern Apprenticeship in Electronic Security Systems at level 3.

The Units in the award will cover the following areas:

J6N7 33* Electronic Fire and Security Systems Installation: Health and Safety Practices

- 1 Current health and safety legislation, in relation to employer/employee responsibilities.
- 2 General safe working practices.
- 3 The types of emergencies that can happen on site.

J74D 33 Electronic Fire and Security Systems: Installation Practices

- 1 The current requirements of the IEE Wiring Regulations.
- 2 The methodology of containment.
- 3 Current legislation, standards, regulations and codes of practice; project plans and key documentation. Feedback and communication. Test equipment for extra low voltage systems.
- 4 Different types of components used in the installation of intruder alarm systems, access control systems, fire alarm systems and CCTV systems.

H6S3 33 Electronic Fire and Security Systems Installation: Introduction to Security

- 1 Current structure of the security industry and within this the position of the electronic fire and security industry. British, European Standards and codes of practice.
- 2 The types of companies that operate in the industry and how inspectorate bodies help maintain standards.
- 3 The key stages in the life cycle of a security system, the seven key stages of an installation and the importance of establishing strong lines of communication with the customer, management and peers.
- 4 Communication skills.

H6S4 33 Electronic Fire and Security Systems Installation: Electrical Engineering Principles

- 1 Electrical engineering and the use of laws and formulae to determine electrical quantities.
- 2 The principles and formulae required to calculate battery capacity.
- 3 The correct use of test equipment when installing, commissioning or maintaining electronic fire and security systems.

**Refer to 'History of Change' section*

H6X3 33 Electronic Fire and Security Systems: CCTV Installation

- 1 The industry standards and codes of practice for CCTV installation and the role of CCTV systems in the security sector.
- 2 Use and limitations of transmission systems.
- 3 The basic operation of CCTV cameras, including lenses and monitors.
- 4 The use and set up procedures for analogue and digital video recording.

H6T7 33 Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation

- 1 The current standards and industry codes of practice relating to the installation of intruder and hold-up alarm systems.
- 2 The types of circuitry and detectors used in both intruder and hold-up alarm systems.
- 3 The types of detectors used in intruder and hold-up alarm systems.
- 4 The types and functions of both intruder and hold-up alarm control panels.
- 5 Input and output functions on an intruder and hold-up alarm systems.

H6T9 33 Electronic Fire and Security Systems: Access Control Systems Installation

- 1 The current standards and industry codes of practice relating to access control systems.
- 2 Types of systems, their functions, modes of wiring and termination.
- 3 Locking mechanisms, release mechanisms and devices and emergency circuits.

H6T8 33 Electronic Fire and Security Systems: Fire Alarm Systems Installation

- 1 The current standards and industry codes of practice relating to the installation of fire alarm systems.
- 2 The types of circuitry and detectors used in both conventional and addressable fire alarm systems.
- 3 The requirements for siting detection and sounder devices.
- 4 Functions of both conventional and addressable fire detection and alarm control panels.

H6TA 33 Electronic Fire and Security Systems: Signalling

- 1 The services and roles provided by Alarm Receiving Centres (ARC). The process of transmitting data between a secure site and an ARC.
- 2 The connection and testing of signalling equipment.
- 3 The operation of CCTV IP transmission to and from remote sites.
- 4 The connection, configuration and operation of PC based software.
- 5 Networking electronic fire and security systems over both local and wide area networks.

H6X2 33 Electronic Fire and Security Systems Installation: Commissioning

- 1 General requirements for commissioning.
- 2 Commissioning and handing over intruder alarm systems.
- 3 Commissioning and handing over access control systems.
- 4 Commissioning and handing over CCTV systems.
- 5 Commissioning and handing over fire alarm systems.

H6X4 33 Maintaining the Performance of Electronic Fire and Security Systems

All Outcomes — the common and unique procedures used during preventative and corrective maintenance visits.

6.1 Sequencing/integration of Units

The award can be delivered in a variety of different ways. Current centres offer the following:

- ◆ Over 18 months, one day release per week
- ◆ Over 3 years, one day release every second week
- ◆ 1st year, 9 weeks x 5 days; 2nd year, 9 weeks x 5 days

Unit assessments can be carried out at the discretion of the centre in the following ways:

- ◆ Outcome by Outcome
- ◆ Combining Outcomes
- ◆ One holistic assessment of the Unit

It is possible to combine assessments across Units. For example

The assessment for Outcome 2 in *Electronic Fire and Security Systems: Electrical Engineering Principles* could be combined with the assessment for any Outcome in *Electronic Fire and Security Systems Installation: Commissioning* and Outcome 1 in *Maintaining the Performance of Electronic Fire and Security Systems* to form one assessment.

The assessment for Outcome 4 in *Electronic Fire and Security Systems: Installation Practices* and Outcome 3 in *Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation* to form one assessment.

6.2 Recognition of Prior Learning

SQA recognises that learners gain knowledge and skills acquired through formal, non-formal and informal learning contexts.

In some instances, a full Group Award may be achieved through the recognition of prior learning. However, it is unlikely that a learner would have the appropriate prior learning and experience to meet all the requirements of a full Group Award.

The recognition of prior learning may not be used as a method of assessing in the following types of Units and assessments:

- ◆ HN Graded Units
- ◆ Course and/or external assessments
- ◆ Other integrative assessment Units (which may or not be graded)
- ◆ Certain types of assessment instruments where the standard may be compromised by not using the same assessment method outlined in the Unit
- ◆ Where there is an existing requirement for a licence to practice
- ◆ Where there are specific health and safety requirements

- ◆ Where there are regulatory, professional or other statutory requirements
- ◆ Where otherwise specified in an Assessment Strategy

More information and guidance on the Recognition of Prior Learning (RPL) may be found on our web site www.sqa.org.uk.

The following sub-sections outline how existing SQA Unit(s) may contribute to this Group Award. Additionally, they also outline how this Group Award may be recognised for professional and articulation purposes.

6.2.1 Articulation and/or progression

This award provides the underpinning knowledge and skills required to complete the SVQ 3 Providing Electronic Fire and Security Systems at SCQF level 6. Both qualifications are mandatory components of the Modern Apprenticeship in Electronic Security Systems at level 3.

6.2.2 Professional recognition

Nil.

6.2.3 Transitional Arrangements

There are no transitional arrangements for this award.

6.2.4 Credit transfer

Unit Code (Old)	Unit Title	Credit Transfer	Unit Code (New)	Unit Title
F3P5 12	Security Installation: Health and Safety Practices	Yes	J6N7 33	Electronic Fire and Security Systems Installation: Health and Safety Practices
F3P1 12	Fire Alarm Systems, Installation and Maintenance	Part	H6T8 33 H6X4 33	Electronic Fire and Security Systems: Fire Alarm Systems Installation Maintaining the Performance of Electronic Fire and Security Systems
F3P4 12	Security Systems Signalling	Part	H6TA 33	Electronic Fire and Security Systems: Signalling
F3P3 12	Intruder Alarm Systems, Installation and Maintenance	Part	H6T7 33 H6X4 33	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation Maintaining the Performance of Electronic Fire and Security Systems
F3P2 12	CCTV Systems, Installation and Maintenance	Part	H6X3 33 H6X4 33	Electronic Fire and Security Systems: CCTV Installation Maintaining the Performance of Electronic Fire and Security Systems
F3P0 12	Access Control Systems, Installation and Maintenance	Part	H6T9 33 H6X4 33	Electronic Fire and Security Systems: Access Control Systems Installation Maintaining the Performance of Electronic Fire and Security Systems

Unit Code (Old)	Unit Title	Credit Transfer	Unit Code (New)	Unit Title
F3NY 12	Security Systems Installation Practices	Part	H6S5 33	Electronic Fire and Security Systems: Installation Practices
F3NX 12	Intruder Alarm Principles	Part	H6T7 33	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation
F3NW 12	Security Systems Principles	Part	H6S4 33	Electronic Fire and Security Systems: Electrical Engineering Principles
F3NV 12	Security Systems Industry: An Introduction	Part	H6S3 33	Electronic Fire and Security Systems Installation: Introduction to Security

6.3 Opportunities for e-assessment

At this time there are no opportunities for e-assessment.

6.4 Support materials

There are no Assessment Support Packs for the Units within this award.

6.5 Resource requirements

Staff must be occupationally competent and hold the appropriate assessor/internal verifier qualification.

Centres must have the appropriate and sufficient equipment to deliver the practical elements of the course.

7 General information for centres

Equality and inclusion

The Unit specifications making up this Group Award have been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners will be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

Internal and external verification

All instruments of assessment used within this qualification should be internally verified, using the appropriate policy within the centres and the guidelines set by SQA.

External verification will be carried out by SQA to ensure that internal assessment is within the national guidelines for this qualification.

Further information on internal and external verification can be found in SQA's *Guide to Assessment* ([www.sq.org.uk/Guide to Assessment](http://www.sq.org.uk/Guide%20to%20Assessment)).

8 Glossary of terms

Embedded Core Skills: is where the assessment evidence for the Unit also includes full evidence for complete Core Skill or Core Skill components. A learner successfully completing the Unit will be automatically certificated for the Core Skill. (This depends on the Unit having been successfully audited and validated for Core Skills certification.)

Finish date: The end of a Group Award's lapsing period is known as the finish date. After the finish date, the Group Award will no longer be live and the following applies:

- ◆ candidates may not be entered for the Group Award
- ◆ the Group Award will continue to exist only as an archive record on the Awards Processing System (APS)

Graded Unit: Graded Units assess learners' ability to integrate what they have learned while working towards the Units of the Group Award. Their purpose is to add value to the Group Award, making it more than the sum of its parts, and to encourage learners to retain and adapt their skills and knowledge. (**Note to writer:** delete if not applicable to product type)

Lapsing date: When a Group Award is entered into its lapsing period, the following will apply:

- ◆ the Group Award will be deleted from the relevant catalogue
- ◆ the Group Award specification will remain until the qualification reaches its finish date at which point it will be removed from SQA's website and archived
- ◆ no new centres may be approved to offer the Group Award
- ◆ centres should only enter candidates whom they expect to complete the Group Award during the defined lapsing period

SQA credit value: The credit value allocated to a Unit gives an indication of the contribution the Unit makes to an SQA Group Award. An SQA credit value of 1 given to an SQA Unit represents approximately 40 hours of programmed learning, teaching and assessment.

SCQF: The Scottish Credit and Qualification Framework (SCQF) provides the national common framework for describing all relevant programmes of learning and qualifications in Scotland. SCQF terminology is used throughout this guide to refer to credits and levels. For further information on the SCQF visit the SCQF website at www.scqf.org.uk.

SCQF credit points: SCQF credit points provide a means of describing and comparing the amount of learning that is required to complete a qualification at a given level of the Framework. One National Unit credit is equivalent to 6 SCQF credit points. One National Unit credit at Advanced Higher and one Higher National Unit credit (irrespective of level) is equivalent to 8 SCQF credit points.

SCQF levels: The level a qualification is assigned within the framework is an indication of how hard it is to achieve. The SCQF covers 12 levels of learning. HNCs and HNDs are available at SCQF levels 7 and 8 respectively. Higher National Units will normally be at levels 6–9 and Graded Units will be at level 7 and 8. National Qualification Group Awards are available at SCQF levels 2–6 and will normally be made up of National Units which are available from SCQF levels 2–7.

Subject Unit: Subject Units contain vocational/subject content and are designed to test a specific set of knowledge and skills.

Signposted Core Skills: refers to opportunities to develop Core Skills arise in learning and teaching but are not automatically certificated.

History of changes

It is anticipated that changes will take place during the life of the qualification and this section will record these changes. This document is the latest version and incorporates the changes summarised below. Centres are advised to check SQA's APS Navigator to confirm they are using the up to date qualification structure.

NOTE: Where a Unit is revised by another Unit:

- ◆ No new centres may be approved to offer the Unit which has been revised.
- ◆ Centres should only enter candidates for the Unit which has been revised where they are expected to complete the Unit before its finish date.

Version Number	Description	Date
07	<p>Revision of Units: H6X2 33 Electronic Fire and Security Systems Installation: Commissioning has been revised by J7YG 33 Electronic Fire and Security Systems Installation: Commissioning and will finish on 31/07/2027.</p> <p>Maintaining the Performance of Electronic Fire and Security Systems H6X4 33 has been revised by J7YR 33 Maintaining the Performance of Electronic Fire and Security Systems and will finish on 31/07/2027.</p>	08/11/23
06	<p>Revision of Unit: J7X1 33 - <i>Electronic Fire and Security Systems: Fire Alarm Systems Installation</i> has replaced H6T8 33 - <i>Electronic Fire and Security Systems: Fire Alarm Systems Installation</i> which finishes on 31/07/2027.</p> <p>J7X2 33 - <i>Electronic Fire and Security Systems: Access Control Systems Installation</i> has replaced H6T9 33 - <i>Electronic Fire and Security Systems: Access Control Systems Installation</i> which finishes on 31/07/2027.</p>	10/10/2023
05	<p>Revision of Unit: H6TA 33 Electronic Fire and Security Systems: Signalling has been revised by J7C9 33 <i>Electronic Fire and Security Systems: Remote Monitoring and Communications</i>. H6TA 33 will finish on 31/07/2026.</p>	17/05/2023
04	<p>Revision of Unit: H6S5 33 <i>Electronic Fire and Security Systems: Installation Practices</i> has been revised by J74D 33 <i>Electronic Fire and Security Systems: Installation Practices</i>. H6S5 33 will finish on 31/07/2025.</p>	31/01/2023
03	<p>Revision of Units: H6S3 33 <i>Electronic Fire and Security Systems Installation: Introduction to Security</i> has been revised by J6S1 33 <i>Electronic Fire and Security Systems Installation: Introduction to Security</i>. H6S3 33 will finish on 31/07/2024.</p>	02/09/2022

	<p>H6S4 33 <i>Electronic Fire and Security Systems: Electrical Engineering Principles</i> has been revised by J6S2 33 <i>Electronic Fire and Security Systems: Electrical Engineering Principles</i>. H6S4 33 will finish on 31/07/2024.</p> <p>H6X3 33 <i>Electronic Fire and Security Systems: CCTV Installation</i> has been revised by J6S3 33 <i>Electronic Fire and Security Systems: Video Surveillance System Installation</i>. H6X3 33 will finish on 31/07/2024.</p> <p>H6T7 33 <i>Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation</i> has been revised by J6S4 33 <i>Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation</i>. H6T7 33 will finish on 31/07/2024.</p>	
02	<p>Revision of Unit: H6S2 33 <i>Electronic Fire and Security Systems Installation: Health and Safety Practices</i> has been revised by J6N7 33 <i>Electronic Fire and Security Systems Installation: Health and Safety Practices</i>. H6S2 33 will finish on 31/07/2024.</p>	08/08/2022

Acknowledgement

SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of this qualification.

9 General information for learners

This section will help you decide whether this is the award for you. It will explain what the award is about, what you should know or be able to do before the start, what you will need to do during the Award and opportunities for further learning and employment.

This qualification is aimed at:

- 1 Those in employment within the security industry who are attending college on a part-time basis and who will be undertaking concurrently the PDA in Electronic Fire and Security Systems, the SVQ in Providing Electronic Fire and Security Systems and the MA in Electronic Security Systems at level 3 over a period of three years.
- 2 Those within the security industry who may wish to up skill and acquire a formal qualification in electronic fire and security systems.
- 3 Those with an interest in gaining future employment in the security industry.

In order to gain the PDA you must achieve the following Units:

Unit No.	Unit Title	SQA Unit credit value	SCQF credit points	SCQF level
J6N7 33	Electronic Fire and Security Systems Installation: Health and Safety Practices	1	8	6
J74D 33*	Electronic Fire and Security Systems: Installation Practices	1	8	6
J6S1 33*	Electronic Fire and Security Systems Installation: Introduction to Security	1	8	6
J6S2 33*	Electronic Fire and Security Systems: Electrical Engineering Principles	2	16	6
J6S3 33*	Electronic Fire and Security Systems: Video Surveillance System Installation	1	8	6
J6S4 33*	Electronic Fire and Security Systems: Intruder and Hold-Up Alarm Systems Installation	1	8	6
H6T9 33	Electronic Fire and Security Systems: Access Control Systems Installation	1	8	6
H6T8 33	Electronic Fire and Security Systems: Fire Alarm Systems Installation	1	8	6
H6TA 33	Electronic Fire and Security Systems: Signalling	1	8	6
H6X2 33	Electronic Fire and Security Systems Installation: Commissioning	1	8	6
H6X4 33 Or J7YR 33*	Maintaining the Performance of Electronic Fire and Security Systems	1	8	6
	Maintaining the Performance of Electronic Fire and Security Systems	1	8	6

You will participate in class lectures, group activities and independent research.

There are different ways in which you can be assessed. Questions will be generated to test your knowledge and understanding. Practical exercises will be used to assess your skills.

There is no automatic certification of Core Skills in the award. However, there are opportunities to develop aspects of Core Skills in *Communication* (Oral and Written Communication), *Information and Communication Technology (ICT)* (Accessing Information), *Numeracy* (Using Number), *Problem Solving* (Critical Thinking and Planning and Organising) and *Working with Others* (Working Co-operatively with Others). You will also develop skills in goal setting, meeting deadlines, time management and punctuality.

Although not directly awarded, completion of the Modern Apprenticeship Award will give you the opportunity to apply for professional recognition through the Institute of Engineering

Technology and successful recognition will result in the EngTech qualification being awarded.