

Title	Design a master key system using a computer and software package		
Level	3	Credits	6

Purpose	People credited with this unit standard are able to: assess customer requirements for security and access; design master key systems using a computer; and finalise system design, produce and store records.
----------------	---

Classification	Mechanical Engineering > Locksmithing
-----------------------	---------------------------------------

Available grade	Achieved
------------------------	----------

Prerequisite	Unit 30965, <i>Manually design a master key system</i> , or demonstrate equivalent knowledge and skills.
---------------------	--

Guidance Information

- 1 Unit 22455, *Assemble and test key mechanisms*; and Unit 12912, *Design residential and light commercial locking systems* are recommended for entry into this unit standard.
- 2 Legislation
Health and Safety at Work Act 2015.
- 3 Definitions
Accepted industry practice refers to codes of practice and standardised procedures accepted by the wider locksmithing industry as examples of best practice.
Master key system is a generic term to describe a group of cylinders operated by more than one key.
KD – keyed to differ
KA – keyed alike
MK – master keyed
GMK – grand master keyed
GGMK – great grand master keyed.
Workplace procedures refer to the procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- 4 Assessment information
All activities must comply with applicable workplace procedures and must be consistent with accepted industry practice.

Outcomes and performance criteria

Outcome 1

Assess customer requirements for security and access.

Performance criteria

- 1.1 Customer needs are discussed and clarified.
- 1.2 Appropriate levels of security and access are reviewed with respect to customer assets, activities, and existing security arrangements.
- Range on site survey, drawings or plans.
- 1.3 Door and lock schedules and other appropriate documentation are prepared according to workplace procedures.
- 1.4 Customer requirements are matched to the mechanical possibilities and limitations of master key systems.
- Range specific client requirements and quantities, completion times and dates, job requirements and tasks, signature authorities, compliance with relevant manufacturer's specifications, warranties and service information.
- 1.5 Options are identified and customer is advised of options and alternatives.
- 1.6 Advice and assistance is sought from appropriate persons in assessing requirements for key systems and master key systems.
- Range key systems may include – restricted, semi-restricted and non-restricted system numbers, manufacturer restricted, factory restricted, locksmith restricted/managed, association restricted levels (KD, KA, MK, GMK, GGMK).

Outcome 2

Design master key systems using a computer.

Performance criteria

- 2.1 Keying matrix is developed to customer requirements, allowing for future system expansion.
- 2.2 A key code progression chart is produced as per customer requirements.
- 2.3 Key codes that maximise system security are selected.
- 2.4 Key cutting and cylinder loading charts are accurately developed.
- 2.5 Selected incidental master keys are identified within progression charts.

2.6 Principles of master keying are applied.

Outcome 3

Finalise system design, produce and store records.

Performance criteria

- 3.1 System design and keying requirements are reviewed and confirmed with customer and supervisor.
- 3.2 Final system design is explained to customer and confirmed that it meets with customer requirements.
- 3.3 Documentation is accurately prepared, processed and stored.
- Range materials used, key and cylinder coding, identified faults, warranties and recommendations, costs.

Replacement information	This unit standard, unit standard 30965, and unit standard 30970 replaced unit standard 22453.
--------------------------------	--

Planned review date	31 December 2023
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	1 March 2018	N/A

Consent and Moderation Requirements (CMR) reference	0013
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.