

Title	Demonstrate and apply knowledge of designing a master key system		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: demonstrate knowledge of the principle of master keying; and apply knowledge of designing a master key system.
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Classification	Mechanical Engineering > Locksmithing
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Available grade	Achieved
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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 Definition
Master key system is a generic term to describe a group of cylinders operated by more than one key.
- 4 Assessment information
Outcome 2 is concerned with applying knowledge and principles of master keying to produce a master key system for a hypothetical case in a training and development environment.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the principle of master keying.

Performance criteria

- 1.1 Parameters and data required for designing a master key system are described.

Range	may include – building type and activity, level of security and access, site survey, drawings or plans, specific client requirements and quantities.
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- 1.2 Methods used to determine locks and locking systems, and schedules are described.

- 1.3 The sequential process of developing a keying matrix, and key progression charts are described.
- 1.4 The process for selecting the key codes that maximise security from the progression chart is described.
- 1.5 The process for developing key cutting and cylinder loading charts are described.

Outcome 2

Apply knowledge of designing a master key system.

Range manual design, computer based design.

Performance criteria

- 2.1 Keying matrix is developed allowing for future system expansion and mechanical capabilities of system.
- 2.2 A key code progression chart is produced.
- 2.3 Key codes that maximise system security are selected.
- 2.4 Key cutting and cylinder loading charts are developed.
- 2.5 Selected incidental master keys are identified within progression charts.
- 2.6 Principles of master keying are applied.
- 2.7 System design and keying requirements are reviewed.

Replacement information	This unit standard, unit standard 30965 and unit standard 30969 replaced unit standard 22453.
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Planned review date	31 December 2023
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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
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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.