

41322**Design and modify a complex master key system or systems**

Kaupae Level	5
Whiwhinga Credit	15
Whāinga Purpose	This skill standard is intended for people who are working in the locksmithing industry. Learners credited with this skill standard will be able to establish customer requirements, design and modify a complex master key system or systems. This skill standard aligns with the New Zealand Certificate in Locksmithing (Trade) (Level 4) [Ref: 2718].

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Establish customer requirements for a complex master key system or systems.	a. Identify access, operational, and security requirements.
	b. Identify system constraints and site-specific security risks.
	c. Confirm restricted key control requirements, future expansion of master key system, and signatory responsibilities with customer.
	d. Evaluate customer requirements and provide recommendations for a complex master key system that meets customer access, operational, and security requirements.
2. Design a complex master key system or systems.	a. Develop master key system design and keying schedule to meet customer access, operational, and security requirements.
	b. Develop an expansion plan and document reserved range and rules for future reference.
	c. Resolve any identified ghosts and phantoms.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
3. Modify design of an existing complex master key system.	a. Modify master key system to meet the changed requirements of the customer.
	b. Check system for accidental interchange.
	c. Identify and document impacts to future expansion and life span of master key system.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

- Master key system designs may be created manually or using digital software.
- The following design features must be included in one or more master key systems – maison keying, construction keying methods, multi-profile systems, positional keying and incidental master keys.
- Evidence presented against assessment criterion 3a must include the following modifications:
 - expanding a tier to create more codes.
 - replacing an existing key.
 - assigning an incidental master key.
 - creating a selective key at any tier.
- Evidence presented for assessment against this skill standard may be achieved using a hypothetical scenario. Learners are not required to create a master key design for an actual customer.
- Evidence presented for assessment against this skill standard must be consistent with safe working practices and be in accordance with applicable service information, workplace procedures and legislative requirements.
- It is recommended that people hold credits for skill standard 41319, *Design a master key system manually* or demonstrate equivalent knowledge and skills before being assessed against this skill standard.

Definitions

Locksmithing terminology is defined as per MLAA glossary:

Change key refers to a key which has no keys or codes below it in the hierarchy.

Complex master key systems refer to institutional master key systems or complex keying requirements such as maison keying, multi-profile systems, construction keying methods, positional keying and/or coding keys to people in a business (instead of a building).

Construction key refers to a key designed for short term use with the intention of being locked out upon completion of a project.

Incidental master key refers to a master key which utilises main perm cuts in positions also used to generate change keys. Generic term referring to all levels.

Main Perm refers to the highest level code the system is derived from. Digital master key software refers to Top Master Key (TMK) instead of Main Perm.

Maison keyed refers to allowing a group of lower level keys to operate a common lock. Any lock which can be operated by more than one key from the same level can be termed *Maisonned*.

Multi-Profile System refers to a system which utilises more than one key profile.

Positional System refers to a system which uses partially loaded locks to restrict access.

Workplace procedures refer to organisation policies and procedures that are documented in memo, electronic, or manual format and available in the workplace. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, manufacturer's requirements, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the locksmithing industry.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

- Construction keying methods – half key, lost ball.
- Control keying.

Rauemi | Resources

Legislation, regulations and industry guidelines relevant to this skill standard include but are not limited to:

- Health and Safety at Work Act 2015.
- Privacy Act 2020.
- Master Locksmiths Association Australasia. (current version). *MLAA Glossary of Masterkeying Terms*. Available from: <https://masterlocksmiths.com.au/>.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Manufacturing and Engineering Industry Skills Board
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Engineering and Technology > Mechanical Engineering > Locksmithing
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0014

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	28 May 2026	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2031		

Please contact Manufacturing and Engineering Industry Skills Board at qualifications@maeisb.nz to suggest changes to the content of this skill standard.