Title	Assemble and test key mechanisms		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: plan for assembly; disassemble and prepare to assemble key mechanisms; assemble key mechanisms; produce keys from assembled mechanisms; check finished products for correct operation; and mark, package, and label products for installation on site.

Classification	Mechanical Engineering > Locksmithing

Available grade	Achieved

Guidance Information

1   Unit 12908, *Cut keys to codes* is recommended for entry into this unit standard.

2   References and 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.
     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

Plan for assembly.

Performance criteria

1.1   Assembly specifications are identified.

        Range   required components and parts, door handing, time frame for
                  completion, keying instructions, fitting requirements.

1.2   Appropriate authorisations are obtained, signatures checked, and order
        confirmed.

1.3   Appropriate assembly sequence and/or method is planned.

Outcome 2

Disassemble and prepare to assemble key mechanisms.

Performance criteria

2.1   Key mechanisms are disassembled.

        Range   lever lock – mortise, safe, projection locks;
                  wafer locks – lever handles, cam locks;
                  pin locks.

2.2   Components and parts for the job are collected and laid out for assembly.

        Range   wafers, springs, key blanks, plugs, levers, housings, pins, cams
                  and screws, circlips and tails.

2.3   Tools, equipment, and materials are selected to suit job requirements.

        Range   tools and equipment – jigs, followers, tweezers, screwdrivers,
                  circlip pliers, files, wire wheel;
                  materials – lubricants and thread lockers.

2.4   Work area is prepared and components arranged according to the selected
        assembly technique.

2.5   Defective or faulty parts are identified and processed.

Outcome 3

Assemble key mechanisms.

Performance criteria

3.1   Locksmithing techniques and principles are applied appropriate to assembly
        activity.

3.2   Records and data are maintained or processed.

3.3   Component parts are fitted to ensure correct positioning and operation.

3.4 Locking mechanism is correctly marked, tagged, or identified as appropriate.

3.5 Components or assembled mechanisms are handled and stored in a manner least likely to cause damage.

Outcome 4

Produce keys from assembled mechanisms.

Performance criteria

4.1 The key mechanism and construction is correctly identified using an appropriate method.

      Range   visual identification, disassembly, keyway, labelling.

4.2 Key mechanism is decoded.

4.3 Key blank, type, size and position of key cuts is determined.

4.4 Appropriate cutting method is selected.

      Range   may include – mortise machine, clipper, code machine, depth and spacing keys.

4.5 Keys are produced and tested to ensure correct operation.

Outcome 5

Check finished products for correct operation.

Performance criteria

5.1 Operation of cylinder and key is checked.

5.2 Faults in cylinder or key operations are identified and rectified.

Outcome 6

Mark, package, and label products ready for installation on site.

Performance criteria

6.1 Stamping equipment is selected and used correctly.

      Range   may include – dedicated stamping machine, hand stamps, stamping block, engraver.

6.2 Products are stamped with correct door and key reference information.

      Range   key system number, rank, key issue, dealer identification.

6.3   Products are grouped, packaged and labelled for installation.

Replacement information	This unit standard and unit standard 22453 replaced unit standard 12918.

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	19 May 2006	31 December 2022
Review	2	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.