Australian Government

Department of Education, Employment and Workplace Relations

MEM20007A Plan and prepare a masterkey system

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

MEM20007A Plan and prepare a masterkey system

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers creating a new masterkey system for in-line pin tumbler cylinders up to and including a hierarchical GGMK system and maisoning.

Application of the Unit

Application of the unit	This unit applies to manually developing a standard (even cut) progression in-line MK system and using a computer masterkeying package.
	Tools and equipment used would include pen paper, computer.
	All relevant legislative requirements, policies and procedures and codes of practice are adhered to including hazardous risk recognition and assessment, working safely around tools and equipment, emergency procedures, administering first aid.
	If a security survey/site assessment is required, then Unit MEM20014A (Perform a site security survey) should also be selected.
	For cross keying, submasterkeying and selective keying, refer to Unit MEM20008A (Develop and implement a masterkey system).
	Band: **A** **Unit Weight**: **4**

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM20001A	Produce keys
	MEM20002A	Assemble and test lock mechanisms

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Assess customer requirements	1.1. Customer needs are discussed and clarified according to organisational procedures.
	1.2. Appropriate levels of security/access are reviewed with respect to customer assets, activities and existing security arrangements.
	1.3. Door and lock schedules and other appropriate documentation are prepared according to organisational procedures.
	1.4. Customer requirements are matched to the mechanical possibilities and limitations of masterkey systems.
	1.5. Options are identified and customer is advised on options and alternatives.
	1.6. Personal limitations in assessing requirements for key systems and masterkey systems are identified and assistance is sought from appropriate person(s) in accordance with organisational procedures.
2. Design masterkey system	2.1. Keying matrix is developed to customer requirements, allowing for future system expansion and mechanical capabilities of system.
	2.2. Key codes (progression chart) are produced from mathematical permutations and calculations as per customer requirements.
	2.3. Key codes are selected from progression chart that maximise system security.
	2.4. Key cutting and cylinder loading charts are accurately developed.
	2.5. Incidental masterkeys are identified within progression charts.
	2.6. Principles of masterkeying are applied in accordance with industry practice and organisational requirements.
3. Finalise system design	3.1. Final system design and keying requirements are reviewed and confirmed with appropriate person(s) in accordance with organisational requirements.
	3.2. Documentation is accurately prepared and processed and stored in accordance with client, legislative and organisational requirements.

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Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- listening and questioning
- reading architectural plans, floor plans and charts
- applying calculations and formulae within the scope of this unit
- recording information on a floor plan
- developing key matrix
- developing and reading progression charts
- selecting codes from a progression chart that maximise system security
- checking own and others' codes for interchange
- identifying incidental masters in a key system
- selecting groups of codes to form a maisioned cylinder
- creating saving and storing information/documentation related
- using key system

Required knowledge

Look for evidence that confirms knowledge of:

- record keeping and management
- manufacturers'/Australian/building standards
- product knowledge/limitations
- key matrixes and schedules
- allowances for expansion
- operation and limitations of masterkey systems
- levels of systems (KD, KA, MK, GMK, GGMK)
- door handing
- cylinder types
- criteria for key code selection
- strategies for checking key systems for interchange
- strategies for checking key systems for incidental masters
- principles of maison keying
- strategies for code selection

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	A person who demonstrates competency in this unit must be able to survey and prepare a masterkey system to in-line GMK level. Competency in this unit cannot be claimed until all prerequisites have been satisfied.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with surveying and preparing masterkey systems, or other units requiring the exercise of the skills and knowledge covered by this unit. |
| **Method of assessment** | Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials. |

EVIDENCE GUIDE	
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Reviewed	Physically and/or off the plan
Customer requirements	Specific client requirements and quantities, completion times and dates, job requirements and tasks, signature authorities, OHS requirements, company requirements, compliance with relevant manufacturer requirements, warranties and service information.
Key systems	Restricted, semi-restricted and non-restricted system numbers, manufacturer restricted, factory restricted, locksmith restricted/managed, association restricted. Levels including (KD, KA, MK,GMK,GGMK)
Masterkey system	A generic term to describe a group of cylinders operated by more than one key
System expansion	Creation of excess codes to allow for lost keys, unusable codes and future customer requirements, multibroaching
Calculations	Mathematical patterns
Documentation	Materials used, identified faults, warranties and recommendations, costs.

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Unit Sector(s)

Unit sector	

Co-requisite units

Co-requisite units		

Competency field

Competency field	Locksmithing

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