



Australian Government

CPCCSG3017 Erect and install signs

Release: 1

CPCCSG3017 Erect and install signs

Modification History

Release 1.

This version first released with CPC Construction, Plumbing and Services Training Package Version 2.

Revised unit of competency. Replaces superseded non-equivalent CPCCSI2007A Apply fasteners and fixings.

Application

This unit of competency specifies the outcomes required to erect and install signs to surfaces and structures, safely and according to client requirements.

The unit supports installers of signs working in a range of settings who must ensure appropriate permits are in place prior to erecting a sign, that the surface is suitable for installing the sign, and that appropriate fasteners and fixings have been selected for the task.

Licensing, legislative, regulatory or certification requirements apply to this unit in some States. Relevant state and territory regulatory authorities should be consulted to confirm those requirements.

Pre-requisite Unit

Nil

Competency Field

Signs and graphics

Unit Sector

Construction

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.

- | | | | |
|---|-----------------------------------|-----|---|
| 1 | Plan and prepare for installation | 1.1 | Job requirements are identified from work instructions and confirmed with relevant personnel. |
|---|-----------------------------------|-----|---|

	processes.	1.2	Characteristics and dimensions of sign are identified and weight of sign is calculated and applied to planning.
		1.3	Research is undertaken to determine the need for local authority permits to install sign, client is informed, and relevant permissions obtained or sighted before starting work.
		1.4	Detailed installation drawings are obtained and confirmed.
		1.5	Tools and equipment are selected to carry out tasks according to job requirements, checked for serviceability, and faults are rectified or reported before starting work.
		1.6	Health and safety requirements are identified and applied to planning.
		1.7	Sequence of tasks is determined and confirmed with relevant personnel.
2	Assess installation site.	2.1	Work site is assessed and need for engineering risk assessment is identified with relevant personnel and obtained where appropriate to confirm structural integrity of supporting background before starting work.
		2.2	Site plans are sourced and location of assets, services and infrastructure beneath and around installation site are identified.
		2.3	Condition of surface is assessed and need for remedial work is identified.
		2.4	Remedial work if required is undertaken or referred to relevant personnel for action according to job requirements.
3	Prepare to secure sign.	3.1	Surface is cleaned and prepared according to planned material application.
		3.2	Sign is positioned on site, checked for quality, and identified faults are rectified before installation.

- | | | | |
|---|--|-----|---|
| 4 | Secure sign to surface, as required. | 4.1 | Location for sign is confirmed against drawings and position is marked out for installation. |
| | | 4.2 | Marked locations are checked to be level and errors in measurements and calculations are rectified before sign is installed. |
| | | 4.3 | Sign is positioned and secured with <i>fasteners and fixings</i> according to manufacturer specifications, specified tolerances, job requirements and safety procedures. |
| 5 | Secure freestanding sign, as required. | 5.1 | Location for support materials is marked out on site according to job requirements. |
| | | 5.2 | Footings for sign are created to specified depth according to job requirements and sign characteristics. |
| | | 5.3 | Anchor bolts are inserted and holes are filled with concrete and finished to job requirements. |
| | | 5.4 | Support poles are inserted, fixed into position, and checked for levelling using levelling tools. |
| | | 5.5 | Sign is secured to poles using specified fastenings and fixings, and checked for stability, and faults are rectified or reported to relevant personnel. |
| 6 | Finalise work and clean up. | 6.1 | Installation is checked to ensure it is level, and faults in installation process are identified and rectified or reported to relevant personnel. |
| | | 6.2 | Appropriate colour and type of paint are applied to visible fastenings and fixings to a professional standard and according to job requirements. |
| | | 6.3 | Sign and surrounding area are cleaned and waste materials are removed according to statutory and regulatory authority requirements. |
| | | 6.4 | Tools and equipment, including personal protective equipment (PPE), are cleaned, maintained and stored according to workplace requirements. |

Foundation Skills

This section describes the language, literacy, numeracy and employment skills essential to performance in this unit but not explicit in the performance criteria.

Skill	Performance feature
Learning skills to:	source and apply information relating to council and other permissions required for some sign installations.
Numeracy skills to:	take accurate measurements and calculate weights and load tolerances.
Reading skills to:	- interpret manufacturer specifications relating to use of fasteners and fixings used to erect signs - interpret job requirements, installation instructions and diagrams relating to erecting and installing signs.
Writing skills to:	- complete council and other regulatory authority documentation required as part of permit approval processes - report faults in tools and equipment to manufacturer and other relevant personnel using appropriate documentation and terminology.

Range of Conditions

This section specifies work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Tools and equipment</i> must include:	- chamois - drills - ladder - levelling tools - measuring tapes and rules - post hole digger - PPE suited to installing signs - touch-up paint.
---	---

Health and safety requirements must include:

- selection, correct fitting, and use of PPE prescribed under legislation, regulations and workplace policies and practices
- emergency procedures, including:
 - evacuation
 - first aid
 - location and use of fire-fighting equipment
- hazard identification and risk control procedures
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - concealed services (water, power and gas)
 - lighting
 - restricted access barriers
 - traffic control
 - work site visitors and the public
 - working in confined spaces
 - working in proximity to others
 - use of machines
 - use of tools and equipment
- workplace environmental requirements.

Fasteners and fixings must include:

- all of the following chemical products:
 - construction adhesive
 - injection systems
 - spin capsules
 - hammer-in capsules
- and five or more of the following:
 - electrical clips
 - nylon anchors
 - hollow wall anchors
 - plastic toggles
 - metal toggles
 - multi-clips
 - lug anchors
 - steel ferrule expanding bolts
 - metal screws
 - chipboard screws
 - plasterboard screws.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCCSG3017 Erect and install signs

Modification History

Release 1.

This version first released with CPC Construction, Plumbing and Services Training Package Version 2.

Revised unit of competency. Replaces superseded non-equivalent CPCCSI2007A Apply fasteners and fixings.

Performance Evidence

A person who demonstrates competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit, and must erect and install two signs as follows:

- one sign must measure at least 1200 x 2400 mm, be constructed of aluminium no more than 5 mm thick, and be fixed using appropriate fixings and fastenings to one of the following surfaces:
 - acrylic
 - glass
 - masonry
 - metal
 - plasterboard
 - plastic
 - timber
- one sign must measure at least 1200 x 2400 mm, be constructed of aluminium no more than 5 mm thick, and be positioned as a freestanding sign to two aluminium posts or poles measuring no less than 90 x 90 mm.

In doing the above work, the person must:

- check and confirm the need for planning permissions to install the signs in specified location
- check and confirm the site for services and assets below ground
- assess the sign installation requirements relevant to the work site, identifying potential risks and hazards and demonstrating measures to mitigate potential work site risks and hazards
- ensure the structural integrity of the supporting background, including taking steps to ensure reinforcement is arranged if required
- follow safety procedures when erecting and installing above signs
- identify and select methods for erecting and installing above signs, including selecting tools, fasteners and fixings giving consideration to the characteristics of the signs

- prepare the work site for installation and install the signs according to job requirements.

Knowledge Evidence

A person demonstrating competency in this unit must demonstrate knowledge of:

- purpose and application of the following when erecting and installing signs:
 - safety data sheets (SDS)
 - safe work method statements (SWMS)
- effect of mechanical and chemical fixings and fastenings used to install signs on different surfaces
- load bearing specifications for a range of fastener and fixing measurements and calculations relating to material quantities
- relevant Australian and New Zealand standards in relation to the installation of signs, including:
 - AS/NZS 3832 Electrical installations – Cold-cathode illumination systems
 - AS 1319 Safety signs for the occupational environment
- statutory and regulatory authority requirements, particularly those relating to:
 - removal of waste products
 - storage of chemicals and materials
- types and uses of tools and equipment used for installing signs
- processes and practices for working safely around power sources, services and assets.

Assessment Conditions

Suitable assessment of performance requires:

- equipment:
 - a range of fasteners and fixings used for erecting and installing signs
 - a range of tools and equipment used for erecting and installing various types of signs:
 - chamois
 - drills
 - ladder
 - levelling tools
 - measuring tapes and rules
 - post hole digger
 - personal protective equipment suited to installing signs
 - touch-up paint
- materials:
 - one freestanding sign and one sign fixed to a surface
 - signs to be 1200 x 2400 mm, constructed of aluminium
 - signs to be installed
 - ready-mix concrete

- contingencies:
 - engineering risk assessment may be required to confirm structural integrity of supporting wall or structure
 - local authority planning permission may be required in certain settings and locations
- specifications:
 - Australian and New Zealand standards in relation to the installation of signs, including:
 - AS/NZS 3832 Electrical installations – Cold-cathode illumination systems
 - AS 1319 Safety signs for the occupational environment
 - SDS
 - SWMS
- physical conditions:
 - installation may be required in indoor and outdoor settings
- relationship with client:
 - sufficient contact to check and confirm requirements
- relationships with team members:
 - work may be undertaken alone or with others
- timeframe:
 - according to job requirements.

Assessor requirements

As a minimum, assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>