



**Australian Government**

**Assessment Requirements for  
CPCPGS4023 Install, commission and  
service Type B gas appliances**

**Release: 3**

# Assessment Requirements for CPCPGS4023 Install, commission and service Type B gas appliances

## Modification History

- Release 3 This version first released with CPC Construction, Plumbing and Services Training Package Release 6.2.
- Updated imported prerequisite unit UEENEEP012A Disconnect/reconnect composite appliances connected to low voltage installation wiring to UEERL0004 Disconnect-reconnect electrical equipment connected to low voltage (LV) installation wiring.
- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
- Typographical error corrected in Element and Performance Criteria 6.2.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and is not equivalent to CPCPGS4023B Install, commission and service Type B gas appliances. Updated to meet the Standards for Training Packages 2012.

## Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by:

- planning, installing, commissioning and maintaining one Type B gas appliance.

In doing so the person must:

- complete all work according to approved design specifications, workplace procedures, standards, codes and regulatory and manufacturer requirements within agreed timeframes
- apply safety requirements throughout the work sequence.

## Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- relevant standards:
  - AS 3814 Industrial and commercial gas-fired appliances
  - AS/NZS 5601 Gas installations set
  - AS1375 Industrial fuel fired appliances
  - AS 2593 Boilers - Safety management and supervision systems

- AS/NZS 3000 Electrical installations (known as the Australian/New Zealand Wiring Rules)
- AS/NZS 4836 Safe working on low-voltage electrical installations
- flue gas analysis techniques and processes
- gas terminology and conventional symbols
- gas safety and isolation procedures
- combustion characteristics and effects
- purging requirements, techniques and critical calculation processes
- types, characteristics, uses and limitations of Type B gas appliance components
- ventilation techniques and calculation processes
- workplace and equipment safety requirements
- design specification:
  - air controls
  - combustion air blowers
  - flame safeguards
  - gas pressure regulation
  - gas valve trains
  - manual shut-off valves
  - markings and instructions
  - materials
  - over-pressure protection systems
  - process controls
  - safety shut-off valve systems
- Type B gas appliances:
  - those above 10 megajoules (MJ) for which a certification scheme does not exist
  - gas types:
    - combination fuels
    - liquefied petroleum gas (LPG)
    - natural gas (NG)
    - tempered LPG
    - bio-gas
  - special requirements for design and operation:
    - after burners - process
    - air gas mixing machines and mixing blowers
    - atmosphere generators and special atmospheres
    - direct gas fired air heaters
    - high input gas fired appliances
    - incinerators and generators
    - multi-fuel firing systems
    - ovens - direct fired

- smoke ovens - direct fired
- stationary gas engines and turbines
- steam and heated water boilers
- water heaters
- Type B appliance operation specifications:
  - flame establishment periods
  - interlocks
  - operation of gas appliance and burners
  - operational sequences
  - pre-purging
  - start gas rates
- determination of site suitability for installation
- commissioning procedure for a Type B appliance in accordance with relevant standard
- types of valve trains
- types of burners:
  - atmospheric
  - nozzle mix
  - package
  - pre-mix
- testing and servicing of Type B gas appliances requirements
- how to access relevant information, including codes and standards
- tools, materials and equipment used to install, commission and service Type B gas appliances
- work health and safety (WHS) requirements for installing, commissioning and servicing Type B gas appliances
- properties of gas, gas safety, combustion principles, pressure and flow rates.

## Assessment Conditions

Assessors must satisfy the requirements for assessors listed in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

## Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>