



Learner Assessment Guide
Unit Standard 16949
Apply rescue techniques for the extrication of entrapped people
from vehicle wreckage
(Level 4, Credit 10, Version 2)

Level Descriptor

Level	Process	Employing	Responsibility
4	Carrying out processes that: <ul style="list-style-type: none"> • Require a wide range of scholastic skills • Offer a considerable choice of procedures • Are employed in a variety of familiar and unfamiliar contexts 	Employing: <ul style="list-style-type: none"> • A broad knowledge base incorporating some theoretical concepts • Analytical interpretation of information • Informed judgement • A range of sometimes innovative responses to concrete but often unfamiliar problems 	Applied: <ul style="list-style-type: none"> • In directed activity • Under broad guidance and evaluation • With complete responsibility for the quantity and quality of output • With possible responsibility for the quantity and quality of the output of others

Descriptors:

Credit 10 - will require approximately 100 - 120 hours of learning, practice or experience and assessment for a person with no previous knowledge or experience.

Version 2 - This document has been prepared based on version 2 of the Unit Standard.

Elements:

1. Demonstrate an understanding of the terminology used to describe the construction and component features of vehicles.
2. Prepare vehicles for rescue and extrication activities.
3. Implement glass management techniques on vehicles.
4. Select and apply methods of providing access to casualties.

Prerequisites:

Unit 16947, *Practice casualty care in fire and rescue services during rescue and extrication activities, or demonstrate equivalent knowledge and skills.*

Assessment Conditions:

Assessment against this unit standard may take place under real or practical simulated conditions.

Special Notes:

Compliance with the providers Health and Safety policy and procedures is mandatory.

Assessment Brief Instructions:

Assessing Element 1: Demonstrate an understanding of the terminology used to describe the construction and component features of vehicles. This must include:

- manufacturer assembled
- customised

The features of motorcars are identified in terms of their construction and safety components.

This may include but is not limited to -

- 2 door
- 4 door
- 3 and 5 door
- hard-top
- soft-top

The features of utility trucks, light vans, and light trucks are identified in terms of their construction and safety components. This may include but is not limited to –

- rear access
- dual side access
- flat bed tray
- drop side tray
- tip tray
- single axle
- dual axle

The features of medium and heavy trucks are identified in terms of their construction and safety components. This may include but is not limited to –

- medium and heavy rigid vehicles
- medium and heavy articulated vehicles

The features of passenger and recreational vehicles are identified in terms of their construction and safety components. This may include but is not limited to –

- minivan
- passenger coach over 10 passengers
- mini camper
- recreational motor home

The features of manufacturer and home built light aircraft, light sea craft and light vehicles are identified in terms of their construction and safety components. Range: may include but is not limited to –

- motorised buggies
- micro-light aircraft
- light aircraft power driven and non power driven
- power boats

Assessing Element 2: Prepare vehicles for rescue and extrication activities.

Vehicle stabilisation methods are selected and implemented in accordance with fire and rescue service provider's requirements. This may include but is not limited to –

- inverted step chock
- traditional step chock
- step chock/wedge combination
- crib/wedge combination
- tensioning techniques
- controlled tire deflation

Stabilisation methods maintained ensure the ongoing integrity of vehicle and scene security and safety in accordance with fire and rescue service provider's requirements.

Assessing Element 3: Implement glass management techniques on vehicles.

Common glass types used in vehicle manufacture both pre and post 1980 are identified in terms of their characteristics. This may include but is not limited to

- tempered
- armoured
- laminated
- synthetic

Glass management equipment and techniques are applied for the purpose of gaining clear access in accordance with fire and rescue service provider's requirements.

Assessing Element 4: Select and apply methods of providing access to casualties.

Forced door entry techniques are selected and applied in accordance with SOPs.

This may include but is not limited to –

- nader pin latch (traditional)
- nader pin crush
- roof rail spread
- quarter light spread
- rear door panel crush
- hinge side spread
- hinge spread and cut
- hinge cutting

Techniques of providing access to the passenger compartment(s) of vehicles are applied in accordance with SOPs. This may include but is not limited to –

- roof flap rear
- roof flap front
- roof flap side
- half roof flap
- quarter roof flap
- roof removal

Space making techniques are selected and applied in accordance with SOPs.

This may include but is not limited to –

- B pillar cut and spread
- side removal
- inverted side removal
- inverted ramming
- inverted double ramming
- third door conversion

Extrication of casualties from frontal entrapment is undertaken in accordance with SOPs.

This may include but is not limited to -

- dash roll
- dash lift center
- dash lift side
- alternative purchase dash roll

Techniques for interior clearing are applied in accordance with SOPs. This includes:

- footwell flap
- pedal pull/cutting
- steering wheel cutting
- forced seat removal
- seat reversing
- seat cutting

Lifting techniques using hydraulic rescue tools are applied in accordance with SOPs. This includes:

- spreader lifts
- ram lifts

Techniques for positioning and supporting air bags are applied to achieve optimum lift in accordance with fire and rescue service provider's requirements.