



## Assessor Assessment Guide Unit Standard 16949

### Apply rescue techniques for the extrication of entrapped people from vehicle wreckage (Level 4, Credit 10, Version 2)

In order to achieve competency in this unit standard a candidate must display an understanding of the knowledge components by completing an oral or written assessment and practically demonstrate an understanding of the terminology used to describe the construction and component features of vehicles; prepare vehicles for rescue and extrication activities; implement glass management techniques on vehicles; and select and apply methods of providing access to casualties.

This assessment may take place at a real or at a simulated practical event.

The assessor may elect to question candidates during completion of the practical assessment to ensure theoretical knowledge can be applied during practice. This technique also provides the assessor with reinforcement that knowledge has been retained.

Where a candidate is being assessed on the basis of a RCC process evidence must be produced that indicates a candidate has successfully directed operations at a defensively controlled fire at both structure and vehicle fires in a safe manner without causing avoidable environmental or equipment damage.

**Assessors may use this guide to record evidence of a candidates overall performance but should be aware that this may not, on its own be an adequate record for moderation purposes without appropriate notes or appendices. Notes should include a summary of the process used and a statement about the quality of the candidate's performance.**

**ASSESSORS SHOULD ALWAYS REVIEW THE REQUIREMENTS CONTAINED IN THE UNIT STANDARD DOCUMENT PRIOR TO CONDUCTING ASSESSMENTS**

For this unit the following resources are available from FRSITO to assist Learners, Instructors and Assessors:

- Assessor Assessment Guide
- Learner Assessment Guide

Assessors: General Notes:

Pre-requisite: Candidate must hold Unit Standard 16947, *Practice casualty care in fire and rescue services during rescue and extrication activities*, before this Unit can be registered on their NZQA Record of Learning

Assessors Name	_____	Assessor No.	_____
Candidate Name	_____	NZQA No.	_____
Date of Assessment	_____	Final Result	_____

**Level Descriptor**

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

	Information or actions that may provide support for competency	
General	<b>Has the candidate:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Gained Unit Standard 16947</li> <li><input type="checkbox"/> Satisfactorily completed a pre course self test?</li> <li><input type="checkbox"/> Satisfactorily completed an oral or written on course or post knowledge assessment?</li> <li><input type="checkbox"/> Satisfactorily completed simulation exercises?</li> <li><input type="checkbox"/> Attend a course covering the Unit Standard subject matter?</li> <li><input type="checkbox"/> Provided proof of experience through records?</li> <li><input type="checkbox"/> Practically demonstrated in a practical scenario?</li> <li><input type="checkbox"/> Other (please list)?</li> </ul> <hr/> <hr/>	Assessor Notes:

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
1	<b>Demonstrate an understanding of the terminology used to describe the construction and component features of vehicles.</b> <b>Range:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> manufacturer assembled</li> <li><input type="checkbox"/> customised</li> </ul>		
1.1	Candidate must identify the features of cars are in terms of their construction and safety components.  <b>Range:</b> may include but is not limited to - <ul style="list-style-type: none"> <li><input type="checkbox"/> 2 door</li> <li><input type="checkbox"/> 4 door</li> <li><input type="checkbox"/> 3 and 5 door</li> <li><input type="checkbox"/> hard-top</li> <li><input type="checkbox"/> soft-top</li> </ul> <b>Did the candidate:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Satisfy the requirements of the range?</li> </ul> <b>Assessor notes:</b>	<b>Features of motorcars are in terms of their construction and safety components identified.</b>	

<b>Element and PC</b>	<b>Evidence Typical answer/product/performance expected from the learner/candidate(s)</b>	<b>Judgement Statement (A statement that defines the standard to be achieved)</b>	<b>Result C/NYC</b>
1.2	<p>Candidate must identify the features of utility trucks, light vans, and light trucks in terms of their construction and safety components.</p> <p><b>Range:</b> may include but is not limited to -</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> rear access</li> <li><input type="checkbox"/> dual side access</li> <li><input type="checkbox"/> flat bed tray</li> <li><input type="checkbox"/> drop side tray</li> <li><input type="checkbox"/> tip tray</li> <li><input type="checkbox"/> single axle</li> <li><input type="checkbox"/> dual axle</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>The features of utility trucks, light vans, and light trucks identified in terms of their construction and safety components.</b></p>	
1.3	<p>Candidate must identify the features of medium and heavy trucks in terms of their construction and safety components.</p> <p><b>Range:</b> may include but is not limited to –</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> medium and heavy rigid vehicles</li> <li><input type="checkbox"/> medium and heavy articulated vehicles</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Features of medium and heavy trucks identified in terms of their construction and safety components.</b></p>	
1.4	<p>Candidate must identify the features of passenger and recreational vehicles in terms of their construction and safety components.</p> <p><b>Range:</b> may include but is not limited to -</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> minivan</li> <li><input type="checkbox"/> passenger coach over 10 passengers</li> <li><input type="checkbox"/> mini camper</li> <li><input type="checkbox"/> recreational motor home</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Features of passenger and recreational vehicles identified in terms of their construction and safety components.</b></p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
1.5	<p>Candidate must identify the features of manufacturer and home built light aircraft, light sea craft and light vehicles in terms of their construction and safety components.</p> <p><b>Range:</b> may include but is not limited to -</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> motorised buggies</li> <li><input type="checkbox"/> micro-light aircraft</li> <li><input type="checkbox"/> light aircraft power driven and non power driven</li> <li><input type="checkbox"/> power boats</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Features of manufacturer and home built light aircraft, light sea craft and light vehicles identified in terms of their construction and safety components.</b></p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
<b>2</b>	<b>Prepare vehicles for rescue and extrication activities.</b>		
2.1	<p>Candidate must select and implement vehicle stabilisation methods in accordance with fire and rescue service provider's requirements.</p> <p><b>Range:</b> may include but is not limited to -</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> inverted step chock</li> <li><input type="checkbox"/> traditional step chock</li> <li><input type="checkbox"/> step chock/wedge combination</li> <li><input type="checkbox"/> crib/wedge combination</li> <li><input type="checkbox"/> tensioning techniques</li> <li><input type="checkbox"/> controlled tire deflation</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Vehicle stabilisation methods selected and implemented in accordance with fire and rescue service provider's requirements.</b></p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
2.2	<p>Candidate must maintain stabilisation methods to ensure the ongoing integrity of vehicle and scene security and safety in accordance with fire and rescue service provider's requirements.</p> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Maintain stabilisation methods appropriately?</p> <p><b>Assessor notes:</b></p>	<p><b>Stabilisation methods maintained to ensure the ongoing integrity of vehicle and scene security and safety in accordance with fire and rescue service provider's requirements.</b></p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
<b>3</b>	<b>Implement glass management techniques on vehicles.</b>		
3.1	<p>Candidate must identify common glass types used in vehicle manufacture both pre and post 1980 in terms of their characteristics.</p> <p><b>Range:</b> may include but is not limited to</p> <p><input type="checkbox"/> tempered <input type="checkbox"/> armoured <input type="checkbox"/> laminated <input type="checkbox"/> synthetic</p> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Common glass types used in vehicle manufacture both pre and post 1980 identified in terms of their characteristics.</b></p>	
3.2	<p>Candidate must apply glass management equipment and techniques for the purpose of gaining clear access in accordance with fire and rescue service provider's requirements.</p> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Apply glass management processes correctly?</p> <p><b>Assessor notes:</b></p>	<p><b>Glass management equipment and techniques applied for the purpose of gaining clear access in accordance with fire and rescue service provider's</b></p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
4	<b>Select and apply methods of providing access to casualties.</b>		
4.1	<p>Candidate must select and apply forced door entry techniques in accordance with SOPs.</p> <p><b>Range:</b> may include but is not limited to -</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> nader pin latch (traditional)</li> <li><input type="checkbox"/> nader pin crush</li> <li><input type="checkbox"/> roof rail spread</li> <li><input type="checkbox"/> quarter light spread</li> <li><input type="checkbox"/> rear door panel crush</li> <li><input type="checkbox"/> hinge side spread</li> <li><input type="checkbox"/> hinge spread and cut</li> <li><input type="checkbox"/> hinge cutting</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Forced door entry techniques selected and applied in accordance with SOPs.</b></p>	
4.2	<p>Candidate must apply techniques of providing access to the passenger compartment(s) of vehicles in accordance with SOPs.</p> <p><b>Range:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> roof flap rear</li> <li><input type="checkbox"/> roof flap front</li> <li><input type="checkbox"/> roof flap side</li> <li><input type="checkbox"/> half roof flap</li> <li><input type="checkbox"/> quarter roof flap</li> <li><input type="checkbox"/> roof removal</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Techniques of providing access to the passenger compartment(s) of vehicles applied in accordance with SOPs.</b></p>	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
4.3	<p>Candidate must select and apply space making techniques in accordance with SOPs.</p> <p><b>Range:</b> may include but is not limited to -</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> B pillar cut and spread</li> <li><input type="checkbox"/> side removal</li> <li><input type="checkbox"/> inverted side removal</li> <li><input type="checkbox"/> inverted ramming</li> <li><input type="checkbox"/> inverted double ramming</li> <li><input type="checkbox"/> third door conversion</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Space making techniques selected and applied in accordance with SOPs.</b></p>	
4.4	<p>Candidate must undertake extrication of casualties from frontal entrapment in accordance with SOPs.</p> <p><b>Range:</b> may include but is not limited to -</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> dash roll</li> <li><input type="checkbox"/> dash lift centre</li> <li><input type="checkbox"/> dash lift side</li> <li><input type="checkbox"/> alternative purchase dash roll</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<p><b>Extrication of casualties from frontal entrapment undertaken in accordance with SOPs.</b></p>	

<b>Element and PC</b>	<b>Evidence Typical answer/product/performance expected from the learner/candidate(s)</b>	<b>Judgement Statement (A statement that defines the standard to be achieved)</b>	<b>Result C/NYC</b>
4.5	<p>Candidate must apply techniques for interior clearing in accordance with SOPs.</p> <p><b>Range:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> footwell flap</li> <li><input type="checkbox"/> pedal pull/cutting</li> <li><input type="checkbox"/> steering wheel cutting</li> <li><input type="checkbox"/> forced seat removal</li> <li><input type="checkbox"/> seat reversing</li> <li><input type="checkbox"/> seat cutting</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<b>Techniques for interior clearing applied in accordance with SOPs.</b>	
4.6	<p>Candidate must apply lifting techniques using hydraulic rescue tools in accordance with SOPs.</p> <p><b>Range:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> spreader lifts,</li> <li><input type="checkbox"/> ram lifts.</li> </ul> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Satisfy the requirements of the range?</p> <p><b>Assessor notes:</b></p>	<b>Lifting techniques using hydraulic rescue tools applied in accordance with SOPs.</b>	
4.7	<p>Candidate must apply techniques for positioning and supporting air bags to achieve optimum lift in accordance with fire and rescue service provider's requirements.</p> <p><b>Did the candidate:</b></p> <p><input type="checkbox"/> Techniques for optimum lift applied?</p> <p><b>Assessor notes:</b></p>	<b>Techniques for positioning and supporting air bags to achieve optimum lift applied in accordance with fire and rescue service provider's requirements.</b>	