

Title	Demonstrate knowledge of signal flow, sound system requirements and factors affecting performance or event sound quality		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: describe signal flow and sound system requirements; and explain the components of and factors affecting good sound quality for a performance or event.
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Classification	Performing Arts General > Entertainment and Event Technology
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Available grade	Achieved
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Guidance Information

- All learning and assessment leading to this unit standard must be carried out in accordance with the following as relevant:
 - legislation including Health and Safety at Work Act 2015 and subsequent amendments;
 - current industry best practice and industry guidelines (where available) including *Safe Rigging Practices for the Entertainment Industry in New Zealand*, June 2015, and *A Guide for Safe Working Practices in the New Zealand Theatre & Entertainment Industry*, April 2011, or replacements that supersede these guidelines, available from the WorkSafe website, www.worksafe.govt.nz.
- The Entertainment and Event Technology programme guidance document should be consulted when developing assessments leading to this unit standard. It can be found at www.skillsactive.org.nz.

Outcomes and performance criteria

Outcome 1

Describe signal flow and sound system requirements for a performance or event.

Performance criteria

- 1.1 Explain the purpose of a sound system in terms of improving sound quality, amplification, reinforcement, room acoustics and the enhancement of a performance or event.
- 1.2 Explain conventions, symbols and signal structure for a simple signal flow diagram.

- 1.3 Explain the relationship between power, voltage and resistance.
- 1.4 Explain the difference in impedance and resistance in relation to audio equipment.
- 1.5 Explain the types and purpose of input devices in terms of their use for particular applications.
- 1.6 Explain the types and purpose of output devices and speakers in terms of their use for a performance or event.
- 1.7 Describe the gain structure and frequency response in terms of importance for signal flow.
- 1.8 Describe acoustic levels in terms of sound pressure levels and decibels.
- 1.9 Explain the difference between volume level and gain in terms of sound quality.
- 1.10 Explain the purpose and reasons for foldback in terms of the sound system.
- 1.11 Explain the basic components of a mixing desk in terms of location and use.

Outcome 2

Explain the components of and factors affecting good sound quality for a performance or event.

Performance criteria

- 2.1 Explain the components of auditory perception in terms of their effect on good sound quality.
- 2.2 Explain elements of sound signals in terms of how they affect good sound quality.
- 2.3 Explain good sound quality in terms of how it is affected by room acoustics and atmospheric conditions.
- 2.4 Explain the effects of equipment placement on good sound quality.
- 2.5 Explain good sound quality in terms of the use of mixing effects.
- 2.6 Explain good sound quality in terms of personal likes and dislikes.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 September 2017	N/A

Consent and Moderation Requirements (CMR) reference

0099

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Skills Active Aotearoa Limited info@skillsactive.org.nz if you wish to suggest changes to the content of this unit standard.