

## Competency Standards for Caribbean Vocational Qualifications (CVQ)

### CCCILS2001 – CVQ Level 2– Live Sound Engineering

Unit Code	Unit Title	Mandatory/ Elective
CI00021	Maintain Production Equipment	Mandatory
CI00022	Provide quality service to customers	Mandatory
CI00006	Apply a general knowledge of audio to work activities	Mandatory
CI00007	Handle physical elements safely during load in/load out	Mandatory
CI00023	Rig sound equipment	Mandatory
CI00024	Move and set up instruments and equipment	Mandatory
CI00025	Set up wireless audio equipment	Mandatory
CI00026	Set up stage monitor systems	Mandatory
CI00027	Set up and disassemble audio equipment	Mandatory
CI00016	Follow safety, health and security procedures in the creative industries	Mandatory
CI00017	Communicate in the workplace	Mandatory
CI00018	Work with others	Mandatory
CI00028	Operate staging elements	Elective
CI00029	Apply a general knowledge of theatrical rigging	Elective

To achieve this qualification all mandatory competency standards and a minimum of any 1 elective must be achieved.

**CI00021: Maintain production equipment**
**Unit Descriptor:**

This unit describes the performance outcomes, skills and knowledge required to maintain production equipment used in the creative industries.

**ELEMENTS**
**PERFORMANCE CRITERIA**

Candidates must be able to:

- |   |  |     |  |
|---|--|-----|--|
| 1 | Undertake routine maintenance of equipment   | 1.1 | Clean and maintain equipment, cables and accessories according to organisational procedures  |
|   |  | 1.2 | Conduct safety checks on equipment according to manufacturer instructions and OHS guidelines   |
|   |  | 1.3 | Check and replace spares and consumables and ensure production equipment is ready and available to productions at specified locations        |
|   |  | 1.4 | Complete required documentation to ensure accurate records of checked and maintained items, and provide copies to relevant personnel         |
| 2 | Attend to the repair of production equipment | 2.1 | Recognise faults and safely shut down equipment if necessary, following manufacturer instructions and organisational procedures              |
|   |  | 2.2 | Isolate fault to specific equipment or parts of equipment using fault detection procedures, and determine nature of repair requirements      |
|   |  | 2.3 | Tag faulty production equipment according to organisational procedures   |
|   |  | 2.4 | Make minor repairs to faulty equipment according to safety requirements and manufacturer instructions and within level of own responsibility |
|   |  | 2.5 | Refer complex repairs to technical specialists or licensed personnel in consultation with relevant personnel                                 |
|   |  | 2.6 | Where appropriate, have technical specialists pilot the repair from a remote location  |

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|   | 2.7                                      | Discuss faults and repair needs with technical specialists, demonstrating accurate use of terminology.   |
| 3 | Review and document maintenance activity | <p>3.1 Undertake simple modifications to equipment, ensuring current safety measures and deadlines are met</p> <p>3.2 Complete documentation according to organisational procedures and distribute to relevant personnel as required</p> <p>3.3 Review repair and maintenance activities to ensure compliance with legislation and organisational procedures</p> |

## RANGE STATEMENT

Maintenance of equipment include:

- camera and sound equipment including:
  - cleaning and dusting equipment
  - cleaning microphones and replacing inserts
  - replacing batteries
  - checking continuity of cables
  - accurate storage of equipment
  - aligning and adjusting recording and playback units
  - cleaning recording playback medium
  - making back-up copies of recordings

Accessories include:

- sound accessories e.g.
  - microphone leads
  - windsocks
  - brackets and stands
  - connectors
  - spare faders
  - headphones

Organisational procedures include:

- documenting repair and maintenance activities
- providing back-up materials
- updating contact lists for repair specialists and suppliers
- writing and attaching labels to faulty equipment

Spares and consumables include:

- batteries
- cables
- connectors
- disks, e.g. DVD and CD
- soldering iron and solder
- tapes

Equipment include:

- sound, including:
  - microphones of all types
  - amplifiers
  - speakers
  - mixing desk

Productions include:

- animations
- backstage monitoring
- documentaries
- events and performances
- feature films

- tape machines
- headphones and headsets
- digital recorders
- CD and DVD players
- sequencer and sampler
- effects rack
- test equipment, e.g. voltmeters and diagnostic tools
- two-way communication devices
- screens
- festivals
- front of house displays
- interactive media productions
- live theatre
- outside broadcasts
- short films
- sporting events

Locations include:

- attractions and theme parks
- auditoriums and classrooms
- clubs and hotels
- conference venues
- film locations
- outdoor venues
- outside broadcasts
- public spaces and buildings
- studios
- theatre

Relevant personnel include:

- camera crews
- clients
- designers
- editors
- graphic artists
- heads of departments
- lighting directors
- photographers
- sound technicians and engineers
- staging or lighting crew
- suppliers
- technical producers and directors
- technical specialists

Documentation include:

- back-up materials
- equipment diagrams and design specifications
- fault reports
- inventories
- maintenance schedules
- manufacturer instructions
- operating manuals
- supplier information

Minor repairs include:

- sound equipment:
  - replacing or tagging items that do not require electrical or electronic skills
  - making up leads
  - replacing connectors
  - replacing parts of microphones and stands
  - replacing fuses and faders
- for vision systems:
  - any instance where a faulty item can be removed and replaced simply and tagged without specific electrical or electronic skills
  - changing blown globes
  - replacing fuses, faders, parts of microphone stands and sound equipment connectors
  - exchanging parts of equipment, such as cables,, trays, microphones, sound recording and

- playback equipment
- changing faulty control systems, mixers, patch bays, cables, remote units, speakers and projectors

Licensed personnel include:

- accredited equipment specialists
- qualified electricians
- rigger

## UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. what are the technical features of major types of equipment
2. what are the typical maintenance needs and schedules for the range of equipment in use
3. what are the common faults and associated repair procedures for the range of equipment in use
4. how to test for and diagnose faults in equipment
5. how to use appropriate tools for detecting and repairing faults
6. what are the spare parts and sub-assemblies used in either sound, lighting or vision equipment repair and maintenance
7. how to undertake minor repairs on faulty equipment
8. how to tag or label equipment according to its repair status
9. how to re-assemble equipment under repair and re-align as required
10. what are the effects of not operating and maintaining equipment in optimal conditions, e.g. effect of bad ventilation on equipment
11. how to apply an understanding of electrical terminology and their measurements, including voltage, current resistance, insulation and power sources (AC/DC)
12. how to conduct general maintenance of equipment
13. how to use safe electrical work practices
14. how to demonstrate good equipment storage techniques to enhance overall maintenance
15. how to use communication skills (work effectively as a team member, liaise with technical specialists, provide reports to relevant personnel on equipment status)
16. how to apply understanding of self management and planning skills sufficient to work under pressure and meet deadlines
17. what are the OHS and public safety legislation and regulations as they apply to technical maintenance activities

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- undertake routine repairs and maintenance on equipment used in a specified production area
- apply logical fault detection procedures
- interpret service and technical manuals
- recognise faults and apply OHS principles and issues in relation to the repair and maintenance of equipment

- perform all tasks according to established procedures

**(2) Method of Assessment**

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation, inspection of items repaired by the candidate, review of repair report (prepared by the candidate), review of portfolios of evidence, third party workplace reports and written or oral questioning. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials.

**(3) Context of Assessment**

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

CI00022: Provide quality service to customers

Unit Descriptor:

This unit deals with the skills and knowledge required to identify and satisfy customer needs and expectations in a positive and professional manner.

**ELEMENTS**

**PERFORMANCE CRITERIA**

Candidates must be able to:

- |   |                               |  |
|---|-------------------------------|--|
| 1 | Identify customer needs       | 1.1 Use interpersonal skills appropriately to ensure that customers' needs are accurately identified.  |
|   |                               | 1.2 Discuss customers' requests in an articulate, easy to understand manner and respond to promptly within organization's policy and procedures. |
|   |                               | 1.3 Assess customers' needs for urgency so that priorities for service delivery can be identified.   |
|   |                               | 1.4 Provide customers with information about available options for meeting their needs and assist in identifying their preferred option.         |
|   |                               | 1.5 Promote organization's products and services to meet customers' requests in accordance with organization's policy and procedures             |
|   |                               | 1.6 Complete documentation in accordance with organization's policies and procedures   |
|   |                               | 1.7 Identify personal limitations in addressing customers needs where appropriate, and seek assistance from designated person.                   |
| 2 | Communicate with the customer | 2.1 Communicate with customers and colleagues in a polite, professional and friendly manner according to established procedures                  |
|   |                               | 2.2 Use language and tone appropriate to a given situation in both written and verbal communication  |
|   |                               | 2.3 Use appropriate non-verbal communication in all situations according to workplace procedures   |

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|   | 2.4  | Observe non-verbal communication of colleagues and customers and take into consideration the communication process.                         |   |
|   | 2.5  | Communicate with others showing sensitivity to cultural and social differences according to established procedures.                         |   |
|   | 2.6  | Facilitate effective two-way communication using active listening and questioning techniques according to workplace procedures              |   |
|   | 2.7  | Identify potential and existing conflicts and seek solutions in conjunction with parties involved in accordance with established procedures |   |
| 3 | Establish a relationship with the customer | 3.1   | Confirm customer identity and details with customer records according to workplace procedures.  |
|   |  | 3.2   | Establish a rapport using active listening and empathy techniques   |
| 4 | Maintain personal presentation standards   | 4.1   | Observe appropriate dress, grooming and behaviour in the workplace according to organization's policies and procedures  |
|   |  | 4.2   | Maintain personal presentation taking into account workplace environment and impact on different kinds of customer in accordance with workplace procedures                  |
| 5 | Deliver quality service to customers       | 5.1   | Provide prompt customer service to meet identified needs in accordance with legislative and organisational requirements.  |
|   |  | 5.2   | Establish rapport with customers to enable high-quality service delivery in accordance with workplace procedures  |
|   |  | 5.3   | Meet all reasonable needs and requests of customers within organizational guidelines and timeframes.  |
|   |  | 5.4   | Provide service to customers respectfully and with sensitivity where cultural differences and special needs exist in accordance with organization's policies and procedures |
|   |  | 5.5   | Handle customers' complaints sensitively and courteously in accordance with organizational requirements.  |
|   |  | 5.6   | Identify opportunities to enhance the quality of service and  |



products whenever possible.

## RANGE STATEMENT

This unit applies to activities associated with the essential operations linked to providing quality service to customers

### Customers include:

- user
- purchaser or beneficiary of a service, product or process
- internal or external clients
- colleagues
- visitors

### Deliver quality service include:

- building rapport
- keeping promises
- keeping the customer informed
- doing it right the first time
- owning the customer's request
- responding to the customer's request with operational efficiency

### Active listening include:

- giving your full attention to the persons who are speaking
- responding in a way that lets them know you have listened
- understood their message as they have intended

### Personal presentation include:

- personal appearance
- accurate posture
- use appropriate language and tone
- demeanour
- personality

### Interpersonal skills include:

- using appropriate body language
- summarizing and paraphrasing to check understanding of customer's message
- providing an opportunity for the customer to confirm his/her request
- seeking feedback from the customer to confirm understanding of needs
- questioning to clarify and confirm the customer's needs
- listening actively to what the customer is communicating

### Legislative requirements include:

- confidentiality and privacy
- anti-discrimination
- licensing requirements
- fair trade
- adherence to mandatory service and process standards
- Occupational Health and Safety requirements
- environmental regulations

### Grooming includes:

- the use of hygiene aids
- properly laundered garments
- clean shoes
- the range of fashions and hairstyles accepted as appropriate for the workplace

### Customer needs include:

- advice or general information
- specific information
- further information
- making an appointment
- Complaints
- purchasing the organisation's products and services
- returning organisation's products

Workplace procedures include:

- safety
- process-specific procedures
- use of materials
- recycling
- cost control
- reporting

Behaviour which contributes to a safe work environment include:

- discussing and negotiating problems and tasks with other team members
- sharing knowledge and skills
- identifying and reporting any risks or hazards
- using business equipment according to instructions

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. what are the strategies for excellent customer service
2. what are the workplace policies and procedures for customer service including handling customer complaints
3. what are customer feedback mechanisms
4. what is the organization's business structure, products and services
5. what are the organization's policies, procedures and guidelines
6. what are the organization's business operations and processes
7. how to access and use workplace information
8. how to identify customer needs
9. how to apply problem solving skills e.g. deal with customer enquiries or complaints
10. how to relate to people from a range of social, cultural and ethnic backgrounds as well as physical and mental abilities
11. how to read and interpret information
12. how to articulate organization's products and services
13. how to apply customer service skills to satisfy customer requirements and satisfaction
14. how to employ questioning and active listening skills to clarify information

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- apply knowledge of organization's products and service
- apply knowledge of and adherence to organization's standards, policies and procedures
- use appropriate language, tone and phrases in dealing with customers and giving due consideration for special needs and cultural and social differences
- apply clear and concise communication with the customer including use of active listening and questioning techniques
- process inquiry in a prompt and efficient manner
- provide various options to the customer when more than one option can satisfy customer need
- deliver service in accordance with organisation's policy and procedures
- project a professional image in representing the organization

**(2) Method of Assessment**

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

**(3) Context of Assessment**

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with other units in the qualification.

**CI00006: Apply a general knowledge of audio to work activities**
**Unit Descriptor:**

This unit provides the foundation knowledge required to complete a range of general audio-related tasks in a live venue environment. It includes the need for an understanding of the overall audio system layout and basic equipment recognition.

**ELEMENTS**
**PERFORMANCE CRITERIA**

Candidates must be able to:

- |   |                                      |   |
|---|--------------------------------------|---|
| 1 | Make preparations for audio set-up   | 1.1 Extract key information from audio installation plans and confirm requirements with supervisor in accordance with company's policies and procedures<br><br>1.2 Identify preferred rigging and positioning points for audio equipment<br><br>1.3 Identify cables used to connect different audio components<br><br>1.4 Identify and sort equipment and accessories in preparation for set-up, ensuring appropriate handling in accordance with manufacturer's specifications   |
| 2 | Complete tasks using audio equipment | 2.1 Position and connect audio system cables, including microphone, speaker, multicore snake and power feeds, in accordance with supervisor's instructions and safety requirements<br><br>2.2 Wire the audio system in sequence and confirm with supervisor according to established procedures<br><br>2.3 Identify any problems with equipment promptly, take action within scope of individual responsibility or report to supervisor according to company's policy<br><br>2.4 Communicate appropriately with other technicians, performers or customers during the completion of tasks in accordance with established procedures |

## RANGE STATEMENT

Sound equipment include:

- amplifiers to suit the system
- analogue or digital mixing desk
- CD player
- computer DAT
- effects rack
- hard disc recorder
- microphones
- mini disc
- signal processing equipment
- speakers as part of the system
- PA system for audiences of different sizes

Equipment differences for loudspeakers include:

- features of high frequency compression driver types
- size of paper cone loudspeakers

Sequencing of wiring include:

- connection of adequate mains to all components and understanding of power isolation
- patching to create a complete signal chain from input to output
- safe and neat positioning of cables

Accessories used in live audio include:

- active splits
- analysis software
- continuity and phase testers
- DI boxes
- insulation transformers
- spectrum analysers
- SPL meters
- white or pink noise generators

Equipment differences for input source equipment include:

- devices in the main signal chain, eg equalisers, CD, cassette, mini disk
- devices inserted over individual channels, such as noise gates, limiters, compressors, preamps

Start up sequence and operating settings for an audio system include:

- ensuring all amplifier volume controls are down (at minimum settings)
- ensuring all output faders on console are down (at minimum settings or muted)
- powering up all front-of-house equipment first
- powering up amplifiers last
- winding up amplifier volumes after all equipment is powered up

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. how to read audio plan to determine equipment required
2. how to position and place equipment appropriately ready for installation
3. how to amend positioning of equipment to remove feedback problems
4. how to wire the audio system
5. how to liaise with other technicians during set-up
6. how to effectively communicate with clients and colleagues
7. how to work effectively with colleagues in a team environment
8. how to work safely with others in the work area

9. how to deal with and communicate contingencies, difficulties and problems in delivering your work
10. how to apply problem solving techniques
11. what are the procedures for dealing with typical equipment problems and threats to safety

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- identify sound equipment, including key features and purpose
- display understanding of signal flow through the audio chain
- perform audio-related tasks in accordance with health and safety procedures
- communicate effectively with customers and colleagues (including those with special needs) within the range of situations required for the relevant job role
- work effectively as part of a team

### (2) Method of Assessment

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials

### (3) Context of Assessment

This unit may be assessed on the job or off the job. Where assessment is done off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by working individually or as part of a team.

This unit could be assessed in conjunction with other units in the qualification.

## CI00007: Handle physical elements safely during load in/load out

### Unit Descriptor:

This unit deals with the skills and knowledge required to assemble, pack and load/unload physical elements under supervision for any production within the Creative Industries. It focuses on safe manual handling and general knowledge of the load in/load out process and types of equipment.

ELEMENTS		PERFORMANCE CRITERIA	
Candidates must be able to:			
1	Prepare physical elements for transportation	1.1	Assemble/dismantle physical elements in accordance with manufacturer's instructions to ensure ease of packing, loading, unloading and installation
		1.2	Pack physical elements safely using appropriate techniques and materials to avoid damage during transportation
		1.3	Identify, prepare and pack any tools required for load in/load out in accordance with established procedures
2	Load/unload physical elements	2.1	Load/unload physical elements in the required order, ensuring that there is no damage in accordance with industry standards
		2.2	Use safe manual handling techniques throughout the loading/unloading process to avoid injury or damage in accordance with workplace procedures
		2.3	Install or position physical elements in appropriate work or storage area according to manufacturer's specifications
		2.4	Identify hazardous items and load in a manner which minimizes health and safety risks according to workplace procedures
		2.5	Inspect load prior to transportation to ensure that all items are loaded appropriately and adjustments are made as required
		2.6	Clear and clean work areas in accordance with approved workplace procedures
3	Check condition of physical elements	3.1	Check condition of physical elements to ensure that no damage has occurred during load in/load out

- 3.2 Identify repairs where required according to workplace procedures
- 3.3 Report to appropriate personnel for action using documentation according to company's policies and procedures

## RANGE STATEMENT

Physical elements include:

- sets
- lighting equipment
- audio equipment
- props
- scenic art
- costumes

Appropriate personnel include:

- supervisors/managers
- technical staff
- event/production managers
- stage managers

Packing materials include:

- road cases
- boxes
- crates
- wardrobe skips
- tape
- rope
- straps
- bubble wrap
- tissue paper
- labels
- bush blankets

Packing techniques include:

- use of restraints
- particular ways of handling different equipment
- use of protective coverings

Transportation requirements include:

- within a venue
- between different venues
- by road
- by air
- by sea

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. what is the load in/ load out process for different types of productions including typical procedures and processes and the roles and responsibilities of different personnel
2. which physical elements to use for different types of production



3. what are the typical locations for different physical elements within a production venue
4. what are the broader safety issues associated with the movement of physical elements and how to apply safe manual handling techniques
5. what are the relevant organisational and/or legislative Occupational Safety and Health (OSH) requirements
6. what are the packing materials and packing techniques used for different types of equipment
7. what are the techniques for loading and stowing equipment for safe transportation
8. what are the range of tools commonly required during the load in/load out process
9. how to work safely and with others
10. how to read simple work instructions, equipment lists and safety directions
11. how to count/tally equipment and other physical elements

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- apply knowledge of safe manual handling techniques for various types of equipment
- move, pack and load equipment under instruction using safe manual handling techniques
- comply with organisational policies and procedures, industry standards and practices and relevant regulatory requirements

### (2) Method of Assessment

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials

### (3) Context of Assessment

This unit may be assessed on the job or off the job. Where assessment is done off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by working individually.

This unit could be assessed in conjunction with other units in the qualification.

## CI00023: Rig sound equipment

### Unit Descriptor:

This unit deals with the skills and knowledge required to set up and dismantle multi-equipment sound rigs. It involves checking that equipment is safe and in working order, setting up rigs, positioning equipment and cables and placing microphones, ensuring that the suspension, mounting, stand and cables are mechanically and physically sound.

### ELEMENTS

### PERFORMANCE CRITERIA

Candidates must be able to:

1	Check equipment and rigging	1.1	Undertake inventory of equipment including hired-in equipment and report where necessary any discrepancies according to established procedures
		1.2	Confirm that cables and the available mains supply meet the requirements and the electrical performance related to their use according to industry standard
		1.3	Confirm that any equipment which is inaccessible when rigged is safe and working before rigging
		1.4	Confirm that the suspension, mounting, stand and cable are mechanically sound, unlikely to transmit vibration to the microphone, and visually acceptable according to workplace procedures
		1.5	Handle equipment safely and securely, and neatly coil and store cables according to workplace procedures
		1.6	Remedy any defects in equipment promptly either by repair or replacement and report defects to company approved personnel
		1.7	Document and clearly label defective equipment according to established procedures
2	Rig and power up equipment	2.1	Position and interconnect the equipment, according to manufacturer's specification and set switches as applicable
		2.2	Power-up equipment according to established procedures

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|---|------------------------|--|--|
|   | 2.3                    | Position and connect equipment and cables so that they are safe and secure and do not inconvenience others according to workplace procedures                       |  |
|   | 2.4                    | Place the microphone at a height and position to pick up the intended sound source, and position its support and cable safely according to established procedures  |  |
|   | 2.5                    | Minimise the effect of any wind noise according to established procedures  |  |
|   | 2.6                    | Label the microphone, stand and cable clearly according to workplace procedures  |  |
|   | 2.7                    | Adjust the microphone in relation to wanted and unwanted sound sources, and adjacent microphones according to workplace procedures                                 |  |
|   | 2.8                    | Position any personal microphone to optimise sound quality and minimise the possibility of mechanical noise or clothing rustle according to established procedures |  |
|   | 2.9                    | Check that the set-up is visually acceptable, meets production requirements, and is achieved within the operational constraints of the production                  |  |
|   | 2.10                   | Identify the safety requirements of the equipment, and take appropriate measures to ensure they are met  |  |
|   | 2.11                   | Report promptly and politely any rigging difficulties which cannot be resolved within the constraints of the production, and suggest suitable solutions            |  |
|   | 2.12                   | Produce the required paperwork and labelling accurately, legibly and in the appropriate format according to workplace procedures                                   |  |
| 3 | Work with Contributors | 3.1  | Treat the contributor sensitively, and in a way that minimises disruption to their concentration |
|   |                        | 3.2  | Explain the use of the microphone clearly, when the contributor needs the information            |
| 4 | Power down and de-rig  | 4.1  | Power-down equipment according to established  |

procedures

- 4.2 Reset and de-rig equipment, and stow it safely and securely, within required deadlines
- 4.3 Identify and label defective equipment and promptly report lost and damaged equipment to company approved personnel

## RANGE STATEMENT

Equipment include:

- boundary (PZM)
- capacitor/condenser, such as:
  - electrets
  - lavalier
  - transistor
  - tube
- contact
- digital
- directional, such as:
  - omni
  - bi directional
  - cardioids
- dual-element
- dynamic, such as:
  - moving coil
  - ribbon
- headset
- lapel
- low and/or high impedance
- microphone systems, such as:
  - adaptive array
  - binaural
  - high definition
  - parabolic
  - surround sound
  - wireless
  - cordless
  - FM
  - radio transmitter
  - noise cancelling
  - shotgun

Productions include:

- live music or theatre performance

Microphone accessories include:

- boom poles, including:
  - aluminium
  - carbon fibre
  - fisher
  - hand-held
  - perambulator
  - remote panner
  - tripod
- cables, including:
  - balanced
  - unbalanced
- clips
- connectors, including:
  - female
  - male
  - XLR
- housing
- pop filters
- shock mounts
- stands, including:
  - desk
  - floor
  - gooseneck
  - windscreens

Relevant personnel include:

- artists, musicians and performers

- commercial
- feature film and/or video shot
- interactive media product
- internet production
- electronic game production
- radio broadcast
- television program
- sound engineers and technicians
- broadcasters
- clients
- directors
- producers
- program managers
- venue managers
- stage managers
- sound designers
- video and sound recorders

Positioning microphones includes:

- ensuring that safety procedures are followed
- organizational requirements
- production requirements
- ensuring optimum sound quality
- ensuring that cabling is mechanically sound and
- does not transmit vibration to microphones

Acoustic sources include:

- acoustic instruments
- electric instruments
- the voice for dramatic dialogue
- the voice for lectures and meetings
- the voice for music

Microphone options include:

- condenser
- dynamic

Checking involves ensuring that:

- cables are:
  - routed and secured safely
  - visually unobtrusive
- leads and associated electricals are patched into the input and output sockets
- adequate resources are available in the event of equipment breakdown

Microphones for specific purposes include:

- lectern
- specific instruments, e.g. piano, electric guitar stage dialogue

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. what are acoustic principles and how to apply them
2. what are the characteristics of microphones including: directivity pattern, polarity, robustness, sensitivity to moisture, handling noise; their implications, and how to optimise microphone placement
3. what are the characteristics of windshields, and how to use them
4. what are common connector types and their pin configuration
5. what the intended sound sources are, and where they will be located
6. what are equipment suspension and flying techniques and any relevant regulations
7. what are the relevant safety checking procedures for mains operated equipment, including portable appliance testing
8. how to label the rig accurately where required
9. how to interconnect equipment safely

10. what are the safety aspects of cable routing
11. what are the indicators of faults, malfunctions and failures in systems and equipment, and how to control and contain them
12. how to identify and remedy common defects, with minimum disruption to the performance, and who to report defects to where relevant
13. what are the safety regulations, methods and procedures as they apply to: de-rigging, storing and transport
14. how to make working environment safe
15. how to apply relevant electrical safety regulations
16. what weather protective ancillaries are needed, and how to use them
17. how to explain the use of microphones to non-technical people

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- test equipment in line with production requirements
- work cooperatively in a team environment
- apply OSH procedures
- perform all tasks in accordance with standard operating procedures
- take responsibility for the quality of one's own work

### (2) Method of Assessment

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation, oral questioning, examination of portfolio, and simulation. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials.

### (3) Context of Assessment

This unit may be assessed on the job or off the job. Where assessment is done off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by working individually.

This unit could be assessed in conjunction with other units in the qualification.

## CI00024: Move and set up instruments and equipment

### Unit Descriptor:

This unit deals with the skills and knowledge required to load and transport instruments and equipment to a venue, and set up those instruments at the venue for any production in the creative industries.

### ELEMENTS

### PERFORMANCE CRITERIA

Candidates must be able to:

- |   |  |   |
|---|--|---|
| 1 | Plan for the safe manual handling of instruments and equipment | <ul style="list-style-type: none"> <li>1.1 Determine the accurate placing of equipment and instruments through communication with performers, head of technical crew and/or musical director as required.</li> <li>1.2 Verify plans with company approved personnel where required before loading in or loading out.</li> <li>1.3 Secure moving devices where possible to assist personnel in accordance with established procedures</li> <li>1.4 Confirm the sequence in which equipment will be moved with company approved personnel where required, in accordance with company approved procedures</li> <li>1.5 Confirm any special conditions of the job</li> <li>1.6 Determine all likely problems associated with moving instruments and equipment and verify tasks with all relevant personnel.</li> <li>1.7 Check that a first aid kit is available at all times and ensure that all essential items for the kit are always on hand</li> </ul> |
| 2 | Load and/or unload a van or truck with equipment               | <ul style="list-style-type: none"> <li>2.1 Verify list of all items to be packed according to workplace procedures</li> <li>2.2 Check that packaging is done in a manner to minimise movement in transit according to established procedures.</li> <li>2.3 Check that gear is packed in the appropriate order taking account of weight, fragility and unloading requirements.</li> </ul>  |

- |   |   |     |  |
|---|---|-----|--|
|   |   | 2.4 | Check that packaging is done to distribute weight evenly, front to back and left to right.   |
| 3 | Move and set up instruments and equipment | 3.1 | Ensure that instruments, equipment and personnel are protected against damage, loss or injury while they are being moved and set up    |
|   |   | 3.2 | Set up instruments and equipment according to agreed plans, ensuring the safety of players, crew, front of house staff and the public. |
|   |   | 3.3 | Check that all cables are gaffer taped securely in traffic cable areas.  |
| 4 | Disassemble sound equipment after use     | 4.1 | Assist in de-rigging equipment safely according to workplace procedures  |
|   |   | 4.2 | Report any lost or damaged equipment to company approved personnel.  |
|   |   | 4.3 | Account for all equipment before packing and check that cabling is stored tidily and methodically according to established procedures. |
|   |   | 4.4 | Check that the working environment is left clean after use according to established procedures   |
|   |   | 4.5 | Deal with problems promptly and effectively according to workplace procedures  |
|   |   | 4.6 | Observe safe lifting and handling practices and apply Occupational Safety and Health (OSH) principles at all stages.                   |

## RANGE STATEMENT

This unit applies to activities associated with the essential operations linked to moving and setting up instrument and equipment.

Instruments and equipment include:

- musical instruments
- instrumental accessories, cases and

Special conditions of the job include:

- stairs
- narrow spaces



- spare parts
- sound equipment and cabling
- stands

- environmental factors
- traffic
- safety hazards
- crowds

Statutory regulations include:

- local
- national
- Occupational Safety and Health (OSH) requirements

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. what are the relevant principles and regulations of occupational safety and health, especially safe lifting
2. how to care for and secure instruments and equipment
3. what are the procedures for packaging and transporting equipment
4. what are the procedures for rigging and de-rigging equipment
5. what are the necessary reporting procedures
6. what are the necessary installation procedures
7. what are the necessary testing procedures
8. how to communicate clearly to achieve planned outcomes
9. how to work effectively with others
10. how to set priorities and deadlines
11. how to select and use available technology appropriate to the task
12. how to ensure the care and security of instruments and equipment
13. how to use moving devices
14. how to complete documentation
15. how to install and test instruments and equipment

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- apply knowledge of Occupational Health and Safety principles
- apply safe handling of heavy materials and use of appropriate protective gear/equipment
- confirm and follow instructions
- follow installation procedures safely and perform relevant testing and checks
- comply with Occupational Health and Safety regulations

### (2) Method of Assessment

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including evaluation of reports

prepared by the candidate detailing challenges faced and how these were resolved, case studies and problem solving exercises to assess ability to plan for different operational situations and contexts, direct observation and oral questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials.

**(3) Context of Assessment**

This unit may be assessed on the job or off the job. The assessment context must provide for practical demonstration of skills through the coordination of a bump in/bump out process for multiple productions. Where assessment is done off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by working individually.

This unit could be assessed in conjunction with other units in the qualification.

## CI00025: Set up wireless audio equipment

### Unit Descriptor:

This unit describes the skills and knowledge required to specify, fit and operate radio microphones and in-ear wireless monitors for any production within the creative industries.

### ELEMENTS

### PERFORMANCE CRITERIA

Candidates must be able to:

1	Assess wireless audio equipment requirements and plan spectrum management	1.1	Liaise with relevant personnel to determine the various production factors that will impact on wireless audio equipment operation
		1.2	Assess both technical and performance factors to establish the most appropriate approach to the use of wireless audio equipment in accordance with any regulatory requirements
		1.3	Establish all other wireless frequencies in use within range, including security and building services users
		1.4	Research and establish wireless instrument and in-ear monitor frequencies to be used by all acts, performers and musicians associated with the performance
		1.5	Plot proposed and currently used frequencies onto suitable plot and compare with legal and available frequencies
		1.6	Establish actual frequencies to be used, allocated to each person, performer, musician, and/or department according to established procedures
		1.7	Prepare a suitable spreadsheet/plot where multiple use of the same frequency for different performers or segments is required,
		1.8	Document wireless audio equipment requirements prior to the production to ensure easy interpretation by others
		1.9	Make appropriate checks to ensure availability of equipment and accessories in accordance with production requirements

- 
- |   |  |     |  |
|---|--|-----|--|
| 2 | Set-up wireless equipment                | 2.1 | Establish suitable location for equipment and technician work area in consultation with relevant personnel   |
|   |  | 2.2 | Run audio lines appropriately from wireless equipment to stage box or patch point and make connections in accordance with plot   |
|   |  | 2.3 | Run standby microphone cable/s as required, and have wired and wireless standby equipment on hand according to established procedures                                  |
|   |  | 2.4 | Establish backup channels with appropriate personnel, and put in place other appropriate contingency measures according to workplace procedures                        |
| 3 | Check and fit wireless audio equipment   | 3.1 | Make appropriate checks on wireless audio equipment prior to fitting to ensure equipment is accurately labelled, in working order and fully charged with new batteries |
|   |  | 3.2 | Check that frequency setting on microphones and transmitters is matched and complete appropriate tuning  |
|   |  | 3.3 | Identify the most appropriate position for the equipment based on performance and technical issues in accordance with established procedures                           |
|   |  | 3.4 | Fit wireless audio equipment using appropriate attachment techniques to meet performance requirements  |
|   |  | 3.5 | Follow appropriate protocols with performers during the fitting process  |
|   |  | 3.6 | Explain clearly any technical operation issues to performers   |
|   |  | 3.7 | Check and adapt gain structure to fit production requirements  |
| 4 | Monitor wireless audio equipment systems | 4.1 | Set wireless audio equipment so that signal is received by the sound desk according to workplace procedures  |
|   |  | 4.2 | Request performer to use equipment to ensure it is working accurately and crosscheck according to established procedures   |

		4.3	Monitor all wireless systems throughout production, document any problems and promptly report to relevant personnel
5	Complete work actions	5.1	Retrieve wireless equipment from performers at conclusion of their performance
		5.2	Clean and arrange or store wireless equipment in readiness for the next user or the next performance

## RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant personnel include:

- director
- front of house engineer
- performers
- stage manager
- stage monitor engineer
- systems engineer
- other technical specialists

Technical factors that impact on wireless audio equipment operation include:

- frequencies for operation
- need for back up microphones
- number of radio microphones being used
- options for different antennae
- other equipment on stage
- presence of moisture or water
- volume required

Performance factors that impact on wireless audio equipment operation include:

- level of movement by the performer
- number of costume changes
- singing requirement
- speaking requirement

Fitting techniques include:

- attachment to hair strands
- attachment to other clothing
- use of tape

Appropriate protocols when dealing with performers include:

- acknowledging privacy issues
- assessment of performer allergies or history
- checking comfort levels
- clarifying positioning or fitting details
- requesting permission to commence fitting

Problems with wireless audio equipment include:

- faulty/intermittent signal
- need for more secure attachment

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. what are the performance factors which impact on the use of wireless audio technology
2. what are the different types of wireless audio equipment available, and their use and application in different types of production
3. what is the role of different antennae
4. what are the ways in which radio equipment can be fitted to performers
5. how are common frequencies used with wireless audio equipment
6. what are the protocols for dealing with performers during equipment fitting
7. what are the regulatory requirements for the use of wavelengths
8. how to establish number of practical and available channels at a given location
9. what is the frequency spacing required for adjacent wireless channels
10. how to apply literacy skills sufficient to interpret production documentation and regulatory requirements
11. how to apply numeracy skills sufficient to work with frequency allocations

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- apply knowledge of the regulatory and technical issues that affect the use of wireless audio technology
- determine appropriate approaches to the use of wireless audio technology to meet the needs of a particular production

### (2) Method of Assessment

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient, current and authentic. Evidence should be gathered through a variety of ways including direct observation, inspection of items repaired by the candidate, review of repair report (prepared by the candidate), review of portfolios of evidence, third party workplace reports and written or oral questioning. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials.

### (3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate. This unit could be assessed in conjunction with other units in the qualification.

## CI00026: Set up stage monitor systems

### Unit Descriptor:

This unit describes the skills and knowledge needed to determine the requirements for a monitor system, and to set up and operate that system for performers.

### ELEMENTS

### PERFORMANCE CRITERIA

Candidates must be able to:

- |   |  |   |
|---|--|---|
| 1 | Determine performance requirements           | 1.1 Obtain accurate performance and venue information to inform the planning of the stage monitor system  |
|   |  | 1.2 Interpret documentation to determine system requirements  |
|   |  | 1.3 Liaise with venue and other technicians/departments to allocate the adequate set up time and to confirm requirements for stage monitor system set up and checking |
| 2 | Specify stage monitor system                 | 2.1 Prepare accurate stage layout diagram with proposed placements of all required stage monitor equipment  |
|   |  | 2.2 Select appropriate stage monitor loudspeakers or in-ear monitors for each required send (mix)   |
|   |  | 2.3 Select appropriate stage monitor loudspeaker or in-ear processing and/or amplification, plus cabling  |
|   |  | 2.4 Check that adequate monitoring and communication systems are in place for all relevant personnel  |
|   |  | 2.5 Check availability of any in-ear or wireless equipment and accessories through liaison with relevant personnel  |
| 3 | Set-up equipment and prepare for performance | 3.1 Set up stage monitor console, processing/amplification racks and engineer's monitor, completing all appropriate checks  |
|   |  | 3.2 Check that all cables are neatly routed and secured and that all equipment is safely positioned   |
|   |  | 3.3 Ensure that there are adequate resources available in the event of equipment breakdown  |
|   |  | 3.4 Label stage monitor console input channel strips, and all processing equipment so that each item is clearly identified  |

- 
- as to function and relevant mix
- 3.5 Position all stage monitor loudspeakers and neatly run/fix all appropriate cables in accordance with health and safety requirements
  - 3.6 Cross check final set-up against production requirements
- 4 Tune, equalise and adjust system for performance
- 4.1 Test all components of the stage monitor system, including a complete line check of all inputs, in accordance with health and safety requirements
  - 4.2 Equalise each stage monitor send individually to avoid run-away feedback at all times and set top gain (level) indication for microphones
  - 4.3 Cross check all adjacent stage monitor sends to allow for acoustic interference
  - 4.4 Run complete system up to safe working limit, while front of house speaker system is operating, to check adequate performance and mains power availability
- 5 Liaise with performers on requirements
- 5.1 Establish and maintain a positive working relationship with relevant performance personnel
  - 5.2 Reconfirm production requirements with each relevant performer and check that set-up meets individual requirements in relation to quality, balance and mix sound levels
  - 5.3 Identify malfunctions promptly and rectify appropriately
- 6 Prepare sound mixing console for operation
- 6.1 Liaise with relevant personnel and/or read production documents to interpret and confirm the sound requirements so that technical and creative requirements are met
  - 6.2 Ensure adequate work lights or console illumination and check light spill
- 7 Complete work operations
- 7.1 Complete all necessary documentation in accordance with organisational procedures and production requirements
  - 7.2 Check that any equipment handled is cleaned, maintained and stored in accordance with organisational and/or production requirements
  - 7.3 Verify that the work environment is clean and restored to its



original condition in readiness for the next user

## RANGE STATEMENT

Information required to plan stage monitor system include:

- input sources
- performance schedule
- performance style
- stage layout

Stage layout diagram would include positioning of:

- monitor speakers
- multicore stage box
- processing and amplification racks
- stage monitor console
- establishment of adequate balanced lines available from splitter system for stage monitors

Requirements for stage monitor system set-up and checking include:

- need for a clear stage
- sound check with performers
- stage monitor system equalisation with non-essential personnel removed from the stage area

Wireless equipment and accessories may include:

- batteries
- reverb or external effectors
- stands/microphone mounts

Checks to be undertaken when setting up stage monitor system include:

- Phantom power switches off
- Position of equalisation controls
- Re-setting of external processing gear to flat (if EQ)
- Setting of external effectors or signal enhancers start up position
- Setting of send controls

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. What type of information is required to plan stage monitor systems
2. What are the different types of stage monitor systems and their features
3. What issues/challenges are associated with stage monitor systems
4. What safety issues are associated with the set-up and installation of stage monitor systems
5. What issues are associated with foldback mixing for different applications, e.g. concert, theatre
6. What are the techniques for equalization of foldback speakers

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- plan, set-up and operate a stage monitor system that meets production and performer requirements
- knowledge of stage monitoring equipment and the range of issues and challenges associated with operation of the equipment in a live production environment

### (2) Method of Assessment

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation, oral questioning, examination of portfolio and simulation. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials.

### (3) Context of Assessment

This unit may be assessed on the job or off the job. Where assessment is done off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team.

The assessment context must provide for:

- practical demonstration of skills through the planning, set-up and operation of stage monitor systems for more than one live production
- involvement of, and interaction with, a production team and performers to reflect the collaborative nature of the process
- use of industry-current equipment

This unit could be assessed in conjunction with other units in the qualification

**CI00027: Set up and disassemble audio equipment**
**Unit Descriptor:**

This unit deals with the skills and knowledge required to install and disassemble sound equipment in a range of facilities and applies to individuals working as audio stagehands and sound technicians.

<b>ELEMENTS</b>		<b>PERFORMANCE CRITERIA</b>	
Candidates must be able to:			
1	Prepare for installation of audio equipment	1.1	Confirm sound equipment requirements, in consultation with relevant personnel, referring to production documentation as required
2	Install audio equipment	2.1	Secure and label cabling safely and neatly so that it is clear of moving elements
		2.2	Position microphones , mountings, microphone accessories and cabling
		2.3	Check that lapel microphones fitted to personnel meet technical performance standards as required
		2.4	Provide phantom power at microphone inputs as required
		2.5	Perform all installation work with due regard to mechanical and electrical safety considerations
		2.6	Connect effects rack to mixer as required, in accordance with manufacturer's specifications
3.0	Align audio equipment	3.1	Match interfaces between source and destination according to level, impedance, phase and frequency
		3.2	Route test signals to the signal path in accordance with industry standards
		3.3	Check that the level of test signal is accurate for production requirements
		3.4	Check systems for potential feedback frequency problems

			and make adjustments as required
4	Test audio equipment	4.1	Test microphones to ensure that they are functioning efficiently to produce the required sound
		4.2	Fit microphones to relevant personnel to perform sound cues as required
		4.3	Patch, test and tune sound system to suit facility
		4.4	Conduct sound check and document adjustments according to organisational procedures
		4.5	Inform relevant personnel of problems that arise during testing so that they can be rectified in a timely fashion
5	Disassemble audio equipment	5.1	Disassemble equipment safely, giving due consideration to other production requirements
		5.2	Check that all equipment and accessories are packed and stored according to safety regulations and production requirements
		5.3	Check hired equipment against inventory before packing and report lost or damaged equipment to the appropriate personnel
		5.4	Pack sound equipment for transit as required
		5.5	Clean work environment after use and restore environment to previous condition
		5.6	Seek feedback from relevant personnel on own work performance and note areas for improvement

## RANGE STATEMENT

Relevant personnel include

- artists, musicians and performers
- audio and sound engineers
- audio and sound technicians
- broadcasters
- clients
- directors

Sound equipment include:

- amplifiers
- sound reinforcement systems, including:
  - front-of-house
  - stage foldback
  - limiters
  - compressors
  - effects rack

- producers
  - photographers
  - post-production personnel
  - program managers
  - stage managers
  - sound designers and editors
  - sound effects personnel
  - video and sound recorders
- turntables
  - analogue to digital converters
  - cables and connectors
  - compact disc (CD) and digital versatile disc (DVD)
- players and burners
  - computer technology and associated software
  - digital and analogue recording devices:
  - hard disk recorder, e.g. digital audio workstation(DAW)
  - digital audiotape recorder, e.g. S-DAT and R-DAT
  - digital videotape recorder (DVTR)
  - mini disc recorder (MD)
  - modular digital multi-track recorder (MDM)
  - open-reel analogue audiotape recorder
  - digital audio players, such as:
    - iPod
    - MP3
  - headphones
  - microphones and accessories
  - mixing consoles and desks
  - monitors and speakers
  - signal processors and plug-ins
  - sequencers and samplers
  - musical instruments

Productions include:

- live music or theatre performance
- commercial
- print advertisement
- corporate video
- feature film and/or video
- filmed event and/or performance
- interactive media product
- internet production
- electronic game production
- music recording and/or video
- promotional trailer
- radio broadcast
- television program
- voice-over

Documentation include:

- house plans
- sound plans
- line diagrams
- installation schedules
- artistic requirements
- scripts
- musical scores
- dubbing sheets
- technical/equipment manuals
- organisation's operating procedures and standards
- stage plans
- sound plots
- design, director's and sound specifications
- production and venue requirements
- production schedules
- OHS requirements and instructions
- manufacturer specifications
- performers' requirements
- fault report sheets

Installation area include:

- stage
- venues
- auditorium
- hotels
- clubs
- front of house

Microphones include:

- boundary (PZM)
- capacitor/condenser, such as:
  - electrets
  - lavalier
  - mini microphone
  - transistor
  - tube
- contact
- digital
- directional, such as:
  - single entry port
  - multiple entry port
  - multi/poly-directional
- dual-element
- dynamic, such as:
  - moving coil
  - ribbon
- headset
- lapel
- low and/or high impedance
- microphone systems, such as:
  - adaptive array
  - binaural
  - high definition
  - parabolic
  - surround sound
  - wireless
  - cordless
  - FM
  - radio transmitter
- noise cancelling
- shotgun

Technical performance standards for lapel microphones include:

- ensuring that safety procedures are followed
- positioning and connecting aerial optimised pick-up
- choosing a transmitter frequency that minimises interference with nearby

Positioning microphones includes taking account of factors, such as:

- ensuring that safety procedures are followed
- organizational requirements
- production requirements
- ensuring optimum sound quality
- ensuring that cabling is mechanically sound and does not transmit vibration to microphones.

Microphone accessories include:

- boom poles, including:
  - aluminium
  - carbon fibre
  - fisher
  - hand-held
  - perambulator
  - remote panner
  - tripod
- cables, including:
  - balanced
  - unbalanced
- clips
- connectors, including:
  - female
  - male
  - XLR
- housing
- pop filters
- shock mounts
- stands, including:
  - desk
  - floor
  - gooseneck
- windscreens

Mechanical safety considerations include:

- observing OHS requirements when installing and checking equipment
- checking that the position of microphones, mountings and other recording equipment is safe
- using safety chains
- laying cabling to avoid potential mechanical

- channels in the frequency band
- ensuring that transmitters have appropriate sensitivity
- rigging microphone within relevant constraints
- ensuring that connection of aerial and related cabling is secure
- ensuring that transmitter-receiver location is unobtrusive and comfortable for relevant personnel
- ensuring that transmitter-receiver location produces optimum output
- ensuring that interaction with relevant personnel is discreet, tactful and causes minimum disruption
- ensuring that items that may negatively affect transmission are not present on relevant personnel

danger and to ensure safety

Electrical safety considerations include:

- following OHS procedures when setting up and checking electrical equipment
- checking that mains or generator supply is sufficient for maximum load requirements
- ensuring that cables used are accurately rated, including three-phase cable to dimmers
- laying cabling so that it does not obstruct the free
- movement of other equipment or endanger personnel
- ensuring that maintenance of cabling and connectors meets OHS requirements
- ensuring that all components of sound equipment are connected to the accurate voltage supply
- ensuring that distribution of electrical loading is within working limits
- ensuring that all electrical fittings are tested and tagged in accordance with safety regulations

Production requirements include:

- purpose and style of production
- sound specifications
- venue or location requirements
- production schedule
- organisational policies and procedures
- legislative and/or organisational OHS requirements
- manufacturer specifications
- performers' requirements
- resource constraints
- length of the run of the production
- attributions
- audience
- budget
- confidentiality
- content
- contractual arrangements
- copyright
- deadlines
- direct quotes
- intellectual property
- interviews

Sound cues are required for:

- audience PA
- effects
- foldback to stage

Packing sound equipment include:

- ensuring that containers are suitable for the storage and carriage of the equipment in a safe and secure manner
- ensuring that packing of hazardous items complies with

- current regulations
- labelling containers accurately and clearly
- checking containers for durability
- ensuring documentation for packed equipment is accurate and legible
- adhering to strict forward production timelines

Work environment include:

- dubbing suite
- on location, including interior and exterior
- outside broadcast
- post-production studio
- recording studio
- und stage

## Underpinning Knowledge & Skills

Candidates must know:

1. how to interpret and clarify written and verbal instructions
2. how to interpret block diagrams of equipment and system set-ups
3. how to read and interpret sound documentation
4. how to read manufacturing specifications and installation manuals
5. how to make verbal fault reports to appropriate personnel
6. how to work effectively in a team environment
7. how to set up and disassemble audio equipment for playback, mixing and recording in line with manufacturer's manuals and OSH specifications
8. how to run and patch cables neatly and safely
9. how to test sound equipment in line with industry standards
10. how to prioritize work tasks and meet deadlines
11. how to identify typical faults and problems that may occur in audio-production environments
12. how to seek expert assistance when problems arise as well as apply problem solving skills
13. what are the range of microphones and contexts in which they are used
14. what are the characteristics of the microphone e.g., frequency response, sensitivity and polar patterns and how to optimize their operation for the sound required
15. how to identify audible defects in analogue and digital technologies
16. what are the characteristics of mixers, amplifiers, speakers and effects racks and how to optimize their operation for the sound required
17. what are the basic principles of acoustics, i.e., frequency, pitch, amplitude, loudness, velocity, wavelength, acoustical phase, sound absorption, timbre, sound envelope and how to apply them in the current context
18. what are the techniques for installing, aligning and testing audio equipment
19. how to apply understanding of electrical power (voltage, distribution, phasing, load and circuit breaking)
20. how to apply knowledge of a range of sound equipment and associated operating principles (e.g. level, impedance, phase and frequency)
21. how to test and tag all electrical fittings in accordance with safety regulations
22. what are the issues and challenges that typically arise in the context of setting up and disassembling audio equipment



23. how to apply principles of safe listening, such as safeguards against hearing loss
24. what are the relevant acts, regulation and codes of practice, especially in regard to Occupational Safety and Health and Environmental issues, e.g. licensing requirements for persons performing high risk work, safe manual-handling techniques and working safely with electricity and hazardous substances

## EVIDENCE GUIDE

### 1. Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- install and disassemble audio equipment on at least three occasions
- interpret sound plans
- test equipment in line with production requirements
- work cooperatively in a team environment
- apply OSH procedures, particularly in relation to working with electrical equipment and safe manual handling
- perform all tasks according to established procedures
- report problems according to established procedures

### (2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

### (3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

**CI00016: Follow safety, health and security procedures in the creative industries**

**Unit Descriptor:**

This unit deals with the skills and knowledge required to follow health, safety and security procedures and applies to all individuals operating in the creative industries.

**ELEMENTS**

**PERFORMANCE CRITERIA**

Candidates must be able to:

- |   |  |   |
|---|--|---|
| 1 | Follow occupational safety and health procedures | 1.1 Comply with health and safety procedures in accordance with organisational policies and safety plans.                                       |
|   |  | 1.2 Identify breaches of health, safety and security procedures and promptly report to the appropriate parties.                                 |
|   |  | 1.3 Ensure that all work activities are undertaken in a safe manner and do not present a hazard to others.                                      |
| 2 | Deal with emergency situations                   | 2.1 Identify potential emergency situations and take required action within scope of individual responsibility                                  |
|   |  | 2.2 Follow emergency procedures in accordance with organisational policies and procedures.  |
|   |  | 2.3 Promptly seek assistance from colleagues and/or supervisors where appropriate   |
|   |  | 2.4 Report details of emergency situations in accordance with organisational policies and procedures  |
| 3 | Maintain personal safety standards               | 3.1 Use appropriate safety clothing, footwear and, where relevant, personal protection equipment to ensure health and safety of self and others |
|   |  | 3.2 Take appropriate measures to prevent injury or impairment related to workplace activities and to control workplace hazards.                 |

- |   |     |   |
|---|-----|---|
|   | 3.3 | Carry out safe manual handling and lifting to avoid back strain and other injuries in accordance with the relevant safety policies and procedures           |
|   | 3.4 | Accurate posture is maintained and ergonomics are consistently practiced in all work environments   |
|   | 3.5 | Take appropriate action to maintain a safe and secure work environment  |
|   | 3.6 | Comply with health and safety standards of music industry venues and equipment  |
| 4 |     | Take steps to minimise the potential risk of noise and loud music   |
|   | 4.1 | Identify the risks for people exposed to excessive sound/noise levels and possible responses to such risks.   |
|   | 4.2 | Identify methods of protecting hearing and the corresponding hearing protection devices.  |
|   | 4.3 | Evaluate hearing protection devices and use the appropriate device.   |
|   | 4.4 | Use a sound level meter at music industry venues to ensure appropriate sound level in accordance with health and safety procedures.                         |
| 5 |     | Provide feedback on health, safety and security   |
|   | 5.1 | Identify promptly occupational safety and health issues requiring attention   |
|   | 5.2 | Ensure that Occupational Safety and Health (OSH) issues are raised with the designated person in accordance with organisation and legislative requirements. |

## RANGE STATEMENT

### Workplace hazards include:

- occupational overuse injury
- back injury
- hearing impairment
- stress
- performance anxiety

### Health, safety and security procedures include:

- emergency, fire and accident
- hazard identification and control
- safe sitting
- lifting and handling
- security of documents, cash, equipment,

- electricity
- noise/sound level
- adverse weather/lighting conditions
- people
- key control systems
- safe use of equipment
- safe use of chemicals and toxic substances
- safe construction of rigs and supports
- safe sound/noise levels
- dealing with difficult customers

Measures to prevent injury or impairment include:

- following all safety procedures accurately
- adopting accurate posture
- taking adequate rest breaks
- controlling noise/sound levels and length of exposure to high levels of noise
- using personal protective equipment e.g. ear plugs
- avoiding eye strain
- accurate use of chemical and dangerous substances/equipment
- stress management techniques

Relevant policies and procedures include:

- venue, studio or company policy
- legislative requirements

## UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. what are the major safety requirements for the locations in which work is carried out
2. what are the major causes of accidents relevant to the work environment
3. what are the major hazards that exist in the workplace
4. how to follow emergency evacuation procedures
5. what are the symbols used for Occupational Safety and Health
6. how to identify designated personnel responsible for Occupational Safety and Health
7. what are noise control methods
8. what are posture requirements to avoid strain or injury
9. what are the relevant industry safety guidelines
10. what are the relevant national Occupational Safety and Health legislation and codes of practice
11. what are the major safety requirements for entertainment venues
12. what are the major causes of workplace accidents
13. how to identify workplace hazards
14. what are fire hazards and workplace fire hazard minimisation procedures
15. what are workplace safety, health and security procedures
16. how to write safety reports and safety implementation reports
17. how to follow health, safety and security procedures in the music industry
18. how to identify major causes of workplace accidents relevant to the work environment
19. how to identify and appropriately deal with security risks in the work environment

## EVIDENCE GUIDE

Competency is to be demonstrated by the ability to follow health, safety and security procedures in the music industry in accordance with the performance criteria and the range listed within the range statement.

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- follow established safety and security procedures and understand the implications of disregarding those procedures
- comply with Occupational Safety and Health regulations applicable to workplace operations
- adhere to industry guidelines and relevant legislative and insurance requirements
- demonstrate understanding of the legal requirement to work in accordance with health, safety and security procedures
- explain safety procedures to others and deal with emergency situations
- perform all tasks according to established procedures
- report problems according to established procedures

### (2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

### (3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

**CI00017: Communicate in the workplace**
**Unit Descriptor:**

This unit deals with the skills and knowledge required to communicate in the workplace and applies to all individuals operating in the Creative Industries.

**ELEMENTS**
**PERFORMANCE CRITERIA**

Candidates must be able to:

- |   |  |  |
|---|--|--|
| 1 | Gather, convey and receive instructions, information and ideas | 1.1 Verbal/written instructions are received and responded to with accurate actions.<br><br>1.2 Information to achieve work responsibilities is collected from appropriate sources.<br><br>1.3 Input from internal and external sources is sought and used to develop and refine new ideas and approaches.<br><br>1.4 Instructions are accurately conveyed and work signage responded to with accurate action.<br><br>1.5 The method(s)/equipment used to communicate ideas, instructions and information is appropriate to the audience.<br><br>1.6 Effective listening and speaking skills are used in oral communication.<br><br>1.7 Instructions or enquiries are responded to promptly and in accordance with organisation's requirements.<br><br>1.8 Questions are used to gain extra information and clarification. |
| 2 | Carry out face-to-face routine communication                   | 2.1 Communications are conducted in an open, professional and friendly manner<br><br>2.2 Appropriate language and tone is used and the effect of   |

- 
- personal body language is considered.
- 2.3 Active listening and questioning are used to ensure effective two-way communication
- 2.4 Cultural and social differences are identified and sensitivity to differences is displayed
- 3 Communicate and follow work instructions
- 3.1 Routine instructions, messages and schedules are given or followed.
- 3.2 Workplace procedures are accurately interpreted and carried out according to procedures laid down by the organisation or supervisor.
- 3.3 Communication is carried out clearly, concisely and effectively so instructions, messages and procedures are understood.
- 3.4 Suggestions and information are provided relevant to the planning/conduct of work activities.
- 4 Draft routine correspondence
- 4.1 Written information and ideas are presented in clear and concise language and the information is presented in a manner that is easily understood by the recipient(s).
- 4.2 Correspondence is drafted and presented within designated timelines.
- 4.3 Presentation of written information meets organisation's standards of style, format and accuracy.
- 5 Gather information
- 5.1 Accurate sources of information are identified and confirmed.
- 5.2 Relevant information is assessed and analysed from a range of sources.

- |   |   |  |
|---|---|--|
|   | 5.3   | Information is selected and sequenced accurately.  |
| 6 | Participate in group discussion/meetings to achieve appropriate work outcomes | 6.1 Participation in on-site meetings/discussions is done in accordance to predetermined procedures. |
|   | 6.2   | Interaction is carried out to achieve constructive outcome.  |
|   | 6.3   | Responses are conveyed to others in the group.   |
|   | 6.4   | Constructive contributions are made in terms of the work process involved.                           |
|   | 6.5   | Goals and aims are communicated clearly.   |

## RANGE STATEMENT

This unit applies to activities associated with the essential operations linked to communicating in the workplace.

Communication type include:

- oral
- electronic
- written
- non-verbal
- formal
- informal
- direct
- indirect

Information to achieve work responsibilities include:

- work instructions
- diagrams
- work plans
- information on new developments
- standards
- health and safety requirements
- customer requirements

Workplace requirements be included in:

- quality assurance and/or procedures manual
- goals, objectives, plans, systems and processes
- business and performance plans
- legal and organisation policy/guidelines and requirements
- access and equity principles and practice
- ethical standards
- Occupational Health and Safety policies,

Written information include:

- handwritten and printed materials
- electronic mail
- internal memos
- briefing notes
- facsimiles
- forms
- general correspondence
- telephone messages



- procedures and programs
- quality and continuous improvement processes and standards defined resource parameters

## Correspondence include :

- memorandums
- messages
- proformas
- emails
- standard/form letters
- reports

## Signage include:

- on-site direction signs
- common site warning signs
- facility or location signs
- traffic signs

## Range of information sources include:

- instructions: oral/memos
- signage
- work schedules/work bulletins
- diagrams
- books and magazines
- internet

## Standards include:

- standards set by work group
- organisational policies and procedures
- specified work standards
- legislation
- Occupational Safety and Health standards

## UNDERPINNING KNOWLEDGE AND SKILLS

### Candidates must know:

1. what is the relevant legislation that affects workplace operations, especially in regard to Occupational Safety and Health and environmental issues, equal opportunity, industrial relations and anti-discrimination
2. what are the organisation's policies, plans, procedures and inter-departmental relationships
3. what are the principles of effective communication in relation to listening, questioning and non-verbal communication
4. how to communicate effectively, receive feedback and work with a team
5. how to plan and organise work priorities and arrangements
6. how to solve routine problems
7. how to use communication equipment
8. how to communicate and relate to people with diverse backgrounds
9. how to complete prescribed forms and prepare written reports in accordance with defined organisational protocols

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include the ability to:

- use communication methods that are appropriate to the audience
- communicate and provide messages that are clear, concise and accurate
- respond to requests for information promptly
- provide information to clients in a clear and concise format

- complete relevant forms and written reports in accordance with workplace procedures

**(2) Context of Assessment**

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, practical demonstration of tasks and functions and oral and written questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to a suitable venue and all materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

**(3) Context of Assessment**

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

CI00018: Work with others

Unit Descriptor:

This unit deals with the skills and knowledge needed to work harmoniously and effectively with team members, colleagues and others in a work environment.

**ELEMENTS**

**PERFORMANCE CRITERIA**

Candidates must be able to:

- |   |   |   |
|---|---|---|
| 1 | Participate in the work/group process           | 1.1 The relevant work requirements for the group/process are accurately identified.   |
|   |   | 1.2 Personal role and role of each individual in meeting work requirements are accurately identified and personal role is performed to expectations.                              |
|   |   | 1.3 Appropriate assistance is provided to other team members involved in the work group/process as required and constructive contributions are made to meeting work requirements. |
|   |   | 1.4 Time and resource constraints are accounted for in planning for and fulfilling work requirements.   |
|   |   | 1.5 Work place activities are conducted in compliance with the organization's work policies, procedures and conventions covering acceptable workplace conduct.                    |
|   |   | 1.6 Individual differences into are taken into account when performing work activities to achieving work requirements.  |
|   |   | 1.7 Strengths of individuals are utilised to develop others in the group and the sharing of knowledge is incorporated in the group/process activities.                            |
| 2 | Contribute to the flow of information and ideas | 2.1 Work outcomes are enhanced by sharing information and ideas relevant to the work activity with others.  |
|   |   | 2.2 Information provided to others is relevant, timely and accurate   |

- |   |  |  |
|---|--|--|
|   | 2.3  | Information and ideas required to assist in the achievement of work requirements are sought from the appropriate persons when required.        |
|   | 2.4  | Information is recorded in the required detail and in the specified format.  |
|   | 2.5  | Relevant work information is systematically and accurately maintained and filed for easy retrieval.  |
|   | 2.6  | Differences in languages and cultural differences in communication styles are identified and their impact on the work process is accounted for |
| 3 | Deal effectively with issues, problems and conflicts | 3.1 Issues, problems and conflicts encountered in the work place are identified and assessed.  |
|   |  | 3.2 Issues, problems and conflicts are discussed with team members and solutions are suggested or they are referred to the appropriate person. |

## RANGE STATEMENT

This unit applies to activities associated with the essential operations linked to working with others.

Working with others include:

- one-to-one communication in a group or team
- taking part in informal discussions
- following instructions
- consulting with the community
- taking part in meetings
- dealing with conflict

Work requirements include:

- goals
- objectives
- priorities
- specified targets or results
- time frames
- coordination with other work processes
- clear role definitions
- application of particular procedures
- organization of work materials
- roster arrangements or particular approaches to work processes specified by the organisation or work group

Groups include:

- established or ad hoc work units
- working parties

Techniques to resolve issues, problems or conflicts include:

- problem solving

- task forces
- committees
- self directed teams
- negotiation
- conflict resolution
- use of a mediator or conciliator

Working with others requires individual diversity to be taken into account including:

- cultural, racial and ethnic background
- physical requirements
- gender
- languages
- customs
- religious and traditional beliefs

## UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. what are individual roles and responsibilities and relationships to others
2. what are the techniques for managing personal work load such as meeting deadlines; acknowledging if tasks are beyond current capacity; handling tasks or problems as far as possible then referring to others as required
3. what is acceptable workplace conduct, including - regular attendance; punctuality; maintaining an orderly workspace, appropriate standards of personal presentation and hygiene; self-confidence and self-respect; acceptance of constructive criticism and a willingness for self-improvement; good humored approach to others and adaptability and flexibility
4. what are team work principles
5. what are effective communication techniques
6. what are conflict resolution techniques
7. what are occupational safety and health principles
8. how to apply teamwork principles
9. how to communicate effectively
10. how to manage own work
11. how to work harmoniously with others
12. how to apply listening and questioning skills

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- communicate effectively with others within the range of situations required for the job role
- provide ideas, lend assistance to others and resolve conflicts
- identify and fulfill personal role in work process and utilize the strengths of others
- deal effectively with resource and time constraints and personal differences
- prepare for and conduct work operations in accordance with procedures
- work effectively as part of a team
- use effective communication techniques, including active listening, questioning and non-verbal communication

- take responsibility for the quality of personal work
- perform all tasks in accordance with standard operating procedures
- use accepted techniques, practices, processes and workplace procedures

**(2) Method of Assessment**

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

**(3) Context of Assessment**

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

CI00028: Operate staging elements

Unit Descriptor:

This unit describes the skills and knowledge required to operate a range of staging elements during a live production.

**ELEMENTS**

**PERFORMANCE CRITERIA**

Candidates must be able to:

- |   |   |   |
|---|---|---|
| 1 | Make staging preparations               | 1.1 Rehearse technical staging aspects of the show and communicate relevant information to performers as required                 |
|   |   | 1.2 Plot, rehearse and execute cues in accordance with directions from the relevant personnel                                     |
|   |   | 1.3 Implement any changes accurately and modify cue sheets as required  |
|   |   | 1.4 Document all modifications in accordance with organisational procedures   |
|   |   | 1.5 Check the stage prior to performance to ensure that it is set in accordance with performance requirements                     |
|   |   | 1.6 Run appropriate checks on all operable set elements as required to ensure that they are in working order                      |
|   |   | 1.7 Identify and deal with problems and faults safely and effectively, and inform appropriate personnel as required               |
| 2 | Operate staging elements                | 2.1 Execute any scene changes on cue according to performance requirements  |
|   |   | 2.2 Identify and rectify any staging problems or faults promptly or refer to relevant personnel                                   |
|   |   | 2.3 Identify and make emergency repairs quickly and efficiently as required   |
| 3 | Carry out post performance requirements | 3.1 Clear stage as required by production requirements and store materials appropriately  |
|   |   | 3.2 Identify any faulty set elements, repair to working condition or refer to specialist personnel for action to ensure readiness |

for next performance

## RANGE STATEMENT

Technical staging aspects of the show may include:

- checking that all staging elements meet operational standard for performance
- quick costume changes

Relevant personnel include:

- designer
- director
- production manager
- stage manager
- technical staff
- venue manager

Staging faults or problems include:

- jammed machinery
- loss of communication
- director making last minute alterations/additions
- missing cues
- last minute loss of crew team member needed for a heavy scene change

Staging include:

- framed scenery, e.g. flats, profiles, doors, windows
- furniture and other set props
- non weight-bearing scenery, e.g. columns, trees
- revolves
- soft scenery, e.g. canvas legs, borders, cloths, gauzes, cycloramas
- trucks
- weight bearing scenery, e.g. rostra, ramps, steps

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. what are the types of staging challenges that arise during live performance and how to solve those problems
2. how to calculate timings
3. how to interpret and make modifications to staging documentation (sufficient to literacy skills)
4. what are cue plots, their features how to action them and make amendments to cues
5. what are the operating techniques for a range of staging elements, including movement of flats, operation of trucks and revolves, movement of weight-bearing elements
6. what are the types of control desks which operate stage machinery
7. what are the signals and other communication systems used when operating stage machinery



## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- operate staging to performance requirements
- apply safe working practices to the movement of staging elements
- operate staging during a performance efficiently

### (2) Method of Assessment

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials.

### (3) Context of Assessment

This unit may be assessed on the job or off the job. Where assessment is done off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by working individually.

## CI00029: Apply a general knowledge of theatrical rigging

### Unit Descriptor:

This unit describes the skills and knowledge required to apply a broad knowledge of theatrical rigging to the live entertainment workplace

### ELEMENTS

### PERFORMANCE CRITERIA

Candidates must be able to:

1	Determine rigging requirements	1.1	Interpret technical production requirements to determine rigging requirements and their impact on other aspects of work
		1.2	Liaise with licensed riggers where required to confirm production requirements in relation to rigging
		1.3	Identify rigging-related tasks that may be completed by unlicensed personnel and those who require specialist assistance
		1.4	Plan work appropriately in consultation with riggers to ensure smooth flow of work and efficient set up
2	Complete rigging related tasks	2.1	Complete tasks associated with rigging under direction and supervision of a licensed rigger
		2.2	Use accurate techniques to complete rigging-related tasks
		2.3	Ensure that work is inspected by licensed rigger in accordance with safety and licensing regulations

### RANGE STATEMENT

Rigging requirements include:

- audio
- lighting
- set construction
- staging
- vision systems

Licensed riggers include:

- contract labour
- fellow employees

Rigging related tasks undertaken by unlicensed personnel include:

- application of fibre and wire rope

- assembling flying units
- assembling truss
- attachment of soft fittings
- communication as applicable to flying operation
- tying knots
- use of shackles, trim chains, turnbuckles, screw eyes

## UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. how to read instructions for safety equipment
2. how to understand the equipment calculations associated with rigging
3. what is the definition of rigging
4. what are the different levels of rigging and its use in the entertainment industry
5. what is safety equipment and how is this used, including harness and fall arresters
6. what are the different types of hoists and why and how they are used in an entertainment context
7. what are the features of spansets and their uses in an entertainment context
8. what are trusses and what are accurate and safe ways of using them
9. what is the importance of weights, loads and counterweights, and how are these calculated
10. what are shackles and other fittings and their uses in theatrical rigging

## EVIDENCE GUIDE

### (1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- apply knowledge of rigging in an entertainment context
- apply knowledge of regulations in relation to the licensing of riggers and the limitations on the type of work that can be undertaken by unlicensed personnel.

### (2) Method of Assessment

Assessors should gather a range of evidence, over a period of time, which is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, manufacturer's specifications, codes, standards, manuals and reference materials

### (3) Context of Assessment

This unit may be assessed on the job or off the job. Where assessment is done off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by working individually.