
Overview

This Standard is about the many different types of leads and connectors you will be required to use. You will need a basic appreciation of the differences between digital communication protocols (such as MIDI, FIREWIRE, LAN and S/PDIF and any emerging protocols) and analogue connection between devices. You will also need a basic understanding of the different types of signal to be connected such as MIDI vs. audio, mono vs. stereo.

You will demonstrate essential knowledge about the common types of connectors and will become aware of the reasons for different uses of particular types of connection in various analogue and digital audio signal chains.

You will demonstrate an awareness of the terminology used to describe different types of leads and connectors. You will then apply this knowledge to the setting up and basic testing of analogue and digital audio and MIDI based equipment in the workplace. You should develop the ability to become independent in requesting leads and setting up equipment so that you can work unaided when starting a specified project.

The main emphasis is to enable you to anticipate the requirements of a particular system and to be able to find leads and connect pieces of equipment together.

CCSMT6

Identify, test and use basic professional audio equipment connections and interfaces

Performance criteria

You must be able to:

- P1 identify the basic types of common analogue leads and connectors
- P2 identify the basic types of common digital leads and connectors
- P3 distinguish between digital and analogue connectors and types of signals
- P4 show the difference in level between mic, line, headphone and speaker signals
- P5 test leads are working and signals are routed correctly
- P6 correctly connect analogue signals
- P7 correctly connect digital signals
- P8 correctly connect both digital and analogue signals
- P9 analyse the properties of analogue and digital electrical signals
- P10 match signals when connecting equipment
- P11 group the main categories of signal level

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Knowledge and understanding

You need to know and understand:

- K1 operational/technical limitations of recording and signal limitations
- K2 basic connectivity essential for audio skills
- K3 recording formats and related technical standards
- K4 how to explain signal-to-noise ratios, signal phase and audio
- K5 how to check that the routing of signals is correct
- K6 signal path/signal flow between points
- K7 how to use a multi-meter to show continuity between points
- K8 health and safety principles of safe listening, including safeguards against hearing loss

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Validity	Current
Status	Original
Originating organisation	Creative and Cultural Skills
Original URN	CCSMT6
Relevant occupations	studio managers; producers; artists; mastering engineers; re-mixers; research and development managers; Recording Engineers; recording Producers; mix engineers; assistant engineers; programmers; writers; composers; Record producers; recording engineers; sound engineers; tape ops;
Suite	Music Technology; Live Events
Key words	XLR in line socket; XLR in line plug; ¼" mono jack plug; ¼" stereo jack; ¼" in line stereo; jack socket; RCA/phono plug; 5 pin DIN plug; BNC word clock; LAN; HDMI; Firewire; MIDI; sound; music; recording; Live Events, Exhibitions;