

Set up and check sound equipment

Overview

This Standard is about setting up and checking sound equipment for use on location or in a studio using either a camera, a mixer and/or a recorder. You will need to work effectively with others and make sure sound equipment and accessories are set up as planned, are secure, work correctly and meet the specific needs of the production. You will need to devise solutions to any obstacles or problems.

This Standard will apply to anyone who is involved in setting up and checking sound equipment.

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Performance criteria

You must be able to:

1. check that equipment type and positioning are as defined in specification
2. confirm that systems are installed and working in accordance with specification
3. carry out accurate electro-acoustic analysis to provide an indication of sound balance in all areas of venue when required
4. provide an appropriate sound balance for the production
5. evaluate test results to provide a clear indication of how well systems meet requirements
6. modify specifications to produce optimum sound quality
7. check that the condition of any batteries is sufficient for intended length of use
8. assemble equipment according to specification or other requirements
9. check any hired-in equipment complies with inventory, reporting discrepancies to appropriate people
10. position aerials to optimise RF pick-up and minimise likelihood of drop out and compliance with frequency management
11. set up transmitters and receivers with input sensitivity that is appropriate for anticipated use
12. report and label defective equipment in line with production requirements
13. position and interconnect equipment and cables in line with specification
14. identify and deal with any faults, failures and defects in equipment
15. check that cables meet performance related to their use
16. check that available power supply meets requirements
17. carry out power-up procedures in line with production requirements

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Knowledge and understanding

You need to know and understand:

1. which different tests and analyses are carried out on sound systems overall and on individual items of equipment
2. the importance of checking equipment it complies with safety requirements
3. how IT networks can impact on synchronisation
4. common indicators of faults, failures and defects and how to deal with them
5. expectations of clients or producers
6. what weather-protective ancillaries are needed, and how to use them
7. intended sound sources and where they will be located
8. the importance of audibility of dialogue especially with regards to the impaired hearing of an ageing population
9. labelling requirements and formats
10. who needs to be given confirmation about sound systems and when it is appropriate to provide written confirmation and when is oral advice acceptable
11. location and set up requirements of sound positions
12. who to contact to identify the requirements to be met
13. relevant safety checking procedures for mains operated equipment, including portable appliance testing
14. what electrical safety regulations apply
15. safety regulations and procedures as they apply to rigging, set up, operation, between shows, de-rigging, storing and, if applicable, transport; and to making working environments safe after work
16. statutory and procedural requirements for safety in different sorts and sizes of venue
17. methods of safe rigging and de-rigging, and how and when to apply them
18. safety aspects of cable routing
19. flying techniques and any relevant regulations
20. awareness of health and safety concerns regarding RF transmissions
21. health and safety concerns with regard to in-ear monitors
22. acoustic principles, including those which are relevant in the current context, and how to apply them
23. types of equipment and what it can do

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24. types and characteristics of microphones
25. common connector types and their pin configurations
26. relevant file standard protocols
27. what factors need to be borne in mind when positioning aerials for a live show
28. basic principles of RF transmission systems
29. basic principles of in-ear monitoring
30. why it is important to leave equipment in good order after use
31. relevant standards for live audio for transmission, distribution and streaming
32. relevant IT networks and systems

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