CLIFF

SOUND CHECK 2™ Audio Test and Demonstration CD

SOUND CHECK 2™ is the definitive audio test disc. Created in association with renowned record producer, engineer and musician Alan Parsons, it is available as a single CD or in a double CD case with built-in microphone and sound level meter, calibrated from -15dB to +12dB. When used in conjunction with its third octave tracks, SOUND CHECK 2™ forms an instant system response analyser.

It contains 99 tracks of practical material compiled as a result of careful research and investigation into the needs of studio engineers, audio technicians, serious audiophiles, record producers and musicians. The disc has been designed not only to help assess the technical performance of a wide range of sound recording and reproduction equipment, but also to offer the very best available musical, vocal and effects sources for experimentation and demonstration.

The levels indicated on SOUND CHECK 2™ refer to 0dB FS (Full Scale), the theoretical maximum level obtainable on digital recordings. Analogue equipment can be calibrated to read 0VU at the sine wave reference tone on this disc which is recorded at –14dB FS. Digital meters should indicate this level. There are no rigid standards regarding digital/analogue operating levels, however you can easily choose a higher or lower operating level. For example, if analogue VU meters are lined up to +2VU, then 0VU will represent –16dB FS.

By selecting individual tracks on your CD player while the disc is running, the announcements preceding test signals can be eliminated. This is especially useful for extended play of one track, when used in conjunction with the Store and Repeat or Continuous Play functions found on most CD players.

Cliff Electronic Components, Inc.
4876 East Second Street,
Benicia, California 94510
Tel: (707) 746 8090
Fax: (707) 746 8092
Email: sales@cliffcomponents.com

Visit us online at:

www.cliffusa.com

PINK NOISE 1/3 OCTAVE SPECTRUM ANALYSIS

1. 1kHz reference tone
2. 20Hz
3. 25Hz
4. 31.5Hz
5. 40Hz
6. 50Hz
7. 63Hz
8. 80Hz
9. 100Hz
10. 125Hz
11. 160Hz
12. 200Hz
13. 250Hz
14. 315Hz
15. 400Hz
16. 500Hz
17. 630Hz
18. 800Hz
19. 1kHz
20. 1.25kHz
21. 1.6kHz
22. 2kHz
23. 2.5kHz
24. 3.15kHz
25. 4kHz
26. 5kHz
27. 6.3kHz
28. 8kHz
29. 10kHz
30. 12.5kHz
31. 16kHz
32. 20kHz

PINK NOISE TEST TONES

These tones are intended for equipment alignment and are especially designed for active speaker set-up. Track 33 is a 1kHz reference tone lasting 30 seconds. Monitoring equipment should be set to a useful working volume and measuring equipment set to read 0dB. All other tones in this section are at the reference level. Phase checks are on index 2, where appropriate, in 5 second bursts.

33. 1Khz sine wave reference tone @ -14dB FS
34. Pink Noise – Left channel only
35. Pink Noise – Right channel only
36. Pink Noise – Both channels and phase check
37. Bass band – 0-200Hz & phase check
38. Low mid band – 200Hz-1kHz & phase check
39. High mid band – 1kHz to infinity & phase check
40. High band – 7kHz to infinity & phase check

SWEEP TONES

These are intended for sweep response measurements and are especially useful for checking system resonances. Track 41 is the reference warble that lasts 20 seconds. The sweeps are in one octave sections down from 1kHz, and in one octave sections up from 1kHz – for easier frequency identification.

41. 1kHz reference warble for sweeps
42. Sectional sweep tones down in 1 octave steps: 1kHz-500Hz, 500Hz-250Hz, 250Hz-125Hz, 125Hz-20Hz
43. Sweep tones up: 1kHz-4kHz, 4kHz-8kHz, 8kHz-20kHz
44. Sine wave sweep 20Hz-20kHz

SINE AND SQUARE WAVE SPOT FREQUENCIES

This section is for recording and reproduction equipment line-up, analysis and fault finding. The square wave spot frequencies are also useful for bandwidth assessment and loudspeaker phase and time alignment. Track 45 is the reference tone, lasting 20 seconds. All other tones in this section last 10 seconds. All sine waves are at a reference level, -14dB FS. The square waves are at –20dB FS.

45. 1kHz reference tone @ -14dB FS
46. 60Hz
47. 100Hz
48. 250Hz
49. 500Hz
50. 1kHz
51. 2kHz
52. 3kHz
53. 5kHz
54. 10kHz
55. 12kHz
56. 15kHz
57. 1kHz square wave @ -20dB FS
58. 5kHz square wave @ -20dB FS

VOCAL

While the sound complexity of music is widely recognized, the human voice is equally difficult to reproduce and a voice recording that one is familiar with is a useful reference source. Before Sound Check came along, a good, unprocessed voice recording was very difficult to obtain, especially under test conditions. These 4 tracks provide that reference source and start with Alan Parson's spoken voice. The rarely available, dry, uncompressed voice of Luciano Pavarotti recorded live, and Soprano Catherine Bott in a natural acoustic, together with the dynamic voice of rock singer Steve Overland, complete this section of valuable reference recordings.

59. Spoken word (mono)
60. Tenor (mono)
61. Soprano (stereo)
62. Male Rock Vocal (mono)

INSTRUMENTAL

This section contains closely miked instrumental recordings without electronic processing such as limiting or compression. They contain subtle transients which define true fidelity and which are often lost in the reverberation and processing of commercial records. These tracks are therefore invaluable for assessing the transient response and fidelity of audio equipment and for experimentation with effects units. These are original studio master recordings and in some cases instrument overspill may be heard.

63. Piano (stereo)
64. Acoustic steel-strung guitar – finger style (mono)
65. Acoustic steel-strung guitar – strummed (mono)
66. Nylon strung Spanish guitar (mono)
67. Electric guitar – clean sound (mono)
68. Electric guitar – distorted rock sound (mono)
69. Bass guitar (mono)
70. Flute (mono)
71. Saxophone (mono)
72. Bongos (mono)
73. Tambourine (mono)
74. Kick drum (mono)
75. Snare drum (mono)
76. Cymbals and hi-hat (stereo)
77. Toms (stereo)
78. Whole drum kit (stereo)
79. Violins (stereo – 1st violins panned left, 2nd violins panned right)
80. Cello and violas (stereo-starting with cellos only panned right, joined by violas panned left)
81. Woodwind ensemble (stereo)

MUSIC TRACKS

Extracts from studio master recordings, specially selected to asses the various qualities of loudspeakers and sound equipment. 'Limelight' for example, has a very even frequency and dynamic balance throughout the audio spectrum and therefore is an ideal reference for overall sound quality. By contrast, Luv 4 Luv contains extremely high bass and sub sonic energy and is an ideal test for low frequency loudspeakers and their power amplifiers.

82. The Race by Yello
83. Limelight by the Alan Parsons Project, featuring Gary Brooker
84. Luv 4 Luv by Robin S.
85. Seasons Of Our Lives by Graham de Wilde and Mitch Dalton
86. Bach's Toccata and Fugue in D minor. Daniel Chorzempa, organ
87. Rigaletto transcription by Liszt: Jean Yves Thibaudet, piano
88. Rite of Spring by Igor Stravinsky: Deutsches Symphonie Orchestra conducted by Vladimir Ashkenazy

SOUND EFFECTS

These sound effects provide extreme tests of dynamic and frequency range. The steam trains, the sub machine gun and the Chieftain tank are historical analogue recordings which have been digitally re-mastered.

89. Sub machine gun – Chieftain tank target ranging (mono)
90. Chieftain tank: Firing – shell detonation – the target (mono)
91. Thunderstorm (stereo)
92. Steam trains (stereo)
93. F-16 and Tornado jets: flypast with afterburners (stereo)

UTILITY TRACKS

A series of useful tools – a left/right channel indent; invaluable for multiple unit hook-ups, digital black for noise assessment, a tuning reference and timecode in all three standard formats for checking timecode-based equipment and striping code onto tapes.

94. Left / Right channel ident
95. Digital Black – i.e. silence – all bits at 0
96. A-440 tuning reference
97. EBU 25 frame Timecode 09:59:45 to 10:05:00
98. Left Channel SMPTE non drop frame Timecode 09:59:45 to 10:05:00
Right Channel SMPTE drop frame Timecode 09:59:45 to 10:05:00

Warning – This track is at the theoretical maximum recording level, 0dB FS. THIS IS A VERY LOUD TONE - USE WITH CAUTION.

99. 1kHz sine wave at 0dB FS. (Duration 20 secs.)