



TECHNICAL DATA SHEET

LEVEL LIMITED HEADPHONES

54-209 CANFORD LEVEL LIMITED HEADPHONES DMH205 93DBA, WIRED STEREO, A-GAUGE PLUG

54-4041 CANFORD LEVEL LIMITED HEADPHONES DMH205 88DBA, WIRED STEREO, A-GAUGE PLUG

54-4042 CANFORD LEVEL LIMITED HEADPHONES DMH205 88DBA, WIRED STEREO, B-GAUGE PLUG

INTRODUCTION

Under Health and Safety regulations, employers are required to reduce the risk of damage to the hearing of employees from exposure to noise to the lowest level reasonably practicable. Noise is generally defined as unwanted sound and regulations concentrate on the control of noise. There are, however, sounds which are not unwanted - but can be at such a level, sometimes unwittingly, as to present a risk of exceeding an individual's daily personal noise exposure recommended level. Such a situation can arise from the use of headphones worn for long continuous spells whilst generating high sound levels. One BBC designed solution to this problem is the Headphone Limiter.

These small units are designed to protect headphone users from the effects of harmful sound levels. The units are powered from the incoming audio signal and may usually be set to limit the SPL in the range 85-110dBa. The BBC types are usually fitted in-line in the headphone cable.

The range has now been expanded to include the CANFORD DMH 205 model.

Limit level is fixed at 93dBa or 88dBa (note 1).

The limiter is fitted in-line in the headphone cable and is individually calibrated

OPERATION

Once assembled, headphones equipped with the limiter are used as normal. The limiter will operate when the level of programme reaches a sustained level greater than that to which the limiter is set. The highest level at which the headphones may be sensibly used is with an average programme volume producing a sound level from the headphones of typically 6-8dB below the limiter setting (the figure will depend on the peak-to-mean ratio of the programme material). This has been designed into the circuitry and cannot be adjusted.

The limiter allows short-term peaks to pass through the limiter undistorted for maximum subjective effect. Nevertheless, excessive levels which may be damaging in the short term are clipped instantaneously. A network with a response similar to A-weighting is included in the side chain to allow higher levels of low frequencies to pass without operating the limiter.

Notes:

- 1 See Canford Audio data sheet 02-160 Earphone Limiters Questions and Answers.
- 2 Due to the enclosed circuitry, the sensitivity and presented impedance of these headphones is different from standard (non-limiting) versions.

Limiter manufactured under license from the BBC.

TECHNICAL SPECIFICATION

Type:	Closed
Frequency response:	20-20000Hz
Input impedance:	2 X 1000 ohms
Insertion Loss Due To Limiter:	10 dB nominal
Rated Power:	100mW
Cord:	3m
Termination:	A-gauge jack plug
Weight:	220g