

Magnetic tape sound recording and reproducing systems —

Part 9: Specification for magnetic tape cartridge for professional use

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Electronic Equipment Standards Policy Committee (EEL/-) to Technical Committee EEL/22, upon which the following bodies were represented:

- British Broadcasting Corporation
- British Kinematograph, Sound and Television Society
- Council for Educational Technology for the United Kingdom
- Electronic Engineering Association
- Independent Television Association
- Sound and Communication Industries' Federation

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- Association of Professional Recording Studios
- Audio Engineering Society
- British Tape Industry Association
- Royal Photographic Society

This British Standard, having been prepared under the direction of the Electronic Equipment Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 31 August 1989

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Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
Section 1. General	
1 Scope	1
2 Definitions	1
Section 2. Mechanical requirements	
12 Mechanical requirements for cartridges and for recording and reproducing equipment	1
13 Designation of magnetic tracks	2
14 Allocation and dimensions of magnetic tracks	2
Section 3. Electrical requirements	
17.1.4 Channel phasing — stereophonic	2
Section 4. Tape and programme identification	
21 Cue tones	2
Figure 1a — “AA” Cartridge, Standard Dimensions	4
Figure 1b — Cartridge dimensions	5
Figure 2 — Cartridge spring action device limitations	6
Figure 3 — Machine/cartridge interface dimensions	7
Figure 4a — Monophonic system	8
Figure 4b — Stereophonic system	9
Figure 5 — Cue tone filter tolerances	10
Table I — Cartridge sizes	1
Publication referred to	Inside back cover

National foreword

This Part of BS 6288 has been prepared under the direction of the Electronic Equipment Standards Policy Committee and is identical with Publication 94-9:1988 “*Magnetic tape sound recording and reproducing systems*” Part 9 “*Magnetic tape cartridge for professional use*”, published by the International Electrotechnical Commission (IEC).

BS 6288 consists of the following Parts:

- *Part 1: Specification for general conditions and requirements;*
- *Part 2: Specification for calibration tapes;*
- *Part 3: Methods of measuring the characteristics of recording and reproducing equipment for sound on magnetic tape;*
- *Part 4: Methods for measuring the mechanical characteristics of magnetic tape for analogue recording;*
- *Part 5: Specification for electrical magnetic tape properties;*
- *Part 6: Specification for reel-to-reel systems;*
- *Part 7: Specification for cassette for commercial tape records and domestic use;*
- *Part 8: Specification for eight-track magnetic tape cartridge for commercial tape records and domestic use;*
- *Part 9: Specification for magnetic tape cartridge for professional use;*
- *Part 10: Specification for time and address codes;*
- *Part 11: Guide to an address code for compact cassettes.*

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used as a decimal marker in the Figure 4a and Figure 4b. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Where the words “Part 9 of IEC Publication 94” appear, referring to this standard, they should be read as “Part 9 of BS 6228”.

Cross-reference

International Standard	Corresponding British Standard
IEC 94-1:1981	BS 6288 <i>Magnetic tape sound recording and reproducing systems</i> Part 1:1982 <i>Specification for general conditions and requirements</i> (Identical)

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

EXPLANATORY NOTES

This Part 9 of IEC Publication 94 shall be used in conjunction with the fourth edition (1981) of IEC Publication 94-1.

The clause numbers in this part correspond to those in IEC Publication 94-1 and any text given in this part shall modify the text given in IEC Publication 94-1. Absence of text in this part indicates that the provisions of the relevant clause in IEC Publication 94-1 apply.

Section 1. General

1 Scope

This part applies to a magnetic tape cartridge system for professional use. It provides for either one programme track and one cue track for monophonic programmes or for two programme tracks and one cue track for stereophonic programmes.

2 Definitions

2.3 Addition:

The following definition shall apply for the purposes of this standard:

Cartridge

The cartridge consists of a housing containing stationary tape supports and a mechanism to handle an endless roll of tape that is activated by tape being withdrawn from its centre while being wound back on its outside. The roll of tape is stored on a platform enclosed by the housing.

The pressure roller and its corresponding capstan are accommodated respectively by a hole in the underside and an opening in the front of the housing. One or more further openings in the front of the housing serve for the insertion of one or more magnetic heads.

In the working position the pressure roller pushes the tape against the capstan while the cartridge is located by a spring action device or other means.

Section 2. Mechanical requirements

12 Change title to:

Mechanical requirements for cartridges and for recording and reproducing equipment

12.1 Cartridge sizes

There are three cartridge sizes physically identified and designated as Type AA, Type BB and Type CC.

The standard dimensions for type AA are shown in Figure 1a. Width and length dimensions for Type BB and Type CC are shown in Table I.

For all other dimensions those of Type AA apply.

Table I — Cartridge sizes

Cartridge type	Width (mm)	Length (mm)	Height (mm)
AA	101.85-101.35	132.08-130.81	22.73-21.97
BB	152.65-152.15	178.44-177.17	22.73-21.97
CC	193.93-193.42	216.54-215.27	22.73-21.97

12.2 Dimensions

All important operating dimensions are referenced from two imaginary mutually perpendicular, vertical planes marked A and B, and a third horizontal plane C, representing the deck surface of the cartridge tape player.

Where applicable, dimensions include draft allowances.

12.3 Materials

All materials used in the cartridge construction shall be non-magnetic.

12.4 Tape path

The position of the lower edge of the tape when it is in a relaxed static condition in the cartridge is given in Figure 1b.

Precise tape guidance shall be provided by a tape guide (or guides) external to the cartridge, so that the running path of the uppermost edge of the tape shall be parallel to the C plane (deck plane) at a distance to the said plane of 14.27 ± 0.05 mm.

12.5 Tape length

Loaded cartridges shall contain no less tape than that required to provide the indicated playing time marked on the cartridge and excess tape length shall not exceed 3 s playing time for lengths up to 19.2 m and 6 s playing time for lengths of over 19.2 m. The tape length, expressed in playing time, shall be clearly marked on the heel of the cartridge.

12.6 Magnetic tape pulling force

The tape transit mechanism of recording and reproducing equipment shall be capable of a minimum tape pulling force of 6.7 N using clear (no-oxide) unlubricated 6.3 mm wide, 0.0254 mm (base film thickness) polyester tape.

12.7 Tape tension

The tape tension measured with the tape moving in the direction of normal travel, and external guides eliminated and any braking system defected, shall not exceed 0.834 N.