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**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 10240-2026**

Replacing GB/T 10240-1988

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**Specification for the editing and production of programme  
sources for the subjective assessment of sound quality of  
electroacoustic products and systems**

电声产品和电声系统声音质量主观评价用节目源编辑制作规范

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## Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document supersedes GB/T 10240-1988 "Specifications for Editing and Producing Program Sources for Subjective Evaluation of Sound Quality of Electroacoustic Products", and is consistent with GB/T 10240- Compared to 1988, aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) Added "Recording requirements for program sources used in evaluation" (see 4.2);
- b) The duration of each program segment should ideally be between 10 and 60 seconds. For orchestral segments, this duration may be appropriately relaxed, but should not exceed [a certain limit]. The technical requirement of "passing 5 minutes" (see 4.5.1, 5.4.1 of the 1988 edition);
- c) Change "Program Source Application Version" to "Production Requirements for Program Source Application Version" (see Chapter 5, 6.3 of the 1988 edition);
- d) Change "Quantity and Storage of Original Program Source Tapes" to "Program Source Storage Requirements" and "Storage Conditions" (see

4.6 and Chapter 6). Chapter 7 of the 1988 edition);

e) The technical requirement for "program source master" has been removed (see

6.2 of the 1988 edition);

f) The technical requirement for "open-reel tape" has been removed (see

6.3.1 in the 1988 edition);

g) The technical requirement for "cassette tape" has been removed (see

## 1 Scope

GB/T 10240-2026 is the Chinese national standard covering the recordings used to judge audio equipment by ear - how the programme material is selected, recorded and edited so that a listening panel is comparing the equipment rather than the recordings. It replaces GB/T 10240-1988, a standard thirty-eight years old, and has been in force since 1 October 2026. It was issued on 31 March 2026 and takes effect on 1 October 2026, replacing GB/T 10240-1988. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the editing and production standards for program sources used in the subjective evaluation of sound quality of electroacoustic products and systems, including the original program source. Production requirements and storage conditions for program source application versions. This document applies to subjective evaluations of the sound quality of electroacoustic products and systems conducted in an audition room.

### 4.1.1 Subjective evaluation of sound quality using program source content

4.1.1.1 Overview The program sources used for subjective sound quality evaluation include various audio products and systems that may be reproduced during the subjective sound quality evaluation. A typical representative of a type of program, or a program segment that makes a significant contribution to evaluating a certain sound quality attribute.

4.1.1.2 Voice Read aloud in Mandarin Chinese. Based on the probability of occurrence of its initials, finals, and tones, and its impact on the sound quality of electroacoustic products and systems. The evaluation of contributions was specially edited and produced.

4.1.1.3 Vocal Performance Vocal performance should include the following.

a) Solo singing by male and female voices. Generally, bass and soprano voices are used. Instrumental accompaniment is not recommended.

b) Choir. Mixed choir, children's choir.

c) Traditional Chinese Opera. Select representative opera styles and vocal techniques. This

includes both a cappella singing and performances accompanied by traditional musical instruments.

4.1.1.4 Instrumental music Instrumental music should include the following.

a) Folk music. Solo and ensemble pieces on typical traditional Chinese musical instruments such as the suona, flute, xiao, erhu, yangqin, and pipa.

b) Western music.

---Piano music. The range should be at least five octaves.

---Orchestral music. String music includes passages played by string instruments such as the violin, viola, and double bass; wind music includes brass and woodwind instruments. The music includes sections played by wind instruments; percussion sections include sections played by percussion instruments such as timpani, snare drum, and triangle. Simultaneously... There should be ensemble sections for these instruments.

c) Electroacoustic Music. Representative electroacoustic instruments that have significantly contributed to the subjective evaluation of the sound quality of electroacoustic products and systems will be selected. Solo or ensemble passages.

4.1.1.5 Other Choose sounds such as bells, trains, birdsong, and steam whistles.

#### **4.1.2 Check and adjust signals**

4.1.2.1 Left and right channel check signals. speech or percussion.

4.1.2.2 Polarity check signal. Program signal with bass and treble percussion instruments.

4.1.2.3 Left and right channel balanced signals. The analog program signal shall comply with the provisions of GB/T 6278.

4.1.2.4 Sound level adjustment signal. The analog program signal shall comply with the provisions of GB/T 6278.

4.1.2.5 Reference Program Signals. Select some complete program segments with relatively complete artistic effects for reference when adjusting the equipment.

#### **4.2 Recording requirements for evaluation program sources**

4.2.1 Recording System A digital recording system should be used, with Pulse Code Modulation (PCM) as the audio encoding format and a sampling frequency of not less than 96kHz, quantization precision not less than 24bit.

4.2.2 Recording Environment For subjective evaluation of sound quality, the program source should be recorded in an anechoic chamber.

### **4.3 Evaluation of Program Source Technical Indicators**

4.3.1 The spectrum range of the program source should not be narrower than 40Hz~18kHz.

4.3.2 The dynamic range of the program source should be no less than 50dB.

### **4.4 Evaluation of the audio quality characteristics of the program source**

4.4.1 Qualitative requirements. The sound quality of each program segment in the evaluation source should be natural and realistic.

4.4.2 Quantitative requirements. When using a 5-point scoring system, the sound quality characteristic value of each program segment should not be less than

### **4.5 Requirements for Subjective Characteristics of Program Sources Used for Evaluation**

4.5.1 The duration of each program segment should be between 10s and 60s. For orchestral programs, the duration can be appropriately relaxed, but should not exceed 5 minutes.

4.5.2 The replay volume of each program segment should be basically balanced.

4.5.3 The musical phrases in each program segment should be complete, with clean beginnings and endings.

4.5.4 All program segments are two-channel stereo signals, with accurate and realistic sound image positioning.

4.5.5 The ambient noise level for each program segment should be sufficiently low.

4.5.6 The overall information of the program source used for evaluation should not be lacking.

4.6 Program Source Storage Requirements The evaluation program source and the inspection and adjustment signals are stored uniformly in a designated digital carrier for use in copying the application version.

### **5.1 Requirements for the Production of Digital Audio Players**

5.1.1 The electrical performance indicators of digital audio players should be superior to those specified in GB/T 15860.

5.1.2 Digital audio players should have automatic program playback and control functions.

5.1.3 During the original program source dumping process, data loss should be prevented.

5.2 Requirements for other digital carriers For program source applications using digital hard drives as the carrier, each program segment on the digital hard drive should be evaluated according to the requirements of the prescribed evaluation method. Line