Technical requirements for input media

General information

The input medium is the recording medium handed in by the customer and containing the exact sound, data or other information intended for mass production (on CD, LP or MC).
The record on the medium is usually in the form it is intended to have in the final product. If not, the necessary information must be provided with the source data – see "accompanying information" (**adjustments cannot be administered at DVD**). It is recommended to record each master on a separate medium, except when it is ordered to produce simultaneously one master on several types of media, e.g. on CD and MC – in that case a single input media is fully appropriate. Moreover, the source data must be stored separately from the data for DTP (to be supplied on a separate medium).
The input medium should be handed in an appropriate original cover; the medium must be in good condition, clean and free from physical damage; it must be correctly and explicitly identified. The recording medium must be identified in accordance with the accompanying information (catalogue number) on a non-removable tag (sticker, inscription on a CD-R label etc.).

Analogue input media

Professional analogue tape

Characteristics: 1/4" studio tape for analogue sound recording and archiving.
Required information: tape speed – 38 or 19 cms^{-1}
number of tracks – 1 mono track, 2 stereo tracks
mastering – CCIR, NAB
noise reduction – none, DOLBY A, DOLBY SR
Test signals: Test signals must be provided on the tape to allow adjustments on the playback device (frequency response and head alignment). If no test signals are provided, the standard test-tape settings will be used.

Digital input media

U-matic

Characteristics: analogue cassette media initially intended for video recording on the diagonal tracks with sound on longitudinal tracks; it is also used with a Sony PCM 1610/1630 processor for digital sound recording.
Required information:
Recommendation:

- analogue track 2 must contain the time code – SMPTE Non-Drop Frame
- the time code must start at the beginning of the tape; the code must be continuous and uninterrupted and may not exceed the 23 hours 59 min 59 sec 29 frames
- the beginning of the digital audio recording on the diagonal tracks may not begin before 00:00:30:00; the recommended start time is 00:01:00:00
- analogue track 1 is intended for PQ code data (information about index and tracks location, UPC/EAN code, ISRC code data etc.)
- the media may be submitted either with recorded PQ code data (i.e. encoded) or without, in which case the necessary information must be supplied in the accompanying documentation – see "Accompanying information"

R-DAT

Characteristics: digital cassette with diagonal-track recording.
Required information: sampling frequency – 32, 44.1, 48, 88.2, 96 KHz

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Requirements:

- absolute time or time code incorporated in the sub-code for the entire length of the recording
- approximately 1 minute of digital silence at the beginning of the tape
- place Start ID marks to identify tracks and spaces
- at least 1 minute of digital silence at the end of the recording
- the recording must be free from interruptions and the sampling frequency and the pre-emphasis may not change
- input media must be supplied with appropriate accompanying information (see paragraph Accompanying information)

Recommendations:

- use cassettes of high quality from a major brand and of the shortest possible length
- use a reliable and well-adjusted recording device
- use a sampling rate of 44.1 or 88.2 kHz
- modulate PQ data at -14dB. Place the Start ID 30 seconds after the beginning of the tape
- keep a continuous time code from the beginning of the tape until 30 seconds after the end of the recording. The time code should not be interrupted or contain gaps
- do not make interruptions while recording (risks of gaps in the time code)
- tag the programmes from 1 upward, in accordance with the desired order of the programmes on the CD
- add the Start ID marks manually. Automatic marking may lead to marking delays and mistakes
- place END ID mark at the end of the recording
- if the recording device doesn't allow listening during recording listen and check the entire record after recording
- completely rewind the tape before storing or transporting it

Pressed CD, write-once CD-R, rewritable CD-RW

Characteristics: pressed, write-once or rewritable medium are the most frequently used media for recording, archiving and CD production.

Required information: a list of the tracks or, for pressed media, a booklet or cover with an exact description of the structure of the recording (tracks, index, length of individual tracks and total length).

Recommendations pressed CD's - send it with booklet and always in a hard case (not in an envelope). For CD-R recordings use only high quality medium. While recording always use the *single session* method (DAO) in compliance with the relevant format of the medium intended for mass-production, test-listen your recording, identify the medium (and only with a felt tip marker intended for that use – using a hard-core pencil will damage the disc), keep the surface of the disc clean and free from physical damage.

MiniDisc

Required information: a list of the tracks or, for pressed media, a booklet with an exact description of the structure of the recording (tracks, index, length of individual tracks and total length).

Exabyte in DDP format

Characteristics: cassette medium with diagonal-track recording; the cassette has the same dimensions as a Video 8 tape.

Required information: the encoding data and the tape analysis sheet.

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Recommendations:

- use only data cassettes
- use the shortest possible tape length (54 m). They have enough capacity for CD production, while their tape is thicker and more resistant.
- record your data as ANSI labelled
- when handing in data for several masters, supply data for each individual master on a separate tape.
- place the DDP data at the beginning of the tape, or supply it separately on a diskette.
- use DDP level 1.00
- use the 8500 recording format without compression (the 8200 format has a slow data transfer rate).
- supply the DDP encoding data and the error control protocol for each tape. The tape must not contain non-correctable errors. (Most of workstations can perform error control routines, check data integrity and the minimal transfer rate etc.)

Accompanying information

Each input media must be clearly described by supplied track-list which contains technical and descriptive data.

Descriptive:

- Name of the company, title, order number – those must also appear on the medium itself

Technical:

- technical data are necessary for correct carrying out of the production operations.
- lengths and names of the individual parts of the recording (songs, records, heads etc.)
- unambiguous indication of side A and side B (for magnetic audio cassettes and vinyl records).
- Technical data describing how the record on input media was produced, i.e. record level, sound correction, use of noise reduction (together with the noise reduction type used), indications of special effects which could be mistaken for technical errors e.g. cracklings, recording slowdown, intentional cut-off at the end of a track, a 10-minute silence as part of a programme, etc.
- Requested adjustments and editing must be specifically described; for complex editing we recommend the presence of a person in charge.

If more than one carrier is supplied for arranging of compilation, the final recording must be described by a track list. For compilations, which will be produced on magnetic audio cassettes, a description of the order of the tracks on each of the sides must be provided, together with an indication of the particular source carrier on which each programme is recorded. The best is to fill out a track list with references to the source carriers involved.

Recommendations:

- copy of the original record should be supplied as an input media (to prevent irrecoverable loss of record in case of transport damages etc.)
- hand in the medium in its original cover
- test-listen the recording and check the accuracy of the track list

Input media for vinyl records

Acceptable input media

- CD, CD-R, CD-RW using the audio CD data format
- R-DAT with ABS time code (A time) and Start ID marks
- U-matic PCM 1610/1630
- MiniDisc
- DDP exabyte
- Professional audio tape
- Other sources by prior agreement

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