Vinyl - Technical Conditions

These technical conditions describe the acceptable source data and materials, including documentation required for the vinyl record production in the company. The
customer has the duty to get acquainted with them prior to placing the order. The source data not mentioned in these technical conditions, or source data, which are inconsistent with these conditions, should be consulted in advance with a pre-mastering engineer.

1 Technical Specifications

Vinyl record is a carrier of mechanical analogue recording of natural sounds. It is predetermined for listening of this recording by means of amplitude linear reproduction chain at uniform revolving of vinyl record at nominal speed in the clockwise direction. Therefore the problems caused by any other use of record cannot be the subject of claim.

Each side of vinyl record carries one physically continuous spiral groove, which begins at the perimeter of record and is ended on the specified diameter by ring closure into itself. Any possible requested different geometrical layout must be defined precisely as intended deviation from the standard IEC 98.

Technical parameters of vinyl record must conform to the specification of the standard **IEC 98:1987.** If the supplied source materials do not allow to carry out the recording in compliance with the abovementioned standard or the character of supplied sound recording at standard setting-up of the recording device exceeds its limit values, the supplied source materials will be adjusted in the pre-mastering, or will be rejected as nonconforming, should it be impossible to adjust them.

The recording moulds that we use at our factory are produced using DMM technology. Upon request from customers we can offer the older technology of cutting into lacquer sheet.

Vinyl records are divided according to combinations of revolutions and diameters.

Nominal diameter of record:
- 17 cm (7")
- 25 cm (10")
- 30 cm (12")

Nominal revolutions:
- 45 revolutions per minute (rpm)
- 33 & 1/3 revolutions per minute (rpm)

Number of channels:
Specification according to the standard: 2 channels (stereo)

Visual track markers:
Number of visual track markers should be chosen so that it would enable easy orientation in the recording area. Larger number of visual track markers would limit the reachable reproduction time.

Reproduction time:

Approximate playing times for properly prepared record at common recording level		
Nominal diameter of record	mm : ss at 33 & 1/3 rpm	mm : ss at 45 rpm
30 cm (12")	19 : 20	14 : 20
25 cm (10")	13 : 37	10 : 05
17 cm (7")	6 : 50	5 : 00

The recording time available on vinyl records depends a lot on the frequency spectrum, the dynamic range, the width of the stereophonic signal and other characteristics of the recording. The playing time figures which we provide are merely recommended times. If the playing time of the recording of one side of a record does not exceed the figures given in the table, the quality of the recording will usually be limited only by the parameters of the recording device and by the conditions in which the reproduction is carried out. If the playing time exceeds the figure, it may - but will not necessarily - bring about a situation whereby the recorded signal will not fit into the available recording area under normal levels of volume. In such a case the level of the recording must be lowered, or an appropriate compromise must be reached.

2 Formats of input source media

Scope of liability for damage: Company   is liable for damage or loss of
the physical medium only up to the price of new medium, not for the price of the medium content.

Physical carriers must be readable in the entire length of the programme. In the event that the supplied carrier contains non-correctable errors of reading, the processing of order shall be suspended. The customer will be asked for supplying new source data.

The particular carriers must be unambiguously identifiable in accordance with the supplied documentation and order (catalogue number, customer). The description must also contain the format of data, which are stored on the carrier (for example Vinyl master, CD Audio, DDP master or WAV files). The description must appear both on the cover and on the medium itself. However, it must not prevent its error-free reading (self-adhesive labels and stickers, description of CD media using a hard-core pens, etc.).

If one data carrier contains the files for more titles, the files must be stored in separate folders named according to the catalogue number of the corresponding title, in accordance with the supplied documentation and order. We recommend storing the data for the particular sides into separate sub-folders.

Recommendation: For the production, please send always a copy of your original master. We recommend sending 2 identical copies clearly identified as master and backup copy. We shall use the backup copy in order to minimise the risk of delays that could occur in case of master readability failure, in which case the material would need to be sent again.

2.1 Physical audio carrier
It is an analogue or digital carrier containing the continuous recording of programme. The division of programme into tracks is defined by means of technical facilities of a concrete player (ID marks in the time track) or by means of time data in the accompanying documentation.

If one physical carrier is predetermined for more sides, the programme for each side must be separated by a sufficiently long silent gap (at least 3 seconds), and the sides must be defined by means of marks (numbers of tracks, ID, ...) and running times in compliance with the accompanying documentation. The order of compositions on the supplied carrier must correspond to the requested order on the resulting product so that it would not be necessary to change the order of compositions when replaying the carrier (rewinding, skipping to another track, …). If it is not done, the customer must state in writing in the accompanying documentation the requirement for the change of compositions' order.

We accept the following formats:

2.1.1 <u>CD Audio disk</u>
Fully functional pressed or burnt disk in the CD Audio format playable in a CD desk player. We do not accept the shaped CDs, business cards, etc.

2.1.2 <u>R-DAT</u>
ABS time (A time) and ID START marks

2.1.3 <u>MiniDisk</u>

2.1.4 <u>Analogue carriers</u>
magnetic tape 1/4" speed 38, 19 cm/s, EQ CCIR, NAB, Dolby A, Dolby SR

2.1.5 Contact the pre-mastering engineers for more information about the following carriers U-Matic, SACD, DVD-Audio

2.2 Audio files
The audio files can be supplied either on data carriers or transmitted via FTP server. They can not be used directly for the mastering.

2.2.1 <u>Division of programme</u>
We recommend storing all compositions for one side into one file forming a continuous and uninterrupted programme including the gaps. The tracklist with running times and lengths of compositions serves for better orientation in the programme.

The compositions stored in separate files are not suitable as the source data for production. They constitute an increased risk of bad interpretation of content for the following reasons:
- At unsuitable naming of files a mistake in the order of compositions can occur.
- It is not unambiguously defined whether the particular files already contain the gaps. When compiling the programme we suppose that the files already contain the gaps. We do not put any gaps between the compositions as standard! If the customer requests the gaps to be put, he must <u>expressly state this requirement</u> in the documentation. It is possible to state the length of gaps for each composition or as one value for all compositions.
- The compilation of programme from more files with different technical parameters (sampling frequency, quantization, number of channels, level) requires additional adjustments in studio (re-sampling, adjustment of levels).
- If the customer creates the audio files from audio CD, the loss of data between the individual compositions can occur when dividing into the particular tracks.

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2.2.2 <u>Naming and location of files</u>

Suitable naming and location of files shall secure a fast orientation in the supplied source data and contribute to continuous and problem-free processing of the whole order.

We recommend choosing the names and locations of files according to the following instructions:

- Create a separate folder named according to the catalogue number of the order for each title.
- Store the files with the documentation (tracklist, requirements for processing, …) into this folder.
- Create a sub-folder named for example SIDE-A, etc. for each side.
- If the programme for the entire side is stored in one file, name it according to the numbers of compositions, which are stored in this file, for example 01-05.WAV or 06-09.AIFF.
- If the compositions are stored in separate files, name the individual files according to the number of composition and to the name of composition, for example 01-Song_name.WAV.

2.2.3 <u>Recommended formats</u>:

- WAV (Windows PCM) - uncompressed audio
- AIF, AIFF (Apple Macintosh) - uncompressed audio
- APE (Monkey's Audio) - loseless compressed audio, with the error detection
- FLAC (Free Losseless Audio Codec) - loseless compressed audio, with the error detection

2.2.4 <u>Unsuitable and non-recommended formats</u>:

Lossy compressed audio in formats:

- MP3, MP2, MP1 (MPEG-1 Layer 3, 2 and 1)
- MP4, AAC, M4A (MPEG-4, Advanced Audio Coding)
- AC3 (Dolby Digital)
- DTS (Digital Theatre System Coherent Acoustics)
- WMA (Windows Media Audio, Microsoft)
- OGG (Ogg Vorbis)
- MKA (Matroska Audio)
- MOV (QuickTime)
- RA, RM (Real Audio, Real Media)

2.2.5 <u>Unacceptable formats</u>:

- files with the DRM protection preventing from playing on unauthorized players, for example files with the filename extension M4P (format AAC with DRM protection)

Unsupported formats must be consulted in advance with the pre-mastering engineers.

2.3 Data carriers

Data carriers can be used for sending of the audio files or images of disks for the CD-Audio format burning (Nero image, Cue Sheet). The accompanying documentation can be also supplied in electronic form on the same disk. It is possible to supply the source data for more titles on one data carrier.

We accept the following data carriers:

2.3.1 Optical disks CD-R(W), DVD-R(W), DVD+R(W) with data content
Only the disks in the format of CD-ROM or DVD-ROM.
Disks must contain a compatible file system (ISO9660, Joliet or UDF).

2.3.2 Hard disk
We accept all sizes of hard disks (3.5", 2.5"), all applicable possibilities of connection (IDE, SCSI, SATA, eSATA, USB, Firewire, LAN).
We recommend using the external disks; however we also accept the internal disks.

Format of disk:
- NTFS (Windows 2000, XP, Vista) - we recommend
- FAT32 (Windows 9X) - we accept (the maximal size of file is 4294967294 bytes)
- EXT2, EXT3 (Linux) - we accept
- HFS (Apple) - we accept

2.3.3 Storage media
We accept the following memory cards: SD, SDHC, XD, MMC, Compact Flash, Memory Stick and storage media USB Flash disk.
One storage medium disk may contain the data for more titles.

3 Data transmission via FTP server

The source data for production transmitted via FTP server must contain the check elements enabling the verification of data integrity prior to the production itself. Without check elements it is impossible to guarantee the conformity of files received by the manufacturer to the original files on the side of customer.

The orders, which do not contain the check elements, are suspended until the customer sends the data in acceptable format. If the customer insists on the production from non-secured data, he shall assume all risks related to any possible undesirable changes of data during its transmission and storage.

The check elements can be supplied in one of the following ways:

3.1 Source data packed in the archive
The files representing the image of disk, DDP, CMF or individual audio files, which do not contain any check elements (for example WAV), must be packed in one single file that can contain even the documentation.

Acceptable formats of archive files: ZIP, RAR, SIT, 7Z, ARJ, ACE, other formats might be accepted only with prior agreement with the pre-mastering department.

3.2 Format of source data, which already contains the check elements
APE, FLAC - lossless compressed audio formats with the check elements
UIF - compressed format of CD Audio image with the check elements

3.3 The check code supplied separately
As for the files, which do not contain any check elements and are not packed in archive file, there must be supplied the check codes for them, by means of which it is possible to verify any damage to data or an unauthorised manipulation with data.

We accept the codes MD5, CRC32 and SHA1. The code must be calculated separately for each file and a "List of files with checking codes" must be attached to the documentation. The check codes can be created using for example the programme HashCalc, which may be used free of charge..

4 Location and identification of data and audio files

If the customer supplies the source data in the form of files on a data carrier or via FTP transmission, there must be chosen such location into folders and names of files so that the data identification would be unambiguous, and in accordance with the supplied accompanying documentation and order.

The observance of all below mentioned recommendations shall secure the continuous and problem-free processing of the whole order and reduce the risk of production delay or even of mistake of data.

Instructions for the location and naming of the files:

4.1 Location of the files
The source data saved on FTP into a disk space allocated to the customer, or saved on a data carrier must be located in a folder with the name, which is identical to the catalogue number of the title. Any file or folder, even inside the archive, must not contain any inadmissible characters of operating systems for PC and Apple Macintosh: / \ > < : * ? |.

If each composition is stored in a separate file, create for each side a sub-folder named for example SIDE_A, etc. and store into it the audio files.

4.2 Naming of the files
If the programme for the entire side is stored in one file, name it according to the side and numbers of the tracks, which are stored in this file, for example "A_01-05.WAV" or "B_06-09.AIFF".

If the compositions are stored in separate files, name the individual files according to the side, numbers of the tracks and to the names of compositions, for example "A_01-Song_name.WAV".

We recommend naming the archive files and the files of image of disk according to the catalogue number of the order, and not to add any additional information into the name (the date, etc.).

5 Dokumentation

The documentation must unambiguously and undoubtedly identify the supplied source data so that it would enable making a decision about the accuracy of data during the input check and subsequent processing. It is necessary to specify mainly all non-standard elements and abnormalities, such as the errors allowed within the recording or non-musical sounds.

The processing of orders (titles) without the documentation required is suspended until the customer supplies the source data and documentation conforming to the technical conditions. If the customer insists on the production without the documentation supplied, he shall assume all risks related mainly to the mistake of titles or mistake of compositions..

The documentation must contain the following information:

5.1 Identification information
Catalogue number, name of customer, name of title and interpreter, etc.

5.2 Information about the source data supplied
5.2.1 Type of the source data supplied
5.2.2 Location of the source data on FTP server: the directory and the name of the file
5.2.3 Format of the source data (CD Audio master, DDP, disk image, individual files)

5.3 Description of the resulting product
5.3.1 Required format
The diameter and revolutions of the vinyl record; possibly the revolutions of the individual sides, if they differ.
5.3.2 Division of the sides
5.3.3 Tracklist
Tracklist must contain the order, the names and the times of the individual tracks and the total playing times of all sides.
5.3.4 Special requirements
All possible required abnormalities must be precisely and unambiguously specified, and agreed upon in advance (the recording in the lead-out groove, endless loop).

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