



sonrize

VINYL MASTERING

For best results, please submit the highest resolution audio master files possible— as high as 24 bit/192 kHz but at least 16 bit/44.1 kHz.

Please upload WAV or AIFF files only (no MP3 files).

The source audio files should be provided as a single WAV or AIFF format file – one file for each side. Please ensure the spacing between tracks is as intended to appear on the record and supply a PQ sheet, indicating track IDs.

You can send your files via a transfer program (Dropbox, WeTransfer etc) or ask your rep for our FTP information.

MAXIMUM LENGTH PER SIDE

As a general rule, the longer a side is, the quieter the record will be. Our general guideline for maximum side length is 20 minutes for a 12" 33 rpm record and 14 minutes for a 12" 45 rpm record. However, it's the bass content in the music that takes up the physical space on the disc, so it's sometimes possible to have a longer side without compromising the level or audio quality. Not all masters benefit significantly from shorter sides. As well, some styles of music are more ideally suited to a higher playback level, in which case shorter side lengths (15-18 minutes at 33 rpm, 9-12 minutes at 45 rpm) are recommended.

If you exceed the maximum time suggested for a record side, it can affect the quality of the audio. This is because distortion and high frequency loss become an issue as you near the center of the record. The longer the record, the more program is packed into the inner dimensions of the record. Also, longer running times will result in a quieter record, which will make the noise floor of the vinyl more apparent.

SIZE	SPEED	OPTIMUM TIME	MAXIMUM TIME*
12"	45 rpm	12 minutes	14 minutes
12"	33 rpm	17 minutes	22 minutes
10"	45 rpm	7 minutes	9 minutes
10"	33 rpm	11 minutes	15 minutes
7"	45 rpm	3 minutes	4 minutes
7"	33 rpm	5 minutes	6 minutes

*Longer times may compromise levels and/or EQ.

Any time that there is a question about whether or not your record complies with these guidelines, there is the option to cut a reference acetate first. An acetate is a disc that is cut just like the master record and can be played a few times to hear what your records will sound like. It can save the extra time and the expense of additional test pressings if you're unsure. Please contact your Sales Rep for details.

MASTERING TIPS

High Frequencies:

The lacquer cutting system (the next step in vinyl manufacturing) is capable of putting very high peak levels on the record, but only ideal playback systems in optimal conditions will be able to play the sound back without distortion. Since we need the record to be playable on all types of equipment, it's necessary to limit the High Frequency information. It's recommended to provide a vinyl premaster that already has a balance of high frequency suitable for vinyl production.

Low Frequencies:

Excessive level in the very low bass can cause the record to skip. Excessive stereo information in the bass appears as vertical movement in the groove, so it's sometimes necessary to remove the stereo component of the music as well as any out of phase information in the very low frequency range. The cutting system is equipped to correct minor issues with the bass however, more severe problems will result in a record that can't be cut or that sounds very different from the source audio files provided. It's recommended to provide a vinyl premaster that already has low frequency level and stereo content that is suitable for vinyl production.

Additional guidelines to best results when mastering:

- All bass frequencies should be centered (below 150 Hz). Phase issues in the bass frequencies can cause a collapse of the groove, causing a skip.
- Tame sibilance. Too much sibilance will cause distortion on playback. This should be addressed at the mix level for best results. Additional de-essing during the pre-mastering stage and cutting process may be possible.
- Avoid excessive high frequencies. Excessive frequencies above 10 kHz can cause distortion.
- Try to avoid using psycho acoustic processors to an excessive degree.
- Do not "clip" waveforms. This technique is often used in cd mastering to achieve a hot level, and usually causes distortion when cut. If a re-cut is requested on a record cut with clipped audio, it will be fully billable.
- Avoid too much limiting. Too much brick wall limiting can cause distortion in the cut. Re-cuts requested due to distortion on material that has been excessively brick walled will incur additional costs if not resolved before manufacturing.
- A distorted master will likely sound more distorted when transferred to vinyl. Watch the distortion on the mix.
- Keep in mind that due to the limitations of vinyl, high frequencies are reduced the further you get towards the center of the record, and the potential for distortion increases. Sequence your master accordingly. It is best to put quiet songs or ballads on the inside. Try to avoid sequencing the loudest song as the last track.
- Try not to exceed the maximum recommended playing lengths per side, as longer playing times will lead to a dramatic decrease in recording level and dynamics. On the other hand, the requirements of extremely high recording levels decrease the possible playing time.

- Try to avoid 7" vinyl formats at 33 1/3 rpm as the possibilities of the recording and reproduction are most limited at this format. If there is no other solution you have to take into account that the final product will be in some way compromised. Low groove speed limits the recording level and causes a higher decrease of the high frequencies into the middle of the record and can also cause higher distortion levels. Due to these limitations we cannot guarantee eq and level. We recommend using 45rpm up to 5:00/side, and in some cases even longer sides (5:30) can be cut at 45 with better results.

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