

ULTRA SOUND MASTERING

Here is a list of frequently asked questions, so please if you have any further questions regarding the process feel free to contact us :

ultrasoundmastering@gmail.com

► Can we attend the mastering session ?

We only provide online mastering because of the booking session logistic issue, but also mainly because mastering process is partly intermittent (ears needs pause), and because the very neutral monitoring listening environment is sometimes disappointing for the listener. It's always better to hear your final master on your own installation.

► What are the file requirements to be mastered correctly ?

First of all, before sending us your track, to save time and your money, it's useless to say that a secondary focus listening and verifying of your final mix export preferably on good headphones always proof to be useful so please double check for errors or issue especially : **glitches, pops, clicks, final reverb tails cut, timing errors, CPU overloads during bounce...etc**) that need to be fix before mastering or ask us to help if you encounter issue !

Please send you mix :

In WAV or AIFF 24-bit or 32-bit floating point of resolution (But you can render at your maximum DAW bit depth ie 24 or 32-bit floating point depend of your DAW).

At the same Sample rate frequency (KHZ) , up to 192 kHz, of your recording and mixing project, no conversion (no up-sampling or down-sampling).

Keep in mind that if you plan to make CD, 88,2 KHZ is a great sample rate to work with at the recording and mix stage, it produce a greater conversion than 96 khz (more accurate with less artifacts) at the mastering stage.

Of course, no compressed file (mp3, aac, whatever the codec) and no files reconverted from mp3 to wav or AIFF !

Please do not dither, we'll do it (at the very last stage), dither for reference track only, SEE ABOVE next section, "mastering format you need".

Be sure to leave sufficient headroom to achieve the best result at the mastering stage, we manage the ultimate loudness level. For 24-bit file I suggest between -6 and -8dbtp (DB TRUE PEAK) and -18 and -23LUFS integrated regarding the whole gain of you mix.

Short term loudness value is also useful to follow, and in order to leave sufficient margin mix no louder than -15 LUFS short term at the loudest moments (max value).

Please remove all limiter, clipper, maximizer, calibration plugins (etc...) present on your master output if you mixed with. (but you can join the working mix version "with" for reference of course)

Leave also 1-2 silence bar minimum at the start and the end of the track (to achieve a clean fade out and also reverb tail...)

If you opt for Stem mastering, make sure all of the stems start from the same point and recombine well when summed at the same gain.

For the "pre-mastered vinyl", we have to face to many caveat due to specific support, special care need to be taken regarding the high frequencies (hi-hats cymbals) hiss and peak, overly bright instrument, vocal sibilance and ultra low-frequency that doesn't translate very well, at the mixing stage and further more at the mastering stage. You have to deal with interdependence between loudness and total length of each vinyl sides so you would probably have to make some concessions and cut some song in the playlist, as a general rule the shorter is it, the better it translated in vinyl. Check you lacquer cutter total length prerequisites because it's hardly program material dependant (loudest of the track) (but as an example keeping under 12/13 minutes per side for 33 1/3 RPM and under 8/9 min 45RPM per side is a good start).

Finally, don't hesitate to leave us any comments on your mix! Issue to take care of like unwanted noise present on your track you want us to remove (in that case join a sample of the noise only please, it helps a lot), your wish for in/out fading tracks (please leave some space so that we can handle it).

► Do you accept stem mastering ?

Yes, we propose stem mastering (max 6-8 stems, For example : Kick, Drums, Bass, vocals, Synths, Effects), it's a good option if you are more after of a mix-master approach, it give us additional scope to optimize (depth, dimension, clarity) any specific part of your mix and give us the opportunity to work with more individual aspect of the audio. This can greatly improve sonic results of your master.

► What about the "loudness war" in 2017 ? Will my master be loud enough ?

A few word about history, over the past 30 years from the 80's Master levels for CD grew very high , thinking "louder sounds better" from the pressure of artist and Majors, to the detriment of the quality with potentially distorted and lifeless due to excessive compression the famous so called "loudness war". Now the fight is partly over.

Without entering into detail, most of serious mastering studios now follow the [ITU](#) and [EBU](#) agency guideline's for loudness, now become industry standards, new measure: The Loudness Unit and Integrated loudness level.

And moreover, all the major streaming services have now (Spotify, deezer, Apple

Music, Tidal, etc.,) implemented “Loudness Normalization”, or “Replay Gain” process to let you experience a continuous playback level.

At this moment, Apple is the more conservative with -16 LUFS, other platform play (and convert) louder at -14 LUFS (youtube, spotify, tidal).

Loud tracks are turned down to a nominal LU (Loudness Unit) level for playback (with small difference for each platform) and quiet tracks are turned up to match the same reference level. Concretely, if your track has a loudness level of -10 LUFS, Spotify will decrease the volume of that track to -14 LUFS. If a track is -18 LUFS the volume will be increased to -14 LUFS. So Everybody will play at the same level but the more headroom your song will have in fine the more dynamic and alive it will sound (for the same volume level).

It's a matter of fact that master at the closest level to the final streaming playback level will be a great benefice for your track in term of transient and details over a louder master and your track will sound the closest of your wav mastered track.

What does it means for loud tracks? Because encoding algorithm don't manage peaks near 0dBFS very well, you can end up with a lot of distortion on the transients.

Although our goal is to make you 100% satisfy, nevertheless you have to be aware of the “rules of the game” now in practice, with the streaming platform, we (at the mastering stage) have to be extra careful with headroom as you should be at the mix stage.

You can be confident that we'll maximize the loudness, make your song louder, while maintaining dynamics and sonic clarity of your mix and respecting rigorously these recommendations by leaving sufficient margin (safe headroom and ceiling) to avoid any clipping even after further conversions (from WAV to AAC, mp3, and other compressed formats used online), to deliver at market standard.

Be confident, “be the loudest” is definitively no longer your best friend and achieve maximum relative loudness are no longer as important, because any attempts to increase the level of your tracks beyond a certain point could be overridden downstream and you pay it high price...

► Do I need a specific mastering for each destination (CD, online Streaming, Vinyl) ?

For streaming, No, for all aggregator or streaming platform UltraSound Mastering follow the same recommended practices and rules than for « Mastered for Itunes » which is the most conservative and restrictive for the best, optimized that way, be sure you should then translate well with no surprises in any lossy convert format on all platform with their specific algorithm, without clipping and distortion and keeping peaks below -1 to -1.5dBFS.

So we offer you the same quality masters for streaming at the same price whether in 16-bit/44khz or High Sample Rate Version of Digital Masters (Mastered For iTunes / Bandcamp)

For CD, despite the fact it is in 16-bits/44khz pre requisite are not the same considering the absolute peaks margin as there is no conversion in lossy format that could degrade your sound.

Although good practice exists now also in the CD domain, you can always find some top seller album who belong to the “old school” practice “0 DBTP” and sometimes “0DBTP and over”, flirting with the limits “louder is better” for the biggest sound. And it's not every time the best for your ears.

Nevertheless due to normalization and conversion in lossy format, streaming requirements are in general a little more conservative than what you can generally find in the CD actual release. Is it for the good ? It's a matter of choice. Remember that listener can always bump up the volume...

So, If you plan to distribute your music on CD, and if your music style plays in the Loud ballpark, it's preferable to make one master specific for CD and one for everything else (streaming,radio).

For Vinyl, music for video broadcast

Vinyl require a separate mastering, with 2 files (for each side)

and music for video TV broadcast need specific attention and headroom requirement.

► So what final Master audio file format do I need ?

Streaming platforms

iTunes (standard), Spotify, and other online stores 16-bit/44.1k WAV

Mastered For iTunes 24-bit/96k, 88.2k, 48k, or 44.1k sample rate WAV files

More and more platform aggregators accept the “mastered for iTunes” (please check file format accepted)

Bandcamp AIFF, WAV and SoundCloud,16-bit/44.1k.

24-bit WAV files and sample rates above 44.1k are welcome to improve also quality of further compressed file.

Anyway it's fundamental that you always export to aggregator/ online platform your mastered file in a lossless format (the higher format you have and the higher they accept) such as *.WAV or *.AIFF (and some refuse upload of lossy format). As said before, If you export to a lossy format such as Mp3, platform will re-encode from one lossy format to another degrading the quality even further.

Compact Disc (CD-R master and DDP image)

16-bit/44.1k WAV on a CD-r or on DDP image file need to be transmit to the CD manufacturer.

Always prefer a DDP image (it's the industry standard) if possible (please check with your manufacturer if DDP is accepted), DDP is safe and secure, easy to send.

Vinyl pre-mastering

16-bit/44.1k WAV or AIFF if you don't have other option, but generally vinyl cutting

engineers prefer (due to the specification of the vinyl), higher sample rate and bit rate.
24-bit and sample rates higher than 44.1k highly recommended.
You'll need 2 files, one for each side of the vinyl.

Music for video production (licensing music platform)

24bit/48k WAV for video use, or 24-bit/96k is the best option for HD (blue ray).
Please check the special requirements on the platform you use.

► What is ISRC code and where can I obtain it?

ISRC are unique codes corresponding to one song and enabling recordings to be uniquely and permanently identified. ISRC helps to avoid ambiguity and simplifies the management of rights when recordings are used across different formats, distribution channels or products. The ISRC for a recording remains a fixed point of reference when the recording is used across different services, across borders, or under different licensing deals.

If you plan to go "direct" you have to contact your IRSC agency, if you plan to distribute via an international aggregator (Tunecore, CDBaby, Ditto, Distrokid, the Orchard etc.) or Zimbalam, iMusician, Wiseband, etc. in France), most of them include this service in their offer.

if you plan also a traditional CD distribution, we provide you a DDP image and/or CD-R master, we can embed ISRC code and also Broadcast .wav.
You need those codes to finalize your master. Apply for your ISR codes (ISRC) and save time!

Here is the international list of ISRC agency

<https://www.scpp.fr/SCPP/Home/LASCPP/GuidepratiqueISRC/tabid/107/Default.aspx>

<http://isrc.ifpi.org/en/get-isrc>

<http://www.dontbelievethethehype.fr/2011/08/quest-ce-que-le-code-isrc-et-comment-lobtenir/>