Pre Mastering Advice

To ensure optimal results from your recordings, there are several actions you can take to enhance the quality of the material you submit. Prior to submitting any content, we recommend to take the time to carefully review these mix and submission guidelines. Paying close attention to these details can significantly impact the outcome, differentiating between a very good master and an outstanding one. Feel free to print out this pdf and talk to your Mix engineer before finalizing the mixes for submission to us.

Should you have any questions regarding the points mentioned, feel free to reach out via email or phone for a discussion.

Mix and Submission Guidelines | Preparing Pre-Masters

We do our best to work wonders but at the end of the day we are always at the mercy of the material we receive, therefore the more elements you can get right at the source when preparing pre-masters, the more we can ultimately do for you.

These days, there is a whole host of so-called “mastering-grade” plugins available, and many DAW applications offer their own built-in processors intended for this purpose. However, a lot of these fall short of the processing quality required to achieve a truly great-sounding master without introducing undesired artefacts, with only a few exceptions. Therefore, don’t use them on your mix as a prelude to mastering unless you know exactly what you’re doing —otherwise, you may ruin any chance of achieving a great master.

Therefore the most important thing is to try and adopt a less is more approach and only apply mix bus processing you feel is absolutely essential to the sound. In short, try and leave the mastering until the mastering session.

Check your mix carefully for clicks, pops & vocal sibilance, one off loud events such as extra loud crash cymbals; vocals, bass notes or any other dynamically related one -offs. Make sure that you are as satisfied as possible before you submit your work.

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Technical considerations such as phase correlation, filtration of unwanted sub frequencies or high frequencies, noise reduction, de-essing and volume automation are all things that should be carried out on individual mix elements and not the whole mix during mastering, whenever possible. We do however have excellent tools for making these adjustments at the mastering stage if there are no other alternatives or the technical fix won't hurt the final sound.

In reality the best mix you can have is one that sounds right with no processing at all and all we need to do is correct any minor equalisation and set the level in the right spot!

General Mix Levels and Processing

Follow these tips and you should give us the best start possible to optimising your music.

In General try and keep peaks on the main mix bus between -10 to -4dBfs (Digital Full Scale/SPPM) but no higher than -3 dBfs. If you are familiar with the true peak measurement method, you can disregard this general advice and simply ensure that your mix is below the 0dB true peak limit, especially if you are not working in at least 32-bit floating point.

If mixing on a console please keep the digital capture recording levels conservative (-4dbfs peak) suggested.

The reason to do the above (both in the box and recording the console output) is not to do with headroom for mastering, (headroom is irrelevant). It's because of intersample peak distortion which starts to happen as low as 4 db below 0 dBfs in some computer workstations. When digital mixes have intersample distortion it becomes impossible to revert except if you're working with and exporting your audio at 32-Bit Float. Usual SPPM software meters cannot even detect Inter-Sample Peaks. We recommend using a modern True-Peak meter which can detect Inter-Sample peaks by using Oversampling in the detection circuit. Do not up/down sample files under any circumstances. You are better off at 44.1K if that is what your session was originally.

We also recommend working only with sample rates that are integer multiples of 44.1 kHz, such as 88.2 kHz or 176.4 kHz. Sample rates based on 48 kHz—such as 96 kHz or 192 kHz—are recommended exclusively for video production.

Do not normalize files under any circumstances.

No processing on the master bus, e.g. any loudness maximizing processor of any kind. Maybe a little compression from a decent outboard device if mixed on a console for specific effect, but no limiter plug-ins please. EQ on the master bus at our end would often be unnecessary if it were not for needing to undo over compensation by the mix engineer (often due to room deficiencies in the mix environment).

If you wish to give us a processed version that you are reasonably happy with as a reference then that is fine and often a useful tool.

Do not apply any dither or noise shaping to the final mix. Again if this is needed we will apply it in the final stages.

File Formats, Fades, Start/End Points and Submission

Files should always be 24bit or 32bit .wav or .aiff. The sample rate should be the sample rate of the source DAW session. Please do not up or down sample files as this is one of the most harmful things you can do to digital audio. If the sample rate and bit rate need to change during mastering let us do this the correct way, without mangling the digits!!

Make sure all track starts and ends have good bar/few seconds of silence either side and leave topping & tailing until the final master.

If you have clearly defined fades that you want to make sure are incorporated into the final master we suggest you fade the ends of tracks as you would like them to be in the premaster you supply. If you require fades but don't want to print these into your mix file, please supply exact details of the length of fades including start and end times when ordering.

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Submit clearly labelled files. Format should always be stereo interleaved .wav or .aiff. And they must be clearly labelled with Track title and version details. E.g.: 01_My new tune_Vocal Up_Premaster

Delivery of finished digital masters:

We can supply your masters back to you as simply data files and as a DDP image (the industry standard sample accurate data format used by nearly all professional pressing plants). As a Certified Apple Digital Masters Provider Studio, we can also provide you with official ADM masters at high sample rates and 24-bit bit depth. Please specify your preferred delivery method when confirming your session.

As standard we provide finished digital masters at 16bit 44.1khz as well as High Res in the highest native samplerate of the files you provided us and 24bit but can supply any sample rate or bit depth you require upon request. We need to know this before your session so this info should be provided along with your order.

Check your mix bounces before you send them. Listen all the way through to make sure it all sounds correct.

Check for clicks and pops. They might be tiny now… But they won't be after mastering. The same applies for distortion; it's going to get amplified along with everything else. It won't be nice so don't let it happen!

If there is anything that could happen during mastering that you know you would hate and never want to happen to your music please let us know in advance. In general our experience in every genre of music will preclude a mistake like this from happening. Occasionally, however, a client might not let us know something important that sonically they wish to be a certain way. Communication is key. You can provide us with as much info as you want on the sound you are seeking when placing an order. We will always do our best to get you there.

Turn it up. Before sending your final mix for mastering you should really give it a listen as loud as you can in your listening environment. This will reveal if you

have overdone the level or EQ on the midrange and tops. It's surprising how many clients never do this and it leads to over bright or harsh mixes that are difficult to correct during mastering.

Mixing in headphones? If you are, then please check the mixes on some speakers before sending in for mastering. With the exception of some high-end headphones it's not really possible to hear what you need on headphones alone.

A Few Words On Loudness and general audio quality:

For a number of reasons, mainly record labels wanting their record to sound biggest on the radio/TV, there has been a rather sad trend in recent years for ever increasingly 'loud' or crushed/clipped, dynamically devoid masters.

This increase in perceived volume comes at the cost of a loss of clarity, punch and depth as well as poorer stereo imaging and increased distortion. This is particularly problematic with the popular MP3 format due to the nature of the conversion process. MP3 is a terrible sounding format; there is in fact no such thing as a good sounding MP3 due to its conversion/compression losses. It's gradually losing its prominence but its replacements are not up to much either. Really PCM or DSD audio formats represent the best listening experience digitally.

It is sad because more and more people are growing up thinking that this is how music is supposed to sound. This lack of quality really affects the emotional connection with the listener and is deeply harmful to the hard work and emotion in the artist's music.

While there is a place for hugely large (Loud) sounding records, to really make it work, it is more often than not a product of quality writing, arranging and mixing and mastering process more than any 'magic bullet' in the mastering studio. Weaker mixes make weak masters and pushing weaker mixes harder during mastering makes them weaker and sound worse. To get the best results from mastering, the mix and production process has to be well crafted. It's well worth spending a good deal of time on the mixes getting them right before spending money on mastering to fix a problem you could have sorted during mixing.

Loudness has become a confusing subject. It's a topic that is not widely understood by the large majority of people involved in music. To simplify, some music sounds great mastered very loud and some sounds terrible. It's important to compare apples with apples and even more important to communicate your desire for loud, dynamic or otherwise when ordering and discussing mastering projects.

Different genres of music have differing loudness scales so it's important to discuss this if possible. A loud club record would be different to a loud jazz record for example. Both would be loud in their genre but in no universe should a jazz record be made as loud as a club record. It's important to discuss references of loudness to make sure you end up with what you want.

The other option is to allow the engineer to set the level where they see fit in the given genre.

We always try to put the right music in the perfect sweet spot in terms of loudness relative to quality. It's always fantastic to get some insight into how clients want to receive their loudness or lack of. So please let us know when you order what you like to hear!!

There is some possibility given advances in playback technology that loudness will be an issue of the past in years to come. The emphasis will hopefully switch back to colour and sonic signature and music will sound much more engaging as a result. As it stands, it is the single most consuming topic during conversations with clients. This is a great shame as more attention to quality could be brought into focus with a bit less loudness across the board.

Loud does not automatically equal good, although it can! Confused?

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