



# POPRUFF MASTERING

## ONLINE MASTERING & AUDIO SERVICES

A DETAILED EXPLANATION OF OUR SERVICES AND FORMATS

### MASTERING

Mastering is the final audio process of preparing mixes for broadcast and duplication. Ensuring tracks on an Album or EP are a coherent and each track has a sonic likeness regardless if tracks were recorded with different people and at different times.

Mastering is a truly creative process and allows our engineer to bring out certain elements in a track such as the bass or kick drum to make them deeper and more powerful or maybe push the vocal further back in the track and remove any offending frequencies. Mastering is what gives depth, punch, clarity and volume to your tracks.

The PopRuff Mastering Process involves using pristine analogue to digital converters, solid-state mastering compressors, equalisers, high-end software processors and a choice of playback monitors to ensure your tracks sound great on any playback system.

### WHAT YOU GET

In almost every mastering session, the following actions are performed:

- \* Multiband Compression/EQ/Stereo Enhancement/Limiting
- \* Arranging tracks in final sequence (pauses and fades)
- \* Remove unwanted noise like clicks, pops, hiss
- \* Insert CD text / track names / ISRC Codes needed for duplication
- \* Two revisions per song to guarantee your satisfaction
- \* 44.100Khz 16bit Digital Master (ready for duplication) + MP3 Conversion

### STEM MASTERING

Unlike the process of mastering a stereo track, stem mastering involves splitting the song into three or four main components/tracks, i.e. Drums/Bass, Instruments and Vocals. This gives the engineer greater freedom to affect certain elements of a song without affecting others. Stem mastering is ideally suited to songs that have had a poor mix. Stem mastering utilises the same technology and techniques as stereo mastering.

### BROADCAST SPEC PPM MASTERING

This service is for the Post Production and Broadcast industry that need to guarantee their Idents and radio productions are within the strict broadcast guidelines before going to air. As the name (PPM) Peak Programme Meter implies, it detects peaks of the programme content for transmission paths and transmitters sensitive to peak clipping. It provides accurate monitoring and safety leaving the engineer to concentrate on your projects.

## MIXING

If your racks are craving that full commercial sound then our Mix service is what you require. Mixing is the art and science of combining and balancing individual tracks into a finished song. It's often more difficult than the original process of recording or programming a song. When recording you only have to concentrate on one thing at a time. With mixing, you have to bring all elements of a song into a coherent and exciting whole.

Using compression, EQ, reverb and great ears we can guarantee elements in your song will sound more tight, defined and have a more musical sound and balance between components. This ensures you have a song that is dynamic and sonically equal, which is vital for a song to reach its full potential during the mastering process.

Frequent issues clients find with their mixes is that they are either bass heavy or bass light, or that the track has no sparkle or definition. This usually comes down to being mixed in a poor monitoring environment, lack of experience and inferior processing. PopRuff has a wealth of experience, an acoustically treated monitoring environment, an arsenal of analogue and digital processing and all at a low cost.

## NOISE REDUCTION

Our noise reduction service offers click/pop removal and hum/hiss reduction, which is usually performed during mastering and mixing.

Cedar Forensic Restoration enhances telephone and location recordings for legal professions.

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## FORMATS

- \* Aiff or Wav files
- \* 44.1Khz to 96Khz, 16bit or 24bit
- \* Logic Studio and Pro Tools 5 to 7 song files and all Reason song files
- \* If you are unsure of what format please contact us and we will advise

## TIPS

- Do not compress/normalize/EQ or limit your mix (no plug-ins on main outputs)
- Avoid repeated normalising of your music, as it will gradually degrade the sound
- Keep an eye on main-output levels, for safety audio peaks should be around - 3 dB to stop any clipping and distortion
- Just send us your un-treated mix down
- If you can mix down at 24bit do so. If recorded at 16bit stay at 16bit
- Please do not send MP3 files unless you have discussed this with us
- Please make sure you back up your material, do not send your only copy

Thank you for reading and we hope to hear you soon.

Web: [www.popruffmastering.com](http://www.popruffmastering.com)  
Email: [info@popruffmastering.com](mailto:info@popruffmastering.com)



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### PREPARING MIXES FOR MASTERING

This information is for those who are satisfied with their mix and require mastering. If you think your mix could benefit from a professional mix please [contact us](#).

#### ESSENTIALS

- 1) Ensure that there is NO plug-ins on your master/main output. All processing for the mix should be on individual channels i.e. Bass, Keys, Vocal etc.
- 2) DO NOT compress, limit or normalize your whole mix. This is for the Engineer to do.
- 3) DO NOT compress, limit or normalize your whole mix. (Can't stress this enough.)
- 4) Watch your master/main outputs during the loudest sections of the song/track (usually the chorus) and ensure the loudest reading on master/main outputs is -3.0db. If you need to use automation to reduce the level of a drum hit for example to achieve this then do so. This way you will achieve a louder master.
- 5) When you are ready to Bounce Down/Export Track ensure you don't cut off the start and end of songs/tracks especially if using reverbs. Let the track tail off naturally. A good rule of practice is to add a couple of bars at the beginning and end.
- 6) It is best to leave any fading in and out of songs/tracks to the engineer.

#### FORMATS

- 1) When you Bounce Down/Export Track from your sequencer the Sample Rate can be 44.100Khz, 48.000Khz or 96.000Khz. The Bit Depth can be 16Bit or 24Bit.

*The way for you to decide which format to use is simple. Just use the format that matches your song/session settings. By this we mean if you have recorded at 48.000Khz then Bounce Down/Export Track at 48.000Khz. The same rule goes if you have used samples that are 24bit the Bounce Down/Export Track setting should be 24bit*

- 2) Name your track and save as an Aiff or Wav file.
- 3) Leave any Dithering for the mastering engineer.
- 4) If your sequencer allows you to Bounce Down/Export Track in real-time then do so. This will allow you to listen and check there are no errors like pops/clicks.
- 5) Once your song/track has been Bounced Down/Exported do NOT compress/zip your mix. Just send your final untreated mix-down.
- 6) If you require additional mp3 files of your masters, just request this.

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## ESSENTIAL MIX TIPS

### MIXING THE WHOLE PICTURE

When beginning a mix try listening to the whole song and getting a balance between instruments as a whole without any processing. Try not to solo instruments and work on them in isolation. It is a lot harder to mix with the whole picture but you will train your ears quicker and achieve a much better result.

### SOUND SOURCES

When choosing sounds for your productions always source the best sounds possible. If you mainly work with midi and samples keep in mind that if you are using one of the main sequencers many people have access to the same sounds as you. Always try to have a personnel way of processing sounds to give them your own sound and help you stand out from the herd.

If you mainly record instruments for your productions take the time to ensure strings on guitars and the like are not too old and regularly tuned. This means using a digital tuner and "NOT YOUR EARS". Take the time to experiment with guitar amplifier settings and microphone placement to get the sound you are after.

Do not rely on fixing elements of a song during the mix and mastering process. Get them right at source.

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### DRUMS

If you are using midi drums the chances are the sounds have had some kind of processing, i.e. compression. You should be able to see this on the channel output that every hit is the same in volume/db's. Because of this take care when adding further compression as the sound will gradually degrade and produce further artefacts during the mastering process.

If you are recording a drum-kit make sure you check the phase between microphones. The checking of phase is required due to different microphones picking up sound at different times resulting in sound being out of phase with each other.

Most mixing desks and sequencers have a button or plug-in to invert the phase of a signal. For those not familiar with this action the way to knowing if a signal is out of phase is to listen carefully when inverting the phase. If a signal is out of phase it will sound thin and weak as if some of the frequencies are missing. This is called Phase Cancellation. When the signal is in phase you will hear that the sound is fuller and as it should sound.

Getting the phase correct on drum microphones is very important and the best way of checking phase between microphones is to solo the overheads and bring up each of the other drum microphone channels one at a time and inverting the phase to hear which sounds best.

Once you are satisfied with the balance of the drum kit it is a good practice to group the drum microphone channels and route them to a bus where you can apply further processing and treat them as a whole.

## BASS

If you ever have trouble mixing bass whether it be a Fender Bass or Novation Bass Station a little trick to help the bass cut through and sound musical is to EQ the bass with the key of the song in mind. For example if the key of the song is A, try by boosting 440Hz on a parametric EQ, which is what the note A vibrates at. You can work out other notes frequency and apply it to your songs/tracks.

Another tip to help poor timing between the bass and kick drum is to insert a compressor with side-chain parameters on the bass channel and choose the kick drum channel as the side-chain input. This will cause the bass to duck when the kick plays giving the kick more space and the bass more punch. Play around with the threshold setting to achieve the desired effect.

If you are producing more electronic based music and have access to Guitar Amplifiers try running the bass signal through one and recording it. Mix this with the original synthesized sound.

## ESSENTIALS

A good practice to get into is to use Low and High Cuts. By doing this to instruments/channels you will remove frequencies that are inaudible and taking up headroom and leaving the Mastering Engineer less to enhance resulting in a quieter song/track.

The method is every channel/instrument has a low cut plug-in inserted into its channel strip. Use your ears to what works. You will be surprised how much can be removed while still retaining the depth and weight a bass should carry. The same can be applied with regards to High Cut but maybe not everything. Use your ears.

Additionally once you have added further processing to an instrument/channel such as reverb you could and usually should apply further low and high cuts. Again a little less concentration with regards to the high cuts.

We hope we have been of help,  
PopRuff Mastering

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## RATES

### Online Music Mastering – FTP Delivery

1 - 2 Songs £40 each

3 - 6 Songs £35 each

7 – 24 Songs £30 each

### Online Music Mixing – FTP Delivery

1 – 2 Songs £75 each

3 – 6 Songs £70 each

7 – 24 Songs £65 each

### Audio Restoration/Noise Reduction – FTP Delivery

Forensic/Legal £40

Non-Forensic £35

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