



Mastering



120V-Technology

Mastering...

... is a no-compromise discipline. It is expected that mastering improves the mix. This implies that the gear a mastering engineer chooses outperforms what is used in mixing.

Besides being about gear mastering is probably even more about art. The mastering engineer and his artistic approach is what sets him apart. And like any artist the mastering engineer needs tools that realize the artistic vision.

Future-proof investment is the other vital aspect. The ever changing digital world is costing a fortune when trying to keep up with the latest while analog remains backward compatible and can operate for decades.

To make analog technology future-proof and even better than the best digital formats we developed the 120V DC Audio Rail technology. Based on proprietary operational amplifiers analog audio is superior to all known and foreseeable audio formats. All products of the Mastering Series operate on this unequalled high-voltage audio rail.

Designing mastering equipment has a long tradition at SPL. Along with the invention of the first SUPRA 120V rail op-amps we designed the MMC1 Mastering Console for Galaxy Studios back in 2000. Soon followed by the PQ, the “King of Parametric Equalizers”.

We improved the SUPRA op-amps year after year. We made them smaller, less expensive, better spec'ed, and even more reliable. Today we produce them in their 5th generation.



Skyline Mastering – Multi-channel Mastering Console – SPL MMC 1



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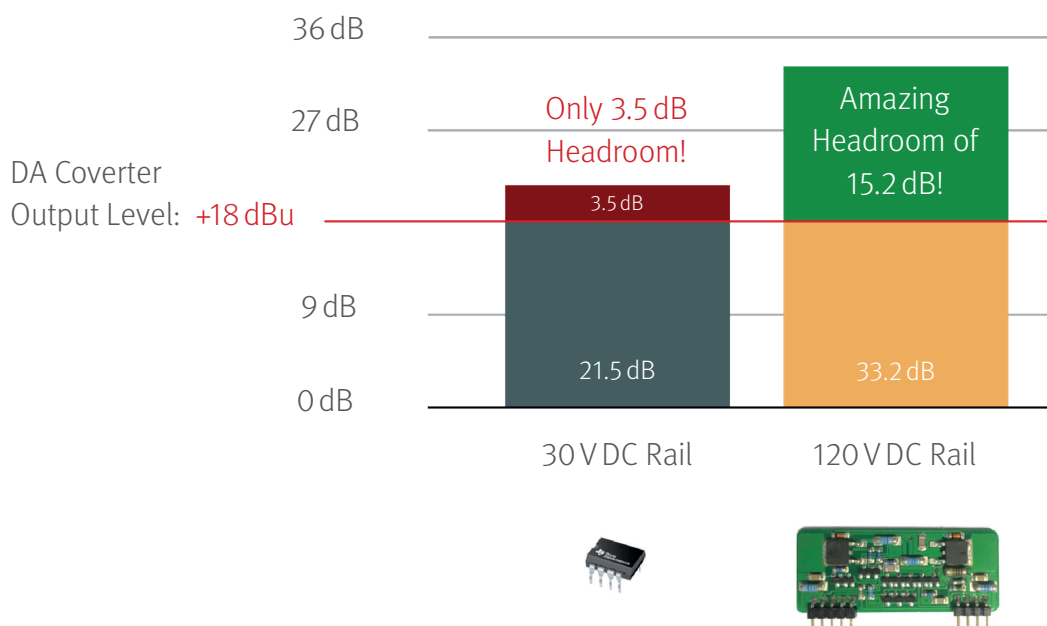
120V Rail Technology is our reference technology developed and manufactured to run on an operating voltage of 120 volts, which corresponds to twice that of discrete operational amplifiers and four-times that of semiconductor operational amplifiers.

120V Rail Technology reaches outstanding technical and sonic performances. Technically especially in terms of dynamic range and headroom and sonically especially in reproducing the finest details and delivering a totally relaxed sounding audio experience. Music sounds absolutely natural and hearing fatigue is drastically reduced.

Even the best audio measuring equipment arrives at the boundaries. In same situations we ended up just measuring the Audio Precision Cascade 2 measuring device and we cannot say how good the 120V Rail Technology actually performs.

Practical advantage:

If, for example, a workstation with connected converters outputs a level of +18 dBu at 0 dBfs (-14 dBfs = 0 dBVU), only 3.5 dB headroom for further processing remains for devices with an internal voltage of 30V DC. Whereas devices equipped with our 120V technology still provide a headroom of over 15 dB in this case. All components inside our SPL devices operate at the perfect operating point, whereas common devices already reach their limits.



DMC Mastering Console



The new DMC stereo mastering console is engineered from the ground-up making it not only more flexible with better specs than SPL's previous console, but also more ergonomic and sized to fit in all types of studio furniture.

The 3RU console has 4 stereo inputs and 4 stereo sources, with 2 stereo recording outputs, as well as 3 stereo and 2 mono speaker outputs.

"It is so clean sounding and open, the transparency of the sound is fantastic. I like how much headroom the audio has, that I can push it, let it breathe, or anywhere in-between — I can count on what I'm hearing to be accurate. I am not hearing anything holding it back in any way. Because I use analog outboard gear for all of my mastering work, the DMC allows me to set my gain structure correctly with the input and output trims. I can get my analog chain to behave with exactly the right signal to noise ratio that works for my system. I can't say enough about how good this new DMC console is for me."



Michael Romanowski, Coast Mastering



Hermes Mastering Router



The Hermes Mastering Router revolutionizes Mastering.

Now it is possible to route an audio signal through up to eight dual-channel processors in any order. User definable presets allow the comparison of complex processing chains with just a flip of a button.

In addition, Hermes has two integrated parallel mix stages that work with any of the eight processors allowing for comparison of two compressors with different parallel mix settings. The parallel mix stages are stored with the processing chains.

Hermes routing is entirely passive using gas-capsuled and gold-plated high-end relays. All active electronics like the in and output stages and the Parallel Mixes use SPL's proprietary and unequaled 120V DC audio rail.

You will rediscover your processors, because the possible combinations and Parallel Mix stages open up new horizons.



Gemini Mastering M/S Processor



Gemini is the first M/S Mastering Processor in 120V technology.

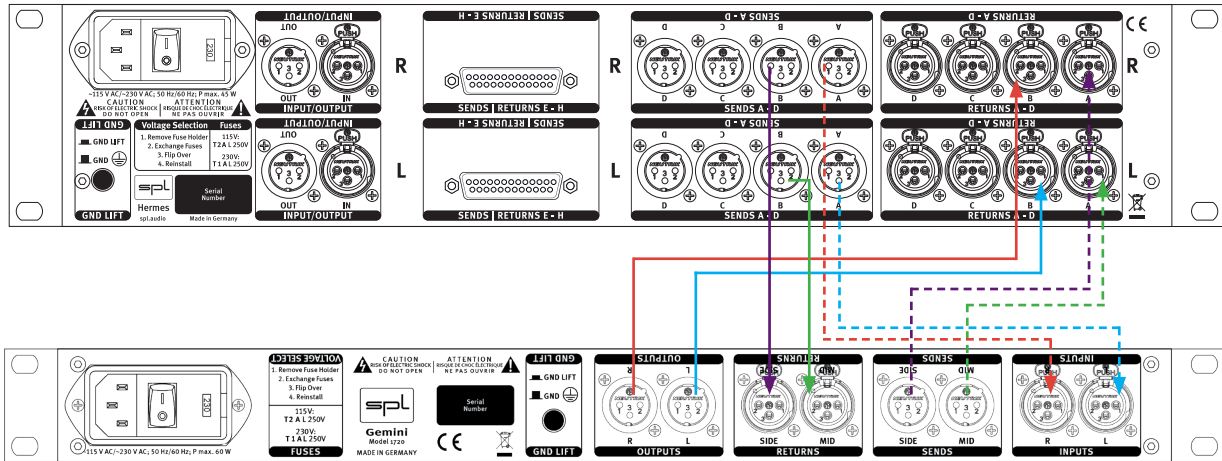
With Gemini, M/S processing enters the SPL Mastering series. Gemini is an M/S Encoder and Decoder. Mid signals (voice, snare, bass ...) can clearly be separated from side signals (guitar, spatial sounds, cymbals ...) and can individually be processed. When working on the sum signal, M/S coding often is the best way to specifically get access to individual elements within a mix.

Gemini also provides the possibility to work on the stereo panorama. With the Balance control you can position the mid signal within the stereo panorama. With the Trim control, you can adjust the level of the mid signal in relation to the side signal. In connection with the Stereo Width control, the mixing ratio of both channels can be adjusted.

An Elliptical Filter, which can cut low frequency ratios of the side band is also provided.

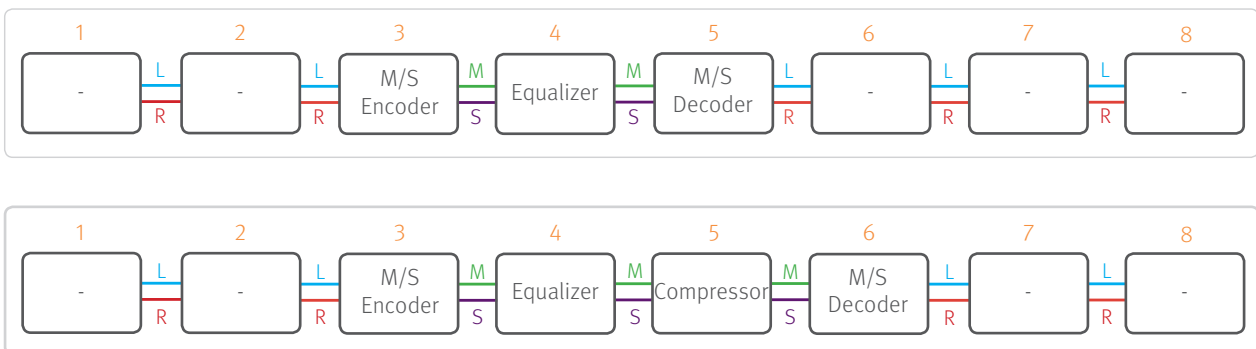


M/S with Gemini & Hermes



Hermes and Gemini operate in their complete range of functions as stand-alone devices. A pairing of Hermes and Gemini enables lots of further possibilities.

If the M/S Encoder and Decoder stages of Gemini are each paired with an insert of Hermes, it is possible to freely choose a position for the M/S Encoder and Decoder within the processing chain. This way, it is possible (see image below) to place the M/S Encoder on the third position, an equalizer on the fourth to use it for separate processing of the mid and side signal and then use the M/S Decoder stage of the Gemini on the fifth position to generate an L/R stereo signal. If you now like to additionally use a compressor, as a further device for M/S processing, you can place it on position 5 and the M/S Decoder stage would thus move to position 6.



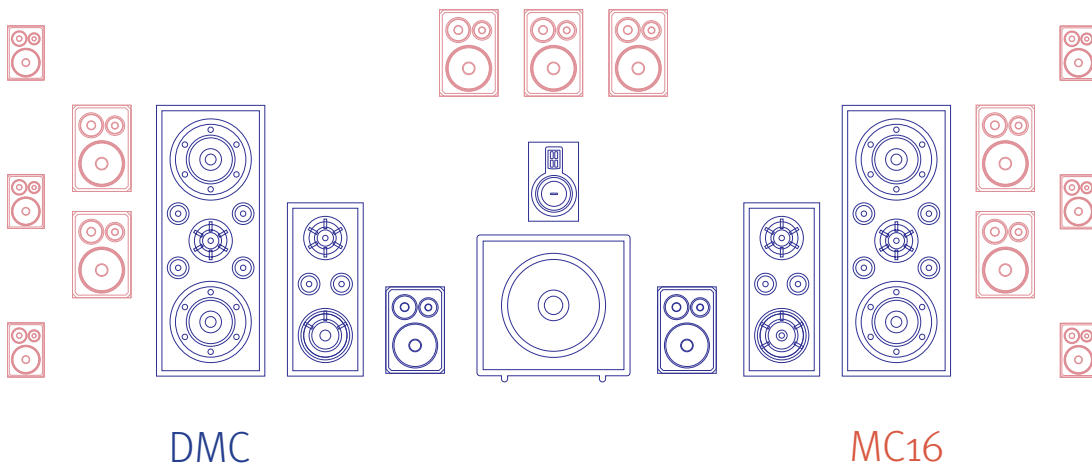
MC16 16 Channel Mastering Monitor Controller



Today's mastering studio must be prepared for Dolby Atmos[®] and Auro 3D[®] projects. Monitoring up to 16 channels in a quality that is on par with state-of-the-art stereo was hard to achieve – until now.

The new MC16 sports the world's first 16-gang precision potentiometer which was specially designed for SPL.

To seamlessly integrate multi-channel monitoring into a stereo mastering environment we developed a way of pairing the MC16 with our new DMC stereo mastering console. The combination of DMC and MC16 allows mastering studios to work in all current audio playback formats at the same quality level, all without reconnecting any speakers.



PQ Mastering Equalizer



The PQ Mastering Equalizer is a fully parametric, dual-channel five-band equalizer.

All five bands can each be activated or deactivated and you got the possibility (for every single band) to separately switch between Constant Q and Proportional Q. This kind of circuit has not yet been achieved in any other equalizer.

Thanks to the 1/4 Gain-Switch, you can reduce a maximum increase or attenuation of the amplitude by the factor 3/4, which regulates the potentiometer from max +/-20 dB to +/-5 dB cut. This gives you the possibility to perform small corrections, as common in Mastering or higher amplitudes in Proportional-Q mode.

Thanks to the detented potentiometers, a precise recall is very easy to realize. You can also adjust parameters Gain, Frequency and Q in 41 steps with the detented potentiometers.



PASSEQ Passive Mastering Equalizer



The dual-channel PASSEQ Passive Mastering Equalizer offers high, mid and low band with individual boost and cut and with 12 selectable frequencies per band. PASSEQ is the most powerful passive EQ system ever made with a total of 36 boost and 36 cut frequencies.

Thanks to the big detented output control, you can increase or attenuate the output level by 10 dB, to drive the following devices with the perfect desired level. This is important especially in mastering.

The HF+ Band was expanded with the frequencies 25 kHz and 35 kHz, sounding so incredibly good, that you don't want to turn it off anymore.

Another highlight are the specially made individual coils for all filters, as well as the individually optimized bandwidths per frequency range.



IRON Mastering Compressor



The IRON mastering compressor is not a copy of a classic unit, but rather an original concept in itself. Our goal was to conceive a compressor that provided a pleasant, melodic-sounding, transparent compression, inspired on the vintage compressors of the radio era. And we wanted it to be versatile enough to adapt perfectly to the needs of modern mastering studios.

Thus, the IRON combines not only the sonic virtues of legendary vintage tube compressors with the advantages of the High Dynamic 120V operating voltage in a single unit. It also sets a new benchmark in terms of tube compressor technology, with the innovative implementation of a parallel dual-tube circuit.



World Class Mastering Engineers

Choose SPL's 120V Technology



Grammy award winning Bob Ludwig – Gateway Mastering
SPL MMC 1



Simon Heyworth – Super Audio Mastering
SPL MMC 1



Howie Weinberg – HWM
SPL DMC



Grammy award winning Darcy Proper – Wisseloord Mastering
SPL MMC 1

Find more information on our website: spl.audio



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