Dual Mic Amp

System 9098

Classic Design
Performance & Reliability
The Magical Sound of
Mr. Rupert Neve
Brought to you by AMEK

"The need for excellent microphone signal quality in contemporary audio production has never been greater. Although the audio path is often fully digitized, the microphone remains the primary interface between the signal path and the real world. A microphone cannot feed long lines without signal degradation; lengths in the order of 25 metres can degrade performance audibly, and even in a normal recording studio cable runs are often greater than this. Critical importance therefore attaches to the performance of the microphone amplifier, whether its output is in the original analogue form or converted to digital.
"The System 9098 Dual Microphone Amplifier follows in the footsteps of the early 9098 console, the System 9098 Equaliser and the System 9098 Remote Control Mic Amplifier, sharing many of the same features and of course impeccable clarity of sound."

Signal Path
The System 9098 DMA contains two high quality signal paths that can be used as a stereo pair or two individual paths. When used with a stereo mic setup, the central WIDTH and M-S controls enhance the manipulation of the stereo image.

Direct Injection
The DI (Direct Injection) switch changes input from the rear XLR to the front panel jack socket. In DI mode, the input impedance is greater than 100kOhms for use with guitars and synthesisers.

Gain Control
The DMA is capable of output levels in excess of +25dBu. The switched gain control provides a range of 0-66dB in 6dB steps, so when using the minimum gain setting of 0dB only the most extreme sources produce an overload.

Trim
The variable Trim control has a range of +/- 6dB allowing fine gain adjustment between the 6dB switched gain steps. It also allows the gain to be extended by 6dB at either end giving an overall gain range of -6dB to +72dB.

48V
A phantom power switch is fitted for use with capacitor mics and applies phantom power to the rear mic input XLR.

Phase
A phase invert button is fitted to easily correct any phase anomalies caused by difficult mic placement or mis-wired cables

Filter
The high pass filter attenuates signals below 120Hz@18dB/Octave.

Input M-S
The Input M-S matrix operates immediately after the input gain stage. If M-S (sum and difference) mic signals are connected to the inputs, the DMA can be used to amplify them directly before sending them on to the mixer or tape recorder.

Output M-S
The Output M-S switch converts conventional L-R signals into M-S format. Used in conjunction with the Input M-S matrix, M-S encoded output signals can be generated no matter which input format is used, L-R or M-S.

Width
When the DMA is used with stereo signals, the Width control can be used to modify the nature of the stereo image. When central, the normal image is unaffected. When fully clockwise both signals are merged together into mono and fed to both A and B outputs equally.
When fully anti-clockwise the stereo image appears much wider as the phase of the "difference" component is manipulated. In this position the A and B outputs remain a stereo pair. At points in between, the degree of image width can be selectively controlled.

AMEK

by Rupert Neve the designer®

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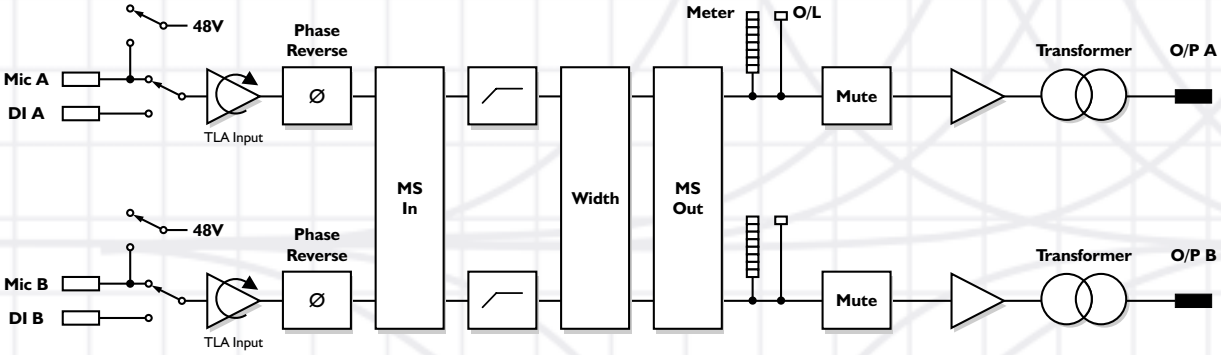

Specification

Noise - 150R source. Figures measured with RMS rectifier, 22Hz-22kHz filter

Equivalent input noise (66dB gain)	RMS	-128dBu
Output noise floor (0dB gain)	RMS	-100dBu

Frequency Response - measured from a 150R source driving an open circuit load.

0dB Gain	20Hz-20kHz	-0.1dB
	<10Hz and >110kHz	-1.5dB
66dB Gain	20Hz	-1.2dB
	20kHz	-0.5dB
	10Hz and >65kHz	-3dB

THD+Noise - measured with 66dB gain when driving +15dBu into a 10k load

0dB gain / 66dB gain	20Hz	<0.01% / <0.03%
	10kHz	<0.005% / <0.04%

Crosstalk - CH A to CH B, channel A set to 0dB gain and driven with +20dBu. Signal level (w.r.t. +20dBu) measured at output B

Better than 100dB at 20Hz, 1kHz and 20kHz

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