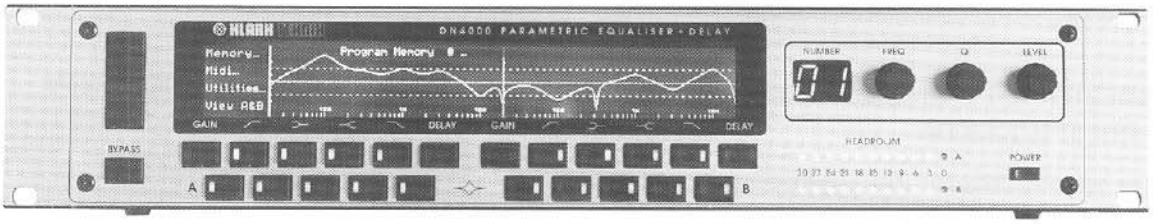
Preliminary Information

DN4000

Parametric Equaliser & Delay

The Klark Teknik model DN4000, a dual channel, user programmable, 5 band parametric equaliser, offers a host of features whilst maintaining the ease of operation for which Klark Teknik products are renowned.



The primary purpose of the DN4000 is for equalisation of audio signals in theatre and public address installations and touring sound reinforcement systems, although it will also prove useful in equalising and delaying audio for video in post production suites and synchronisation of audio for satellite transmissions.

In addition to five bands of parametric EQ, each channel is provided with a high and low frequency shelf EQs, high and low pass filters and a delay line with a maximum delay time of 340mS. Thus millimetre accurate delay compensation is combined with the precision and clarity of Klark Teknik EQ and advanced, extended dynamic range analogue to digital and digital to analogue conversion.

A 480 x 64 point LCD display panel shows the actual frequency response of the equalisation on both channels. All EQ filters,delay and gain parameters are accessed via dedicated selection switches and adjusted by three rotary encoders, labelled with the familiar Frequency, Q and Level.

A MIDI interface is provided as standard, together with a remote interface port for future integration into remotely controlled network systems. Fast and flexible control of the MIDI transmit and receive filters allows remote control of up to 16 DN4000 units from one master.

Two levels of control lock-out are featured, with a user - definable password for function access.

Fail-safe bypass relays are included as standard.

Options include transformer input and output balancing and an AES/EBU format digital audio interface.

Features

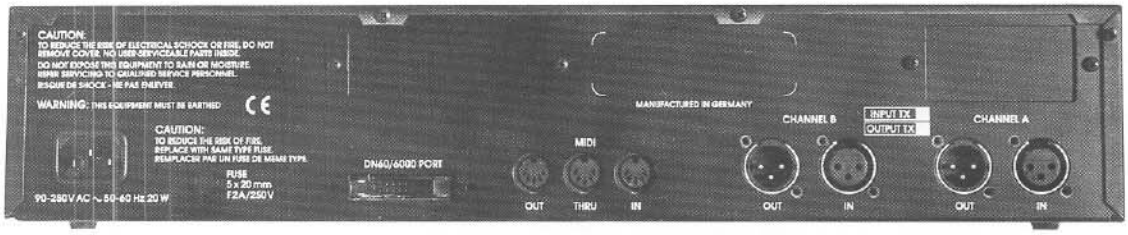
- Dual channel, 5-band parametric equalisation
- High and low pass filters and high and low frequency shelf equalisers on each channel.
- Delay line on each channel.
- Large, bright, high contrast LCD display.
- Dedicated filter select switches.
- Three rotary controls for Frequency, Q and Level.
- Advanced, high definition digital conversion gives an unweighted dynamic range of >112dB (20Hz to 20KHz), without pre and de emphasis.
- Headroom meters monitor signal at various points throughout the signal path.
- MIDI interface as standard.
- Thirty non-volatile memories.
- Built in auto-diagnostic service routines.
- AES/EBU digital audio interface (option).

KLARK TEKNIK
a MARK IV company
The first name with sound system designers

Mark IV Pro Audio Group
Klark Teknik Building
Walter Nash Road, Kidderminster,
Worcestershire DY11 7HJ England.
Tel: (01562) 741515
Fax No: (01562) 745371

Mark IV Pro Audio Group
448 Post Road,
Buchanan,
MI 49107.
USA.
Tel: (616) 695 4750
Fax: (616) 695 0470

DN4000



ARCHITECT'S AND ENGINEER'S SPECIFICATION

The equaliser/delay line shall provide for two channels of 5-band parametric equalisation. Each channel shall also include high and low pass filters, high and low frequency shelf equalisation and up to 340 milliseconds of delay. Delay time shall be displayed in units of time and distance, and shall be adjustable to a resolution of 21 microseconds.
The frequency response curves shall be displayed on a 480 x 64 dot LCD display panel. Individual filters shall be accessed via dedicated selection switches and adjusted via three rotary encoders.
The equaliser shall meet or exceed the following specifications:

Distortion	<0.02% (20Hz to 20kHz at +8dBu)
Frequency response	+-0.3dB (20Hz to 20kHz)
Dynamic range	typically > 112dB

Non-volatile user memories shall be provided for setup storage. A multi-level security lock-out system shall be available including user defined passwords.

Output levels for the two channels shall be individually adjustable within software and these settings recalled from memory.

The equaliser shall be provided with a MIDI interface as standard.

All audio connectors shall be via XLR style connectors. Inputs and outputs shall be electronically balanced as standard. Optional transformers shall be available for both input and output isolation.

The unit shall be provided with a failsafe facility enabling automatic by-pass in the event of power supply interruption.

The unit shall be capable of operating from a 90 to 250v, 50 to 60Hz AC power source.

The equaliser shall be the Klark Teknik model DN4000 and no alternative option is available.

RELIABILITY CONTROL

Even with the advanced electronic engineering incorporated in this product, each unit is given the full backing of Klark-Teknik's "Reliability Control", which proves each product against a specification consistent with highest professional standards. Precision components are used throughout and every unit is bench tested and aligned before a burn-in period and final performance test.

TECHNICAL SPECIFICATION

Input	**Two**
Type	Balanced (electronically)
Impedance (ohm)	
Balanced	20k
Unbalanced	10k
Common mode rejection (1KHz)	>70dB
Max. level	+21dBu
Outputs	**Two**
Type	Balanced (electronically)
Min. load impedance	600ohm
Source impedance	50ohm
Max. level	+21dBu into >2kohms
Performance	
Frequency response (20Hz to 20kHz)	+/-0.3dB with EQ flat
Distortion @ +8dBu	<0.02% (20Hz to 20KHz)
Dynamic range (20Hz to 20kHz unweighted)	>112dB
Power Requirements	
Voltage	90 to 250v @ 50 to 60Hz AC
Consumption	<35VA
Dimensions	
Width	483mm (19 inches)
Height	88mm (3.5 inches)
Depth	287mm (12 inches)
Weight	
Nett	4kg
Shipping	6kg

Trade Descriptions Act: Due to the company policy of continuing improvement, we secure the right to alter these specifications without prior notice.

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