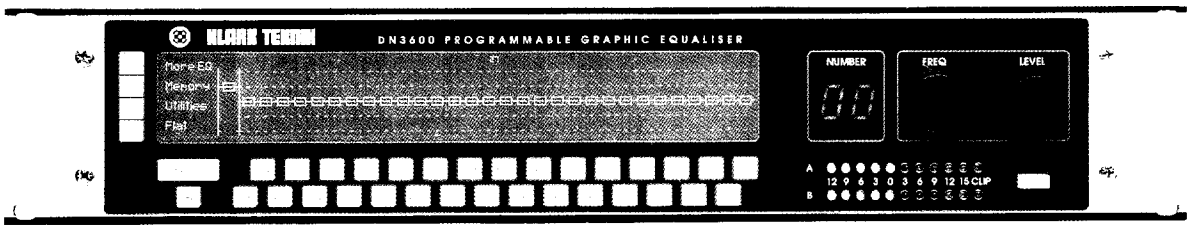
DN3600

Programmable Graphic Equaliser

The Klark Teknik **DN3600** Programmable Graphic Equaliser is a high quality, digitally controlled, two-channel, third-octave, 30 band equaliser that combines state-of-the-art audio performance with unprecedented ease of use in a two rack-space unit. For further flexibility of the graphic equaliser section, the unit also incorporates variable frequency, low and high-pass filters plus two one-twelfth octave, variable frequency notch filters.



The proprietary analogue filters are based around the Klark Teknik MELT hybrid filter circuits which offer far greater headroom and dynamic range than is possible using 16-bit, linear digital systems. Benefiting from revised circuitry, these filters are exceptionally reliable and offer greater stability than discrete designs. They are also relatively immune to electromagnetic interference, unlike coil-based filters.

In order to provide maximum operational flexibility, the system includes a switchable Q mode, the Low Q setting providing an accurate emulation of the industry-standard DN360 equaliser. In High Q mode, the performance emulates the DN27.

Featuring a very large backlit LCD display window, the DN3600 may store up to 66 equaliser settings. Pro MIDI Interfacing facilities are provided allowing several DN3601 slave units (64 maximum) to be controlled from a single DN3600. The slave units are electrically identical to the DN3600 but only occupy 1U of rack space and have limited control and display facilities. A 16-pin connector is provided for use in conjunction with the Klark Teknik DN60 Real Time Spectrum Analyser enabling room analysis and equalisation to be accomplished automatically.

To preserve the immediacy of a conventional graphic equaliser, the unit is equipped with a large, backlit LCD window which provides a 'virtual' representation of a conventional graphic equaliser as well as the settings of the high and low-pass filters and the notch filters. The 30 frequency buttons allow instant selection of any filter band for adjustment via the level control. The use of multi-function buttons for regularly accessed functions has been avoided to enable the unit to be adjusted quickly and efficiently. The 'Actual' curve function provides the user with a frequency response curve display based on the combined operation of the graphic, shelving and notch filters.

Both the input and output circuitry is electronically balanced with a nominal operating level of +4dB. The input stage is voltage and current matched and gives exceptional noise, distortion and CMR performance while the output circuitry is based on the Midas XL3 output stage, providing exceptionally high drive capability.

To maintain the optimum signal to noise ratio and headroom at all equaliser settings, the gain control acts on the equaliser sections themselves rather than being a simple pre or post-equalisation gain stage. Additionally, an Auto gain mode is included in the system which automatically scales the gain of the individual equaliser bands as cut or boost is applied to reduce the risk of accidental clipping and to maintain a safe working headroom.

KLARK TEKNIK
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The first name with sound system designers

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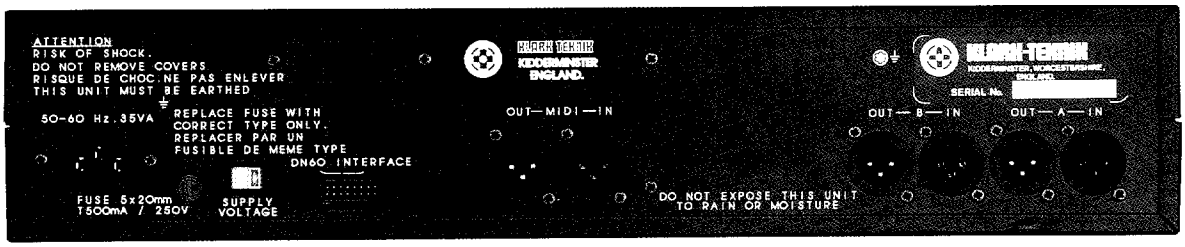

ARCHITECT'S AND ENGINEER'S SPECIFICATION

The equaliser shall be a dual channel third-octave type, providing 12dB of boost and attenuation in 1/2dB steps at 30 ISO centre frequencies from 25Hz to 20kHz. The channels shall be adjustable separately, or may be linked for stereo operation.

The equaliser shall meet or exceed the following performance specification:

Distortion:	**<0.01% (+4dBu @ 1kHz)**
Frequency response:	**± 0.5dB (20Hz to 20kHz)**
Noise:	**<-95dB (20Hz to 20kHz)**
Maximum output level into 600 ohms:	**>21dBu**

Each channel shall also incorporate 12dB/Octave low and high pass filters sweepable in third octave steps from 1.6kHz to 30kHz and 400Hz to 20Hz respectively, and two one-twelfth octave tunable notch filters.

The equaliser shall use the largest possible LCD display in a two rack-space unit and shall be able to show virtual fader positions and a combined actual curve composed of fader positions, sweep filters and notches.

Frequency band selection shall be achieved via 30 individual filter buttons and adjustment via a rotary level control.

The unit will be able to store 66 equalisation setups and address 64 slave devices via a Pro MIDI interface.

The unit shall have the capability of interfacing with the Klark Teknik DN60 Spectrum Analyser for auto-equalising functions.

All audio connections shall be via XLR style connectors. Inputs and outputs shall be electronically balanced as standard, with the option of isolation transformers. The unit shall have a failsafe relay bypass facility and be capable of operating from a 110/120/220/240v +/-10% 50/60Hz AC power source.

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

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.

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