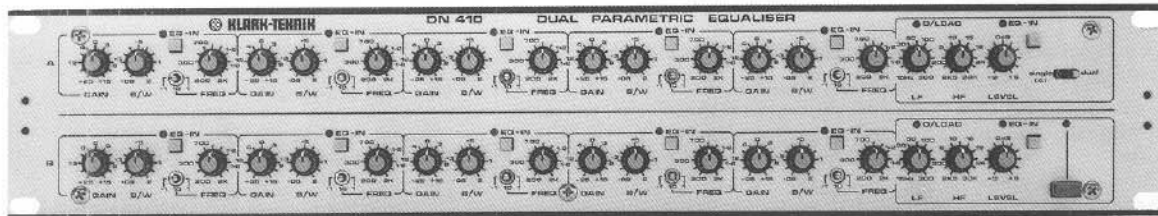


DN410

PARAMETRIC EQUALISER

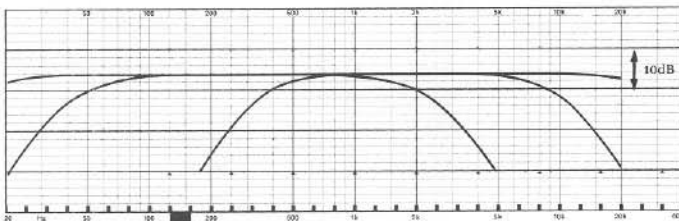
Dual Channel Five Band Parametric Equaliser

The Klark-Teknik model DN410 is a dual channel parametric equaliser, featuring five band dual or 10 band mono operation and occupies 2U of rack space. The DN410 is primarily designed for use in sound reinforcement applications, but its operational flexibility makes it equally suitable for recording, broadcast and post production work.

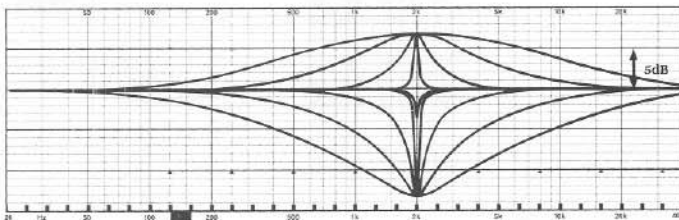


The equaliser features a three position range switch for each filter section – allowing 100% overlap anywhere between 20Hz and 20kHz whilst maintaining accurate resolution with a 10:1 sweep range. The 'notch' mode of the filters can be used for suppression of feedback frequencies without excessively affecting the adjacent frequencies. Each channel also incorporates two frequency sweepable shelving filters and input level control. Only top quality components are used in the manufacture of this product and every unit is bench tested and aligned before burn-in and a final performance test.

The unit has XLR terminated electronically balanced inputs and unbalanced outputs with optional transformer balancing and security covers available to order.



Response of variable high and low pass filters set at minimum, maximum and intermediate turnover frequencies.



Typical range of adjustment for a single parametric filter centred at 2kHz.

Features

- Two channels of five bands of full parametric equalisation with separate variable high and low pass filters in each channel.
- Switchable dual/mono operation, automatically by-passing unwanted controls in the single channel 10 band mode.
- 100% frequency overlap and a wide range of filter bandwidths for maximum flexibility.
- Individual Eq. In/Out switch with LED "Filter On" status indication for each parametric filter section and overall Eq. In/Out switch.
- Outstanding noise and distortion performance.
- Automatic fail safe by-pass facility.
- Comprehensive standard specifications include electronically balanced inputs and LED overload indicator.
- Earth lift switch enables signal and chassis grounds to be isolated, eliminating ground-loop problems.

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

DN410

PARAMETRIC EQUALISER

ARCHITECT'S AND ENGINEER'S SPECIFICATION

The dual channel equaliser shall provide five bands of fully parametric filters and separate tunable high & low cut filters for each channel.

Each equaliser filter shall provide 25dB of attenuation and 15dB of accentuation at continuously variable frequencies ranging from 20Hz-20kHz and shall allow for bandwidth adjustment from $1/12$ to 2 octaves.

Each equaliser shall meet or exceed the following performance specifications:

| | |
|--|----------------------------------|
| Distortion | <0.01% @ +4dBm (1kHz) |
| Frequency response | ± 0.5 dB (20Hz-20kHz) |
| Noise | < -94dBm (20Hz-20kHz unweighted) |
| Maximum output level into 600 ohm | +22dBm |

Each equaliser shall have adjustable low & high cut 12dB/octave slope filters ranging from 15Hz-300Hz & 2.5kHz-30kHz.

Stereo or mono operation of the unit shall be possible with all 10 filters available in mono mode.

Separate in/out switches shall be provided for each parametric filter section, and each complete equaliser channel.

The equaliser shall be failsafe, that is the unit shall return automatically to the by-pass condition in the event of power supply interruption.

A rear panel switch shall be provided to isolate the signal ground connections, quickly and safely, from the chassis ground.

All audio connections shall be via XLR style connectors and a tamperproof front panel cover shall be available to fit the unit.

The unit shall be capable of operating from a 110/220v $\pm 12\%$ 50/60Hz AC power source.

The equaliser shall be the Klark-Teknik Dual Channel Model DN410 and no alternative specification option is available.

TECHNICAL SPECIFICATION

| | |
|--|---|
| Inputs | Two |
| Type | Balanced (electronically) |
| Impedance (ohm) | |
| Balanced | 20k |
| Unbalanced | 10k |
| Outputs | Two |
| Type | Unbalanced |
| Min. Load impedance | 600 ohm |
| Source impedance | <60 ohm |
| Max. level | +22dBm |
| Performance | |
| Frequency response (20Hz-20kHz) | ± 0.5 dB |
| Distortion (@ +4dBm) | <0.01% @ 1kHz |
| Equivalent input noise (20Hz-20kHz unweighted) | < -94dBm |
| Channel separation | >75dB @ 1kHz |
| Gain | +6dB |
| Overload indicator | +19dBu |
| Filters | |
| Type | Parametric (2 x 5) |
| Bandwidth | Variable from $1/12$ - 2 octaves |
| Max. boost/cut | +15/-25dB |
| Frequency ranges | 20Hz-200Hz/200Hz-2kHz/ 2kHz-20kHz |
| High Pass filter | 15Hz-300Hz/12dB octave |
| Low Pass filter | 2k5Hz-30kHz/12dB octave |
| Power Requirements | |
| Voltage | 110/120/220/240V 50/60Hz |
| Consumption | <15VA |
| Weight | |
| Nett | 4.5kg |
| Shipping | 7kg |
| Dimensions | |
| Width | 482mm (19 inch) |
| Depth | 285mm (9 1/4 inch) |
| Height | 89mm (3 1/2 inch) |
| Terminations | |
| Inputs | 3 pin XLR |
| Outputs | 3 pin XLR |
| Power | 3 pin CEE |
| Options | Security cover Transformer input*/ output balancing |

*Input transformer balancing is non retrofittable and has to be specified with order.

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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