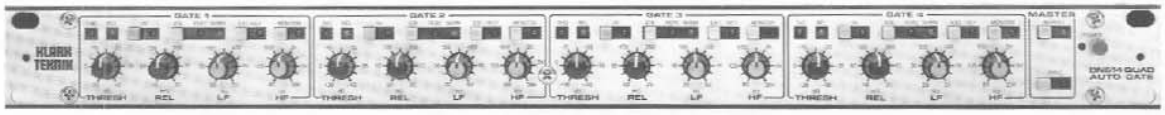
# DN514

DYNAMIC PROCESSOR

## Quad Auto Gate

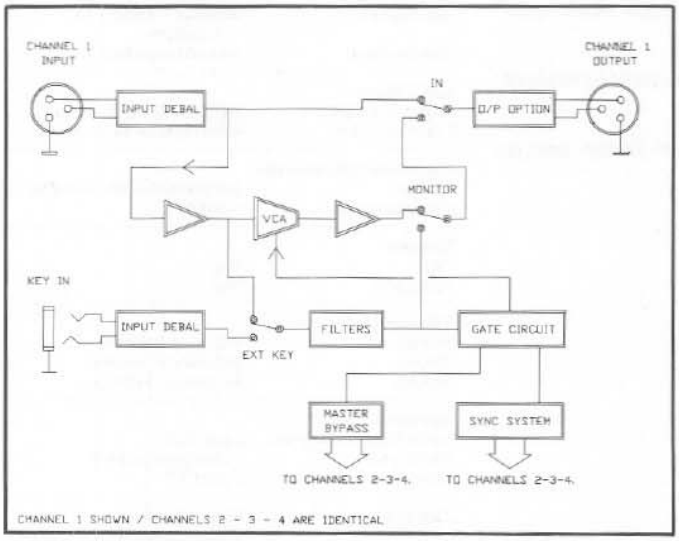
The **DN514** is primarily designed for use in recording studios and sound reinforcement systems, but will find applications wherever high quality, "quick to set" audio gating is required. In all applications the engineer will appreciate the logical, uncluttered control format and the ability of the DN514 to perform its task simply and reliably. In live sound applications, as an additional benefit, the DN514 provides full frequency-conscious gating in half the rack space of any comparable unit.



Advanced VCA circuit design offers extremely low noise and distortion performance to the DN514 user.

Only top quality components are used in the manufacture of this product and every unit is bench tested and aligned before burn-in and final performance test.

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




*Block diagram.*

### Features

- Four frequency-conscious high performance gates in one single unit of rack space.
- Optimised for fast set up and dependable triggering for every conventional gate application.
- With two semi-automatic Attack Modes and hold time automatically scaled to release value, the DN514 combines outstanding dynamic performance with simplified control.
- Unique sync function synchronises harmony parts, brass sections, etc., by interlocking all four gate release times.
- Advanced VCA design for low noise and distortion.
- Additional key inputs for each channel allow triggering from external sources.
- Side chain monitor function simplifies filter set-up.
- Threshold and release LED's provide visual information regarding gate status. Release contour indicated by release LED.
- Both Master and channel bypass switches are provided to aid set-up.
- The DN514 is sturdily constructed throughout and complies with standard 19" 1U rack mounting requirements.

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


Klark Teknik PLC
Walter Nash Road, Kidderminster
Worcestershire DY11 7HJ. England
Tel: (01562) 741515
Fax: (01562) 745371

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

# DN514

## DYNAMIC PROCESSOR

## ARCHITECT'S AND ENGINEER'S SPECIFICATION

The noise gate shall provide four channels of frequency-conscious gating with each channel having adjustable low and high cut 12dB/octave side-chain filters, variable from 20Hz-5kHz and 80Hz-20kHz. Adjustable threshold and release controls shall be provided for each channel and attack time shall be semi-automatic and switch-selectable for use with normal or percussive programme material.

The noise gate shall meet or exceed the following specifications:

| | |
|---|---|
| **Distortion** | <0.03% @ +4dBm (1kHz) |
| **Frequency response** | ±0.5dB (20Hz-20kHz) |
| **Noise** | <−100dBm gate closed (20Hz-20kHz unweighted)<br><−94dBm gate open (20Hz-20kHz unweighted) |
| **Attack time** | 50μS-2mS |
| **Hold/Release time** | 40mS-2 secs |
| **Maximum output level into 600Ω** | +21dBm |

Push button switches shall be provided to select channel and master bypass, side chain monitor and external key input. Channel inputs and outputs shall be via XLR style connectors, external key inputs shall be via ¼" jack. A tamperproof front panel cover shall be available to fit the unit. The noise gate shall be 19" standard rack mountable and 1U high.

The unit shall be capable of operating from a 110/220V 50/60Hz AC power source.

The noise gate shall be the Klark-Teknik Model DN514 and no alternative specification 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

| | |
|---|---|
| **Audio Inputs** | **Four** |
| Type | Balanced (electronically) |
| Impedance (Ω) | |
| Balanced | 20k |
| Unbalanced | 10k |
| **Key Inputs** | **Four** |
| Type | Balanced (electronically) |
| Impedance (Ω) | |
| Balanced | 20k |
| Unbalanced | 10k |
| **Audio Outputs** | **Four** |
| Type | Unbalanced |
| Min. Load impedance | 600Ω |
| Source impedance | <60Ω |
| Max. level | +21dBm |
| **Performance** | |
| Frequency response (20Hz-20kHz) | ±0.5dB |
| Distortion (@ +4dBm) | <0.03% @ 1kHz |
| Equivalent input noise (20Hz-20kHz unweighted | <100dBm Gate closed<br><−94dBm Gate open |
| Attack (programme related, semi-automatic | 50μS to 200μS 'Perc'<br>500μS to 2mS 'Norm' |
| Hold/Release | Variable 40mS to 2S |
| Threshold | Variable −40dBm to +20dBm |
| Attenuation | >84dB Gate closed |
| **Key Filters** | |
| High pass filter | 20Hz-5kHz/12dB octave |
| Low pass filter | 80Hz-20kHz/12dB octave |
| **Power Requirements** | |
| Voltage | 110/120/220/240V 50/60Hz |
| Consumption | <30VA |
| **Weight** | |
| Nett | 4kg |
| Shipping | 6kg |
| **Dimensions** | |
| Width | 482mm (19 inch) |
| Depth | 292mm (11½ inch) |
| Height | 44.5mm (1¾ inch) |
| **Terminations** | |
| Audio inputs/outputs | 3 pin XLR |
| Key inputs | ¼ inch stereo jack |
| Power | 3 pin CEE |
| **Options** | Security cover<br>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.*

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

Klark Teknik PLC
Walter Nash Road, Kidderminster
Worcestershire DY11 7HJ. England
Tel: (01562) 741515
Fax: (01562) 745371

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