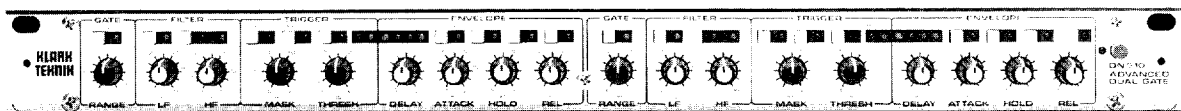


# DN510

DYNAMIC PROCESSOR

## Advanced Dual Gate with MIDI

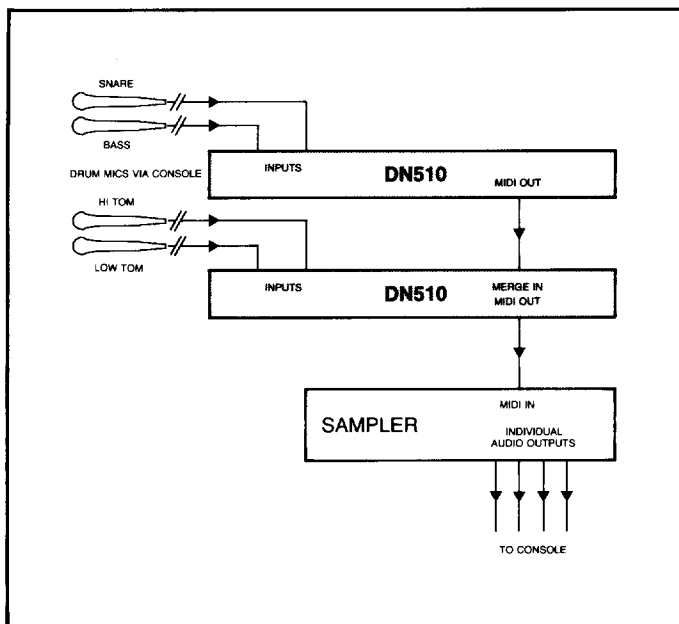
The DN510 is a dual channel noise gate combining velocity sensitive MIDI and innovative Mask and Delay functions in one unit of rack space. Engineered for absolute control, the DN510 sets a new standard in audio gating, allowing much greater control for advanced creative applications such as drum replacement. Additional DC outputs are included so that triggering of non MIDI devices is also possible.



Advanced VCA circuit design offers extremely low noise and distortion performance to the DN510 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.



MIDI triggering of multiple drum samples.

### Features

- Advanced features including Mask and Delay functions, give the DN510 unique control flexibility.
- Velocity sensitive MIDI out provides instant triggering for drum machines and samplers.
- Additional DC trigger inputs/outputs allow triggering of non-MIDI devices or remote keying of the DN510.
- Smooth attack and release characteristics and high quality audio path, ensure optimum sonic performance.
- HF and LF filters are provided for frequency-conscious gating or programme bandwidth tailoring.
- Fixed envelope function allows reshaping of existing or sampled sounds and predetermines MIDI note length when required.
- 'Mask' function removes offbeats, drum fills or echo and creates accents. During MIDI operation 'Mask' allows modified rhythms to be generated by selective triggering.
- Duck function for automatic voice over control or level change keyed from dominant track.
- 'Delay' function sets envelope initial delay to produce slap-back effects, control percussion reverb and to enable audio to MIDI time shift.



# DN510

## DYNAMIC PROCESSOR

### ARCHITECT'S AND ENGINEER'S SPECIFICATION

The noise gate shall provide two channels of frequency-conscious gating with each channel having adjustable low and high cut 12dB/octave filters, variable from 25Hz-5kHz and 75Hz-18kHz, switchable into side chain or audio signal path. Each channel shall provide for adjustment of Range, Mask Time, Threshold, Delay, Attack, Hold and Release Time and outputs shall be provided to trigger external equipment via Midi and D.C. control voltages.

The noise gate shall meet or exceed the following specifications:

<b>Distortion</b>	<0.03% @ +4dBm (1kHz)
<b>Frequency response</b>	±0.5dB (20Hz-20kHz)
<b>Noise</b>	< -100dBm gate closed (20Hz-20kHz unweighted) < -94dBm gate open (20Hz-20kHz unweighted)
<b>Attack time</b>	10µS-250mS
<b>Hold time</b>	10mS-3 secs
<b>Release time</b>	5mS-2 secs
<b>Maximum output level into 600Ω</b>	+21dBm

Push button switches shall be provided to select channel bypass, side chain monitor, external key input and "duck" mode. Midi channel number and key number shall be selectable via rear panel data switches. Channel inputs and outputs shall be via XLR style connectors, external key and DC trigger connections 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 DN510 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

<b>Audio Inputs</b>	<b>Two</b>
Type	Balanced (electronically)
Impedance (Ω)	
Balanced	20k
Unbalanced	10k
<b>Key Inputs</b>	<b>Two</b>
Type	Balanced (electronically)
Impedance (Ω)	
Balanced	20k
Unbalanced	10k
<b>Audio Outputs</b>	<b>Two</b>
Type	Unbalanced
Min. Load impedance	600Ω
Source impedance	<60Ω
Max. level	+21dBm
<b>Performance</b>	
Frequency response (20Hz-20kHz)	±0.5dB
Distortion (@ +4dBm)	<0.03% @ 1kHz
Equivalent input noise (20Hz-20kHz unweighted)	< -100dBm Gate closed < -94dBm Gate open
<b>Gate</b>	
Range	0 to 90dB Attenuation
<b>Filters</b>	
High Pass filter	25Hz-5kHz/12dB octave
Low Pass filter	75Hz-18kHz/12dB octave
<b>Trigger</b>	
Mask Time	0 to 4 Secs
Threshold	-40dB to +20dB
<b>Envelope</b>	
Delay	0 to 2 Secs
Attack	10µS to 250mS
Hold	10mS to 3 Secs
Release	5mS to 2 Secs
<b>Midi</b>	
Output	Note on, note off and velocity information
Channel Number	Adjustable 1 to 16
Key Number	Adjustable 0 to 127
<b>D.C. Trigger</b>	
Inputs	+5 Volts to open gate
Outputs	+5 Volts when gate open
<b>Power Requirements</b>	
Voltage	110/120/220/240V 50/60Hz
Consumption	<30VA
<b>Weight</b>	
Nett	4kg
Shipping	6kg
<b>Dimensions</b>	
Width	482mm (19 inch)
Depth	292mm (11½ inch)
Height	44.5mm (1¾ inch)
<b>Terminations</b>	
Audio inputs/outputs	3 pin XLR
Key inputs	¼ inch stereo jack
DC Trigger input/output	¼ inch stereo jack
Midi Out	5 pin DIN
Merge In	5 pin DIN
Power	3 pin CEE
<b>Options</b>	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.



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