OPAL Series DPR-522

Advanced Dual Noise Gate

DPR 522

Two power gates with advanced control facilities, the quality that only BSS Audio can provide, and a price that you'll appreciate.

Features include

- **Frequency-conscious gating**
- **Easy to set-up**
- **Full envelope control**
- **Remote control inputs**

BSS Audio

As with all BSS Opal products, the **DPR-522** Advanced Dual Noise Gate offers you the very best in audio quality. It is simple to set-up and control yet its comprehensive range of facilities takes its potential far beyond that of conventional gates

Several major features make setting up the **DPR-522** much faster and easier:

- **Parametric key filtering** means fast and precise tuning of the trigger signal, whether you use the program signal itself or an external key source. Independent frequency and width controls mean that you can quickly set the gate to open only when the selected frequency band reaches the threshold. In addition, quick adjustment by ear using the KEY LISTEN switch eliminates hair-trigger threshold settings with ease, and offers considerable scope for special effects.

- The **CHECK** key provides a simple yet highly practical function that will be quickly appreciated in a busy session. It helps the engineer by instantly forcing the gate open, ideal for system line checks. In this mode, the gate opens and closes according to its attack/hold/release settings, meaning that you will get an audible appreciation of the gate response if the CHECK key is pressed momentarily. A contact closure input on the rear panel means that this function may also be activated remotely (from the desk, for example), along with other facilities such as gate enable commands and status indication.

- The **ATTACK**, **HOLD** and **RELEASE** circuits are equipped with positive (and easily repeatable) controls.

Fast attack settings capture transient dynamics effortlessly, but the design of the **DPR-522** is also optimised to minimise the effects of the waveform distortion that can occur with fast attacks.

These controls are complmented by BSS Audio's proprietary **ADE™** (Auto Dynamic Enhancement) system, which enhances the transient leading edge portion of the signal.

ADE™ initially boosts the signal with a fast decay so that more of the leading-edge information of the signal is passed by the gate, information that may be lost by conventional gates. Pioneered by BSS Audio on the DPR-502, only recently has this technique been emulated by other gates, but without the real effect of **ADE™**.

The **DUCK** mode changes the action of the gate to the opposite; ie when the signal reaches the threshold it is gain-reduced by the setting of the **RANGE** control. This facility is frequently used by announcers where the microphone signal automatically reduces the music signal by the preset amount to enhance the voice content of the program.

It can also be used to provide some very creative effects. An external oscillator, for example, can modulate the signal and give unusual sounds or production effects.

Advanced metering gives the engineer a clear visual status of the gate, with a signal meter that shows the key signal strength (internal or external) relative to the threshold, and simultaneously a 2-led GATE OPEN/SHUT indicator. This easily-understood meter clearly displays the gate status and dynamics.

The STEREO LINK facility means that you can control both channels of a DPR-522 from the controls of channel 1.

Control Function Descriptions

Key External
Selects an external signal as the trigger source for the gate.

Key Filter Frequency
Adjusts the centre frequency of the pass-band that will trigger the gate.

Key Filter Width
Adjusts the width of the key filter for precision triggering.

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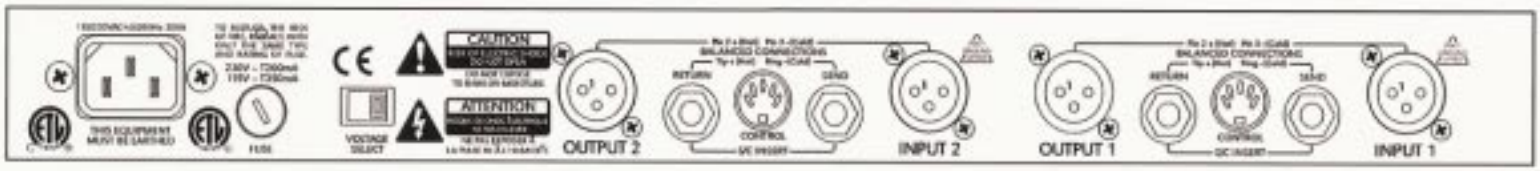

DPR 522

Key Listen Switch
Passes the side chain signal to the output so that you can precisely adjust the key filter for best effect.

Threshold/Level meter
Shows trigger signal level relative to the threshold setting.

Duck Mode
Switches the gate to close by the RANGE setting when the key signal reaches the threshold.

Range Adjust
Sets the gate (or duck) depth, from 0 to -80dB (gate closed attenuation).

ADE™ Switch
Switches the gate into ADE mode, where the leading edge information of the signal is restored.

Attack
Controls the speed at which the gate opens once the signal has reached the threshold.

Hold
Controls how long the gate stays open after the signal drops below threshold.

Release
Determines how quickly the gate closes when the signal drops below threshold.

SHUT/OPEN leds
Illuminate when the gate is closed or open, clearly displaying the gate's status.

OPEN/CHECK switch
Forces the gate open manually for line checks, and allows you to audition the gate envelope as set by the attack, hold and release controls.

Stereo Link
Allows the adjustment of both channels from the controls of channel 1.

Technical Specifications

Input Impedance balanced	10kOhm, electronically
Maximum Imput Level	+20dBu
CMRR	<-50dB (30Hz-20kHz)
Input Connector	XLR-3F or equivalent Pin 1 Floating (no connection) Pin 2 Signal +ve (Hot) Pin 3 Signal -ve (Cold)
Output Impedance	< 50 Ohms, electronically balanced
Maximum Output Level	+20dBu into 600 Ohms or greater
Output Gain	+/-20dB, variable
Output Connector	XLR-3M or equivalent Pin 1 Ground Pin 2 Signal +ve (Hot) Pin 3 Signal -ve (Cold)
Side Chain Inserts	Send: Ground-compensating balanced Return: Electronically Balanced
Side Chain Insert	1/4" Jack connectors Tip: Signal +ve (Hot) Ring: Signal -ve (Cold) Sleeve: Ground
Gate Section	
Threshold range	-50dB to +20dB, continuously variable
Key filter frequency	60Hz to 13kHz, continuously variable
Key filter width	0.1 to 3 octaves, continuously variable
Attenuation range	-80dB to 0dB
Attack time	20 microseconds to 1.5 seconds
Hold time	5 milliseconds to 2 seconds, continuously variable
Release time	1 millisecond to 5 seconds, continuously variable
Noise	<-94dBu (Gate Open) <-98dBu (Gate Closed)
General Performance	
Frequency Response	20Hz-20kHz (+/-0.25dB)
Dynamic range	>117dB
Crosstalk	<-90dB (20Hz to 20kHz)
Distortion (THD)	<0.03% (80kHz measurement bandwidth) 20Hz-20kHz, 0dB output.
General	
Dimensions	19" x 1.75" x 7.1" (483mm x 45mm x 180mm)
Weight	6.6lbs (3kgs), unpacked
AC Power	115/230V AC, 50/60Hz, 30VA.

Control & Tallies (Rear Panel)
Gate Open - an output that goes 'low' when the gate is open.
External Trigger - an input that triggers the gate with a 'high' logic signal. Disable- inputs that prevent the gate from opening, 'high' and 'low' connections.

Also in the OPAL Series:

DPR-944
2+2 Parametric Compressor / Gate

DPR-422
Dual Compressor / De-Esser

BSS Audio
Linkside House, Summit Road, Potters Bar, Herts
EN6 3JB England Tel +44 (0)1707 660667
Fax +44(0)1707 660755 http://www.bss.co.uk

A Division of Harman International Industries Ltd

BSS Audio USA
Harman Pro North America Inc,
1449 Donelson Pike, Nashville TN37217 USA
Tel (615) 360 0277 Fax (615 360 0480)

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