

Quad Compressor/De-Esser

DPR-404



The professional multi-channel dynamic processor

In nearly every type of audio production environment the availability of versatile dynamic gain control has become more or less mandatory.

An ever increasing diversity of mono and stereo programme source types are now being handled by higher quality signal chains and storage media. The benefits of accurate and creative dynamics processing are now relevant to a wider range of audio professionals than ever before.

BSS answers this need with a versatile 1U package comprising four-channels of advanced subtractive compressor / limiter and HF de-esser facilities, designed with the emphasis on flexibility and ease of use ... the **DPR-404** 4-CHANNEL COMPRESSOR DE-ESSER.

Each channel includes a variable Ratio compressor / limiter that features our proprietary "progressive knee" characteristic. This gives soft-knee, over-easy musicality at low Ratios, varying gradually towards dependable, hard-limiter precision at the maximum setting. Threshold adjustment is simplified by provision of an accurately calibrated control scale and continuous display of side-chain level up to the threshold point. Gain Reduction metering is also clearly integrated with this display to provide intuitive monitoring of the system's activity in use.

Attack and Release time constants are automatically and continually regulated by the dynamic and harmonic content of the programme material, and so require virtually no attention from the operator.

For maximum versatility, however, each can be selected to a FAST-Auto mode, allowing greater choice for creative treatment of individual sources. A gain make-up control an output Clip indicator assist with normalisation of operating levels and overload margins.

Additionally, each channel also includes an advanced but straightforward HF De-esser. Previously only available as a dedicated mode on the acclaimed **BSS DPR-402** dynamics processor, this facility gives you smooth, frequency-selective dynamic sibilance control quickly and without unpleasant side-effects or lisping. A dedicated two-led display shows you the extent of the sibilance processing, calibrated with a helpful "enough" and "too much" characteristic.

All this high performance processing power is housed in a rugged 1U 19" steel case, with high grade electronics and hardware being supported by a robust power supply featuring superior line regulation and interference suppression.

If you need compact but sophisticated dynamics processing that helps get things done fast the choice is simple :- **DPR-404**.

For over a decade, BSS have been manufacturing professional audio products that combine the highest levels of performance with technical excellence and proven reliability. All of this expertise and experience is encapsulated in the **DPR-404 4-CHANNEL COMPRESSOR DE-ESSER**.

THRESHOLD control sets the level at which gain reduction starts to occur.

BELOW Threshold meter displays signal level below threshold to aid set-up.

RATIO control sets the amount of gain reduction when signal exceeds the threshold setting. Soft knee at low ratios, hard limiting at maximum extremes.

GAIN REDUCTION meter displays the degree of compressor / limiter activity occurring, in dB'S.

CLIP LED indicates onset of channel signal overload.

GAIN control allows the operator to restore the compressed signal to nominal operating levels.

LINK switch allows channels 1/2 and 3/4 to be linked as pairs for stereo operation.

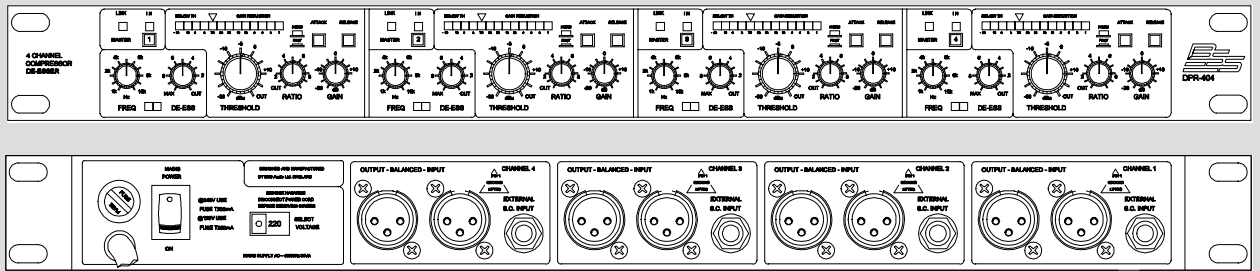
ATTACK and **RELEASE** time constants are automatically programme-controlled, but may be switched between FAST and NORMAL ranges.

DE-ESS control adjusts for the amount of de-essing required, independent of the compressor / limiter settings.

FREQUENCY control tunes the dynamic HF shelf into the sibilant frequencies.



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TECHNICAL SPECIFICATIONS

Input Section

IMPEDANCE Balanced 12k ohm differential.
 MAX. INPUT LEVEL + 20dBv.
 CMRR > 50dB, 20Hz to 20Khz.
 CONNECTOR XLR331 or equivalent.

Output Section

IMPEDANCE Balanced and floating to drive 600 ohm loads.
 MAX. OUTPUT LEVEL +20dBv / 600 Ohm load.
 CONNECTOR XLR332 or equivalent.

System Performance

FREQUENCY RESPONSE + 1DB, 20Khz, ultrasonic low pass filter 3db at 32kHz.
 NOISE <-86dBv
 Measured to CCIR 4682
 DISTORTION THD <0.05%, 20Hz to 20kHz.
 SMPTE IM <0.02%.
 CROSSTALK <90dB, 20Hz to 20kHz.

Operating Controls

DEESS FREQUENCY Variable from 10kHz to 10kHz, dynamic HF shelf turnover frequency.
 DEESS THRESHOLD Variable from +20dBv to 30dBv, independent of compressor/limiter settings.
 THRESHOLD Variable between +20dBv and 30dBv.
 RATIO Variable from 1:1 to infinity:1 (LIMIT) progressive soft to hard knee characteristic.

ATTACK

Program dependent, auto time constant. Nominal 200microsec (30 microsec FAST) for 10% response, and nominal 2ms (300 microsec FAST) for 63% response.

RELEASE

Program dependant, 2 part auto time constant. Nominal 10ms (2ms FAST) to 63% recovery after 4ms overdrive 10db above threshold, and nominal 1s (300ms FAST) to 63% recovery after 40ms overdrive 10dB above threshold.

GAIN LINK

Variable from 20dB to +20dB. Stereo linkable in pairs 1/2 and 3/4 Channels 1 and 3 become masters.

Metering

GAIN REDUCTON 8 point LED display showing progressive gain reduction from right to left calibrated in dB's.
 BELOW THRSOLD 5 points LED display showing sidechain level below and up to threshold.
 CLIP Single LED showing onset of channel clip.

General

SIZE 482mm x 44mm x 282mm (19" x 1.75" x 11").
 WEIGHT 5kg (11lbs) gross shipping.
 ELECTRICITY Switched 120/240V +10% 20%
 SUPPLY 50/60Hz.

In keeping with our policy of continued improvement, BSS Audio, reserves the right to alter specifications without further notice. This product was designed developed and produced by BSS Audio, Hertfordshire, England.

BSS Audio, A Division of Harman International Industries Ltd,
 Cranborne House, Cranborne Road, Potters Bar,
 Herts EN6 3JN, England
 Tel +44(0)1707 660667 Fax +44(0)1707 660755
 email: info@bss.co.uk, online <http://www.bss.co.uk>
BSS Audio USA
 1449 Donelson Pike, Nashville TN 37217
 Tel (615) 360 0277 Fax (615) 360 0480
 email: BSSAudioUSA@harman.com
 Email info@bss.co.uk

