

286A MIC PREAMP / PROCESSOR

dbx[®]
PROFESSIONAL PRODUCTS

VISIONARY DESIGN

The dbx 286A's Mic Preamp and five processors can be used independently or in any combination. Why mic up vocals and instruments through a noisy, blurry mixer? The dbx 286A's sonically pristine Mic Preamp has all the features you need, including wide-ranging input gain control, switchable 48V phantom power and an 80Hz high-pass filter. Use the 286A's newly designed and patented OverEasy[®] Compressor to transparently smooth out uneven acoustic tracks or deliver that classic "in your face" rock vocal. Take out vocal sibilance and high frequency distortion in cymbals with the 286A's frequency tunable De-Esser. Fine-tune the Enhancer's HF Detail control to add sparkle and crispness to tracks. LF Detail control adds fullness and depth to vocals and bass instruments while simultaneously cleaning up muddy low midrange frequencies. And, the Expander/Gate's separate threshold and ratio controls allow you to subtly reduce headphone leakage or radically gate noisy guitar amps.

The dbx 286A's full complement of metering and status LEDs visually guide you to achieving the right sound. The floating balanced XLR mic input accepts balanced or unbalanced inputs. An additional 1/4" TRS phone jack can accept balanced/ unbalanced line signals to process live electronic instruments or pre-recorded tracks at mixdown. An insert jack between the 286A's Mic Preamp and signal processing sections can be used to "loop out" to external processors (such as EQ) or to mix the Mic Preamp's signal out to an external destination.

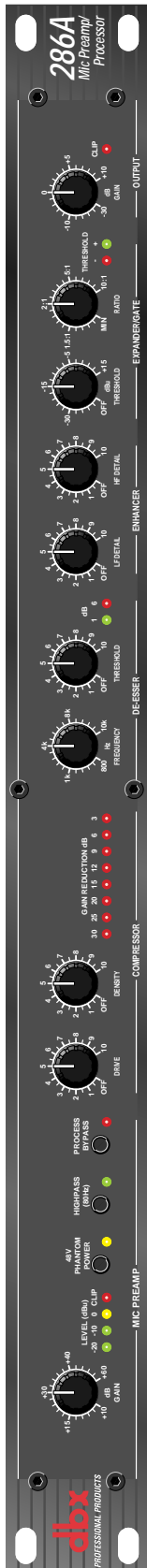
The cost and hassle of patching together multiple processors for use on one track can be frustrating. The dbx 286A gives you all the tools you'll need in one box, with the shortest signal path to help keep your music sounding clean.

FEATURES

- *New dbx standard internal power supply*
- *Frequency control for De-Esser*
- *Expanded meter to show heavy De-Essing*
- *Above/Below threshold indicator for gate*
- *+48VDC Phantom Power*
- *Precision detented controls*

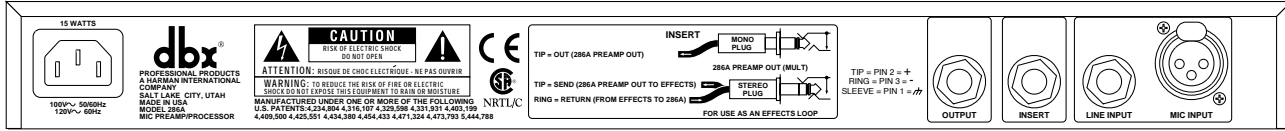
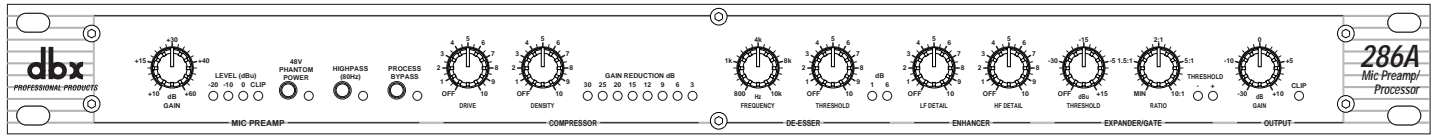
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H A Harman International Company



286A

MIC PREAMP / PROCESSOR



ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone processor shall have one channel with an audio frequency response of 20Hz — 20kHz +0.5, -0.5dB, an electronically floating balanced XLR microphone input with an impedance of not less than 1.5kΩ and with a maximum input level of not less than 0.2Vrms. The unit shall also have an electronically floating balanced 1/4" TRS line level input with an impedance of not less than 20kΩ and with a maximum input level of +21dBu. The impedance of the unbalanced 1/4" TRS output shall be no more than 100Ω with a maximum output level of not less than +21dBu. Total harmonic distortion shall typically be no more than 0.08% in operation with all processing controls set to Off. Dynamic range shall typically be 105dB with processing engaged. Output level shall be adjustable from -30dB to +10dB via a front panel gain control. A 1/4" TRS insert jack with an input impedance of not less than 5kΩ and maximum level of not less than +21dBu and an output impedance of not more than 100Ω and a maximum output level of not less than +21dBu shall be accessible at the rear panel. The insert shall be positioned in the signal path between the output of the mic preamplifier and the input to the processing section. The unit will provide up to six signal processing functions simultaneously, including: preamplification, compression, de-essing, high spectral enhancement, low spectral enhancement and downward expansion/gating. The compression circuitry shall employ a hybrid feed-back, feed-forward design and a soft knee compression curve. The microphone processor shall have a gain control ranging from +10dB to +60dB for Mic In and -20dB to +30dB for Line In, a phantom power switch which activates the +48VDC phantom power circuit, a High Pass Filter switch which activates a third order high pass filter with a 3dB corner frequency of 80Hz and a Process Bypass switch, which bypasses any subsequent dynamics processing in the unit. The processing section shall contain the following controls: Compressor Drive, Compressor Density, De-Esser Frequency, De-Esser Threshold, LF Detail, HF Detail, Expander/ Gate Threshold, Expansion Ratio and Output Gain. The following LEDs for metering and status indication shall exist on the unit: Input Level (3 LEDs), Input Clip, Phantom Power, High Pass Filter, Process Bypass, Compressor Gain Reduction (8 LEDs), De-esser (2 LEDs), Expander/Gate Threshold (2 LEDs), Output Clip. The power requirement shall be 100VAC 50/60Hz, 120VAC 60Hz for domestic or 230VAC 50/60Hz for Europe. Dimensions shall be 1.75" x 19" x 4" (4.45cm x 48.2cm x 10.16cm), The net weight shall be 4.68 lbs/2.13 Kgs and the shipping weight shall be 6.54 lbs/2.97 Kgs. The unit shall be a dbx 286A Mic Preamp/Processor.

SPECIFICATIONS

MIC INPUT	Floating balanced, Pin 2 Hot	Distortion	Typically <0.05%THD, 20Hz-20kHz, 15dB G/R, +10dBu Output, DENSITY @ 0
Impedance	1.75kΩ	DE-ESSER	
Maximum Level	0.2Vrms	Characteristic	Wideband Gain Reduction
Gain Adjustment Range	+10dB to +60dB	Frequency Range	800Hz to 10kHz High Pass, 12dB/octave Program-Dependent; approximately 1mS/dB
Phantom Power	+48VDC	Release Time	
CMRR	>40dB, typically 55dB	ENHANCER	
LINE INPUT	Floating balanced, TIP Hot	HF Detail Characteristic	Program-controlled shelving equalizer, approximately 15dB maximum HF boost
Impedance	30kΩ unbalanced, 60kΩ balanced	LF detail Characteristic	Bell-shaped boost @ 80Hz, bell-shaped cut @ 250Hz, ratio is approximately 2:1
Maximum Level	>+21dBu, balanced or unbalanced	EXPANDER/GATE	
Gain Adjustment Range	-20dB to +30 dB	Threshold Range	OFF to +15dBu
CMRR	>40dB, typically 55dB	Expansion Ratio	Adjustable 1.5:1 to 10:1
INSERT(4" TRS phone)	Normalled; tip is Send, ring is Return	Maximum Depth	>50dB
Ring Impedance	>5kΩ	Attack Time	Program-Dependent, approximately 2mS
Maximum Level	>+21dBu	Release Time	Program-Dependent, approximately 10mS/dB
Tip Impedance	100Ω	DYNAMIC RANGE	Typically 105dB
Maximum Level	>+21dBu, >+20dBm (600Ω load)	Power Requirements	
Noise	<-84dBu, unweighted (20Hz-20kHz);	Operating Voltage	15 Watts
Distortion	<0.01% THD, 20Hz-20kHz, +10dBu	Operating Temperature	DO: 120VAC 60Hz, 100VAC 50/60Hz; EU: 230VAC 50/60Hz 0°C to 45°C (32°F to 113°F)
LINE OUTPUT (4" TRS phone)	Balanced/Unbalanced	Operating Temperature	
Impedance	100Ω unbalanced, 200Ω balanced	Dimensions	1.75" x 5.75" x 19" (4.5cm x 14.6cm x 48.5cm)
Maximum Level	>+21dBu, >+20dBm (600Ω load)	Weight	Net Weight: 4.68 lbs/2.13 Kgs Shipping Weight: 6.54 lbs/2.97 Kgs
Gain Adjustment Range	-30dB to +10dB		
Noise	<-80dBu (typically -85dBu, unweighted (20Hz-20kHz);		
Frequency Response	20Hz to 20kHz, +0.5, -0.5dB		
Distortion	<0.08%THD, 20Hz-20kHz, +10dBu, all Processing Controls OFF		
COMPRESSOR			
Threshold Range	-40dBu to +20dBu		
Threshold Characteristics	OverEasy®		
Compression Ratio	>4:1 For input levels beyond 20dB above threshold		
Maximum Compression	30dB		
Attack Time	Program-Dependent; adjustable		
Release Time	Program-Dependent; adjustable		

dbx engineers are constantly working to improve the quality of our products. Specifications are, therefore subject to change without notice.