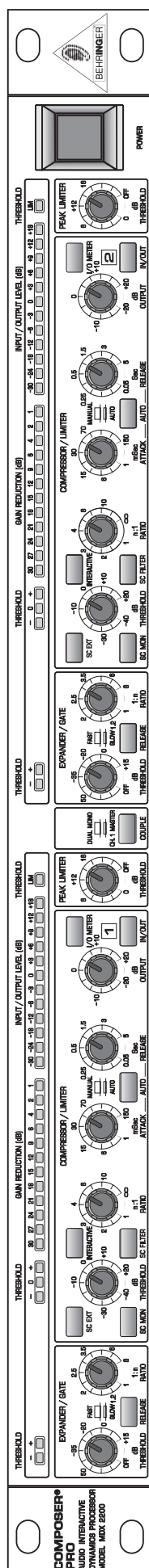


COMPOSER[®] PRO MDX2200



Technical Specifications

Version 1.1 May 2000

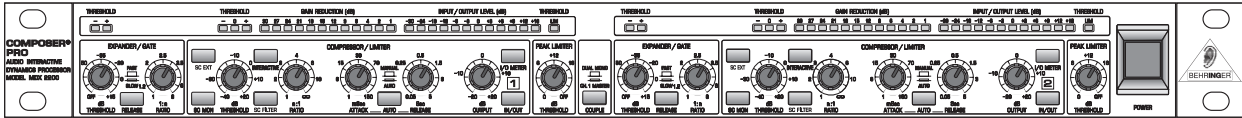
ENGLISH



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COMPOSER PRO

Interactive 2-channel expander/gate/compressor/limiter of the reference class



- ▲ IKA (Interactive Knee Adaptation) compressor concept combines the advantages of “hard knee” and “soft knee” characteristics
- ▲ Attack and Release times controllable automatically or manually
- ▲ Switchable high-pass filter in control signal path avoids low-frequency signals from dominating compressor action
- ▲ Compression characteristics switchable between IKA and “hard knee” characteristics
- ▲ IRC circuit in expander/gate allows for “inaudible” elimination of disturbing noise signals
- ▲ IGC (Interactive Gain Control) peak limiter combines clipper with program limiter circuits
- ▲ Extremely low-noise operational amplifiers and high-grade VCA's
- ▲ High-quality detent potentiometers and backlit switches
- ▲ Stereo Couple function selectable with real totaling of RMS output
- ▲ Accurate 12-digit LED meters for input level, output level and gain reduction
- ▲ Traffic-light function for easy threshold setting
- ▲ Switchable side-chain input with side-chain monitor function
- ▲ Operating level switchable from +4 dBu to -10 dBV
- ▲ Servo-balanced inputs and outputs featuring 1/4" jack and XLR connectors
- ▲ High-grade output transformer BEHRINGER OT-1 can be retrofitted
- ▲ Relay-controlled hard-bypass switch with auto-bypass function (fail-safe relay)
- ▲ Manufactured under ISO9000 certified management system

SPECIFICATIONS

AUDIO INPUT

Connectors	XLR and 1/4" jack
Type	RF filtered, servo-balanced input
Impedance	50 kOhm balanced, 25 kOhm unbalanced
Nominal Operating Level	+4 dBu/-10 dBV switchable
Max. Input Level	+21 dBu balanced and unbalanced
CMRR	typ. 40 dB, >55 dB @ 1 kHz

AUDIO OUTPUT

Connectors	XLR and 1/4" jack
Type	electronically servo-balanced output stage (optional transformer-balanced)
Impedance	60 Ohms balanced, 30 Ohm unbalanced
Max. Output Level	+21 dBu, +20 dBm balanced and unbalanced

SC INPUT

Connector	1/4" jack
Type	RF-rejecting, DC de-coupled, unbalanced input
Impedance	>10 kOhm
Max. Input Level	+24 dBu

SC OUTPUT

Connector	1/4" jack
Type	RF-rejecting, DC de-coupled, unbalanced output
Impedance	2 kOhm
Max. Output Level	+21 dBu

SYSTEM SPECIFICATIONS

Bandwidth	20 Hz to 20 kHz, +0/-0.5 dB
Frequency Response	0.35 Hz to 200 kHz, +0/-3 dB
Noise	> 95 dBu, unweighted, 22 Hz to 22 kHz
THD	0.008 % typ. @ +4 dBu, 1 kHz, Gain 1 0.04 % typ. @ +20 dBu, 1 kHz, Gain 1
IMD	0.01 % typ. SMPTE
Crosstalk	< -100 dB, 22 Hz to 22 kHz
Stereo Coupling	true RMS detection

EXPANDER/GATE SECTION

Type	IRC (Interactive Ratio Control) Expander
Threshold	variable (OFF to +15 dB)
Ratio	variable (1:1 to 1:8)
Attack	<1 ms / 50 dB, program dependent
Release	variable (SLOW: 100 ms / 1 dB, FAST: 100 ms / 100 dB)

COMPRESSOR SECTION

Type	IKA (Interactive Knee Adaption) Compressor
Threshold	variable (-40 dB to +20 dB)
Ratio	variable (1:1 to ∞:1)
Threshold characteristics	variable (Interactive or Hard Knee)
Auto characteristics	Wave Adaptive Compressor
Manual Attack Time	variable (0.5 ms / 20 dB to 100 ms / 20 dB)
Manual Release Time	variable (0.05 ms / 20 dB to 5 s / 20 dB)
Auto Attack Time	typ. 15 ms at 10 dB, 5 ms at 20 dB, 3 ms at 30 dB
Auto Release Time	program dependent, typ. 125 dB/s
Output	variable (-20 to +20 dB)

PEAK LIMITER SECTION

Type	IGC (Interactive Gain Control) Peak Limiter
Threshold	variable (+4 dB to OFF (+22 dBu))
Ratio	∞ :1
Stage 1 Limiter Type	Clipper
Attack	"zero"
Release	"zero"
Stage 2 Limiter Type	Program Limiter
Attack	program dependent, typ. < 5 ms
Release	program dependent, typ. 20 dB/s

FUNCTION SWITCHES

SC EXTERN	switches the detector section to the external SC input
SC MON	monitoring the external SC input, disengaging the normal audio
INTERACTIVE	enables the "Interactive Knee Adaption" characteristics
CONTOUR	allows for frequency dependent detection
AUTO	enables the automatic and program dependent setting of the Attack-/Release times, disengaging the manual Attack-/Release controls
I/O METER	switches between input and output for the level meter
IN/OUT	relay controlled hard-bypass
OPERATING LEVEL	changes the internal reference level from +4 dBu to -10 dBV
COUPLE	linking both channels for stereo operation and channel 1 becomes master

INDICATORS

GAIN REDUCTION	12 element LED display: 1/2/4/6/9/12/15/18/21/24/27/30 dB
INPUT/OUTPUT LEVEL	12 element LED display: -30/-24/-18/-12/-6/0/+3/+6/+9/+12/+18 dB
Expander/Gate Threshold	2 LED for under "+" and above "-"
Compressor Threshold	3 LEDs for under "+", Interactive "0" and above "+"
Peak Limiter Threshold	1 LED for Indication of Limiter function
Function switch	LED indicator for each

OPTIONS

Output Transformer	BEHRINGER transformer OT-1 refittable
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POWER SUPPLY

Mains Voltages	USA/Canada	120 V ~, 60 Hz
	U.K./Australia	240 V ~, 50 Hz
	Europe	230 V ~, 50 Hz
	General export model	100 - 120 V ~, 200 - 240 V ~, 50 - 60 Hz
Fuse	100 - 120 V ~:	T 250 mA H
	200 - 240 V ~:	T 125 mA H
Power Consumption	max. 20 Watts	
Mains Connection	standard IEC receptacle	

PHYSICAL

Dimension (H * W * D)	app. 1 3/4" (44.5 mm) * 19" (482.6 mm) * 8 1/2" (217 mm)
Net Weight	app. 2.2 kg
Shipping Weight	app. 3.4 kg

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