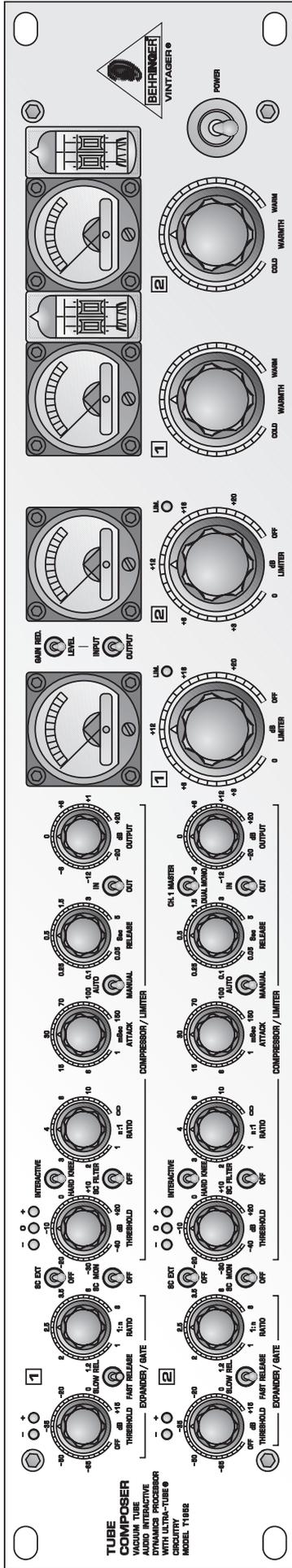


TUBE COMPOSER® T1952



Tech. Specifications

Version 1.1 May 2000

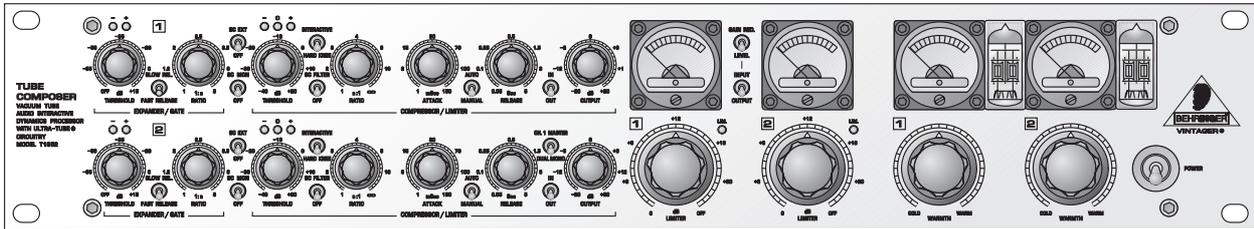
ENGLISH



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TUBE COMPOSER

Audio Interactive Dual Channel Expander/Gate/Compressor/Limiter/Peak Limiter.



- ▲ Our new ULTRA TUBE circuitry warms up your music, without unwanted noise
- ▲ A special “Warmth” control lets you add the amount of tube sound you want
- ▲ Selected 12AX7 tubes for outstanding, ultra musical tube sound
- ▲ IKA (Interactive Knee Adaptation) compressor intelligently combines the smoothness of “Soft Knee” with the precision of “Hard Knee” control, making it equally adept at “inaudible” level control and creative level processing
- ▲ Fully automatic or manual attack and release settings
- ▲ Side chain filter switch eliminates unwanted low frequency information from sidechain circuit
- ▲ Selectable “Interactive Knee” or “Hard Knee” compression modes
- ▲ IRC (Interactive Ratio Control) Expander/Gate circuitry for extremely smooth noise reduction
- ▲ IGC (Interactive Gain Control) Peak Limiter combines the clipper and the Program Limiter approach to provide a “zero” attack limiting for setting maximum allowable level with minimal distortion
- ▲ High-performance VCAs and ultra-low noise 4580 audio operational amplifiers for outstanding sound performance
- ▲ Accurate metering for input level, output level and gain reduction
- ▲ True RMS level detection and True Stereo operation
- ▲ Side Chain External & Monitor facilities for setting up side chain applications
- ▲ Servo-balanced gold-plated XLR and 1/4" TRS inputs and outputs
- ▲ Relay-controlled Hard-Bypass with an Auto-Bypass function during power failure
- ▲ High-quality detent potentiometers and switches with authentic vintage style knobs
- ▲ Huge back-lit analog VU Meters with stylish “Retro” design
- ▲ BEHRINGER’s high-performance OT-1 output transformer retrofitable
- ▲ Manufactured under ISO9000 certified management system

SPECIFICATIONS

Audio input

Connectors	XLR and 1/4" TRS 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" TRS 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" TRS jack
Type	RF filtered, DC de-coupled, unbalanced input
Impedance	>10 kOhm
Max. Input Level	+21 dBu

SC output

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

System specifications

Bandwidth	18 Hz to 30 kHz, +/- 3 dB
Signal-to-noise ratio	> 100 dB, 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 oo: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
linteractive	enables the “Interactive Knee Adaptation“ 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
CH 1 Master	linking both channels for stereo operation. Channel 1 becomes master
Warmth	variable (+10 dB to +60 dB)

Indicators

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
Warmth	analog meter for the UTC circuitry

Options

Output Transformer	BEHRINGER transformer OT-1 retrofittable
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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 1 A H
	200 - 240 V ~:	T 500 mA H
Power Consumption	max. 30 Watts	
Mains Connection	standard IEC receptacle	

Physical

Dimension (H * W * D)	app. 3 1/2" (89.5 mm) * 19" (482.6 mm) * 8 1/2" (217 mm)
Net Weight	app. 8.0 kg
Shipping Weight	app. 10.0 kg

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