

# PARAMETRIC EQUALIZER

MODEL  
545



## FEATURES

- Four sections of Parametric Equalization; each continuously variable in Bandwidth, Frequency, and Boost and Cut.
- Two end cut filters tunable over a wide range for bandwidth restriction.
- Large, easy-to-adjust controls.
- Multi-point overload detection circuit.
- Balanced or unbalanced bridging input.
- Transformer isolated output.
- Self contained with regulated power supply.
- UREI quality, of course.

The Model 545 is a true parametric Equalizer, in which all important filter parameters are continuously variable. It is an ideal tool for creative and corrective equalization in professional sound recording, broadcast production, sound reinforcement systems, motion picture and TV recording, and live performances.

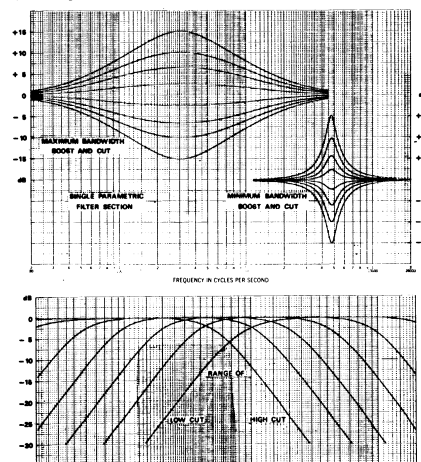
There are four parametric filter sections in the Model 545. Three filters cover overlapping ranges from 24 Hz to 12.5 kHz. The fourth filter, with a multiplier range switch, is tunable over the entire audio range from 15 Hz to 20 kHz. The characteristic of the filters is perfectly reciprocal in boost and cut, and they are continuously adjustable in boost and cut between plus and minus 15 dB, and in bandwidth between 1/4 and 2 octaves.

In addition a High Cut and a Low Cut filter section may be tuned to adjust the bandwidth of the equalizer. They are of the Butterworth type with an attenuation of 12 dB/octave beyond the -3 dB points.

While all filter sections are independently adjustable, they combine smoothly when tuned to nearly the same or the same frequency. This is especially useful when extreme filter characteristics and settings are desired.

Concentric controls, easy to read dials and markings, and accurate calibration aid in selecting and resetting any filter combination. Due to the uncluttered and logical arrangement of the Model 545 front panel its operation is simple.

An overload detection circuit monitors the signal throughout the unit. If the signal level in any part of the circuit approaches overload, a front panel LED flashes to warn the user. A bypass switch permits switching the equalizer section out of the system, restoring flat frequency response. All components are conservatively rated and of high quality. The built-in regulated power supply assures dependable operation from either 100 - 125 or 200 - 250 VAC, 50 or 60 Hz. The unit may be mounted in a standard 19" rack.



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# TECHNICAL SPECIFICATIONS

## Electrical:

<b>Input</b>	:	Balanced bridging differential amplifier.
<b>Input Impedance</b>	:	40 kohms, used as balanced input. 20 kohms, used as unbalanced (single-ended) input.
<b>Maximum Input Level</b>	:	+20 dBm (7.75 V RMS)
<b>Equivalent Input Noise</b>	:	Less than -85 dBm (15.7 kHz bandwidth) with all parametric controls at half rotation, and end cut filters set to maximum bandwidth.
<b>Gain</b>	:	Unity, $\pm 1$ dB, with E.Q. out or boost - cut controls set to zero.
<b>Frequency Response</b>	:	$\pm 0.5$ dB, 20 - 20,000 Hz (E.Q. out).
<b>Output</b>	:	Floating, transformer isolated.
<b>Output Load</b>	:	150 ohms to infinity.
<b>Power Output</b>	:	+24 dBm into 600 ohm load. +20 dBm into 150 ohm load.
<b>Distortion</b>	:	Less than 0.5% THD, 30 Hz to 15 kHz at maximum rated output.
<b>Parametric Equalizers</b>	:	Bandwidth continuously variable 1/4 to 2 octaves, Boost - Cut continuously variable +15 to -15 dB, Frequency ranges: Low Band        24 Hz - 310 Hz Mid Band        190 Hz - 2.24 kHz High Band       960 Hz - 12.5 kHz  Multi Band     15 Hz - 200 Hz 150 Hz - 2 kHz 1.5 kHz - 20 kHz
<b>Cutoff Filters</b>	:	Low cut: 16 Hz to 800 Hz, continuously tunable. High cut: 500 Hz to 25 kHz, continuously tunable.
<b>Cutoff Filter Type</b>	:	Butterworth; attenuation 12 dB/octave beyond -3 dB points.
<b>Power Requirements</b>	:	100 - 125 VAC, or 200 - 250 VAC 50/60 Hz, switch selectable, less than 10 W.
<b>Environment</b>	:	Operating 0°C to +50°C, storage -20°C to +60°C.

## Physical:

<b>Dimensions</b>	:	483 x 89 mm rack panel, Depth behind panel 203mm. (19" x 3 1/2" x 8")
<b>Finish</b>	:	Panel is 3.18 mm (1/8") brushed black anodized aluminum. Chassis is cadmium plated steel.
<b>Weight</b>	:	4.09kg (9 pounds).
<b>Shipping Weight</b>	:	5.91kg (13 pounds).
<b>Accessories</b>	:	Model 301 XLR/QG Adaptor for input and output.