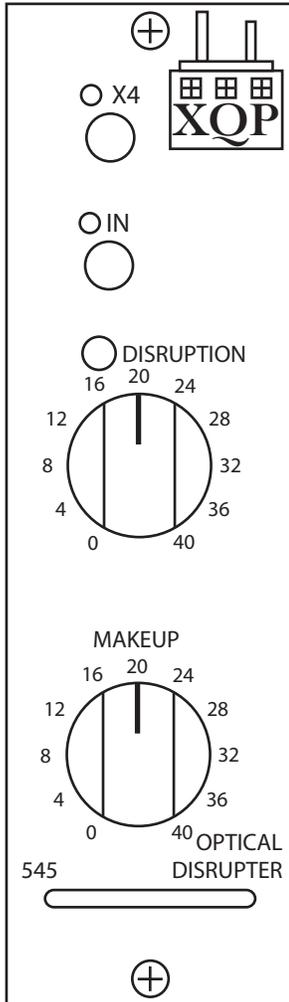


XQP 545 Optical Disrupter

Owner's Guide



INTRODUCTION

Thank you for purchasing the XQP 545 Optical Disrupter. The 545 is a compressor that creates an asymmetrical waveform in the low frequencies. There is no clipping, because an amplifier stage is not being overdriven. Instead, the LEDs in the dual VACTROL® optoisolators are driven by an AC signal which modulates the audio during gain reduction in a manner that produces second-order harmonic distortion.

The 545 is a VPR module (hopefully you are already aware of this) designed to fit into the common 500 series racks originated by API. It follows the standard API pinout.

PINOUT

1. Chassis
2. + Output
- 3.
4. - Output
5. Audio Common
- 6.
- 7.
8. - Input
- 9.
10. + Input
- 11.
12. + 16 VDC
13. Power Ground
14. - 16 VDC
- 15.

The 545 has received API's VPR Alliance certification.

OPERATION

The 545 is simple to use. The amount of gain reduction is adjusted with the DISRUPTION control in conjunction with the X4 switch. The X4 switch multiplies the sensitivity of the sidechain by a factor of four, allowing the 545 to be used effectively on low level signals. Low frequencies are affected most significantly, with the effect becoming increasingly less active as frequency rises. Because the resulting distortion is the desired effect, a traditional gain reduction meter is not included. Your ears should be the judge to determine the amount of effect to apply. Compression can be viewed as a byproduct of distortion as in traditional cases. The red LED lights up when gain reduction is taking place in the same manner as the LEDs in the optoisolators, providing an indicator that gain reduction is taking place.

The MAKEUP control is an output level control to allow the user to restore level lost in gain reduction. As with the DISRUPTION control, the numbers 0 - 40 do not refer to dB or anything like that. They are simply a divisible set of numbers which make recall of settings easy.

SPECIFICATIONS

Input impedance: 43k Ω balanced
Output impedance: 50 Ω balanced
Frequency response: 4 - 55kHz (-3dB)
Max. output level: 22dBu
THD (in bypass): <0.002% @ 1kHz
Noise: -80dBm, unweighted
Attack time: 10mSec.
Release time: 18mSec.
Max. gain reduction: <20dB
Current requirement: 170mA @ +/- 16v

Finally, the IN switch activates the sidechain. Disengaging this switch silently bypasses the unit, although the audio path remains active.

WARRANTY

Like all XQP products, the 545 has a rather ridiculous ten-year warranty. It is an absurd length of time, but there is really no reason a well-made electronic device should not last many years longer than that. XQP is not a giant corporation who puts profit above all else. We are normal guys who like to know that a company whose products we buy will take care of us if something goes wrong and not treat us like pests. We want to treat our customers that way (not like pests - the other way). The ten-year warranty is the best way we know of to communicate that desire.

