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Owner's Manual

Firstly, let us congratulate you on your purchase of the DRS-EQ/500 Equalizer designed for the API 500 series Lunchbox or suitable compatible rack.

We know you will be as pleased with it's sonic qualities as we are.

You are now the proud owner of an EQ that has the advantages of more than 40 years experience in audio engineering, today's component and manufacturing technology, but still retaining "that sound" uniquely achievable through Class A design.

As you can tell, Phoenix Audio is dedicated to the development of Class A discrete technology used within high build-quality equipment.

The DRS-EQ/500 uses our well proven and loved Class A output stage (DSOP2), but also has our latest breakthrough in transformer-less Class A, Discrete Input Technology which gives a "valve-like" sound.

You CAN hear the difference!!!

DRS-EQ/500 Specifications

API 500 series compatible rack unit:

Class A (DSOP2) Output specs. Frequency response: 20Hz to 20kHz
+ 0.5dB, Maximum
Output = +26dBu @ 1kHz, Noise = -90dB @ 20Hz to 20kHz.

Input connections: XLR input on rear of API compatible rack

Phoenix Audio's unique Class A, transformer-less, True electronically balanced input stage.

Gain Meter: LED Metering. ((Green = -2dbu, +4dbu & 10dBu,
Yellow = +13dbu Red= +16dBu)

High Pass Filter: on Push-button Switch set at 80hz @ -6db roll off per octave

EQ Bypass : on Push-button Switch

Typical Headroom: +26dB on output stage

Gyratory-based EQ Frequency Centres: (4 Bands) High - 15K, 10K, Hi Mid –
6K, 3K, 1K6, Low Mid – 800Hz, 400Hz, 200Hz, Low - 130Hz, 80Hz, 40Hz

EQ Cut/Boost Levels: 16dB Cut/Boost Per Band

Power requirements: The DRS-EQ/500 utilizes the rack's +16V and -16V power rails, but uses our unique on-board power supply to convert the rails to +24V and 0V so that the unit sounds exactly the same as our mains-powered 19" units. This means you always know that the Phoenix sound is consistent across our whole range of products.

DRS-EQ/500 SETUP INSTRUCTIONS

The DRS-EQ/500 has a vertical row of LED's to indicate level. These LED's are connected to the OUTPUT of the unit, NOT the input section. This makes the LED's indication much more useful for setting up levels on the EQ, and to give you a clear view of what level is being sent to external equipment.

The LED's are marked -2,+4 and +10 (Green) and +13 (Yellow) and +18 (Red). When the Red Led lights, this isn't a sign of clipping as the EQ will have at least another 10db of headroom.

You can turn the output knob all the way up to maximum and still be sure the output of the unit will not clip. The amount of headroom on both the input AND output stage is HUGE!!! There will never be a time when you can't get a hot enough output, only occasionally too hot an input (then you just simply turn down the input signal coming into your EQ).

The OUTPUT level knob is provided to allow OUTPUT level adjustment. If you prefer to have a "hotter" output, turn the OUTPUT knob up to suit. You can turn the OUTPUT knob fully up without any distortion as there is plenty of headroom on the output stage. Also, if you prefer to have a LOWER level on the output (I.E.: for semi-pro outboard gear which requires around -10dB input), simply turn the OUTPUT knob down to taste. The combination of the Class A discrete output stage coupled with our custom wound transformer will impart second harmonics into your music and also a form of compression, similar to tape compression, this will be achieved by running the unit with a high output level.

Here is a description of the units front panel, showing all the switch-able frequency selector switches and push buttons.



We have selected eleven switch-able frequencies, which we will be most used for a variety of instruments and voices. The switch-able frequencies are :

HF – 15k & 10K

Mid HF – 6K, 3K & 1.6K

Mid LF – 800hz, 400hz & 200hz

LF – 130hz, 80hz & 40hz

Each of the four EQ bands has 16db cut and boost so its very powerful and each click of the detented pots will equate to around 1.5db in either cut or boost. How they are used in application settings could be like this :

Vocals :

Boost at 15k to inject some air into the vocal

Boost at either 800hz or 400hz

Cut at 3k

Cut at 130hz or 80hz

Acoustic guitar :

Boost at 10k or 15k

Cut at 200hz

Electric Guitar :

Cut at 130hz

Boost at 200hz

Boost at 6k

Cut at 10k

Drums :

Kick Drum: HI-PASS, Boost 80hZ, Cut 400hZ, Boost 6kHz, Cut 10kHz

Snare Drum: HI-PASS, Cut 80hZ, Boost 200hZ, Cut 1kHz, Boost 10kHz

Rack Tom: HI-PASS, Boost 130hZ, Cut 400hZ, Boost 6kHz, Cut 10kHz

Floor Tom: Boost 80hZ, Cut 800hZ, Boost 6kHz, Cut 10kHz