

APHEX®

EQF 500®

3 BAND EQ WITH HPF AND LPF
JENSEN TRANSFORMER BALANCED OUTPUT
500 SERIES MODULE

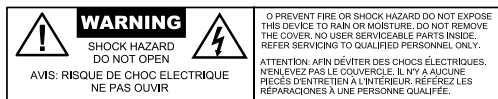


OWNER'S MANUAL



a DWM ENTERTAINMENT company

SAFETY DECLARATIONS



CAUTION: For continued protection against risk of fire, replace only with the same type and rating of fuse.

ATTENTION: pour une protection continue contre les risques d'incendie, ne remplacer qu'avec la même valeur et même type de fusible.

WARNING: Do not place objects containing liquid on this unit as it is not designed to protect against spillage. Do not expose this unit to dripping or splashing of liquids as the unit is not designed to protect against these occurrences.

WARNING: This unit must be connected to a mains socket outlet with a protective earthing connection.

WARNING: The EQF 500 has been tested and meets the FCC, CE and European Union rules, regulations, and guidelines for use. Do not attempt to modify or change the EQF 500, as this could void the regulatory compliance, which would place you at risk of losing your authority to operate the EQF 500.

WARNING: Do not place objects on top of this unit if they weigh more than 10 pounds.



SAFETY DECLARATIONS

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.



TABLE OF CONTENTS

1.0 INSTALLATION	5
2.0 INTRODUCTION	6
3.0 CONTROLS AND INDICATORS	
3.1 High frequency controls	7
3.2 Midrange frequency controls	7
3.3 Low frequency controls	7
3.4 EQ and Filters On/Off buttons	8
3.5 Low and High Pass Filters	8
3.6 Shelving and peaking EQ	8
4.0 WARRANTY AND SERVICE	
4.1 Limited Warranty	9
4.2 Service Information	10
5.0 SPECIFICATIONS	11

1.0 INSTALLATION

1. Turn off and unplug your 500 series rack frame. Inspect the card slot you intend you use to make sure that it is clean and free of any debris.
2. Before removing your EQF 500 from its box, discharge any static electricity buildup you may have by touching your 500 series rack.
3. Pull your EQF 500 module out of its box and carefully slide it into place in the designated opening. Sight down the back of the module (use a flashlight if necessary) and ensure the card edge connector is aligned to seat into the card slot of the frame.
4. Firmly and evenly push the EQF 500 module into place until it is positively seated in the card slot.
5. Use the 2 thumb screws in the module to mount the EQF 500 front panel to the 500 series rack. These screws have a pretty tight fit; please be careful not to cross thread.
6. Plug your 500 series rack back into the AC source and power up your rack. Your EQF 500 will automatically power up with your 500 series rack.



2.0 INTRODUCTION

The EQF 500 is a reissue that is our modern take on the classic Aphex EQF-2 500 series equalizer. The original EQF-1 500 module was designed in 1976 while the EQF-2 500 was an upgrade that included shelving EQ for the high and low bands.

The newly designed EQF 500 module has an improved control layout and modern components have been incorporated for lower noise than the original. A Jensen JT11K8 nickel input Transformer and Jensen JT-11DL nickel output transformer provide the cleanest possible balanced input and output signal.

3.0 CONTROLS & INDICATORS

3.1 HIGH FREQUENCY CONTROLS

These controls let you optimize the high frequency band. The range is from 1kHz to 20kHz. The selected frequency can be cut or boosted by 12dB. Pressing the bell curve button changes the high frequency EQ from a shelving EQ to a peaking EQ. The button will light when it is in peaking mode. The bandwidth or “Q” is preset to one octave at maximum boost.

3.2 MIDRANGE FREQUENCY CONTROLS

These controls lets you optimize the midrange frequency band. The range is from 250Hz to 5kHz. The selected frequency can be cut or boosted by 12dB. The bandwidth or “Q” is preset to one octave at maximum boost.

3.3 LOW FREQUENCY CONTROLS

These controls lets you optimize the low frequency band. The range is from 20Hz to 500Hz. The selected frequency can be cut or boosted by 12dB. Pressing the bell curve button changes the low frequency EQ from a shelving EQ to a peaking EQ. The button will light when it is in peaking mode. The bandwidth or “Q” is preset to one octave at maximum boost.





3.4 EQ & FILTERS ON/OFF BUTTONS

These lighted On/Off buttons allow you to turn the EQ and filters on and off individually. The buttons glow green when processing is on. They are dark when processing is off. Turning the button on and off offers a quick A/B comparison, allowing you to hear the affect the EQ and filters have on the program content. Note: These are hardware bypasses.

3.5 LOW & HIGH PASS FILTERS

The High Pass Filter range is from 20Hz to 500Hz. The Low Pass Filter range is from 1kHz to 20kHz. The filters will cut all frequencies below the high pass filter and all frequencies above the low pass filter at 12dB/octave. When set to their extremes, only the frequencies between 500Hz and 1kHz are left untouched.

Filtering the irrelevant frequencies of a track allows the instrument stand out and provides a cleaner overall mix. For example, the low frequency energy of an acoustic guitar track can get in the way of the bass guitar and kick drum. Filtering the low frequencies of the acoustic guitar track makes the bass guitar and kick drum sound tighter and more defined.

3.6 SHELVING & PEAKING EQ

High shelving EQ will boost or cut all frequencies above the selected high frequency. Frequencies below that setting are untouched. High peaking EQ will boost or cut only a small amount of frequencies above and below the selected high frequency. How many frequencies above and below is dependant on the bandwidth or "Q" setting. The narrower the bandwidth, the less other frequencies are affected. The EQF 500 has a bandwidth of one octave at maximum cut or boost. Peaking EQ is used when only a specific frequency needs to be boosted to highlight the character of a track or cut to allow the remaining frequencies to be highlighted.

4.0 SERVICE & WARRANTY

4.1 LIMITED WARRANTY

PERIOD

One year from date of purchase.

SCOPE

All defects in workmanship and materials. The following are not covered:

- a. Voltage conversions.
- b. Units on which the serial number has been defaced, modified, or removed
- c. Damage or deterioration:
 1. Resulting from installation and/or removal of the unit.
 2. Resulting from accident, misuse, abuse, neglect, unauthorized product modification or failure to follow instructions contained in the User's Manual.
 3. Resulting from repair or attempted repair by anyone not authorized by Apex Systems.
 4. Occurring from shipping (claims must be presented to shipper).

WHO IS PROTECTED

This warranty will be enforceable by the original purchaser and by any subsequent owner(s) during the warranty period, so long as a copy of the original Bill of Sale is submitted whenever warranty service is required.

WHAT WE WILL PAY FOR

We will pay for all labor and material expenses for covered items. We will pay return shipping charges if the repairs are covered by the warranty.

LIMITATION OF WARRANTY

No warranty is made, either expressed or implied, as to the merchantability and fitness for any particular purpose. Any and all warranties are limited to the duration of the warranty stated above.

EXCLUSION OF CERTAIN DAMAGES

Apex Systems' liability for any defective unit is limited to the repair or replacement of said unit, at our option, and shall not include damages of any other kind, whether incidental, consequential, or otherwise.

Some States do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

4.2 SERVICE INFORMATION

If it becomes necessary to return this unit for repair, you must first contact Aphex for a Return Authorization (RMA number), which will need to be included with your shipment for proper identification. If available, repack this unit in its original carton and packing material. Otherwise, pack the equipment in a strong carton containing at least 2 inches of padding on all sides. Be sure the unit cannot shift around inside the carton. Include a letter explaining the symptoms and/or defect(s). Be sure to reference the RMA number in your letter and mark the RMA number on the outside of the carton. If you believe the problem should be covered under the terms of the warranty, you must also include proof of purchase. Insure your shipment and send it to:

APHEX

3500 N. San Fernando Blvd. Burbank, CA. 91505 USA
PH: 818.767.2929 FAX: 818.767.2641

5.0 SPECIFICATIONS

OPERATING LEVEL

Switch Setting: +4dBu

INPUT

Type: Transformerless, active balanced
Impedance: 40K Ω
Unbalanced: 20K Ω
Nominal Level: +4dBu
Maximum Level: +24dBu
CMRR: >40dB

OUTPUT

Impedance: 110 Ω
Nominal Level: +4dBu
Maximum Level: +24dBu Unloaded

AUDIO

Frequency Response: +0.5dB 10Hz-38KHz
Dynamic Range: 120dB
THD: 10Hz - 22kHz @ max output,
.0003%
IMD: 10Hz - 22kHz 0 max output,
.0007%

CONNECTOR PINOUT

- 1 CHASSIS GROUND
- 2 OUTPUT + (+4 LEVEL)
- 3 (unused)
- 4 OUTPUT - (+4 LEVEL)
- 5 COMMON
- 6 (unused)
- 7 (unused)
- 8 INPUT- (+4 LEVEL)
- 9 (unused)
- 10 INPUT+ (+4 LEVEL)
- 11 (unused)
- 12 +16VDC
- 13 POWER SUPPLY COMMON
- 14 -16VDC
- 15 (unused)

APHEX[®]



This product is protected under one or more of the following Aphex patents.

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