

# APHEX<sup>®</sup>

## J PRE 500<sup>®</sup>

JENSEN TRANSFORMER COUPLED MIC PRE<sup>®</sup>  
500 SERIES MODULE





## OWNER'S MANUAL



a DWV ENTERTAINMENT company

## SAFETY DECLARATIONS

	<b>WARNING</b> SHOCK HAZARD DO NOT OPEN AVIS: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR		○ PREVENT FIRE OR SHOCK HAZARD DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. DO NOT REMOVE THE COVER, NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL ONLY. ATTENTION: AFIN D'ÉVITER DES CHOCs ÉLECTRIQUES. N'ENLEVEZ PAS LE COUVERCLE. IL N'Y A AUCUNE PIÈCES D'ENTRETIEN À L'INTÉRIEUR. RÉFÉREZ LES RÉPARATIONS À UNE PERSONNE QUALIFIÉE.
---	---	---	--

**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 J PRE 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 J PRE 500, as this could void the regulatory compliance, which would place you at risk of losing your authority to operate the J PRE 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

<b>1.0 INSTALLATION</b>	5
<b>2.0 INTRODUCTION</b>	6
<b>3.0 CONTROLS AND INDICATORS</b>	
3.1 Trim Control	6
3.2 Input Meter	6
3.3 Output Level Switch	6
3.4 -26dB Pad	7
3.5 Phase	7
3.6 75Hz High Pass Filter	7
3.7 48V Phantom Power	7
3.8 Mic Lim	8
3.9 Instrument Input	8
<b>4.0 WARRANTY AND SERVICE</b>	
4.1 Limited Warranty	9
4.2 Service Information	10
<b>5.0 PATENT NOTICE</b>	11

## INSTALLING THE J PRE 500 IN A 500 SERIES RACK

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 J PRE 500 from its box, discharge any static electricity buildup you may have by touching your 500 series rack.
3. Pull your J PRE 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 J PRE 500 module into place until its is positively seated in the card slot.
5. Use the 2 thumb screws in the module to mount the J PRE 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 J PRE 500 will automatically power up with your 500 series rack.

## 2.0 INTRODUCTION

The J PRE 500 mic pre is inspired by the Aphex flagship 1788A preamp. They both use the same Jensen JT11K8 nickel input Transformer. Both preamps also feature the Aphex patented Mic Lim limiter which limits before the preamp. Unlike the 1788A, the J PRE 500 also features a Jensen JT-11DL nickel output transformer for output balancing. This provides the cleanest possible balanced signal.

## 3.0 CONTROLS & INDICATORS



### 3.1 TRIM CONTROL

The Trim control boosts the input signal from +26dB to +65dB.

### 3.2 INPUT METER

This 20 segment input meter provides visual confirmation of the input signal level. The top three LEDs of the meter are red. When the input signal reaches the top red LED, the input signal will clip.

### 3.3 OUTPUT LEVEL SWITCH

The output level can be set to +16dB, +20dB and +24dB. You will need to know the maximum input level of the next device in the audio chain to set this properly. Most professional audio devices can handle a +24db input signal without issue.



However, some inexpensive computer audio interfaces have a maximum input level of less than +16dB. Most also offer a -20dB pad to address these kind of issues.

### 3.4 -26dB PAD

When the input signal is clipping the preamp with the input trim control turned all the way down, the -26dB pad can be engaged to provide more headroom.

### 3.5 PHASE

The Phase button will invert the input signal 180 degrees. Using two microphones on the same source can cause phase problems. Reversing the phase of one of the microphone signals will often clear up the issue.

### 3.6 75Hz HIGH PASS FILTER

Engaging the 75Hz HPF will roll off all the frequencies below 75Hz at 18dB/octave. It's a good idea to use the HPF when recording voices or instruments that don't have much low frequency content. Only capturing the relevant frequencies will provide a cleaner mix later on.

### 3.7 48V PHANTOM POWER

Condenser microphones require power to function. Sometimes a microphone will use internal batteries, but usually the required power is provided by the mic pre. Turning on the Phantom Power will send power through the cable to power the microphone. Be careful though, as ribbon microphones and some older dynamic microphones can be damaged or destroyed by phantom power.



### 3.8 MIC LIM

Pressing this button will engage the Aphex patented MIC LIM limiter. It limits before the preamp. This way a large transient signal will be limited before it is amplified. This protects the mic pre and provides a cleaner signal than standard limiters. When the Mic Lim is limiting, the Mic Lim button will flash red.

### 3.9 INSTRUMENT INPUT

The J PRE 500 provides a 1/4", 10 MOhm instrument input. When an instrument is plugged in to this input it will override the XLR input on the receiving frame. This input makes it easy to record guitar and bass tracks with the J PRE 500.

**APHEX is a member of the API Audio VPR Alliance.  
The J PRE 500 is a VPR approved module.**

## 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 Aphex 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

Aphex 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

## 6.0 SPECIFICATIONS

### OPERATING LEVEL

Switch Setting: +4dBu

#### INPUT

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

#### OUTPUT

Impedance: 110 $\Omega$   
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<sup>®</sup>



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

6,266,423

3500 N San Fernando Blvd. Burbank, CA 91505 USA

PH: 818.767.2929 FAX: 818.767.2641

[www.APHEX.com](http://www.APHEX.com)