WAVES

APHEX VINTAGE AURAL EXCITER®

USER GUIDE

TABLE OF CONTENTS

Chapter 1 – Introduction

1.1 Welcome

Thank you for choosing Waves! In order to get the most out of your Waves processor, please take the time to read through this manual.

In conjunction, we also suggest that you become familiar with www.wavesupport.net. There you will find an extensive **Answer Base**, the latest **Tech Specs**, detailed **Installation** guides, new **Software Updates**, and current information on **Authorization** and **Registration**.

By signing up at www.wavesupport.net, you will receive personalized information on your registered products, reminders when updates are available, and information on your authorization status.

1.2 Product Overview

When it was originally introduced in the mid-1970s, the Aphex Aural Exciter® brought its distinctive sound to select sessions by leading recording artists, traveling from studio to studio as an exclusive (and expensive) rental unit.

A true groundbreaker, the original Aural Exciter was highly regarded for its ability to increase and enhance presence, brightness, and detail on vocal tracks and masters alike. It was even credited as a "session player" on popular albums by the likes of Jackson Browne, Linda Ronstadt, and James Taylor.

Modeled on one of only a few tube-powered units ever made, the new Waves Aphex Vintage Aural Exciter plugin delivers all the unique character of the rare original hardware unit, with all the advantages of software.

1.3 Concepts and Terminology

While the original 402 Aural Exciter unit we modeled has only one mix mode, the Vintage Aural Exciter plugin has two. Here's how that came about:

When we originally modeled the unit, replicating its sound in both insert and aux send/return modes, we realized that each mode had its own unique sound. This is primarily because the phase relation between the direct sound and the AX sound is reversed, and the signal that the AX is mixed with is a pure direct, while the device's BP (bypassed) signal includes its own phase response which, while not fully inverted, does affect the sound of the mix.
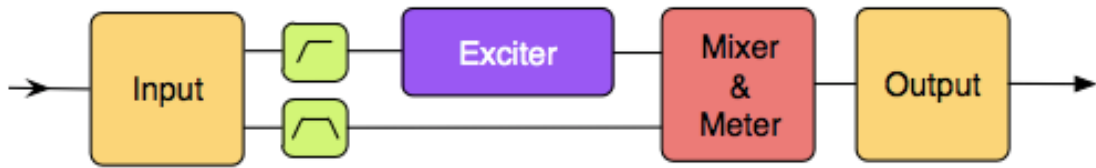
Producer/engineer Val Garay, one of the high-profile users who helped popularize the original Aural Exciter, listened to the plugin prototype and confirmed that the sound of our software corresponds perfectly with the hardware unit. However, he also told us that he always used the device in a send/return auxiliary setup in AX mode. Val's aux send/return setup delivers "the sound" that is forever etched on hit records of the late '70s and early '80s. Since today's users may prefer to insert the plugin directly on a track, we wanted to make this send/return sound available in insert mode. We decided to provide both sounds in insert mode for the user's convenience, by introducing an additional MIX mode. This is what we call MIX1 mode.

MIX2 mode is based on the sound of the original hardware unit's MIX mode, as an insert. While it may be "over the top" for a mastering task, it may be just the thing for a vocal track that needs enhancement or presence that cannot be achieved using EQ. Due to the processor's unique phase behavior, modulations in frequency response may occur at certain AX MIX settings in MIX2 mode. At AX MIX settings of 1 to 4.5, the effect is very subtle; settings of 4.5 to 7.2 result in a frequency dip; settings from 7.2 to 10 bring about a pretty, not subtle sound.
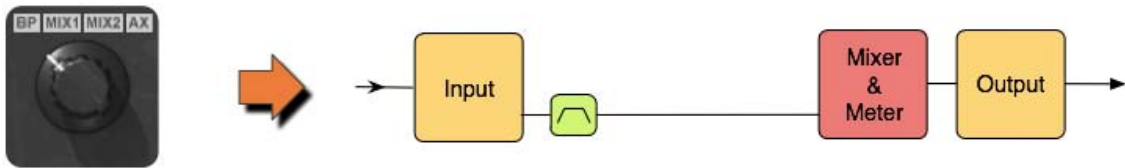
To recap:
- **MIX1**, as an insert, recreates the hardware unit's AX mode send/return sound.
- **MIX2**, as an insert, recreates the hardware unit's MIX mode insert sound.
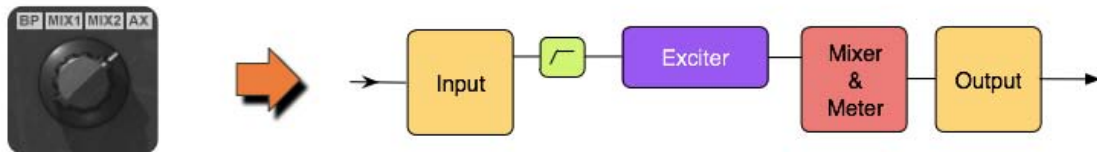- **AX** mode is designed to be used for send/return auxiliary setups.
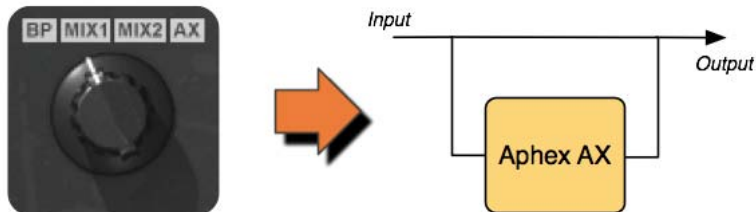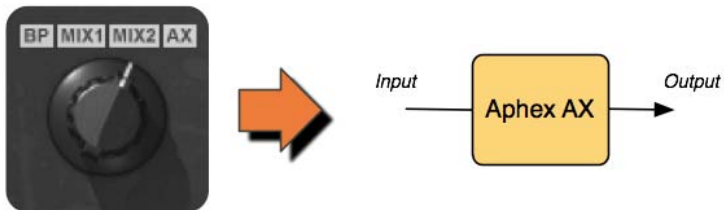
Signal Path

BP

AX

MIX1

MIX2

1.4 Components

The Aphex Vintage Aural Exciter® consists of two components:

- Aphex Mono
- Aphex Stereo

Chapter 2 – Quick Start Guide

There are two primary ways to use the Waves Aphex Vintage Aural Exciter plugin:

1. As an insert on the track, using MIX1 or MIX2 modes.
2. As a send/return effect on an aux track, using AX mode.

MIX1/MIX2

- o   Insert the Vintage Aural Exciter on your track.
- o   Set to MIX1 or MIX2 mode.
- o   Adjust the AX MIX knob to blend the desired amount of effect with your dry signal.
- o   Adjust input and output levels as necessary.

AX

- o   Insert the Vintage Aural Exciter on an aux bus, and route a 'send' to that bus.
- o   Set to AX mode.
- o   Adjust the 'send' to blend the desired amount of effect with your dry signal.
- o   Adjust input and output levels on the Aural Exciter plugin as necessary.

Please note: Since input levels have a significant impact on the sound of the plugin, we recommend experimenting in order to find your optimal input settings.

Chapter 3 – Interface and Controls

3.1 Interface

3.2 Controls

1 **VU Meter** with clip indicator displays input or output level in dBVU
Clip LED lights up when levels exceed 0 dBFS. Click to reset.

2 **VU Calibration** controls VU meter headroom calibration.

Range
24 – 8dB (16dB)
Default
18 dB of headroom (0 dBVU = -18 dBFS)

Please note: The VU Calibration control is represented by the small screw-head below the VU meter display. It does not have a visible label and, for most users, the default setting of 18 dB headroom should be the best choice. On the Stereo component, use the screw located on the left to calibrate both meters.

3 **MODE** selects the processing mode.

Range: BP, MIX1, MIX2, AX
- **BP** = Bypass *(Please note: BP does not function as a pure bypass; the plugin models the original hardware's BP mode behavior.)*
- **MIX1**, as an insert, recreates the hardware unit's AX mode send/return sound.
- **MIX2**, as an insert, recreates the hardware unit's MIX mode insert sound.
- **AX** mode is designed to be used for send/return auxiliary setups.

Default: MIX1

4 **METER** selects VU meter view options.

Range: Input / Output / AX
Default: Out

5 **INPUT** controls input gain.

Range: -18dB to +18db
Default: 0dB

6 **AX MIX** controls the amount of AX (aural excitement) added to the original signal. (*Functional in Mix mode only.)*

Range: 0 to 10
Default: 7.87

7 **OUTPUT** controls output gain.

Range: -18dB to +18db
Default: 0dB

8 **NOISE** controls the level of the modeled analog noise.

Range: Off / -48dB to 0 (0 = original HW)
Default: Orig.

9 **MAINS** controls analog characteristics caused by hum, based on the power supplies of the original units.

Range: Off / 50Hz / 60Hz
Default: 50Hz

Chapter 4 – The WaveSystem

4.1 The WaveSystem Toolbar

All Waves plugins feature the WaveSystem toolbar which takes care of most administrative functions you will encounter while working with your Waves software. The features of the WaveSystem toolbar are the same on practically all Waves plugins, so familiarity with its features will be helpful whichever plugin you are using.

Toolbar Functions

ꟿ	Opens the plugin About box
Undo	Undoes the last 32 actions
Redo	Redoes the last 32 undone actions
Setup A/B	Toggles between two presets, useful for comparison of parameter settings
L/R Arrows	Move to the previous or next preset
Copy A→B	Copies the current settings to the second preset register
Load	Recalls presets from file
Save	Saves presets in the Waves file formats
?	Opens the PDF manual for the plugin you are using

4.2 Preset Handling

Preset Types

Factory Presets are permanent presets in the Load menu. Factory presets cannot be overwritten or deleted. When applicable, different component plugins may have different factory presets.

User Presets are your favorite settings of the plugin saved as a preset in the Load menu, under 'User Presets'. User Presets can be overwritten and deleted.

Setup Files may contain more than one preset. For example, a single file can contain all the presets for a session. When you open a Setup File, all its setups become part of your Load pop-up menu for fast access. This can be particularly useful with multiple instances of a plugin in a single session. By saving all the settings you create into a single Setup File, they can all be quickly available for every instance of that plugin.

Loading Presets and Setups

Load

Click on the Load button to see the Load pop-up menu. The menu is divided into four sections. If a section is not currently available it will not appear in the Load pop-up menu.

Open Preset File…	Select to open any setup or preset file, whether from the Library or your own creations.
'Filename.xps':	Displays any currently loaded Setup File and its presets.
Factory Presets:	Displays the default Factory Presets.
User Presets:	Displays any loaded User Presets.

Saving Presets and Setups

Save

Click on the Save button to see the Save pop-up menu. Four options are available. If an option is not currently available it will be grayed out and inaccessible.

Save to New File…	Select this to start a new Setup file. There are two prompts - first for the setup filename, then for the preset name. You must provide a name for both the setup file and the preset. Click OK (ENTER) to complete the save. It is a good idea to create a folder in which to save several setup files for a project.
Save 'File Name' – "Preset Name"	Overwrites the settings of the loaded preset (whether a User Preset or a preset from a Setup File) with the current settings. If a Setup File is currently loaded, the name of the Setup File is displayed followed by the name of the preset itself. If a User Preset is loaded, its name is displayed.
Save to 'File Name' As…	Saves the current settings as a new preset into the Setup file that is open (if one is not open, the option is grayed out). You will be prompted to give the preset a name.
Put into Preset Menu As…	Save the current settings into a User Preset that will always be in your Load menu (until deleted). You will be prompted to give this preset a name. User Presets are stored in the plugin's preference file.

Please note: Special characters (such as: !, @, #, %, ^, etc.) are not supported in preset names.

Deleting Presets

You may delete User Presets and presets within a Setup File. Factory Presets and Setup Library files cannot be deleted or overwritten.

1. Hold the Command (Mac)/Control (PC) key down.
2. Click-and-hold the Load button to see the pop-up menu.
3. While still holding the Command/Control key, select the preset or setup to delete.
4. A confirmation box will appear, allowing you to cancel or 'OK' the deletion.

A/B Comparison and Copying

The Setup A/Setup B button may be clicked to compare two settings. If you load a preset in the Setup B position, this will not affect the preset loaded into the Setup A position, and vice-versa.

If you want to slightly modify the settings in Setup A, you can copy them to Setup B by clicking on the Copy to B button, then alter Setup A and compare with the original Setup B.

The name of the current setup will be shown in the title bar (on platforms which support it), and will switch as you change from Setup A to Setup B.

Note: an asterisk will be added to the preset name when a change is made to the preset.

4.3 Interface Controls

Controls can be in one of three states:

- **Not Selected** where the control is not the target of any user entry
- **Selected** where the control is the target of mouse control entry only
- **Selected and Active** where the control is the target for both mouse and keyboard entry

Toggle Buttons

Toggle buttons display the state of a control, and allow switching between two or more states. **Single-click** to change the control's state. Some toggle buttons have a text display which updates with the current setting, and others (bypass, solo, or monitoring toggles) illuminate when the control is active.

Some plugins have **link buttons** between a pair of toggle buttons, allowing click-and-drag adjustment while retaining the offset between the controls.

Value Window Buttons

Value windows display the value of a control and allow **click-and-drag** adjustment, or **direct control via the keyboard**.

- **Using the mouse**, click-and-drag on the value window to adjust. Some value windows support left/right, some up/down (as you hover over a button, arrows will appear to let you know which direction of movement that button supports). You may also use your mouse-wheel to adjust parameter values.
- **Using the arrow keys**, click once with mouse to select the button, and then use up/down – left/right (depending on the direction supported by that button) to move in the smallest incremental steps across the button's range (holding down the arrow keys will move faster through the range).
- **Using key entry**, double click on the button to open the value window, and directly enter the value from your keyboard. If you enter an out of range number, the button stays selected but remains at the current setting (system beeps? If system sounds are on?)

Some plugins have **link buttons** between a pair of value windows, allowing click-and-drag adjustment while retaining the offset between the controls.

Sliders

Click or scroll the mouse-wheel on the slider itself or anywhere within the sliders track. The numerical value of the slider settings is displayed in a hover window above the slider path.

Hover Box

Hovering boxes will appear and display the control value when hovering with the mouse over the control.

Multiple Control Selection

One of the most powerful features of the WaveSystem is the ability to select and adjust multiple controls simultaneously. Using the mouse, drag-select the desired group of buttons or graphic controls by clicking and holding at a point outside the controls, and forming a rectangle that includes the controls you wish to adjust. Alternatively, press and hold Shift while clicking the mouse on any control you wish to link. This method is useful when you want to select two or more controls that are not adjacent to one another.

TAB Functions

TAB moves the 'selected' status to the next control, with shift-TAB moving in the reverse direction.

Additionally, the Mac has an option-TAB function for 'down' movement and shift-option-TAB for 'up' movement where applicable.

If you have several Value Window Buttons selected, TAB functions will take you through the selected controls only.

Hitting Esc or Return will return the 'focus' to the DAW application.

4.4 Waves Preferences (Pro Tools only)

When launching Pro Tools, hold Shift to view the Waves plugin Preferences window. The following options are available:

- Don't use AudioSuite plugins
- Don't use RTAS plugins
- Rescan all plugins
- HUI control surface support (low resolution)
- Enable single-click text entry