

TWA[®]



TM

WX-01 WAHXIDIZER

envelope-controlled fuzz

IN-FLIGHT MANUAL

TWA[®]
WX-01 WAHXIDIZER™
ENVELOPE-CONTROLLED OCTAVE/FUZZ/FILTER/WAH

Thank you for purchasing the **TWA WAHXIDIZER™**!

Inspired by the vintage **UNIVOX SUPER FUZZ**, the **TWA WX-01 WAHXIDIZER™** captures the iconic, demonic tones of that legendary blue and orange monster while simultaneously reinventing its user interface and control capabilities.

All of the crazy, crunchy, cacophonous **OCTAVE-FUZZ TONES** of the **UNIVOX** have been replicated with pinpoint accuracy.

The **FAT/SCOOP GLOBAL EQ** switch from the **SUPER FUZZ** has been moved to a footswitch, allowing the user to access two completely different fuzz tones on the fly.

For additional tonal tweaking, a **PARAMETRIC EQ** circuit has been added to allow for everything from precision fine-tuning to dramatic decomposition of the pedal's **EQ** curve.

Better yet, the **EQ**'s center frequency can be swept three different ways – **MANUALLY**, by **PLAYING DYNAMICS**, or by an external **EXPRESSION PEDAL**. This feature effectively adds an **ENVELOPE-CONTROLLED FILTER** to the **FUZZ** OR turns the pedal into a **FUZZ/WAH/OCTAVE**, depending on your control method of choice.

Caustic on **GUITAR**, crushing on **BASS**, the **WAHXIDIZER™** will turn your tone into a colossal, rusting hulk of expressive, explosive, and corrosive sound.

THE HISTORY:

The first thing I thought when I heard the **BEASTIE BOYS'** 1990's classic '**GRATITUDE**' was – WHAT is that F'ing Fuzz Pedal they are using on the **BASS?!??**

It wasn't until years later I ran across a photo of Adam Yauch's Bass rig, which sported a vintage, blue and orange **SUPER FUZZ** as well as a **DNA BASS DRAGGER** (which we would eventually wind up distributing for a few years as well).

While many famous Guitarists used the **SUPER FUZZ**, it was its undeniably immense sound on Bass that got me hooked on this ancient audio artifact.

Fast forward a few decades to the twenty-teens, and let's take a look at Maxon's extremely under-appreciated **FUZZ ELEMENTS** series.

In 2013, Maxon Japan came to us with a project—they wanted to introduce a series of effects that replicated several of the most iconic vintage fuzz pedals. They had the circuit designs ready, but did not have any marketing plans for the series.

I came up with the '**FUZZ ELEMENTS**' concept, with the idea that there should be five fuzz pedals, one for each element—Earth, Air, Fire, Water, and Ether.

Maxon being—well *Maxon*—they decided to add two additional models in the form of Void and Wind to further confuse things (not really elements, but let's not split hairs).

All the **FUZZ ELEMENTS** models sounded great, but there were two that stood head and shoulders above the rest—Water & Ether. These models were designed to emulate the **TRIANGLE-KNOB BIG MUFF** and **SUPER FUZZ** respectively. However, each also had a **PARAMETRIC EQ** circuit with a selectable frequency that could be cut or boosted.

This **EQ** made these two pedals incredibly versatile, providing many additional, unique sounds beyond the trademark tones of the vintage archetypes they were designed to emulate.

The **FUZZ ELEMENTS** received critical acclaim, but for some unknown reason the sales never really took off. One writer who heaped praise on the **ETHER** was **BASS PLAYER MAGAZINE's JONATHAN HERRERA**. **JON** suggested that the pedal would be even cooler if the EQ frequency could be swept via an expression pedal.

We took that idea and ran with it, thinking ‘How about *envelope* control of the frequency as well?’ We then added a few other ‘what-if’s to our wish-list and kicked the concept over to our engineer along with an **ETHER** pedal to be Frankenstein’d into our dream device.

Once he designed an envelope detection circuit, the rest of the pedal came together fairly easily. In fact, we’ve had a prototype of the **WAHXIDIZER™** knocking around since 2017, but in 2018 we put the brakes on **TWA** for a bit to focus on the Maxon **CUSTOM SHOP**.

Pandemics also have a pesky habit of getting in the way of EVERYTHING, including pedal releases. Now that the worst of things (as well as Maxon) are in the rear-view, we’ve decided to finally get the **WAHXIDIZER™** out into the world while there’s still a world to get it out into.

We hope you dig this combustible contraption as much as we’ve enjoyed creating it.

WAHX ON, because rust *never* sleeps!”

-KEVIN BOLEMBACH
President, TOTALLY WYCKED AUDIO

The **WAHXIDIZER™** is covered by a 3 year parts and labor warranty.

For more information and to register your warranty,
please visit our website:

WWW.TOTALLYWYCKEDAUDIO.COM/WARRANTY

The **WAHXIDIZER™** is made in the USA.

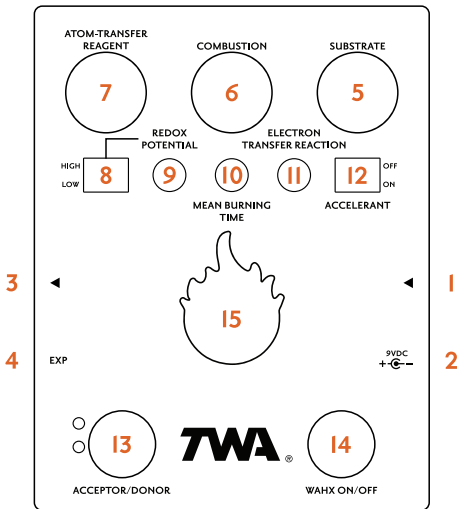
For more info on **TOTALLY WYCKED AUDIO** products,
please visit our website:

WWW.TOTALLYWYCKEDAUDIO.COM

GO GIT SUM!!!



TM



FRONT PANEL CONTROLS

1. **INPUT** – 1/4” unbalanced audio. Connect input signal here.
2. **DC In** – Connect to tip-negative 9VDC regulated power source via a 5.5mm O.D./2.1mm I.D. barrel plug with a minimum of 25mA of current available. (**POWER-ALL ECO-DAPTER** recommended)
3. **OUTPUT** – 1/4” unbalanced audio. Connect to amplifier, recording equipment, or other effects.
4. **EXP In** – 1/8” TRS. Provides treadle-based control of the frequency of the **EQ**. Connect to any standard expression pedal or to the **TWA SIDE STEP™**.

5. **SUBSTRATE** (*level*) – Controls output level of effect. Turn clockwise for more louder.
6. **COMBUSTION** (*drive*) – Controls the amount of saturation for the Fuzz Effect. Turn clockwise for more dirt/gain/sustain/pain.
7. **ATOM-TRANSFER REAGENT** (*frequency*) – Adjusts the frequency of the Parametric EQ from low (CCW) to high (CW).
8. **REDOX POTENTIAL HIGH/LOW** – Selects between two overall sensitivity settings for the envelope detection circuit to accommodate low and high signal levels.
9. **REDOX POTENTIAL** (*threshold*) – Adjusts the Threshold setting where the input signal will trigger the envelope detection circuit. Turning clockwise makes it easier to open the filter.
10. **MEAN BURNING TIME** (*speed*) – Adjusts the timing for envelope circuit to reach the peak of the filter range. Turn clockwise for a longer time to reach the filter peak.
11. **ELECTRON TRANSFER REACTION** – Adjusts the amount of Cut (CCW) or Boost (CW) to the frequency selected by **ATOM-TRANSFER REAGENT**.
12. **ACCELERANT OFF/ON** – Turns on envelope-detection circuit. Please note that when **ACCELERANT** is set to “**OFF**”, **REDOX POTENTIAL** and **MEAN BURNING TIME** controls are NOT operational.
13. **ACCEPTOR/DONOR** – Selects between Fat or Scoop Global EQ settings. Fat (**YELLOW LED**) is full frequency response, while Scoop (**RED LED**) cuts the midrange.

14. **WAHX ON/OFF** – Engages or disengages the effect. **WAHXIDIZER™** features **TWA**'s proprietary **S3™** “Shortest Send Switching”—a form of True Bypass that uses an electronic relay combined with a mechanical switch.

S3™ switching assures that the input signal travels the absolute shortest distance between input and output jacks, guaranteeing the most transparent bypass tone available.

In the event of a power loss, **S3™** switching automatically reverts to bypass mode, saving the user from embarrassing “dead air” and the need to figure out which pedal must be switched off to regain signal flow.

15. **WAHXIDIZER™ LED ARRAY** – Bright and reactive to your playing when engaged, dim when bypassed.

OPERATING THE WAHXIDIZER

- Before making any connections, set **ATOM-TRANSFER REAGENT**, **COMBUSTION**, and **SUBSTRATE** controls to their lowest (full CCW) positions. We find it best to start with the **ELECTRON TRANSFER REACTION** at noon. Make sure pedal is bypassed (**LED dim**).
- Make all the appropriate power and audio connections. The **WAHXIDIZER™** draws approx. 25mA of current when engaged.

PLEASE NOTE: When the pedal is receiving power, but is not engaged, the **LED ARRAY** will be dimly lit. This acts as a visual indicator to confirm that your pedal is receiving power. When the pedal is engaged, the **LED ARRAY** will light brightly in reaction to input signal strength/playing dynamics.

The **WAHXIDIZER™**'s Fuzz Effect functions the same in all three modes, with **COMBUSTION** controlling the degree of saturation and **SUBSTRATE** controlling the overall output level.

The **WAHXIDIZER™** also contains a powerful Parametric EQ circuit that allows for dramatic alterations to the tonality of the pedal.

There are three modes of operation for the **WAHXIDIZER's** Parametric EQ — **MANUAL, ENVELOPE, & EXPRESSION.**

MANUAL MODE –

In Manual Mode (**ACCELERANT OFF**), the **ATOM-TRANSFER REAGENT** control adjusts the frequency band that will be emphasized, while the **ELECTRON TRANSFER REACTION** control adjusts the degree of cut or boost that will be applied to that particular frequency band.

***FOR EXAMPLE:** if you wanted an extremely bright & sharp fuzz effect, then you could set both of these controls fully CW to emphasize the 1.5 kHz frequency band by +6 dB.*

PLEASE NOTE: In Manual Mode, **REDOX POTENTIAL** and **MEAN BURNING TIME** controls are NOT operational.

ENVELOPE MODE –

In Envelope Mode (**ACCELERANT ON**), the EQ frequency that is normally set with the **ATOM-TRANSFER REAGENT** control will be modulated by the input signal / playing dynamics of the user.

In this mode, several additional controls are active and acting interdependently to adjust the filter sweep.

This mode can be a bit tricky to dial in, so we have provided suggested control settings that will allow you quick access to this function. From this jumping off point, the filter can then be dialed in to-taste.

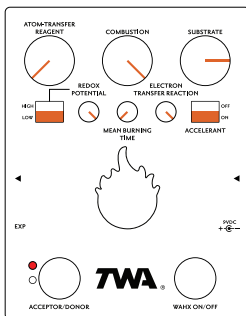
EXP MODE –

In this mode, the frequency of the EQ filter is controlled by the sweep of an external Expression Pedal (*not included*) connected at the **EXP** jack.

This function is accessed while in the Envelope Mode (**ON**) setting of the **ACCELERANT** control.

All controls may be set the same/similar as in Envelope Mode described above, except for **MEAN BURNING TIME**, which should be set full CCW in order to achieve the smoothest frequency sweep via expression pedal.

SAMPLE SETTING:

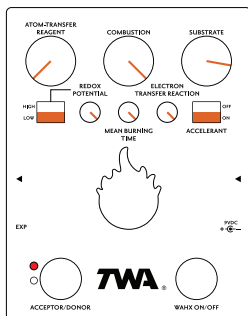


All these control settings can be adjusted to taste.

- Don't forget to write down any cool settings so you don't forget!
We threw some extra space in the back for you to use.

- ♦ **ATOM-TRANSFER REAGENT** – Set full CCW in order to achieve the widest “low to high” sweep from the EQ filter. Turning clockwise will allow you to move the starting frequency of the filter sweep into the midrange or even high frequency bands.
- ♦ **REDOX POTENTIAL** – This control adjusts the threshold input signal strength required to open the filter. Setting full CW with allow the filter to open easily, and then this control can be dialed back to adjust to playing dynamics. The RP High-Low switch provides two different threshold ranges for high & low input signals.
- ♦ **MEAN BURNING TIME** – This control adjusts the speed at which the filter will rise to its peak frequency. Set CCW for a quick rise, and turn CW for a slower, chewier filter sweep.
- ♦ **ELECTRON TRANSFER REACTION** – This control normally adjusts the degree of cut/boost for the EQ. In Envelope Mode, its function is similar to a “Peak” control on an envelope filter. Turn CW for a brighter, sharper filter sweep.

SAMPLE SETTINGS:



All these control settings can be adjusted to taste.

FLIGHT DATA

CODE NAME: WAHXIDIZER™ v1.0

FUNCTION: ENVELOPE-CONTROLLED
OCTAVE/FUZZ/FILTER/WAH

POWER: 9-volt DC, tip-negative polarity input
2.1 mm ID barrel connector
Reverse polarity protection
Heavy DC filtering
Over-Current protection
Heavy bias voltage filtering
Current draw: <25mA

AUDIO: FET follower buffer: 10M ohm input impedance
Max gain: +5dB (EQ B/C flat)
Variable state bandpass filter:
150Hz-2.1kHz frequency range
Cut/Boost range: -/+6dB (0 dB at 12 o'clock)
Output buffer: 1K ohm output impedance

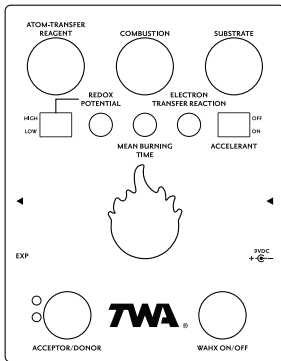
SWITCHING: Mechanical true bypass (3PDT)
Gain boost rear-mounted mini-switch
Fat/Scoop global EQ footswitch

INDICATORS: Oxidation symbol LED array
CV indication of input signal level

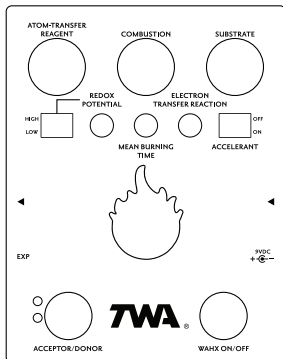
- On = bright LED
- Bypass = dim LED
- No power = dark LED

Fat global EQ LED indicator (yellow LED)
Scoop global EQ LED indicator (red LED)

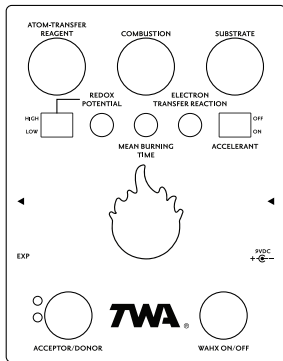
CONNECTORS: Input / Output (1/4")
External **EXP** for **Atom-Transfer Reagent**
(1/8" TRS)
Power (2.1mm ID / 5.5mm OD Barrel)



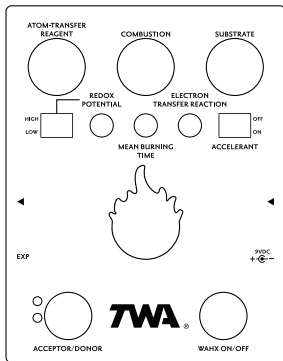
USER SETTING: _____



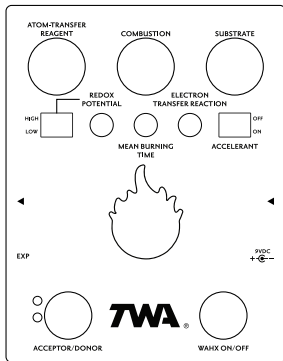
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USER SETTING: _____



USER SETTING: _____



USER SETTING: _____



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The way of the future...