

Copy No. 13

THE EXPANSE

New Crew
Handbook

MAS
EFFECTS



I don't think the human race will survive the next thousand years, unless we spread into space. There are too many accidents that can befall life on a single planet. But I'm an optimist. We will reach out to the stars.

– Stephen Hawking

Your Planet **THANKS YOU**

Welcome to the crew! Your daring spirit and dedication to the mission will be commemorated by humanity forever. We know not what adventures await us in the expanse, and though its perils will surely test our limits, its bounties will supply the lifeline we need.

If you have any questions or run into any problems, please don't hesitate to ask.

Mark A. Stratman
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BACKGROUND

Harmonic Tremolo

Unlike regular tremolo, which raises and lowers the volume, a harmonic tremolo pans between a low pass filter which cuts high frequencies, and a high pass filter which cuts low frequencies.

The sound is ever-present, never cutting out, giving it a less jarring, more fluid vibe.

An Actual Labor of Love

I wanted a pedal with intoxicating sounds I can jam on and experiment with for hours. One that I personally love. It has been a VERY long time coming and went through absurdly more revisions than any pre-release pedal should, but I knew what started as a simple and wonderful pairing of delay and harmonic tremolo could be crafted into so much more.

When I was finally thrilled with the results, I sent prototypes to a bunch of musicians who generously put it through its paces. They had ideas to make it even more versatile, but were delighted and found great joy in playing through it. Their excitement convinced me to take every bit of feedback to heart and I went through months of further iterations.

I'm incredibly thankful for the time and energy these folks put into making this pedal what it is today. What started as a personal passion-project is now filled with the love of so many kind and wonderful players.

I hope The Expanse brings some joy and fun to your playing.



QUICK START

1. OUTER SPACE - first choose one of 3 modes
2. WARP - then choose one of 3 voices
3. Everything else - experiment and dial it in



TOUR

Expression:
WIDTH

Expression:
VELOCITY or EXPANSE

OUT

9V DC

IN



WIDTH



VELOCITY



EXPANSE



VASTNESS



VOLUME



BLEND



OUTER
SPACE



WARP



VAST EXPANSE



BYPASS

CONNECTIONS

Power: 9V DC
2.1mm center negative

Current draw: 70mA to 110mA
(depending on LED brightness, set with internal trimmer)

In: Guitar signal. 1/4" mono (TS) cable

Out: Affected signal. 1/4" mono (TS) cable

Expression Jacks

The WIDTH, VELOCITY, and EXPANSE knobs can be controlled with an expression pedal. The MAS Effects Desktop Expression Slider works great, but you can use most TRS expression pedals.

IMPORTANT: You must use a stereo (TRS) cable.

The right jack (*labeled "VELOCITY"*) can control either VELOCITY or EXPANSE. To toggle its function, unscrew the back plate to find a slider switch.

When controlling EXPANSE, the expression pedal will disable and take the place of the VAST foot switch, and is not constrained by the MAX VAST knob.

CONTROLS

WIDTH Sweeping range of the tremolo
(on bottom 2 OUTER SPACE settings)

or Spacing between echoes
(on upper OUTER SPACE setting)

VELOCITY Speed of tremolo sweep

EXPANSE Amount of atmospheric ambience

VASTNESS Amount of space added when pressing
(unlabeled knob) the VAST EXPANSE foot switch
(Interactive with EXPANSE. e.g. Higher EXPANSE settings make this more responsive. Experiment to get a feel for it)

VOLUME Overall effect level. Gives up to 2x boost to compensate for the perceived drop in volume from tremolo

BLEND Mixes dry and wet signals

OUTER SPACE Sets the mode of the pedal:
(3-way switch)

DOWN: Harmonic tremolo only.
EXPANSE is disabled

MID: Adds expansive reverb

UP: Adds echoing feedback

WARP

(3-way
switch)

Selects between different voices:

DOWN: Sensible and beautiful harmonic tremolo

MID: Slightly more severe, with different frequencies on the high and low pass filters, and more resonance

UP: The low frequency oscillator (LFO) not only pans between the filters, but also shifts their frequencies.

The **WIDTH** knob has a much bigger impact on the sound than in other **WARP** settings as it also shifts the resonance



VAST EXPANSE

(foot switch)

Temporarily pushes the **EXPANSE** beyond its limits

BYPASS

(foot switch)

- Tap to toggle between engaged and bypassed (*true bypass*)
- Hold to temporarily toggle, the release to switch back
- Hold while connecting power to toggle whether the pedal is engaged or bypassed on power up.

Internal Trimmers

An internal trimmer sets the ceiling of the **EXPANSE** knob.

Another sets the LED brightness, which can reduce power consumption if needed.

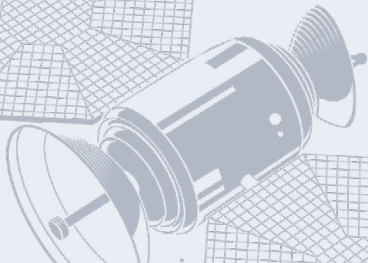
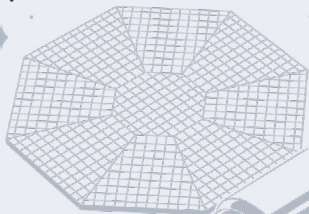
TIPS

1. **“All the knobs in the middle” isn’t the best strategy for this pedal.** You’ll often want to dial in around the edges. e.g. the upper quarter of the VOLUME will keep it between 1x and 2x. And when you don’t want ridiculous levels of reverb, the EXPANSE knob is best in its lowest quarter of turn.

See the *“On Earth”* example in the next section for a practical starting point. And on that note...

2. Flip the WARP and OUTER SPACE switches down and you have a sensible, beautiful, harmonic tremolo pedal that is **great for day-to-day use**. Think of the EXPANSE and high WARP settings as a bonus.

3. Keep the input signal at typical instrument levels to avoid unpleasant distortion. Running a **boost before this pedal is not recommended**.





4. When getting to know this pedal, keep the **BLEND** knob at the max.

But once you have a feel for how each setting sounds, **make liberal use of BLEND**. At first it may seem redundant with **WIDTH**, but while **WIDTH** can narrow the filtered result, **BLEND** will let the full-frequency clean signal ring through. They each alter the perceived severity of the tremolo effect, but in different ways with complimentary results.

To really hear the difference, try the **WARP** switch up, max **WIDTH** (i.e. a very severe, almost “wah” sound) but then turn down the **BLEND**. You can find some fantastic textures this way.

EXAMPLES

On Earth



WIDTH VEL EXP



VOL BLEND



OUTER
SPACE



WARP

*turn off OUTER SPACE
to disable reverb*

Peaceful Abyss



WIDTH VEL EXP



VOL BLEND



OUTER
SPACE



WARP

Entering the Expanse



WIDTH VEL EXP



VOL BLEND



OUTER
SPACE



WARP

*use VAST to freeze and
hold notes*

Bouncing Around the Astroid Belt



WIDTH VEL EXP



VOL BLEND



OUTER
SPACE



WARP

*WARP up for a
bumpier ride*

Untethered



WIDTH VEL EXP



VOL BLEND



OUTER
SPACE



WARP

Through the Wormhole



WIDTH VEL EXP



VOL BLEND



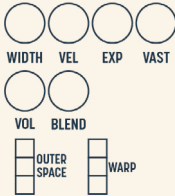
OUTER
SPACE



WARP

thanks: @just.megan11

NOTES

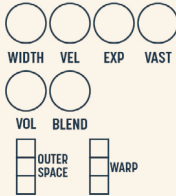


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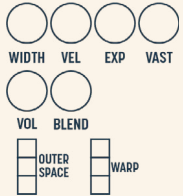


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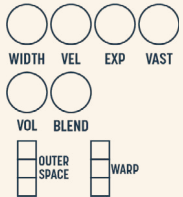


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FOREVER WARRANTY

MAS Effects pedals carry a lifetime warranty. It doesn't matter whether you bought new or second hand, we stand by this pedal.

The warranty covers manufacturing defects, mechanical failures, or electrical failures that occur during normal use (*which is determined at our very reasonable discretion*). If the problems occur within 120 days of original purchase, we'll even provide a shipping label.

The warranty does not cover cosmetic damage, liquid damage, incorrect power supplies (*reverse polarity or incorrect voltage*), or excessive abuse. If you have one of these problems, we can still help! You'll simply need to cover the costs (*also very reasonable*).

To start a repair visit mas-effects.com/contact or email help@mas-effects.com

NOTICE

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

SUPPORT

visit

mas-effects.com/contact

or email

help@mas-effects.com

with any questions or problems.

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