chase bliss

A field guide to
Onward

Table of Contents

9V DC
⊕─⊖─⊖   **Power req: 9V DC Center Negative ~200 mA**

Overview

ONWARD!

Do not get stuck in one place.

Onward is a dual effect that moves when you do, using the sounds you play to create rich musical landscapes that exist for but a moment in time.

And then onward.

(Actually you can preserve them but we'll get specific later).

It's made up of two parallel channels:

① **repeating glitch**

② **sustaining freeze**

Each channel captures a sample of your audio that is then run through Onward's various sections to bring it to life.

You will find layered accompaniment.

Swelling synthetic reimaginings.

And a whole heap of glitching dreamscapes.

If you play something gentle, it will too. Get a little wild and it will be right there with you. Onward is a fluid effect that adapts to the moment and your decisions.

And we're going to learn how to use it now.

Setup

Let's get Onward settled into your environment. If you're experienced with pedals, you can probably ignore this bit and dive right in.

POWER
Onward requires a 9V DC center negative power supply with at least 200 mA of current.

You'll see this symbol on your power supply:

I / O
Onward can be used in mono, stereo, or mono to stereo. The default setting will automatically work for either mono or stereo:

Mono in, mono out

TS CABLE

Stereo in, stereo out

TRS CABLE

Many stereo devices use dual mono jacks, so you may need a TRS to dual TS-style cable.

If you have a mono input and want to split it to stereo output, turn on the **MISO** dip switch.

And if you want unique stereo processing, turn on the **SPREAD** dip switch (pg. 40).

OPTIONS
Onward has lots of ways to customize and fine-tune your experience. If you'd like to get right into all that, check out:

- Hidden Options (pg. 14-19)
- Customize (pg. 40)
- Ramping (pg. 42)
- External Control (pg. 44)

If you don't want to get into all that, it's probably best to start with all dip switches other than **LATCH** in the off position.
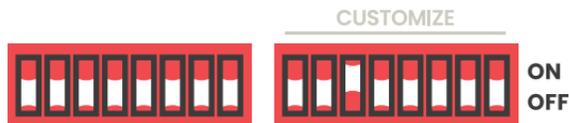
Okay let's get started.

Getting Started

We're going to go on a little guided tour.

SIZE   **MIX**   **OCTAVE**

ERROR   **SUSTAIN**   **TEXTURE**

TYPE   **FADE**   **ANIMATE**

Turn on the Freeze and play a note. You should have a soft, floating pad. Play a few more notes and notice how it follows along.

Now let's mess with it.

TEXTURE

Turn down **TEXTURE** to add a bit of digital seasoning.

OCTAVE

Turn up **OCTAVE** to blend in a harmonizing voice.

And flick the **ANIMATE** toggle to get things moving.

GLITCH

Now turn on the Glitch and play some more. Leave pauses between phrases to hear what Onward does with your playing.
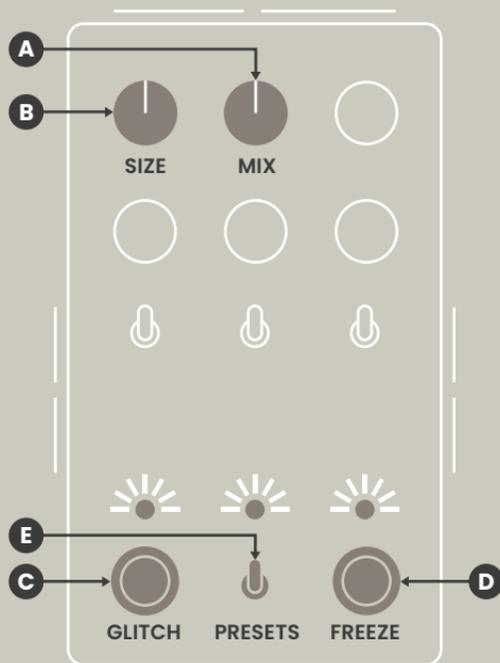
GLITCH

Once you hear something you like, hold down the Glitch footswitch. Now the Glitch will give you a repeating phrase to play along to, but the Freeze continues to follow you.

ERROR

Finally, turn up **ERROR** and watch the beautiful scenery fall apart.

Okay, let's talk about what's happening.

General Controls

Blend, engage, recall.

A **MIX**
Sets the balance between your input signal and Onward (controls both Freeze and Glitch). If ramping is engaged (pg. 42), this knob's function will change to control the ramping speed.

B **SIZE**
Sets the length of the Glitch and the overall timing of Onward's various parts. **SIZE** will also control the subdivision when MIDI is clock-synced.

C **GLITCH**
☀ Tap to engage the Glitch effect.
☀ Hold to lock and preserve the current sample.

D **FREEZE**
☀ Tap to engage the Freeze effect.
☀ Hold to lock and preserve the current sample.

E **PRESETS**
The left and right positions each store a preset, while the middle position is live (current settings). To save to the right slot, hold the right footswitch for 3 seconds, then add the left footswitch for another 3 seconds. Do the same for the left slot, but start by holding down the left footswitch. The middle LED will blink to indicate success.

Effect Controls
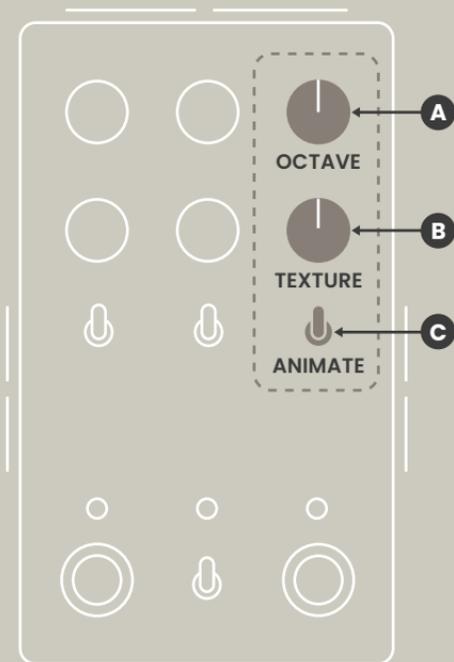
Harmonize, excite, drift.

OCTAVE, TEXTURE, and **ANIMATE** combine to form the Effect section.

A **OCTAVE**
Blends in an additional voice that is either half or double speed. The left half of the knob brings in a half speed, lower octave voice, and the right half brings in a double speed, upper octave voice. At noon **OCTAVE** is disabled.

B **TEXTURE**
Pushes Onward into digital or analog-style distortion to introduce some grit. You will find overdrive on the right half of the knob's sweep and sample rate reduction on the left. At noon **TEXTURE** is disabled.

C **ANIMATE**
Can be used to engage two different types of movement.

VIBRATO - Speed set by the **SIZE** knob.

NONE

CHORUS - Always set to a slow, atmospheric speed.

Shape and Error Controls
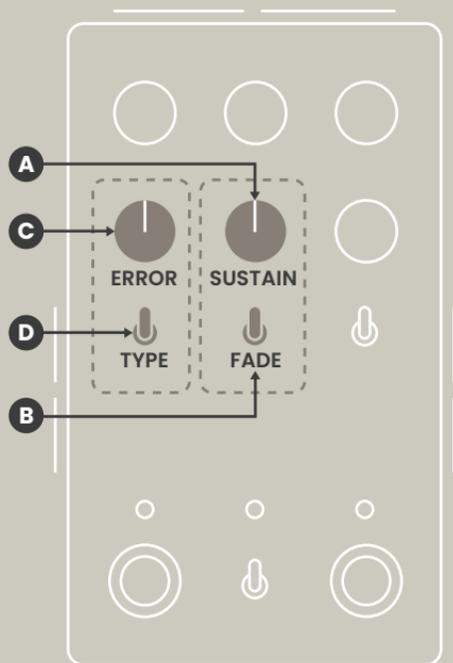
Swell, stumble, surprise.

A **SUSTAIN**
Determines how long sounds will hold before fading away. Lower settings can be used to create short blips, strange echoes, and synth-like effects. At max the sustain is infinite and will hold until you trigger a resample.

B **FADE**
Sets how quickly sounds fade in and out.

  ↘ **SLOW** - Soft and swell-y.

  ● **USER** - Whatever you like, set in the Hidden Options (pg. 15).

  ↳ **FAST** - Immediate and responsive.

ERROR

C **ERROR**
Sets the likelihood of an error occurring as well as its intensity, in some cases (pg. 34).
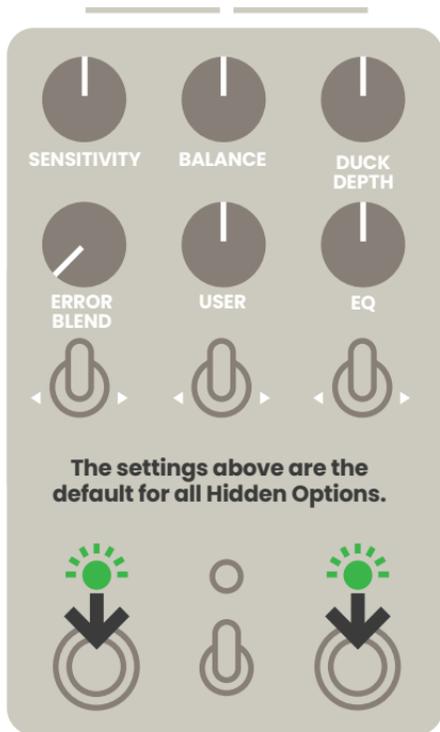
D **TYPE**
Selects the type of error.

  ▦ **TIMING** - Changes the sample size.

  ⬝ **CONDITION** - Introduces mutes and sample rate shifts.

  ⇄ **PLAYBACK** - Destabilizes playback speed and direction.

The timing of Shape and Error are both linked to the **SIZE** setting.

Hidden Options

The settings above are the default for all Hidden Options.

HIDDEN OPTIONS
Hold both footswitches down to adjust the Hidden Options. The LEDs will light green.

SENSITIVITY
Sets how easy it is to trigger Onward with your playing dynamics. Around noon will work best in most cases.

BALANCE
Adjusts the relative loudness of the two channels.

DUCK DEPTH
Controls the sensitivity and intensity of the ducking and sidechain effects (pg. 41).

USER
Allows you to set a custom value for the middle **FADE** position.

Hidden Options continued

‹ ROUTING ›
Each toggle gives you the ability to isolate its related section, applying it to only one channel or the other. They all work like this:

Only affects Glitch

Affects both channels

Only affects Freeze

‹ TYPE ›
Errors will only apply to one channel. The other will be stable.

‹ FADE ›
SUSTAIN and FADE will only apply to one channel. The other channel will have infinite sustain and fast fade.

‹ ANIMATE ›
OCTAVE, TEXTURE, ANIMATE, and EQ will only apply to one channel; the other will be clean.

There are also a couple *hidden* Hidden Options.

ERROR BLEND
Lets you blend in the other two unselected error types so that you can get a mix of all three. The ERROR knob still controls the overall chance of an error, and the hidden option sets the likelihood that it will be one of the unselected types.

ERROR
MORE

EQ
Rotate clockwise to remove low frequencies and thin out the signal. Rotate counter-clockwise to remove high frequencies and to darken the overall signal.

TEXTURE

←⌐X3

To reset all the Hidden Options to their default setting, flip the preset toggle to the left position and back to center three times. Once you see the blinking lights, press both footswitches at the same time to confirm.

Hidden Gestures

There are also a few Hidden Gestures.
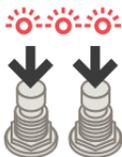
TAP TEMPO
If you want to sync things manually, you can! Tap both footswitches twice to put Onward into tap tempo mode, you'll know you're there when all LEDs start blinking red. Use the left footswitch to tap in your tempo, and the right footswitch to exit tap tempo mode.

GLITCH

DRY KILL
If you'd like to remove the dry signal from the output (useful for wet/dry setups) – hold the **GLITCH** switch down while powering up the pedal. This preference will be remembered in the future.

FREEZE

TRAILS
If you'd like Onward's effects to smoothly fade away when bypassed, engage trails by holding the **FREEZE** switch down while powering up the pedal. This will be remembered in the future.
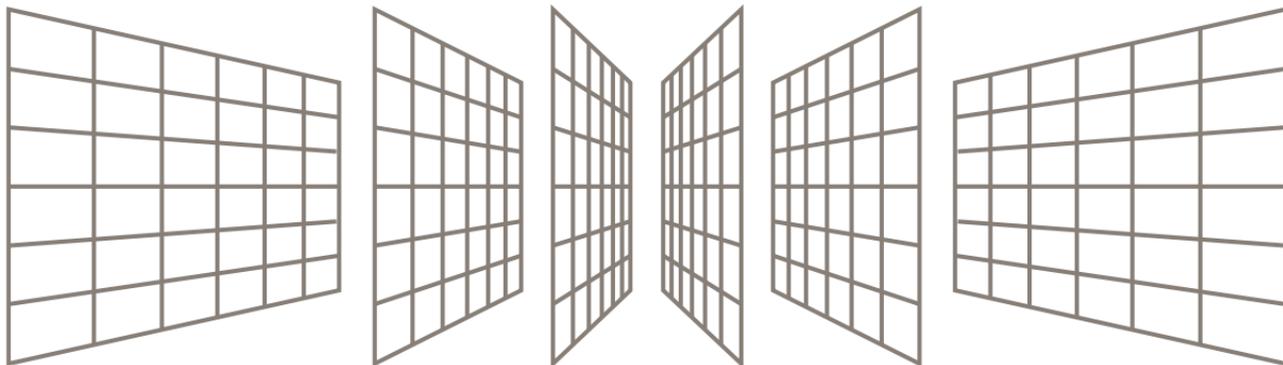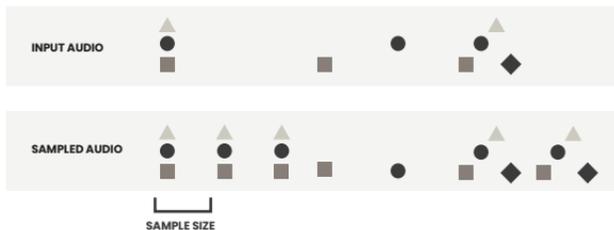
Onward 101

There are a couple simple concepts that make everything else easy to understand.

DYNAMICS
Onward is primarily a dynamic effect.


INPUT AUDIO

SAMPLED AUDIO

SAMPLE SIZE

Whenever Onward detects sound at the input, it samples that sound. If there was already a sample, it replaces it – sounds within Onward do not stack but are instead always changing and moving forward. This is true for both channels.

You do have the option to lock in either channel by holding down its footswitch so that it will preserve the current sound instead of resampling. This makes it possible to have one channel be dynamic and the other steady.

TOGETHER OR SEPARATE
Onward is made of two channels run in parallel.

INPUT

FREEZE

GLITCH

SAMPLE SIZE
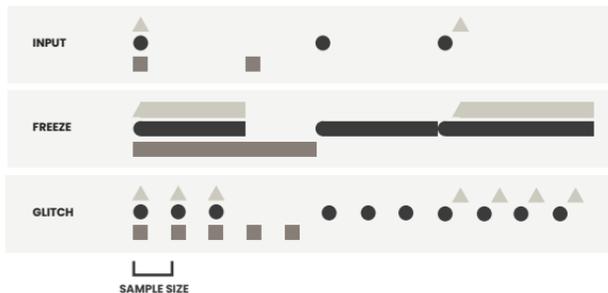
They sample the input at the same time, but into their own memory. You can process them independently and treat Onward like two effects in one enclosure, or combine them into one mega-effect. Or a bit of both.

TOGETHER:
- Both channels follow your dynamics and sample at the same time.
- Both channels are processed by every section by default.
- You can sidechain the Freeze channel to the Glitch channel (pg. 41).
- You can have both channels duck in volume as you play (pg. 41).

SEPARATE:
- You can route Onward's sections to one channel or the other (pg. 38).
- You can lock a channel so that its sample is preserved, while the other continues to be dynamic.
- You can use **MANUAL** mode to control sampling of each channel independently via its footswitch (pg. 41).

Freeze

Onward's Freeze channel captures and sustains a single moment in time.

It can be used to make droning background ambience, or a supportive harmonizing voice, or to turn your instrument into a synth.
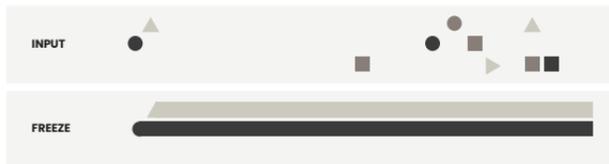
Onward will automatically freeze a note whenever you play.

INPUT

FREEZE
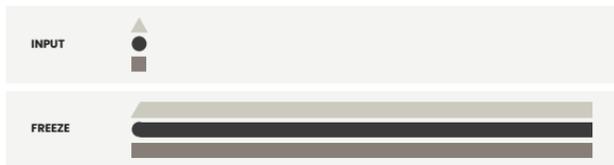
When you play another note, it will resample and replace that sound.

INPUT

FREEZE

At any time you can hold the footswitch to lock in the current sound, so you can play freely overtop without replacing it.

INPUT

FREEZE

If you prefer a more traditional, footswitch controlled freeze, that's an option, too. Simply turn on the **MANUAL** dip switch (pg. 41). Now Onward will ignore your dynamics and only resample when you press the footswitch.

YOU GET WHAT YOU GIVE
Softer and sparser playing will give you smooth, shapeless sounds, while faster and more intense playing will lead to spikier sounds with audible repetition. With a bit of practice you can use your playing to steer the Freeze back and forth between these different timbres.

Freeze Ideas

SUB SYNTH

OCTAVE   SUSTAIN

Turn Onward into a doomy synth that follows along and fills out the lower register. As long as **OCTAVE** is at the minimum position, the rest is up to you. Experiment with **FADE, TEXTURE,** and **ANIMATE.**

### LIVING PAD

FREEZE   ERROR

Hold the Freeze footswitch down to lock in an infinite pad – the classic freeze effect. Now experiment with different **ERROR** settings to introduce motion and variance to bring that pad to life.

INSTANT ENO

SIZE   MIX   OCTAVE

ERROR   SUSTAIN   TEXTURE

TYPE   FADE   ANIMATE

This setting will turn any sounds that you play into a sprawling ambient composition. Play slowly and be patient; it will take awhile for your new samples to fade in.
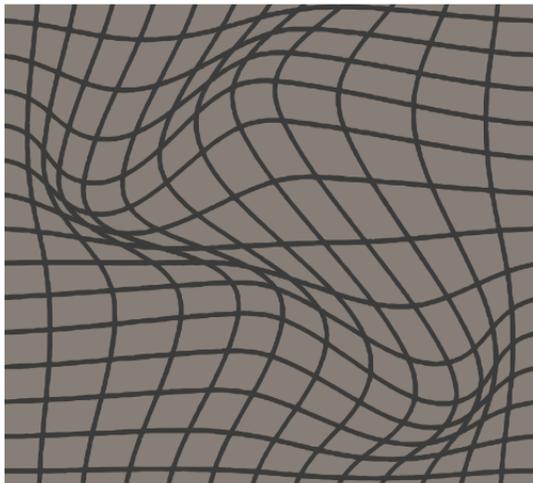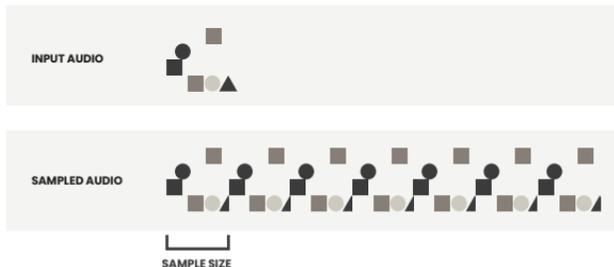
Glitch

Onward's Glitch channel samples and repeats small chunks of audio.

It can make dynamic loops, strange echoes, and of course, glitches.

Onward will automatically sample a phrase whenever you play.

INPUT AUDIO

SAMPLED AUDIO

SAMPLE SIZE

It will begin sampling as soon as audio is detected, and continue until it hits the end of the recording length. This means the first note you play will be the first note in the sample, and subsequent notes will be recorded as well.

When you play again it will resample and replace the current phrase.

INPUT AUDIO

SAMPLED AUDIO
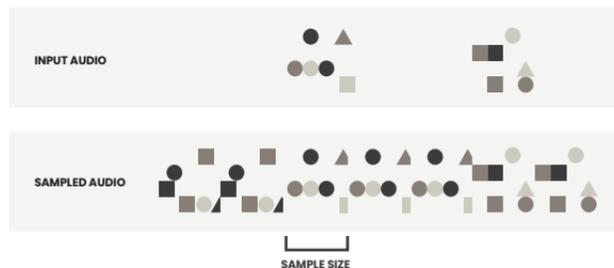
SAMPLE SIZE

The length of the sample is controlled by the **SIZE** knob, with a max record time of one second.

You also have the option to lock in a sample by holding the Glitch footswitch. Now you can play overtop and experiment with different settings and the sample will be safely preserved.

HALF SPEED
If you're finding the size of the samples a bit short for your liking, turn on the **½ SPEED** dip switch (pg. 41). This will double the sample size, and introduce a slightly lo-fi audio quality.

Glitch Ideas
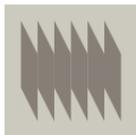
AUTO-REPEATER

🔘 **SUSTAIN** 🔘 **FADE**

A classic repeater effect that will sample and infinitely loop each note you play. A simple and fun starting point. Turn SUSTAIN down and the repeats will cleanly and instantly disappear after a chosen amount of time.

### SWELLING DELAY

🔘 **SUSTAIN** 🔘 **SIZE** 🔘 **FADE**

A vaporous pseudo-echo with repeats that gradually swell in and crossfade with one another as you play. These settings are just starters – adjust to taste.

TRUE GLITCH

🔘 **ERROR** 🔘 **TYPE**

The middle ERROR TYPE makes it easy to create more natural sounding glitches that pop in and out instead of repeating steadily. Adjust ERROR to control how broken and sporadic the glitches are.
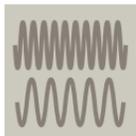
SPEEDY STARTER

🔘 **SIZE** 🔘 **OCTAVE** 🔘 **SUSTAIN**

Turn up OCTAVE to introduce a secondary, harmonizing voice that plays at 2x speed. Pairing this with Glitch produces dense phrases with rhythmic interplay that act as great launching points. Play around for a while until you hear a phrase you like, then hold the Glitch footswitch to lock it in.

Effects

The Effects section gives you three ways to modify Onward's sound.
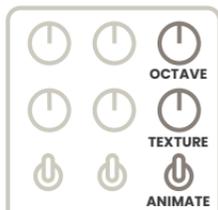
Introduce pitch shifts and harmonies.

Push things into digital or analog-style distortion.

Engage wobbly or dreamy movement.

OCTAVE

The **OCTAVE** knob blends in a second voice that is either half (octave down) or double (octave up) the speed of your input audio. You can use this voice alongside the real-time audio to add depth and harmony, or completely replace it.

TEXTURE

The **TEXTURE** knob lets you rough things up a bit. The left half of the sweep reduces the sample rate, useful for adding some sizzle and pushing Onward into the forefront. The right half is a more restrained soft-clipping overdrive with dynamic overtones and tasteful compression.

SECRET TONE
Hidden behind the **TEXTURE** knob is also a simple EQ that lets you thin out or darken the sound (pg. 17).

ANIMATE

The **ANIMATE** toggle lends Onward a bit of motion and sway. The left position engages a vibrato for some vintage warble or dissonance. The rate of the vibrato is set by the **SIZE** knob. The right position engages a chorus for increased dimension and a hazy quality. The rate of the chorus is slow and fixed.
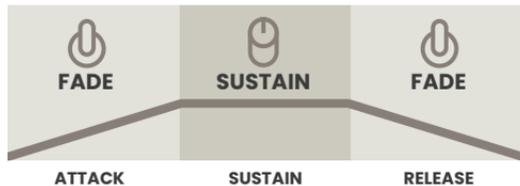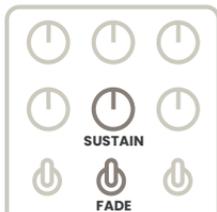
ⱽ - **VIBRATO**
✕ - **OFF**
ⱽ - **CHORUS**

Shape

The Shape section is responsible for the way Onward moves.

Gradual or abrupt.
Forever or brief.
Crossfaded or instant.

FADE — **SUSTAIN** — **FADE**

ATTACK — **SUSTAIN** — **RELEASE**

The **FADE** toggle controls the fade in and out time.
The **SUSTAIN** knob controls the hold time.

SUSTAIN **FADE**
Samples will appear instantly and hold infinitely (until resampled). Useful for a fast, close-following effect.
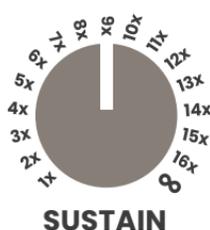
SUSTAIN **FADE**
Samples will slowly fade in and then right back out. Useful for more ambient, ever-changing landscapes.

SUSTAIN **FADE**
Samples will appear instantly, and last for just a moment. Try turning up **ERROR** and **TEXTURE** for an intense effect that quickly flames out.

A couple other helpful things to know:

The **FADE** toggle also controls the crossfade time – how long it takes for new samples to replace old ones. This means you will get fleeting moments of layering at slower **FADE** settings as old and new momentarily blend together.

SUSTAIN

The **SUSTAIN** knob can be used to select exactly how many repeats you get on the Glitch side.

(Note that **FADE** will add additional repeats, so set its toggle to the right position if you want to avoid this.)

Both **SUSTAIN** and **FADE** are linked to the setting of the **SIZE** knob. This makes it possible to get useful sounds at any size. Smaller sizes will speed up the fades and shorten the sustain.

Error

The Error section gives you three different ways to introduce randomization and variation. This will not only make the Glitch sound more organic but it means the Freeze can also get in on the fun.

ERROR

TYPE
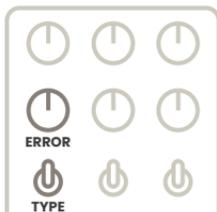
You can mess with rhythm and texture.

Insert drops and sample rate shifts.

Or destabilize speed and direction.

Or all of them at once!

The **ERROR** knob sets the chance of an error occurring.

It also controls the intensity of the errors for both Condition and Playback.

TIMING
Manipulates the length of the samples.

LEFT

RIGHT

On the Glitch channel this will create rhythmic variation and a pattern-like feeling, while on the Freeze side it will create interesting churning textures like modulating a synth.

CONDITION
Creates dropouts and playback failures, as well as momentary changes to the sample rate.

LEFT

RIGHT

Condition is a handy way to make the Glitch side more intermittent and sparse, and to add some bump and bite to the Freeze side.

PLAYBACK
Changes both the direction and speed of playback at random. Playback may become sped up or slowed down by 2x or 4x, as well as reversed.

LEFT

RIGHT

Error continued

STEREO SPREAD

Turning up **ERROR** is also the key to making Onward's stereo processing come to life. The various malfunctions will randomly occur on one channel or another to create unique stereo motion. Make sure the **SPREAD** dip switch is engaged (pg. 40).

ERROR BLEND

Turn up the hidden option under the **ERROR** knob to mix the different error types together and have all three happen at once (pg. 17).
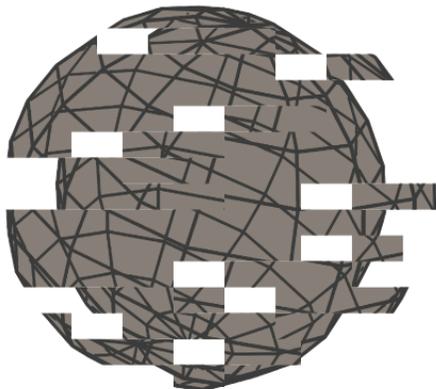
DANCING DRONE

🔘 **ERROR** 🔗 **TYPE** 🔆 **FREEZE**

Each of the errors are useful in their own way for lending a bit of motion and intrigue to a frozen sound. Having **TYPE** set to Playback will introduce momentary pitch shifts that can make a simple freeze feel like a generative composition.

UH OH

🔘 **ERROR** ◕ **ERROR BLEND**

Anything can go wrong in this setting. Each error is equally likely to occur, giving you lots of variation and surprise. Adjust the **ERROR** knob to have more or less errors overall.

TWO SIDES, TWO SOUNDS

The errors take on a different character for each channel. On the Freeze side they will generally manifest as brief blips and departures that come and go; on the Glitch side they will be longer-lasting and more rhythmic. Try isolating each channel and listening to the difference, and remember that you can route **ERROR** so that it only affects one channel and not the other (pg. 38).

Routing

Onward's routing abilities are simple to use, but they greatly increase the pedal's depth.

Each of Onward's three key sections – Error, Shape, and Effects – can be isolated to one channel or the other.

◄ **TYPE** ►   ◄ **FADE** ►   ◄ **ANIMATE** ►

This makes it possible to apply errors only to the Glitch, for example, so that the Freeze can stay smooth and steady.

To adjust the routing:

Hold down both footswitches.

Move the toggle for that section towards the channel you want to process.

Here are a couple ideas to get you started on your routing journey:

COMPLEX COUPLE

This is a special one. The various effects give energy and nuance to the Freeze channel, while the errors create motion and variation on the Glitch side. The two channels move as one, but make very different, complementary effects with loads of depth.

FRANTIC COMPANY

With these settings, and everything routed only to Glitch, you will be greeted with a wild burst of energy whenever you play a note. In between you will have the opposite – a soft, infinite freeze.
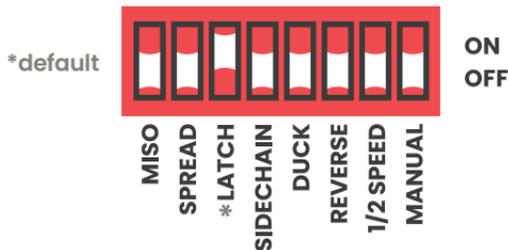
By default, each section is applied to both channels. See pg. 14 for more on Hidden Options, including how to reset to the defaults.

Customize

The white-labeled dip switches on top of Onward allow you to engage some alternate behaviors and set things to your liking.

The dip switch settings are saved with your presets.

*default   ON
                                            OFF

MISO SPREAD *LATCH SIDECHAIN DUCK REVERSE 1/2 SPEED MANUAL

MISO
Mono In, Stereo Out. Splits a mono input signal into a stereo output.

SPREAD
Turns on stereo processing to generate movement and create an expansive stereo image. **SPREAD** engages a widening effect for both channels, and stereo movement tied to the Error effects.

LATCH
Changes the hold function for each footswitch from momentary to latching, so that it will remain engaged until the footswitch is held again.

SIDECHAIN
Engages a pumping effect on the Freeze channel. The Freeze will momentarily dip in volume whenever the Glitch resets, creating a linked alternating effect. It can also be used even when Glitch is off to make Freeze rhythmic (speed set by **SIZE** knob).

DUCK
Engages a dynamic ducking effect on both channels. Onward's sounds will momentarily dip in volume whenever audio is present at the input.

REVERSE
Causes the Glitch side to play in reverse.

½ SPEED
Cuts the recording quality in half for the Glitch side. This doubles the **SIZE** setting for longer samples and introduces a slightly lo-fi quality.
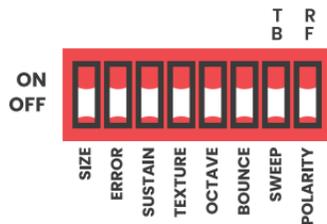
MANUAL
Deactivates dynamic control, instead allowing you to manually resample by tapping the footswitches.

TAP - Samples new audio

HOLD - Infinitely holds the current audio
       (ignoring the **SUSTAIN** setting)
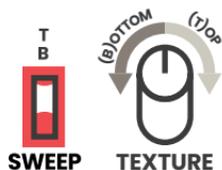
DOUBLE TAP - Disengages the effect

Ramping

Ramping gives you the ability to automate Onward's knobs, either as a one-time movement (ramp) or continuous motion (bounce).

It's easier to get started with bounce, so let's do that. We're essentially going to modulate a knob.

1. Engage **BOUNCE**.

2. Choose which knob(s) you wish to control.

3. Choose the sweep.

4. Set the speed.

Now Onward will steadily shift between digital and analog-style distortion, adding movement and increased nuance to the effect. The position of the knob you're controlling is important, because it either sets the maximum or minimum point of the range (depending on the **SWEEP** setting).

Ramp is the same idea, but the movement only happens once when you turn the pedal on. Your chosen knob(s) either rise or fall to the position set by the knob, then stay there. Useful for creating a wave of motion and activity when you first turn Onward on.

Check out the Dip Switches 101 guide on our website for a step-by-step on ramping.

Ramping is engaged as soon as the dip switch for a corresponding knob is set to ON. At this point, the **MIX** knob automatically changes to control the ramp speed. You can still adjust **MIX** while ramping by holding down the left footswitch as you move the knob.

External Control

Onward is compatible with MIDI, CV, clock sync, expression, and external footswitch.
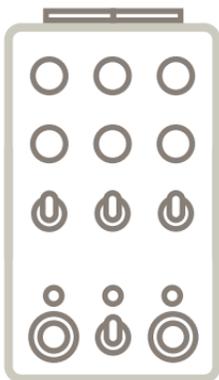
CV range = 0-5V (higher voltage or any negative voltage can damage the pedal).

**MIDI / ⟶
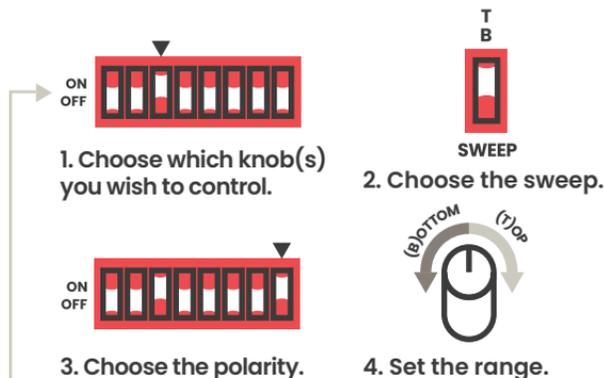EXT GLITCH**

⟵ EXP/CV

CV: floating ring TRS to TS cable

EXP: TRS cable

CV and expression can be used to control Onward's knobs.

MIDI lets you go deeper and control everything, including clock sync, the Hidden Options, and the dip switches.

CV and expression are set up the same way as ramping using the dip switches on the top of the pedal. The pedal will simply detect a CV or expression signal when you plug it in and hand over control.

**ON
OFF**

1. Choose which knob(s) you wish to control.

**T
B**

SWEEP

2. Choose the sweep.

**ON
OFF**

3. Choose the polarity.

(B)OTTOM (T)OP

4. Set the range.

If you plug in a CV or expression signal but engage none of the knobs, you will have control over **MIX**.

MIDI requires a Chase Bliss MIDIbox to convert the signal to a ¼" TRS jack. For details on getting MIDI going with Onward, check out the MIDI manual.

The MIDI jack can also be used to engage Onward's Glitch effect with an external footswitch. Useful for tabletop setups. Plug any normally-open momentary footswitch in and you're all set, it takes control automatically.
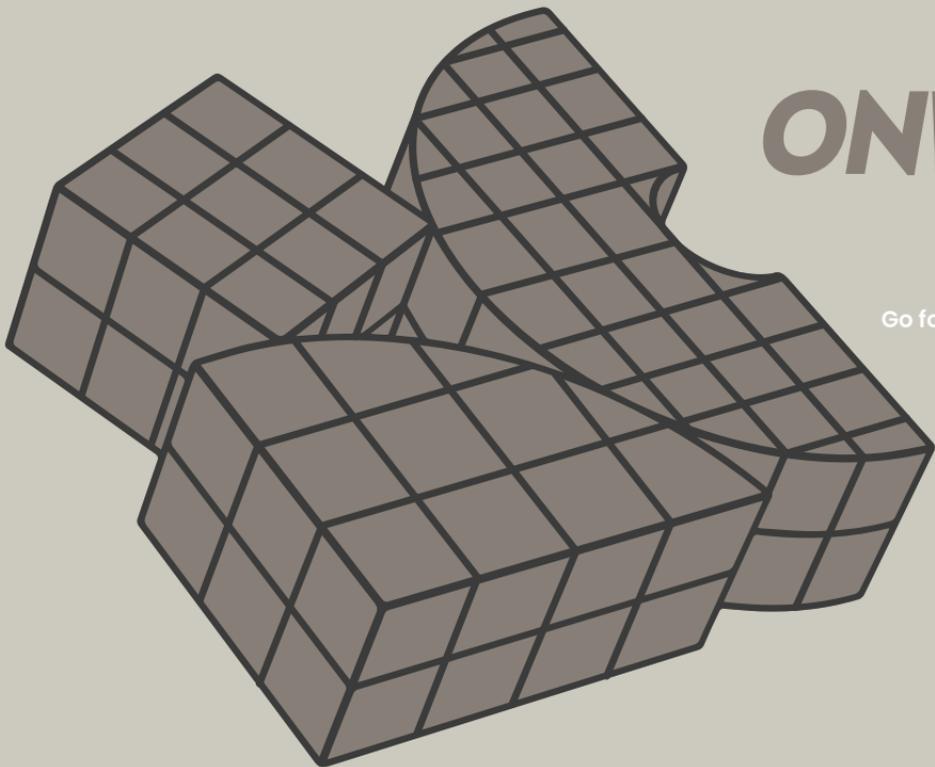
ONWARD!

You're ready.
You know everything.
Go forward and see what you find.

Write us here any time if
you have any questions:
help@chasebliss.com

We're happy to help.

Have fun!