



PLUS PEDAL II

ULTIMATE SUSTAIN TOOL
FOR ALL MELODIC
INSTRUMENTS

USER'S MANUAL

1

THANK YOU FOR PURCHASING THE PLUS PEDAL II

For more than ten years, Gamechanger Audio has been working toward one goal: building new tools that expand the ways musicians can interact with sound.

Sometimes that means finding a fresh approach to a familiar musical function, and sometimes it means developing a completely new method of sound synthesis.

It all started with the original PLUS Pedal, and since then, our search has taken us through high-voltage distortion, optical spring reverb, electromechanical synthesis, pitch-controlled motor oscillators and a whole family of pedals that respond to pitch and dynamics. PLUS Pedal II picks up where that journey began and carries it into its next chapter.

At its simplest, PLUS Pedal II is the ultimate sustain tool for melodic instruments, letting you stretch almost any note, chord or sound into a continuous layer of sustain.

Use it like a piano's sustain pedal to connect notes and harmonies, build accompaniment underneath your own playing, or bridge the gap between melodic and harmonic performance. And when you're ready to go further, the same idea opens up drones, evolving textures, layered harmonies and experimental sound design.

At the heart of PLUS Pedal II is our new Real-Time Spectral Sampling engine, working together with the intelligent Auto Layer Catch system and a beautiful and expressive brass foot-pedal.

Place PLUS Pedal II at the beginning of your signal chain and start playing. Whether you're holding a single chord under a melody or building a slowly shifting wall of sound, we hope it opens up new musical worlds for you and becomes a lasting part of how you create...

HOW DOES PLUS PEDAL II WORK?

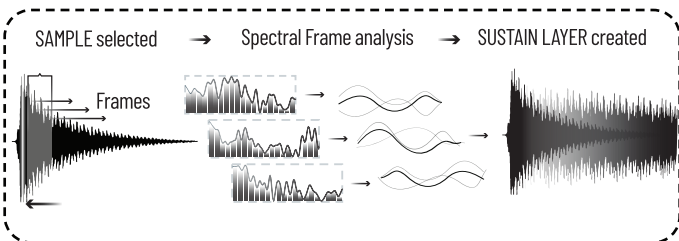
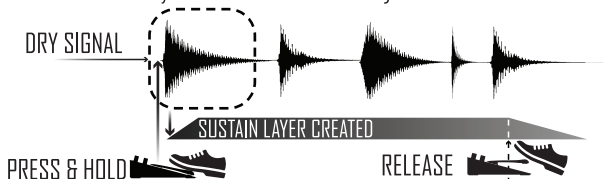
At the heart of PLUS Pedal II is a proprietary sound reconstruction engine that we've called Real-Time Spectral Sampling — a new approach to capturing and sustaining the sound of virtually any melodic instrument.

The incoming signal produced by your instrument — the DRY signal — is continuously analyzed at the spectral level, including its dynamics, pitch, harmonics and timbral character. This detailed analysis takes place at all times, keeping the PLUS II sustain engine ready to spring into action the moment the brass foot-pedal is engaged.

When the brass foot-pedal is engaged, PLUS Pedal II uses this continuously gathered information to create a layer of sustain that preserves the identity and expressive detail of the original sound — from the harmonic complexity of a distorted guitar chord or synth patch to the breath, bowing, vibrato and dynamics of acoustic instruments and vocals.

Real-Time Spectral Sampling combines audio micro-sampling with spectral reconstruction and resynthesis. Purpose-built for PLUS Pedal II and meticulously refined over years of experimentation, it is designed to reproduce virtually any type of harmonic input with full detail:

This is the audio from your instrument - received through the PLUS II's MAIN INPUT



The result is natural sustain that feels less like an external effect and more like an organic continuation of your instrument's tone. With the LEVEL knob set to unity gain, the WET signal generated by PLUS Pedal II can become nearly indistinguishable from the original DRY signal — allowing sustained layers to blend seamlessly with the sound of the instrument itself.

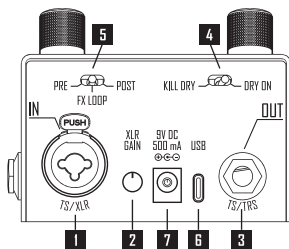
HARDWARE & PEDAL OVERVIEW

- 1 MAIN INPUT** — Combo input for 1/4" mono instrument signals or balanced XLR microphone signals.

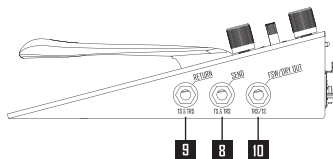
This is the main DRY signal input of PLUS Pedal II.

The incoming signal is buffered and passed through without altering its level (except for XLR GAIN when using a microphone input).

The DRY signal received here is analyzed by the PLUS II engine to generate all SUSTAIN LAYERS, which together form the WET Output Signal.



- 2 XLR GAIN** — Up to +27dB analog gain control for the built-in microphone preamp, suitable for boosting signals from dynamic and externally powered condenser microphones.
- The preamp is active only when an XLR connector is used and does not affect signals connected via the 1/4" jack input. **Does not provide phantom power.**
- 3 MAIN OUTPUT** — 1/4" mono output carrying the main audio signal from the PLUS Pedal II, configurable as a combination of the WET & DRY signals or as a WET-only output.
- 4 KILL DRY SWITCH** — Removes the DRY signal from the MAIN OUTPUT MIX, leaving only the generated WET sustain signal.
- 5 FX LOOP MODE SWITCH** — The FX LOOP SEND / RETURN connections allow any external effect unit or processing chain to be inserted directly into the PLUS Pedal II signal path. The three-position switch determines where that external processing is placed.
- 6 USB-C port** — USB connection for firmware updates and device communication (MIDI over USB).
- 7 POWER** — Standard 9V DC pedal power connection, center-negative, minimum 500 mA.



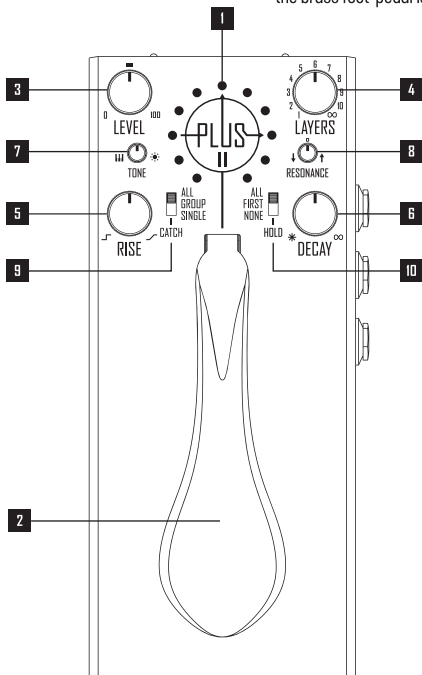
- 10 FSW / DRY OUT** — Dual-purpose 1/4" connection that can be used either with the optional PLUS Pedal II Footswitch or as a dedicated DRY signal output. Use a TRS cable when connecting the Footswitch. When used as a DRY OUT, connect a standard mono TS cable to output the buffered DRY signal.
- 9 RETURN** — Audio input of the FX LOOP, used to return the processed signal from the external effect unit or processing chain back into PLUS Pedal II.

- 8 SEND** — Audio output of the FX LOOP, used to send the selected signal from PLUS Pedal II into an external effect unit or processing chain.

The SEND and RETURN connections support both TS and TRS cables. Although PLUS Pedal II itself is a mono signal processor, TRS connectors allow stereo external effects to be integrated into the FX LOOP signal path.

OVERVIEW CONT.

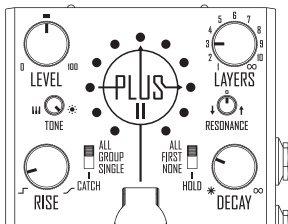
- 1 CIRCULAR LED DISPLAY** — Displays the number, status and volume of active sustain layers.
- 2 BRASS FOOT-PEDAL** — Continuously variable control for capturing and controlling sustain.
- 3 LEVEL** — Sets the maximum output level of the WET signal.
- 4 LAYERS** — Sets the maximum number of individual sustain layers.
- 5 RISE** — Controls the fade-in time of each new sustain layer.
- 6 DECAY** — Controls the fade-out time of released sustain layers.
- 7 TONE** — Controls the dynamic loss of high-frequency content as sustain layers evolve over time.
- 8 RESONANCE** — Bipolar control for the Dual Resonator Engine.
- 9 CATCH** — Three-position switch controlling how new musical events are captured: SINGLE, GROUP, ALL.
- 10 HOLD** — Three-position switch controlling which sustain layers remain held while the brass foot-pedal is engaged



FIRST SESSION

New to PLUS Pedal II? Here's the fastest way in:

- 1 Plug your instrument into IN, and MAIN OUTPUT into your amp or interface.
- 2 Set CATCH to ALL and HOLD to ALL — This gives you automatic layer capture with full sustain for as long as the brass foot-pedal remains engaged.
- 3 Set LAYERS to 3–4, with RISE and DECAY at short-to-moderate settings.
- 4 Press and hold the brass foot-pedal, then play a note. Keep the foot-pedal down and add 3–4 more notes or chords. Each new musical event will be added as a separate SUSTAIN LAYER.
- 5 Release the foot-pedal and listen as all of the captured layers decay together.



For most accurate first results – **place the PLUS Pedal II first in your signal chain!**
This will ensure that the PLUS II receives a clean uncolored signal from your instrument!

As you gain experience & begin to understand the subtleties of all the different modes – we encourage you to place PLUS II anywhere on your board; the new RTSS engine works great with complex sounds! When working with Synths & Distortion – set TONE to MAX, to hear the full timbre.

LAYER CONTROL

PLUS Pedal II has ten independent SUSTAIN LAYER SLOTS, each with its own RISE & DECAY envelope. New LAYERS are created by CATCHING musical events from the MAIN INPUT (instrument signal).

The LAYERS knob sets the maximum number of individual sustain layers produced by the engine.

1-10 LAYERS

Select any value between 1 and 10 to define the maximum number of available layer SLOTS.

Each new sustain layer you create while playing will be represented by a blooming and decaying LED on the circular display.

You can use the LAYERS Knob with precision, for example – to create a specific chord, a melodic voice-leading pattern, note cluster etc., – or you can simply treat it as an overall SUSTAIN density control for the PLUS II— setting an upper limit on how many sustain LAYERS can build up at once. Remember to use the LAYERS knob as we explore the various playing modes and parameters!



INFINITE LAYERING MODE

In ∞ mode, the ten-layer limit is deactivated, allowing you to keep stacking as many new layers as you like and build continuously evolving harmonic structures without reaching a fixed limit. As new layers enter the pool, older layers are progressively merged together into a single consolidated layer, freeing space for new material. Nothing is lost abruptly – earlier sounds simply blend into the background of the texture as you keep adding to it.



USING THE BRASS FOOT PEDAL

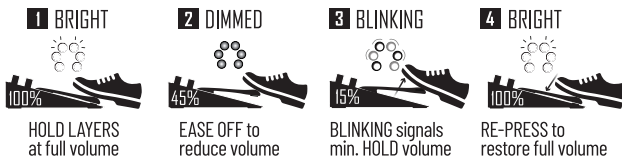
The brass foot-pedal is designed to give PLUS Pedal II the gradual, expressive responsivity of a real piano sustain pedal.

Its position is continuously measured by an optical sensor across the entire range of travel. This means that the brass foot-pedal is always ready to be more than simply an ON / OFF switch: how far you press down on it - will directly affect the OUTPUT LEVEL of the current LAYERS.

Once the pedal is engaged even slightly - the REAL-TIME SPECTRAL SAMPLING Engine is ready to create new layers - according to the selected CATCH mode (see pages 9 & 10).

How deep the pedal is pressed determines the target LEVEL of the layers being held. A shallow press produces quieter sustain; press further and the sustained layers become louder.

You can also use the foot-pedal expressively when you have created LAYERS & are holding them: Watch the LEDs as you ease off the foot-pedal to gently attenuate the SUSTAIN output LEVEL:



The foot-pedal's response speed is determined by the current RISE and DECAY settings: RISE governs increases in the held layers' volume, while DECAY governs decreases.

For an immediate, responsive feel - set the RISE & DECAY knobs to low values - this will make all changes in pedal position reflected almost immediately in the WET signal.

CLEARING ACTIVE LAYERS

Whenever you need to manually override a decaying or Infinite SUSTAIN sound - quickly double-tap the brass foot-pedal to CLEAR all active sustain layers.

CLEARING will happen instantly - overriding any remaining DECAY time!

Besides being a useful "panic button" for erasing the canvas, you can also use the Double Tap as a very powerful musical move - especially if you manage to build up a dense-sounding wall of sound - and then suddenly drop to complete silence:

TRY IT OUT NOW:

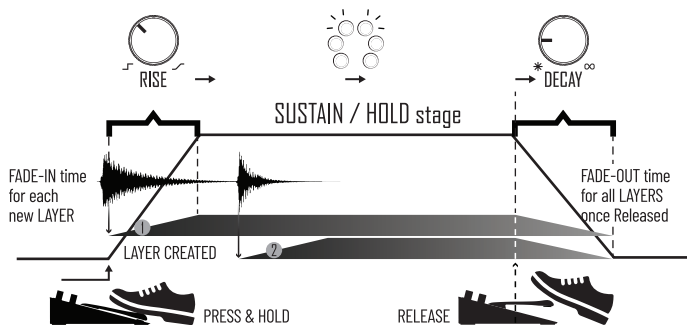
- 1** Set the pedal to CATCH ALL and set the DECAY knob to a long setting (or to infinity)
- 2** Hold down the brass foot-pedal and play a few notes; Watch the LED display as the layer slots fill up;
- 3** Release the foot-pedal - the sustain layers will keep ringing;
- 4** Quickly double-tap the brass foot-pedal to clear all active layers instantly!



UNDERSTANDING THE THREE SUSTAIN STAGES: RISE, SUSTAIN & DECAY

Just like an ASR (Attack, Sustain, Release) envelope in a basic synthesizer patch, every sustain layer you catch and hold with the brass foot-pedal will move through three separate amplitude stages.

The volume of the SUSTAIN stage is determined by several factors: the pedal's LEVEL setting, how loud the original note was when it was captured, and – as mentioned on the previous page – how far the brass foot-pedal is pressed, which can further attenuate the held layer.

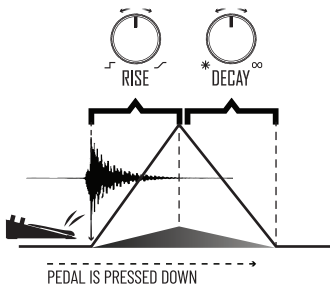


RISE > DECAY

Depending on the particular HOLD setting (see pages 11 & 12), the SUSTAIN stage for some layers can be skipped altogether – leading each individual LAYER straight into the DECAY stage:

Here is a simple example of this behaviour: the pedal is pressed down, and the incoming audio signal creates a single LAYER;

Even though the Pedal is kept pressed down the LAYER enters the DECAY stage as soon as its RISE stage is completed – skipping the SUSTAIN / HOLD stage.



By understanding and combining the different VOLUME, RISE, DECAY and HOLD settings, PLUS Pedal II allows you to create a wide range of sustain behaviours: from natural responses that mimic the physics of real instruments, to long, evolving, deliberately unnatural textures that move firmly into the realm of ambient sound and sound design.

RISE KNOB

RISE determines how quickly a newly created layer fades in.

At the minimum setting the response is effectively immediate, and the new LAYERS will fade in as quickly as they can.

In the automatic CATCH modes, the fastest response is approximately 80 ms, giving the detection engine enough time to identify a substantial new musical event.

In CATCH SINGLE, this detection process is largely bypassed: pressing the brass foot-pedal tells the engine directly to capture.

Increase RISE and new layers emerge progressively more slowly. At the maximum RISE position the fade-in time for all new LAYERS will be increased to 5 seconds - allowing you to turn notes and chords into gradual swells.

If the brass foot-pedal is released before the full RISE stage is completed - the layer fade-in will be interrupted and the layer will move straight into the RELEASE stage.

You can also use the brass foot-pedal itself to introduce new layers more gradually. When doing so, the RISE setting will introduce an additional smoothing time — softening how quickly the sustain level responds as you change the position of the brass foot-pedal.



DECAY KNOB

The DECAY knob sets the fade-out time for all layers as they reach the RELEASE stage.

Layers can enter the RELEASE stage either all together or one by one at different times, depending on the selected HOLD mode. See next page.

At the minimum setting, RELEASE is effectively immediate. Towards the top of the knob, RELEASE times extend up to approximately 20 sec.

Increasing DECAY creates progressively longer fade-outs, allowing sustained layers to disappear more gradually. For guitar, 25-50% is a useful starting range.

At the maximum setting, DECAY enters ∞ mode, indicated by a blinking LED. Released layers will no longer fade out and can sustain indefinitely.

To remove indefinitely sustained layers, turn DECAY down from ∞, or quickly double-tap the brass foot-pedal to clear all active layers immediately.



CATCH SWITCH: THREE MODES

The CATCH switch lets you choose how new layers are created with the foot-pedal:

Use the ALL or GROUP modes to enable continuous automatic layer triggering - allowing you to create multiple layers during the time the foot-pedal is pressed down.

As this process relies on automatic note-onset detection, the incoming signal needs a clear enough change in energy to be recognized - typically a new pluck, strike, attack, or other distinct event. Very soft or slowly evolving sounds may not always trigger new layers.

Set to SINGLE mode to disable automatic layering and switch to a manual workflow - where each foot-pedal press creates a new individual layer.

Since no automatic note onset detection is taking place - your foot-pedal press is what determines exactly when the sound is captured. This lets you target almost anything, including very quiet material - for example - the end of a decaying note, quiet ambience, a reverb trail etc.

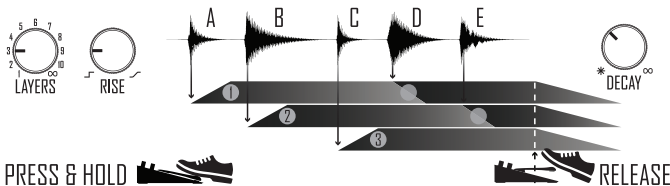
CATCH ALL



In ALL mode, the PLUS II will turn all new musical events into sustained LAYERS while the foot-pedal is pressed down. This means you can press down on the brass foot-pedal and play a sequence of musical events - such as individual notes, chords, or other sounds - and every detected event will automatically be turned into a new sustain layer, each with its own RISE and DECAY behaviour.

Each newly-created LAYER will be indicated by a new LED on the circular display, and the total number of slots is decided by the current LAYERS Knob value. As soon as all available layer slots are occupied, all new incoming layers will start replacing the oldest slots. The slot replacement has a gradual crossfade time determined by the current RISE knob value.

For example, set the LAYERS knob to 3, press the foot-pedal, and play a 5-note sequence: Notes A, B and C will fill the three available slots, ... as soon as notes D & E are caught, they will begin replacing the oldest layers A & B.



Changing the number of layers from 1 to 10 allows you to control the density of the effect but ultimately, CATCH ALL mode ensures that all new notes that you play are always turned into new sustain layers continuously - whenever the foot-pedal is pressed down.

CATCH GROUP



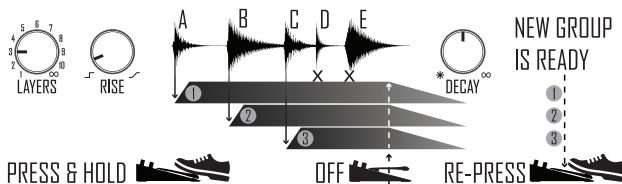
Just like CATCH ALL described above, CATCH GROUP also uses note detection to identify new musical events and creates new sustain layers automatically.

The key difference of the CATCH GROUP mode is that it does not continue capturing indefinitely. The active LAYERS Knob setting (1-10) determines how many layers can be added to the group, and once that number of LAYERS is reached, the GROUP is closed and no further musical events are captured, even if the brass foot-pedal remains pressed.

To begin a new group, release the brass foot-pedal and press it again.

This makes CATCH GROUP useful whenever you want sustain to happen in clearly defined batches – for example, capturing fixed three-note groups, building short clustered bursts of sustain layers, or creating repeatable harmonic blocks that stay separate from whatever you play next.

For example, set LAYERS to 3, and play a sequence of notes - the first three detected events will be captured in the available slots, and after C is captured, the group is complete: you can now continue playing - without adding any new material to the group. Release and re-press the foot-pedal to open up a new GROUP of LAYER slots.



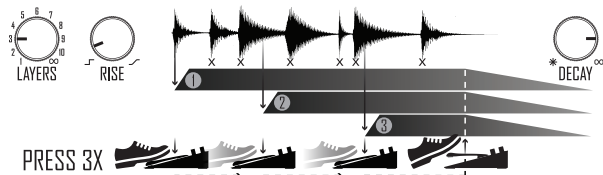
CATCH SINGLE



Unlike CATCH ALL & CATCH GROUP - CATCH SINGLE does not use automatic note-onset detection. Instead, it gives you direct control over every capture: each time you press the brass foot-pedal, the sound you are playing at that specific moment is captured as a new sustain layer.

This is especially useful for creating LAYERS out of very quiet, soft, or slowly decaying material.

To create multiple overlapping layers, simply repeat the foot-pedal gesture for each new note, chord, or sound you want to capture. The LAYERS setting remains active in SINGLE mode, so several manually captured layers can overlap. If a new layer is added before the previous ones have finished decaying, they will continue to coexist according to the selected layer limit.



HOLD SWITCH: THREE MODES

The HOLD Switch lets you determine how the newly created layers will enter the SUSTAIN stage while the brass foot-pedal is pressed down.

As described earlier, PLUS Pedal II can create up to 10 individual sustain layers, and each layer follows its own envelope consisting of three stages: RISE, SUSTAIN (the period during which the layer is held by the brass foot-pedal), and DECAY.

Depending on the HOLD setting, the DECAY stage will begin either immediately after the RISE stage has been completed, or only when the foot-pedal is released, ending the SUSTAIN stage.

In simple terms: HOLD ALL applies the SUSTAIN stage to every active layer; HOLD NONE bypasses the SUSTAIN stage entirely; and HOLD FIRST is a hybrid behaviour in which one layer is held with the foot-pedal while the others proceed to the DECAY stage as soon as RISE is completed.

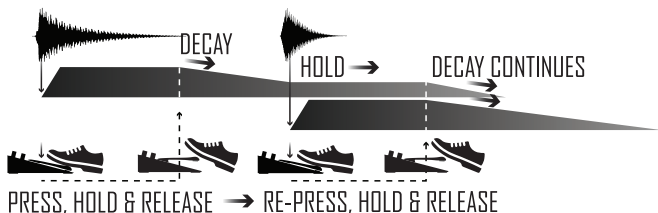
HOLD ALL



When HOLD ALL is selected, every captured layer completes its RISE stage and then remains in the SUSTAIN stage for as long as the brass foot-pedal is held down.

This means that while the foot-pedal remains pressed, the layers will carry out their full RISE time, and stay in the SUSTAIN, but they will not progress into the DECAY stage.

Release the brass foot-pedal and all layers will begin fading out - according to the current DECAY knob setting. If the foot-pedal is pressed again while the LAYERS are still fading out - their decaying motion will be temporarily interrupted and they will all be HELD - each at their current level.



This is the most straightforward hold-style behaviour and it is useful whenever you want a collection of captured sounds to remain held together for as long as your foot stays on the pedal.

Using a short RISE and DECAY time will create an immediate, connected feeling with the foot-pedal where you have full control over the length of the LAYERS.



HOLD NONE

When HOLD is set to NONE, the brass foot-pedal does not hold any LAYER in the SUSTAIN stage. Instead, each new layer follows its own independent RISE & DECAY cycle.

This makes HOLD NONE behave more like the natural mechanics of an acoustic instrument. Think of an open piano string: once the damper is lifted - the sound is simply allowed to ring out and decay naturally - without creating an artificial hold period.

Each captured layer first rises toward its target volume according to the RISE setting. As soon as the RISE stage is complete, that layer automatically begins fading out according to the current DECAY setting - even if the brass foot-pedal is still fully pressed.

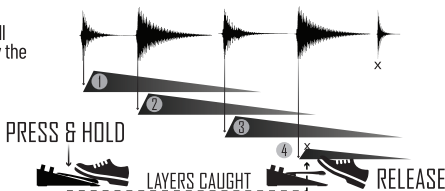
If the foot-pedal is released before the RISE stage is complete, the RISE function is interrupted and the layer immediately enters the DECAY stage from its current volume.

When using HOLD NONE, think of the brass foot-pedal as a trigger for catching new LAYERS in the selected CATCH mode, rather than a HOLD controller for the ones that are already playing.

This becomes especially interesting with the CATCH ALL mode selected. Keep the brass foot-pedal pressed (or use the Footswitch in LATCH mode - see page 17) and continue playing: every detected musical event creates a new layer, each moving independently through its own RISE and DECAY stages.

With HOLD NONE: the shape of all LAYERS is determined mostly by the RISE & DECAY knob values;

Here the RISE time of LAYER 4 is interrupted by lifting the pedal too soon:

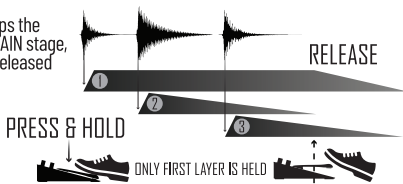
**HOLD FIRST**

HOLD FIRST combines the behaviours of HOLD ALL and HOLD NONE. One layer becomes the held layer: after completing its RISE stage - it remains in the SUSTAIN stage for as long as the brass foot-pedal is pressed. All the other layers complete the RISE stage and then begin to DECAY.

With CATCH = ALL or GROUP, the first layer captured during the current foot-pedal press becomes the held layer. Any additional layers created while the foot-pedal remains down rise and decay independently around it.

With CATCH = SINGLE, the foot-pedal keeps the most recently captured layer in the SUSTAIN stage, while all previously captured layers are released into their DECAY stage.

Therefore, a single note or chord can remain as a stable drone, pedal tone, or harmonic foundation, while additional notes and textures appear, overlap, and fade around it.



DUAL RESONATOR

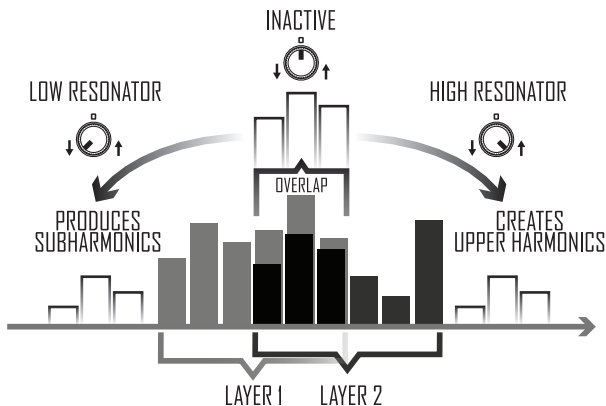
The RESONANCE control allows PLUS Pedal II to generate additional harmonic content based on the spectral relationships within the active, sustained layers.

Rather than operating at fixed frequencies, the Dual Resonator Engine continuously responds to the material you capture. As new layers are added and the harmonic structure changes, the resonances evolve with them.

RESONANCE is a bipolar, center-detented control. At 12 o'clock, the resonator is inactive.

Turn clockwise to introduce complementary upper harmonic resonances. As the knob is increased, the engine draws from a progressively broader range of upper harmonic relationships within the sustained material.

Turn counterclockwise to introduce lower resonances and subharmonic content, reinforcing frequencies beneath the captured spectrum.



Because the resonator derives its behavior from the active layers themselves, there is no single fixed "resonator sound." The result is determined by the harmonic material you feed into PLUS Pedal II and evolves as that material changes.

The Dual Resonator is positioned before Dynamic Tone, so any additional harmonic content generated by RESONANCE is subsequently shaped by the TONE control.

RESONANCE affects only the WET sustain signal and leaves your DRY signal untouched.

DYNAMIC TONE

The TONE control lets you shape the overall character and tonal quality of the sustain layers produced by PLUS Pedal II (WET OUTPUT). Together with the LEVEL knob, it lets you balance not only how loud the WET layers are, but also how bright, detailed, or subdued they feel in relation to the DRY.

At its brightest setting, TONE applies no filtering. Each captured layer preserves the full frequency range and timbre of the original sound as it sustains and decays.



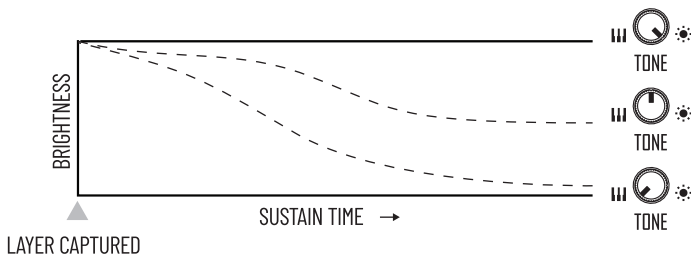
This is especially useful for distorted guitars, complex synthesizer sounds, or any other bright material where you want upper harmonics to remain exactly as captured.

As TONE is turned down, PLUS Pedal II gradually introduces a dynamic low-pass behaviour. Rather than simply making the layer darker at the moment of capture, its high-frequency harmonic content is reduced progressively over time.

This spectral evolution continues throughout both the SUSTAIN and DECAY stages, so each LAYER can keep becoming darker for as long as it remains active.

This system is designed to imitate the natural spectral behaviour of acoustic sounds. On a piano, and in most other acoustic instruments - the upper harmonics generally decay faster than the fundamental and lower-frequency body of the sound, causing sustained notes to become progressively darker as they fade.

TONE affects only the WET signal. Your DRY instrument signal remains unchanged.



Full brightness - SUN SYMBOL - the LAYERS remain unfiltered - retaining their full harmonic spectrum throughout the whole sustain stage

At around 12 o'clock, this effect is moderate, producing a more natural acoustic-style timbral evolution of each sustained layer.

At its lowest setting, the effect is strongest, creating a dramatic transition from the full captured timbre toward a soft, dark residual tone.

THE PIANO MODES

At the opposite end of the TONE control from the sun symbol, you'll find a small piano icon. Setting the HOLD switch to NONE and turning the TONE knob all the way down to the PIANO symbol lets you unlock three dedicated PIANO Modes, inspired by and designed to behave less like a conventional hold pedal and more like the string system of an acoustic piano: pressing the brass foot-pedal will imitate the lifting of a damper - thus letting all new notes ring out for a set time.



The key difference from standard HOLD NONE is what happens when you lift your foot off the pedal. In regular HOLD NONE, LAYERS continue to decay on their own after the brass foot-pedal is released. In the PIANO Modes, releasing the foot-pedal damps all remaining layers immediately - exactly as the dampers of a real piano fall back onto the strings when the sustain pedal is released.

1 Set HOLD to NONE.

All PIANO modes are designed to imitate the natural decay of acoustic instruments, therefore no SUSTAIN or HOLD stage is needed.



Use the DECAY knob and LAYERS to adjust effect density in all piano-modes.

2 Turn the TONE knob fully counter-clockwise towards the piano symbol. The circular LED display will change colour from white to yellow or blue depending on which PIANO mode is active.



TONE KNOB lets you adjust DAMPER RELEASE SPEED for all PIANO MODES:
→ MIN - FAST RELEASE
→ 9 O'clock - SOFT RELEASE

3 Now use the 3-position CATCH SWITCH to toggle between three different piano-damper modes (see below):



REAL PIANO DAMPER

Precise recreation of a grand piano's damper pedal: while the brass foot-pedal is held down - the "dampers are lifted from the strings".

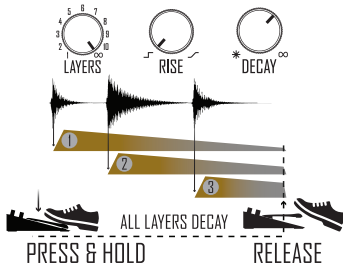
Every newly detected note or chord becomes a LAYER that is free to ring out and overlap with what came before it.

Each LAYER immediately begins progressing through its RISE & DECAY stages, with the DECAY knob determining how long the virtual instrument is allowed to resonate.

As soon as you release the brass foot-pedal, any remaining DECAY time is interrupted and all SUSTAINED sound is damped - just as the dampers of a real piano return to the strings when its sustain pedal is released. The circular LED display uses a yellow animation to indicate this mode.



FOR REALISTIC PIANO SOUND
USE THESE SETTINGS:



CATCH GROUP – GROUP PIANO

CATCH GROUP follows the same basic damper-pedal behaviour, but limits how many new notes are allowed into each sustained group.



TONE



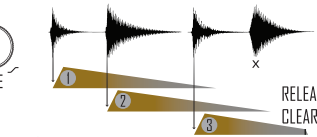
While the brass foot-pedal is held down, new musical events are automatically detected and begin ringing according to the DECAY setting. However, once the number selected with LAYERS has been reached, the group is closed and no further layers are created.

The captured layers continue ringing naturally, while anything you play afterwards passes through without being added to the sustained group.

Releasing the brass foot-pedal will immediately dampen whatever DECAY tail remains. Press the pedal once more to start a new PIANO GROUP:



PRESS
& HOLD



RELEASE
CLEARS TAILS

1 NEW GROUP
2 IS READY TO
3 BE FILLED



3 AVAILABLE LAYER SLOTS FILL UP & BEGIN TO DECAY



RE-PRESS

CATCH SINGLE – PIANO SOSTENUTO

With CATCH SINGLE, REAL PIANO mode becomes a special interpretation of a sostenuto pedal. The circular LED display uses a blue animation to indicate this mode.



TONE

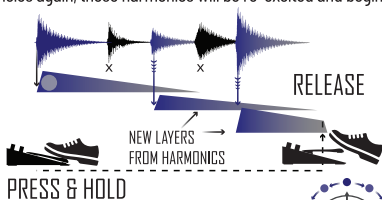


Press the brass foot-pedal while playing a note, chord or cluster to capture that particular harmonic structure. The captured material immediately begins to bloom according to the RISE & DECAY knob setting - for as long as the foot-pedal remains held.

Unlike CATCH ALL, however, subsequent notes are not automatically captured. Instead, the captured layer remains present as a kind of passive resonator. When you play material containing the same captured frequencies again, those harmonics will be re-excited and begin resonating within the sustained layer.

As you release the brass foot-pedal, the remaining resonance is immediately damped.

This approximates the selective nature of a real piano sostenuto pedal: one chosen harmonic structure can remain open and retriggerable while the rest of your playing passes through normally.

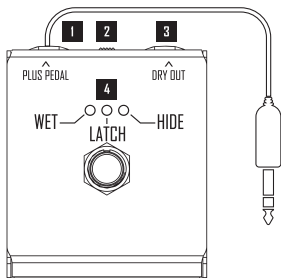


Re-Excited harmonics from the original cluster are indicated on the LED ring: Use the LAYERS Knob to set the maximum amount of Re-Triggered LAYERS.



EXTERNAL FOOTSWITCH

The External Footswitch is an additional foot-controller (sold separately) that plugs directly into the FSW IN / DRY OUT of your PLUS Pedal II and adds three additional ways to experience the PLUS Pedal II:



- 1** PLUS PEDAL INPUT - connect to PLUS PEDAL II using a TRS 1/4" cable: passes audio signal (DRY OUT), control signals for PLUS PEDAL and power for FSW
- 2** Three-way switch - Select one of three unique performance modes enabled by the FOOTSWITCH
- 3** DRY OUT - 1/4" output provides a buffered copy of the clean signal coming into the PLUS II. This is useful for creating multi-amp setups or for grabbing a passthrough of your DRY for recording purposes.
- 4** LED Indicator - three LEDs each with its own color (white, yellow, orange) - indicating the current footswitch mode and the current Footswitch status (on / off).

THREE FOOTSWITCH MODES:

WET Removes the DRY signal from the PLUS Pedal's Main Output, and leaves only the sustain layers (WET signal). This can be also achieved with the **KILL DRY SWITCH** on the back panel of the PLUS II, but the FOOTSWITCH offers easy and convenient access to the WET Only function right at your feet.

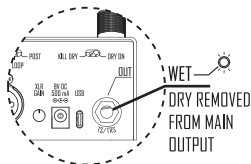
LATCH treats the brass foot-pedal as if it is continuously held down. Turning LATCH off will "release" the brass foot-pedal.

As you explore the PLUS II's various new CATCH & HOLD modes, you will be compelled to leave your foot on the brass pedal for long periods of time - either to manually hold LAYERS in place, or to let the real piano damper modes do their thing - the FSW LATCH option allows you to explore those long sustain sounds while keeping your foot free to perform other pedal-board duties.

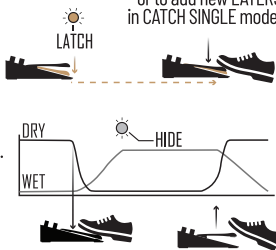
HIDE acts as a temporary bypass for your DRY signal - for the duration of time when the brass pedal is engaged.

This allows you to conceal or "HIDE" the notes or chords that you play for creating new sustain LAYERS:

The DRY signal returns in full in the MAIN Output as soon as you release the brass foot-pedal.

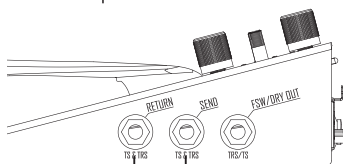


You can still use the foot-pedal manually! For example, to restart a group in CATCH GROUP mode or to add new LAYERS in CATCH SINGLE mode:



FX LOOP

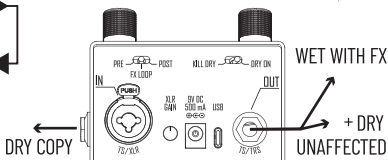
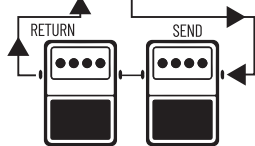
The FX LOOP MODE switch is designed to make signal-chain experimentation fast and flexible. Connect an external effect once, then use the three-position switch on the back panel to place it at different points around the PLUS Pedal II sustain engine — without repatching your board.



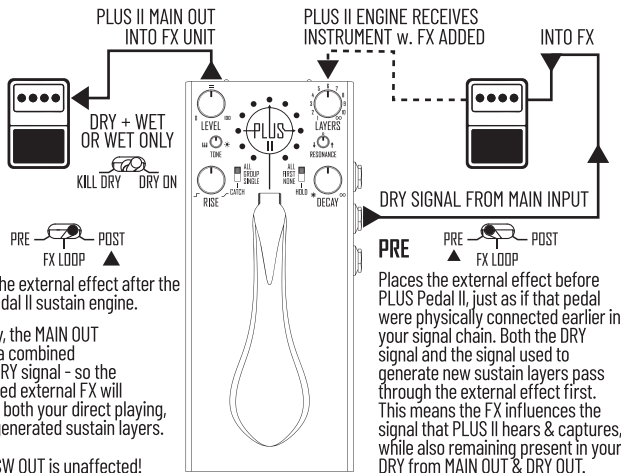
LOOP



This is the classic FX loop configuration. Only the WET sustain layers generated by PLUS II are sent through the external effect before returning to the MAIN OUTPUT. The DRY signal bypasses the loop completely.



This effectively gives the WET signal generated by PLUS II its own dedicated processing path. Use modulation, reverb, delay, distortion, filtering, or any other effect to give the sustained layers a completely different character while your direct playing stays untouched.



FX LOOP - USING STEREO EFFECTS

The SEND and RETURN jacks accept TRS cables, so stereo effects can be used in the FX LOOP even though PLUS Pedal II itself is a mono processor. In LOOP and POST modes, the stereo return is passed on to the MAIN OUTPUT, so you can carry a wide reverb or delay through to a stereo rig using a TRS cable or a TRS-to-dual-TS Y adapter.

In PRE mode, the returned signal feeds the sustain engine, which analyzes a single channel. The stereo image is folded down to mono at this point, so wide effects will lose their spread. If the stereo character of an effect matters to you, place it in LOOP or POST instead — or try one of the advanced routing ideas on the following pages, such as a dual-amp setup, to keep your effects on a separate path from the sustain engine.

WORKING WITH MICROPHONES

The MAIN INPUT combo jack accepts a balanced XLR microphone signal, making PLUS Pedal II an excellent sustain tool for voice, winds, strings, brass and any other acoustic sound.

As soon as an XLR connector is detected, the built-in preamp becomes active, with up to +27dB of analog gain available on the XLR GAIN control. It works with all dynamic microphones and with all condensers that have their own phantom power source. PLUS Pedal II does not provide 48V phantom power, so condensers need to receive it externally — from a preamp or mixer — before being connected. The built-in preamp can then still be used to adjust the level.

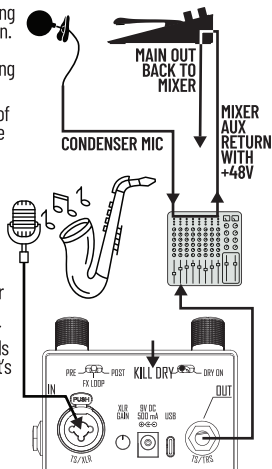
When setting the gain - start low and raise XLR GAIN while playing at your normal level, aiming for a strong signal without distortion. A healthy level helps the engine detect new notes reliably in the Auto Catch modes, while too much gain can make layer capturing trigger too easily - even a small adjustment goes a long way.

XLR GAIN will boost the entire signal path and also set the level of the DRY signal at every output, so PLUS Pedal II can serve as the first device in any acoustic or vocal signal chain — feeding pedals, an amplifier or an interface from the MAIN OUTPUT or the FSW / DRY OUT jack with no additional preamp or DI box.

SEMI-ACOUSTIC ROOM SETTING

Acoustic instruments are often loud enough to fill a room on their own, so the microphone can be used purely to create sustain layers. Engage KILL DRY and connect the MAIN OUTPUT to a PA or amplifier: the instrument carries the room while the speaker adds only the sustain. Use LEVEL to match the layers to the instrument's natural volume. For a little direct sound, take the DRY signal from FSW / DRY OUT into a separate mixer channel.

Keeping the microphone out of the amplified path also greatly reduces the risk of feedback.

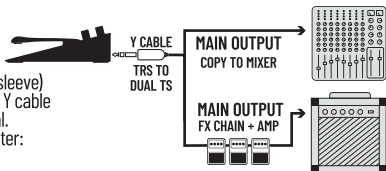


ADVANCED ROUTING IDEAS

DUAL SETUPS

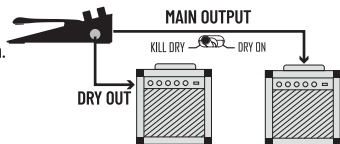
There are several ways to create a dual-output setup with PLUS Pedal II.

The MAIN OUTPUT uses a TRS (tip-ring-sleeve) connector that allows a TRS-to-dual-TS Y cable to carry two identical copies of its signal. This lets you use PLUS Pedal II as a splitter: feeding two amps, an amp and a mixer, or two separate effects chains.



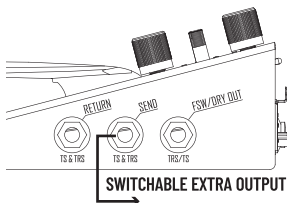
Alternatively, separate your INSTRUMENT OUTPUT (DRY) from the SUSTAIN LAYERS to create an interesting spatial effect in the room.

Enable KILL DRY and connect the MAIN OUTPUT to one amp for WET sustain only. Feed a second amp with the DRY signal from the FSW / DRY OUT jack—or from the external footswitch's DRY OUT. Each signal can then have its own amplification and effects.



FX LOOP SEND HACK

For even more routing freedom, use the FX LOOP SEND as an additional output and process it separately. The FX LOOP switch determines which signal SEND carries:



Route SEND through its own effects chain, into another amp, or to a recording device while the MAIN OUTPUT continues feeding your main rig.

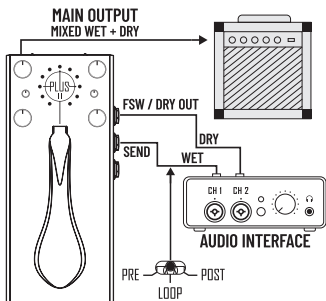
STEM RECORDING SETUP

Connect the MAIN OUTPUT to amp and leave KILL DRY **off** to hear the FULL sound in the room.

Connect the FSW / DRY OUT to one audio interface input and the FX LOOP SEND to another.

Set the FX LOOP switch to LOOP so SEND carries only the WET sustain layers.

You can now play & record the amplifier while also getting copies of INSTRUMENT (DRY OUT), and SUSTAIN LAYERS (WET OUT) separately – allowing detailed processing afterwards.

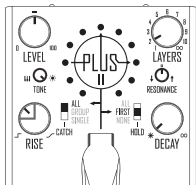


RECOMMENDED SETTINGS

BLOOMER

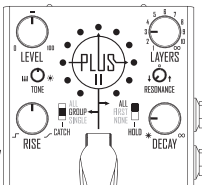
This setting holds the first captured layer beneath your playing. When you leave a pause, your last note blooms into the sustain, creating a smooth musical swell.

Adjust RISE to control how quickly the blooming LAYER develops and appears in the OUTPUT.



CHORD BUILDER

Ideal preset for building sustained chords with all monophonic instruments: voice, winds, reeds, mono synths, etc...

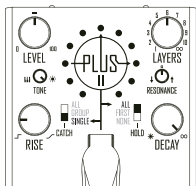


Press the pedal and play three separate notes to create a harmonic foundation. Release & press again to start building a new chord. RESONANCE helps separate the sustained pad from your live sound. Adjust the number of notes in the chord with LAYERS.

NOISE CATCHER

SINGLE mode creates a layer the instant you press the pedal, making it perfect for grabbing scratches, rumbles, noise, and other non-musical

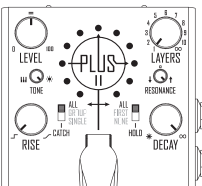
sounds. Keep TONE fully open to preserve detail, and use infinite DECAY to build dense atmospheric textures. Set LAYERS to taste, and double-tap the pedal to clear all accumulated layers.



SINGLE / AUTO

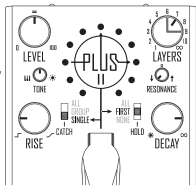
A hybrid setting that combines manual control with automatic sustain. Tap the pedal to capture a specific note and keep it ringing as

your foundation, then press again whenever you want to replace it. Hold the pedal down and the sustain layer will continuously update, following your playing like an evolving tail.



HOLD ONE

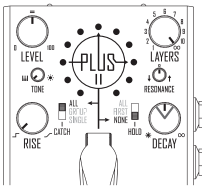
A CATCH SINGLE setting for gradually building a rich harmonic bed, one note at a time. Release the pedal and the accumulated layers begin to fade away.



Or keep the pedal pressed so the earlier notes decay while the most recently captured note continues indefinitely as a drone. Rolled-off TONE and RESONANCE help keep the sustained layers separate from your live playing.

REAL PIANO

Recreate the natural feel of a grand piano damper pedal. Set HOLD NONE + CATCH ALL, then set LAYERS to max, TONE to min, and RISE to min.



Use DECAY to shape the length and feel of the note tails. Use the same foot mechanics as on a real piano: keep pedal down while playing within the same harmonic area; release & re-press it when changing key, tonality, or mode to clear the old tails and open up a new harmonic space.

MIDI IMPLEMENTATION CHART

Every parameter responds to a pair of CC numbers: one for 7-bit (MSB-only) control, one for 14-bit (MSB+LSB) control. The LSB number is always MSB + 32. For stepped parameters, any value inside a listed range selects that state.

		VALUES (MSB ONLY)	VALUES (MSB+LSB)
Level	CC8(MSB), CC40(LSB)	0-127 = Min-Max	0 - 16383=Min-Max
Layers	CC9(MSB), CC41(LSB)	[0-11] = 1 Layer [12-23] = 2 Layers [24-34] = 3 Layers [35-46] = 4 Layers [47-58] = 5 Layers [59-69] = 6 Layers [70-81] = 7 Layers [82-93] = 8 Layers [94-104] = 9 Layers [105-116] = 10 Layers [117-127] = Inf	[0-1489] = 1 Layer [1490-2978] = 2 Layers [2979-4468] = 3 Layers [4469-5957] = 4 Layers [5958-7446] = 5 Layers [7447-8936] = 6 Layers [8937-10425] = 7 Layers [10426-11914] = 8 Layers [11915-13404] = 9 Layers [13405-14893] = 10 Layers [14894-16383] = Inf
Rise	CC10(MSB), CC42(LSB)	0-127 = Min-Max	0 - 16383=Min-Max
Decay	CC11(MSB), CC43(LSB)	0-127 = Min-Max	0 - 16383=Min-Max
Tone	CC12(MSB), CC44(LSB)	0-127 = Min-Max	0 - 16383=Min-Max
Resonance	CC13(MSB), CC45(LSB)	0-63 = Lower Harmonics 64 = No Harmonics 65-127 = Upper Harmonics	0-8191 = Lower Harmonics 8192 = No Harmonics 8193-16383 = Upper Harmonics
Brass Pedal	CC14(MSB) CC46(LSB)	0-127 = Min-Max	0 - 16383=Min-Max
Catch Mode	CC15(MSB), CC47(LSB)	0-42 = Single 43-85 = Group 86-127 = All	0-5460 = Single 5461-10921 = Group 10922-16383 = All
Hold Mode	CC16(MSB), CC48(LSB)	0-42 = None 43-85 = First 86-127 = All	0-5460 = None 5461-10921 = First 10922-16383 = All
Kill Dry State	CC17(MSB), CC49(LSB)	0-63=Dry On 64-127 = Kill Dry	0-8191-Dry On 8192-16383 = Kill Dry
FX Loop Mode	CC18(MSB), CC50(LSB)	0-42 = Post 43-85 = FX Loop 86-127 = Pre	0-5460 = Post 5461-10921 = FX Loop 10922-16383 = Pre
Footswitch State*	CC19(MSB), CC51(LSB)	0-31 = FSW Off (Normal) 32-63 = Wet 64-95 = Latch 96-127 = Hide	0-4095 = FSW Off (Normal) 4096-8191 = Wet 8192-12287 = Latch 12288-16383 = Hide

* Changing FOOTSWITCH STATE via MIDI does not update the LED on the PLUS PEDAL II Footswitch (not included) if one is connected. The last value entered via MIDI or the footswitch remains active.

To change the MIDI Channel, first unplug the PLUS II from the power. Press & Hold the brass pedal down and plug the power back in. Select your MIDI Channel using the LAYERS knob indicated by an LED.

To exit, unplug the PLUS Pedal II from the power, disengage the brass pedal and reconnect the power.

TECHNICAL SPECIFICATIONS

SPECIFICATION		VALUE
INSTRUMENT INPUT	Connector	IN
	Connector Type	1/4" Unbalanced TS (combo) (Mono)
	Input Impedance	1M Ω
	Max Input Level	5.6Vpp
MICROPHONE INPUT	Connector	IN
	Connector Type	Balanced XLR female (combo) (Mono)
	Input Impedance	22k Ω
	Analog gain control	Up to +27dB
RETURN	Connector	RETURN
	Input Type	1/4" Unbalanced TRS (Stereo)
	Input Impedance	1M Ω
	Max Input Level	5.6Vpp
OUTPUT	Connector	OUT, SEND
	Connector Type	1/4" Unbalanced TRS (Stereo)
	Output Impedance	100 Ω
	Max Output Level	5.6Vpp
DRY OUTPUT	Connectors	FSW / DRY OUT
	Connector Type	1/4" Unbalanced TRS, dual use for footswitch
	Output Impedance	100 Ω
	Max Output Level	5.6Vpp
Digital Audio		44.1kHz, 24bit
Controls		Gradual control brass foot pedal Potentiometers: LEVEL, LAYERS, RISE, DECAY, TONE, RESONANCE 2 Front-panel switches: CATCH, HOLD 2 Back-panel switches: FX LOOP, KILL DRY. Analog gain potentiometer: XLR GAIN. Additional footswitch input (Optional)
Indicator		11 LED circular display
USB-C		USB-MIDI and firmware updates
Power Supply Requirements		500mA min, 9VDC, center negative 2.1 x 5.5 mm plug
Mean Power Consumption		2.4W
Product Dimensions		WLH 90 x 195 x 72 mm (3.54 x 7.68 x 2.83 in)
Shipping Dimensions (Including Box)		WLH 130 x 235 x 95 mm (5.82 x 9.26 x 3.74 in)
Product Weight		995 g (2.19 lbs)
Shipping Weight (Including Box)		1329g (2.93 lbs)

LEGAL & WARRANTY

SAFETY INFORMATION FOR THE US:

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 these 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: reorient or relocate the receiving antenna; increase the separation between the equipment and receiver; connect the equipment into an outlet on a circuit different from that to which the receiver is connected; consult the dealer or an experienced radio/TV technician for help. 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. Unauthorized changes or modifications to this system can void the user's authority to operate this equipment. This equipment requires shielded interface cables in order to meet FCC Class B limits.

FOR EUROPE:

This product complies with the requirements of Electromagnetic Compatibility Directive 2014/30/EU.

FOR CANADA:

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. AVIS: cet appareil numérique de la classe B respecte toutes les exigences du règlement sur le matériel brouilleur du Canada.

WARRANTY & RETURNS:

You have a 30-day return period during which you may return the product and receive a full refund. You will only be responsible for return shipping charges. Each PLUS PEDAL II manufactured by Gamechanger Audio is warranted to be free from defects in materials and workmanship for one year from the date of shipping, or longer if required by relevant legislation. This warranty shall not apply to any unit which in the opinion of the manufacturer has been used improperly or has been mechanically or otherwise damaged by accident, misuse, or negligence, or has been altered or repaired in such a way as to impair performance, nor shall it apply to cosmetic defects considered normal wear and tear. Other parts such as knobs, rubbers, cables, and cable connectors are non-replaceable.

GAMECHANGER AUDIO

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No user serviceable parts inside