

CLUTCH

HI-HAT PERCUSSION SAMPLE PLAYER

SURFACE A: selects which pair of samples will be played off of the memory card. Each bank includes up to 16 pairs (1 closed, 1 open) that can be rearranged or replaced via the memory card, located below the Surface A knob.

A/B (Blend) control must be set toward A to hear these samples.

MEMORY CARD: Clutch ships with an 8GB memory card formatted to FAT32. Please use only this memory card: SanDisk SDHC Class 4. Do not remove card while module is on.

RELEASE: Controls the length of the sample that will be played back for both open and closed sound.

**Closed RELEASE can be decoupled from Open with a setting in the HIHAT.INI file*

**Release envelope max time can be modified in HIHAT.INI file.*

BALANCE, RELEASE OFFSET, HPF SWITCH: Changes the behavior of the knob below it.

BALANCE: Controls the volume balance between Open and Closed sounds.

RELEASE OFFSET: Offset ratio of the Release control for the closed sample.

HPF: A High Pass filter on the output. 100Hz - 14kHz (default).

Moving the switch will disable FX mode and the knob will control the selected parameter.

CV ON / OFF SWITCH:

OFF - No CV will reach the parameters of top four knobs.

ON - CV is enabled for all parameters

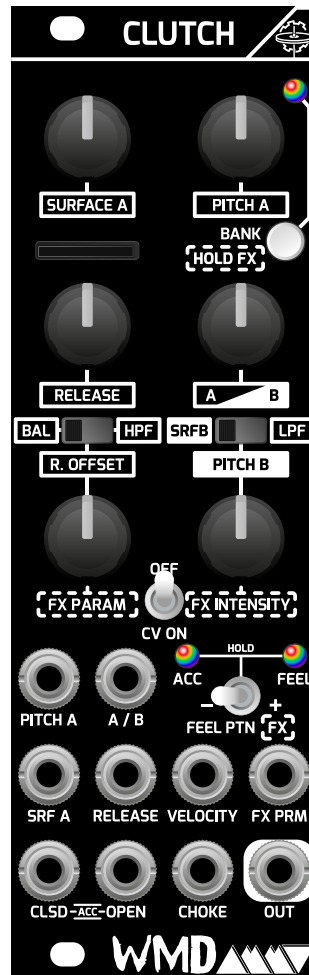
**Velocity and FX PARAM can remain active or be disabled via settings in HIHAT.INI. Velocity and FX PARAM remain active by default.*

VELOCITY - CV level control

**-5V to +5V (default), can be set to unipolar in HIHAT.INI.*

FX PRM - CV control over the FX Parameter control for currently selected FX.

**0-5V (default), can be set to -5V to +5V in HIHAT.INI.*



CLSD - Trigger/Gate input for closed hi-hat sounds.

OPEN - Trigger Gate/input for open hi-hat sounds.

**Trigger vs. Gate mode can be changed in HIHAT.INI file. Trigger mode is default.*

ACCENT - Trigger both CLSD and OPEN at the same time for an accented sound. Also resets Feel Pattern if enabled.

CHOKE - Quickly damps the current playing sound with a natural sounding fast envelope.

**KNOB TAKEUP - Knobs can be set to change on touch or soft takeover (rotate past current value). Change this in HIHAT.INI. Soft takeover is default.*

PITCH A: Direct control over the sample rate of the samples in the A set of banks, resulting in pitch changes with interesting character.

BANK / HOLD FX BUTTON:

- Tap to change Surface A banks.
- Hold to enter / exit FX mode.
- Hold and use FX controls for momentary use of FX mode, will exit on release.
- LED will flash to indicate FX mode is active, showing a color for the selected effect. Bottom two knobs control FX parameters while flashing.
- Use bottom switch to switch through FX types.
- While switching banks, Surface A samples will stop playing, Surface B will continue to play.

A/B (BLEND) : Crossfade between the A (Memory Card) and B (internal) sounds. Use this to mix two samples together, or quickly transition from one sound to another.

SURFACE B, PITCH B, LPF SWITCH:

Changes the behavior of the knob below it.

SURFACE B: Selects which sound will be played from surface B. Surface B is one bank of sounds that are baked into the module and cannot be replaced.

Pitch B: Direct control over the sample rate of the samples in the B bank, resulting in pitch changes with interesting character.

LPF: A Low Pass filter on the output. 200Hz - 20kHz (default).

Moving the switch will disable FX mode and the knob will control the selected parameter.

TOGGLE SWITCH (ACC / FEEL):

Hold to the right to toggle **FEEL**, pattern is shown on FEEL LED.

Tap right or left to cycle through different feel patterns.

Hold to the left to change accent behavior.

FEEL OFF:

ACC Red: Closed accented hit

ACC Cyan: Open accented hit

FEEL ON:

ACC Green: Closed hit, reset feel to step zero.

ACC Violet: Open hit, reset feel to step zero.

**This switch cycles through FX type when FX mode is enabled.*

SAMPLE BANKS

SURFACE A BANKS (default included sample banks)

White - Classic Drum Machine hi-hats

Red - Real 1 - Multi-sampled hi-hats

Green - Real 2 - Different combinations of real hi-hats

Blue - Real 3 - Different hi-hats with sticks, mallets, and attachments

Orange - Techno Shakers

Cyan - ARP 2600 - 1

Violet - ARP 2600 -2

Yellow - LOFI Tape Hats

LED Color Order: White, Red, Green, Blue, Orange, Cyan, Violet, Yellow

SURFACE B SOUNDS

1. XOX 9
2. XOX 7
3. Real
4. XOX 8.1
5. XOX 8.2
6. Shaker 1
7. Shaker 2
8. Tambourine
9. Noise Hat

You can replace the factory sounds on the memory card with your own samples. File naming and format are critical to ensure Clutch reads your samples correctly. Use .wav files formatted as 16 bit, 48kHz audio. Get more banks and the originals on WMDEVICES.COM

Rename your samples using the conventions below, then place them into one of the color-named folders on the card. Do not rename these folders arbitrarily, as Clutch relies on their names to organize and load banks properly. Each folder's name corresponds to the LED color shown when that bank is selected.

Closed hi-hat samples: ##CH.wav (01-16)

Open hi-hat samples: ##OH.wav (01-16)

For example:

01CH.wav
02CH.wav
03CH.wav

...
01OH.wav
02OH.wav
03OH.wav
...

EFFECTS

Default FX Type / Color Association:

- | | | |
|----|--------|---------------------|
| 1. | White | Sputter Distortion |
| 2. | Red | Bitcrush Distortion |
| 3. | Green | Comb Filter |
| 4. | Blue | DJ Filter |
| 5. | Orange | Dub Echo |
| 6. | Cyan | Chorus |
| 7. | Violet | Reverb |
| 8. | Yellow | Glitch |

FX color associations can be edited via HIHAT.INI file. Edit the file for instructions and information.

PATCHING TIPS

Here are a few helpful tips on how to use Clutch and what features you should really get to know in order to get the most out of the module.

CV DISABLE: This feature is helpful when you want to adjust parameters but have CV plugged into the jacks. Start fresh without re-patching by flipping the switch up to disable all incoming CV. This is also a fun performance tool as you can quickly switch on the modulation for some crazy effects, and then quickly disable the modulation to go back to the current knob settings.

A/B Blend: Utilize this control with your hands. Send a bunch of CV modulation to Surface A and PITCH A to get some wild effects on the A side. Experiment with using this knob to snap back to Surface B sounds, which are the more bread and butter sounds and not affected by CV. Slowly introduce surface A or cut to it quickly with this knob, but remember surface B is always there for a solid backbone or reset.

FEEL: The Feel control will add a layer of velocity and groove to your sequence. We recommend starting with a pattern of 16th notes into the Closed trigger input. Then experiment with resetting the sequence pattern, triggering an accent by sending triggers both open and closed at the same time. You can change which sound will be triggered in an accented hit by holding the bottom switch to the left. This gives you further control over the groove feel creates.

ACCENT: Again, start with just 16th notes into the closed trigger input. Disable the Feel control by holding the bottom switch to the right. Next, add accents in places for a quick groove without too much external CV control. Remember you can change what sound will trigger on an accented hit by holding the bottom switch to the left.

TRY DIFFERENT SURFACE A BANKS

We have included a wide range of sounds in the sample banks. Check them all out and experiment with CV into the Surface A input to see what kind of variety you can achieve. We've got banks of multisamples for some more realistic sounding hi-hats, as well as some more synthy bleeps and bloops that sound really wild when the Surface A selection is modulated. These sounds are great for adding a unique static texture to the hi-hat sound as well as making some synthy pitter patter under your bread and butter sounds for some interesting layers to your productions.

ADD YOUR OWN SAMPLES!

Try replacing our banks with sounds of your own for a sound that is unique to you. We love our banks, and as useful as some of them are, they are really there to show what can be made with a wide variety of samples and to hopefully inspire you to add your own sounds beyond just the traditional hi-hat. Make sure to use the right naming convention and 48kHz 16 bit wavs.

CUSTOMIZE THE INTERFACE!

Sample banks can have up to 16 sample pairs, however, if you'd like fewer samples for easier access, the knob will automatically scale to up to 16 sample pairs.

The same goes for banks and effects. Exclude banks by deleting folders on the SD card for a more focused selection. FX can also be assigned to specific colors, and colors can be disabled for a more streamlined experience.

A NOTE FROM WILLIAM

Inspired by the machines we electronic musicians know and love, we created Clutch as a dual-layer sample-based percussion module. It is designed to create dynamic and versatile hi-hat sounds with playable immediacy. Built as a tool we wanted in our own rigs, Clutch moves effortlessly between robotic machine rhythms, realistic performances, and experimental percussive textures.

At its core, two sample surfaces — A and B — can be layered, blended, or modulated to produce a wide range of timbres. Surface A offers direct access to pitch and sample selection, while Surface B expands control through a multifunction knob, packing deep features into a compact interface. Starts as the pre-loaded library of professionally recorded acoustic, electronic, and synthesized hits from WMD, and you can load your own samples or get more banks from us.

Samples can be pitched, filtered, and shaped with intuitive controls, then processed through onboard effects. The Feel engine sequences velocity patterns across eight user-editable grooves, bringing human dynamics to static sequences without external modulation.

Clutch is purpose-built to deliver hi-hats you'll actually use — from classic drum machine tones to expressive, evolving percussion that grooves and breathes within your system.

Originally developed under AMMT, a design team formed by Alex Anderson, Mason Malvinni, William Mathewson, and Matt Tanner, Clutch represents the spirit of collaboration and experimentation that defined our time together. Though AMMT was never launched as a standalone brand, the experience of designing this module over three years was a highlight for all of us. We chose to release Clutch under the WMD name, carrying forward the AMMT logo in tribute to the team that brought this instrument (and our older drum modules) to life.

W. Mathewson

SPECS

Size: 8hp
Depth: 38mm (with cables)
Power: +82mA, -17mA

I/O:
CV and Gate Inputs are 100kΩ impedance
CV inputs sum with knobs. Full sweep is 5V
Gate Threshold: 2V Schmitt Trigger

Audio Output:
470Ω impedance 20 Vpp range
2.0ms latency maximum

Engine:
Sample Rate: 48 kHz
Bit Depth: 16 bit
Resampling: 4 point spline
Resampling rate range: 0.001 - 3.7
Editable HIHAT.INI for tweaks

Manual Revision: 1.00
Firmware Revision: 1.00

MEMORY CARD

Clutch stores Surface A sample banks, firmware, and global settings on an included memory card.

EDITING SAMPLES: Sample start points must be trimmed to the beginning transient at a zero crossing. End points should be tastefully edited to not include too much silence. Max sample length is limited by the length of the release envelope set in the HIHAT.INI file. 4 seconds default.

Required bit depth: 16 bit
Required sample rate: 48K

FIRMWARE UPDATE: We do not plan to continuously update this module, as its feature set is complete. However, in the event a firmware update is necessary, replace the CLUTCH.bin file in the root of the memory card with the latest release available on WMDevices.com. Yellow / Orange will flash on the LED until the update is complete.

GLOBAL SETTINGS (HIHAT.INI)

Clutch has a set of global settings and behaviors that can be edited with a text file. To edit these settings, remove the memory card and connect it to your computer. Open the file called HIHAT.INI — located in the root of the memory card's contents.

Any basic text editor will do, such as TextEdit on Mac, or Basic Text Editor on windows.

All information for how to edit this file are included in the file. If you mess the file up, a replacement is available with the latest firmware file.

Colorblind Accessibility:

Banks, FX, and Feel modes are represented by colored LEDs. To improve accessibility and streamline navigation, these color assignments can be customized. Users can reorganize or remap colors for each mode, exclude specific color FX selections, and remove sample bank folders with difficult to see colors. This allows colorblind users to tailor Clutch's visual feedback to the colors they can distinguish, while creating a more intuitive and focused workflow for all users.



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