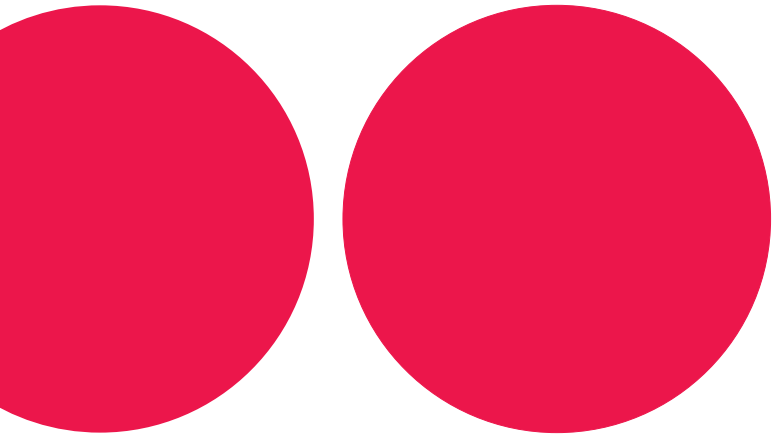


Polyend Mess Essentials

A Collection of Essential References
for The Polyend Mess



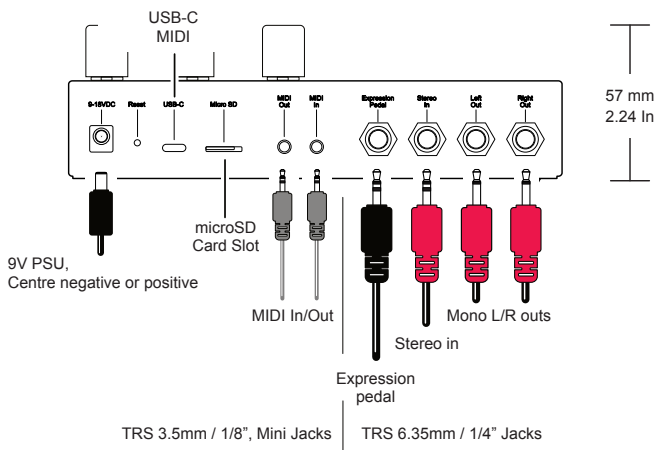
Overview

Mess or Multi-Effect Step Sequencer is a 4-track effect pedal with sequencing abilities. Mess works as a traditional guitar and instrument pedal and also pairs well with any electronic desktop synth setup. Along with the conventional reverb and delay effects, Mess brings many more effects that encourage experimental sound design and introduce new effects, modulation, and features never seen before in a pedal format. With four fully customizable effect tracks, craft ambient soundscapes, intricate glitch sequences, or even a familiar four-effect chain – all moving in sync. Mess consists of 4 tracks that can be used independently or to create multi-effect chains. With over 120 effects to choose

from, the realms of possibility are almost endless. At the same time, Mess boasts a wide array of traditional and extravagant effects, creative sequencing, and a compact footprint; it still delivers all of the Polyend character and tradition. From extreme weirdness to traditional effects, Mess excels at both. Mess changes how you think about effects. With all the effects designed around sequencing multiple parameters, discover something new with every sequence. Dynamic effects evolve and transform to bring life to create more than your standard repetitive effects. With built-in chance and probability controls, Mess can generate randomized glitches, stutters, and repeats unlike any pedal before.

Mess Essentials

Hardware Overview

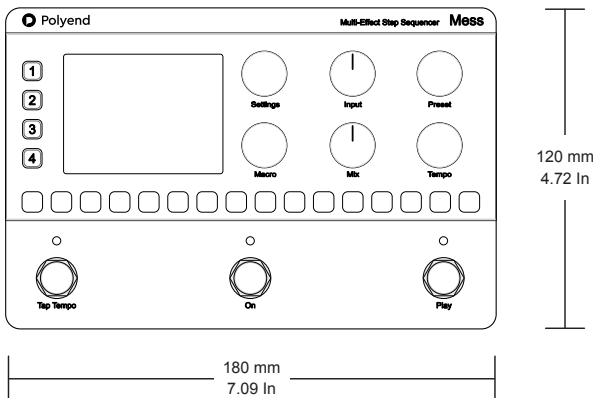


The recessed reset button will help to recover a device if issues exist. Press during start up to load a previous OS from the microSD Card. It is useful to keep previous OS files in the firmware folder.

Power Supply is not included.

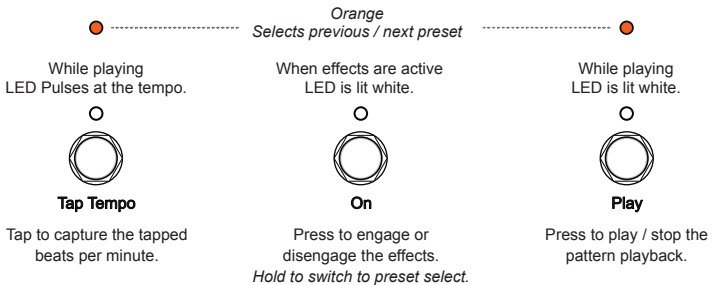
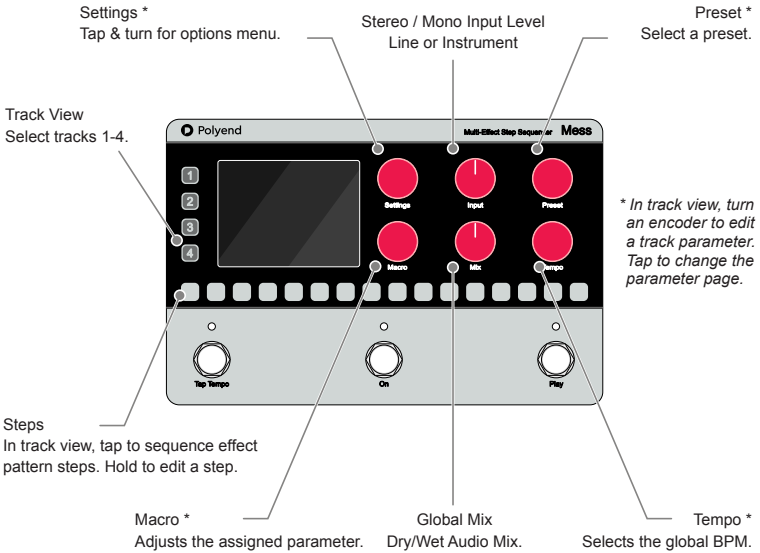
Use a standard pedal model, 9-18V DC, min 560mA, centre negative (also accepts centre positive).

Weight
930 Grams



Control Overview

The 2 red control knobs with the white position indicator are rotary types. The other 4 red knobs are push/turn encoders. Press to choose a mode, open a menu window, or select an option. Turn to navigate through the options and selections. Knobs and encoders are described with parenthesis e.g. (Tempo) in the instruction text. Foot switches are described with curly brackets, {Play} and pad step and track buttons as [Pad] or [Track 1].



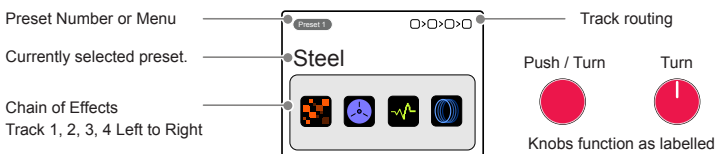
Mess Essentials

Control and Screen View Conventions

Mess can operate in one of two views. Main screen view is the default operating mode for generic control for all tracks and settings. The complete effect chain can be controlled in this mode with each user interface knobs. Track screen view enables each of the 4 tracks to be edited individually and step patterns created to manipulate and modulate the effects for the track. This creates evolving sounds or glitchy rhythms through effect sequencing. Track view is selected by tapping any of the track [1] - [4] buttons.

Main Screen

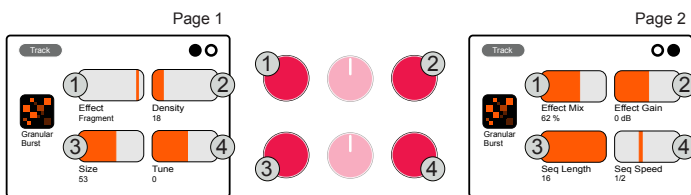
Default page when no track is selected. The controls will operate the function as labelled.



Track Screen

Track screen presents the options for the operating environment when a track is selected. Track button will be lit to indicate the selected track. The 4 displayed parameters represent the track settings and are editable using the 4 respective push/turn encoders. Tap any encoder to change between the 2 parameter pages. The selected page is indicated by the page icons.

Each track has 5 generic parameter options available in each track; effect, sequencer length, sequencer speed, effect mix and effect gain. The other 3 parameters are unique to the effect model selected. Tap a track [1], [2], [3], or [4] to select a track and track view.



Effect parameters are controlled by the respective encoder knob. Tap an encoder knob to change parameter page. The faster the knob is turned the bigger the parameter iteration.

Control Details

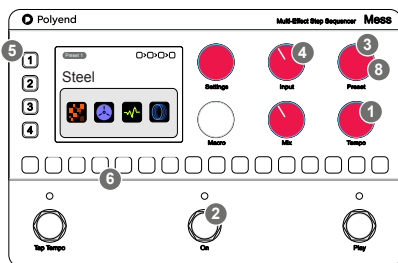
Control	Function	Description
Track View	Buttons 1-4	Press 1-4 to select a track. Track view is on or off for the specifically selected track. Only one track can be selected and edited at a time. The pad flashes when a step for the track is playing. Mess pads are used for sequencing effect steps when in track view.
Steps	Pad buttons	The effect pattern is sequenced using the 16 pads to create steps. Hold a step pad to change its individual settings and its behaviour such as the probability setting. <u>The track sequencer is only editable in track view.</u>
Tap Tempo	Foot Switch	Tap the footswitch for a series of taps to register a tempo beats per minute value between 30-400BPM based on the tap frequency. It is recommended to tap 4 times. Tap count is displayed on the screen. When playing the tap LED will flash white in time with the BPM settings.
On	Foot Switch	Turns the effects chain on or off. When set to 'off', the fully dry audio signal will pass through to the output. When set to 'on', the effect chain configured will be applied to the original audio. Dry/Wet can be controlled.
Play	Foot Switch	Tap to play the current pattern. The step pads are lit to reflect the playhead position. If a track is selected, the step pad color represents the track color. The play LED is lit white when play is on.
Settings	Push Encoder	In global view, tap to open the settings menu options. Turn the knob to navigate through the menus. Tap to enter sub-menus or select options. In track view, edits the effect model or effect mix, upper left parameter. Tap the knob to change the parameter page.
Macro	Push Encoder	In global view, adjusts the values of the macro assigned parameters. The macro parameters can be configured in the settings menu. In track view, edits the lower left, effect specific or seq length parameter. Tap the knob to change the parameter page.
Preset	Push Encoder	In global view, navigates and selects a preset. Automatically loads in real-time during the navigation and selection. Hold knob to open the save menu. In track view, edits the effect specific or effect gain, upper right parameter. Tap the knob to change the parameter page.
Tempo	Push Encoder	Turn to adjust the tempo beats per minute between 30-400 BPM. Changes are applied instantly. An external MIDI clock will override the internal tempo. In track view, edits the effect specific or seq speed, bottom right parameter. Tap the knob to change the parameter page.
Input	Knob	Adjusts the main stereo audio input level.
Mix	Knob	Adjusts the dry/wet balance between the original audio and the affected audio. A fully dry signal, counterclockwise, will output only the original audio. Fully wet, clockwise, will output the fully affected audio.

Mess Essentials

Quick Start with a Basic Effect Chain

An effect chain plus 16-step effect pattern can be created for each of the 4 tracks. Don't worry too much about how things work here, the idea is to just get started and learn more later.

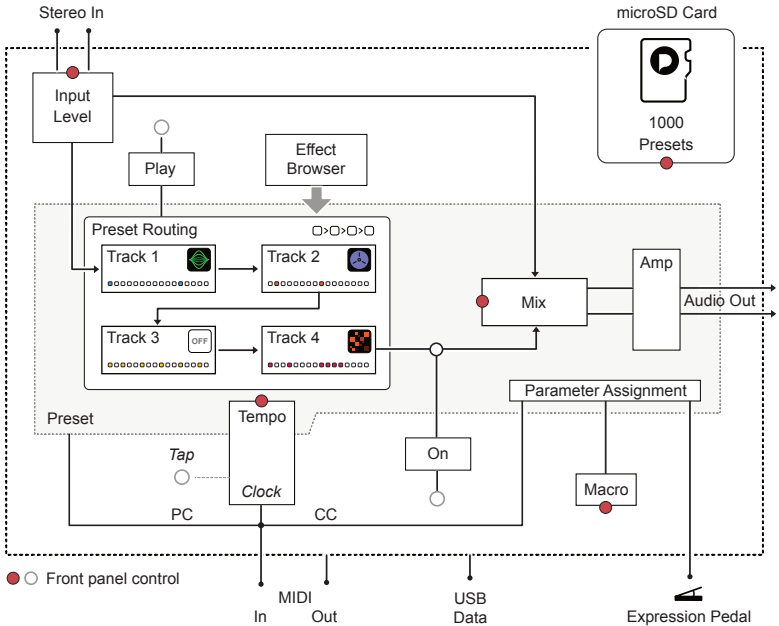
1. Start in the main screen, i.e. no track selected. As a starting point, turn (Tempo) and set it to 110 BPM. This can be changed later.
2. Connect an instrument to the stereo input. The config setting can be changed for line or instrument input to match the device impedance. Ensure footswitch {On} is set to off, LED unlit.
3. Select an empty preset by turning (Preset).
4. Lower the (Input) as a starting point. Play the device and set an appropriate input level.



5. Tap [1] to open track 1 view. The view has 2 pages, tap (Settings) to change pages. Turn (Settings) on the first page to select an effect. Tap {On} to turn the effects 'On', i.e. LED lit white, to listen to the effect while playing the external instrument. Tweak and turn the encoder knobs to affect the sound.
6. Tap several of the sequencer [Pad] to apply effect triggers. Press {Play} to activate the sequencer and to listen to the output. Hold a step and adjust the parameter encoders to change the settings per step. Continue to tweak and experiment with the settings.
7. Repeat step 4 & 5, for tracks [2], [3] or [4] to build an effect chain.
8. Tap the active track button [1] - [4] to deselect a track and return to the main view. Hold (Preset) to open the submenu to save the preset that has been created. The option to name it is presented.

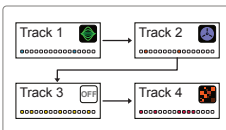
Presets

A preset is a collection of all four tracks including their settings and parameters. A preset can be saved and recalled for future use. Presets help develop a library of production, sound design and performance effects that can also be shared.



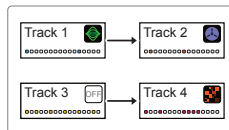
Preset Routing

Series ○>○>○>○



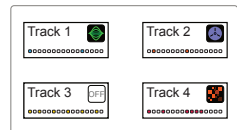
Audio is routed through track 1, 2, 3 and finally track 4. All tracks in series in the audio chain.

Dual Parallel ○>○ ○>○



Audio is routed through track 1, & 2 in series. Also through track 3 & 4 in series. The pairs operate in parallel.

Parallel ○ ○ ○ ○




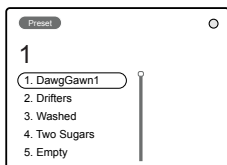
Audio is routed through each individual track. The tracks operate in parallel.

Mess Essentials

The starting point for working with Mess is to open a preset, either a blank preset consisting of the 4 empty tracks or a previously created preset for further editing or to using in a performance or in the studio.

Choosing a Preset

 ----- Turn to open the preset browser
Preset




Turn (Preset) to navigate and select. A preset is loaded automatically in real-time during browsing.

Choose an 'Empty' song slot to create a new preset or choose an existing preset.

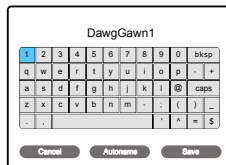
microSD card activity shown top right.

Saving a Preset

 ----- Press & hold to open the preset save menu.
Preset



Save Option



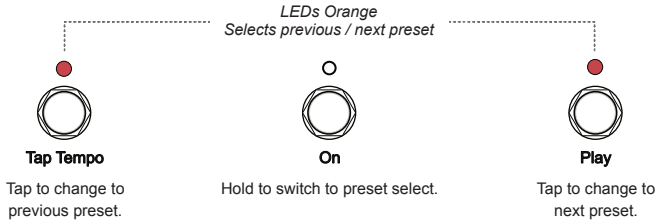
Naming Screen

Navigate to the save options for the currently selected preset. Turn (Preset) to navigate and tap (Preset) to confirm. There are 1000 preset slots available from the microSD card.

The naming page will open to edit or confirm saving as per the selected name. Turn (Preset) to navigate alpha-numeric characters. Tap (Preset) to select the character, command or option highlighted.


Option to reorder the preset list is possible from within the save menu. Presets loaded are arranged in the lower part of the list but can be brought higher in the order by using the 'Reorder' option found in the save menu options.

As well as using the user interface knob to navigate presets, the option to use the footswitches to change presets in ascending order using {Play} and to change presets in descending order using {Tap Tempo}. The preset will change on each switch press.



LEDs are white in the normal operating mode where footswitches act as per labels.

Setting the Preset Routing

 In global view, tap (Settings) to open the settings options. Turn (Settings) to navigate to, 'Preset Routing' and tap to open the sub-menu.

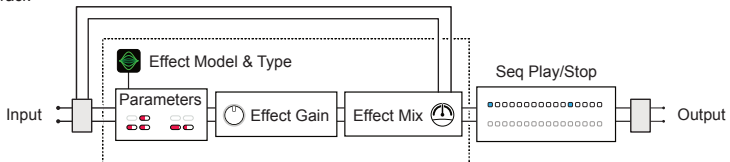
Set to: Series, Dual Parallel or Parallel. The main page in either global or track view will indicate the current routing

- > > > Series.
- > > Dual Parallel.
- Parallel.

Effect Track

Effect tracks operate as a collection of stereo effects routed or chained in a specific order. However each track has the same architecture. It is the effect model configuration, parameter settings and pattern that gives each track its identify and character making it unique.

Track



Mess Essentials

Creating an Effect Chain

An effect chain can be created using any or all of the tracks. The routing of tracks is configurable in the settings but for simplicity we will assume the default series routing where tracks operate in series, 1-4. A track can be populated with an effect or left off. Configuring and editing effects is performed in [track view](#). If a sequence is not used this will operate as a regular effect chain.

Select Track

- Track 1 **1** Tap a track e.g. [Track 1] to select to edit. Track view is signified with a lit track button. An effect can be loaded to each track.
- Track 2 **2**
- Track 3 **3**
- Track 4 **4** To switch track effects, hold the first track and hold the track to swap, e.g. Hold [Track 1] + tap [Track 3].

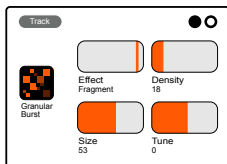
Swap Track

- Track 1 **1** Hold
- Track 2 **2**
- Track 3 **3** Tap
- Track 4 **4**

Assign an Effect

 In track view, turn (Settings) to select an effect type and effect.


Settings



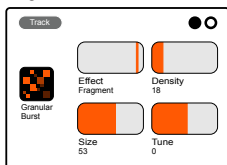
Turn (Settings) to choose an effect type and effect. This is displayed as the top left of the four parameters on page 1 of the track settings.

Hold & turn (Settings) to navigate and jump through the effect types.

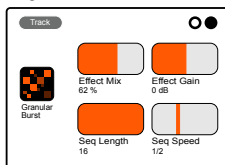
Editing an Effect

 In track view, tap any of the four encoders to change parameter page. Turn any of the four encoders to edit the respective parameter.




Page 1







Page 2





Summary effect categories and presets


Panning	Stereo spread control.	
Simple	Per step panner.	
Drift	LFO control of panning is not tied to the tempo for drifting around the stereo field.	
Synced	Syncs the panned signal based on the chosen tempo and subdivision.	
Shaper	Wave shapers to sculpt, energize or destroy your sound.	
Saturator	Subtle harmonic distortion.	
Overdrive	Pushed to the edge of breakup distortion.	
Diode Clipper	Symmetrical Diode Clipping.	
Diode Clipper+	Asymmetric Diode Clipping.	
WaveShaper	Uses a sine wave to shape the signal.	
WaveShaper+	Uses a warped waveform to shape the signal.	
Fuzz	Classic Fuzz Tone.	
Exciter	Excites the high-end frequencies. The tone knob selects the frequency.	
Bitcrusher	Reduces the number of bits in the audio signal.	
Rectifier	Converts a bipolar signal to unipolar for clipped drive tones and possible octave up effects.	
Redux	Sample Rate Reduction.	
Redux+	An alternative sample rate reduction algorithm for a more prominent effect.	
Filter	Reduce or increase specific frequencies.	
Highpass	Passes the high frequencies above the chosen filter frequency, cutting lower sounds.	
Lowpass	Passes the low frequencies below the chosen filter frequency, filtering out the high end.	
Bandpass	Passes only the specific band of frequencies and filters out higher and lower frequencies.	
Lowshelf	Boosts or cuts low frequencies without a hard cut.	
Highshelf	Boosts or cuts high frequencies without a hard cut.	
Format	Vocal-style resonant filter with sequence-able vowel options.	
Equalizer	Control Low, mid, and high gain bands.	

Mess Essentials


Pitch Shifter	Pitch shifting with Monophonic pitch tracking.	
Tonal	Standard pitch tracking pitch shifter with quality control.	
Textural	Textural pitch shifter yielding unique results with extreme pitch changes.	
Spectralizer	Real-time frequency spectrum manipulation.	
Expander	Creates a wide, sustained spectralized field.	
Screamer	A tight spectralizer algorithm, shines on drums.	
Micro Looper	Samples slices of audio, from 4x to 1/16 th of the step length.	
Slice	Slices and repeats the selected step. Pitch dropping and rising is tempo synced.	
Stereo Slice	Sliced repeats in L/R ping-pong mode. Pitch dropping and rising is tempo synced.	
Dropper	Slices are tempo-synched, but repitched freely of the tempo.	
Stereo Dropper	Slices are tempo-synched in L/R ping-pong mode, but repitched freely of the tempo.	
Rev	Slices are played back in reverse.	
Stereo Rev	Slices are played back in L/R ping-pong reverse mode.	
Reverb	Multi-mode reverb.	
Chamber Reverbs	Large cathedrals and wide spaces. <i>Four models available.</i>	
Hall Reverbs	Hall size reverbs from modulated or dark halls to bright spaces. <i>Five models.</i>	
Plate Reverbs	Metallic plate simulations. <i>Four models available.</i>	
Room Reverbs	Room sized reverbs, from clubs to garages. <i>Seven models available.</i>	
Warped Reverbs	Twisted, modulated, and shifting reverberations. <i>Six models available.</i>	

Delay	Multi-mode Delay.	
Multi-tap delay	Double and Triple Tap Delay modes. <i>Five models available.</i>	
Pingpong delay	Left/Right ping-pong stereo delay. <i>Three models.</i>	
Analog Delay	Simulations of Analog Delay engines from BBDs to Magnetic drum heads. <i>Five models available.</i>	
Tape Delay	Recreations of analog tape style delays. <i>Four models available.</i>	
LoFi Delay	Experimental modulated LoFi delay. <i>Two models available.</i>	
Single Delay	Single-tap mono delay. <i>Three models available.</i>	
Unsynced Delay	Freely running delay lines for out of time effects than can be sequenced by Hz instead of ratios. <i>Three models available.</i>	

Modulation	Multi-mode Modulation.	
Analog Chorus	Double and Triple Tap Delay modes. <i>Six models available.</i>	
Stereo Chorus	Stereo Chorus effects, from slow wide stereo spreads to cross-modulation feedback. <i>Four models available.</i>	
Vibrato	Subtle pitch wobble. <i>Two models available.</i>	
Flanger	From classic flanging to jetpack sounds. <i>Seven models available.</i>	
Phaser	Phase sounds from slow sweeps to whirling ripples. <i>Three models available.</i>	
Tape Modulation	Tape style modulation. <i>Two models available.</i>	
Reel	Tape double-tracker emulation.	
Synced Tremolo	Tremolo synced to tempo, ratio is sequence-able.	
Unsynced Tremolo	Sequence the speed of the tremolo without the constraints of a locked tempo.	

Granular Burst	Real-time granular burst change based on the input sound, while the sequencer controls the parameters of the granular playback.	
Portrait	Large granular windows for a repeater or dropout style sound, depending on the sampled audio.	
Fragment	Signal is sliced up into smaller fragments and repitched.	
Blur	Grains are played back repeating in a hazy blur.	
Burst	Long granular free effect for sustained grains until retriggered.	

Mess Essentials

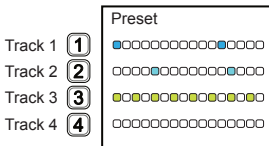
Particle Sampler	The particle sampler sends audio to the granular engine on a per-step basis, sampling on active steps.	
Flux	A shifting granular effect for evolving grains.	
Scanner	Scans and grabs small fragments of audio.	
Noisy	Dirty bits and bobs of sound.	
Capsize	Adds some wobble to the particles.	
Scatter	Scatters the sample across a wide range of time for a glitchy wash.	

Sequencing Effect Tracks

Each of the four tracks has a 16-step sequencer which allows the effects to be sequenced over its length. Each active step will trigger the respective effect and each step can also be programmed with individual parameter settings to add even more variation and movement to the effect over time.

Controlling the Sequencer

The sequencer must be playing to apply the step parameters. Playback and the effects on/off are controllable in track mode and global mode.



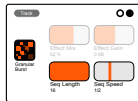
Tap {On} to turn all of the effects on or off. When on, LED is lit white.



Tap {Play} to play or stop the sequencer. When playing, LED is lit white.

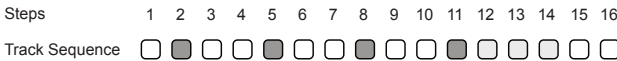
Creating or Editing a Sequence

A pattern can be edited for the selected effect track. Press track, e.g. [1] to select the track.



Step Length & Speed / Division

Editable in the sequencer parameters for the selected track.

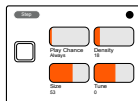


Activate / Deactivate Step

Tap step pad.
Active = lit.

Extend Step Length

Hold 1st step pad + tap last pad.
Active = lit / Dimly lit.



Edit a Steps Settings

Hold step pad + turn a knob.

The parameter options available to edit per step are based on the assigned effect type. Play chance is available for all effects and sets the probability for an active step 'trigger'.

Mess Essentials

Play Chance Step Parameter

Play chance has a series of options that determines whether an active step will trigger the effect or not during playback. This is sometimes called step probability. A set of logic or percentage options are available, one of which can be assigned to each of the steps. Play chance is only available on a per step basis, not as a global parameter.

Play Chance

Default is 'Always'. The active step will activate the effect settings on each trigger. Hold [Pad] + turn (Settings) to select an option.

Steps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Track Sequence	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examples

60%

Step has a 60% chance of triggering the effect

Play 1 Skip 1

Only triggers the effect on the first and odd numbered cycles.

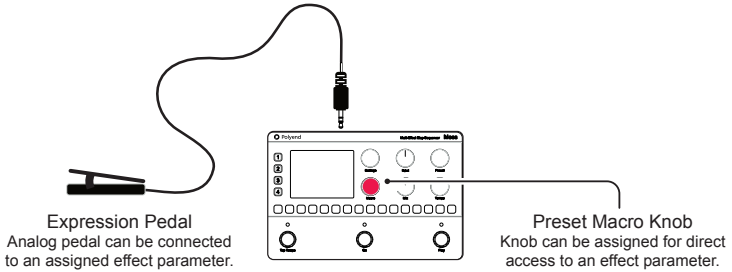
Like Last

Step will trigger if the previously active step triggers.

Option	Description
Always	This is the default, normal mode. Active steps will trigger 100% of the time on each pattern cycle.
Chance 10-90%	Sets the chance that the step will trigger on each cycle. The higher the %age value the more chance that the step will trigger.
Like Last	The step will evaluate the last trigger and apply the same logic. So if the previous step triggered, then this step will trigger too.
Play X Skip Y	This logic is based on the total sequencer playback cycle count X+Y. Play means the step is triggered, i.e. the effect step parameters are applied. X sets the count for how many sequencer cycles will trigger the step effect before skip is applied. Skip will then ignore the step for a cycle count of Y before resetting the count. Play will then restart for X and so forth.
Skip X Play Y	This logic is based on the total sequencer playback cycle count X+Y. Skip means the step is ignored, i.e. the effect step parameters are not applied. X sets the count for how many sequencer cycles will ignore the step before play is applied. Play will then trigger the step effect for a cycle count of Y before resetting the count. Skip will then restart for X and so forth.

Macros & Expression Pedal

The interface (Macro) knob and an external expression pedal input can be configured to directly change and modulate an assigned parameter. One parameter can be assigned to the knob and one to the expression pedal input. Assignment is made in the settings.



Parameter Options

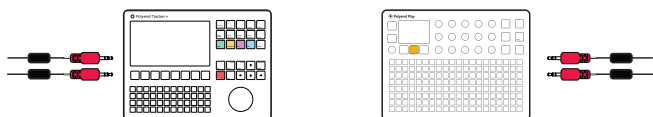
The parameters available will depend on the current effect for each track. The configuration is performed in the (Settings) under the preset macro and expression pedal options. Five parameters can be modulated.

Option	Track	Track
Track x Param 1		
Track x Param 2	Parameter 1	Track x Mix
Track x Param 3	Parameter 2	Track x Gain
Track x Gain	Parameter 3	
Track x Mix		

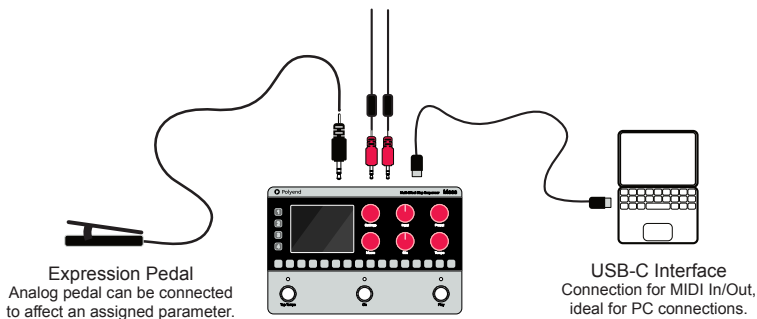
Mess Essentials

MIDI Interface

Mess can send and receive MIDI messages through the MIDI 3.5mm Jacks. MIDI Type A or B can be used for MIDI In and type B for MIDI Out or the USB-C interface can send and receive MIDI messages. Mess responds to program change, PC messages to switch presets and control change, CC messages to change mapped parameters. Also clock and transport can be managed internally or by using an external MIDI controller.



MIDI TRS
In/Out Interface to other audio gear



Clock and Transport

To control Mess play start / stop and tempo, configure the external MIDI settings for the port connected which sends the respective messages. Also Mess can send clock and Transport out to other devices, also set up in the MIDI configuration.

Mess will react to MIDI messages received on any of the 16 standard MIDI channels.

MIDI CC Mapping

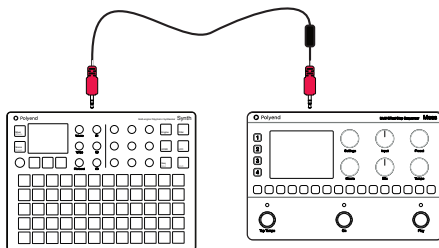
A set of MIDI mappings are predefined for Mess parameters. CC or Control Change messages affect parameter values using incoming MIDI messages.

A MIDI CC control assigned to the CC number will control the Mess destination



Polyend Synth

A MIDI Controller, for example Synth's MIDI Instrument option to send CC messaging from its knobs.



Track 1	CC #
Effect Mix	70
Effect Gain	74
Parameter 1	80
Parameter 2	84
Parameter 3	88
Track 3	CC #
Effect Mix	72
Effect Gain	76
Parameter 1	82
Parameter 2	86
Parameter 3	90
Global	CC #
Global Mix	78
Global Input	79

Track 2	CC #
Effect Mix	71
Effect Gain	75
Parameter 1	81
Parameter 2	85
Parameter 3	89
Track 4	CC #
Effect Mix	73
Effect Gain	77
Parameter 1	83
Parameter 2	87
Parameter 3	91

Changing preset with PC messages

A MIDI PC message received by Mess will change the preset. The first 128 presets can be accessed using incoming MIDI PC messages. Program Change messages can be sent from many hardware devices or DAWs, however Mess also needs to be configured to accept incoming MIDI PC. The options to set are:-

Press (Settings) > MIDI > PC In Set the MIDI Input for PC e.g. USB

Press (Settings) > MIDI > PC In Channel Set the MIDI Input Channel e.g. 2

A MIDI PC control will change presets in Mess across the for the 1-128 presets.

Controller



PC#3

Mess

Preset 1

Preset 2

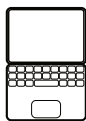
Preset 3

Preset

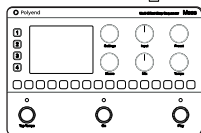
Preset 128

DAW or Controller

Devices can start the PC messages at 0 or 1. It is useful to experiment to ensure proper alignment with the PC numbering between devices.



USB-C Interface
Example: DAW sending
PC messages over MIDI



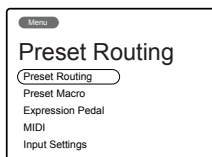
Settings

Several global and track options are available in the main menu, accessible by holding the (Settings) knob. Navigation and selection are performed by turning or pressing the (Settings) knob. Selecting a menu option may specify a parameter to edit or navigate into a sub-menus. A 'Back' option to backup in the menu structure or an 'Exit' option may also be available.



Hold to access main menu.

Turn (Settings) to navigate options.
Press to select a sub-menu or option.



Preset Routing

Option	Description
Series	Audio is routed through each track 1-2-3-4 in series.
Dual Parallel	Audio is routed through tracks 1-2 in series and 3-4 in series. Each pair then operates in parallel.
Parallel	Audio is routed through each track independently. All tracks operate in parallel.

Preset Macro

Option	Description
Track 1 Param 1	Sets the macro knob to the parameter 1.
Track 1 Param 2	Sets the macro knob to the parameter 2.
Track 1 Param 3	Sets the macro knob to the parameter 3.
Track 1 Gain	Sets the macro knob to the track gain.
Track 1 Mix	Sets the macro knob to the track mix.
Track 2 Param 1	Sets the macro knob to the parameter 1.
Track 2 Param 2	Sets the macro knob to the parameter 2.
Track 2 Param 3	Sets the macro knob to the parameter 3.
Track 2 Gain	Sets the macro knob to the track gain.
Track 2 Mix	Sets the macro knob to the track mix.

Mess Essentials

Preset Macro (Continued)

Option	Description
Track 3 Param 1	Sets the macro knob to the parameter 1.
Track 3 Param 2	Sets the macro knob to the parameter 2.
Track 3 Param 3	Sets the macro knob to the parameter 3.
Track 3 Gain	Sets the macro knob to the track gain.
Track 3 Mix	Sets the macro knob to the track mix.
Track 4 Param 1	Sets the macro knob to the parameter 1.
Track 4 Param 2	Sets the macro knob to the parameter 2.
Track 4 Param 3	Sets the macro knob to the parameter 3.
Track 4 Gain	Sets the macro knob to the track gain.
Track 4 Mix	Sets the macro knob to the track mix.
Master Input	Sets the macro knob to the master input level.
Master Mix	Sets the macro knob to the master mix.

Expression Pedal

Function	Option	Description
	Expression Pedal	
Mode	3 Button Switch	
	2 Button Switch	
Pedal Parameters	Track 1 Param 1	Sets the pedal to control parameter 1.
	Track 1 Param 2	Sets the pedal to control parameter 2.
	Track 1 Param 3	Sets the pedal to control parameter 3.
	Track 1 Gain	Sets the pedal to control track gain.
	Track 1 Mix	Sets the pedal to control track mix.

Expression Pedal (Continued)

Function	Option	Description
Pedal Parameters	Track 2 Param 1	Sets the pedal to control parameter 1.
	Track 2 Param 2	Sets the pedal to control parameter 2.
	Track 2 Param 3	Sets the pedal to control parameter 3.
	Track 2 Gain	Sets the pedal to control track gain.
	Track 2 Mix	Sets the pedal to control track mix.
	Track 3 Param 1	Sets the pedal to control parameter 1.
	Track 3 Param 2	Sets the pedal to control parameter 2.
	Track 3 Param 3	Sets the pedal to control parameter 3.
	Track 3 Gain	Sets the pedal to control track gain.
	Track 3 Mix	Sets the pedal to control track mix.
	Track 4 Param 1	Sets the pedal to control parameter 1.
	Track 4 Param 2	Sets the pedal to control parameter 2.
	Track 4 Param 3	Sets the pedal to control parameter 3.
	Track 3 Gain	Sets the pedal to control track gain.
	Track 3 Mix	Sets the pedal to control track mix.
	Master Input	Sets the pedal to control master input level.
Master Mix	Sets the pedal to control the master mix.	

MIDI

Function	Option	Description
Clock In	Internal	Time based functions e.g. tempo, use the internal clock.
	Jack	Time based functions e.g. tempo, use an external clock connected to the MIDI jack input. Tempo displays 'Ext' if clock is recognised.
	USB	Time based functions e.g. tempo, use an external clock input connected to the USB. Tempo displays 'Ext' if clock is recognised.
Transport In	Off	External transport functions e.g. play are off and ignored.
	Jack	Transport functions e.g. play, are controlled from an external device connected to the MIDI jack input.
	USB	Transport functions e.g. play, are controlled from an external device input connected to the USB.

Mess Essentials

MIDI (Continued)

Function	Option	Description
PC In	Off	External program change functions are off and ignored.
	Jack	Program change messages to change the song are controlled from an external device connected to the MIDI jack input.
	USB	Program change messages to change the song are controlled from an external device input connected to the USB.
	USB & Jack	Program change messages to change the song are controlled from an external device input connected to the MIDI jack or the USB.
PC In Channel	Omni	Listens for program change messages on all channels.
	1-16	Selects an individual MIDI channel to listen to for program change messages.
CC In	Off	External control change functions are off and ignored.
	Jack	Control change messages to change the pattern are controlled from an external device connected to the MIDI jack input.
	USB	Control change messages to change the pattern are controlled from an external device input connected to the USB.
	USB & Jack	Control change messages to change the pattern are controlled from an external device input connected to the MIDI jack or USB.
CC In Channel	Omni	Listens for control change messages on all channels.
	1-16	Selects an individual MIDI channel to listen to for control change messages.
Clock Out	Off	The internal clock is not transmitted out.
	Jack	The internal clock is transmitted out from the MIDI jack output.
	USB	The internal clock is transmitted out from the USB output.
	USB & Jack	The internal clock is transmitted on the MIDI jack and USB output.
Transport Out	Off	The internal transport controls are not transmitted out.
	Jack	The internal transport play/stop controls are transmitted out from the MIDI jack output.
	USB	The internal transport play/stop controls are transmitted out from the USB output.
	USB & Jack	The internal transport play/stop controls are transmitted on the MIDI jack and USB output.
Back		Command to back up to the main menu level in the structure.

Input Settings

Function	Option	Description
Mode	Instrument	Sets the input ready for a instrument input i.e. guitar.
	Line	Sets the input ready for a line input i.e. synth.
Channels	Mono	Sets the 'Stereo Input' source to accept mono TS signal.
	Stereo	Sets the 'Stereo Input' source to accept a stereo TRS signal.
Back		Command to back up to the main menu level in the structure.

Leds Brightness

Function	Option	Description
Leds Brightness	High	Brightest setting for LEDs.
	Medium	Medium LED brightness.
	Low	Lowest setting for LEDs.

Firmware

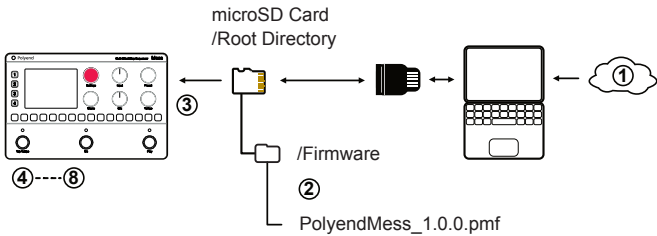
Option	Range	Description
Update Firmware	Command	Initiates the selection of a firmware file from the microSD card in order to update the firmware version.
Version	Indicator Only	Information of current firmware version.
Build	Indicator Only	Build version of current firmware version.

Firmware Update

Polyend may periodically provide firmware updates to fix bugs or add new features. The updating process can be performed in several ways. You are strongly advised to follow the Polyend instructions supplied with each update when performing updates. The instructions here are a generic guide only. Register your product and subscribe at the Polyend site to access updates and further information.

FIRMWARE UPDATE

1. Download the latest firmware from your Polyend account.
2. Copy the downloaded .pmf firmware file into the /Firmware folder. This can be found in the root directory of the microSD Card.
3. Insert the microSD card into Mess and power up.
4. Press (Settings) knob to open the main configuration and settings menu.
5. Navigate through to highlight the 'Firmware' sub-menu. Open the 'Update Firmware' function, highlight the firmware version to install.
6. Press (Settings), knob to select firmware.
7. The firmware will install and the on screen prompts provided will guide. The install process is typically less than 1 minute.
8. Mess will restart automatically when complete.



Summary of Definitions

Mess: This is the name of our 4-track, multi-effect sequencer pedal. A 16 step sequencer is available to each track to create evolving or glitchy effect patterns.

Track: Each track consists of one of the effect modules along with its settings. This can be used to process and affect to the incoming audio. Each track also has up to 16 steps that can be used to program an effect pattern. The four tracks can be routed in parallel or series to build complex and interesting effect chains. If a track is selected, Mess is in track view.

Pattern: The sequence created for the four tracks, each with a maximum of 16 Steps, is called a pattern.

Preset: A preset stores the configuration of all 4 tracks along with the generic settings. This allows a library of predefined configurations to be created, saved and recalled.

Tempo: The clock controls the Mess pedal and sets the speed of the sequencer in beats per minute (BPM) between a range of 30 and 400. An external MIDI clock can also be used to control the tempo of Mess.

Macro: A macro brings selected parameters to the front panel for direct control using the macro knob. This allows on-the-fly ad libs and performances to be supported by manual parameter variations and adjustments of a selected parameter.

Play Chance: Play chance is the probability setting that can be assigned to individual steps. This will set the chance of the step playing in the sequence or not based on percentages or sequencer logic.

Expression Pedal: This is an external foot pedal that can be configured to control various parameters. This is an optional third party device which can be plugged into Mess for external control and modulation. The macro knob and expression pedal both can control defined parameters.

MIDI: MIDI, Musical Instrument Digital Interface, is a protocol used to communicate between audio devices. The Mess pedal accepts MIDI In and sends MIDI out using either the TRS or USB connectors. MIDI control can be used to adjust parameters (CC), control transport, clock, and change presets (PC).

Changelog

OS & Manual	Feature Update	Manual Update
1.0.0 a		Release Version
1.0.0 b		H/W Overview. Clarity on the reset button. USB MIDI.

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Produced in the United Kingdom

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