WAHIDA AUDIO

ONE8

User Manual

Filter morphing, modulation, sonic control, and output protection

Wahida Audio

MANUAL

Contents

Interface Overview

MAIN TABS

- FILTER / MORPH
- MODULATORS
- MATRIX
- MACROS
- SONIC CONTROL
- GAIN STAGE
- SETTINGS

PERSISTENT CONTROLS

- Top strip: Filter Mode, previous/next, INIT, A/B snapshots, Recall / Undo, SAFE, Output Clip Off, Plugin Bypass, Loudness Match.
- Bottom strip: Morph X, Morph Y, Morph Z, Macro 1, LED message display, Cutoff, Resonance, Drive, Mix, and Output.
- The Info panel follows the focused control and shows current value, routing activity, and available source/destination details.

Filter / Morph

OVERVIEW

The Filter / Morph page is the main sound design surface. Select a bank, choose the number of filters in the morph set, assign models to each slot, and move through the morph plane while monitoring the filter shape.

- 2 Filters creates a direct blend between Slot 1 and Slot 2.
- 4 Filters opens an X/Y plane for four model slots.
- 8 Filters opens the XYZ cube for full three-axis morphing.

Control	Range / Options	Default
Morph Count	2, 4, 8	2
Routing Mode	Parallel, Serial, Split, Mid/Side	Parallel
Morph Engine	Legacy, Z Mode	Z Mode
Z Mode Enable	Off / On	On
Routing Split	60 to 8000 Hz	900 Hz
Morph X / Y / Z	0.0000 to 1.0000	0
Morph Intensity	0.0000 to 2.0000	1.0000
Morph Time	0 to 800 ms	180 ms

Filter Banks And Models

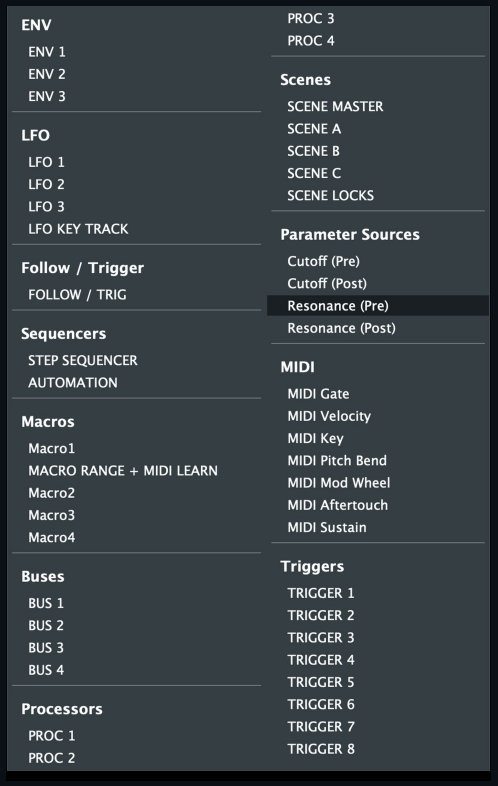
OVERVIEW

Filter banks organize the available model slots. Each slot can hold a model, and the visualizer shows the current filter shape and morph position.

- Use Split, Parallel, Serial, or Mid/Side routing depending on how the filters should combine.
- Custom Filter opens the drawn-filter model path.
- Track, Transform, and Character change how the chosen model behaves.

Control	Range / Options	Default
Cutoff	20 to 20000 Hz	1000 Hz
Resonance	0.0000 to 1.0000	0.2000
Drive	0.00 to 24.00 dB	0.00 dB
Drive Type	Soft Clip, Tanh, Hard Clip, Tube, Console, Hybrid, Tape, Diode, Transformer	Soft Clip
Mix	0.0000 to 1.0000	1.0000
Character	0.0000 to 1.0000	0.2000
Input Trim	-24 to +24 dB	0 dB
Output Trim	-24 to +12 dB	0 dB

Source Menu



OVERVIEW

The source menu exposes every modulation family available from the Modulators page and Matrix.

- ENV, LFO, Follow / Trigger, Sequencers, Macros, Buses, Processors, Scenes, Parameter Sources, MIDI, and Triggers are available.
- The focused source can be routed directly in the Matrix or used as a Via conditioner.

Envelopes

OVERVIEW

ENV1, ENV2, and ENV3 provide ADSR motion that can be free-running, clocked, MIDI-triggered, sidechain-triggered, main-input-triggered, or modulation-triggered.

- The envelope view shows the active A/D/S/R shape and editable Trigger and Clock selections.
- Each envelope can be used as a Matrix source or Via signal.

Control	Range / Options	Default
ENV Slots	ENV1, ENV2, ENV3	-
Trigger Mode	Global, Clock Sync, MIDI, Sidechain, Main, Modulation	Global
Trigger Sync	Bar, 1/1, 1/2, 1/4, 1/8, 1/16, 1/32, 1/8T, 1/16T, 1/8D, 1/16D	Bar
Attack	1 to 5000 ms	10 ms
Decay	1 to 5000 ms	120 ms
Sustain	0.0000 to 1.0000	0.7000
Release	1 to 8000 ms	250 ms

LFOs

OVERVIEW

LFO1, LFO2, and LFO3 provide cyclical, stepped, random, custom, and performance-shaped modulation.

- SYNC switches the rate from Hz to musical divisions.
- START shifts the phase position; INVERT flips the output.
- SPECIAL phrases can use multi-bar step timing.

Control	Range / Options	Default
LFO Slots	LFO1, LFO2, LFO3	-
Rate	0.05 to 20 Hz	LFO1 1 Hz; LFO2/3 0.5 Hz
Depth	0.0000 to 1.0000	0
Shape	50 shapes plus Custom	Sine
Sync	Off / On	Off
Sync Note	1/1, 1/2, 1/4, 1/8, 1/16, 1/32, triplet/dotted values, SPECIAL	1/4
Special Bars	1, 2, 4, 8, or 16 bars; up to 64 beat cells	1 Bar
Delay	0 to 2000 ms	0 ms

Movement Editor

OVERVIEW

The movement editor is used for longer shape-stamped phrases. It supports multi-bar pages, scrolling, draw tools, curve stamps, intensity changes, and skew edits.

- Length options cover 1, 2, 4, 8, and 16-bar special phrases.
- Curve stamps include sine, triangle, saw, square, pulses, ramps, stairs, trills, gates, scoops, and drops.

Control	Range / Options	Default
Length	1 Bar, 2 Bars, 4 Bars, 8 Bars	1 Bar
Snap	Off, 1/4, 1/8, 1/16, 1/32	1/8
Smoothing	0 to 1000 ms	40 ms
Points	256 automation points	Ramp
Tools	Intensity, Skew, Draw, Reset, Undo, Redo	-

Follow / Trigger

OVERVIEW

Follow / Trigger turns input or sidechain energy into a modulation signal and trigger source. The high-pass and low-pass controls define the detector band.

- Use Peak to switch the detector behavior.
- Trigger Source decides whether main input, sidechain, MIDI, or modulation drives the trigger system.

Control	Range / Options	Default
Sidechain Attack	1 to 200 ms	20 ms
Sidechain Release	10 to 1000 ms	180 ms
Sidechain HP	20 to 4000 Hz	20 Hz
Sidechain LP	200 to 20000 Hz	20000 Hz
Peak	Off / On	Off
Threshold	0.0000 to 1.0000	0.2000
Trigger Source	Main, Sidechain, Main+Sidechain, MIDI, Main+MIDI, Sidechain+MIDI, Main+Sidechain+MIDI, Modulation	Main

Step Sequencer

OVERVIEW

The Step Sequencer is a clocked modulation source with 16 steps per bar and up to 8 bars of stored step values.

- Use Shown Bar to edit one bar at a time.
- Smooth rounds transitions between step values.

Control	Range / Options	Default
Length	1 Bar, 2 Bars, 4 Bars, 8 Bars	1 Bar
Steps	16 steps per bar; 128 total across 8 bars	-
Step Level	0.0000 to 1.0000 for each step	Patterned
Smooth	0 to 500 ms	0 ms

Scenes

OVERVIEW

Scenes store three target states and morph between them from Scene Master. Scene Locks can protect individual targets from scene movement.

- Scene A, Scene B, and Scene C each store morph, tone, drive, mix, track, transform, and character targets.
- Scene Morph moves from A to B to C with smoothing and curve selection.

Control	Range / Options	Default
Scene Master	Enable, Morph, Smooth, Curve	Disabled
Scene Morph	0 = A, 0.5 = B, 1 = C	0
Smooth	0 to 1000 ms	80 ms
Curve	Linear, EqualPower, SCurve	EqualPower
Scene A/B/C Targets	Morph X/Y/Z, Cutoff, Resonance, Drive, Mix, Track, Transform, Character	-
Scene Locks	Lock each target so it ignores scene morphing	Off

Scene Targets

OVERVIEW

Scene A, Scene B, and Scene C expose the stored values for each scene. These values are used by Scene Master when scene morphing is enabled.

- Editable targets are Morph X, Morph Y, Morph Z, Cutoff, Resonance, Drive, Mix, Track, Transform, and Character.
- Scene Locks prevent selected targets from being moved by the scene system.

Processors And Buses

OVERVIEW

Processors combine or transform modulation sources before they reach destinations. Buses provide shared modulation lanes with optional lag.

- Processors can be routed as sources or Via signals.
- Buses are useful when several destinations should share the same processed movement.

Control	Range / Options	Default
Processors	PROC1, PROC2, PROC3, PROC4	-
Input A / Input B	Any matrix source	None
Type	Switch, Sum, Multiply, Min, Max, Abs, Diode, FlipFlop, Gain, Quantizer, Lag	Sum
Param	0.0000 to 1.0000	0.5000
Buses	BUS1, BUS2, BUS3, BUS4	-
Bus Lag	0 to 500 ms per bus	0 ms

Modulation Triggers

OVERVIEW

Triggers watch a parameter or signal and output a gate, pulse, envelope, toggle, or sample-and-hold signal when the condition is met.

- Above and Below respond to level thresholds.
- Crosses Up and Crosses Down fire at transitions.
- Inside Range and Outside Range use both range handles.

Control	Range / Options	Default
Triggers	TRIGGER 1 to TRIGGER 8	-
Watch	Any trigger watch source	Cutoff
When	Above, Below, Crosses Up, Crosses Down, Inside Range, Outside Range	Crosses Up
Output	Gate, Pulse, Envelope, Toggle, Sample & Hold	Gate
Threshold / Range End	0.0000 to 1.0000	0.5 / 0.75
Stability	0.0000 to 0.2500	0.0250
Hold	0 to 2000 ms	80 ms
Attack / Release	0 to 1000 ms / 0 to 5000 ms	0 / 120 ms
Invert	Off / On	Off

Matrix

OVERVIEW

The Matrix contains 24 routes. Each route combines a Source, optional Via, Curve, Mode, Amount, Range, Slew, and Destination.

- Use Active Only to show only enabled routes.
- The Info panel reflects the selected route and destination.
- Rows can be reordered with route order controls.

Control	Range / Options	Default
Routes	24 route rows	Off
Source	Main modulation signal feeding the route	None
Via	Optional conditioner that gates or scales the source	None
Destination	Target parameter or modulation layer	None
Amount / Depth	-100% to +100%	0%
Mode	+, -, +/-	+/-
Curve	Linear, Exp, Log, S-Curve, Rectify, Quantize, Clamp, Invert	Linear
Curve Amt	0% to 100%	50%

Blueprint View

OVERVIEW

Blueprint view shows the selected route as a connected module chain. It is useful for understanding how a source is shaped before it reaches the destination.

- Source feeds Via, Curve, Mode, Amount, Range, Slew, then Destination.
- Bypassed routes are prepared but do not affect the target.

Macros

OVERVIEW

Macro 1 through Macro 4 are performance controls that can move multiple targets. Each macro page shows assignments, target ranges, and detailed route settings.

- Use Macro Range to constrain the macro's output.
- MIDI Learn maps external MIDI CCs to macro controls.
- Macro destinations can be fed back into later Matrix rows.

Control	Range / Options	Default
Macros	Macro 1, Macro 2, Macro 3, Macro 4	0
Macro Value	0.0000 to 1.0000	0
Target Slots	Up to four visible assignments per macro page	-
Destination	Any compatible matrix destination	None
Amount / Slew	-100% to +100%; 0 to 500 ms	0 / 0 ms
Min / Max	0.0000 to 1.0000	0 / 1
MIDI Learn Target	None, Macro 1, Macro 2, Macro 3, Macro 4	None
Macro CC	0 to 128 per macro	0

Overdrive

OVERVIEW

Overdrive adds drive-stage color before the later tone and output stages. Low and mid/high drive bands can emphasize different parts of the spectrum.

- Drive Type chooses the saturation model.
- Bass Enhance adds dedicated low-frequency weight.
- The before/after scope displays level and shape changes.

Control	Range / Options	Default
Drive Type	Soft Clip, Tanh, Hard Clip, Tube, Console, Hybrid, Tape, Diode, Transformer	Soft Clip
Main Drive	0 to 24 dB	0 dB
Low Freq	20 to 400 Hz	120 Hz
Low Drive	0 to 24 dB	0 dB
Mid/High Freq	400 to 8000 Hz	1800 Hz
Mid/High Drive	0 to 24 dB	0 dB
Bass Enhance	Off / On	Off
Bass Freq	30 to 220 Hz	80 Hz
Bass Boost	0 to 18 dB	0 dB

Side Chain Listen

OVERVIEW

The Side Chain page contains detector listening, ducking target selection, and detailed compression response editing.

- LISTEN edits the detector range that decides which sidechain frequencies trigger movement.
- Detector Low and Detector High define the listening band.

Control	Range / Options	Default
Engage	Off / On	Off
Mode	Full, Split	Full
Response	Clean, Punch, Smooth, Bounce, Glue	Clean
Source	Main Sum, Main Left, Main Right, Sidechain Sum, Sidechain Left, Sidechain Right	Sidechain Sum
Threshold	-60 to 0 dB	-24 dB
Ratio	1:1 to 20:1	4:1
Attack / Release	0.1 to 100 ms / 10 to 1000 ms	8 / 180 ms
Knee / Range	0 to 24 dB / 0 to 36 dB	6 / 12 dB
Mix	0.0000 to 1.0000	1

Side Chain Duck

OVERVIEW

DUCK edits up to three target bands that will be reduced by the sidechain system.

- Each band has Start, End, Center, and Depth controls.
- Band enable states decide which target bands are active.

Control	Range / Options	Default
Target Mode	Bottom End, Mid Band, Overall Focus	Bottom End
Target Band 1	Enable, low, high, location, depth	On
Target Band 2	Enable, low, high, location, depth	Off
Target Band 3	Enable, low, high, location, depth	Off
Target Low / High	20 to 20000 Hz	Band dependent
Target Location	20 to 20000 Hz	77 / 548 / 4000 Hz
Target Depth	0 to 36 dB	12 dB
Slope	12, 24, 36, 48 dB/oct	24 dB/oct
Overlap	0 to 50%	10%
Auto Duck	Enable, sensitivity, max peaks, depth, Q, hold	Off

Side Chain Detail

OVERVIEW

DETAIL edits the response curve and dynamics behavior of the sidechain pump.

- Threshold, Ratio, Knee, and Mix shape how the detector turns input into gain movement.
- Attack, Release, Range, and Auto Duck controls refine the motion.

Control	Range / Options	Default
Engage	Off / On	Off
Mode	Full, Split	Full
Response	Clean, Punch, Smooth, Bounce, Glue	Clean
Source	Main Sum, Main Left, Main Right, Sidechain Sum, Sidechain Left, Sidechain Right	Sidechain Sum
Threshold	-60 to 0 dB	-24 dB
Ratio	1:1 to 20:1	4:1
Attack / Release	0.1 to 100 ms / 10 to 1000 ms	8 / 180 ms
Knee / Range	0 to 24 dB / 0 to 36 dB	6 / 12 dB
Mix	0.0000 to 1.0000	1

Stereo

OVERVIEW

Stereo controls image width, rotation, asymmetry, and optional band-split width processing. The vector display shows field behavior.

- Image mode affects the whole stereo field.
- Band Split lets low and high bands use different width values.
- Scope source can show input, output, delta, or no field display.

Control	Range / Options	Default
Width	0.0000 to 2.0000	1.0000
Rotation	-100 to +100	0
Asymmetry	-100 to +100	0
Band Split	Low width, high width, split frequency	Off
Low / High Width	0.0000 to 2.0000	1 / 1
Split	60 to 6000 Hz	260 Hz
Auto Narrow	Off / On; width 0.2 to 2.0	Off
Scope Source	Off, Input Field, Output Field, Delta Field	Input Field

Input / Output

OVERVIEW

Input / Output provides trim, pan, mono, and metering for the input and output sides of the plugin.

- Use Input Trim before the filter and drive stages.
- Use Output Trim after the main sound stages.
- Pan and Mono are available separately for input and output.

Control	Range / Options	Default
Input Trim	-24 to +24 dB	0 dB
Input Pan	-100 to +100	0
Input Mono	Off / On	Off
Output Trim	-24 to +12 dB	0 dB
Output Pan	-100 to +100	0
Output Mono	Off / On	Off
Plugin Bypass	Off / On	Off
Output Clip	Off / On	Off
Loudness Match	Off / On	On

Protection

OVERVIEW

Protection contains the SAFE limiter, ceiling, release, and loudness matching controls used to prevent unintended output overs.

- SAFE can be toggled from the global strip or edited here.
- ARC automatically adapts release behavior.
- Reduction shows limiter action in realtime.

Control	Range / Options	Default
Limiter	Off / On	On
Threshold	-24 to 0 dB	0 dB
Ceiling	-60 to 0 dBFS	-1 dBFS
Release	5 to 400 ms	80 ms
ARC	Off / Auto	Auto
Reduction	Realtime display	0 dB

Monitor

OVERVIEW

Monitor combines input/output meters, a vectorscope, a stereo meter, width/correlation displays, and source selection.

- Vector, Lissajous, and Bars choose the stereo monitor view.
- Input Field, Output Field, and Delta Field choose the monitored signal.

Control	Range / Options	Default
Views	Vector, Lissajous, Bars	Vector
Source	Input Field, Output Field, Delta Field	Input Field
Meters	Input and output peak/RMS style displays	-
Stereo Readouts	Width and correlation	-

Settings General

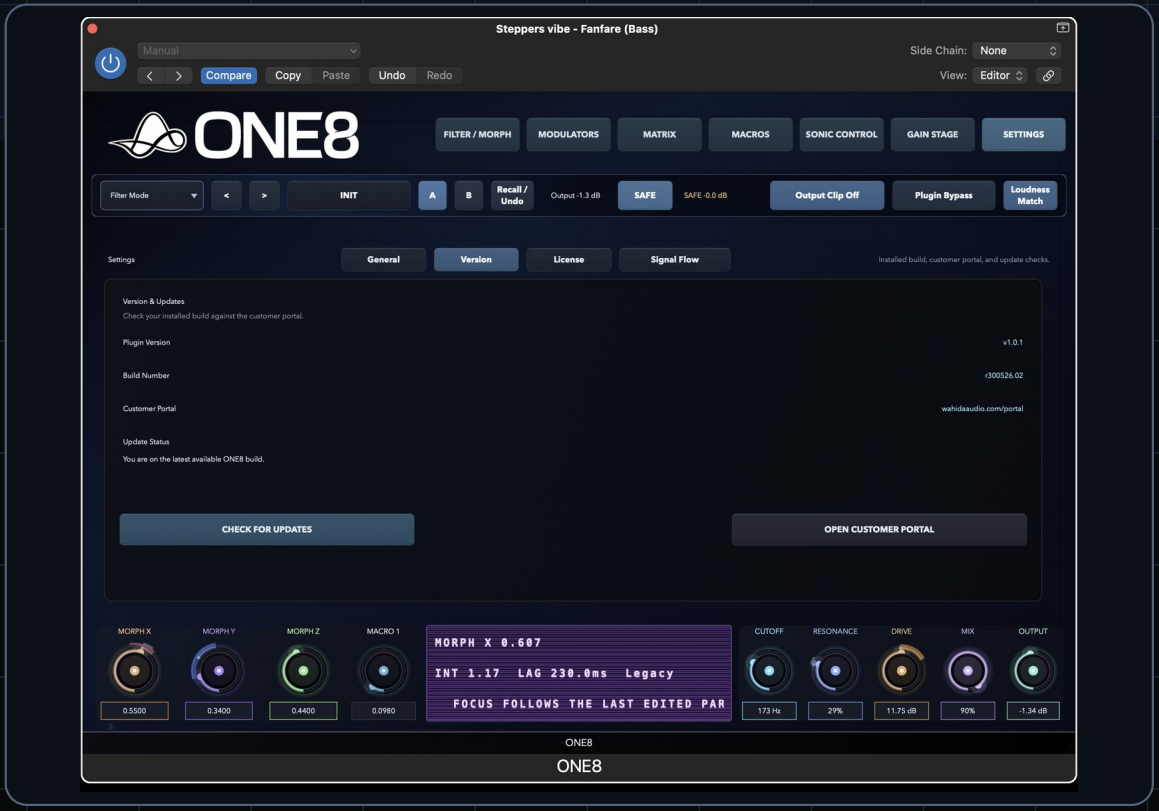
OVERVIEW

General settings contain display, help, oversampling, latency, and performance monitor options.

- Visualizer rendering and tooltips can be enabled or disabled.
- Oversampling and Ultra Low Latency affect quality and latency behavior.
- Performance Monitor shows approximate CPU, memory, and latency.

Control	Range / Options	Default
Render Visualizer	Off / On	On
Show Tooltips	Off / On	On
Oversampling	Off, 2x, 4x	Off
Visualizer Mode	Filter Shape and available visual modes	Filter Shape
LED Help Detail	Simple to detailed help levels	Semi-Pro
Ultra Low Latency	Off / On	Off
Clear Morph Trail	Clears the motion trail display	-
Performance Monitor	CPU load, memory, current latency	-

Version



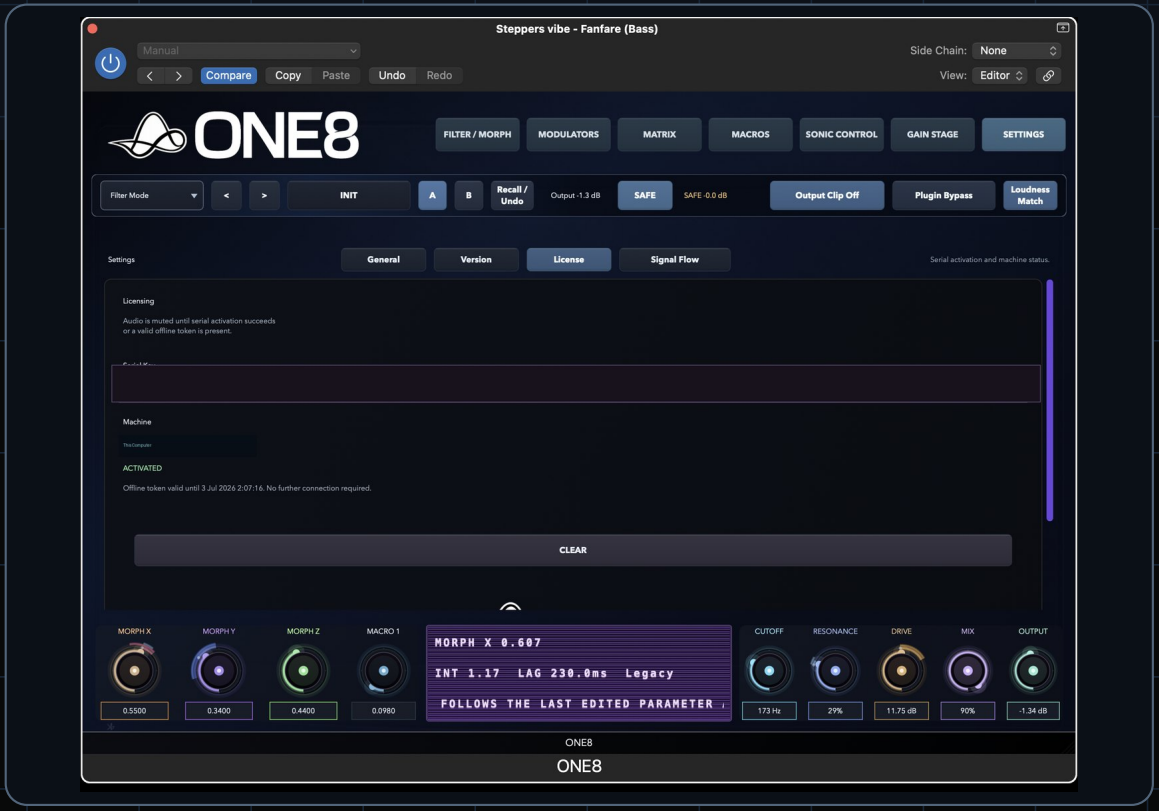
OVERVIEW

Version shows the installed plugin version, build number, customer portal link, update status, and update controls.

- Check For Updates compares the installed build against the portal.
- Open Customer Portal opens the Wahida Audio customer portal.

Control	Range / Options	Default
Version	Installed plugin version	Shown in Version
Build Number	Installed build number	Shown in Version
Customer Portal	wahidaaudio.com/portal	-
Check for Updates	Compares installed build with the portal	-

License



OVERVIEW

License shows serial activation and machine status. Audio is muted until serial activation succeeds or a valid offline token is present.

- Enter a serial key to activate the machine.
- The activation status confirms whether the current machine is activated.
- Clear removes the local license token.

Control	Range / Options	Default
Serial Key	License activation field	-
Machine	Machine activation status	-
Activation	Online activation or valid offline token	-
Clear	Removes local activation state	-

Signal Flow

1. Input trim, optional input mono, and input pan
2. Input metering, sidechain capture, MIDI and clock state
3. ENV, LFO, Step Sequencer, Automation, Scene, Trigger, and Matrix modulation
4. Final morph, filter, drive, mix, output trim, character, and route values
5. Drive saturation, including optional low and mid/high drive bands
6. Filter morph routing: Parallel, Serial, Split, or Mid/Side
7. Wet/dry mix with the plugin's mix taper
8. Low End Tamer, Bass Boost, and Side Chain dynamics
9. Output trim, loudness/auto compensation, and stereo image processing
10. SAFE limiter, output clip mode, optional output mono, output pan, and output meters

Filter / Morph Control Reference

Control	Range / Options	Default
Morph Count	2, 4, 8	2
Routing Mode	Parallel, Serial, Split, Mid/Side	Parallel
Morph Engine	Legacy, Z Mode	Z Mode
Z Mode Enable	Off / On	On
Routing Split	60 to 8000 Hz	900 Hz
Morph X / Y / Z	0.0000 to 1.0000	0
Morph Intensity	0.0000 to 2.0000	1.0000
Morph Time	0 to 800 ms	180 ms
Morph Curve	Linear, EqualPower, SCurve	EqualPower
Track / Transform	0.0000 to 1.0000	0.5000
Mode	Classic, Modern	Modern
Latch Track / Transform	Off / On	Off
Cutoff	20 to 20000 Hz	1000 Hz
Resonance	0.0000 to 1.0000	0.2000
Drive	0.00 to 24.00 dB	0.00 dB
Drive Type	Soft Clip, Tanh, Hard Clip, Tube, Console, Hybrid, Tape, Diode, Transformer	Soft Clip
Mix	0.0000 to 1.0000	1.0000
Character	0.0000 to 1.0000	0.2000
Input Trim	-24 to +24 dB	0 dB
Output Trim	-24 to +12 dB	0 dB

Settings Performance Reference

General settings and quality controls

These controls affect visual workload, inline help, nonlinear quality, and tracking latency.

Control	Options	Default	Use
Render Visualizer	Off / On	On	Draws the visualizer panels when visual feedback is wanted.
Visualizer Mode	Filter Shape	Filter Shape	Chooses what the main visualizer panel follows.
Show Tooltips	Off / On	On	Shows contextual help while hovering controls.
LED Help Detail	Off / Beginner / Semi-Pro / Pro	Semi-Pro	Sets how much detail appears in the retro LED status and help readouts.
Clear Morph Trail	Button	-	Clears the drawn morph trail from the interface.

Oversampling

Off / 2x / 4x

Off is lowest CPU and latency. 2x reduces aliasing in saturation. 4x is the cleanest nonlinear tone at higher CPU.

Ultra Low Latency

Off / On

Constrains high-latency quality paths for recording and live performance responsiveness.

Interaction

Oversampling lockout

When Ultra Low Latency is on, 2x and 4x oversampling are disabled until it is switched off.

Modulator Control Reference

Control	Range / Options	Default
ENV Slots	ENV1, ENV2, ENV3	-
Trigger Mode	Global, Clock Sync, MIDI, Sidechain, Main, Modulation	Global
Trigger Sync	Bar, 1/1, 1/2, 1/4, 1/8, 1/16, 1/32, 1/8T, 1/16T, 1/8D, 1/16D	Bar
Attack	1 to 5000 ms	10 ms
Decay	1 to 5000 ms	120 ms
Sustain	0.0000 to 1.0000	0.7000
Release	1 to 8000 ms	250 ms
LFO Slots	LFO1, LFO2, LFO3	-
Rate	0.05 to 20 Hz	LFO1 1 Hz; LFO2/3 0.5 Hz
Depth	0.0000 to 1.0000	0
Shape	50 shapes plus Custom	Sine
Sync	Off / On	Off
Sync Note	1/1, 1/2, 1/4, 1/8, 1/16, 1/32, triplet/dotted values, SPECIAL	1/4
Special Bars	1, 2, 4, 8, or 16 bars; up to 64 beat cells	1 Bar
Delay	0 to 2000 ms	0 ms
Delay Trigger	Global, Clock Sync, MIDI, Sidechain, Main, Modulation	Global
Start	0.0000 to 1.0000	0
Invert	Off / On	Off
Sidechain Attack	1 to 200 ms	20 ms
Sidechain Release	10 to 1000 ms	180 ms

Modulator Control Reference Continued

Control	Range / Options	Default
Trigger Source	Main, Sidechain, Main+Sidechain, MIDI, Main+MIDI, Sidechain+MIDI, Main+Sidechain+MIDI, Modulation	Main
Length	1 Bar, 2 Bars, 4 Bars, 8 Bars	1 Bar
Steps	16 steps per bar; 128 total across 8 bars	-
Step Level	0.0000 to 1.0000 for each step	Patterned
Smooth	0 to 500 ms	0 ms
Length	1 Bar, 2 Bars, 4 Bars, 8 Bars	1 Bar
Snap	Off, 1/4, 1/8, 1/16, 1/32	1/8
Smoothing	0 to 1000 ms	40 ms
Points	256 automation points	Ramp
Tools	Intensity, Skew, Draw, Reset, Undo, Redo	-
Scene Master	Enable, Morph, Smooth, Curve	Disabled
Scene Morph	0 = A, 0.5 = B, 1 = C	0
Smooth	0 to 1000 ms	80 ms
Curve	Linear, EqualPower, SCurve	EqualPower
Scene A/B/C Targets	Morph X/Y/Z, Cutoff, Resonance, Drive, Mix, Track, Transform, Character	-
Scene Locks	Lock each target so it ignores scene morphing	Off

Sonic Control Reference

Control	Range / Options	Default
Drive Type	Soft Clip, Tanh, Hard Clip, Tube, Console, Hybrid, Tape, Diode, Transformer	Soft Clip
Main Drive	0 to 24 dB	0 dB
Low Freq	20 to 400 Hz	120 Hz
Low Drive	0 to 24 dB	0 dB
Mid/High Freq	400 to 8000 Hz	1800 Hz
Mid/High Drive	0 to 24 dB	0 dB
Bass Enhance	Off / On	Off
Bass Freq	30 to 220 Hz	80 Hz
Bass Boost	0 to 18 dB	0 dB
Engage	Off / On	Off
Mode	Full, Split	Full
Response	Clean, Punch, Smooth, Bounce, Glue	Clean
Source	Main Sum, Main Left, Main Right, Sidechain Sum, Sidechain Left, Sidechain Right	Sidechain Sum
Threshold	-60 to 0 dB	-24 dB
Ratio	1:1 to 20:1	4:1
Attack / Release	0.1 to 100 ms / 10 to 1000 ms	8 / 180 ms
Knee / Range	0 to 24 dB / 0 to 36 dB	6 / 12 dB
Mix	0.0000 to 1.0000	1
Detector Low / High	20 to 20000 Hz	20 / 300 Hz
Target Mode	Bottom End, Mid Band, Overall Focus	Bottom End

Sonic Control Reference Continued

Control	Range / Options	Default
Target Location	20 to 20000 Hz	77 / 548 / 4000 Hz
Target Depth	0 to 36 dB	12 dB
Slope	12, 24, 36, 48 dB/oct	24 dB/oct
Overlap	0 to 50%	10%
Auto Duck	Enable, sensitivity, max peaks, depth, Q, hold	Off
Width	0.0000 to 2.0000	1.0000
Rotation	-100 to +100	0
Asymmetry	-100 to +100	0
Band Split	Low width, high width, split frequency	Off
Low / High Width	0.0000 to 2.0000	1 / 1
Split	60 to 6000 Hz	260 Hz
Auto Narrow	Off / On; width 0.2 to 2.0	Off
Scope Source	Off, Input Field, Output Field, Delta Field	Input Field

Gain And Settings Reference

Control	Range / Options	Default
Input Trim	-24 to +24 dB	0 dB
Input Pan	-100 to +100	0
Input Mono	Off / On	Off
Output Trim	-24 to +12 dB	0 dB
Output Pan	-100 to +100	0
Output Mono	Off / On	Off
Plugin Bypass	Off / On	Off
Output Clip	Off / On	Off
Loudness Match	Off / On	On
Limiter	Off / On	On
Threshold	-24 to 0 dB	0 dB
Ceiling	-60 to 0 dBFS	-1 dBFS
Release	5 to 400 ms	80 ms
ARC	Off / Auto	Auto
Reduction	Realtime display	0 dB
Render Visualizer	Off / On	On
Show Tooltips	Off / On	On
Oversampling	Off, 2x, 4x	Off
Visualizer Mode	Filter Shape and available visual modes	Filter Shape
LED Help Detail	Simple to detailed help levels	Semi-Pro

Gain And Settings Reference Continued

Control	Range / Options	Default
Build Number	Installed build number	Shown in Version
Customer Portal	wahidaaudio.com/portal	-
Check for Updates	Compares installed build with the portal	-
Serial Key	License activation field	-
Machine	Machine activation status	-
Activation	Online activation or valid offline token	-
Clear	Removes local activation state	-

Filter Model Catalog 1

Filter model names appear in the Filter Banks model selectors.

1. Core / EQ Filters / Legacy / LP Smooth 2P
2. Core / EQ Filters / Legacy / LP Smooth 4P
3. Core / EQ Filters / Legacy / LP Tight 2P
4. Core / EQ Filters / Legacy / LP Tight 4P
5. Core / EQ Filters / Legacy / HP Clean 2P
6. Core / EQ Filters / Legacy / HP Clean 4P
7. Core / EQ Filters / Legacy / HP Tight 2P
8. Core / EQ Filters / Legacy / HP Tight 4P
9. Core / EQ Filters / Legacy / BP Wide
10. Core / EQ Filters / Legacy / BP Narrow
11. Core / EQ Filters / Legacy / BP Dual
12. Core / EQ Filters / Legacy / BP Focus
13. Core / EQ Filters / Legacy / Notch Wide
14. Core / EQ Filters / Legacy / Notch Narrow
15. Core / EQ Filters / Legacy / Notch Dual
16. Core / EQ Filters / Legacy / Notch Deep
17. Core / EQ Filters / Legacy / Peak Soft
18. Core / EQ Filters / Legacy / Peak Sharp
19. Core / EQ Filters / Legacy / Shelf Low
20. Core / EQ Filters / Legacy / Shelf High
21. Core / EQ Filters / Legacy / Hybrid Tilt
22. Core / EQ Filters / Legacy / Hybrid Hollow
23. Core / EQ Filters / Legacy / Hybrid Punch
24. Core / EQ Filters / Legacy / Hybrid Air
25. Creative / Modulation Filters / Legacy / Comb FF Short
26. Creative / Modulation Filters / Legacy / Comb FF Long
27. Creative / Modulation Filters / Legacy / Comb FB Short
28. Creative / Modulation Filters / Legacy / Comb FB Long
29. Creative / Modulation Filters / Legacy / Phaser 4
30. Creative / Modulation Filters / Legacy / Phaser 6
31. Creative / Modulation Filters / Legacy / Phaser Deep
32. Creative / Modulation Filters / Legacy / Phaser Wide
33. Creative / Modulation Filters / Legacy / Formant 1
34. Creative / Modulation Filters / Legacy / Formant 2
35. Creative / Modulation Filters / Legacy / Formant 3
36. Creative / Modulation Filters / Legacy / Formant 4
37. Content-Focused Macros / Legacy / Custom Drawn
38. Core / EQ Filters / Low-pass / LP Gentle
39. Core / EQ Filters / Low-pass / LP Smooth
40. Core / EQ Filters / Low-pass / LP Tight
41. Core / EQ Filters / Low-pass / LP Deep
42. Core / EQ Filters / High-pass / HP Gentle
43. Core / EQ Filters / High-pass / HP Smooth
44. Core / EQ Filters / High-pass / HP Tight
45. Core / EQ Filters / High-pass / HP Deep

Filter Model Catalog 2

Filter model names appear in the Filter Banks model selectors.

1. Core / EQ Filters / Band-pass / Band-pass
2. Core / EQ Filters / Notch / Notch Narrow
3. Core / EQ Filters / Notch / Band-stop Wide
4. Core / EQ Filters / Phase / All-pass
5. Core / EQ Filters / Peak / Peaking Bell
6. Core / EQ Filters / Shelf / Low Shelf
7. Core / EQ Filters / Shelf / High Shelf
8. Core / EQ Filters / Tone / Tilt EQ
9. Analog / Character Models / State-variable / SVF LP-BP Blend
10. Analog / Character Models / Ladder / Transistor Ladder
11. Analog / Character Models / Ladder / Diode Ladder
12. Analog / Character Models / OTA / SEM-style
13. Analog / Character Models / Sallen-Key / Sallen-Key Style
14. Analog / Character Models / Korg-style / MS-20 Bite
15. Creative / Modulation Filters / Comb / Comb Feedforward
16. Creative / Modulation Filters / Comb / Comb Feedback
17. Creative / Modulation Filters / Formant / Formant Vowel
18. Creative / Modulation Filters / Phaser / All-pass Chain
19. Creative / Modulation Filters / Morph / LP-BP Motion Blend
20. Creative / Modulation Filters / Peak / Twin-peak Dual Peak
21. Creative / Modulation Filters / Formant / Resonator Bank
22. Creative / Modulation Filters / Wah / Resonant Wah BP
23. Dynamic / Utility Filters / Motion / Moving Tone Blend
24. Dynamic / Utility Filters / Motion / Punch Sweep Blend
25. Dynamic / Utility Filters / Utility / Presence Trim
26. Dynamic / Utility Filters / Utility / Low Cleanup Shelf
27. Dynamic / Utility Filters / Utility / High Cleanup Shelf
28. Dynamic / Utility Filters / Utility / Tilt Cleanup
29. Dynamic / Utility Filters / Phase / Sharp Phase Peak
30. Dynamic / Utility Filters / Phase / Soft Phase Peak
31. Content-Focused Macros / Vocal Focus
32. Content-Focused Macros / Vocal Air
33. Content-Focused Macros / Vocal De-ess Notch
34. Content-Focused Macros / Bass Tight
35. Content-Focused Macros / Bass Sub Clean
36. Content-Focused Macros / Bass Growl
37. Content-Focused Macros / Lead Presence
38. Content-Focused Macros / Lead Bite
39. Content-Focused Macros / Pad Warm
40. Content-Focused Macros / Pad Wash
41. Content-Focused Macros / Pad Air
42. Content-Focused Macros / Pad Motion

LFO Shape Library

All three LFOs share the same shape library.

1. Sine
2. Triangle
3. Saw Up
4. Saw Down
5. Square
6. Pulse 25%
7. Pulse 10%
8. Ramp
9. Exp Up
10. Exp Down
11. Log Up
12. Log Down
13. Sample Hold
14. Random Smooth
15. Step 4
16. Step 8
17. Step 16
18. Half Sine
19. Rectified
20. Inverted Sine
21. Trapezoid
22. Bounce
23. Custom
24. Stair Up
25. Stair Down
26. Sine Fold
27. Jitter
28. Chaos
29. Wobble
30. Double Sine
31. Triple Sine
32. Sine Rise
33. Sine Dip
34. Gate 8
35. Gate 16
36. Swing Step
37. Euclid 5
38. Euclid 7
39. Downbeat Pulse
40. Offbeat Pulse
41. Sidechain Pump
42. Pluck Decay
43. Reverse Pluck
44. Hold Drop
45. Riser
46. Fall
47. Heartbeat
48. Flutter
49. Crescendo Steps
50. Decrescendo Steps

Matrix Sources

Sources can feed route Source, Via, and processor input selectors.

1. None
2. LFO1
3. LFO2
4. LFO3
5. ENV1
6. ENV2
7. ENV3
8. Sidechain Follower
9. Macro1
10. Macro2
11. Macro3
12. Macro4
13. BUS1
14. BUS2
15. BUS3
16. BUS4
17. Cutoff (Pre)
18. Cutoff (Post)
19. Resonance (Pre)
20. Resonance (Post)
21. Proc1
22. Proc2
23. Proc3
24. Proc4
25. MIDI Gate
26. MIDI Velocity
27. MIDI Key
28. MIDI Pitch Bend
29. MIDI Mod Wheel
30. MIDI Aftertouch
31. MIDI Sustain
32. Trigger 1
33. Trigger 2
34. Trigger 3
35. Trigger 4
36. Trigger 5
37. Trigger 6
38. Trigger 7
39. Trigger 8
40. Step Sequencer
41. Automation

Matrix Destinations 1

Destinations are the targets available from Matrix route destination selectors.

1. None
2. Morph X
3. Morph Y
4. Morph Z
5. Cutoff
6. Resonance
7. Drive
8. Mix
9. Track
10. Transform
11. BUS1
12. BUS2
13. BUS3
14. BUS4
15. Route 1 Depth
16. Route 2 Depth
17. Route 3 Depth
18. Route 4 Depth
19. Route 5 Depth
20. Route 6 Depth
21. Route 7 Depth
22. Route 8 Depth
23. Route 9 Depth
24. Route 10 Depth
25. Route 11 Depth
26. Route 12 Depth
27. Route 13 Depth
28. Route 14 Depth
29. Route 15 Depth
30. Route 16 Depth
31. Route 17 Depth
32. Route 18 Depth
33. Route 19 Depth
34. Route 20 Depth
35. Route 21 Depth
36. Route 22 Depth
37. Route 23 Depth
38. Route 24 Depth
39. Macro 1
40. Macro 2
41. Macro 3
42. Macro 4
43. LFO1 Rate
44. LFO2 Rate
45. LFO3 Rate
46. LFO1 Depth
47. LFO2 Depth
48. LFO3 Depth
49. LFO1 Start
50. LFO2 Start
51. LFO3 Start
52. Character
53. Output Trim
54. Drive Low Amount
55. Drive Low Freq

Matrix Destinations 2

Destinations are the targets available from Matrix route destination selectors.

1. Drive Mid/High Amount
2. Drive Mid/High Freq
3. Drive Bass Freq
4. Drive Bass Amount
5. Stereo Image Width
6. Stereo Image Rotation
7. Stereo Image Asymmetry
8. Stereo Width Low
9. Stereo Width High
10. Stereo Width Split
11. Stereo Width Max
12. Low End Tamer Freq
13. Low End Tamer Amount
14. Low End Tamer Q
15. Low End Tamer Width
16. Low End Tamer Low Pass
17. Sidechain Threshold
18. Sidechain Ratio
19. Sidechain Knee
20. Sidechain Range
21. Sidechain Mix
22. Sidechain Low Band Max
23. Sidechain High Band Min
24. Sidechain Crossover
25. Sidechain Overlap
26. Sidechain Low Amount
27. Sidechain Mid/High Amount
28. Sidechain Auto Duck Depth
29. Sidechain Auto Duck Q
30. Sidechain Target 1 Low
31. Sidechain Target 1 High
32. Sidechain Target 2 Low
33. Sidechain Target 2 High
34. Sidechain Target 3 Low
35. Sidechain Target 3 High
36. Sidechain Target 1 Location
37. Sidechain Target 2 Location
38. Sidechain Target 3 Location
39. Drive Type
40. Drive Bass Enable
41. Stereo Processing
42. Stereo Auto Narrow
43. Low End Tamer Enable
44. Sidechain Enable
45. Sidechain Mode
46. Sidechain Response
47. Sidechain Full Source
48. Sidechain Low Source
49. Sidechain High Source
50. Sidechain Attack
51. Sidechain Release
52. Sidechain Detector Low
53. Sidechain Detector High
54. Sidechain Target 1 Enable
55. Sidechain Target 2 Enable

Matrix Destinations 3

Destinations are the targets available from Matrix route destination selectors.

1. Sidechain Target 3 Enable
2. Sidechain Slope
3. Sidechain Auto Duck Enable
4. Sidechain Auto Duck Sensitivity
5. Sidechain Auto Duck Max Peaks
6. Sidechain Auto Duck Hold
7. Sidechain Target Mode
8. Morph Intensity
9. Morph Time
10. LFO1 Delay
11. LFO2 Delay
12. LFO3 Delay
13. ENV1 Attack
14. ENV1 Decay
15. ENV1 Sustain
16. ENV1 Release
17. ENV2 Attack
18. ENV2 Decay
19. ENV2 Sustain
20. ENV2 Release
21. ENV3 Attack
22. ENV3 Decay
23. ENV3 Sustain
24. ENV3 Release

Trigger Watch Sources

Trigger watch sources feed TRIGGER 1 through TRIGGER 8.

1. Cutoff
2. Resonance
3. Drive
4. Mix
5. Morph X
6. Morph Y
7. Morph Z
8. Track
9. Transform
10. Character
11. Output Trim
12. LFO1
13. LFO2
14. LFO3
15. ENV1
16. ENV2
17. ENV3
18. Sidechain Follower
19. Sidechain Full
20. Sidechain Low
21. Sidechain High
22. Sidechain Trigger
23. Sidechain Target Band 1
24. Sidechain Target Band 2
25. Sidechain Target Band 3
26. Stereo Balance
27. Stereo Width
28. Stereo Mid Energy
29. Stereo Side Energy
30. Input Level
31. MIDI Gate
32. MIDI Velocity
33. MIDI Key
34. MIDI Pitch Bend
35. MIDI Mod Wheel
36. MIDI Aftertouch
37. MIDI Sustain
38. Macro1
39. Macro2
40. Macro3
41. Macro4
42. Morph Intensity
43. Morph Time

Trigger, Route, And Processor Options

ROUTE MODES	+, -, +/-
ROUTE CURVES	Linear, Exp, Log, S-Curve, Rectify, Quantize, Clamp, Invert
PROCESSOR TYPES	Switch, Sum, Multiply, Min, Max, Abs, Diode, FlipFlop, Gain, Quantizer, Lag
TRIGGER CONDITIONS	Above, Below, Crosses Up, Crosses Down, Inside Range, Outside Range
TRIGGER OUTPUTS	Gate, Pulse, Envelope, Toggle, Sample & Hold
SYNC NOTES	Bar, 1/1, 1/2, 1/4, 1/8, 1/16, 1/32, 1/8T, 1/16T, 1/8D, 1/16D

Common Workflow

1	Choose Filter / Morph mode	Pick 2, 4, or 8 filters and load models into the slots.
2	Set the static tone	Balance Cutoff, Resonance, Drive, Mix, Track, Transform, and Character.
3	Add motion	Use ENV, LFO, Step Sequencer, Automation, Follow / Trigger, Scenes, or MIDI.
4	Route it	Create Matrix rows from sources to destinations; shape with Via, Curve, Range, and Slew.
5	Control the output	Use Sonic Control and Gain Stage to manage drive, sidechain motion, stereo image, and protection.