



THNDRVERB

ALGORITHMIC REVERB

[RACK EXTENSION]
MANUAL



FX device by Turn2on Software



THNDRVERB is a flexible algorithmic reverb processor for your personal needs for room shapes with various reverberation types. This is your new Reverb-companion effect for Reason Rack.

The main section of this device is the **ALGOVERB** section. It includes 25 categorized reverberation modes from classical rooms and halls to various places and well-known hardware reverberation algorithms. It includes Rooms, Halls, Plates and Places. All ALGOVERB reverberation modes are algorithmic reverberations, no one IR impulse is used.

ALGOVERB can be used in **Main Only** mode (when all other sections is disabled), or in **Parallel** and **Feedback** modes with the next sections: Main & Feedback Tone, FeedVerb, FeedShift and Magnet 8-Head Tap Delay.

The **TONE** section helps to improve your signal for the Main and Feedback routing with Low/Mid/High settings like Mid EQ, LP & BP filters, control of reverb time scale at Low frequencies, progressive loss of high frequencies at the reverb tail.

The **FEEDVERB** section is an additional Reverberation section for Parallel or Feedback signal processing. It is based on 7 algorithmic reverberation types with High frequency Tone loss at FeedVerb tails, Mid band EQ and Pitch-Modulation of the reverb for a richer sound. **FEEDBACK Warning!** If you listen the Oscillation of the Feedback, quickly turn the Feedback level down. Always be accurate with Feedback level control.

The **FEEDSHIFT** section works like a Feedback Pitch & Formant Shifting. It includes Linked or individual L/R channels, pitch shift control by semitones, Formant shift with keytracking control, frequency quality and latency control of the shift changes, and **FREEZE Loop** (freeze the current spectrum).

The **MAGNET** section is a 8-Head Tap Delay with feedback, time and 1-8 Head level control, that helps to create your own rhythms and textures.

The **LIMITER** section includes limiting signal recovery time control with **Drive** maximizer up to 60 dB, to compensate for any device section levels or adding some drive.

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FRONT PANEL



MAIN CONTROL



SEND MODE

DESCRIPTION

ONLY MAIN

AlgoVerb section is activated as the main processing part of the device with the Main Tone section. Other sections of the device are disabled

PARALLEL

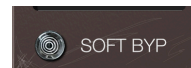
The dry signal is routed to the Main Tone.
The wet signal is routed to the chain:
AlgoVerb -> Tone Feedback -> FeedVerb -> FeedShift -> Magnet

FEEDBACK

The dry signal is routed to the Main Tone.
The wet signal is routed to the chain:
AlgoVerb -> Tone Feedback -> FeedVerb -> FeedShift -> Magnet -> Feedback Loop to AlgoVerb



ThunderVerb



PARAMETER

DESCRIPTION

GAIN	Set the output level of the final signal to the device output
WIDTH	Adjust the stereo width of the wet (processed) signal before the signal comes to the device output
DRY	Level of the unprocessed (dry) input signal sent to the device output
WET	Level of the processed (wet) signal sent to the device output
BYP/ON/OFF	BYPASS - disable effect / ON - enable effect / OFF - mute incoming signal
PATCH BRWSR	Open patches in the browser, or save your own patches
SOFT BYPASS	Switches the effect between Active and Soft-Bypass modes. Variation of effect bypass with fade in and fade out that excludes loud peaks when you enable or disable the effect



25 ALGORITHMIC REVERBERATIONS

PARAM	DESCRIPTION
PRE DELAY	Initial delay before the reverb (0...250 ms)
SPACE	Scale the size of the room (0...150 %)
DECAY	Length of the reverb tail (0.1...60 sec)
DIFFUSION	Amount of blurring or smoothing of reflections
GRAVITATION	Pitch modulation within reverb for a richer sound
DEPTH	Mix between the dry (unprocessed) and wet (processed) signal

ALGORITHM	ROOM SHAPES AND REVERB TYPES
MDRNYVERB	Modern Digital Delay
HALLS: Replicates the sound of a concert halls (gigantic size). Perfect to add space to the strings and pads	
- HALL	Standard Hall Reverberation
- DENSE HALL	Dense Hall Reverberation
- CLSK HALL	Classic Hall Reverberation
- LARGE HALL	Large Hall Reverberation
- DIFFUSE HALL	Diffuse Space of the Hall Reverberation
- SPORT HALL	Sport Hall Reverberation
- BACK OF HALL	Back (rear) side reflections of the Hall Reverberation
- BACK ROW	Back Row reflections of the Hall Reverberation
ROOMS: Sound of small acoustic spaces, have natural colour and known as most rock'n'roll sounding vibe	
CLSK ROOM	Classic Room Reverberation
TIGHT ROOM	Tight Room Reverberation
DENSE ROOM	Dense Room Reverberation
ABSORPTION	Absorption (Isolated Room)

ALGO VERB



ALGORITHM	ROOM SHAPES AND REVERB TYPES
PLATES: Plate is a basically an electro-mechanical device containing a plate of steel, transducers and a contact microphone to pickup the induced vibrations from that plate	
CLSK PLATE	Classic Plate Reverberation
RESO PLATE	Resonated Plate Reverberation
FLAT PLATE	Flat Plate Reverberation
PLACES: Various spaces reverberation	
CHAMBER	Speaker & Microphone inside of reflective room (bathroom, hallway, stairway)
THEATER	Theater Reverberation
STADIUM	Stadium Reverberation
DANCE FLOOR	Dance Floor Reverberation
GARAGE	Tight Garage Reverberation
UNDRGRND	Underground space Reverberation
TAJ MAHAL	Well-known Reverberation sound from Alesis, Rolands & QRS
SNDNG CAVE	Well-known Reverberation from Han Son Dong Cave
BLACK SPACE	Iconic Black Space Reverberation

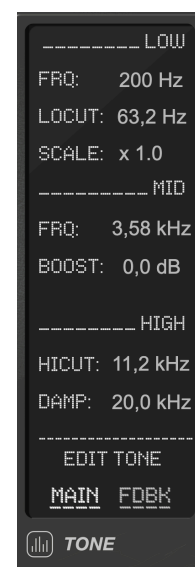
AlgoVerb section: Based on the 25 most popular reverberation algorithms in the music industry.

All reverberation types in this section are algorithmic & do not use any IR impulses.

AlgoVerb includes various types of spaces, to place your signal in the mix, from classic rooms and halls, or live spaces to the various popular and well-known hardware reverberation algorithms.

TONE

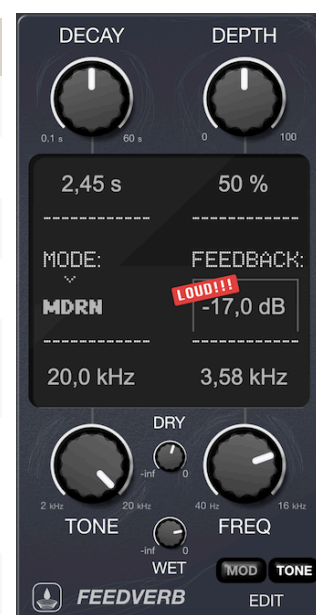
PARAM	DESCRIPTION
EDIT TONE	Switch Tone parameters panel between the Main and Feedback signals
LOW FREQ	Frequency used for reverb time scale at Low Frequencies
LOW FREQ SCALE	Increase or decrease reverb time at Low Frequencies
LOW CUT	HighPass filter Cutoff Frequency
MID BOOST	Mid EQ amount
MID FREQ	Mid EQ frequency
HIGH CUT	LowPass filter Cutoff Frequency
HIGH DAMP	Progressive loss of the high frequencies in the reverb tail



7 ALGORITHMIC REVERBERATIONS

PARAM	DESCRIPTION
DECAY	Length of the reverb tail (0.1...60 sec)
TONE	Progressive loss of the high frequencies in the FeedVerb tail
FREQ	Mid EQ frequency
DEPTH	Mix between the dry (unprocessed) and wet (processed) signal
FEEDBACK	Warning! If you listen Oscillation of the Feedback, fastly turn Feedback level down. Always be accurate with Feedback level
	Parallel mode: Sets level of the FeedVerb chain output signal routed to the main output, in parallel of the the AlgoVerb section. Feedback Mode: Sets level of the FeedVerb chain output signal that return to the AlgoVerb section and re-processed before coming to the main output.
DRY	Level of the unprocessed (dry) input signal sent to FeedVerb output
WET	Level of the processed (wet) signal sent to the FeedVerb output
PMD	Pitch Modulation within FeedVerb reverb for a richer sound
DIFFUSIOIN	Amount of blurring or smoothing of reflections
EDIT SWITCH	Switch edit modes on the panel between Mod (Diffusion & PMD knobs) or Tone (Tone & Frequency knobs)
MODES:	Switch between algorithmic reverberation types:
MDRN	Modern Digital Reverberation with detailed textures of the tail
CLSK	Classik Digital Reverberation
PNMD	Panoramized Reverberation (modulation from Left to Right)
HRZNT	Horizon widening Reverberation
REZO	Resonated Plate Reverberation
BLCK	Iconic Black Space Reverberation
DRAM	Early Reflection Reverberation

FEED VERB



Pitch shifting of the signal coming from the FeedVerb

PARAM	DESCRIPTION
FEED SHIFT	<p>LINKED: Set how many semitones to shift the pitch to both L/R channels at the same time</p> <p>L/R: Set how many semitones to shift the pitch of the L or R channels individually</p>
FDBK SHIFT CHANNELS MODE	Switch the L/R channels between the LINKED and Individual pitch-shifting modes
SHIFT FORMANT	Adjust formants to make the sound source seem bigger or smaller
SHIFT FORMANT KEYTRACK	How much the formants shift to follow the pitch shift. At zero, formant frequencies are fixed
FEED SHIFT DEPTH	Mix between the dry (unprocessed) and wet (processed) signal
FEED SHIFT SPEED	<ul style="list-style-type: none"> - MOMENT (Low latency, lower frequency resolution) - FAST - SLOW - DELAY (More clean, better frequency resolution, but bigger latency)
FREEZE LOOP	Freeze the current spectrum

FEEDSHIFT



8-Head Tap Delay of the signal coming from the FeedShift section

PARAM	DESCRIPTION
DELAY TAP HEADS	Quantity of the Magneto Tap Delay Heads (from 1 to 8)
TIME	Delay Time (tempo synced)
FEEDBACK	Feedback to the delay input to create multiple repeats
FEEDBACK HEAD	Selects which delay head (output tap) the feedback is taken from
MIX	Mix between the dry (unprocessed) and wet (processed) signal
DRY	Level of the unprocessed (dry) signal sent to the output Magneto Delay
WET	Level of the processed (wet) signal sent to the output Magneto Delay
HEAD LEVELS 1-8	Volume of each Head (Delay Tap). Set to zero to disable the Head, saving CPU

MAGNET



LIMITER

PARAM	DESCRIPTION
LIMITER ON/OFF	Enable / Disable Limiter
LIMITER RELEASE	Limiter Recovery Time
DRIVE	Maximize input level up to 60 dB

REAR PANEL

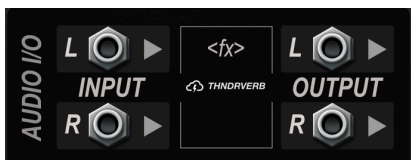


CV INPUTS

AUDIO INPUT/OUTPUT

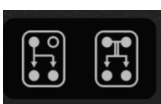
AUDIO INPUT/OUTPUT:

Mono or Stereo connections for audio signals



CV INPUTS:

Use these CV inputs to control the main parameters with external CV source curves



SIGNAL ROUTING ICONS

This is a true stereo device



THNDRVERB

ALGORITHMIC REVERB

Reason Studios Add-on Shop



Turn2on

Rack Extension Developer

contacts: <https://turn2on.com/>
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Thanks to all beta-testers



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