

# **air**

# **TUBESYNTH**

## **User Guide**

English

Manual Version 1.1

## Introduction

Thank you for purchasing the AIR TubeSynth plugin instrument. The AIR TubeSynth plugin emulates the sound of classic vintage analog polysynths. TubeSynth is based on the highly acclaimed AIR Vacuum Pro desktop synth plugin and also includes 5 integrated AIR effects.

This user guide explains the features and functions of the plugin instrument. For more information on using this plugin with other software, please refer to your software's documentation for adding and using plugin instruments.

## System Requirements & Product Support

For complete system requirements and compatibility information, visit [airmusictech.com](https://airmusictech.com).

For technical support, visit [support.airmusictech.com](https://support.airmusictech.com).

## Installation

1. Double-click the **.exe** (Windows) or **.pkg** (macOS) file you downloaded. Follow the on-screen instructions to install the software.
2. Open the plugin application.
3. Click **Sign In** to sign into your inMusic Brands Profile using your Internet browser. If you do not have an inMusic Brands Profile yet, you will be prompted to create one.
4. Once you have signed in, click **Activate** in the plugin window to enter your serial key to unlock the plugin. You can unlock each plugin on up to three devices at a time.
5. If you do not have a serial key, you can click **Try Unlicensed** to explore the plugin with intermittent audio alerts. You can also click **10-Day Trial** to initiate a free, fully featured trial of the plugin for 10 days.

If you would like to purchase a serial key, click the link to purchase a license at [profile.inmusicbrands.com](https://profile.inmusicbrands.com).

Setup Section

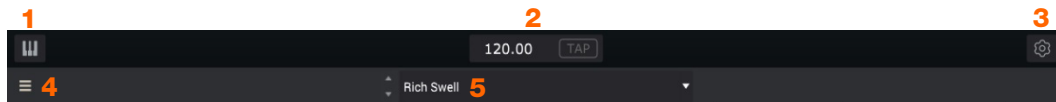
Global Controls

Synth Controls

FX Controls



## Setup Section



1. **Keyboard:** Click this icon to enable or disable the virtual keyboard. When enabled, you can click these keys to input notes, or view notes being played on an external MIDI device.
2. **Tempo:** Displays the current plugin tempo. To change the tempo:
  - Click the number and use your keyboard to input a new value.
  - Click and drag the tempo value up or down using your cursor.
  - Click the **Tap** button at regular intervals.
3. **Settings:** Click this icon to open the Settings window, where you can set the following parameters:
  - **Output:** to select an audio hardware driver in your computer system. Click the **Test** button to play a test tone for checking your audio output settings. (Careful! You should lower the volume on your audio system beforehand.)
  - **Sample Rate:** Click this drop-down menu to select the desired sample rate for your project. This depends on the available sample rates of the type of MPC hardware you are using or of your audio interface (i.e., select **96000 Hz** only if your interface allows a 96 kHz sample rate).
  - **Audio Buffer Size:** Click this drop-down menu to set your audio system's latency. Lower values result in a more immediate playing response but also more CPU consumption. If you are working with larger projects, this may cause audible clicks and pops. Higher values are more CPU-friendly but can produce more delay between pressing a pad and hearing the corresponding sound. The ideal audio buffer size also depends on your computer's CPU performance. Experiment with this to find the best setting for your system.
  - **Active MIDI Inputs:** Displays available MIDI input devices. To enable a device, check the box next to its name.
  - **Bluetooth MIDI:** Click this icon to open your system's Bluetooth settings menu, where you can select a Bluetooth-enabled MIDI device to control the plugin.
4. **Menu:** Click this icon to open the menu, where you can find the following options:
  - **Scale:** Click here to select a value to scale the plugin window to a new size.
  - **Load Preset:** Click here to load a saved preset.
  - **Save Preset:** Click here to save the current preset.
  - **Open User Guide:** Click here to open this User Guide.
  - **About:** Click here to view plugin version information.
5. **Preset:** Click this drop-down menu to view the list of included plugin presets. You can also click the up and down arrows next to this field to move to the previous or next preset.

## Global Controls

T B E S Y N T H

POLY 10 Voices

BEND RANGE 2

GLIDE ALL

100 s

air

Parameter	Description	Value Range
Polyphony	Number of allowable voices, and how voices are triggered.	Legato, Retrigger, 2, 3, 4, 5, 6, 7, 8, 9, 10
Bend Range	Number of semitones up or down controlled by MIDI pitch bend messages.	0–12 (semitones)
Glide All	Enables or disables pitch gliding for all triggered notes, not just legato notes.	Off, On
Glide Time	Amount of time to slide from the pitch of one note to the next note played.	1.00 ms – 100 s

# Synth Controls

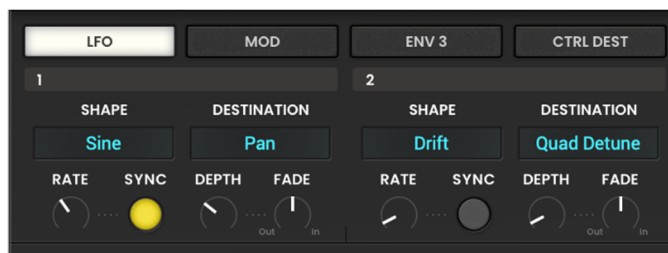


Parameter	Description	Value Range
Sub Oscillator	Shape	Waveshape of the sub oscillator (continuously variable). Triangle, Saw, Square, Pulse
Oscillator 1	Shape	Waveshape of Oscillator 1 (continuously variable). Triangle, Saw, Square, Pulse
	Octave	Coarse tuning of the oscillator by octaves. The <b>Wide</b> setting provides additional <b>Fine</b> tuning controls. Wide, 32', 16', 8', 4', 2'
	Fine	Fine tuning of the oscillator by semitones. When <b>Octave</b> is set to <b>Wide</b> : -70.00 – 0.00 – +70.00 When <b>Octave</b> is set to <b>32'–2'</b> : -12.00 – 0.00 – +12.00
	F-Env→Shape	Amount of Filter Envelope output subtracted from or added to the value defined by the Osc 1 <b>Shape</b> parameter. -100 – 0 – +100%
	Quad	Enables or disables four-voice emulation for the oscillator. Off, On
	Detune	Adjusts tuning of the additional <b>Quad</b> voices. 0–100%
Oscillator 2	Sync	Enables or disables syncing of Oscillator 2 to Oscillator 1. Off, On
	Shape	Waveshape of Oscillator 2 (continuously variable). Noise, Saw, Square, Pulse
	Octave	Coarse tuning of the oscillator by octaves all the way down to LFO speed. LFO, 32', 16', 8', 4', 2'
	Fine	Fine tuning of the oscillator. When <b>Octave</b> is set to <b>LFO</b> : 0.01 – 20.00 Hz When <b>Octave</b> is set to <b>32'–2'</b> : -12.00 – 0.00 – +12.00 semitones
	F-Env→Shape	Amount of Filter Envelope output subtracted from or added to the value defined by the Osc 2 <b>Shape</b> parameter. -100 – 0 – +100%
	Phase	Position of the waveshape when the sound is triggered. 0–360 degrees
	Micro Detune	Additional detuning of Oscillator 2. 0–100%

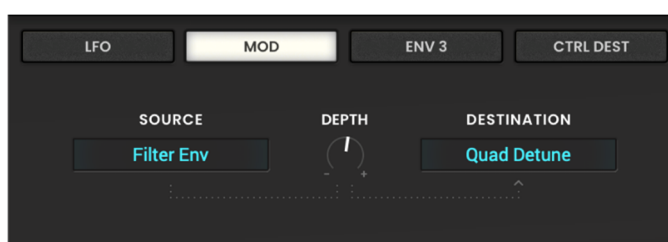


Parameter		Description	Value Range
Osc 2 EQ	Gain	Amount of gain applied to the selected <b>Frequency</b> .	-48 – 0 – +48 dB
	Frequency	Center frequency for the equalization band.	25–10,000 Hz
	Drive	Amount of drive added to the EQ signal.	0–100%
	Keytrack	Ties the EQ settings to the pitch being played	0–100%
Doubling		Enables or disables voice doubling.	Off, On
	Detune	Amount of detuning applied. This setting is only applied when <b>Doubling</b> is enabled.	0–100%
Mixer	Osc 1	Level of Oscillator 1.	0–100%
	Osc 2	Level of Oscillator 2.	0–100%
	Sub Osc	Level of the Sub Oscillator.	0–100%
	Ring Mod	Level of Ring Modulation effect.	0–100%
	Drive	Level of Drive effect.	0–100%
LP Filter	Cutoff	Center frequency of the low-pass filter cutoff.	0–100%
	Reso	Amount of resonance of the low-pass filter.	0–100%
	Slope	Amount of attenuation applied above the cutoff frequency.	0–24 dB/oct
	Saturation	Amount of saturation applied to the low-pass filter.	0–100%
	Env	Percentage of the envelope output subtracted from or added to the LP Filter <b>Cutoff</b> .	-100 – 0 – +100%
	Keytrack	Ties the LP Filter Cutoff to the pitch being played.	0–100%
Output	Width	Stereo width of the audio signal. Higher values give wider stereo separation.	0–100%
	Amp Shape	Amount of signal sent to a Tube Drive.	0–100%
	Amp Level	Overall output volume of the plugin.	-Inf dB – +12.0 dB

Click the **LFO**, **MOD**, **ENV3** and **CTRL DEST** buttons to view the respective controls.



Parameter	Description	Value Range
LFO 1/LFO 2	Shape	Waveshape of the low-frequency oscillator. Sine, Square, Saw Up, Saw Down, Pump, S&H, Drift
	Destination	Where the low-frequency oscillator is sent.  <b>LFO1:</b> Off, Pitch, Filter, Level, Pan <b>LFO2:</b> Pitch, Osc 1/2 Shape, Osc 1/2 Pitch, LPF, Quad Detune, Osc EQ Freq, Osc 2 EQ Gain, Ring Level
Rate	Speed of modulation.  When <b>Sync</b> is <b>Off</b> : 0.01 – 20.00 Hz When <b>Sync</b> is <b>On</b> : 8/4 – 1/32	
Sync	Sync the LFO <b>Rate</b> to the <b>Global Tempo</b> or turn <b>Off</b> to adjust <b>Rate</b> by Hertz.	Off, On
Depth	Amount of modulation applied.	0–100%
Fade	Apply a fade-in or fade-out of the LFO signal.	0.00 – 20.00 s out, No fade, 0.00 – 20.00 s in



Parameter	Description	Value Range	
Modulation	Source	Where the modulation signal is sent from. Filter Env, Amp Env, Osc 1, Osc 2	
	Depth	Amount of modulation applied.	-100 – 0 – 100%
	Destination	Where the modulated signal is received. Pitch, Osc 1/2 Shape, Osc 1/2 Pitch, LPF, Quad Detune, Osc EQ Freq, Osc 2 EQ Gain, Ring Level	

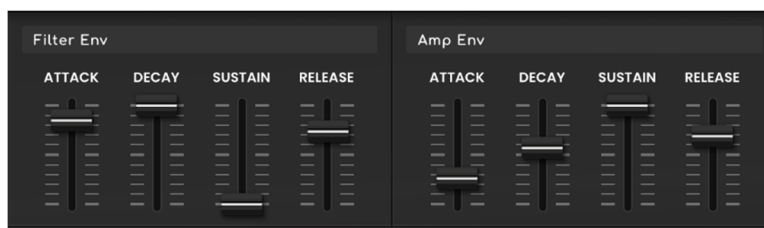




Parameter	Description	Value Range	
ENV 3	Start Level	Initial velocity level of the envelope.	0–100%
	Start Time	Length of time for the envelope to start.	0–5000 ms
	Slope Hold	Percentage of Envelope subtracted from or added to the <b>Destination</b> when a note is held.	-100 – 0 – +100%
	Slope Rel	Percentage of Envelope subtracted from or added to the <b>Destination</b> when a note is released.	-100 – 0 – +100%
	Destination	Where the envelope will be applied to.	Off, Pitch, Osc 2 Pitch, LFO 1/2 Rate, Quad Detune, Osc 1/2 Shape, Osc 1/2 Level, Ring Level



Parameter	Description	Value Range	
CTRL DEST	Velocity 1	Send Velocity data to one of the following control destinations.	Amp, Cutoff, Osc 1 Shape, Osc2 Shape, Osc1&2 Shape
	Depth	Amount of modulation applied.	0–100%
	Velocity 2	Send Velocity data to one of the following control destinations.	Amp, Cutoff, Osc 1 Shape, Osc2 Shape, Osc1&2 Shape
	Depth	Amount of modulation applied.	0–100%
	Modwheel	Send Modwheel data to one of the following control destinations.	LFO 1 Depth, Cutoff, Osc1 Shape, Osc2 Shape, Osc1&2 Shape
	Depth	Amount of modulation applied.	-100 – 0 – 100%
	Aftertouch	Send Aftertouch data to one of the following control destinations.	LFO 1 Depth, Cutoff, Osc1 Shape, Osc2 Shape, Osc1&2 Shape
	Depth	Amount of modulation applied.	-100 – 0 – 100%



Parameter		Description	Value Range
Filter Env	Attack	Length of time for the filter to reach full level.	1.00 ms – 100 s
	Decay	Length of time for the filter to reach sustain level.	1.00 ms – 100 s
	Sustain	Level of the filter while the note is held.	0–100%
	Release	Length of time for the filter to dissipate when released.	1.00 ms – 100 s
Amp Env	Attack	Length of time for the note to reach full level.	1.00 ms – 100 s
	Decay	Length of time for the note to reach sustain level.	1.00 ms – 100 s
	Sustain	Level of the sound while the note is held.	0–100%
	Release	Length of time for the note to dissipate when released.	1.00 ms – 100 s



Parameter	Description	Value Range	
Chorus	Rate	Modulation speed of the effect.	0.01 – 10.0 Hz
	LFO Wave	Waveshape of the low-frequency oscillator for the chorus effect.	Tri, Sine
	Voices	Number of voices used in the chorus effect.	3, 4, 6
	Depth	Amount of pitch modulation of the effect.	0.00 – 24.00 ms
	Lo Cut	Center frequency for the chorus low-cut filter.	20.0 Hz – 1.0 kHz
	Width	Stereo width of the chorus effect. Higher values give wider stereo separation.	0–100%
	Delay	Length of time the wet signal is offset from the dry signal.	0.00 – 24.00 ms
	Mix	Wet/dry amount of the chorus effect.	0–100%
Delay	Time	Length of time between the dry signal and the delayed signal.  When <b>Sync</b> is set to <b>Free</b> : 1 ms – 2.00 s When <b>Sync</b> is set to <b>Sync</b> : 1/32 – 8/4	
	Sync	Enable to sync the Delay <b>Time</b> to the <b>Global Tempo</b> , disable to set the <b>Time</b> in milliseconds.	Off, On
	Ratio	Reduces the delay <b>Time</b> in either the <b>Left</b> or <b>Right</b> stereo field. This is useful for creating offset, panned delays.	L 50:100, R 100:50
	HPF	Center frequency for delay signal high-pass filter.	20.0 Hz – 1.0 kHz
	Width	Stereo width of delay signal. Higher values give wider stereo separation.	0–100%
	Feedback	Amount of delay signal fed back into the delay line.	0–100%
	Damp	Center frequency of where the delayed signal will be dampened.	1.00 – 20.0 kHz
	Reso	Amount of resonance of the feedback signal.	0–100%
	Reso Freq	Center frequency for feedback resonance.	100 Hz – 10.0 kHz
	Mix	Wet/dry amount of the delay effect.	0–100%



Parameter	Description	Value Range	
Reverb	Mode	Type of reverb applied.	Hall, Stadium, Room, Abstract
	Time	Length of reverb tail.	0.4 s – +Inf s
	Lo Cut	Center frequency for the reverb low-pass filter.	1 – 1000 Hz
	Hi Cut	Center frequency for the reverb high-pass filter.	1.0 – 20.0 kHz
	Mix	Wet/dry mix of the reverb effect.	0–100%
Compressor	Threshold	Signal level after which the compressor will be applied.	-60.0 – 0.0 dB
	Ratio	Amount of compression applied.	1.0:1 – 100.0:1
	Output	Amount of additional output gain for the compressed signal.	0.0 – +30.0 dB
	Knee	How gradually the compressor reacts as the threshold is reached. Lower values apply a "soft" knee (compression is applied more slowly as signal approaches the threshold), and higher values apply a "hard" knee (compression is immediately applied when the threshold is reached).	0–100%
	Attack	Length of time to apply the compression.	100 us – 300 ms
	Release	Length of time for compressed signal to return to original level.	10 ms – 4.00 s
	Mix	Wet/dry mix of the compressor effect.	0–100%
Hype	High	Dampens or maximizes high end frequencies.	-100 – 0 – +100%
	Low	Dampens or maximizes low end frequencies.	-100 – 0 – +100%

## Trademarks and Licenses

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