User Manual

Auto-Tune
Synergy

PROFESSIONAL PITCH CORRECTION

from Antares and Antelope

Contents

BEFORE YOU BEGIN

Congratulations on your purchase! We'd like to turn your attention to the following:

Custom-built for Antelope Synergy Core interfaces and the Edge Go microphone, Auto-Tune Synergy offers the core functionality professional Auto-Tune users rely on with a sleek interface and extremely low-latency. Get the real-time pitch correction and vocal effects plug-in that help artists deliver their best performances. It's also fully compatible with the Antares Auto-Key plug-in (a separate purchase) which automatically detects the key and scale of your music and sends this information to Auto-Tune Synergy.

Additional highlights include:

    • A streamlined interface that makes Auto-Tune very simple to use, despite its rich functionality.
    • In-house optimization for low latency tracking and live performance with Synergy Core hardware and Edge Go. Listen to your voice or instrument in real-time without distracting delay!
    • Compatibility with all Antelope Audio Edge & Verge modeling microphones and mic emulations.
    • Extensive signal routing options via the Control Panel application for your Synergy Core interface.

Vocal pitch correction may be Auto-Tune's forte, but the technology isn't limited to vocals by any means. Almost any kind of audio with an identifiable pitch can be effectively put through Auto-Tune, often to results which exceed expectations.

Story time! Artist and composer Charlie Clouser once took a 'Moog' theremin to the stage and appeared to play in remarkably perfect pitch. His perceived mastery of the instrument earned him compliments by none other than the late Bob Moog himself who happened to be in attendance. But little did the good Dr. know that devilishly clever use of Auto-Tune was the secret behind Charlie's 'stellar' performance. Whatever it takes, right?

We are proud to have this iconic effect become part of the Antelope Audio experience. Enjoy working with Auto-Tune Synergy!

With compliments,
Antares Audio Technologies & Antelope Audio

HOW TO INSTALL AUTO-TUNE SYNERGY

After purchasing the product, you will receive a Claim Code at the e-mail address used to register your Antelope Audio user account.

Note: If the e-mail doesn't seem to arrive in your inbox, please check your 'Spam' and 'Junk' folders.

1. Log-in to antelopeaudio.com and head to the 'Claim Features' page to enter your Claim Code.

2 Click 'Devices' and launch the Control Panel application for the device you want to assign Auto-Tune Synergy to. This can be Edge Go or any Synergy Core unit.

3. Click the '?' button, then click 'ADMINISTRATION' to launch the 'Antelope Audio Registration Wizard'. Log-in with your Antelope Audio account information and click 'Continue'.

4. Choose 'Register device or assign features' and follow the on-screen instructions to assign Auto-Tune Synergy to your preferred device.

5. Congratulations! You can now use Auto-Tune Synergy inside your device's Control Panel application and your preferred DAW (via AFX2DAW).

Note: Click here for an introduction to AFX2DAW and a list of supported Synergy Core devices. AFX2DAW is not available for Edge Go.

CAN I USE AUTO-TUNE SYNERGY ON MORE THAN ONE SUPPORTED DEVICE?

This product can be assigned to only one supported device at a time. If you switch to another device or wish to change between two (or more) connected devices:

1. Open Antelope Launcher and launch the Control Panel application for the device that Auto-Tune Synergy Core is currently assigned to.

2. Click the '?' button, then click 'ADMINISTRATION' to launch the 'Antelope Audio Registration Wizard'. Log-in with your Antelope Audio account information and click 'Continue'.

3. Choose 'Unregister device or unassign features' and follow the on-screen instructions to un-assign Auto-Tune Synergy Core. Close the Control Panel application when finished.

4. Launch the Control Panel application for the device you wish to assign Auto-Tune Synergy to.

5. Click the '?' button, then click 'ADMINISTRATION' to launch the 'Antelope Audio Registration Wizard'. Log-in with your Antelope Audio account information if needed and click 'Continue'.

6. Choose 'Register device or assign features' and follow the on-screen instructions to assign Auto-Tune Synergy to the new device.

7. You can now use Auto-Tune Synergy inside your device's Control Panel application and your preferred DAW (via AFX2DAW).

Important! If you are selling your Edge Go or Synergy Core device and wish to keep Auto-Tune Synergy for future use, make sure to un-assign the product and de-register your unit before letting go of your hardware.

USING AUTO–TUNE SYNERGY WITH EDGE GO

Auto-Tune is used like any other effect from the Edge Go FX library. Note that all Edge Go FX, including Auto-Tune, are applied during recording and monitoring. You cannot route recorded audio from your DAW or another source into the FX for post-production.

1. Open Antelope Launcher and launch the Edge Go Control Panel application.

2. Click anywhere inside the FX Rack, which is positioned below the Antelope Audio logo.

3. Click the 'ADD NEW EFFECT' drop-down menu and choose 'Antares Auto-Tune'.

4. Auto-Tune will appear inside the FX Rack (to the right):

The following functionality is available to the left of Auto-Tune:

   • Click the 'ADD NEW EFFECT' drop-down menu to choose and add effects. Their instances will appear in the FX Rack to the right. The list on the left lets you click and drag to re-order.
   • Use the 'SAVE' and 'LOAD' buttons to store FX chains.
   • Use the 'BP ALL' and 'DEL ALL' buttons to bypass or clear all FX currently in the rack.
   • Use the drop-down menu below these buttons to load presets.
   • Individual 'BP' (bypass) buttons are available next to each effect.
   • Hold Ctrl (Windows) or Command (macOS) and drag an FX parameter to adjust it in smaller increments.

Monitoring and recording Auto-Tune with Edge Go

Edge Go is treated by your operating system and DAW as an external audio device. This means you must choose it as your default recording and playback device. Following this, you get to monitor with headphones or speakers connected to the device's headphone output, and record from its input(s) in your DAW. The Control Panel application is the mediator between Edge Go and your desired sound. Adjust input and output levels, choose presets, add FX and apply Auto-Tune, then record whenever you are ready!

Please proceed to the 'Auto-Tune Synergy - Functionality and Parameters Explained' chapter if you wish to learn how Auto-Tune Synergy works.

USING AUTO-TUNE SYNERGY CORE WITH DISCRETE 4 & 8 SYNERGY CORE ('EASYPANEL' DEVICES)

The EasyPanel control panel application lets you apply Auto-Tune Synergy to any audio source connected to the Discrete 4 & 8 Synergy Core's analog and digital inputs. You can hear the result live and, of course, record it in your DAW.

Audio source and output options

With the Discrete 4 & 8 Synergy Core, your audio source(s) can be any of the following:

- Dynamic and condenser microphones.
- Antelope Audio Edge and Verge modeling microphones with mic emulations applied.
- Line-level sources, such as synthesizers.
- High-impedance (Hi-Z) instruments, such as the electric guitar and bass.
- Audio playback from your DAW.
- ADAT digital audio.
- S/PDIF digital audio.

Auto-Tune Synergy provides the ability to pitch correct stereo tracks while maintaining phase coherence between the two channels. Note that Auto-Tune Synergy must be configured to linked-stereo mode to process stereo input. Auto-Tune Synergy's Select Pitch Reference setting lets you choose which of the stereo tracks will be used to analyze the pitch. If one channel is cleaner or better isolated than the other, select that channel as the pitch reference.

When using Auto-Tune Synergy on a stereo track, both channels should feature the same source material (e.g. the same vocal performance recorded with two microphones)

Your output options are:

- Headphone and monitor outputs.
- Record to DAW.

Auto-Tune Synergy and other Synergy Core FX can be applied on Channels 1 – 4 with the Discrete 4 Synergy Core, and Channels 1 – 8 with the Discrete 8 Synergy Core. Your audio input must be routed to any of these channels in order to apply FX.

Setting Up

Open the Antelope Launcher and launch the Discrete 4 or 8 Synergy Core Control Panel. Look for the following area:

This is a single mic/combo input with a gain adjustment knob, controls, and peak metering. There are four such inputs for the Discrete 4 Synergy Core and eight for the

Discrete 8 Synergy Core. Below the preamp controls, you see an Input Selector (where it says 'MUTE M') and an AFX area.

If your audio source is a microphone

When an XLR microphone is connected to any of the inputs, make sure the 'Mic' symbol is visible above the 'Gear' symbol at the bottom. If it's not, click the symbol you are seeing (it can be a stylized guitar or cable connector) until the 'Mic' symbol appears. When using condenser microphones, click the '48V' button to activate phantom power. Proceed to adjust input gain.

If your audio source is an Antelope Audio Edge or Verge modeling microphone

Everything from the paragraph above applies, including for Verge microphones. Due to its look and feel, Verge can be easily mistaken for a dynamic microphone by anyone new to the concept of small-diaphragm condenser mic.

Once connected and powered-up, click the 'Gear' symbol to open the 'Mic Emulations' window. Click and drag the 'Mic Modeling' dial to access the mic emulations available for your Edge or Verge modeling microphone.

For more information about the Edge and Verge modeling microphones and mic emulations, head here.

If your audio source is line-level equipment

Make sure your input looks like this and adjust gain as required. The 'Connector' symbol means an input is configured to accept line-level signal.

Important! Connect line-level sources using TS/TRS cables, period.

If your audio source is a high-impedance (Hi-Z) instrument

Make sure your input looks like this and adjust gain as required. Hi-Z inputs are available on Discrete 4 Synergy Core mic/combo inputs A1 and A2, and on Discrete 8 Synergy Core preamp/combo inputs A1 to A4.

Regardless of your choice for input signal type, incoming audio from the mic/combo inputs is always accessed from the 'PREAMP' section in the Input Selector menu.

If your audio source is DAW playback

1. Launch your DAW. Place your desired audio onto a track and assign it to Output 1 – 16 (Discrete 4 SC) or Output 1 – 32 (Discrete 8 SC).

2. Launch the Control Panel application. Click the input selector for your desired analog or digital output channel and choose the 'COMPUTER PLAY' input with the same number as the output you assigned in the DAW. e.g. DAW 'Output 1' = 'COMPUTER PLAY 1'. Head back to your DAW and start playback.
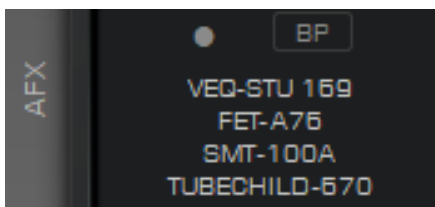
If your audio source is ADAT

Click the input selector for your desired channel and choose the 'ADAT IN' channel you want to receive audio from.

If your audio source is S/PDIF

Click the input selector for your desired channel and choose the 'S/PDIF IN' channel you want to receive audio from.

How to load Auto-Tune Synergy on an audio channel

Channels 1– 4 on the Discrete 4 SC and Channels 1– 8 on the Discrete 8 SC have these AFX areas. They are visible in the 'MONITORS & HEADPHONES' and 'DAW' tabs. Their content and functionality is identical between tabs.

We presume you have already set up your audio inputs on the FX-capable channels. If not, click the input selector above the AFX area for each channel, choose your desired input source and make gain adjustments (if required). Next, click anywhere inside an AFX area to open the 'Effects' window.

Click the 'ADD NEW EFFECT' drop-down menu and choose 'Auto-Tune Synergy'. The effect will appear in the 'FX Rack' to the right. The following functionality is available to the left:

- Click the 'ADD NEW EFFECT' drop-down menu to choose and add effects. They will appear in the FX Rack to the right. The list on the left lets you click and drag to re-order.
- Use the 'SAVE' and 'LOAD' buttons to store and recall FX chains.
- Use the 'BP ALL' and 'DEL ALL' buttons to bypass or clear all FX in the rack.
- Use the drop-down menu to load FX chains.
- Individual 'BP' (bypass) buttons are available next to each effect to the left.
- Ctrl (Windows) or Command (macOS)–click and drag an FX parameter to adjust it in smaller steps.

If you want to learn how Auto-Tune works, proceed to the 'Auto-Tune Synergy – Functionality and Parameters Explained' chapter.

How to output Auto-Tune Synergy audio to headphones, monitors, and DAW

Audio to Headphone and Monitor Outputs

Click the 'Monitors and Headphones' tab in the Control Panel. The vertical strip on the left has individual tabs for each of the available outputs:

Discrete 4 Synergy Core – Headphones 1 – 4, Monitor 1

Discrete 8 Synergy Core – Headphones 1 – 2, Monitor 1 – 2

By default, all 16 output channels (Discrete 4 SC) or 32 output channels (Discrete 8 SC) are routed to each of the headphone and monitor outputs. Silence the channels you don't want to hear from an output by muting, bringing the faders down, or not assigning inputs. You can also silence an entire output from the Mute, Dim buttons and Volume control available in the bottom left section.

Audio to DAW

By default, all 16 output channels (Discrete 4 SC) or 32 output channels (Discrete 8 SC) are routed to your DAW. They are represented as Inputs 1 – 16 (Discrete 4 SC) or Inputs 1 – 32 (Discrete 8 SC) in your DAW when your Discrete 4 or 8 is chosen as the default interface.

Since you will be recording Auto-Tune audio from Channels 1 – 4 (Discrete 4 SC) or Channels 1 – 8 (Discrete 8 SC), create the required tracks in your DAW and assign the inputs with the same numbers, e.g. Channel 1 = DAW 'Input 1'. Record audio as you normally do.

Proceed to the 'Auto-Tune Synergy – Functionality and Controls Explained' chapter if you wish to learn how Auto-Tune Synergy works.

USING AUTO-TUNE WITH ORION STUDIO SYNERGY CORE ('CONTROL PANEL' DEVICES)

With extensive analog and digital connectivity as well as 6 ARM-based DSP processors and 2 proprietary FPGA chips, Orion Studio Synergy Core enables the kind of real-time Auto-Tune extravaganza that pushes your creativity – but not your computer - to its extremes.

Like those before it, the new Orion Studio uses the Control Panel application where all brakes are off. Inside the Routing Matrix, each and any audio input can be taken into Auto-Tune and sent to any output for monitoring, recording, treatment with external equipment and so on.

Setting Up

Open the Antelope Launcher and launch the Orion Studio Synergy Core Control Panel application. Look for the following area:

This is a single mic/combo input with a gain adjustment knob, peak metering and controls. There are 12 such inputs in the Orion Studio Synergy Core Control Panel. Inputs 5 to 12 have built-in mic emulations.

If your audio source is a microphone

When a microphone is connected to any of the inputs, make sure the drop-down menu says 'Mic'. Click the drop-down menu and choose 'Mic' if it doesn't.

When using condenser microphones, click the '48V' button to activate phantom power.

If your audio source is an Antelope Audio Edge or Verge modeling microphone

Everything from the paragraph above applies, including for Verge microphones. Due to its look and feel, Verge can be easily mistaken for a dynamic microphone by anyone new to the concept of small-diaphragm condenser mics…

Mic emulations are available on inputs 5 to 12. Click the 'Mic' symbol to open the 'Mic Emulations' window. Click and drag the 'Mic Modeling' dial to access the mic emulations available for your Edge or Verge microphone.

If your audio source is line-level equipment

Make sure the drop-down menu says 'Line' or 'Direct'.

Important! Record line-level sources using TS/TRS cables, period.

If your audio source is a high-impedance (Hi-Z) instrument

Make sure the drop-down menu says 'Hi-Z'. Hi-Z is available on inputs 1 to 4 (the four front panel mic/combo inputs).

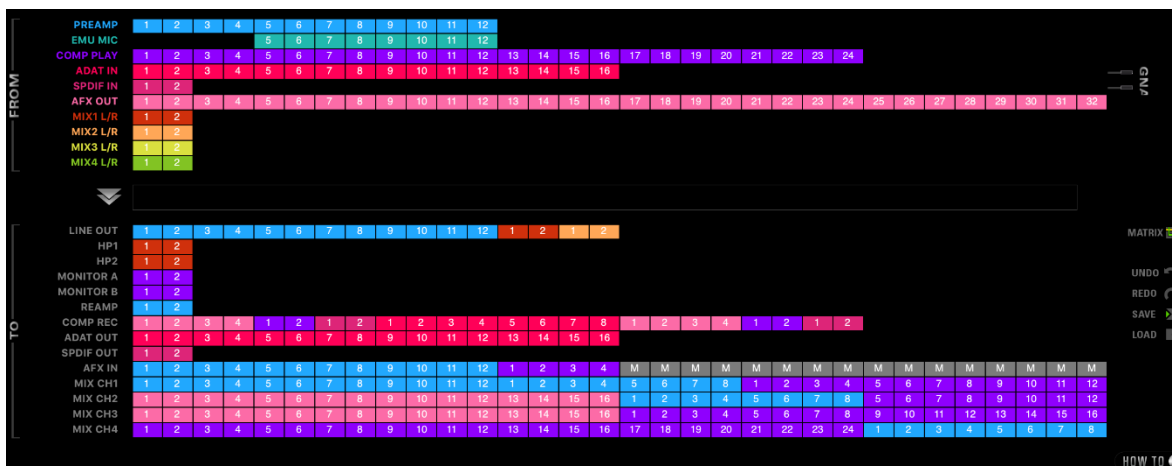**If your audio source is ADAT, S/PDIF, or DAW playback**

Keep reading…

How to apply Auto-Tune to any analog or digital audio input

Using Auto-Tune Synergy to its fullest potential requires a basic understanding of the Control Panel's 'Routing' and 'Effects' tabs.

Routing tab

This tab contains the Routing Matrix (pictured above) for analog and digital audio routing. The Routing Matrix is row-based. Each row has its own unique color and represents a specific audio in or out with its maximum number of channels.

The Routing Matrix is split in two main sections: **From** (Source) and **To** (Destination). Route audio between them by dragging and dropping the colored number blocks.

Functionality

- Click on a number block to highlight the destinations it's currently routed to.
- Double-click a number block to change its text label.
- Right-click (Windows) / Command-click (Mac) a block. Choose 'Mute' to mute this one block. Choose 'Mute All' to mute the entire row.
- Hold Ctrl (Windows) or Command (Mac) and click to select multiple blocks.
- Hold Shift and click to select a block and all blocks before it.
- An alternative grid-based view is available ('MATRIX'). Please read the guide.
- Undo/Redo buttons are available.
- Save/Load buttons let you save and load routing setups (as opposed to entire Sessions).
- The How-To button points your Internet Browser to a YouTube playlist with tutorial videos.

Available audio inputs for Auto-Tune

Each analog and digital audio input is represented by a dedicated row in the 'From' section.

PREAMP
This row represents the 12 mic/combo inputs, regardless of your choice for input signal type (mic, line, hi-z, direct).

EMU MIC
This row represents mic preamp inputs 5 - 12 with mic emulations applied to incoming audio. This offers some interesting possibilities, such as:

- Simultaneous monitoring and recording of dry microphone audio from the 'PREAMP' row and mic emulation audio from the 'EMU MIC' row on separate audio tracks in your DAW – with or without Auto-Tune and/or other Synergy Core FX added on top.

- Setting up four individual mixes, e.g. 'dry' mix, 'mic emulation' mix, 'Auto-Tune' mix, with different FX chains on every mix channel.

Be creative but remember – with great power comes great responsibility!

COMP PLAY
This row represents computer audio, such as DAW playback. This is where you take DAW audio into Auto-Tune. You get 32 audio channels over Thunderbolt™ and 24 channels over USB.

To take DAW audio into Auto-Tune, place it on a dedicated track in your DAW and assign it to Outputs 1–32 (Thunderbolt™) or Outputs 1–24 (USB). These outputs send audio to 'COMP PLAY' 1–32 (Thunderbolt™) blocks or 'COMP PLAY' 1–24 (USB) blocks.

Drag the respective 'COMP PLAY' block onto one of the blocks labeled 'AFX IN'. Enter the 'Effects' tab. Click the channel you want to work on. Click 'ADD NEW EFFECT' button and choose 'Antares Auto-Tune'. Start audio playback in your DAW.

ADAT IN
This row represents up to 16 ADAT optical audio inputs, found on 2 ports of 8 channels each. Note that ADAT runs on S/MUX.

S/PDIF IN
This row represents 2 channels of incoming stereo S/PDIF audio over coaxial RCA cable.

AFX IN
The AFX IN row ('AFX' short for Antelope Effects) lets you route audio into the Synergy Core FX processing. You can route up to 32 mono channels and stack up to 8 effects on each, independent of sample rate. Synergy Core FX are found in the 'Effects' tab. Having dedicated outputs for FX-processed audio (the 'AFX OUT' row) means you can monitor and record 'dry' and 'FX' audio separately.

Note: You must route at least one signal here before any effects are being applied.

MIX CH1 – CH4
The 'Mixer' tab is home to four low-latency virtual mixers with 32 channels each. These rows let you route audio to their inputs.

Available audio outputs for Auto-Tune

Each analog and digital audio input is represented by a row in the 'To' section.

LINE OUT
This row represents 16 line outputs over two D-Sub 25-pin connectors (TASCAM Standard Pin Layout). Each D-Sub connector provides 8 mono audio channels.

HP1
This row represents Headphone output 1 as two mono (L/R) channels.

HP2
This row represents Headphone output 2 as two mono (L/R) channels.

MONITOR A
This row represents Monitor A output as two mono (L/R) channels.

MONITOR B
This row represents Monitor B output as two mono (L/R) channels.

Note: These mastering-grade outputs boast the highest dynamic range in the system.

COMP REC
This is where you send audio to your DAW for recording. The number of 'COMP REC' channels represents the number of inputs your DAW will recognize upon startup. You get 32 channels over Thunderbolt™ and 24 channels over USB.

To record from a 'COMP REC' input – route audio to it, create a new track in your DAW and assign the input with the same number to it – e.g. 'COMP REC' 1 = 'Input 1'.

ADAT OUT
This row lets you route up to 16 mono audio channels to the ADAT outputs (2 ports of 8 mono audio channels each). Note that ADAT runs on S/MUX.

S/PDIF OUT
This row lets you route 2 audio channels to S/PDIF-compliant equipment over coaxial RCA cable.

AFX OUT
The AFX OUT row ('AFX' short for Antelope FX) represents up to 32 mono audio channels with Synergy Core FX applied. You can route them anywhere for monitoring and recording.

Low Latency Mixer Outputs
The 'MIX1 L/R' to 'MIX4 L/R' rows represent the four 2-channel stereo outputs from the four software mixers in the 'Mixer' tab.

At this point, feel free to hook up some equipment and route its inputs to the 'AFX IN' row. We are about to have some fun with Auto-Tune!

Effects tab

The 'Effects' tab is where you apply Synergy Core FX, including Auto-Tune. It goes like this:

1. If you haven't done so already - in the 'Routing' tab, drag the colored number blocks representing your desired audio inputs onto those from the row labeled 'AFX IN'.

2. Click the 'Effects' tab. The numbers in this strip correspond to the 'AFX IN' blocks. Click the audio input (or linked pair) you want to work on:

Note: 'Link' buttons are available between each pair of neighboring inputs. Linking two inputs means the exact same FX processing is applied to both.

3. Click the 'ADD NEW EFFECT' drop-down menu and choose 'Antares Auto-Tune'. It will appear in the FX Rack to the right.

The following functionality is available in the 'Effects' tab:

- Click the 'ADD NEW EFFECT' drop-down menu to choose and add effects. They will appear in the FX Rack to the right. The list on the left lets you click and drag to re-order.
- Use the 'SAVE' and 'LOAD' buttons to store and recall FX chains.
- Use the 'BP ALL' and 'DEL ALL' buttons to bypass or clear all FX in the rack.
- Use the drop-down menu to load FX chains.
- Individual 'BP' (bypass) buttons are available next to each effect to the left.
- Ctrl (Windows) or Command (macOS)-click and drag an FX parameter to adjust it in smaller steps.

If you want to learn how Auto-Tune works, proceed to the 'Auto-Tune Synergy – Functionality and Parameters Explained' chapter.

Take Auto-Tune audio outside the Orion Studio Synergy Core

Audio channels with Auto-Tune and/or other FX processing are accessed from the 'AFX OUT' row in the Routing Matrix. Drag these blocks onto any outputs you desire.

Monitor Auto-Tune

Drag the colored number blocks labeled 'AFX OUT' that represent your 'Auto-Tune' output audio onto any of the following rows:

HP1
This row represents Headphone output 1 as two mono (L/R) channels.

HP2
This row represents Headphone output 2 as two mono (L/R) channels.

MONITOR A
This row represents Monitor A output as two mono (L/R) channels.

MONITOR B
This row represents Monitor B output as two mono (L/R) channels.

Use the Orion Studio Synergy Core 'HP' and 'A/B' front panel buttons to switch headphone and monitor outputs.

Note: Concurrent monitoring is possible from Monitor A & B outputs. Open the Control Panel and click the 'A' and 'B' buttons to activate Monitor A outputs and Monitor B outputs. Click the '+' button in-between them to enable concurrent monitoring.

Output Auto-Tune audio to external equipment

Drag the colored number blocks labeled 'AFX OUT' that represent your 'Auto-Tune' output audio onto those inside any of the following rows:

LINE OUT
This row represents 16 line outputs over two D-Sub 25-pin connectors (TASCAM Standard Pin Layout). Each D-Sub connector provides 8 mono audio channels.

REAMP
This row represents the two mono ReAmp outputs, used for sending DI audio tracks for re-amping through guitar amplifiers and other suitable equipment.

Note: You can use the ReAmp outputs as Sends for external equipment, such as hardware processors and effects, though this is considered 'off label' use and results may vary.

ADAT OUT
This row lets you route up to 16 mono audio channels to the ADAT outputs (2 ports of 8 mono audio channels each). Note that ADAT runs on S/MUX.

S/PDIF OUT
This row lets you route 2 audio channels to S/PDIF-compliant equipment over coaxial RCA cable.

Note: Monitor A, Monitor B, Headphone 1 and Headphone 2 outputs can be used to output analog audio to external equipment other than speakers and headphones. Obviously, this is 'off label' use. Carefully adjust output volume to prevent overloading any inputs and make sure you know what you are doing.

Record 'Auto-Tune' audio in your DAW

Head to the Routing Matrix and drag the colored number blocks labeled 'AFX OUT' that represent your 'Auto-Tune' output audio onto those labeled 'COMP REC'. 'COMP REC' blocks 1 – 32 (over Thunderbolt™) or 1 - 24 (over USB) send audio to DAW Inputs 1 – 32 (over Thunderbolt™) or 1 – 24 (over USB). To record, create a track and assign it to the

Input with the same number as the 'COMP REC' block you want to record from, e.g. DAW Input 1 = 'COMP REC' 1. Record audio as you normally would.

Notes:

- Make sure the Orion Studio Synergy Core is chosen as your main playback and recording device in your operating system and DAW.
- Make sure your device sample rate matches the DAW and operating system sample rates.

That's about it! Proceed with the 'Auto-Tune Synergy – Functionality and Parameters Explained' chapter if you want to learn Auto-Tune.

AUTO-TUNE SYNERGY – FUNCTIONALITY AND PARAMETERS EXPLAINED

Documentation kindly provided by Antares.

What is Auto-Tune Synergy?
For twenty years, Auto-Tune has been the industry standard for professional pitch correction and the tool of choice for the most iconic vocal effect in popular music.

Now, with Auto-Tune Synergy, we're proud to bring that technology to the Antelope platform, optimized for low-latency tracking and live performance.

How Does Auto-Tune Correct Pitch?

Auto-Tune works by continuously tracking the pitch of an input sound and comparing it to a user-defined scale. The scale tone closest to the input is continuously identified. If the input pitch exactly matches the scale tone, no correction is applied. If the input pitch varies from the desired scale tone, Auto-Tune will adjust the pitch toward the target scale tone.

What type of Audio is Appropriate for Auto-Tune?
Auto-Tune is intended for use with a well-isolated, monophonic sound source such as a single voice, or a single instrument playing one pitch at a time. It is not intended for multiple voices or instruments recorded onto the same track, or single instruments that are playing multiple pitches at the same time.

Noise content, or extreme breathiness in vocal performance can sometimes lead to tracking errors. However, this can often be remedied by adjusting the Tracking parameter.

General Controls

Input Type
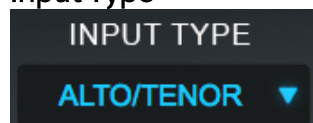
Auto-Tune Synergy offers a selection of algorithms optimized for different types of audio. Options include: Soprano, Alto/Tenor, Low Male, and Instrument.

For more accurate pitch detection and correction, choose the Input Type that best describes your audio.

Key and Scale
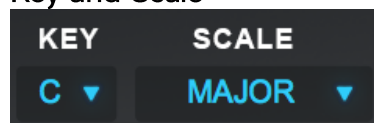
The Key and Scale parameters are used to define the set of notes that your audio will be tuned to. For best results, set them to match the actual key and scale of your music.

The Keyboard is automatically updated to show which notes are active for the current Key and Scale selection.

If you're not sure what key your music is in, you can use the Auto-Key plug-in (sold separately) to automatically detect it and send that information to Auto-Tune Synergy.

Classic Mode
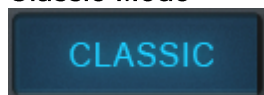
Classic Mode is the long-awaited return of the classic "Auto-Tune 5 sound."

As we've added new features to Auto-Tune (such as Formant Correction, Throat Modeling, and Flex-Tune) the Auto-Tune algorithm has evolved, and its sonic qualities have undergone subtle changes, with each Auto-Tune version having its own slightly different character.

Over the years, the sound of Auto-Tune 5 has developed something of a cult following among musicians, audio engineers and producers. Due to popular demand, we've made the Auto-Tune 5 sound available in Auto-Tune Synergy via the new Classic Mode.

The difference between Classic Mode and the default sound of Auto-Tune Synergy is subtle, but if you listen carefully, you may notice a slightly brighter quality, and a more pronounced attack and transition between notes at faster Retune Speeds.

Note that the Flex-Tune feature is disabled when Classic Mode is on.

Detune
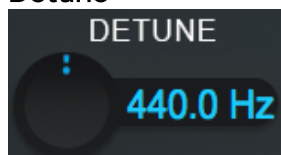
The Detune parameter allows you to change the pitch reference of Auto-Tune Synergy from the default A = 440Hz. This is useful when working with an instrument or track that's tuned to a different reference frequency.

Values can be displayed in Cents or Hertz (you can specify this in the Settings Menu). The range of adjustment is -100 cents to +100 cents.

Tracking
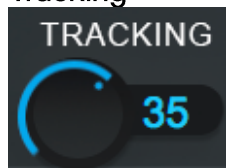
In order to accurately identify the pitch of the input, Auto-Tune Synergy requires a periodically repeating waveform, characteristic of a solo voice or solo, non-chordal instrument. The Tracking control determines how much variation is allowed in the waveform for Auto-Tune Synergy to still consider it periodic.

In most cases, the Tracking should be left at its default value of 50. A noisier signal or a vocal performance that is unusually breathy may require a more 'relaxed' setting (higher Tracking value).

If you're hearing artifacts such as clicks or pops, try setting the Tracking to a 'choosier' setting (lower Tracking value).

Mix
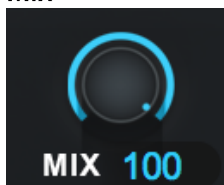
The Mix control allows you to mix in the "dry" unprocessed audio of your track with the processed output Auto-Tune Synergy. When mix is set to 100%, only the processed signal is present in the output.

Retune Speed

Retune Speed controls how rapidly the pitch correction is applied to the incoming audio. The units are milliseconds. A zero setting will cause immediate changes from one pitch to another and will completely suppress any vibrato or deviations in pitch.

For the Auto-Tune Effect, set the Retune Speed to zero. A setting between 10 and 50 is typical for more natural sounding pitch correction. Larger values allow more vibrato and other interpretive pitch gestures, but slow down how rapidly corrections are made.

Flex-Tune

The Flex-Tune control allows you to preserve a singer's expressive vocal gestures, while still applying the corrective tuning that Auto-Tune is famous for.

When Flex-Tune is set to zero, Auto-Tune Synergy is always pulling every note toward a target scale note. When Flex-Tune is engaged, it only applies correction as the performer approaches the target note. As you move the control toward higher values, the correction area around the scale note gets smaller, and more expressive pitch variation is allowed through.

Humanize

The Humanize control allows you to add realism to sustained notes when using fast retune speeds.

One situation that can be problematic for pitch correction is a performance that includes both short and long sustained notes. In order to get the short notes in tune, you would need to set a fast Retune Speed, but this can cause sustained notes to sound unnaturally static.

Humanize applies a slower Retune Speed only during the sustained portion of longer notes, making the overall performance sound both in tune and natural.
Start by setting Humanize to zero and adjust the Retune Speed until the shortest problem notes in the performance are in tune. If sustained notes sound unnaturally static, increase the Humanize setting until they sound more natural.

Natural Vibrato

The Natural Vibrato control allows you to either increase or diminish the range of vibrato that is already present in your audio.

Pitch Display and Pitch Change Meter
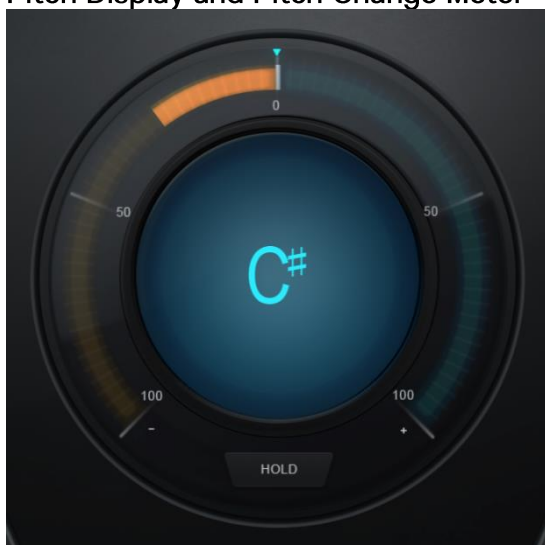
The Pitch Display shows you the letter name of the pitch that Auto-Tune Synergy is currently outputting (e.g. C# or Bb). This may be different than the pitch that it is detecting, if the detected pitch is not part of the current scale. To see the pitch that is currently being detected in the incoming audio, look at the blue highlighted note in the Keyboard.

The Pitch Change Meter (which wraps around the Pitch Display) shows you how much the pitch is being changed, measured in cents. For example, if the blue indicator bar has moved to the left to -50, it indicates that the input pitch is 50 cents too sharp and Auto-Tune is lowering the pitch by 50 cents to bring the input back to the desired pitch.

Clicking and holding the word "Hold" while Auto-Tune is processing audio will freeze both the Pitch Display and the blue detected pitch indication on the keyboard for as long as you hold down the mouse button.

The Keyboard

The Keyboard displays the current detected pitch by highlighting it in blue, and also allows you to add and remove notes from the scale.
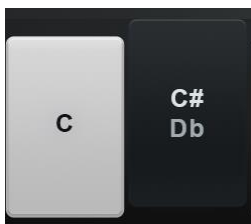
When a note on the Keyboard is on, it will appear white or black (depending on which note it is), and input pitches that are closest to that note will be tuned to it.
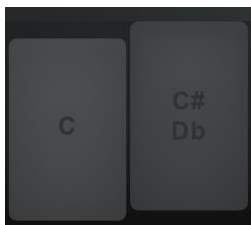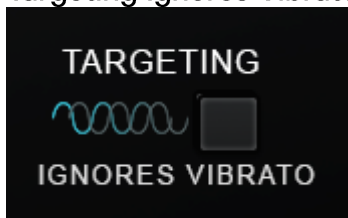

When a note on the Keyboard is set to Off, it will appear grey, and any incoming pitches that are closest to that note will be tuned to the next closest scale note instead.

When a note on the Keyboard is displayed in blue, that indicates the current detected pitch.

Targeting Ignores Vibrato

The Targeting Ignores Vibrato function is designed to help Auto-Tune identify pitches correctly when a performance includes vibrato so wide that it approaches adjacent notes (e.g if a singer is singing a C with a vibrato so wide that it is sometimes closer to a C#).

If you hear a rapid alternation between two notes when you want to be hearing a single note with a wide vibrato, try turning this on.

Create Vibrato Controls
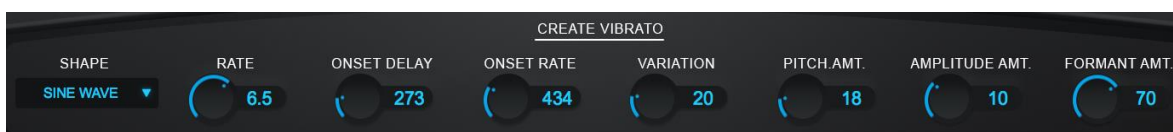
The Create Vibrato controls allow you to add a custom synthesized vibrato to your audio. Use them sparingly to add a touch of natural-sounding expression to a performance or more aggressively for dramatic special effects.

Shape
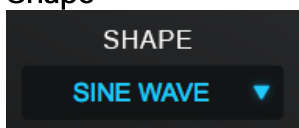
The Shape menu allows you to choose the shape of the pitch modulation for your vibrato. The choices are:

No Vibrato – Leave the Shape menu set to No Vibrato if you don't want to create any vibrato.

Sine Wave – A sine wave changes smoothly from minimum to maximum and back again. This is the best choice for natural-sounding vibrato.

Square – Jumps to maximum where it spends half of the cycle and then jumps to minimum for the remaining half of the cycle.
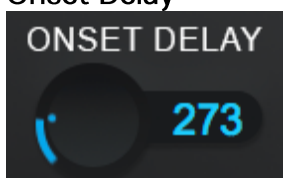
Sawtooth – Gradually rises from minimum to maximum and then drops instantaneously to minimum to start the cycle again.
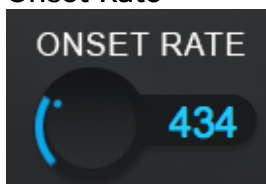
Rate
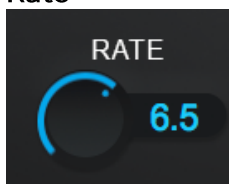
The Rate control sets the speed of the vibrato in Hertz.
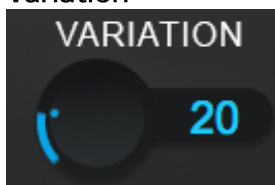
Onset Delay

Onset Delay sets the amount of time (in milliseconds) between the beginning of a note and the onset of vibrato.

Onset Rate

Onset Rate sets the amount of time (in milliseconds) between the onset of vibrato and the point at which the vibrato reaches the full amounts set in the Pitch, Amplitude and Formant Amount settings.
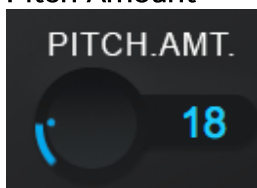
Variation

Variation sets the amount of random variation that will be applied to the Rate and Amount parameters on a note to note basis. This is useful for humanizing the vibrato by adding random deviation.
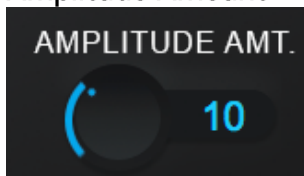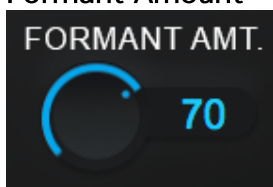
Pitch Amount

Pitch Amount sets the width of the vibrato in cents.

Amplitude Amount

Amplitude Amount sets the amount that the loudness changes. For more realistic vibrato, the amount of amplitude change should usually be substantially less than pitch change.
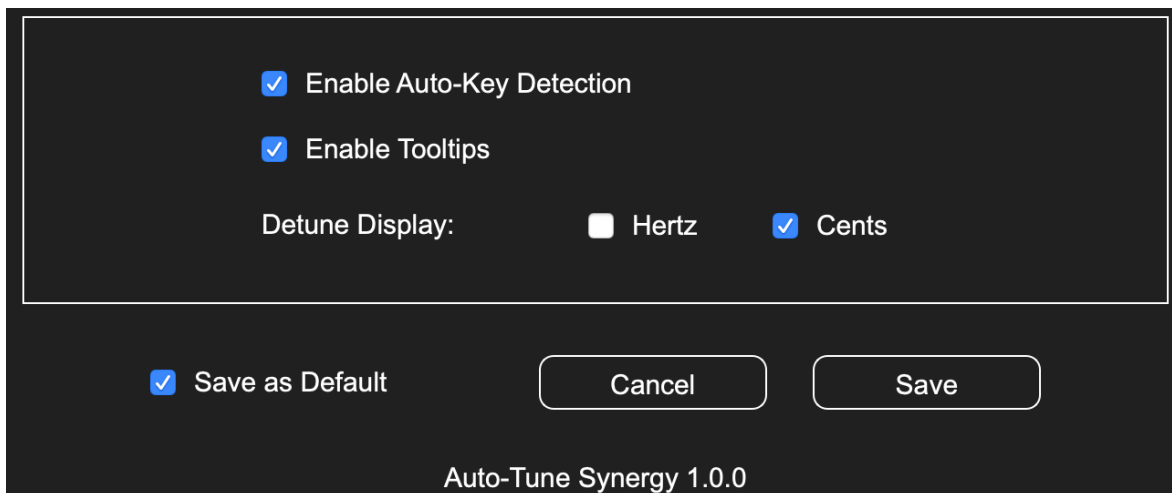
Formant Amount

Formant Amount sets the amount of formant variation in the vibrato. A sound's formants are the resonant frequencies that result from the physical structure of whatever is producing the sound (e.g. the human mouth and vocal tract).

Settings and Preferences Window

Enable Auto-Key Detection
The only time you should need to turn this off will be if you are using Auto-Key, but you want this specific instance of Auto-Tune Synergy to ignore any messages coming from it.

Enable Tooltips
Tooltips are helpful hints that pop up when you hover over one of the controls in Auto-Tune Synergy. If you don't want to see them, you can turn them off here.

Detune Display
The Detune control is used to tune to a reference frequency other than the standard A = 440 Hz. Choose whether it will display the offset in cents or Hertz.

Save as default
When the Save as Default box is checked, any changes to Preferences that you save will become the default settings for future instances of Auto-Tune Synergy.

If you want to make a temporary change to the Preferences just for this instance, without overwriting your default preferences, uncheck this box before clicking "Save".

Further Reading
For more information about Auto-Tune, visit Antares.
If you need help with anything Antelope Audio, contact Customer Support.

CUSTOMER SUPPORT INFORMATION

Antelope Audio Customer Support can be reached by the following means:

Online

Visit support.antelopeaudio.com

Phone

US time: 12AM (midnight) – 8PM (CST), Monday – Friday
US Phone Number: (916) 238-1643

European time: 6AM – 2AM (GMT), Monday – Friday.
UK Phone Number: +44 1925933423

Live Chat

US time: 12AM (midnight) – 2PM (CST), Monday – Friday
European time: 6AM – 8PM (GMT), Monday – Friday.

> **Note**: If you're trying to reach us outside working hours, we advise you to file a ticket in our customer support system or leave a voice message.

Additional Resources

- The Antelope Audio YouTube channel is home to various tutorial videos and endorser content which you may find helpful and inspiring.

- The Antelope Audio Users Facebook group lets you interact with fellow users and some of our employees. Note, however, that it is not meant to be a support group. Please contact our customer support team for such inquiries.

- The Knowledge Base in our Customer Support section is an often-overlooked source of troubleshooting information, answers to commonly asked questions and Antelope know-how.