

# Varispeed 4



## TABLE OF CONTENTS

<b>COMPATIBILITY &amp; INSTALLATION</b> .....	2
<b>BASIC USAGE</b> .....	3
<b>Explanation</b> .....	3
<b>Controls</b> .....	4
<b>MAIN CONTROLS IN DETAIL</b> .....	5
<b>The Varispeed dial and the + - buttons</b> .....	5
<b>Tempo</b> .....	5
<b>Root Note</b> .....	5
<b>Arrange&amp;Session</b> .....	6
<b>Exclude sign</b> .....	6
<b>PLUGINS AND DEVICES</b> .....	8
<b>Simpler Devices in Slicing mode</b> .....	8
<b>VPitch:</b> .....	9
<b>Serato Sample</b> .....	10
<b>AutoTune Plugins</b> .....	11
<b>Antares Effect/Instrument Plugins</b> .....	13
<b>Experimental</b> .....	14
<b>FOR PUSH 3 STANDALONE</b> .....	16
<b>GOOD TO KNOW</b> .....	17
<b>CONTACT</b> .....	18

**Compatibility:**

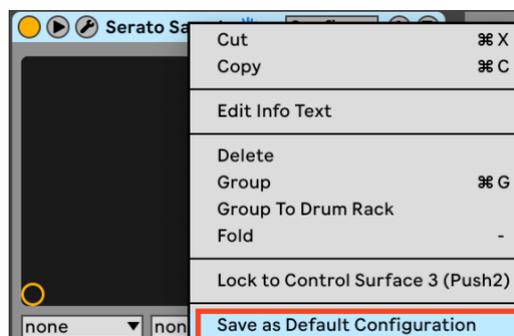
- Varispeed is a MaxForLive device, so it only works with Live Suite or Live Standard with MaxForLive.
- Compatible with Live 11, Live 12, and Push3 standalone.

**Installation:**

- Place the devices in your Ableton Live User Library.
- Default User Library locations:
  - **Windows:** \USERS\[USERNAME]\DOCUMENTS\ABLETON\USER LIBRARY
  - **Mac:** MACINTOSH HD/USERS/[USERNAME]/MUSIC/ABLETON/USER LIBRARY
- Live needs to analyze your User Library after adding devices. This process may take some time. In the meantime, you can drag and drop the devices from your User Library onto your tracks.

**Please Note:**

- For plugins like AutoTune and Serato, Varispeed needs access to certain parameters in order to control them..
- The download includes a project called "Vari Save default plugins Project."
- Save the plugins from this project as "Default Configuration" so Varispeed can access the Key/Note parameters every time you load the plugins into a Live Set.



### EXPLANATION

**Varispeed is a MaxForLive device that allows you to transpose your entire Live set, similar to the Varispeed option in other DAWs like Logic and analog tape machines.**

It transposes all Audio/MIDI clips in both Session and Arrangement View by up to -24/+24 semitones while accurately changing the Live Set's tempo.

It can also automatically transpose:

- The Root Note of individual MIDI and Audio clips, and your Live Set.
- Simpler devices in Slicing mode, and Serato Sample plugins
- AutoTune plugins (Antares, Waves, Nectar, MetaTune, Melda, Melodyne, and AutoTuna)
- Certain Antares effects/Instruments. (EFX, Slice, Harmony Engine, Vocoder)
- A few other built in Ableton Live and M4L devices. (Like Shifter, Corpus, and Resonators)
- You can also Transpose MIDI information after leaving clips such as sequencer and chord generator outputs or individual Drum Rack cells (see VPitch section for details).

Exclude specific tracks like drums, or DrumRacks. by adding a keyword or symbol to their names, keeping their MIDI and audio clips untouched in your Live Set (See Exclude section for Details).

This gives you the ability to **explore your song in a different key, and record parts in different speed and pitch with one click.**

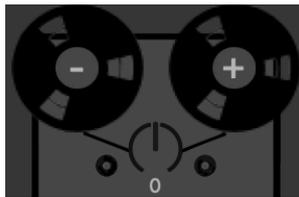


1. **+/- buttons** to transpose your project by one semitone.
2. **Main Knob:** Transpose your project by up to -24/+24 semitones (two octaves).
3. **Tempo Circuit:** Turn the tempo-changing circuit on or off.
4. **Root Note Circuit:** Turn the root note-changing circuit on or off.
5. **Transposition Location:** Decide whether to transpose audio/MIDI clips in Session View, Arrangement View, or both.
6. **Advanced Settings:** Expand the device to access advanced settings.
7. **Exclude Tracks:** Prevent transposition of tracks whose names contain any words or symbols entered in the box.
8. **Plugin/Device Transposition:** Transpose the key parameter of all plugin/device instances in your Live set that are enabled in this section.

**Note:** You can only change most parameters when Varispeed is in the 0 state to prevent messing up your Live set. To change any setting, first set Varispeed to 0, then tweak the desired parameters. All parameters (except the Exclude signs) are accessible from Push (1, 2, 3, and standalone).

## MAIN CONTROLS IN DETAIL

### THE VARISPEED DIAL AND THE +/- BUTTONS



Main controls to transpose your whole project up to +/- 24 semitones.

Recommended usage: between -12 and +12 to avoid pushing clips or plugin parameters out of range. Use extreme values only for experimental purposes.

### TEMPO

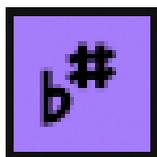
A rectangular button with a black border and a light orange background, containing the word "Tempo" in a bold, black, sans-serif font.

When enabled, Varispeed accurately changes your Live set's tempo when you transpose your Live Set, just like how an analog tape machine would.

When Varispeed is in 0 position, it logs your tempo as a starting point. If you want to permanently change this tempo ensure Varispeed is set to 0 otherwise Varispeed will revert it back to the original tempo.

**Note:** When transposing Melodyne is enabled, the tempo change option will be automatically disabled to prevent weird behavior in Melodyne instances.

### ROOT NOTE

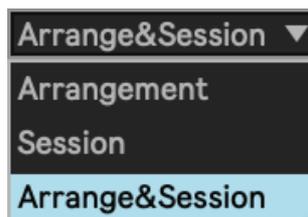


When activated, Varispeed will transpose the Root Note of all MIDI and Audio clips, and your project's key in your Live set. This enables you to use the new Scale Mode feature in Live 12 in combination with Varispeed.

In Live 11 it's only useful if you enabled the Scale mode in a MIDI clip. If you did, Varispeed will change it, and the pads on push will reflect to that change.

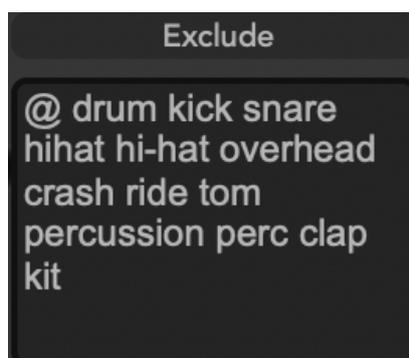
**Note:** Currently accessing this parameter via the API is not optimal, which may result in longer transposition times for your Live set when this feature is enabled. Hopefully this will change with a future Live update.

## ARRANGE&SESSION



Decide whether to transpose audio/MIDI clips in Session View, Arrangement View, or both.

## EXCLUDE SIGN

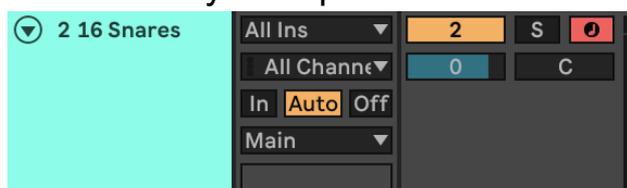


You may have tracks with either MIDI or audio clips in your project that you don't want to transpose such as:

- audio tracks with drum and percussion samples
- MIDI tracks with a DrumRack
- MIDI tracks that contain MIDI generator tools, sequencers
- Simpler devices in Slicing mode
- Serato Sample plugins
- and so on

With the exclude feature you can prevent the transposition of any track's Audio/MIDI clips to get transposed if their name contains any of the keywords/symbols you've wrote into the box.

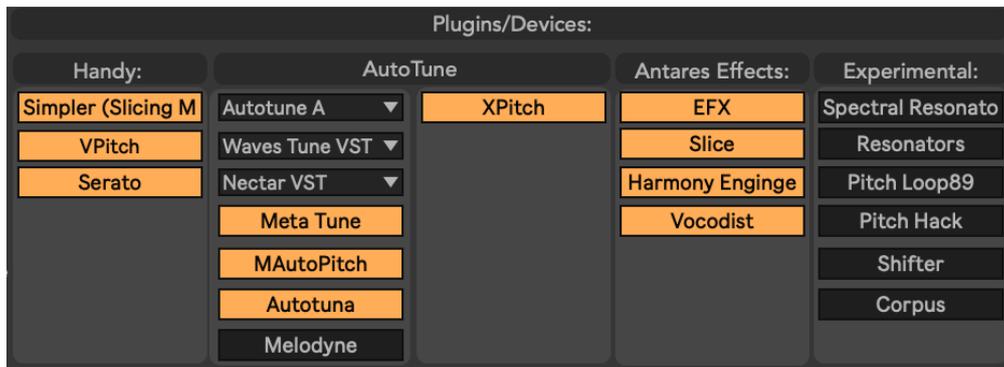
For example, if you have a MIDI track with a Drum Rack called "16 Snares," the notes in its MIDI clips won't get affected by Varispeed because it contains the word "snare."



So it continue to trigger the correct cells/samples, after you transposed your project.

These keywords/signs are not case-sensitive, and they can be anywhere in the track's name. So if you have a keyword "tom" it will exclude all tracks that are named like: **tom**, **TOM**, **Toms**, **Tomato**, and so on.

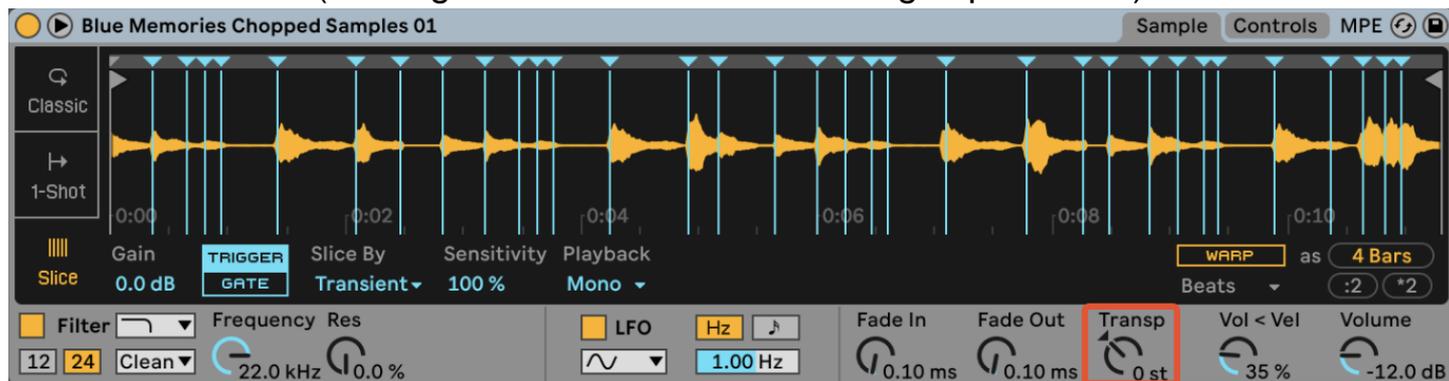
**Note:** You can still transpose individual Drum rack cells. More info about that in the Vpitch section later.)



SIMPLER DEVICES IN SLICING MODE

**Simpler (Slicing M)**

By default, Varisped transposes the Transpose parameter of all your Simpler devices in Slicing mode to keep them in key with the rest of your song. It's important to use any of the exclude signs in the MIDI track's name; otherwise, both the notes in the MIDI clips and the Simpler device pitch will be transposed (although this can lead to interesting experiments)



## VPitch

If you place the MIDI effect device "Pitch" (that comes with Live) into a MIDI track and rename it to "VPitch" (case sensitive), Varispeed will transpose it if this option is enabled.

This allows you to transpose signals coming from MIDI generating devices like sequencers and chord generators.

You can even transpose separate drum rack cells that contains melodic samples by placing a VPitch device before the cell's instrument.



To use the VPitch device, you need to have an exclude sign in the track's name; otherwise, both the notes of the MIDI clips on the track and the MIDI information coming out from the VPitch device will get transposed.

Serato

Varispeed can transpose the Key parameter of all Serato sample plugins in your project.

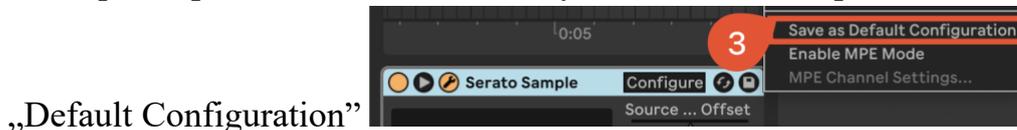


It only works if the “Source...Offset” parameter is visible in Live. Click on the “Configure” button, then press the “key” parameter.:



Then if you save it as a plugin default preset, you won't have to repeat this process when you load a Serato Sample plugin in any of your new Live Sets.

I also created a project that includes all the plugins Varispeed capable of transposing, and I made the required parameters visible, so all you need to do is open this Live Set, and save the plugins as



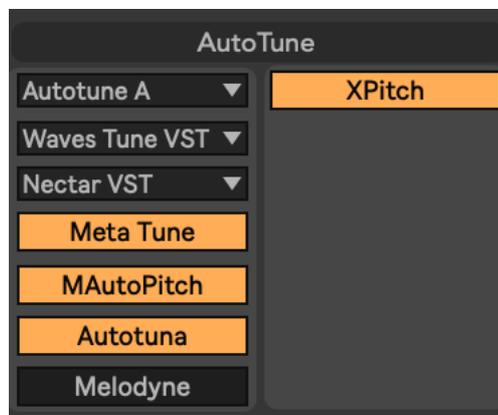
## AUTOTUNE PLUGINS

Varispeed can transpose the Key/Scale parameter of all AutoTune plugins in your project.



The supported plugins are:

- Antares Auto-Tune (Access, Artist, Pro)
- Waves Tune Real-Time
- Nectar (3, 4, and the Pitch plugin)
- MetaTune
- Melda MAutoPitch
- Melodyne
- AutoTuna
- Xpitch



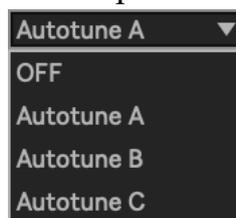
And of course the built in **AutoShift** works too without enabling anything. : )



## Some notes for specific AutoTune plugins:

- **Antares Auto-Tune (Access, Artist, Pro):**

Different Versions of Auto-Tune are built differently, and needs different methods in order to transpose them. There's a list to chose the behaviour that fits your instances:



If you're using the latest Antares versions, use Autotune A.

If you're using either an older version, or an UAD one choose between either Autotune B, or C, mode. (Depending on which flavor, or version you're using... check how it reacts to Varisped to decide which one works for your plugin...)

- **Waves Tune Real-Time:**

The AU, and VST/VST3 versions are built differently and require different methods to transpose them. Choose your format from the list.

- **Izotope Nectar (3, 4, and Pitch):**

The AU, and VST/VST3 versions are built differently and require different methods to transpose them. Choose your format from the list.

- **Melodyne:**

Since there's no ARA implementation in Live 11 and 12 (yet), when you change your project's tempo, Melodyne can't follow it correctly, and it'll play the audio from its timeline in the wrong position.

To prevent that when you enable Melodyne transposition the Tempo circuit of Varispeed will be automatically disabled.

**Note:** Varispeed can only transpose these plugins if their Key parameter is visible in Live. Check the Serato section to see how to configure them.

Varispeed can transpose the Key/Scale parameter of some Antares effect/Instrument plugins in your project:



The supported plugins are:

- EFX (EFX+)
- Slice
- Harmony Engine
- Vocoder



**Note:** Varispeed can only transpose these plugins if their Key parameter is visible in Live. Check the Serato section to see how to configure them.

Varispeed is capable of transposing certain pitch/coarse-related parameters of Live effects, MaxForLive devices.



This functionality can be useful for specific experimental uses. You can enable or disable this feature per device in the advanced menu (all options are turned off by default)

- **Shifter**



If enabled the Coarse parameter will be transposed when using Varispeed.

- **SpectralResonator**



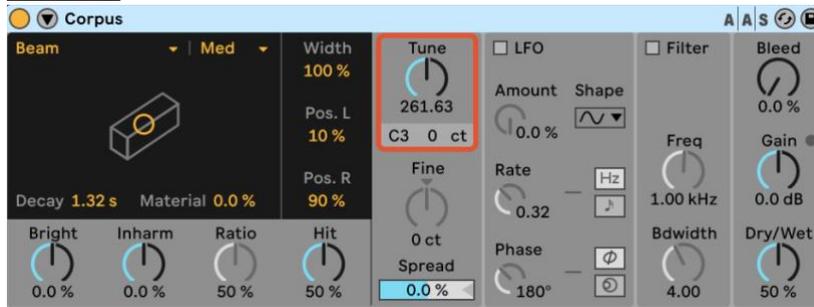
If enabled the Freq (Note) parameter will be transposed when using Varispeed.

- **Resonators**



If enabled the Note, and the 4 Pitch parameters will be transposed when using Varispeed.

- **Corpus**



If enabled the Tune parameter will be transposed when using Varispeed.

- **PitchHack**



If enabled the Coarse parameter will be transposed when using Varispeed.

- **PitchLoop89**



If enabled the Pitch Left / Right parameters will get transposed when using Varispeed.

Varispeed 4.0 is fully compatible with Push3 Standalone.

## Limitations:

- Varispeed is not a realtime audio effect. It has to manually change parameter values in order to transpose your Live Set.  
If you have a larger Live Set with a lot of Audio/MIDI clips and plugins, it can take a few seconds to transpose everything.
- The smallest amount of transposition Varispeed can do is 1 semitone.
- Varispeed cannot transpose frozen tracks. It is recommended to duplicate the frozen track, flatten one of them, and mute the frozen one when using the device.

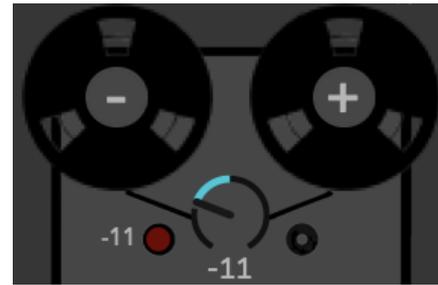
## Notifications, restrictions:

Varispeed provides notifications restrictions in certain situations:

### 1. Tempo Range Limit:

Ableton Live has a default tempo range that cannot be exceeded. The slowest tempo is 20 BPM, and the fastest is 999 BPM.

If the Tempo option is enabled, and the Live set's tempo would get out of range by the transposition (less than 20BPM or More than 999BPM), the knob's range is automatically limited to prevent that.



When this happens a red dot will appear with the value of the minimum/maximum amount of transposition Varispeed can make.

This Limitation will depend on your original tempo:

For example, if your original tempo is 38 BPM, You won't be able to turn Varispeed under -11.

If your original tempo falls between 80 BPM and 250 BPM, you can freely adjust the tempo in both directions.

### 2. MIDI Note Range Limit:

If your project contains very low or high MIDI notes, attempting to apply changes that hit the limits (0 or 127) will trigger a pop-up window from Varispeed, instructing you to revert the last change.



If you have any questions or encounter difficulties with the device, feel free to reach out to me at:

- [info@elisabethhomeland.com](mailto:info@elisabethhomeland.com)
- <https://twitter.com/ElisabethHom>

Have Fun! ☺

