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The programs of the Triebwerk VST Sound Instrument Set are divided into three categories: synthesizer sounds, drum sets, and sliced loops. Two macro pages are available. One is optimized for the sliced loops and the drum sounds, and the other one for the synthesizer sounds.

Each macro page is divided into four sections. The upper half contains the Voice, Filter, and Amp sections. The lower half shows the FlexPhraser section, which is used to add arpeggios or drum patterns to the sounds, or allows you to control the play parameters for sliced loops.

**Voice Section for Synthesizer Programs**

![Voice Section Image]

**Mono**

Activates monophonic playback.

**Polyphony**

If Mono mode is deactivated, you can use this parameter to specify how many notes can be played simultaneously.

**Pitchbend Up/Pitchbend Down**

Determines the range for the modulation that is applied when you move the pitchbend wheel.

**Glide**

Allows you to bend the pitch between notes that follow each other. You achieve the best results in Mono mode.

- **Glide On/Off** activates/deactivates the Glide function.
- **Fingered** allows you to glide the pitch only between notes that are played legato.
- If Sync is activated, you can synchronize the glide time to the tempo of the host application. You can select a note value from the pop-up menu. To use triplets, activate **Triplets**.

**Glide Time**

Sets the glide time, that is, the time it takes to bend the pitch from one note to the next.
Voice Section for Drums and Sliced Loops

**Edit**
Specifies whether the parameters in the Voice, Amp, and Filter sections affect all drum sets or slices equally or whether they are applied to the selected drum sound or slice.

**Instrument**
If Edit is set to Selected, you can use this pop-up menu to specify the instrument or slice to be edited.

**Octave**
Allows you to adjust the pitch in octave steps.

**Coarse**
Allows you to adjust the pitch in semitone steps.

**Fine**
Allows you to fine-tune the pitch in cent steps.

Filter Section
The Filter section contains the filter parameters for the various filter types that are used in the programs.

**Cutoff**
Controls the cutoff frequency of the filter.

**Resonance**
Emphasizes the frequencies around the cutoff. At higher settings, the filter self-oscillates, which results in a ringing tone.

**Drive**
Adds distortion to the signal.
Velocity
Allows you to specify the influence of the incoming MIDI velocity on the filter envelope modulation depth.

- Set Velocity to positive values to reduce the intensity of the envelope for decreasing velocities.
- Set Velocity to negative values to reduce the intensity of the envelope for increasing velocities.

Envelope
Adjusts the cutoff modulation of the filter envelope. Negative values invert the modulation direction of the filter envelope.

Attack
Controls the attack time of the filter envelope.

Decay
Controls the decay time of the filter envelope.

Sustain
Controls the sustain level of the filter envelope.

Release
Controls the release time of the filter envelope.

Amp Section
The Amp section contains the amplifier and amplifier envelope parameters.

Velocity
Allows you to specify the influence of the incoming MIDI velocity on the amp envelope modulation depth.

- Set Velocity to positive values to reduce the intensity of the envelope for decreasing velocities.
- Set Velocity to negative values to reduce the intensity of the envelope for increasing velocities.

Level
Adjusts the level of the program. If you add distortion to the filter by increasing the Drive parameter, you may have to adjust the level to compensate for the increase in gain.

Pan
Adjusts the panorama position of the signal. This is particularly useful for drum sets and sliced loops, where you can specify the pan position individually for each drum instrument or slice.
Attack
Controls the attack time of the amplifier envelope.

Decay
Controls the decay time of the amplifier envelope.

Sustain
Controls the sustain level of the amplifier envelope.

Release
Controls the release time of the amplifier envelope.

FlexPhraser Section

The FlexPhraser is a versatile phrase player and arpeggiator that allows you to play everything from basic arpeggios, instrument phrases, and rhythmic chords to drum patterns. Depending on the selected phrase, you can adapt the harmonic phrase structure by playing on your keyboard.

NOTE
Which controls are available depends on the program type: synthesizer sound, drum set, or sliced loop.

FlexPhraser Parameters for Sliced Loop Programs

FlexPhraser On/Off
Activates/Deactivates the FlexPhraser section.

Loop Start
Allows you to shift the start of the loop in steps of quarter notes. If the Length setting is at the maximum value, the loop is shortened accordingly.

Length
Allows you to shorten the length of the loop by shifting the end of the loop in steps of quarter notes.

NOTE
The control range of the Loop Start and Length parameters depends on the original length of the loop.

Hold
Allows you to prevent the phrase from stopping or changing when the keys are released.

- If Off is selected, the phrase changes as soon as you release a key. The phrase stops immediately when you release all keys.
- If On is selected, the phrase plays to the end, even if the keys are released. If Loop is activated, the phrase repeats continuously.
- If Gated is selected, the phrase starts to play when the first key is played. It plays silently in the background, even if the keys are released, and resumes
playback at the current position when you press any of the keys again. This way, you can gate the playback of the phrase.

**Trigger Mode**
Determines at which moment the arpeggiator scans for new notes that you play on the keyboard.

- **Immediately** is selected, the arpeggiator continuously scans for new notes. The phrase changes immediately in reaction to your playing.
- **Next Beat** is selected, the arpeggiator scans for new notes at every new beat. The phrase changes in reaction to your playing on each new beat.
- **Next Measure** is selected, the arpeggiator scans for new notes at the start of new measures. The phrase changes in reaction to your playing on each new measure.

**Restart Mode**

- If this is set to **Off**, the phrase runs continuously and does not restart at chord or note changes.
- **New Chord** restarts the phrase on new chords.
  
  NOTE: The phrase does not restart upon notes that are played legato.
  
- **New Note** restarts the phrase with each new note that you play.
- **Sync to Host** aligns the phrase with the beats and measures of your host application each time that you start the transport.

**Tempo Scale**
Defines the rate at which notes are triggered, that is, the speed at which the phrase is running.

**Swing**
Shifts the timing of notes on even-numbered beats. This way, the phrase gets a swing feeling. Negative values shift the timing backward and the notes are played earlier. Positive values shift the timing forward and the notes are played later.

**Gate**
Allows you to shorten or lengthen the notes of the phrase. At a value of 100 %, the notes play with their original gate length.

NOTE: For sliced loops, you cannot set values higher than 100 %, that means, slices can only be shortened.

**Key Follow**
Allows you to vary the pitch of the slices with the notes you play. Notes lower than the original pitch (C2) can either raise or lower the pitch by up to 200 % per octave.

**FlexPhraser Parameters for Synth Programs and Drum Sets**
**FlexPhraser On/Off**  
Activates/Deactivates the FlexPhraser section.

**Phrase**  
Allows you to select a phrase.

**Hold**  
Allows you to prevent the phrase from stopping or changing when the keys are released.
- **If Off** is selected, the phrase changes as soon as you release a key. The phrase stops immediately when you release all keys.
- **If On** is selected, the phrase plays to the end, even if the keys are released. If **Loop** is activated, the phrase repeats continuously.
- **If Gated** is selected, the phrase starts to play when the first key is played. It plays silently in the background, even if the keys are released, and resumes playback at the current position when you press any of the keys again. This way, you can gate the playback of the phrase.

**Trigger Mode**  
Determines at which moment the arpeggiator scans for new notes that you play on the keyboard.
- **If Immediately** is selected, the arpeggiator continuously scans for new notes. The phrase changes immediately in reaction to your playing.
- **If Next Beat** is selected, the arpeggiator scans for new notes at every new beat. The phrase changes in reaction to your playing on each new beat.
- **If Next Measure** is selected, the arpeggiator scans for new notes at the start of new measures. The phrase changes in reaction to your playing on each new measure.

**Restart Mode**
- If this is set to **Off**, the phrase runs continuously and does not restart at chord or note changes.
- **New Chord** restarts the phrase on new chords.

**NOTE**
The phrase does not restart upon notes that are played legato.

- **New Note** restarts the phrase with each new note that you play.
- **Sync to Host** aligns the phrase with the beats and measures of your host application each time that you start the transport.

**Tempo Scale**  
Defines the rate at which notes are triggered, that is, the speed at which the phrase is running.

**Key Mode**  
Defines whether the order in which the notes are played on the keyboard affects the playback of the phrase.
- **If Sort** is selected, the notes are played in the order of the selected phrase. The chronological order does not have any influence.
- **If As Played** is selected, the notes are played in the order in which you play them on the keyboard.
If **Direct** is selected, the phrase creates controller events instead of notes. You hear the notes that you play plus any controller events of the phrase, such as pitch bend, volume, pan, etc.

**NOTE**

Not all phrases contain controller data.

**Swing**

Shifts the timing of notes on even-numbered beats. This way, the phrase gets a swing feeling. Negative values shift the timing backward and the notes are played earlier. Positive values shift the timing forward and the notes are played later.

**Gate**

Allows you to shorten or lengthen the notes of the phrase. At a value of 100 %, the notes play with their original gate length.

**Velocity**

Allows you to raise or lower the note-on velocities of the phrase. At a value of 100 %, the notes play with their original velocity.

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**Usage of the HALion and HALion Sonic Edit Pages**

In HALion and HALion Sonic, you can also edit program parameters on the regular **Edit** page that is available for all programs.

The **Edit** page offers more parameters than the macro page and gives you access to all available sound-relevant parameters. For detailed information about these parameters, see the corresponding documentation.

In HALion Sonic, you open the **Edit** page by deactivating **Show Macro Page** on the toolbar.

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**Parameter Automation**

All parameters can be automated, except for the **Mono** and **Poly** parameters in the **Voice** section and the **Step**, **Level**, and **Snap** parameters in the **Step Modulator** section.