

# G-Stomper Studio

## G-Stomper Rhythm

## G-Stomper VA-Beast

## User Manual

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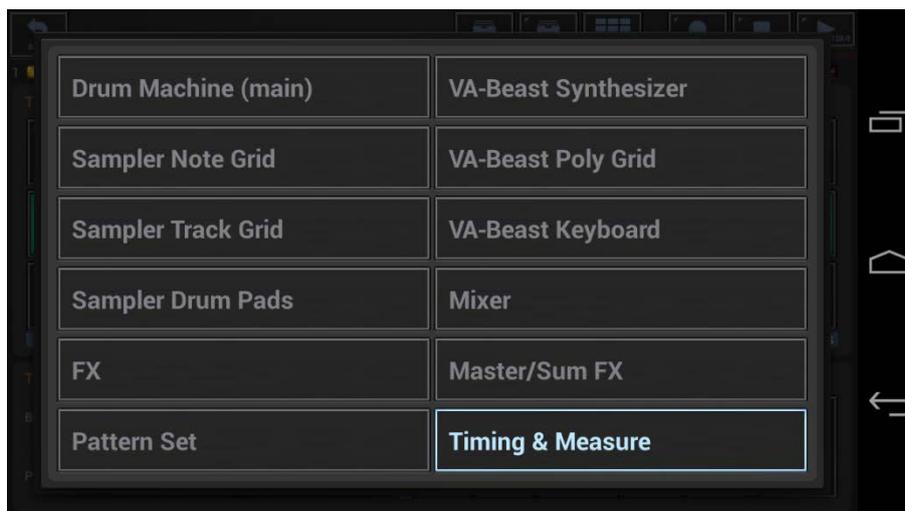
## 6 Timing & Measure

Timing & Measure is the dedicated view to set all parameters around Timing and Measurement. The Settings on this screen are used by all Step Sequencers.

It is used to set the Tempo/BPM, Swing/Shuffle, Step Timing, Steps per Bar and the Pattern Length in Bars.



From any screen, use the “View” menu to navigate to the Timing & Measure section.



## 6.1 Timing

The Timing Controls are used to set the Tempo/BPM, the Swing Quantization and the Step Timing. All Controls in the Timing section are per Pattern.



### 6.1.1 Tempo/BPM



The Tempo/BPM Controls are used to set the main Tempo of the Sequencer in a range from 20 to 999 bpm.

Use the fader for rough adjustments and the Up/Down Arrows for fine tuning.

#### Division:

The division defines the fader (and up/down button) accuracy, or in other words the movement step. Tap the green display to change the division to 1, 5 or 10 bpm.

#### Up/Down Arrows:

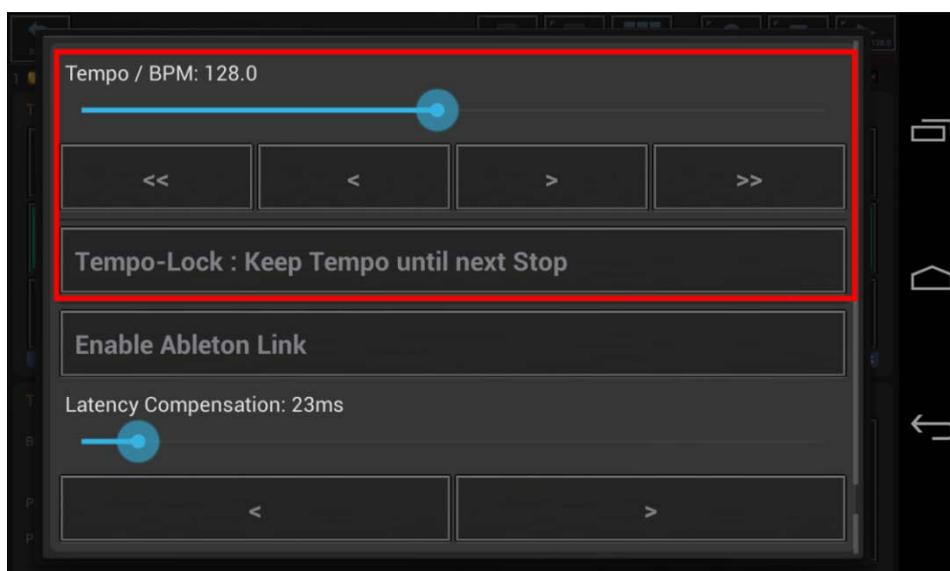
Short click : +/- 1, 5 or 10 bpm (depending on the division)

Long click : +/- 0.1 bpm

#### Hint:

Please take note of the BPM indicator and the Tempo Quick Access on the Play button.

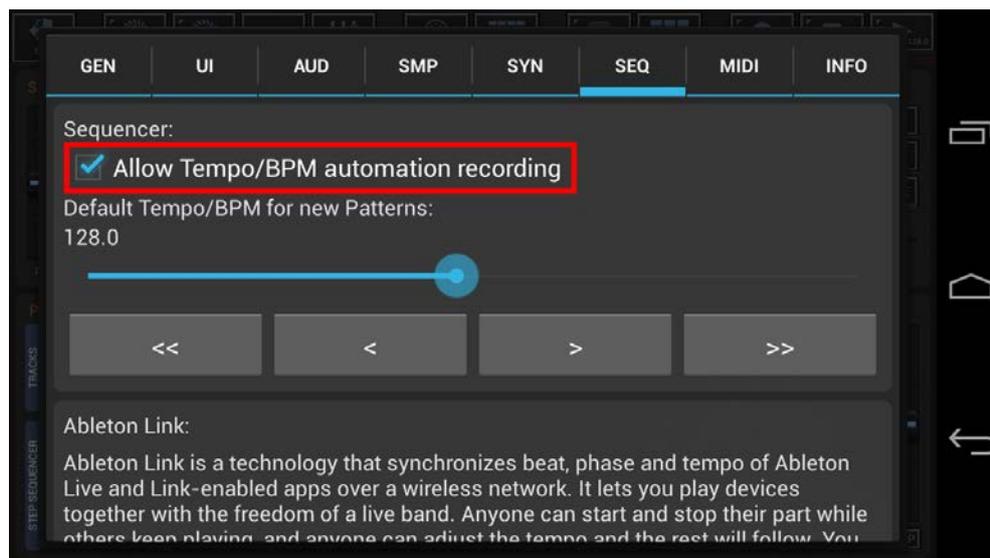
Long press Play to show up its extended menu and fully control the Tempo/BPM on every screen.



### 6.1.2 Tempo/BPM Automation

Exclusive in G-Stomper Studio, the Tempo can be fully automated. This is very useful for smooth transitions between Patterns with different BPM settings.

By default, Parameter Automations for the Tempo/BPM are disabled in the Settings. If you want to automate the Tempo, you need to enable the feature in the Setup dialog first. (The Setup dialog can be accessed from the Main screen)



### 6.1.3 Swing/Shuffle



The Swing Shuffle Controls are used to set the main Swing amount of the Sequencer as well as the Swing affected Steps.

Use the fader for rough adjustments and the Up/Down Arrows for fine tuning.

#### **Swing affected Steps:**

The Swing affected Steps allow you to customize the Swing Quantization.

By default (with Step Timing = 16th), every 2nd and 4th Step is affected by the Swing, which is in fact a classic Shuffle.

Turn the 2nd, 3rd, 4th Step ON/OFF to change the Swing affected Steps.

Rather than with a regular Shuffle setup, you can also apply Swing for Triplet Step Timings.

#### **Important Note:**

Even if the Swing configuration and amount are globally set per Pattern, it can be enabled/disabled independently per Track. To turn it ON/OFF, use the Track Menu (long press a Track Pad T[.] or VT[.]), or in case of the Drum Samplers the quick access switch on the Drum Machine.

### 6.1.4 Step Timing



The Step Timing defines the Note value (duration) of each Step. If you select 16, then each Step will have a length of a 16th Note, in case of 32 each Step is a 32nd Note, in case of 16Tri each Step is a 16th Note Triplet, and so on.

- 16 > 1 Step = 16th Note
- 32 > 1 Step = 32nd Note
- 64 > 1 Step = 64th Note
- 8Tri > 1 Step = 8th Note Triplet
- 16Tri > 1 Step = 16th Note Triplet
- 32Tri > 1 Step = 32th Note Triplet

You can change the Step Timing in two ways, depending on your needs:

**Short click:** Change Step Timing (simple)

This simply changes the Step Timing, but keeps all the Sequencer Steps at their original position. This means that an existing Sequence will sound different after the change since the new Step Timing has a different Timing for the Steps.

**Note:** If you select a Triplet Step Timing, the Steps per Bar will be set automatically to 12, in other words 13-16 will be disabled. If you select a quadruple (16, 32, 64), then the Steps per Bar will be set to 16. As a matter of course, you can also set the Steps per Bar manually to create asynchronous beats.

**Long click:** Change Step Timing + Auto-Rearrange Sequence

This changes the Step Timing and auto-rearranges the Sequence to the new Timing.

Please take note that an existing Sequence might (depending on various factors) not fit into the new Timing.

If you switch to a higher Timing (e.g. from 16 to 64) and your Pattern length is already at 8 Bars, then the rearranged Sequence would exceed the max Pattern length. In this case the exceeding parts will be cut off.

If you switch to a lower Timing (e.g. from 64 to 16), then there might be Steps which won't exist anymore in the new Timing since the lower Timing provides less Steps for the same time period. In this case these Steps will be dropped.

**Note:** Please take note that the Shuffle/Swing setup and the Auto Fill-In parameter of the main Drum Machine cannot be rearranged.

## 6.2 Measure

The Measure Controls are used to set the Steps per Bar and the Pattern Length in Bars. All Controls in the Measure section are per Pattern.



### 6.2.1 Steps per Bar



Use these controls to set the length (in Steps) for each Bar in the Pattern. This allows you to create asynchronous beats of any length. If you set the Steps per Bar to 8 for example, then the Steps 9-16 on all Step Sequencer screens get disabled (greyed out).

Use the fader for rough adjustments and the Up/Down Arrows for fine tuning.

**Note:** If you select a triple Step Timing (8Tri, 16Tri, 32Tri), the Steps per Bar will be automatically set to 12, in other words 13-16 will be disabled. If you select a quadruple (16, 32, 64), then the Steps per Bar will be set to 16.

## 6.2.2 Pattern Length in Bars



Use these controls set the Pattern length in Bars.

Use the UP/Down Arrows to set a value from 1 up to 8 Bars.

If you increase the length of an existing Pattern, then the existing Bars get automatically copied to the new created Bars, following the Copy Rule:

Bar 2 < Bar 1  
Bar 3 < Bar 1  
Bar 4 < Bar 2  
Bar 5 < Bar 1  
Bar 6 < Bar 2  
Bar 7 < Bar 3  
Bar 8 < Bar 4

This way you'll never lose any already programmed variations, e.g. when changing the Pattern Length from 4 to 8 Bars.

### 6.3 Time Signatures

The Time Signature is a notational convention used in Western musical notation to specify how many beats are to be contained in each musical measure and which note value is equivalent to one beat.



Setting up a Pattern with a specific Time Signature in G-Stomper is always a combination of ...

- **Step Timing**  
The Note value (duration) of each Step
- **Steps per Bar**  
The Number of Steps per Bar
- **Length in Bars**  
The Number of Bars in this Pattern

(see Chapters: Step Timing, Steps per Bar, Pattern Length in Bars)

You can either set these values manually using the regular UI controls or you can use the Time Signature Wizard in the toolbar on top to choose one of the predefined musical Time Signatures. (see Chapter: The Time Signature Wizard)

The Timing info display in the toolbar always shows the musical Time Signature that corresponds with the Step Timing, the Steps per Bar, and the Length in Bars. When you change these settings manually, then the Timing info display gets automatically updated.

### 6.3.1 The Time Signature Wizard

Finding the right settings for Step Timing, Steps per Bar, and Length in Bars might be tricky in some situations, e.g. if you want to create Patterns of a specific musical Time Signature.

The Time Signature Wizard offers a number of predefined musical Time Signatures (such as 3/4, 5/4, 12/8, etc.) to choose from. All you have to do is to select a Time Signature, and the Wizard automatically assigns the correct settings for you.



**Note:** The Time Signature Wizard is designed to setup new, empty Patterns. If you use the Wizard to change the Time Signature of an existing Pattern, then the sequence might sound different after the change. There is no guarantee that an existing sequence will sound the same or that it will fit in the measures of the new Time Signature.

### 6.3.2 Even Time Signatures

Here's a quick overview how to setup a number of even Time Signatures manually.

On the Timing & Measure screen, set the following values for...

#### 6.3.2.1 4/4

Step Timing = 16  
Steps per Bar = 16  
Length in Bars = 1  
Beats at Step = 1, 5, 9, 13

#### 6.3.2.2 2/2

Step Timing = 16  
Steps per Bar = 16  
Length in Bars = 1  
Beats at Step = 1, 9

#### 6.3.2.3 2/4

Step Timing = 16  
Steps per Bar = 8  
Length in Bars = 1  
Beats at Step = 1, 5

#### 6.3.2.4 6/8

Step Timing = 16  
Steps per Bar = 12  
Length in Bars = 1  
Beats at Step = 1, 7

#### 6.3.2.5 12/8

Step Timing = 16  
Steps per Bar = 12  
Length in Bars = 2  
Beats at Step = 1, 7 (at all bars)

### 6.3.3 Odd Time Signatures

Here's a quick overview how to setup a number odd Time Signatures manually.

On the Timing & Measure screen, set the following values for...

#### 6.3.3.1 3/4

Step Timing = 16  
Steps per Bar = 12  
Length in Bars = 1  
Beats at Step = 1, 5, 9

#### 6.3.3.2 9/8

Step Timing = 16  
Steps per Bar = 6  
Length in Bars = 3  
Beats at Step = 1 (at all bars)

#### 6.3.3.3 5/4

Step Timing = 16  
Steps per Bar = 4  
Length in Bars = 5  
Beats at Step = 1 (at all bars)

#### 6.3.3.4 7/4

Step Timing = 16  
Steps per Bar = 4  
Length in Bars = 7  
Beats at Step = 1 (at all bars)

#### 6.3.3.5 3.5/4

Step Timing = 16  
Steps Per Bar = 14  
Length in Bars = 1  
Beats at Step = 1, 5, 9, 13

#### 6.3.3.6 7/8

Step Timing = 16  
Steps Per Bar = 14  
Length in Bars = 1  
Beats at Step = 1, 7, 13

### 6.3.4 Polyrhythms

A Polyrhythm is the simultaneous use of two or more conflicting rhythms with different Time Signatures. Since G-Stomper cannot have multiple Timing/Measure settings in one pattern, this might be tricky, but can be done in various ways.

#### **Mixing 4th and 8th Signatures:**

Choose a Pattern size where both Time Signatures fit in.

4/4 and 12/8 for example can be combined by choosing a Length in Bars where both signatures fit in.

A 4/4 has 4 quarter notes:

Step Timing = 16

Steps per Bar = 16

Length in Bars = 1

A 12/8 has 12 eighth notes (which are as long as 6 quarter notes)

Step Timing = 16

Steps per Bar = 12

Length in Bars = 2

If you now set the Length in Bars to 4, then the 12/8 will fit two times in the Pattern, while the 4/4 will fit three times into it.

#### **Mixing Triplets and Duplets and Quadruplets:**

Time Signature = 16 Tri (or higher)

Steps per Bar = 12

Length in Bars = 2 (or higher)

Now use Step 1 and 7 for duplets, 1, 5, 9 for triplets, and 1, 4, 7, 10 for quadruplets.

**Note:** You can also create the triplet beat, then bounce it as audio, and then switch over to quadruplet and program the quadruplets (while the triplets remain in the bounced audio). But with this method you'll lose the ability to change the tempo, as a bounced track is a fixed audio loop, and no longer a trigger sequence.

## 6.4 Tempo- & Beat-Matcher

The Tempo- & Beat Matcher is a powerful tool to synchronize the G-Stomper Applications with any playing Music from any equipment; in the same way DJ's match the beats from two turntables using a DJ Mixer and Headphones. It is typically used in a live situation when it's not possible to use Ableton Link or any other automatic synchronisation system.

All settings in the Tempo- & Beat-Matcher are global, which means they're applied to the Sequencer rather than the Pattern. Everything you do in this section is only temporary and not saved anywhere.



To bring your G-Stomper Beat in sync with Track from a Turntable, Radio, CD, or from anywhere else, do as followed:

1. Plug in Headphones to your Mobile device (where G-Stomper is running) and put the Headphones on so that one of your ears is free to hear the Music coming from a CD Player for example (from the regular speakers, NOT from the Android device), and the other ear is covered by the Headphones, so that you can hear the G-Stomper Beat at the same time.
2. Use the Tap Button to tap the rough Tempo in. As longer you tap to the beat from the CD as more accurate is the tapped Tempo.
3. If the G-Stomper Beat is not running already, press play to start it, and if you start it try to match the "1st Bar" of the Music coming from the CD Player. As more accurate you match it as less you adjustments you have to do later.
4. Now give the Tempo some pushes up- or downwards (using the BPM Nudge) to bring the G-Stomper Tempo in sync with the Music from the CD Player. And while you do so, use the BPM Pitch to fine adjust the Tempo. By default, the range of the BPM Pitch Fader is +/-15bpm, you can adjust the range using the Pitch Range fader.
5. Once you matched the Tempo, it might be that the 1st Bar of the G-Stomper beat does not match the 1st Bar of the Music from the CD Player, even if it's at the same Tempo. In this case use the Skip Controls to jump one Beat/Bar barward or forward until 1st Bar of the G-Stomper beat is in sync with the 1st Bar of the Music from the CD Player.