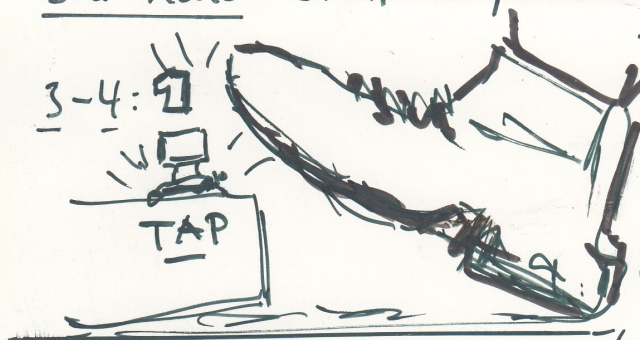
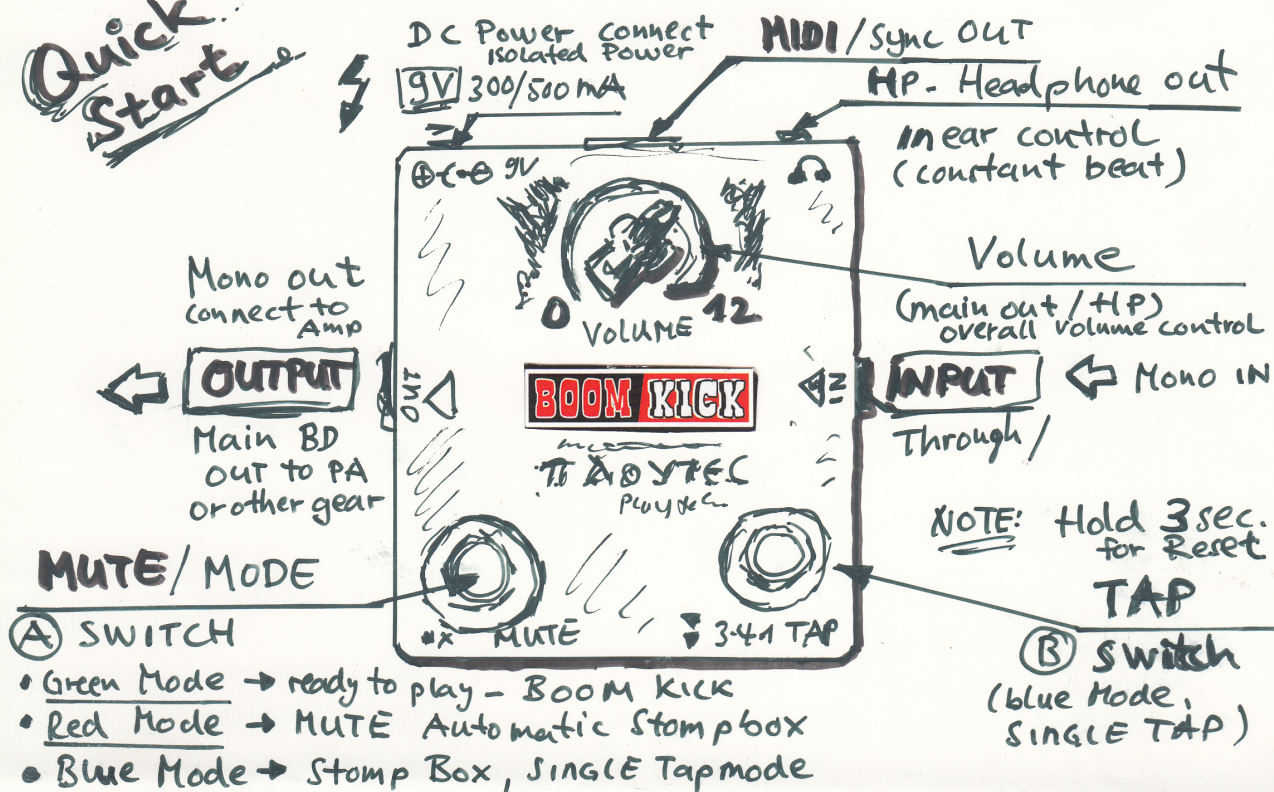


# BOOM KICK

**Quick Start**



1. Select: Green Mode ⓐ Switch
  2. Tap 3-4: ONE on ⓑ Switch
- MUTE THE Beat on ⓐ Switch... go back... to green (red MODE)
- ⓑ SWITCH go faster / slower to follow the untight drummer / keys etc...

BOOM KICK		RED	YELLOW	GREEN	CYAN	BLUE	MAGENTA	WHITE
MIX BD NOISE								
NOTE								
ATTACK	ATTACK							
TIMBRE	DECAY							
RELEASE	RESONANCE							
ANALOG FILTER								
NOISE FILTER	DISTORTION							
START MODE		34one	24one	one2				
PHASE MODE		off	on					

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usb-audio.com

CE



**Congratulations on your purchase of the BOOM KICK pedal! We trust you'll be happy with this innovative product. Please read the following instructions carefully to learn how the device functions. BOOM KICK is a musical instrument, which requires practice. With this instrument, you will be able to create incredible music.**

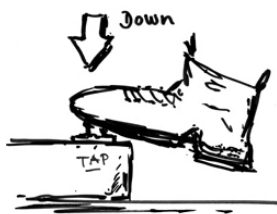
Markus Medau, Managing director, Ploytec GmbH

## Getting started

Connect a 9V / 300mA (or more) power supply with the following symbol to the DC input socket of BOOM KICK:  $\oplus \& - \ominus$

BOOM KICK does not come with a power supply.

- Plug the power supply into a power outlet.
- Connect your instrument to the INPUT jack on the right side (if any)
- Connect the OUTPUT jack on the left side of the pedal to your amplifier.



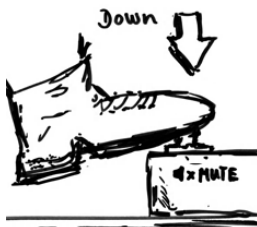
As soon as you tap the right foot switch, BOOM KICK is activated and awaits another tap within 2 seconds. During this time, the LED flashes blue. Right after the second "tap", BOOM KICK starts making sounds on every crotchet. The BOOM KICK calculates the tempo with the time between the two taps on the pedal and bases the calculation on quarter notes. Example: if there is one second between the two taps, this would equal 60bpm: 60 beats per minute. Half a second means 120bpm, 2 seconds 30bpm....

In case the foot pedal has only been tapped once, the LED will blink red after the 2 seconds waiting time is past. To stop BOOM KICK, press the foot pedal down for at least one second.

## Turning on and starting

Tap the pedal on the "3" and the "4" (4/4 time). Now BOOM KICK generates a sound on every quarter note.

The LED assumes a 4/4 time and signals the "1" with red (if phase correction is activated – see below), and the "2" "3" and "4" with blue lights. However, the BOOM KICK may also be used for any other times (e.g. 3/4).



Use the mute switch to mute (red) and unmute (green) the BOOM KICK. Once the BOOM KICK is stopped, there's also a mode for single tapping (blue). In this mode, the BOOM KICK can be used as an ordinary stomp box.

Tap-on function

While BOOM KICK is running you can keep tapping at any time. Your taps will influence the tempo and – if phase correction is on – sync the quarter notes to the beat. The BOOM KICK calculates the tempo with the average values of the last four time measurements.

After each time BOOM KICK is turned on, all four measuring values are initialized on the first time measurement. New values will only be accepted when they are at least half of the actual tempo. Therefore, for larger tempo changes you should change the tempo in small steps.



The most exact tempo is not useful, when the music is completely out of time. This is why the BOOM KICK uses a sophisticated algorithm, which will slightly increase or decrease the tempo in short time, to get constantly closer to the time you are tapping.

If “phase correction” is on, each tap has an influence on the phase and shifts the rhythm in the direction of the next quarter note. (To the next “2” or “4” in the “24one mode”, see below.)

To keep the influence of inaccurate taps small, the average values are constantly calculated. This means that with an increasing amount of taps the influence on the phase is larger. When you stop tapping, the phase shift ceases. However, single taps still have a certain influence.

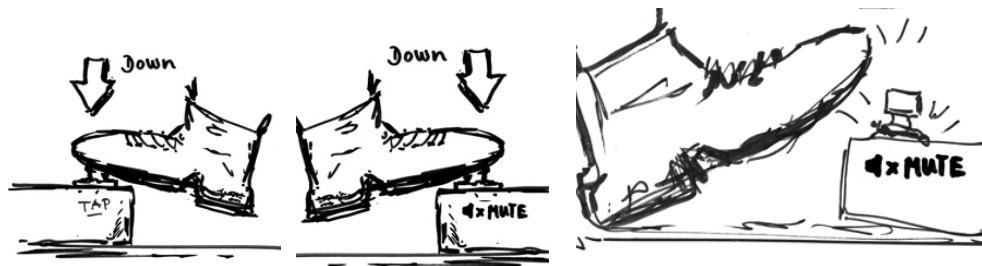
For four new measurements you will have to tap five times: e.g. “1” - measurement - “2” - measurement - “3” - measurement - “4” - measurement - “1”

Keep in mind that BOOM KICK is an instrument and exact tapping has to be learned in the same way as time-correct playing of other instruments.

### Three preset sounds

BOOM KICK contains three different preset sounds. In order to change the preset, make sure BOOM KICK is stopped, next tap the mute switch until you’re in single tapping mode (blue). Now, while you hold the tap switch, you can select the preset by tapping the mute switch.

Preset #1 is cyan, #2 is yellow, #3 is magenta.



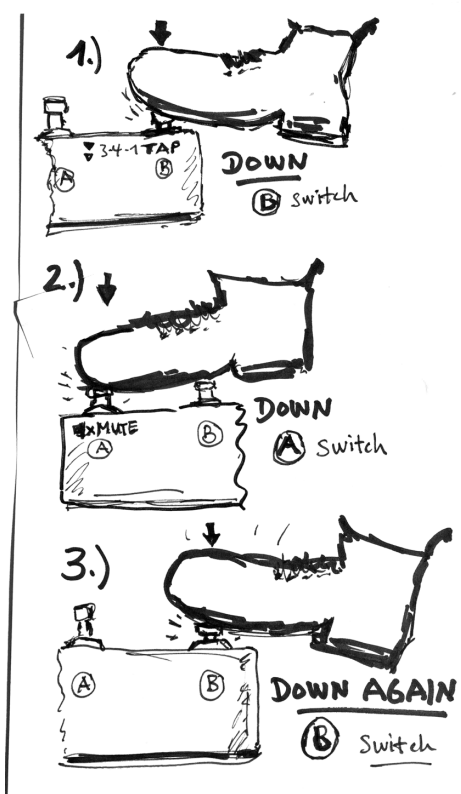
(If you prefer to change the preset without hearing its sound, you can alter-natively hold the mute switch on turning blue and select with the tap switch.)

### Editing presets

Select the preset you intend to edit by going to single tapping mode (blue), holding the tap switch and tapping the mute switch. Next tap the mute switch again and while holding it, release the tap switch instead. The mute switch’s LED is flashing red now, indicating you can change the MIX parameter “bass drum” vs. “noise”. (Inside BOOM KICK, there’s a bass drum synthesizer and a noise synthesizer.)

Use the tap switch to change it. Red means 100% bassdrum, 0% noise, the next steps are yellow, green, cyan, blue, magenta and white. White means 0% bassdrum, 100% noise.

Once you found your setting, click the mute switch to edit the next parameter. This is the bassdrum frequency (NOTE), the mute switch’s LED flashes yellow now. In case the MIX parameter’s on 100% noise (0% bassdrum, no need to tune), different cowbells can be selected vs. white noise instead.



If you're done editing, you need to tap the mute switch several times again until the mute switch's LED stops flashing.

Otherwise, the next parameters are ATTACK (green), TIMBRE (cyan), RELEASE (blue), ANALOG LPF (magenta) and NOISE FILTER (white).

In case the MIX parameter's on 100% noise, the next parameters are ATTACK (green), DECAY (cyan), RESONANCE (blue), ANALOG LPF (magenta) and NOISE FILTER (white) instead.

To make it more complicated, in case the MIX parameter's on 100% bassdrum (0% noise), NOISE FILTER (white) is not needed and turning into DISTORTION (white). (Sorry for that.)

These seven parameters with seven possible values allow  $7^7=823,543$  sound combinations! But there's even more: STARTMODE (flashing red/green) and PHASEMODE (flashing red/cyan).

### **STARTMODE (red/green)**

- 34one Mode (red)

You tap on "3" and "4", on "1" it starts.

- 24one Mode (yellow)

High exactness in taps for higher tempi are offered by the 24one mode. In this mode only half notes are tapped, which means that in the beginning you tap on the "2" and the "4" (instead "3" and "4"), and on the "1" it starts as usual.

For the tap on (see before) you can only tap the "2" and "4" during the time. Tapping "1" and "3" creates a huge chaotic phase shifting, since the BOOM KICK will try to get to the next "2" or "4". The "24" mode is, therefore, only useful for straight time (2/4, 4/4, 6/8....).

- One2 Mode (green)

You tap on "1" and "2", on the next "1" it starts. Of course you're free to tap "1", "2", "3", "4", "1" for higher accuracy.

### **PHASEMODE (red/cyan)**

- Off (red)

Only MIDI clock on MIDI out. No "red" indication for the beat, all quarter notes make the tap switch's LED go blue.

- On (yellow)

If "phase correction" is on, each tap has an influence on the phase and shifts the rhythm in the direction of the next quarter note. (To the next "2" or "4" in the "24one mode".) Along with the first beat there's a MIDI Start message merged into MIDI clock on MIDI out (in order to start sequencers or drum computers). Once you stop BOOM KICK, there's also a MIDI Stop message.

### Resetting the three presets

In order to restore factory presets, press the mute switch and hold it while powering up the unit. Mute switch's LED goes red. After you release the switch, the BOOM KICK starts up normally.

### Firmware update

Press the tap switch and hold it while powering up the unit. The tap switch's LED goes white, the MIDI plug is an input now and ready to receive firmware update MIDI sysex data files.

### Technical Data

MIDI implementation:

- MIDI Clock from second tap on the foot switch
- MIDI Start on the first "1" (e.g. after 24 clocks in 34one mode)
- MIDI Stop when turning off (MIDI Start and MIDI Stop only in PHASEMODE)
- tempo range: 35 – 210 bpm
- calculation exactness: 24bit, +/- 2 microseconds

MIDI Clock is a so called real time message, which is sent 24 times per quarter note (MIDI Time Code has to do with time information and has nothing to do with MIDI Clock). The instructions of your keyboard or sequencer will explain the use of MIDI Clock for synchronization with your device.



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