

# RO3OKOP

www.acidlab.de





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# Declaration of Conformity

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<b>Manufacturer:</b>	Klaus Süßmuth Elektronik	
<b>Manufacturer's Address:</b>	Karlsbaderstr. 7 D-83024 Rosenheim, Germany	

**The manufacturer hereby declares that the product**

Product Name: **Robokop, Autobot, Bassline, Miami, Bombass**  
Model Numbers: **all**  
Product Options: **all**

**complies with the following European directives:**

2006/95/EC, Low voltage directive (LVD)  
2004/108/EC, EMC-Directive

**The applied standards certifying the conformity are listed below:**

*Electromagnetic Emission:* EN 61000-6-3, EN 55011

*Electromagnetic Immunity:* EN 61000-6-1

*Safety (Low Voltage Directive) :* EN 61010-1

November 31, 2013

Rosenheim, Germany



Klaus Süßmuth



## Introduction

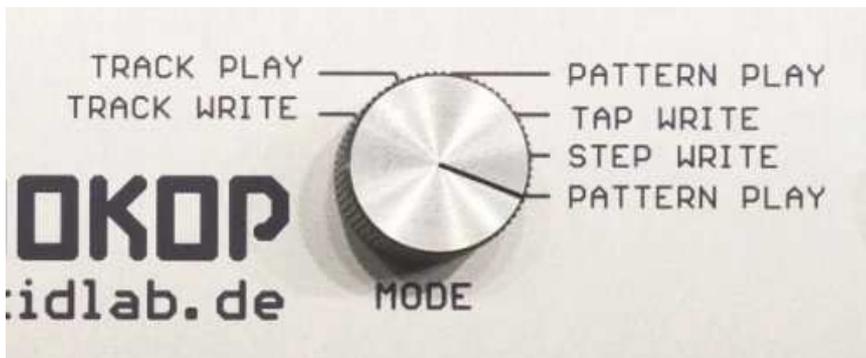
Thank you for deciding on an Acidlab instrument. Acidlab instruments are designed for live use, bringing classic analog sounds back to the stage. Of course, Acidlab instruments can also be used in the studio.

All Acidlab instruments are professionally manufactured in series in Germany, ensuring high quality for low prices.

The Robokop is a Trigger-Drum-Sequencer with the same sequencer section of the Miami drummachine. Instead of Audio-Outputs of drum-sounds, the Robokop is used to trigger up to 12 drum-modules or any other event in your modular system.

## Sequencer

### Modes



The sequencer runs continuously in all six modes.

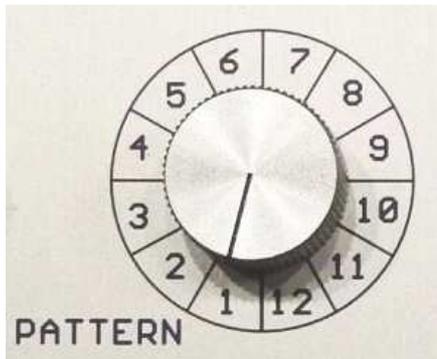
You can switch between modes while the sequencer is running; the switch takes place after the last step of the current pattern has been played.

### Start/Stop



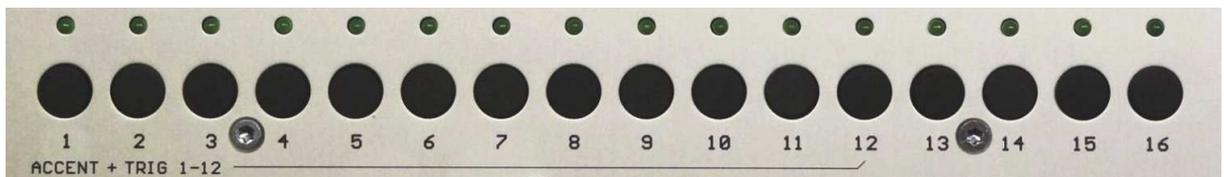
The Start/Stop button works in every mode and returns the pattern to its starting point, i.e. step 1 of the current pattern.  
When the Robokop is synchronized, the Start/Stop signal comes from the MIDI or Sync-In, and the Start/Stop button is disabled.

## Pattern Group



The 12 available pattern groups can be selected with the rotary switch. A pattern group contains 16 patterns. These are selected with the pattern buttons (1-16).

## Pattern

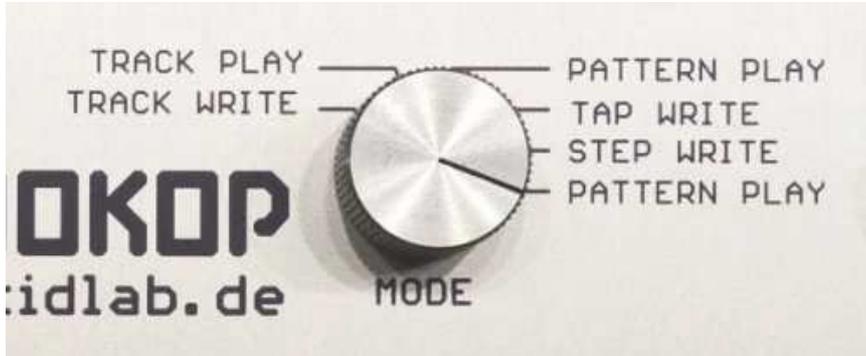


The current pattern is indicated by the LEDs 1-16.  
A pattern consists of up to 16 steps.

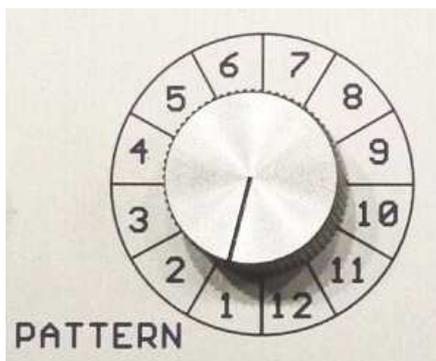
***In total, 192 patterns are available:  
12 pattern groups each consisting of 16 patterns.***

## Pattern Play

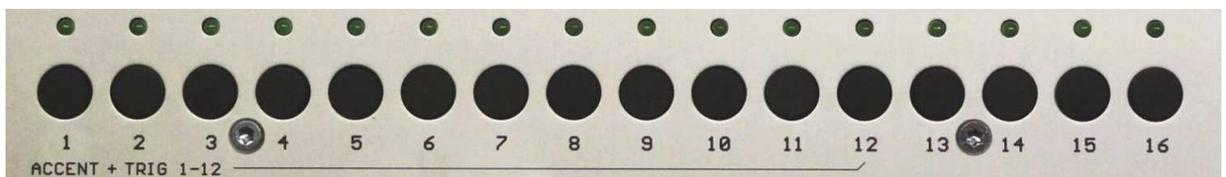
*The memory of a new Robokop is empty and a pattern must first be programmed->see Pattern Write Mode.*



Patterns are played back in Pattern Play mode.  
The active step is illuminated on the the upper LED Row, and runs the length of the pattern (1-16)



The patterns are selected from one of the 12 pattern groups.  
Switching between pattern groups can be done at any time; the switch occurs at the end of the next pattern. For each of the 12 pattern groups, one of 16 patterns can be selected with the buttons under the LED rows.



The LED over the current pattern blinks to show that it is active. When a new pattern is selected, the corresponding LED is lit, but stays solid. After the last step of the current pattern, the sequencer switches to the newly selected pattern. Now the LED of the new pattern blinks.

***In total, 192 patterns are available:  
12 pattern groups each consisting of 16 patterns.***

## Pattern Chaining

In Pattern Play mode, it is possible to chain patterns within a pattern group.

For example, to chain patterns 1 and 2 when pattern 1 is active and running, press and hold pattern button 1. Then press pattern button 2. The LEDs of both pattern 1 and 2 will illuminate.

The two patterns will now alternate, with the active pattern blinking and the other solid.

The chaining of two neighboring patterns is possible with patterns 1-2, 3-4, ... 15-16. Up to all of the 16 neighboring patterns of a bank can be chained. In addition, you can also chain from the 16th pattern to the 1st pattern!

Examples of possible pattern chains:

2-3, 4-6, 13-15, 1-16,....., 15-3

When you press any two pattern buttons simultaneously, the LEDs of all of the patterns between them will be lit solid, with the active pattern blinking. The chained patterns repeat after the last pattern in the chain has been played.

For example:

4 pattern chain: Selected: 2-5

→ 2, 3, 4, 5; 2, 3, 4, 5,....

2 pattern chain: Selected: 13-14

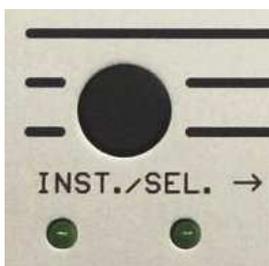
→ 13, 14; 13, 14, ...

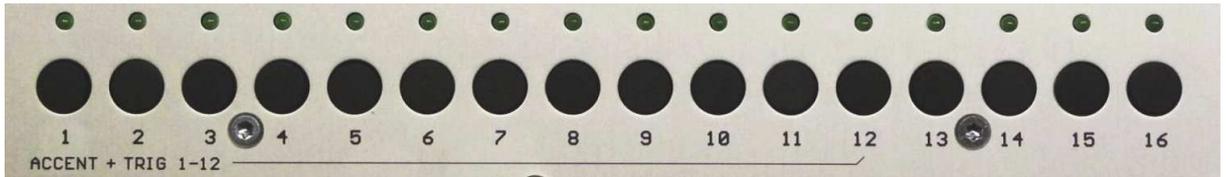
## Pattern Copy + Paste (Pattern Play Mode)

In Pattern Play Mode, it is possible to copy patterns.

### Copy Function

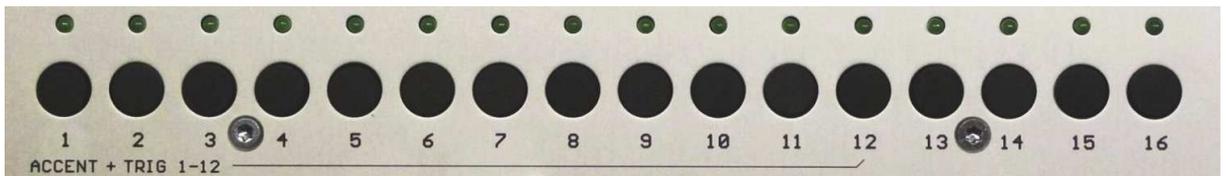
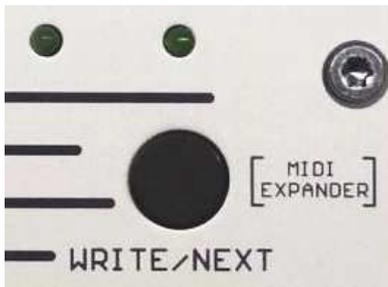
To copy a pattern, press one of the pattern buttons (1-16) while holding down the Inst/Select- button. The pattern is now saved to the buffer memory and will remain there until another pattern is selected.



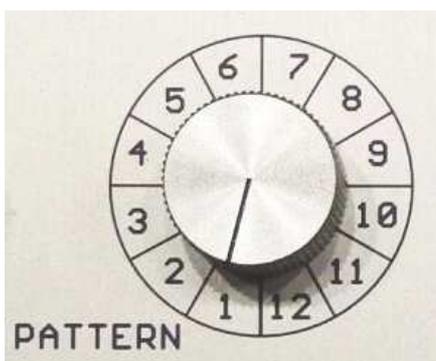


## Paste Function

To paste a pattern, press one of the pattern buttons (1-16) while holding down the Write/Next Button. This pattern will be overwritten with the pattern from the buffer memory.



Patterns can also be copied to another Pattern Group. To do so, select the new group with the rotary switch and then use the Paste Function.



## Pattern Write

***The memory of a new Robokop is empty and a pattern must first be programmed.***

There are two Pattern Write Modes

-Pattern Step Write

-Pattern Tap Write

You can switch to the Pattern Tap or Step Write modes from Pattern Play Mode while the sequencer is running.

For example, if a chain from patterns 5-7 is playing in Pattern Play mode, the chain will continue to loop when you change to Pattern Tap Write Mode. The whole pattern chain can now be edited in Pattern Tap Write Mode.

Alternatively, if Step Write Mode is selected, only the pattern that was last active will continue to play. It can then be edited in Step Write Mode.

For example, if one switches to Step Write Mode while pattern 6 from the pattern chain 5-7 is playing in Pattern Tap Write mode, pattern 6 will be selected. It can then be edited in Step Write Mode.

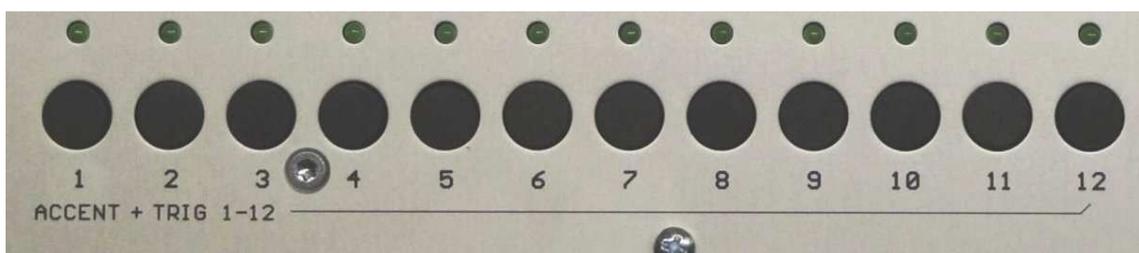
***Changing patterns is always done in Pattern Play Mode. Editing can be done in the Pattern Write Modes.***

***In Tap Write Mode single patterns and pattern chains can be edited.  
In Step Write Mode, only single patterns can be edited.***

## Pattern Tap-Write

In Tap Write Mode it is possible to edit sequences “live” while the sequencer is running. The selection of patterns or pattern chains for editing should be done in Pattern Play mode.

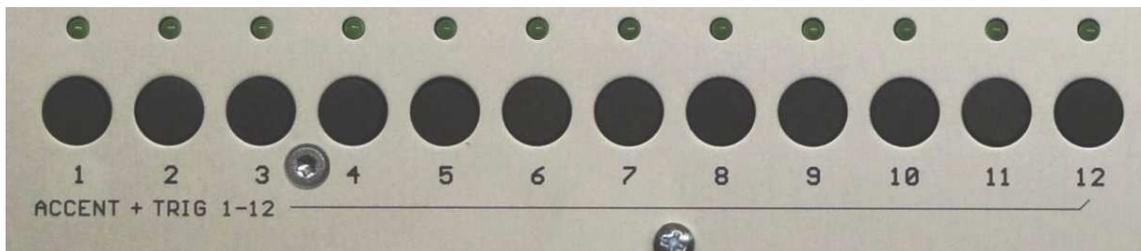
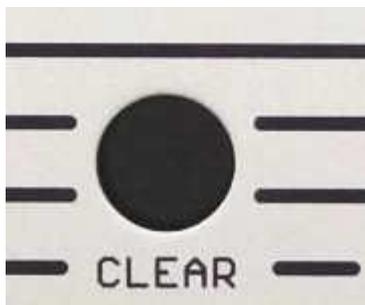
The upper running LED row works as in Pattern Play Mode. In the lower row, each of the LEDs above the instrument buttons (AC, Trig1, Trig2, ... ) is the indicator for its corresponding instrument.



The instrument buttons (Trig2, Trig3, ... ), write their instrument to the running pattern at the instant they are pressed. The accent button (Accent/Trig1), can be used to add an accent to the Trigger-patterns (Trig2, Trig3, ... ). The LEDs over the instrument buttons indicate which trigger is programmed at each step. If you program a trigger on a step more than once, it will not affect the pattern.

### Clear Instrument

If an trigger (AC,Trig1,Trig2, ... ) has been programmed incorrectly or on the wrong step, it can be erased by holding the Clear button while simultaneously pressing its corresponding button (AC,Trig1,Trig2, ... ). The trigger will be erased from the step at the instant the button is pressed.



If you hold the Clear button while holding one of the trigger buttons (AC,Trig1,Trig2, ... ) for a longer period, that instrument will be erased from all of the steps the sequencer passes through during the time the buttons are held.

### Clear all Triggers

All of the triggers programmed on a step can be erased by pressing the Clear button and the Inst./Select button simultaneously.

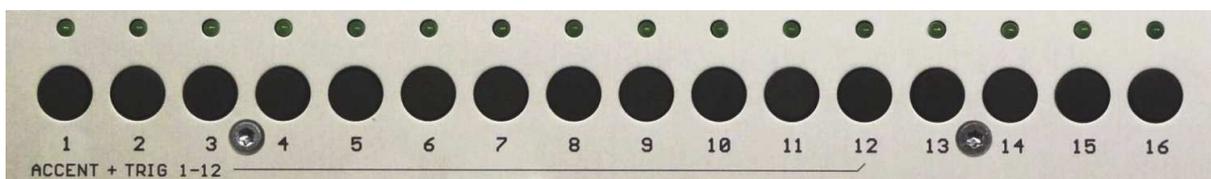


If the Clear Button and the Inst./Select button are held for a longer period, all triggers will be erased from the steps the sequencer passes through during the time the buttons are held.

***By holding the Clear Button and the Inst./Select Button for the duration of an entire pattern, you can erase the entire contents of a pattern or pattern chain.***

### **Pattern Length Programming (Pattern Tap Write Mode)**

By pressing the Length Button and one of the Step Buttons (1-16) simultaneously, you can choose the last step of the pattern.

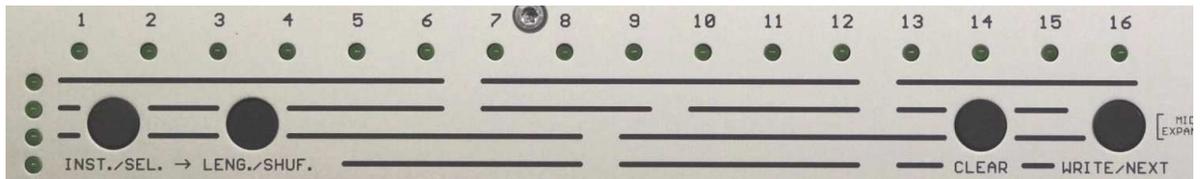


For example, if the Length Button and the button at step 12 is pressed, the pattern will be 12 steps long; after running through the first 12 steps, the pattern will repeat. The pattern length will stay the same even when changing to another mode. The unplayed steps after the last step remain in memory.

### **Scale Programming (Pattern Tap Write Mode)**

One of 4 possible scales can be selected for a pattern with the Scale Button.





The LED of the scale indicates which scale has been selected.  
 The lowest Scale-LED corresponds to 4/4 time signature.

***Shuffle can only be adjusted if 4/4 time signature is selected (i.e. the lowest LED is illuminated).***

### **Shuffle Programming (Pattern Tap Write Mode)**

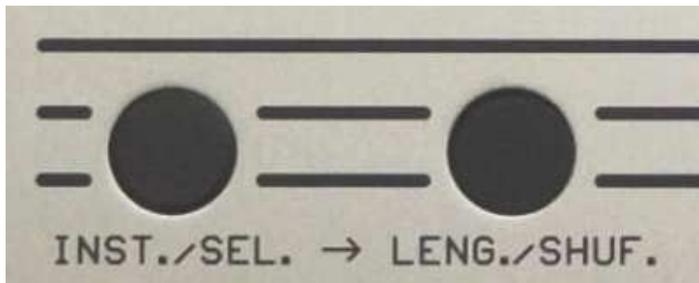
The Robokop has two kinds of Shuffle:

- The first kind of shuffle delays the even numbered steps (2, 4, 6, ...). This is similar to the common shuffle found on the 909.
- The second kind of shuffle delays steps 3, 7, 11 and 15. This second kind of shuffle is similar to the one on the CR-8000.

Both shuffles can be applied simultaneously.

Each of the two shuffles can be adjusted over a range of 5 degrees.

To do so, press the Inst./Select and the Length/ Shuffle buttons at the same time.



LEDs 1-5 of the step buttons will now indicate the shuffle setting of the first kind of shuffle.

LEDs 8-12 indicate the shuffle setting of the second kind of shuffle.

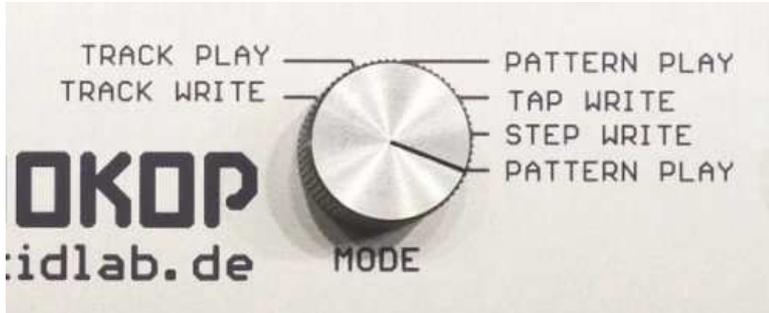
Keeping the Inst./Select and Length/ Shuffle buttons held, you can now press the corresponding Step buttons 1-5 or 8-12 to adjust the shuffle.

When shuffle is set to step 1 and step 8, no shuffle is present.

***If the scale is changed, the shuffle settings return to the default setting (no shuffle)!***

## Pattern Step Write

With the Mode rotary switch, you can change to Pattern Step Write Mode without stopping the sequencer.

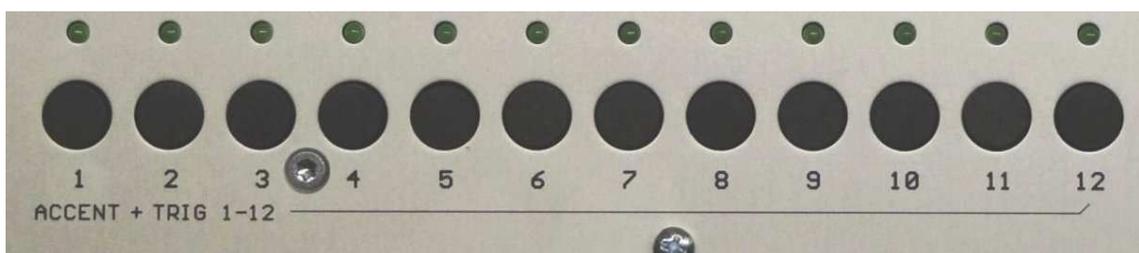
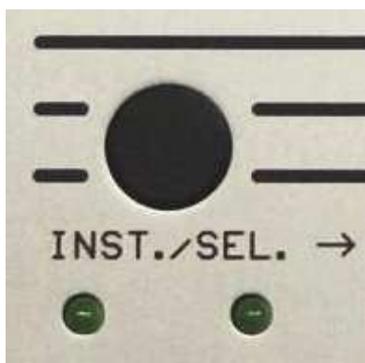


In this mode, unlike as in Pattern Tap Write Mode, you can only playback and edit a single pattern. The pattern to be edited depends on the pattern playing at the moment the mode is changed. This pattern will continue to play when the mode is switched back.

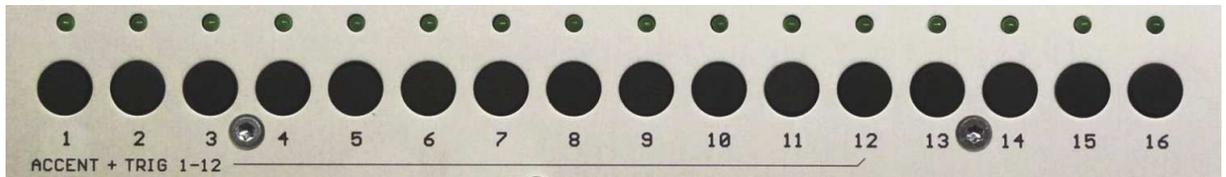
In Pattern Step Write Mode, the triggers can be edited using step-based programming. The triggers are individually programmed at each step. Any changes to the pattern length, scale or shuffle are retained if you switch to Pattern Play Mode or Pattern Tap Write Mode.

### Selecting a trigger

To select a trigger to program (or the Accent), hold the Inst./Select button while pressing one of the trigger buttons. (AC, Trig1, Trig2... )



When the Inst./Select Button is held down, the currently selected trigger is indicated by the LED above the corresponding instrument button. When the Inst./Select button is released, the pattern of this trigger is displayed by the LEDs over the Step Buttons (1-16)

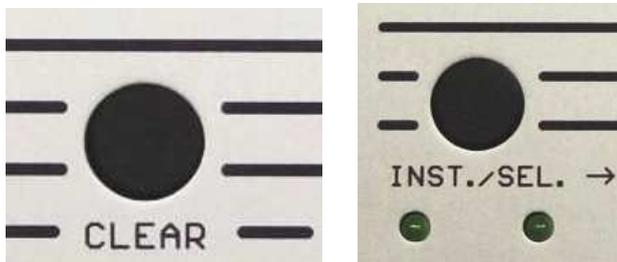


### Programming and Erasing a trigger

By pressing one of the Step Buttons (1-16) you can write the selected trigger to that step in the pattern. The LED above the Step Button will light up. When the button is pressed again, the trigger will be deleted from the step.

### Clear Pattern (Pattern Step Write Mode)

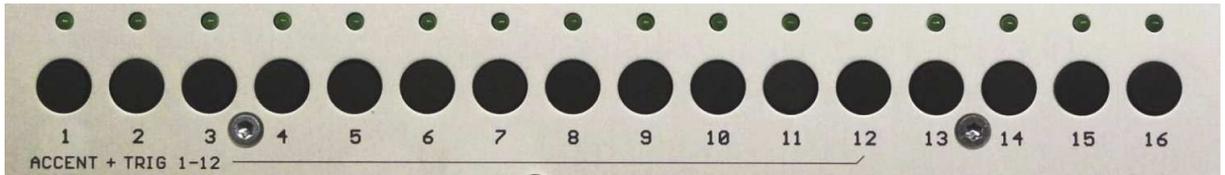
The entire pattern can be deleted by pressing the Clear Button and the Instrument Select button at the same time.



### Pattern Length Programming (Pattern Step Write Mode)

By pressing the Length Button and one of the Step Buttons (1-16) simultaneously, you can choose the last step of the pattern.



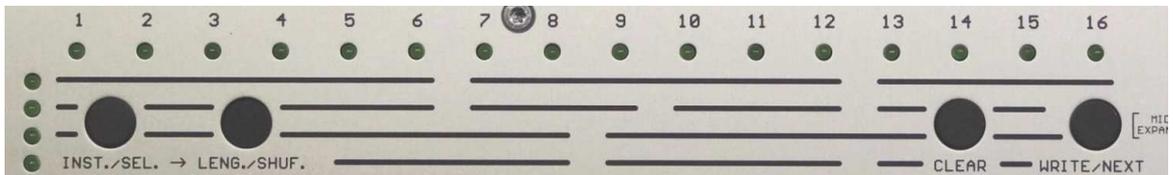


For example, if the Length Button and the button at step 12 is pressed, the pattern will be 12 steps long; after running through the first 12 steps, the pattern will repeat. The pattern length will stay the same even after changing to another mode. The unplayed steps after the last step remain in memory.

***Pattern Length Programming is the same as in Pattern Tap Write Mode!***

### Scale Programming (Pattern Step Write Mode)

One of 4 possible scales can be selected for a pattern with the Scale Button.



The LED of the scale indicates which scale has been selected. The lowest Scale-LED corresponds to 4/4 time signature.

***Scale Programming is the same as in Tap Write Mode!***

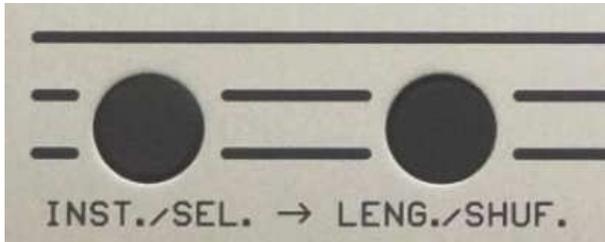
### Shuffle Programming (Pattern Tap Write Mode)

***Shuffle can only be adjusted if 4/4 time signature is selected (i.e. the lowest LED is illuminated).***

The Robokop has two kinds of Shuffle:

- The first kind of shuffle delays the even numbered steps (2, 4, 6, ...). This is similar to the common shuffle found on the 909.
- The second kind of shuffle delays steps 3, 7, 11 and 15. This second kind of shuffle is similar to the one on the CR-8000.

Both shuffles can be applied simultaneously.  
Each of the two shuffles can be adjusted over a range of 5 degrees.  
To do so, press the Inst./Select and the Length/Shuffle buttons at the same time.



The first 5 LEDs of the step buttons will now indicate the shuffle setting of the first kind of shuffle.  
LEDs 8-12 indicate the shuffle setting of the second kind of shuffle.  
Keeping the Inst./Select and Length/Shuffle buttons held, you can now press the corresponding Step buttons 1-5 or 8-12 to adjust the shuffle.  
When shuffle is set to step 1 and step 8, no shuffle is present.

***If the scale is changed, the shuffle settings return to the default setting (no shuffle)!***

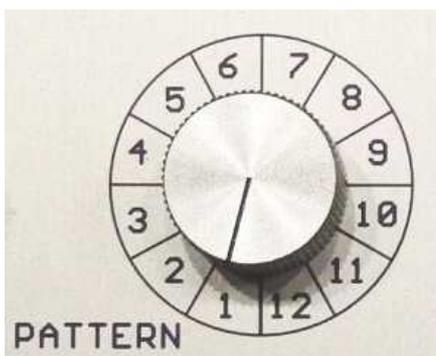
***Shuffle programming is the same as in Pattern Tap Write Mode***

## Track Play Mode

***The memory of a new Robokop is empty and a track must first be programmed!***

A track is a sequence of different patterns from a pattern group.

Once you have programmed one of Tracks 1-12 in Track Write Mode, you can use this mode to play the track back. Use the Pattern Group rotary switch to select it.



There is one track is available for every Pattern Group.

When changing tracks, the newly chosen track will start after the end of the current pattern. The track will start with its first pattern. If you switch to Pattern Play Mode, pattern 1 of the current pattern group will be selected. Track Play Mode can only be used to select and playback the programmed tracks.

The Start/Stop Button will return the track to the beginning, where it will start again from the first pattern in the track.

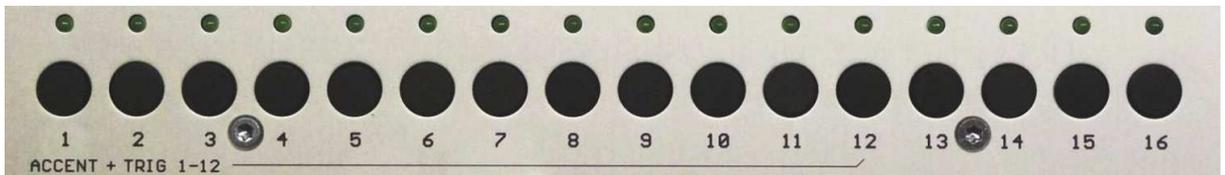
## Track Write Mode

In this mode, you can select and order patterns to form a Track. The Track can then be played back in Track Play Mode.

To program a track, select the track in Track Play Mode. When you switch to Track Write mode, the track will be erased, and a new track can be programmed in its place.

Playing back patterns is the same as in Pattern Play Mode. However, you can only play patterns from the pattern group currently selected with the rotary switch.

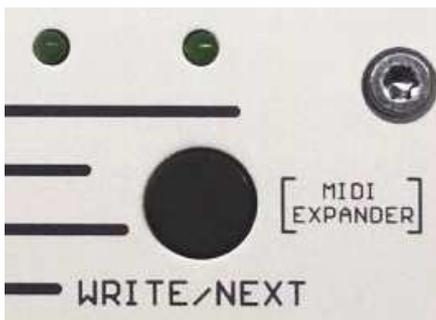
You can select from the 16 patterns in the group using the row of buttons (1-16).



The active pattern will be indicated by a blinking LED above the corresponding button, and will start to play after the end of the last pattern.

The pattern will repeat continuously as in Pattern Play Mode.

By pressing the Write/Next button, you can set the current pattern as the first pattern in the Track.



If you then select another pattern and press the Write/Next button, that pattern will be saved as the second pattern in the track.

As in Pattern Play Mode, you can chain several patterns. An entire chain can be added all at once to a track using the Write/Next button.

For example:

Pattern 1	Press Write/Next
Pattern 1	Press Write/Next
Pattern 14-15 chain	Press/Write Next

The following sequence of patterns has now been saved into the Track memory: 1, 1, 14, 15

→ If you use the mode switch to change to Track Play Mode, the track is finalized. The sequence of patterns will now continuously repeat as a track:

1, 1, 14, 15; 1, 1, 14, 15; 1, 1, 14, 15; .....

***Switching to Track Write Mode will erase the track from the currently selected pattern group!***

## Synchronization

***The sequencer can be synchronized to an external clock using MIDI in or Sync In.***

### Midi Clock to Sync Out

If the synchronization switch is in the MIDI-in position, the Robokop's sequencer will be slaved to the MIDI Clock of a MIDI Master connected to the MIDI-in port.



A Sync-out Signal will be generated at the Sync socket for other devices that have a Sync-In socket.

### **Sync Slave:**

If the synchronization switch is in the Sync-In Position, the Robokop's sequencer will be slaved to the Sync Clock of an external Sync-Master connected to the Sync socket.

### **Sync Master:**

If the synchronization switch is in the Sync-Out Position, the Robokop functions as a Sync Master.

A Sync-out Signal will be generated at the Sync socket for other devices that have a Sync-In socket.



You can adjust the tempo with the Tempo Knob, and the Start/Stop button will start or stop the sequencer.

***When using a sync cable, all of the pins of the cable must be wired. Some MIDI cables do not have connections between all the pins, and thus cannot be used as sync cables.***

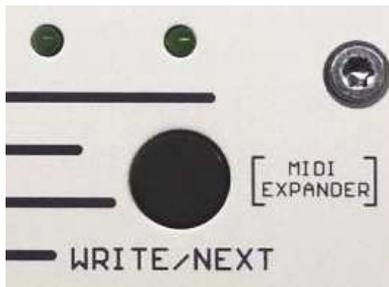
## MIDI Expander Mode

The Acidlab Robokop can also be controlled using MIDI Note Data.

To use the Robokop in Midi Expander Mode, switch off the power-supply of your Robokop tabletop-version using the On-Off switch on the left side panel.

If you have the Robokop modular-version, you will have to switch off the power-supply of the rack from your complete modular-system.

Now hold the the Write/Next [Midi Expander] button and switch the Robokop back on with the On-Off switch of your Robokop (tabletop version) or of your complete modular-system (module version).



***You can see that you are in MIDI Expander Mode when all 4 Scale LEDs are illuminated.***

***Repeat the same process to resume using the internal sequencer!***

By pressing the Instr./Select button and the Write/Next [MIDI Expander] button simultaneously, the Midi-Learn-Mode is activated and will be indicated by a blinking LED above the Write/Next [MIDI Expander] button.

The first received midi-note sets the midi-channel (1-16) and the LED stops blinking. The midi-channel will be saved until a new Midi-Learn-Mode is activated.

The following MIDI Notes are used to play the Robokop's triggers:

- 36 -> Trig 2
- 37 -> Trig 3
- 38 -> Trig 4
- 39 -> Trig 5
- 40 -> Trig 6
- 41 -> Trig 7
- 42 -> Trig 8
- 43 -> Trig 9
- 44 -> Trig 10
- 45 -> Trig 11
- 46 -> Trig 12

***Velocity values > 100 will put an trigger on the Trig1-/Accent Out.***

# Outputs

## Accent Out:

The Accent-/Trig1 Out (3.5 mm mono) is used as a Accent-trigger or Gate signal. The output is a fixed +12v impulse with a duration of 20ms.



The Accent-/Trig1 Out is primarily intended to be used to control a Trigger- or Accent In of any drum-module or gate-/trigger input of an analog synthesizer, or any other event in your modular system.

## Trigger Outputs:

Each of the 11 trigger-outputs (Trig2, Trig3, ...) can be accessed through one of the 11 individual trigger-outs (3.5mm mono).

Every trigger-output varies its amplitude, that depends on the range of the Accent knob and if there is an accent programmed on this step or not.

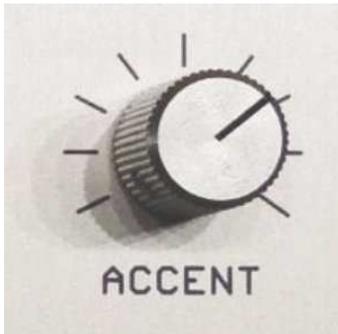


Every trigger-output without programmed Accent on this step has an amplitude of 4,2 Volt, and the duration of the impulse is 10ms.

With programmed Accent on this step, the amplitude of this step will be risen in the range of 4,2 Volt up to 11,5 Volt.

***With this changing amplitude, connected drum-modules will be played dynamically with the programmed Accent.***

The amount of the programmed accent can be set with the Accent knob.



## Power Supply

**Robokop tabletop-version:**

***The Robokop tabletop-version should only be used with the supplied AC Adapter (12VAC/min. 300mA). Do not use other AC adapters!***



The Robokop tabletop-version has an On/Off slide switch on the left side panel.

Replacement AC Adapters can be ordered from [acidlab.de](http://acidlab.de) .

AC-Adaptors are available as EU-, UK- or US-version.

**Robokop modular-version:**

The Robokop modular version has to be connected with the delivered 2x8 or 2x10 ribbon-cable to the +/-12V-powerbus (e.g. Doepfer).

The lowerpin is connected to the -12V.

The second 2x8 multi-pin-connector on the PCB-board can be used for a flying-bus-wiring.

***It is not necessary to supply the Robokop with a +5V.***

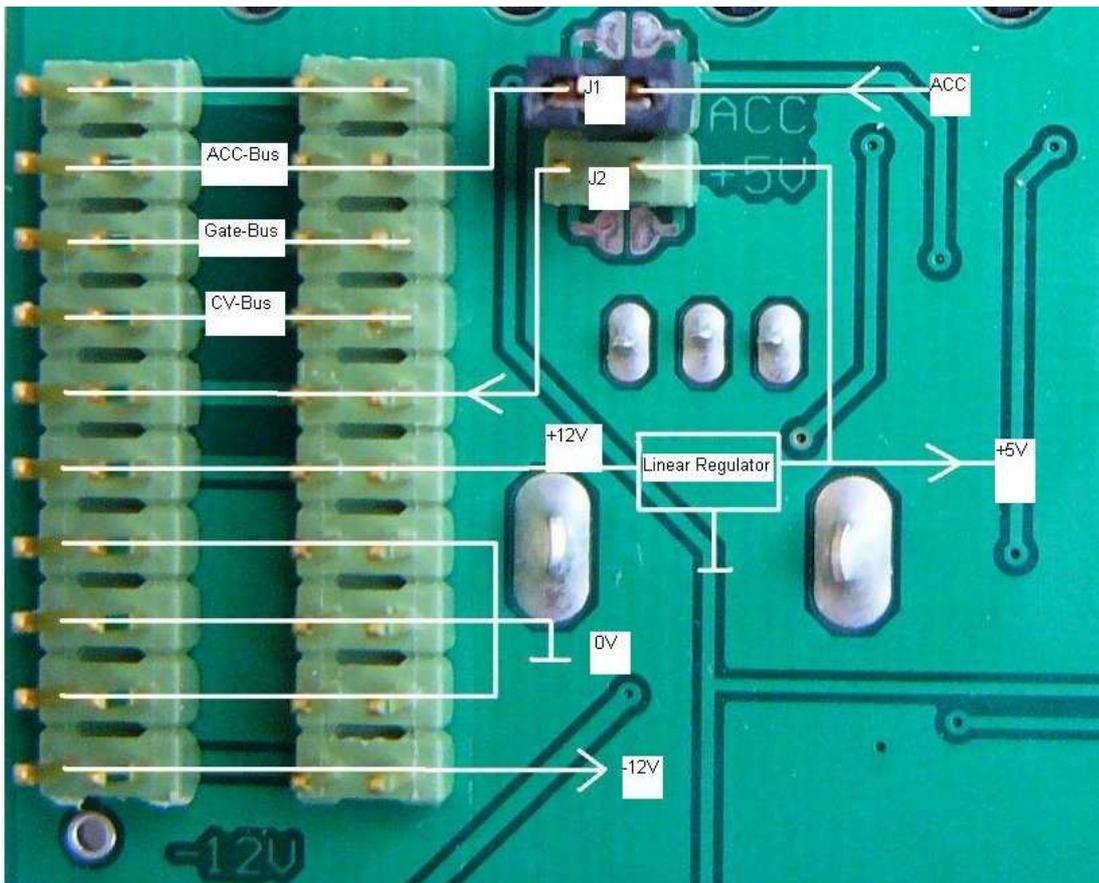
The Robokop generates a +5V out of the connected +12V.

***The maximum supply current is +12V/80mA and -12V/20mA.***

## +5V-Bus:

If the +5V-Bus of your power-bus is not in use, it is possible to supply this +5V-Bus from the +5V out of the Robokop.

The +5V-jumper J2 must be set.



***The +5V supply of the Autobot can be loaded up to 200mA.***

***Please do not set the jumper J2, if there is no modul in the need of the +5V-supply.***

## Accent-Bus:

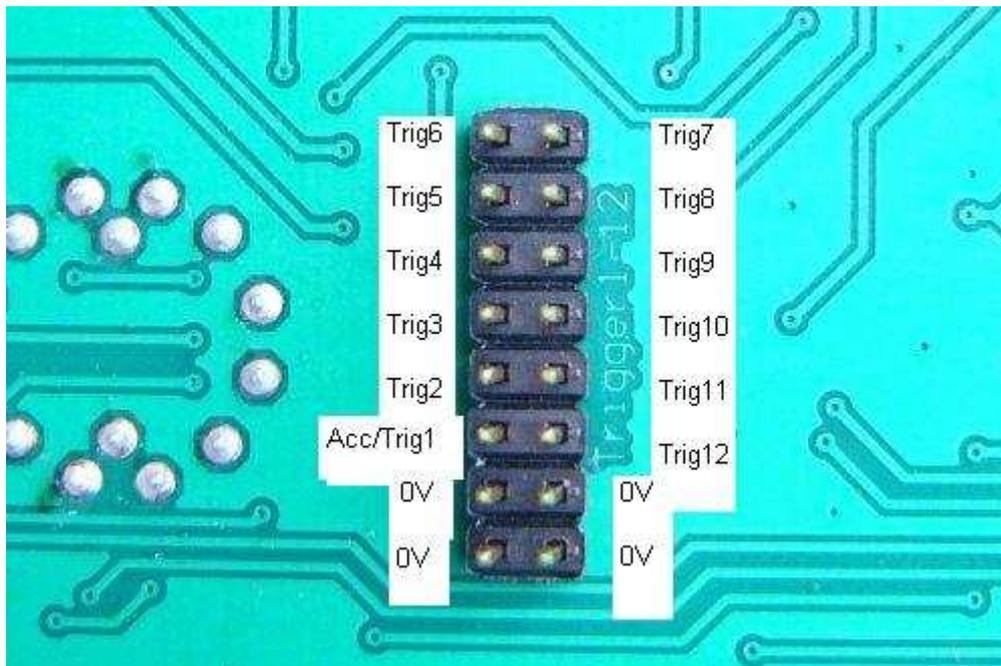
If there is no Accent-source connected to the Accent-Bus, then the Accent-Out of theh Robokop should be connected.

***Now it is possible to control acidlab`s drum-modules (e.g. 8BD, 8SD, ...) with the Accent-Bus.***

***Please do not set the jumper J1 and J2, if there is no modul in the need of the CV-/Gate-Bus.***

## Trigger-Connector:

There is an internal trigger-connector, that can be used for internal wiring to e.g. drum-modules.



## Warranty

The manufacturer warrants this product for a period of two years from the purchase date in accordance with the conditions described here. Defects found during this period will be repaired. Potentiometers, switches and sockets are not covered under this warranty. The manufacturer reserves the right to make the final decision on all warranty claims. This warranty does not apply to products which have been modified or mechanically damaged. A repair charge will apply to products not covered by the warranty. To determine the applicability of the warranty, the manufacturer must be contacted before sending the product to be serviced. Excepting the manufacturer, no third parties are authorized to confirm or effectuate this warranty. The warranty is transferrable in the case of resale during the warranty period. The manufacturer is not responsible for incidental or consequential damages.

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