

FUNCTIONS

MIDI-to-CV-INTERFACE:

The interface is M00G-compatible: 1V/octave. You can use the interface stand-alone. Midi receive channel = 1 (fix), Range of notenumbers = 24..84, Notenumbers out of this range are ignored.

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BEAT: Clock devider is based on internal or external clock. Beats include normal, punctuated and triplet notes. Changing of beat results at next measure.

GATE: Assigns the impuls length of clock/CV-out. <u>Please note:</u> position OFF = track off position max = HOLD (exept for sending Midi note)

SHIFT: When switch is in position SHIFT (bottom), you can shift the track forward or backward with the SHIFT/CV ruler. In position minimum or maximum the shift lenght = half of beat (except beat= 1/32 or Tick).

CV: When switch is in position CV (top), you can set the CV output of track with the SHIFT/CV ruler. In position LFO, the LFO is activated via CV output. Set the waveform with the second switch of track. Please note the dual positions of switch (track random on/off).

RANDOM: Activate track random with switch RANDOM (ruler SHIFT/CV may not be in position LF0).

If ruler RANDOM is in center position the function is deactivated. In positions left/right you have different random alghorithm - please trial and error the effects.

SHUFFLE: No shuffle in position center. Left = shuffle for eight notes. Right = shuffle for sixtheen part notes. (except punctuated and triplet notes), resolution is in tick.

TECHNICAL DETAILS

- 3 Tracks with Beat-, Gate-, Shift / CV-control
- Beats included triplet and punctuated notes
- Clock shift forward and backward
- LFO (synchronized), 4 waveforms: saw, sawtooth: up, down, alternated
- Shuffle control (8 or 16th parts)
- Integrated MIDI to CV interface (5 Octaves, 1V/Oct)
- MIDI sync (intern/extern tempo via MIDI clock)
- · Complex random functions
- · Record functions
- MIDI controller
- CV-Outputs 3,5mm (1/8th inch) mono jacks: Track 1,2,3, Sum tracks, Midi-CV
- Clock/Gate Outputs 3,5mm (1/8th inch) mono jacks: Track 1,2,3, Sum gate+clock, Midi-gate, 16th
- CV voltage: 0..+5V
- Clock/Gate voltage: 0 /+5V
- MIDI input / output
- Euro rack module, size 28TE
- Power: +12V / ca.130mA, -12V / ca.20mA

BRIEF OVERVIEW

The CLOCKWORK includes 3 tracks with clock divider, clock shift, gate control, CV-out or LFO-out, clock/gate-out, Midi controllers, 1 fix Midi notenumber, record function (over 2 measures). The clock is based on internal clock or extern Midi clock. The least resolution is 1 tick. The LFO is also based on this resolution of 1 tick. The internal tempo range is between 20..220 beats/minute. Please look in list of Midi data for the defined Midi data of tracks.

RECORD: For each track you have one record switch. In normal mode please turn the switches in top position (RECORD) - When the sequencer is started, the parameters of tracks are continually recorded over the period of two measures: Following parameters of track1-3: Gate,Shift/CV-control, switches Shift/CV and Random (included Midi-Controller). In position bottom the sequencer plays the recorded parameters automaticly (loop length = 2 measures).

Please note:

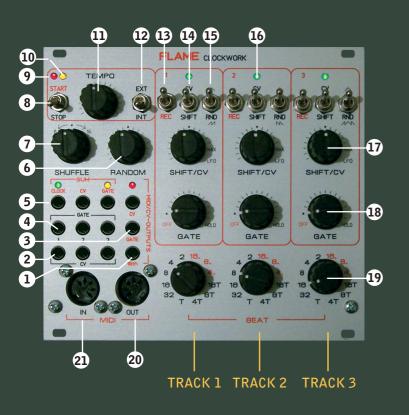
The BEAT switches are <u>not</u> a part of record functions!

ANALOG OUTPUTS:

All three Clock-outputs flow into a Clock-sum-output and a Gate-sum-output (arranged as a stereo-plug). The signals of the three tracks are connected by different ways. The according generation of both sum-outputs you can see in the schedule below.

The three CV-output of the tracks are also put on an extra CV-sum-output. Thereby one-third of the voltage of the according track is mixed on the output. The sum-voltage ranges as well between 0 and 5 V. By means of this output different LFO - actions are mixable or Random can be influenced.

1	2	3	CLOCK GATE
0	0	0	0 0
0	0	•	O
0	0	0	0 0
0	0	0	0 0
0	0	0	0 0
0	0	0	0 0
0	0	0	0 0
0	0	0	0 0

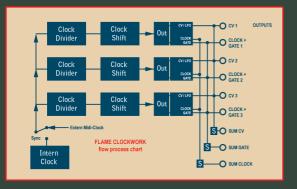


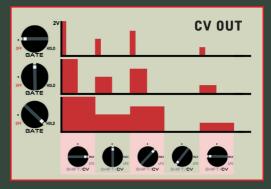
- 1 Output 16th Clock
- 2 Outputs CV tracks 1-3 (0..5V)
- 3 MIDI-to-CV interface (jacks CV+gate, LED gate)
- 4 Outputs clock/gate tracks 1-3 (0/5V)
- 5 Outputs sum Clock / CV / Gate
- 6 Ruler random: center position = off
- 7 Ruler shuffle: center position = off
- 8 Switch Start / Stop
- 9 LED red: Start / Stop
- 10 LED yellow: Beat (4th)
- 11 Ruler intern tempo
- 12 Switch extern/intern MIDI clock
- 13 Switches record track 1
- 14 Switch CV / Shift track 1

or switch LFO wave (if ruler Shift / CV = LFO)

- 15 Switch random on/off track 1
- 16 LED clock/gate track 2
- Ruler shift / CV / select LF0
- 18 Ruler gate: off=track off, point: gate=1 tick
- 19 Select beats
- 20 MIDI out jack
- 21 MIDI in jack

(all CV / Gate outputs: 1/8th inch (3,5mm) mono jacks)





For all figures and informations please download the detailed manual: http://flame.fortschritt-musik.de

MIDI-CV-INTERFACE

MIDI-Channel 1 Recognized:

Notenumbers: 24..84

DRUM NOTES

Transmitted: MIDI-Channel 10

Track1 Track2 Track3 36 37 42

CONTROLLER RULER

MIDI-Channel 10 **Transmitted:**

Track1 Track2 Track3 **Gate: 73 Gate: 81 Gate: 84** Shift/CV: 70 Shift/CV: 80 Shift/CV: 83

SWITCHES

Track: 2 Shift/CV: 64 66 68 Random: 65 69

Beginning from the date of purchase a 1-year warranty is guaranteed for this device in case of any manufacturing errors or other functional deficiencies during runtime. The warranty does not apply in case of:

- damage caused by misuse
- mechanical damage arising from careless treatment (dropping, vigorous shaking, mishandling, etc)
- damage caused by liquids penetrating the device
- heat damage caused by overexposure to sunlight or heating
- electric damage caused by improper connecting (wrong power supply/ jacks/ MIDI connections/ voltage problems)

If you have any complaints please contact your dealer or send an e-mail to: service@flame.fortschritt-musik.de

IS OF PRODUCTION conformity: CE, RoHS, UL

The device is produced with RoHS-conformity (subject to the regulations of the European Union) and is free of hazardous substances (like mercury, plumb, cadmium and hexavalent chrome). But electronical scrap is hazardous waste. Please don't add this to consumer waste. For a environment-friendly disposal of waste please contact your distributor or specialist dealer.

Further informations, news, updates, downloads, tips, links, contact:

http://flame.fortschritt-musik.de email: service@flame.fortschritt-musik.de