



FLAME ECHOMETER

QUICKSTART MANUAL

PRODUCT INFO

The echometer is a midi sequencer/looper where you can record and playback midi notes and/or controller values from three independent tracks over up to four bars length in realtime or quantized if you want. Over implemented buttons, external Midipads or keys you can just record the timing of the events up to Midi. You can also trigger them analogwise over the gate input switch per track. The echometer is mainly designed to create, play and edit drums and percussion beats on the fly. Still you can edit basslines or melodies to be given out in addition or as it. Over up to six voltage control outputs for 0 to 5 volts you can also control and manage analogue components such as filters, analogue synthesizers or such stuff in a modular system. The enormous possibilities in combination with the midi are uncountable.

SECURITY ADVICES

- don't use the tool in humid environment
- don't install close to heating places (radiators, stoves, open fire, direct sun-radiation)
- please pay attention to use the correct power supply adapter
- don't let the tool fall down, even if it is quiet robust
- don't put external voltage at the output-jacks
- for cleaning, don't use chemical cleanser or solvent, but only dry cloths

CONSIGNMENT We deliver following accessories with the tool:

- Power supply adapter AC/AC (230VAC - induced 14VAC, 500mA)
- Quickstart manual, optionally additional informations
- Step-up Plug-in Voltage Converter 45W (Convert 110V to 230V) for USA

SCHEME OF THE POTS, SWITCHES AND KEY BUTTONS

■ START/STOP

Starts or stops the internal sequencer with adjusted tempo (sync-switch aside must be in position INT, EDIT off)

■ SYNC INT/EXT

Sequencer gets started internal INT or external EXT via Midi-Clock

■ EDIT

Activates the EDIT-mode to adjust parameters and to record them (sequencer must be stopped)

■ SHOTS: VALUE-pot

Adjustment of Velocity/Value

LEFT: fixed value 0..127,

RIGHT: RND - Random-value,

DOWN - LFO down from 4 values

UP - LFO up from 4 values

OFFBEAT-switch

Raster displaced per half

■ SHOTS: RESOLUTION-pot

Adjustment of the Note-Repeat-Raster

■ DIAL- Data Entry

■ ECHO: TIME-pot

Adjustment of the Echo-Raster

■ ECHO: DEPTH-pot

LEFT: Feedback+value reverse

RIGHT: Feedback+value decaying

■ LOOP: RELEASE-pot

Determines the decay of the loop (decrease of Velocity/Value)

CENTER: endless Loop (no Release)

CLEAR ALL: all played sequence-data will be deleted (except for Mute/Hold)

CLEAR POS: all sequence-data at active position will be deleted (except for Mute/Hold)

■ LOOP: VARIATIONS-pot

You can vary a leveled loop while it is playing

CENTER: Variations off

TO LEFT/RIGHT: Random on Velocity/Value (different procedures)

To the right additionally: Random too on Velocity/Value and additionally playback-variations on/off: The order of the measures of the 4-measured loops are generated and played by random. This sequence is 8 measures long and depends on the adjusted length of the loops (1, 2 or 4 measures).

If **BAR=1** measure 1,2,3 or 4 of the loop will be chosen and be played 8 measures.

If **BAR=2** of all measures will be chosen two and be repeated 4 times.

If **Bar=4** of all measures will be chosen 4 and be repeated 2 times.

After run-off the 8 measures a new scheme will be generated and played. The variation can be stopped any time (pot OFF) or started again (pot to the right). You should rather use this function when no steps are recorded,

because you never know which measure of the loop is activated (maybe for experiments).

■ QUANTIZE: Right switch

REAL = no Quantize, play with Gatetime (play in Tick-mode). Pushing the red push-button generates Note-On, to let loose Note-Off. As long as the button is pushed, before placed notes will be deleted.

LQ (LOOP QUANTIZE) = Play as with REAL, but the LOOP will be quantized belated in the memory, depending from the left switch. As long as the button is pushed, before placed notes will be deleted.

Q (QUANTIZE) = play quantized. Depending from the left switch, the notes will be played at the following raster-point. Note -Off is placed automatically in front of the note (not via releasing the button). With this you can generate quantized bounded notes (important for drumloop-samples). Notes will always be added.

PLEASE NOTE:

REAL+LQ = Bass Mode (Playing of notes in realtime/ Quantize with Gatetime)

Q = Drum Mode (quantized bounded notes)

■ INSTRUMENT: Right switch

NT: NOTE - With the left switch adjusted note A, B or C is played. A and B are fixed adjusted notes. The same is C adjusted in EDIT-mode, but can be diversified with the DIAL-pot.

C1, C2: Controller 1 or C2 will be played (pitch bend or control change)

■ HOLD/ECHO - key button

Keybutton switched forward activates HOLD of the track on/off (red LED permanent on/off). Keybutton switched backwards activates/ deactivates the echo of the track (little red ECHO-LED on/off)

HOLD: Activating HOLD freezes the LOOP of the track. RELEASE becomes effectless. Nothing more can be recorded.

ECHO: Only notes can generate an echo (no controller). But the Echo can be notes or controller or both (adjustable in EDIT-mode)

■ BAR-LOOP-switch

Determines the playback-time of the sequence. It can be 1, 2 or 4 measures. To arrange LOOPS faster, at position 1 or 2 the according steps of the not played measures are recorded too. That means: if BAR is at 1 all other measures are recorded with the same played steps. So the sequence goes on looping, even if you switch to BAR 4 (because all measures are the same). Because of this, you can play the measures only separately when BAR= 4. If BAR is =2, the sceme is always 2-measured and recorded are always 1 and 3, as well as 2 and 4.

■ MODE - Here you choose the play-mode:

MUTE: the red push-buttons mute the according track (red HOLD-LED is blinking)

PLAY: with the red key-buttons several steps can be placed in dependence of the adjustments of the QUANTIZE-switch.

SHOTS: as long as the red button is pushed note-sequences (or controller) are generated depending on the adjustments of the SHOT-pot.

■ CV/GATE-OUT

Analogue CV- output of tracks 0..5V. Can be configured differently: gate of the note, note-number, velocity, value controller 1, value controller 2 or all together, accordingly value from ECHO on/off.

■ GATE-IN

Analogue 5V-Trigger (as external possibility to play the track, the same as with the red push-buttons)

A SIMPLE EXAMPLE

With a simple example we would like to demonstrate the functionality of this tool. Please let the tool switched off. Put the switches and pots into following positions: All pots in center-position, all QUANTIZE- and INSTRUMENT-switches upwards. LOOP-BAR-switch at 1 (LOOP-length= 1 measure), MODE-switch on PLAY (green LED is illuminated), EDIT-switch upwards, SYNC-switch downwards at INT (internal sequencer), switch aside on STOP.

1. Please connect a sound- expander (drum-module, sampler, synthesizer e.g.) via MIDI (Echometer-MIDI-out in expander-MIDI-in)
2. Adjust the MIDI-channel of the expander at 1 (or the value changed in the Echometer)
3. Switch the tools on

4. In the display of the Echometer appear one after the other the version-number, message about loading of the user-data (Err or Yes) and at least the adjusted tempo.
5. With the dial-pot you can adjust the tempo (revolving the pot)
6. By pushing on the dial-pot you switch between notes/controller-display and the tempo-display
7. The sequencer is stopped. Nevertheless you can actuate notes with the red push-buttons.
8. Push the red button of track 1. Now the note A from track 1 must be hearable with velocity 127 (velocity adjustable with SHOT-value- pot). Please note that the expander-sound-volume depends on velocity.
9. If you cannot hear anything, check the MIDI-channel or the audio-output of the expander. (How to change the MIDI-channel in the Echometer see beneath EDIT-mode)
10. Now you can start the sequencer (switch top right at START)
11. A one-measured loop is running now. By pushing/releasing the red push-button from track 1 you can play a rhythm. The rhythm will be recorded in realtime-raster (ticks) and be played endlessly (RELEASE-pot in center-position).
12. If you want: Delete the sequence completely by revolving shortly the RELEASE-pot to CLEAR ALL or delete only several notes by revolving shortly to CLEAR POS.
13. Turn the RELEASE-pot at a value between 1 and 6. Now the loop accordingly sounds slow or fast out. Everytime you can put new steps.
14. Delete the sequence and switch the right QUANTIZE-pot on LQ (LOOP QUANTIZE).
15. Play again steps and then listen to the result: At the beginning the notes sound in realtime and then in the repetition quantized as 16th notes.

16. Delete the sequence, let the RELEASE-pot at CLEAR ALL and switch the MODE-switch upwards to SHOTS (yellow LED is illuminated). Keep the red push-button pushed and at the same time dial the SHOTS-resolution-pot. Now you will hear automatically generated notes in SHOT-raster. If you want to record the notes, turn on the RELEASE-pot again.
 17. Instead of the RESOLUTION-pot now you turn the VALUE-pot. So you can vary the velocity of the played notes. Try the effects of RND (RANDOM) and of the two LFO-positions up/down.
 18. Delete the sequence and switch the INSTRUMENT-switch from track 1 to C. Push the dial- pot to reach the note-sight. Now you can change the note with the dial-pot. Play SHOTS and revolve the dial-pot- and then listen to the result. Attention: the note-track is monofon. You can always generate only one note per track.
 19. With help of SHOTS play 4th -notes and then activate ECHO (ECHO-push-button shortly down). Turn on both ECHO-pots to listen to the result. The movements of the pots will be recorded always in the back and be played automatically with HOLD (each track separately).
 20. Nevertheless the echo always can be switched on or off.
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EDIT-MODE (Adjustment of the parameters)

In the EDIT-mode you fulfill the following adjustments:

- **INSTRUMENT**
 - Instrument-configuration of the push-buttons A, B, C (off, note-numbers)
C1,C2 (off, Pb=pitch bend, control change-numbers)
 - Echo of the track (notes: on/off, controller: off, Pb=pitch bend, control change-numbers)
- **CHANNEL** - the MIDI-channel of the tracks (values: 1..16)
- **UTILITY**
 - Midi-Dump send/receive
 - Datareduction on/off (L=LowData): limit RESOLUTION/TIME to max. 32th
 - Sequencer in Half-Time on/off (H=Halftime)
- **ANALOGUE OUT** - the routing for the analogue-outputs (All,Gate, Note,Velo,CC1,CC2)
- **SHUFFLE** - global Shuffle on/off, (fixed 8th-Shuffle)
- **SEND CLOCK** - sends MIDI-realtime-data (START,STOP,CLOCK) at external Sync on/off

Editing of the parameters:

1. Switch the EDIT-pot in stopped sequence-mode to EDIT (downwards)
2. One of the EDIT-mode-LEDs shines or blinks. Pushing the dial-pot you can switch between the EDIT- menu-selection (LED blinks) and the menu itself (LED shines permanently).
3. While blinking LED you can choose the menu by dialing the dial-pot and you change into menu by pushing the dial-pot (LED shines permanently).
4. The menus are edited differently:

INSTRUMENT

The red push-buttons select the track. Turn the push-button you want to edit into according position. In the display you can see the value, which changes by revolving the dial-pot. With the HOLD/ECHO-push-buttons you can change to the adjustments of echo. The echo-LED of the selected track is illuminated. Switch the right INSTRUMENT-switch to NT (note) and turn ON or OFF (echo-note on or off). Switch on C1 or C2 . If the echo shall be a controller choose the controllernumber, at pitchbend Pb. If no controller shall be sendet: OFF.

CHANNEL

The red push-buttons select the track. With the dial-pot you adjust the MIDI-channel (1..16)

UTILITY

Four UTILITY-menus exist:

d S - Dump Send - sending of the adjusted data via Midi-out per SYSEX

d r - Dump Receive - receiving of SYSEX-data

L - Low Data - Datareduction

H - Half Time - Sequencer (the internal sequencer runs at adjusted tempo only with half of the tempo)

In these menus the functions/values are activated with the red push-button of track 1. Dump receive can be stopped with the red push-buttons of track 2 and 3.

ANALOGUE OUT

Selecting of the output-jack with the red push-buttons of the track : double pushing switches between jack up/down (green LED shines at jack down). With the dial-pot you adjust the value. The ECHO-push-buttons turn the analogue echo on/off (ECHO-LED displays the condition). values: All, Gate, Note-number, Velocity, CC1-value, CC2-value

SHUFFLE / SEND CLOCK

Switch ON/OFF with the dial-pot.

ADVICE: Outside of EDIT the conditions of SHUFFLE, SEND CLOCK and halftime are signalled by shining EDIT-LED (at halftime: utility-LED). You can leave the EDIT-mode out of any position by switching the EDIT-switch. Only now the data will be stored permanently in the internal EEPROM (signalled by YES on the display). If you turn off the echometer while editing , the at least changed data will get lost.

INITIALISATION

Turning on the machine the internal data can be back-uped to the factory settings. For this purpose push all three red push-buttons while turning on as long as in the display appears INI. Then YES appears as affirmation. Now the data are initialized.

SHUFFLE

With activated SHUFFLE all RESOLUTION/TIME-values are adapted to the SHUFFLE (don` t accord always with the scale-values).

For more informations and detailed descriptions please look at the manual at the website

<http://flame.fortschritt-musik.de>