



Shakmat Clock O'Pawn

• 6HP Eurorack Module

• Built & designed in E.U.

• www.shakmat.com



Introduction

The Clock O’Pawn is a useful clock sourcing device that performs as your system’s true *chef d’orchestre*. Its transport section lets you start, stop, and reset connected instruments which are synchronised to an intuitive internal clock source or dancing along with your analogue and MIDI equipment. If you get bored by a metronomous clock, turn up the swing function and the maestro will lead with a nice shuffled feel !

- | | | | |
|---|-------------------------------|---|------------------------------------|
| 1 | Clock input | A | BPM potentiometer |
| 2 | MIDI input | B | External BPM LED |
| 3 | Clock 1 output & activity LED | C | Clock 2 mode LED |
| 4 | Reset output & activity LED | D | Swing potentiometer |
| 5 | Clock 2 output & activity LED | E | Clock 2 mode / External BPM button |
| | | F | Stop button |
| | | G | Play/Pause button |

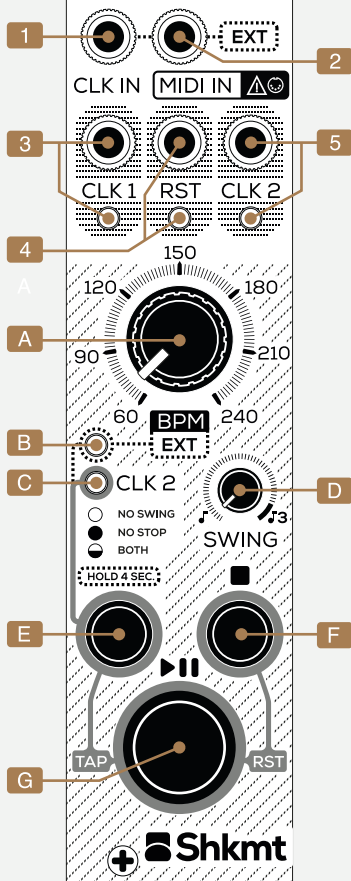
Installation

The Clock O’Pawn requires a standard 2x5 pin eurorack power cable. Make sure the red stripe on the cable matches the -12V side of the Clock O’Pawn power header.



CLOCK
O'PAWN

Clock Sourcing Device



Setting the BPM

CLK1 [3] produces a 1/16th note clock signal, which is generated either by internal (BPM / Tap Tempo) or external clock sources (analogue clock / MIDI).

The BPM potentiometer [A] allows fast access to a broad range of BPMs. To tap the tempo, hold the CLK2/EXT button [E] and tap in 4 quarter notes on the Play button [G]. Tap tempo acquisition is indicated by a blinking EXT LED [B].

External clock source synchronisation (indicated by the EXT LED) is accessed by holding the CLK2/EXT button [E] for 4 seconds. The module syncs to a 4 PPQN clock received in the CLK IN input [1] or to a MIDI clock signal received in the MIDI IN input [2]. The MIDI clock has priority over the analogue clock.

Transport & Reset

The Play [G] & Stop buttons [F], as well as MIDI “play” and “stop” messages, allow to start and interrupt the generated clock signal. Besides, each of these actions generates a pulse at the RST output [4]. When the Play button is pressed while the clock is being generated or when a MIDI “pause” message is received, the clock is paused without producing a reset pulse. By holding the Stop button and pressing the Play button, the user can send reset triggers while the clock is running.

Swing

Turning the Swing potentiometer [D] adds shuffle to the clock signal. This allows to obtain a feel between binary and ternary, as performed by jazz musicians. When the potentiometer is turned fully clockwise, the module puts out a triplet clock.

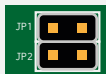
Second output

Depending on its state, the CLK2 output [5] produces an alternative clock signal to CLK1. It can be set through the CLK2/EXT button [E] to :

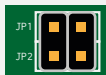
- Not be affected by the swing function (CLK2 LED off)
- Not respond to the transport section (CLK2 LED on)
- Both of the above (CLK2 LED blinking).

MIDI connectivity

The module works with a TRS MIDI cable for which two standards exist. The two jumpers on the back of the module select which standard is used. Placing them horizontally sets the module to TRS MIDI A standard, and vertically to TRS MIDI B.



TRS MIDI
A



TRS MIDI
B

Specifications

Size

6 HP

Depth

27 mm

Current Draw

10 mA @ 12V

Trigger Inputs

0 - 5V

Outputs

0 - 5V

- www.shakmat.com

 **Shakmat**

Product design & engineering : François Gaspard

Product & brand design : Steve Hackx

Firmware coding : Léonard Steyaert