ALYSEUM - PUSH - User's Manual - 1.2*

1. Introduction

PUSH is simply 2 independent and programmable push-buttons.

Each push button has a multitude of modes, some of which are unique.

Its primary uses are trigger/gate control in live applications, CLK creation, manual synchronisation, exploration of non-linear rhythms, and more!

So you've got a 3HP tool that meets all your needs for manual and organic control of your Eurorack.

7 modes for the red push button and its output SW 1

❶ **GATE** : The output remains active as long as the red push button is pressed.

❷ **TRIG** : Generates a TRIG of 1mS each time the red push button is pressed.

❸ **DUAL TRIG** : Generates a TRIG of 1mS each time the red push button is pressed/released.

❹ **ON/OFF** : Toggle switch function.

❺ **ON/OFF CLK** : Same as point 4 and duplicated on the first rising edge of the CLK input..

❻ **OFF CLK** : During the time the pushbutton is pressed, the output is set to zero.

❼ **SAMPLE CLK** : Measures the duration of each period (500Hz to 100 Sec.). If the red push button is pressed, the last period measured is repeated ad infinitum on output SW 1, press a second time and the operation stops and so on.

6 modes for the green push button and its output SW 2

❶, ❷, ❸ **and** ❹ **:** same as SW 1.

❽ **HUMAN CLK** : Measures the period (1 to 100 Sec.) between a double press of the green push button, then repeats this period ad infinitum.

❾ **HUMAN RATIO CLK :** Measures the period (1 to 100 Sec.) between three presses of the green push button, then repeats this period ad infinitum with respecting the duty cycle.

NB: Only modes ❺ ❻ and ❼ interact with the input CLK.

Numerous suggestions for practical or creative applications can be found on page 4 of this user guide!

Important - *Wichtig - Importanti - belangrijk - Ważne – Σημαντικό*

Modes, settings and measurements are saved and restored when the device is switched On/Off.

The CLK input can also be signals such as GATE, TRIG or digital.

PUSH has no analog function.

2. Hardware

2.1. Package content

- One PUSH module with Eurorack compliant front panel.
- One plastic bag containing two M3 screws + two nylon washers + one power ribbon cable 10/16 pins.
- Warranty & user manual access card.

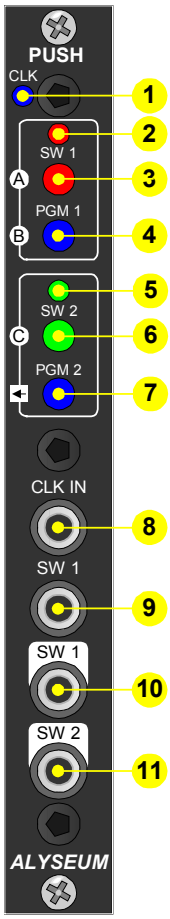
2.2. Specifications

- Front panel width of 15 mm (3HP) and maximum depth of 26 mm
- Power requirements (Full LED On): 12mA @ +12V and 0mA @ -12V.
- PUSH is protected against reversal of the flat power cable.

2.3. Installation

Carefully choose a stable location for your Eurorack, avoiding vibration, dust, heat sources, humidity or rain.
PUSH can only be used in a Eurorack synthesizer with an A-100 power supply.
During the entire installation procedure, always switch off your Eurorack.
Make sure that the red band on the flat power cable is correctly positioned on the -12 Volts terminal.

2.1. Front panel



1. Blue LED – Flash at each rising edge of the CLK input..
2. Red LED – Indicates the state of output SW1
3. Red push button – SW 1 or Value **A** for selecting a mode.
4. Blue push button – PGM 1 of SW1 or Value **B** for selecting a mode.
5. Green LED – Indicates the state of output SW 2.
6. Green push button – SW 2 or Value **C** for selecting a mode.
7. Blue push button – PGM 2 of SW2 or Exit during selecting a mode.
8. Jack – CLK input.
9. Jack – SW 1 input (in parallel with the red push button SW 1).
10. Jack – SW 1 output.
11. Jack – SW 2 output.

3. Use

2.4. Initialization Sequence

1. Turn your Eurorack case power ON.
2. The 3 LEDs flash half a second sequentially.
3. PUSH loads the modes and values of SW 1 and SW 2 before power-down.

PUSH module is ready.

3.1. Mode selection

The SW 1 or SW 2 push button modes can be changed at any time.

NB: During mode selection, the module is inactive. However, you can exit the selection by pressing the blue PGM2 push button.

SW 1 :

Simultaneously press and hold the 2 red and blue push-buttons for 2 seconds, the blue and red LED light up for 10 second.

During these 10 seconds, using 1, 2 or 3 fingers to hold pressed push-buttons A, B and/or C for 2 seconds as shown in the table below.

Once the new mode has been activated and saved in EEPROM, the blue and red LEDs flash twice and the module is ready.

Push buttons	①	②	③	④	⑤	⑥	⑦
	GATE	TRIG	DUAL TRIG	ON/OFF	ON/OFF CLK	OFF CLK	SAMPLE CLK
A	Press		Press		Press		Press
B		Press	Press			Press	Press
C				Press	Press	Press	Press

SW 2 :

Simultaneously press and hold the 2 green and blue push-buttons for 2 seconds, the blue and green LED light up for 10 seconds.

During these 10 seconds, using 1, 2 or 3 fingers to hold pressed push-buttons A, B and/or C for 2 seconds as shown in the table below.

Once the new mode has been activated and saved in EEPROM, the blue and green LEDs flash twice and the module is ready.

Push buttons	①	②	③	④	⑧	⑨
	GATE	TRIG	DUAL TRIG	ON/OFF	HUMAN CLK	HUMAN RATIO CLK
A	Press		Press		Press	
B		Press	Press			Press
C				Press	Press	Press

3.2. Operation

SW 1 :

Modes ❶ to ❻ can be used at any time by a single or double press on the red push-button.

Mode ❼ is used to sample a period at a specific time:

- To do this, initiate measurement by pressing the blue push button for 2 seconds, the red LED blinking.
- Then press the red push-button at the desired moment and the value will be saved in EEPROM.
- The red LED stops blinking.
- You can then activate or deactivate this mode at any time by simply pressing the red button.

NB: For all modes, a short press on the blue push-button has the effect of instantly stopping the current cycle or aborting the initialization of the ❼ mode measurement.

SW 2 :

Modes ❶ to ❹ can be used by a single or double press on the green push button.

Mode ❽ allows you to manually determine a period:

- To do this, initiate the measurement by pressing the blue push-button for 2 seconds, the green LED blinking..
- Then press the green push button twice and the period value is saved in EEPROM and the green LED stops blinking.
- Then you can activate or deactivate this mode at any time by simply pressing the green button.

Mode ❾ allows you to manually determine a period and its duty cycle:

- To do this, initiate the measurement by pressing the blue push-button for 2 seconds, the green LED blinking.
- Then press the green push-button three times at the desired times (1st press= rising edge, 2nd press= falling edge and 3rd press= end of period) and the 3 values will be saved in EEPROM.
- The green LED stops flashing.
- Then you can activate or deactivate this mode at any time by simply pressing the green button.

NB: For all modes, a short press on the blue push-button has the effect of instantly stopping the current cycle or aborting measurement initialization for modes ❽ and ❾

2.5. Suggestions of practical or creative application

❶ GATE :

Manual control of an AUX: To play envelopes or notes ‘by hand’.

Filter modulation: Hold down a button to open a filter and create manual ‘wah-wah’ effects.

❷ TRIG :

Envelope triggering: Ideal for percussion or manual accents.

Sequencer advance: Send a trigger to move to the next step.

❸ DUAL TRIG :

Doubling of steps: On a sequencer, each press/release advances one step.

Triggering of two events: For example, an envelope on press and an effect on release.

❹ ON/OFF :

Module activation/deactivation: For example, turning an effect or modulation on or off.

Manual bypass: To bypass a module in a chain.

❺ ON/OFF CLK :

Synchronisation with an external clock: For example, activate/deactivate an effect in time with the rest of the patch.

Synchronised gate control: For complex rhythmic patterns.

❻ OFF CLK :

Temporary mute: Cut a clock or trigger during a press, for breaks or silences.

Creating rhythmic variations: By inhibiting certain beats.

❼ SAMPLE CLK :

Creating rhythmic loops: Capture a clock period and repeat it in a loop.

Generating custom LFOs: Record a slow modulation and repeat it.

Stutter effects: For rapid repetitions of patterns.

❽ HUMAN CLK :

Creation of free time, manual rhythmic loops.

Play with the green button following a natural pulse (e.g. breathing, lights, improvisation, etc.).

Use this clock to control a sequencer or drum module.

Effect: Rhythms that "breathe", far removed from rigid BPMs.

❾ HUMAN RATIO CLK :

Rhythmic with natural groove, asymmetrical patterns.

Create a clock with an unusual duty cycle (e.g. 30/70 or 10/90 or improvise).

Send this clock to an LFO or switch for complex rhythmic modulations.

Effect: Patterns that 'limp' or asymmetrical envelopes.

4. Miscellaneous

2.6. Disclaimer

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Brand names may be used and we hereby declare that we are using the name for the benefit of the brand owner, without any intention of infringement.

2.7. Warranty and repair

ALYSEUM warrants to the original purchaser that each of these products is free from defects in materials and workmanship for a period of two years from the date of purchase.

This warranty does not apply to products which have been repaired or modified by anyone other than ***ALYSEUM***, or which have been subjected to electrostatic discharge, moisture, improper installation or use.

ALYSEUM assumes no responsibility for such occurrences under the terms of this warranty.

Before taking any action, please consult your dealer for further details or visit our support page at http://www.alyseum.com/support .