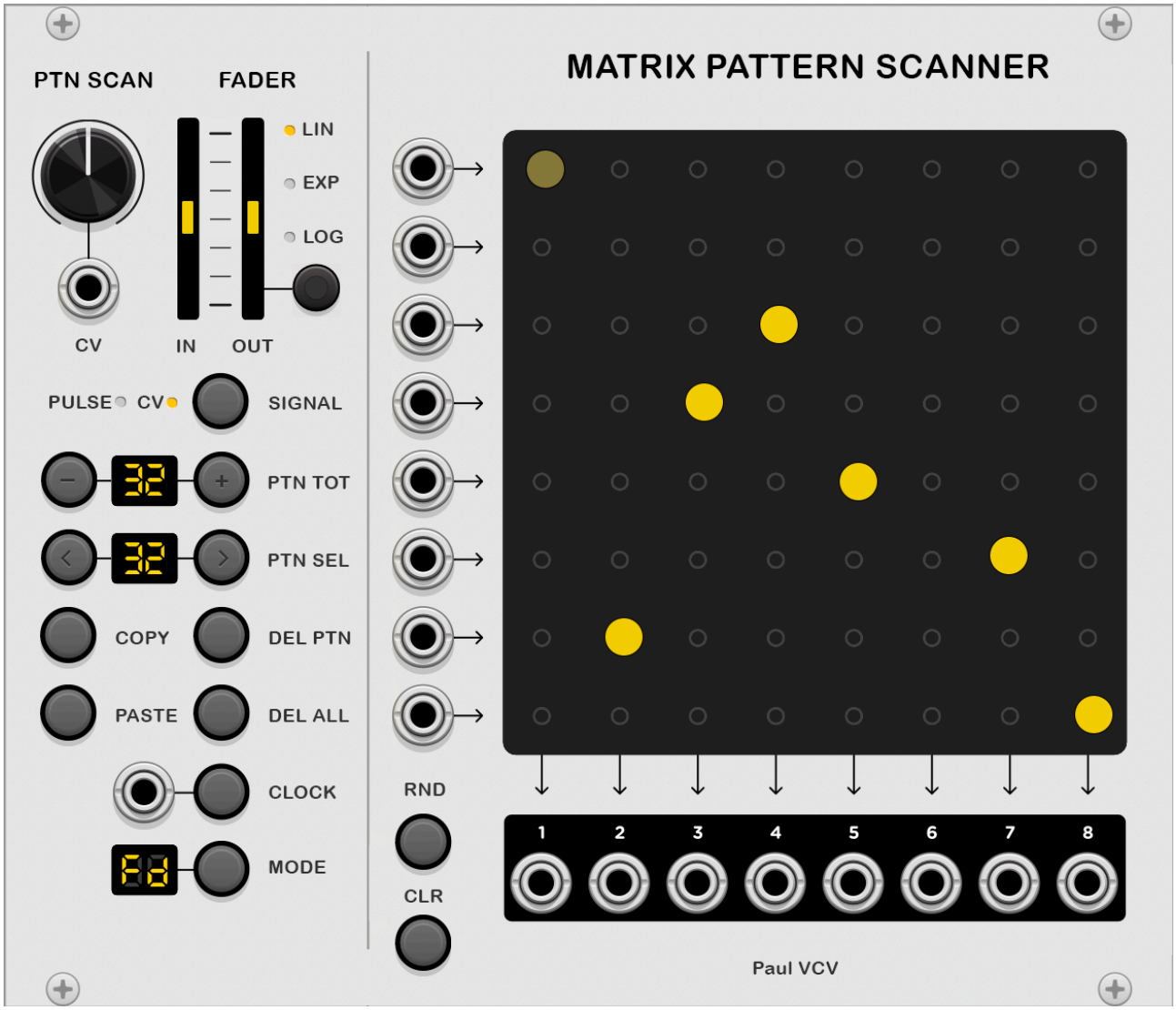

02 Matrix Pattern Scanner / Composer

Pattern library bus matrix, bus, mixer, router, scanner, matrix library, composer, scenes

This module is a programmable multi-matrix library bus and mixer.

The Matrix Pattern Scanner serves to aid in the creation of complex compositions for phrases and songs by creating multiple scenes for 8-track sequences. Create as many as 32 fully editable pattern sets while playing live and having direct access to change routes of 8 Channels by adding, deleting, and muting nodes of the 8x8 matrix on the fly.

This module has dual functionality for incoming signals, serving as a mixer or a matrix bus. When setting the matrix as a mixer, the Matrix Pattern Scan has a

controllable crossfader between scenes for smooth transitions between events. The module is also configurable for triggers and gates via the Signal settings.

The Matrix Pattern Scan is a versatile way to access scenes. Patterns are recalled by dialling in a control voltage or with the use of an external CV. Alternatively, patterns are accessible by an external clock. The clock selection mode determines how the patterns progress and are selected, moving forwards, backwards, ping pong, or random selection to create a sequence of patterns.

For optimal use of the Matrix Pattern Scanner, it is ideal to use it as a pulse matrix for receiving drum patterns as pulses at the start of the pipeline. Use the Matrix pattern scanner as a mixer towards the end of the workflow to assist in the composition of arrangements. However, it can also be used in the middle of a workflow as a router to supply components such as ADSRs to manipulate multiple voices of a composition. For full compositional control have two of these modules in your workspace, position a module at the beginning and another at the end of the workflow.

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Functionality

PTN SCAN

Pattern Scanner selects individual patterns within the library. The knob dials through a maximum of 32 matrix patterns. The turn of the dial will automatically scale to the set amount of patterns created. A minimum of 2 patterns will enable the dial. PTN SEL will display the selected pattern.

Pattern Scanner Control Voltage selects individual patterns in the library via a CV input. The input CV for PTN SCAN directly sets the current pattern by a voltage with an input of 0 to +10 which equates proportionally to the number of patterns created. 0 equals the first pattern and +10 will be the final in the pattern in the library. All other patterns are divided equally between the lowest and highest values.

With PTN SCAN CV, the wave type, frequency, amplitude, and offset will enable pattern selection to cycle through bespoke cycles for your compositions. For the best use of the Matrix scanner, apply a very slow LFO to cycle through the pattern library.

Set your external clock or LFO to these frequencies for ideal syncopation for the phrase:

1 second = 1 Hz
2 seconds = 0.5 Hz
4 seconds = 0.25 Hz
8 seconds = 0.125 Hz
16 seconds = 0.0625 Hz
32 seconds = 0.03125 Hz
64 seconds = 0.015625 Hz

Alternatively, if you desire a more programmed musical arrangement, the signal from a sample and hold sequencer or an arpeggiator can be used. The Matrix Pattern Scan can also be used as a drum programmer when a frequent pulse rate or LFO is applied.

SIGNAL - PULSE, CV

Signal designates the type of signal received by the Matrix Pattern Scanner. The button will toggle between the two states, a CV or a PULSE. A yellow light will indicate the selected state. Pulse refers to triggers and Gates and is ideal for receiving pulses from a clock generator. This usage is a prelude to other components such as drum voices. FADER is disabled to ensure a clear signal is transmitted if the PULSE state is selected. The CV state will enable the FADER allowing for smooth gain or decrease in amplitude of audio signals when changing from one pattern to the next.

FADER

Fade in and out will operate only when a new event has occurred and will come into effect when one pattern has changed to the next. The change of pattern is initiated via the PTN scan or from the PTN SCAN CV or an input signal from the CLK port. The fade in and out duration is measured from 0ms to 5000ms with an amplitude crossfade from one pattern to another. Use the in-and-out sliders to control the length of time for the fade in and out.

The fader's ability to function will also depend on the frequency of the oscillations and pulses received for the CV or by the PTN SCAN or CLK. Ensure fade-in and out parameters are set within pattern change times.

FADER - LIN, EXP, LOG

The Fader button switches modes to determine how the fade in and out will operate, and these modes are linear, exponential, and logarithmic. These algorithmic operations work within the duration set by the FADER IN and OUT control section.

PTN TOT

The Pattern Total displays the total of amount of patterns with a maximum of 32. The amount of patterns can be increased or decreased by the PLUS and MINUS buttons on either side of the display unit. All new patterns are blank when created. Existing patterns do not delete if the PTN TOT amount size decreases after the creation of patterns.

Consider PTN as a range definer and playback will only occur within the number of patterns selected, PTN SCAN and CLOCK work within the maximum range of selected patterns set by PTN TOT.

PTN SEL

Pattern selection will allow you to choose specific patterns within the total amount of patterns created. Track forward and backwards to select the desired pattern. The matrix for the selected pattern will be visible and rendered editable.

COPY & PASTE

To copy a pattern from one pattern location to another, select the pattern to duplicate, then press the copy button and save it to memory. Choose the new location for your copy from PTN SEL and press the paste button to insert your new copy into the allocated space.

DEL PTN

Delete Pattern - This operation will delete the chosen pattern and will shunt all subsequent patterns to fill the deleted slot.

DEL ALL

Delete all -This function will delete all the memory of all patterns stored in the matrix programmer. Be sure to save your preferences periodically to ensure you can reload your settings again if erased by this action.

The clear all button will flash red continuously before any action is complete. A second press of the DEL ALL button will resume the deletion process and then the button turns red for 2 seconds for confirmation. To cancel the operation, click any other button while the DEL ALL is flashing red. To confirm your cancellation, the DEL ALL button will flash green three times to confirm cancellation.

CLK

The Clock port receives a pulsed signal. Every pulse selects a new pattern from the list. PTN SEL will display the current pattern as it cycles through. CLK and PTN SCAN are not usable at the same time, the CLK will disable PTN SCAN if activated.

MODE

The Mode determines how the CLK sequence of patterns will proceed. Press the button to change the operation modes. The display indicates the mode that is selected. You can choose from:

Fd forward,
Bk backwards,
Pn for ping pong, this is a forward and backward motion,
Rn randomly selects patterns.

RND

Randomly populates the matrix with connection nodes. This operation will only place one node per row and column by default, ensuring only 1 input equates to 1 output for all eight channels. Randomly populated nodes are editable after their creation by manually adding or subtracting nodes. RND will clear any pre-existing pattern before repopulation.

CLR

Clear - This operation clears the matrix of all nodes and renders it a blank matrix. CLR does not delete the chosen pattern, use DEL PTN for this operation.

MATRIX - Input / Output

The eight matrix input ports are on the left-hand side of the column and the eight output ports are on the bottom row within the black lozenge area.

NODES

All nodes in the 8x8 matrix are blank by default. Click once on the chosen node empty node to activate, a node will turn from grey to yellow once activated. To mute a node, click it a second time, the node will dim from yellow to half-intensity

yellow. To unmute a node click the node again, the node will brighten from half-intensity yellow to full yellow colour. The CV of muted and unmuted nodes will fade in and out according to the values set by the FADER control. To delete a node, double-click within 250 milliseconds.

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