

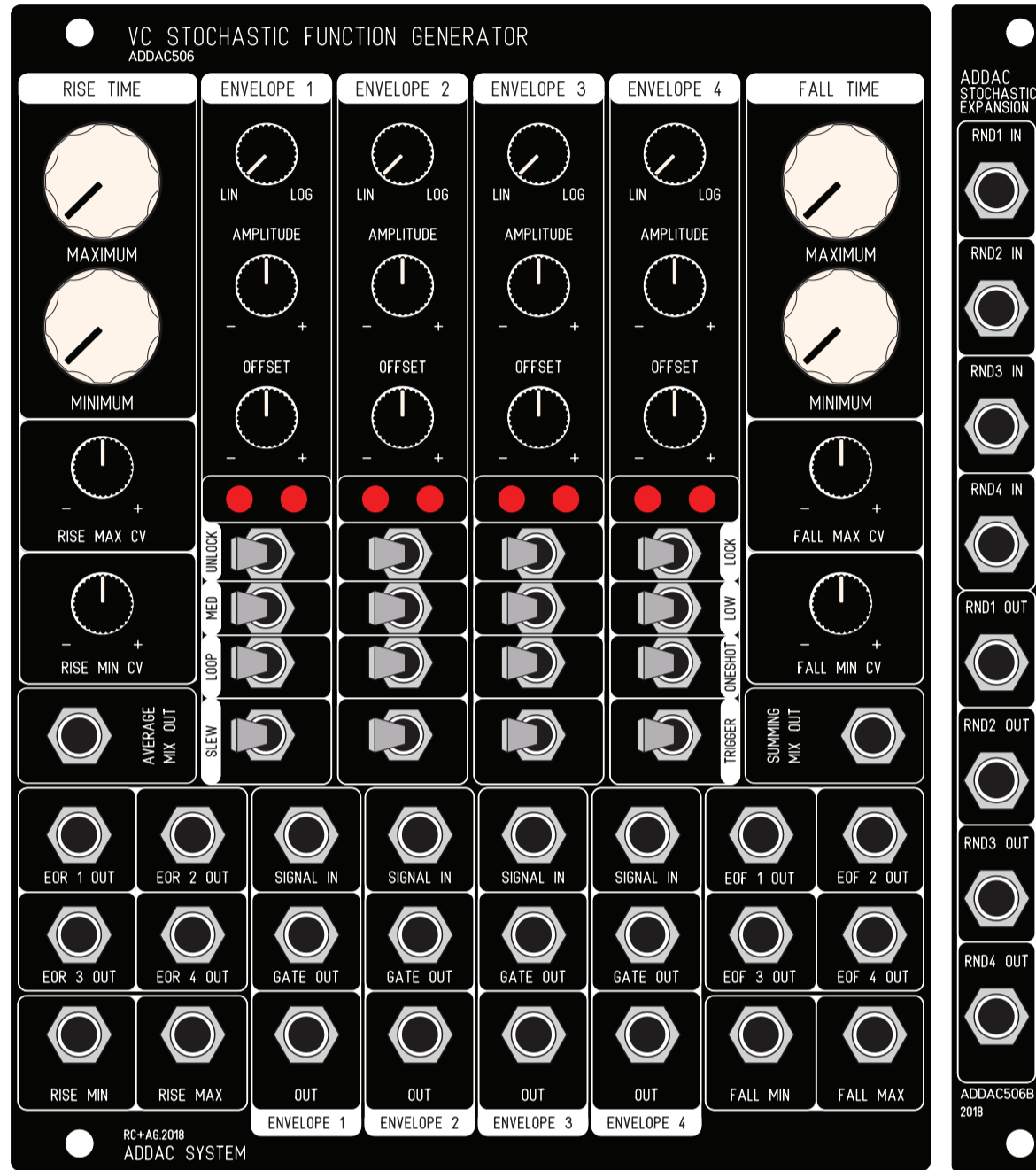
# ADDAC506

## VC STOCHASTIC FUNCTION GENERATOR & Expansion

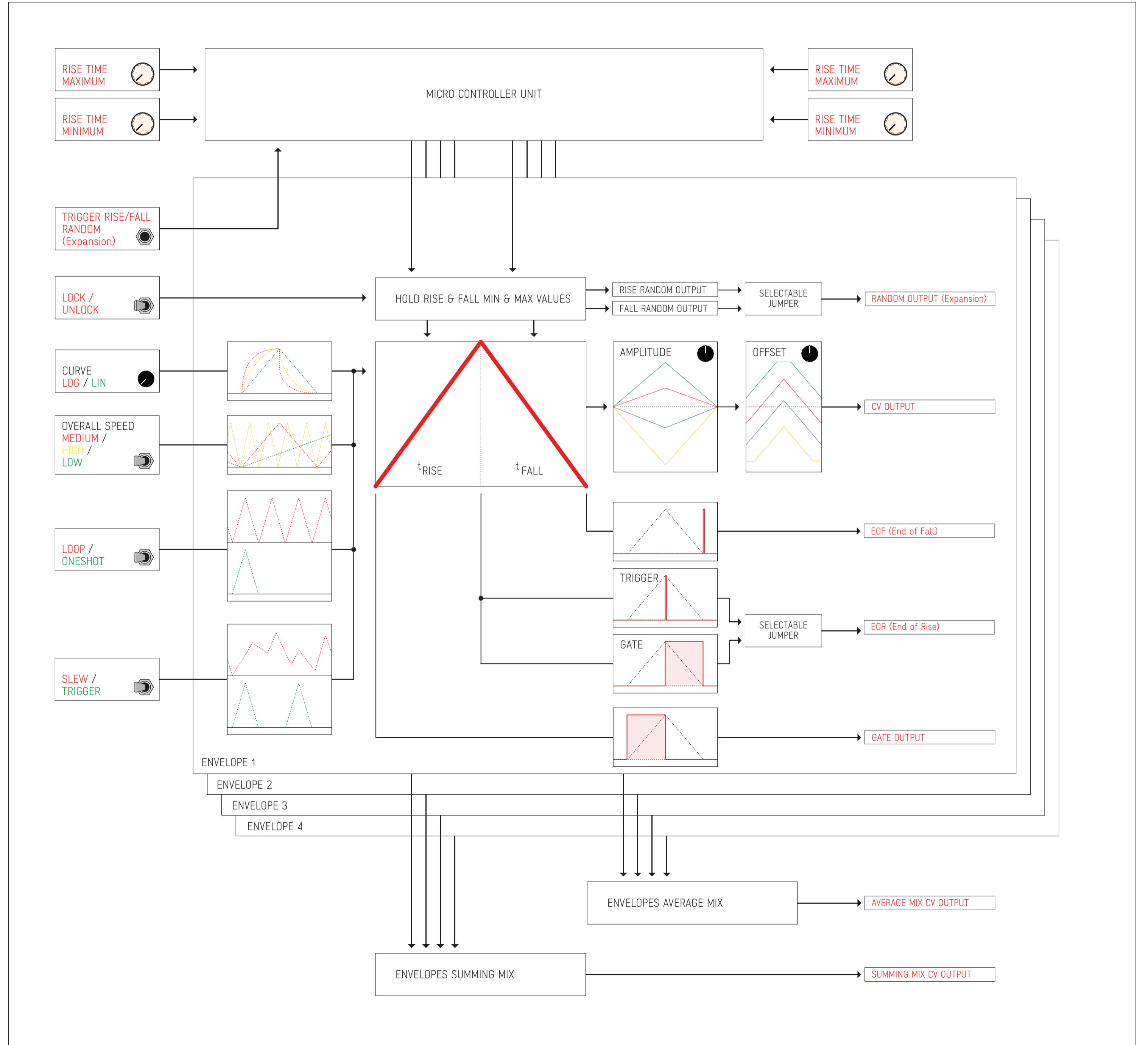
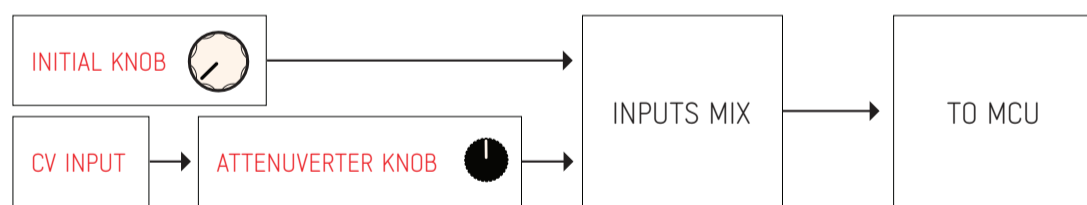
Revision.01 July.2018

SIGNAL FLOW DIAGRAM

### WORKING DIAGRAM



### CONTROLS DIAGRAM

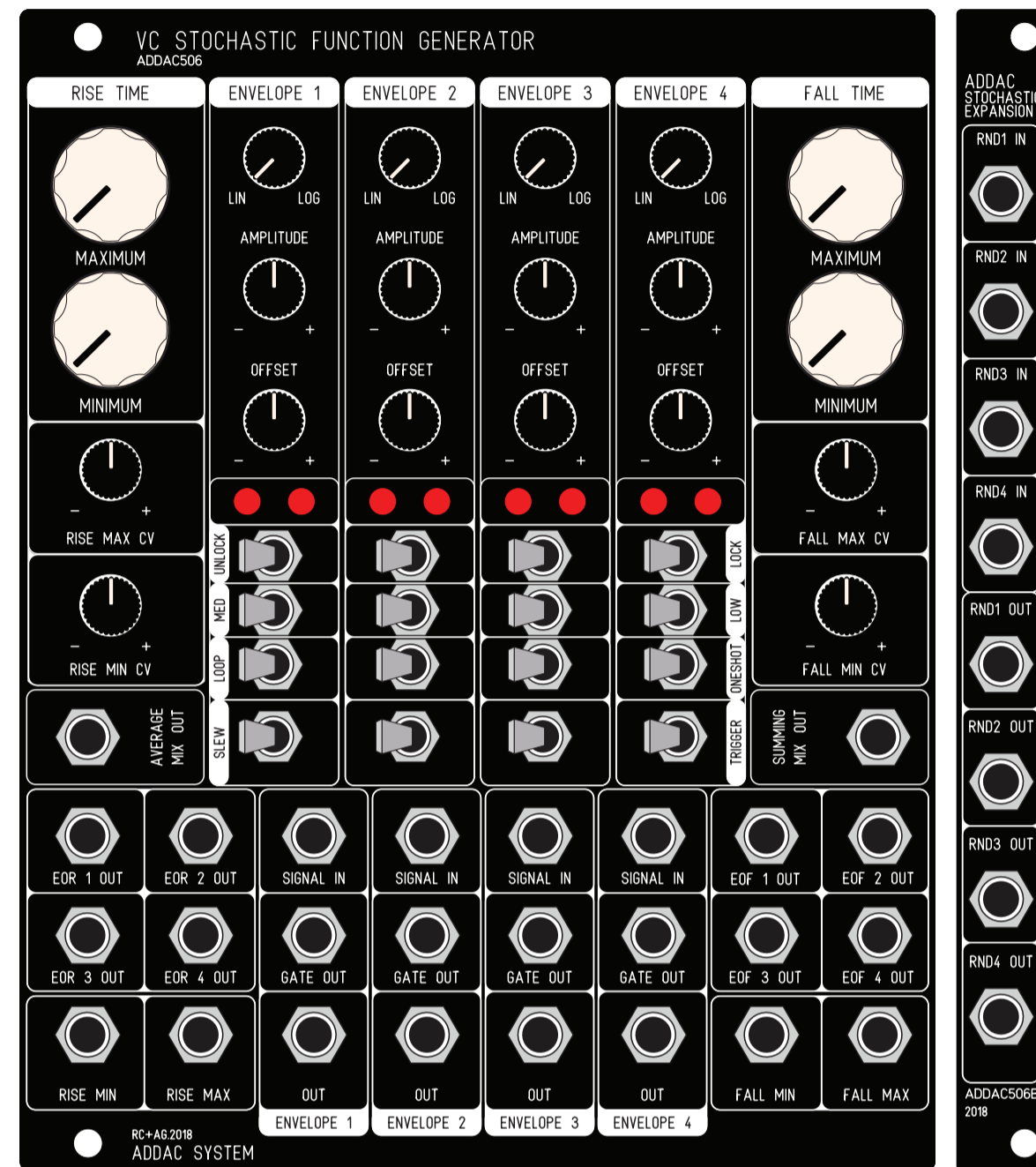


# ADDAC506

## VC STOCHASTIC FUNCTION GENERATOR & Expansion

FRONTPANEL DESCRIPTION

Revision.01 July.2018



### RISE MIN & MAX

RISE Min defines the minimum rise time, RISE Max defines the maximum rise time. At every new input or loop the 506 will randomise a rise time in the range defined by the min and max values. If rise minimum is above rise maximum then it will behave as a fixed control for Rise time. The randomisation only happens at the start of the cycle, if you change the controls in the middle of a cycle nothing will happen until a new cycle is triggered and the randomisation will be calculated from the new control settings. The expansion Random input allows to Re-trigger a new randomization of these values at any point in time.

Same principle for FALL Min & Max.

There are CV inputs with dedicated attenuverters for all four RISE/FALL MIN/MAX controls.

Lock holds each channel RISE and FALL settings and prevents changes.

This allow for individual channel control, locking all channels and unlocking the one you want to work on, then lock it and unlock the next. Very useful to make it a totally independent 4 channel envelope

### ENVELOPE CURVE: LIN / LOG

the envelope curve adjustment from linear to the typical logarithmic rise and exponential decay

### AMPLITUDE

The amplitude of the envelope, this is an attenuverter amplifier from -10V to +10V so that the maximum range of the envelope is 10V pp. Center rest position is zero amplitude.

### OFFSET

Offsets the overall envelope CV from -10 to +10V. Center rest position is zero offset

### LEDS

monitor the envelope amplitude and polarity

### MED / HIGH / LOW

defines the speed range of the envelope

### LOOP / ONE SHOT

defines if the envelope self re-triggers when reaches the end of cycle

### SLEW / TRIGGER

Slew works for any cv source as well as gates and triggers, it's sort of a cv envelope follower as it follows the cv input as it changes. Trigger (also accepts gate and cvs) allows to trigger 1 cycle of the envelope.

### CHANNEL 1-4 SIGNAL IN

The input for each channel envelopes, cv, gates, triggers any input is good.

### GATE OUT 1-4

These will output a Gate On while in the Rise part of the envelope.

### OUTPUTS 1-4

the CV output envelope for each independent channel.

### END OF RISE (EOR) 1 to 4

Every time the cycle reaches the end of Rise a trigger or gate will be outputted depending on the position of each channel jumper setting.

### END OF FALL (EOF) 1 to 4

Every time the cycle reaches the end a trigger will be outputted.

### AVERAGE MIX OUT

An average CV calculated from all 4 channels outputs.

### SUMMING MIX OUT

A sum of all 4 channel outputs

### EXPANSION

#### RANDOM TRIGGERS INPUTS 1 to 4

These inputs allow to externally re-trigger the randomisation of the Rise & Fall times. This allow to independently change the overall time of a channel in the middle of a cycle.

#### RANDOM CV OUTPUTS 1 to 4

These outputs the CV value used to control the RISE/FALL times. A jumper allow to choose between the Rise or Fall random calculation.