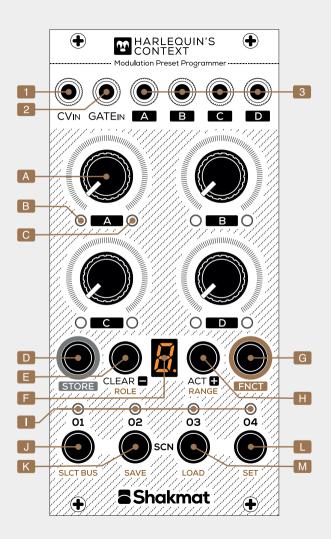# Shakmat
Harlequin's Context

● 12HP Eurorack Module   ● Built & designed in E.U.   ● www.shakmat.com

HARLEQUIN'S CONTEXT

Modulation Preset Programmer

1 — CV IN
2 — GATE IN
3 — A B C D

A

B
C

A

B

C

D

D — STORE
E — CLEAR −
F — ROLE
G — FNCT
H — ACT +
RANGE

I

01 02 03 04

J — SLCT BUS
K — SAVE
L — SET
M — LOAD

SCN

Shakmat

Basics

The Harlequin's Context is like a theatre piece in 4 acts, composed of 4 scenes each. In those scenes, four channels can shapeshift into different roles such as: offset, random, LFO or envelope. Scene selection can be done manually or can be addressed / sequenced with the CV and gate inputs depending on the set configuration. Packed in 12hp with a ton of features, the Harlequin's Context is a powerful tool to prepare a live set with, and to create very peculiar modulation signals in the studio.

1 CV input	F Display
2 Gate input	G Function button
3 Outputs	H Act / Plus / Range button
A Channel A potentiometer	I Scene LED
B Channel A lock LED	J Scene 01 / Select Bus button
C Chanel 1 activity LED	K Scene 02 / Save button
D Store button	L Scene 03 / Load button
E Clear / Minus / Role button	M Scene 04 / Set button

Installation

The Harlequin's Context requires a standard 2x8 pin eurorack power cable. Make sure the red stripe on the cable matches the -12V side of the Harlequin's Context power header.

Performance mode

Performance mode is the main mode of the module, it allows for easy access to all scenes and easy tweaking of the channel parameters.

Switching Scenes & Acts

The module counts 16 Scenes grouped in 4 Acts of 4 Scenes each. The Scene selection buttons **[J…M]** allow you to navigate inside an Act of 4 Scenes. To switch to another Act, use the Act + Scene selection button **[F+J…M].** The Act number is indicated by the display **[F].**

Playing with Channels

Each channel (A, B, C & D) has a dedicated potentiometer controlling its parameter **[A]**. When switching between Scenes the module locks the potentiometer, so that it recalls the values from the scene and stops referring to the potentiometer position. To unlock the potentiometer, you must pass by the memorised value. Each channel also has a white LED **[B]** indicating whether the potentiometer is active or locked, and a green LED **[C]** showing the activity of the channel.

Storing Scenes

To store a Scene, press the Store button **[D].** The active Scene LED **[I]** is blinking as the display **[F]** shows the letter **S** intermittently. Press the Scene selection button **[J…M]** corresponding to the desired destination Scene to finish storing.

While the Store button is pressed, it is possible to unlock any knob and store its value into memory. This feature combined with addressing or sequencing allows for stepped knob recording.

Clearing Scenes

To clear a scene (meaning all channels go back to a positive offset set to 0v), press the Clear button [E]. The active Scene LED [I] starts blinking, and the screen displays the **C** letter intermittently. Press the Scene selection button [J…M] to finish clearing.

While Clearing or Storing a Scene, it is possible to switch to another Act. Also, to clear the 16 Scenes or to store the current Scene on all the 16 Scenes, press the 1 & 4 Scene buttons at once.

Roles attribution

The Roles Attribution mode allows you to edit the role of a channel, which dictates the way it behaves. Fifteen different Roles are available. Press the FNCT & Role buttons [G+E] simultaneously to enter Roles attribution mode. Press the Store button to cycle through the four channels, a white blinking LED [B] indicates the currently selected channel. To attribute a role to the selected channel, use the + & - buttons [E&H].

?!? **If you feel lost at any time,
simply press the FNCT button
to exit any menu and go back to Performance mode.**

Offset

There are three types of Offsets: a positive 0 to 5V offset marked **O,** a -5 to +5V called bipolar, marked **b,** and a 0 to -5v called inverted and marked **I.**

LFOs

The channel potentiometer [A] controls the LFO's rate. Five waveforms are available: Saw Up, Saw Down, Triangle, Sine & Square. By default, receiving a trigger in the Gate input or pressing a Scene selection button [J…M] resets the LFO.

Random   H F

The channel potentiometer [A] controls the randomness amount. Two random modes are available, a stepped version a la sample & hold marked **H** and a slewed, fluid version, marked **F.** By default, receiving a trigger in the Gate input [2] or pressing a Scene selection button [J…M] causes the sample & hold to go to a different value.

Envelopes   E r A

Three types of envelopes exist: attack-release is marked **E** (attack and release share the same timing), release is marked **R** and Attack is marked **A.**

> **Envelops are gated by the scene buttons and by the Gate input. Pressing a scene button will also reset the LFOs and cause the sample & hold to go to another value. For more information check the Set table.**

Serial   d L

The last two roles, Level and Deviate, are quite special as they process the signal generated by the precedent channel. For example, if channel C is a Sine LFO and channel D is set as Level (marked **L**), output D will deliver a copy of the channel C LFO but with an amplitude set by the channel D.

The last role, Deviate, marked **D,** acts as a bipolar offset summed with the precedent channel's signal.

You can chain more than two channels to create an LFO with a certain rate (on channel A) for example, amplitude (on channel B) and offset (on channel C), for example.

While in Role attribution, it is possible to switch between Scenes of the same Act (but not between Acts). It is also possible to edit a channel's value with the potentiometers, without locking and with automatic storing. This means that each time a potentiometer is turned, it is unlocked, and its value is stored in the memory.

Set selection

Once all the channels have a Role to play in your Scenes and Acts, you can configure the Set. Pressing FNCT + Set **[G+L]** enters the Set menu, which allows you to activate features such as the Morphing function and a lot more!

To select a Set, use the + & - buttons **[E&H]** and confirm your choice by pressing the Set button again **[L].** To exit the Set selection without any changes, press the FNCT button **[G].** There are fourteen different Sets available, listed on the Cheat Sheet and divided in three categories : Basic, Expert & Jester.

For now, we will just have a look at the two Basic Sets (displayed **0** & **1**). These sets are Morphing Off & Morphing On. When the morphing mode is activated, the Harlequin's Context morphs the scenes by interpolating the channel values and roles in between two scenes. To activate the morphing function, select the Set 1.

Gate & CV inputs

The Harlequin's context has CV & Gate inputs **[1&2]** that are assignable to many features. In Basic Sets:

• CV Input addresses the active Scene
• Gate Input gates envelopes and resets LFOs

Scene selection can be done manually or can be addressed / sequenced with the CV input. In order to address the Scenes, you need to set the addressed Scene range. To do so, press FNCT + Range **[G+H]** , the display **[F]** will blink and show the number of scenes to address or sequence, starting from the manually selected scene. Change the range by pressing the + & – buttons **[E&H]** next to the display. Press FNCT **[G]** to exit. Refer to the Cheat Sheet to know more about the Expert and Jester Sets which provides alternate behaviours for these inputs.

Memory save & load

The module has 16 slots of non-volatile memory (from 1 to G). A slot contains 16 Scenes, the selected Set, and the range value. When starting up, the Harlequin's Context loads the first slot.

To save a slot, press FNCT + Save [G+K] , the Scene 2 LED will blink fast. Use the + & – buttons and display to choose the destination slot, then press Save to confirm. Pressing FNCT will cause the module to go back to the performance mode without saving.

To load a slot, press FNCT + Load [G+M] , the Scene 3 LED will blink fast. Use the + & – buttons and display to choose the destination slot and press Load to confirm. An additional slot named "r" is available to load a totally random slot (meaning random Role attribution and values for the four channels on the 16 scenes).

Select bus

The Harlequin's Context is compatible with the Select Bus protocol which uses the power rail to recall & store Program Changes. In the Harlequin's Context terminology, a Program Change is a Scene.

The module can behave as a receiver or a transmitter. To edit this behaviour, press FNCT + SLCT BUS [G+J] , the scene 1 LED will blink, and the display shows the Select Bus value. Choose the desired behaviour with the + & – buttons: bus Off marked **0** (which means the module does not send or receive Select Bus messages), Receive marked **R** or Transmit marked **T**. Press SLCT BUS to confirm or FNCT to exit.

Harlequin's Context Select Bus protocol is compatible with a lot of modules from WMD, Expert Sleepers or Malekko, to name a few. And you can, of course, link two Harlequin's Context together using the Select Bus protocol.

Factory reset

In order to completely clear the module's memory, press and hold the Clear & Act buttons **[E+H]** on startup. The display will show **F.** Release the Clear & Act buttons, then press Store **[D]** to start the factory reset. If you want to exit without resetting the module, press the FNCT button. This procedure will clear all the memory slots and set the Select Bus function to off.

Firmware

To know which firmware version is running on your Harlequin's Context, press the scene 1 button **[J]** at start up and keep it pressed. The seven segment display will show a series of character starting by " **FIrM** " and followed by three numbers separated by small dots (the version of the firmware 1.0.0 for example). The firmware version will display as long as you keep the button pressed, release it to start the module normaly.

Specifications

Size	Gate Input
12 HP	0 to 5V
Depth	CV Input
29 mm	0 to 5V
Current Draw	CV Outputs
65 mA @ +12V	-5 to +5V
-10 mA @ -12V	