

## Jupiter X/Xm 3.0 Arp Change Overview

### Arp Control

- When Scene Arp is enabled, two switches control Part Arp
  - Switch On/Off - top setting in Part Arp menu
  - Key Switch Sync - in Settings section

Switch	Key Sync	Arp
Off	~	Off
On	Off	On
On	On	Controlled by Part Switch

- Previously, one control did this selection - Off, On, KeySw
- Arp now has three separate modes
  - iArp
  - Arp - new mode - traditional Arpeggiator
  - Step
- Mode is controlled by Arp Mode, immediately below the Arp on/off switch in the menu
  - Previously, iArp was a single mode, with a Step-Mode on switch

### iArp

#### Separate Styles by Part

- You can select an iArp style for each Part, different from the Scene iArp Style
- This style can be changed without the iArp stopping (as happens when the Scene Style or Rhythm are changed)
  - When Part Style is Off, the Style selected for the Scene is used by the Part
  - When On, this refers to one of the other iArp Styles (not by name, but by number and Part reference)
    - Example scroll to selection 002 for iArp Style - Type 5 Part 1. This shows the part is using the settings from Part 1 of Style 005 - Poly Syncp
- From the menu, you can choose 111 different preset combinations of main Styles and Parts
  - Most of these are iArp Styles that have different content by Part as indicated by title 014: I-Ens P34-10
  - Rhythm Part Style is simpler - the menu options directly refer to Scene Rhythm

Style settings - Rhythm 1, Rhythm 2, etc.

- The prior style will continue playing until there are new keyboard actions, which will start the new style
- From the editor (or via SysEx), you can directly select any of the main styles by number and part, putting Rhythm into P1-4, and P1-4 into Rhythm, etc
  - Example, the 111 preset options do not have a reference to 051 - I-Dly Synth, but could be accessed via editor or sysex

### Other

- There are 10 additional iArp Styles and 21 additional Rhythms
- The prior Part Receive switch has been abandoned.

### Arp

#### Overview

- A new mode that generates a traditional Arpeggio. 128 Styles are provided, each with up to 11 variations
- Most of the iArp controls are the same here, such as grid note, motif, octave range, etc. Grid length, offset, & sync do not apply

#### Arp Step Mode

- Step Edit data can be used to provide timing and velocity information to create your own unique arpeggios
  - When Arp Step Switch is ON, Arp Style and Variation are ignored, and the keyboard notes are played using the Motif with Step Edit velocity and timing
  - If Step Edit has one note in a grid, Arp will sound one note. Two in grid position = two notes, etc
  - Remember, the Step Edit note value is NOT used, just the grid position and velocity
  - One new 3.0 Scene uses the Arp Step mode - 02-16 P1 - a simple four on the floor pattern

## Step

### Overview

- Step edit is now its own mode, instead of a switch in iArp mode
- Step Key Shift, which used to be part of the Step Mode Switch (Off, On, Key Shift), is now a stand alone switch
  - (The Step Mode Switch has been abandoned)
- Live recording timing has been improved
- Otherwise, no changes to Step Mode.
- The following 3.0 Scenes contain Step Edit data to explore:
  - Melodic: 01-06 P2, 01-16 P1, 02-03 P2
  - Rhythmic: 01-06, 01-15, 02-03, 02-05, 03-15

## Probability

### Overview

- Probability does not add notes, but thins existing patterns to give a more realistic, changing playback
- Style - determines which notes are eligible for being removed or reduced in Velocity
  - A Style that only removes 1/8 notes may have no impact on a simple four to the floor pattern - for example 003 Quarter 1
- Probability - selects how often the Style selected notes are removed
  - A Probability of 100% means that no notes are removed
  - A Probability of 0% means no notes are played
- Velocity Amount will reduce the volume of Style selected notes
  - 100% is no reduction
  - 50% is 50% reduction for selected notes
- Probability and Velocity are independent - except, if Probability has removed all notes (0%), then there is nothing remaining for Velocity to decrease volume
- Probability settings apply across all three Arp modes

### Styles and Controls

- 64 preset styles are provided.
- The probability amount can be controlled automatically based on playing style, or a preset amount
- Three Probability Controls are assigned to the front panel iArp knobs:
  - PART + iArp Type = Probability Type
  - PART + iArp Rhythm = Probability Amount

- if Auto was selected, this turns Auto off
- PART + iArp Tempo = Probability Velocity

### Exploring Styles

- To explore the styles, start in Step Edit, and build a pattern with data in each grid position. With each grid position filled, you can see which notes are thinned by particular patterns
- Use a simple tone, maybe RD Piano

#### Example 1

- Build a 32 grid length Step Edit pattern - CCCC EEEE GGGG CCCC, DDDD FFFF AAAA BBBB
- Try varying Probability Amount, leaving Velocity at 100, then the opposite
- Probability and Velocity are independent, one thinning notes, the other reducing velocity.
- Next try them in combination

#### Example 2

- This is the the Reference Manual example
- 16 grid Step Edit, Chord CEG (or similar) repeated in each of the 16 grids, not tied
- Tour through Styles, Probability, and Velocity
- This shows how individual notes in a chord get thinned
- Once you are familiar with how the Probability Styles function, application in the other modes functions the same

### Notes

- When the Part Apr Switch is off, the menu hides detailed Arp settings. When switching on, the detailed setting may not reappear. Changing menu pages, or (sometimes) pressing a key should get them to reappear
- When changing multiple Parts Key Sync settings, occasionally the cursor will jump to a different section of the display