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## INTRODUCTION

Thank you for purchasing the SynthTools SoundDiviner Synthesiser Plugin for Roland Boutique JX-03. This Synthesiser Plugin is designed to work in conjunction with SoundDiviner and will not function as a standalone application. To use this Plugin to its full potential you will also require the Roland Boutique JX-03 synthesiser but as with other SoundDiviner Plugins this is not its sole purpose.

## OVERVIEW

This Boutique JX-03 Plugin can be used as a converter, an editor and as a librarian, opening up the functionality of the JX-03 Boutique synthesiser. JX-03 Snapshots can be viewed, imported and exported using File, Directory or Disk Interface. Individual patches can be edited using a full range of functions available from the Roland JX-03 front panel and managed using the SoundDiviner tools.

## ADD-ONS

SoundDiviner is an application that can be extended with additional Synthesiser and Adaptor Plugins as listed in the main manual. As outlined above this Roland Boutique JX-03 Plugin is a Synthesiser Plugin and is designed to work with the physical hardware but additional functionality can be obtained when using Patch Sheet and Adaptor Plugins, see below for more details.

## HOW IT WORKS

Snapshots can be made directly from the Roland Boutique JX-03 USB port.

Snapshots can be transferred back to the Roland Boutique JX-03 using the USB port.

Previously saved or downloaded Snapshots can be imported to increase the patch library collection.

Patch Snapshots can be viewed, organised and named for easy transferral back to the Roland JX-03.

Patch Snapshots can be edited using all available Roland Boutique JX-03 Parameters.

Patch lists can be easily created using large libraries and saved to disk as “.img” files for non SoundDiviner users or transferred back to the Roland JX-03 using extraction and restoration.

SoundDiviner Projects containing finalised JX-03 Patch Snapshots can be downloaded free from SynthTools (<https://synthtools.co.uk/sound-library/downloads/category/Roland-JX-03/>)

## FIRST THINGS FIRST

It is recommended that you read through this manual and get a good understanding of how Plugin Roland JX-03 works and interacts with SoundDiviner and the differences between SoundDiviner terminology and the original Roland JX-03 manual, which you should also have to hand. If you have not already read through the main SoundDiviner manual yet then it's recommended that you do that first but if that seems a bit daunting then it's a good idea to read all the sections related to Disk Interfaces, Disk Snapshots and if required DISK SNAPSHOTS STEP BY STEP; also, the section related to Patch Snapshots as these sections will give you a good understanding of the Boutique JX-03 Plugin.

## WHATS ADDED

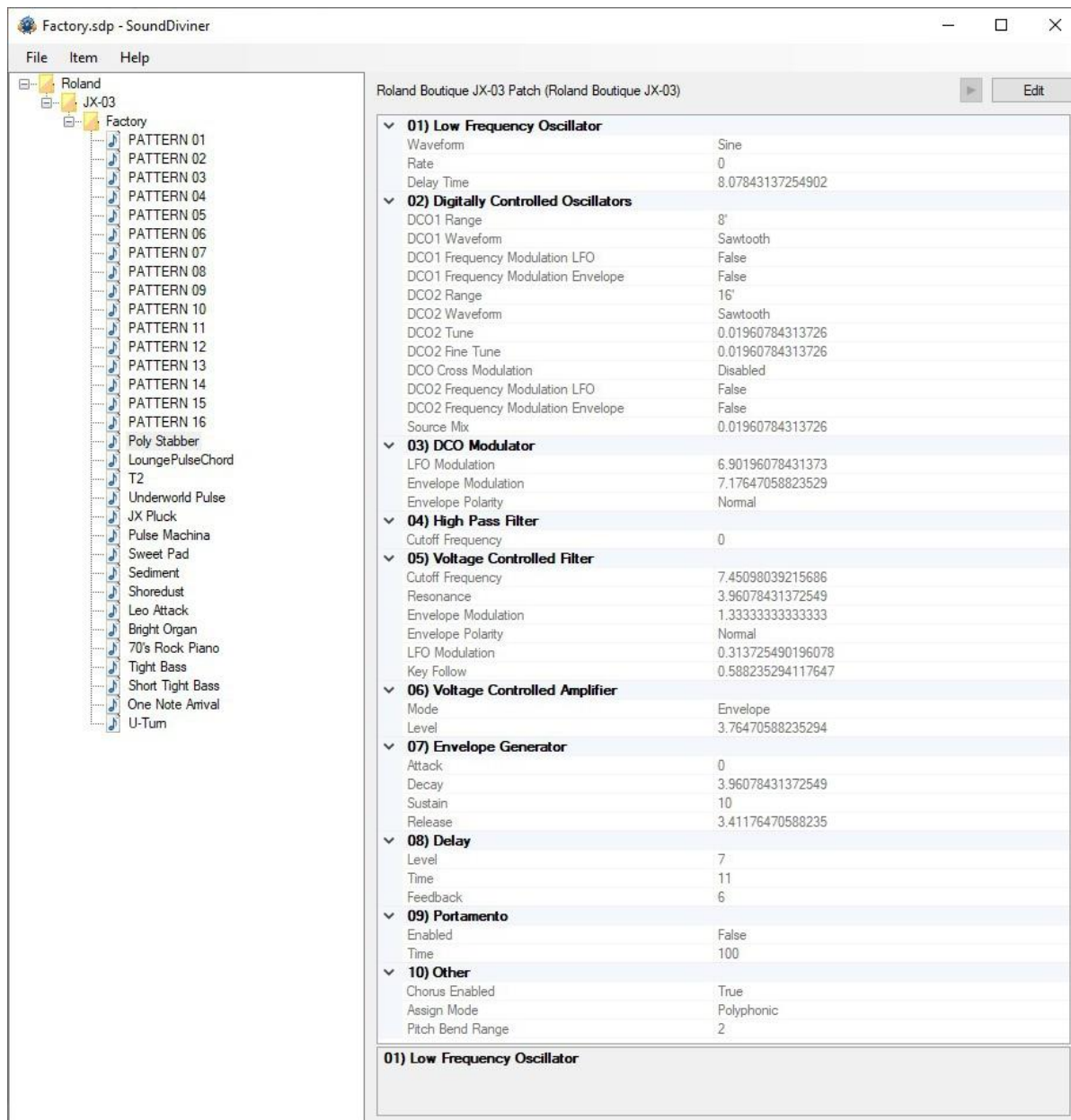
Roland JX-03 will be added to the Plugin list and becomes available in the Select Device Windows.

Roland JX-03 Synthesiser Plugin enables previously greyed Functions and makes others available.

The Workflow Area can now contain Patch Folders and two different JX-03 Patch Snapshot Types.

Sample Options, New Patch Snapshot, Import Options, Export Options and Parse will all have available Functions as listed below and even Adapt will be accessible through additional Plugins.

The Snapshot Viewer becomes the Snapshot Editor when Patch Snapshots are selected and the Edit Control will also be available. Edit Mode gives access to change any of the Parameters used to create a JX-03 Patch Snapshot including the step sequences, but is both destructive and disconnected as fully detailed below.



FigureJX-03a

## WORKFLOW AREA

Now the JX-03 Plugin has been installed the Workflow Area can contain Patch Folders and the different Patch Snapshot Types that are compatible with the JX-03 synthesiser as detailed below and outlined in the main manual. After converting or importing Disk Snapshots the Workflow Area will display Patch Folders that contain thirty-two Patch Snapshots, each one representing the different types of presets stored within the Roland Boutique JX-03 memory as detailed below.

### Patch Folder

Patch Folders are really no different to any Folder Item in a SoundDiviner Project as they are just containers, once created they can be managed in the same ways as before. New Folder Items can be created within them and all Patch Snapshots listed can be managed as with any other Snapshot Item as detailed in the main manual.

### Patch Snapshot

Selecting a Patch Snapshot now changes the Snapshot Area to the Snapshot Editor as described in the main manual (see Patch Snapshots), for full details on the SNAPSHOT EDITOR see below.

### Patch Snapshot Type

Two different Patch Snapshot Types are available to this Plugin, Patches and Patterns as detailed below and in the Roland Boutique JX-03 manual.

### Roland Boutique Series Pattern

#### PATTERN 01

After importing from File or Disk Interface the first sixteen Patch Snapshots will all be Roland Boutique Series Patterns, each one representing a step sequence. By default, these sixteen Patterns will be named in accordance with their Preset Name “PATTERN 01-16” (see FigureJX-03a above). Items can be renamed at any point and this will be stored in both the SoundDiviner Project and the Roland JX-03 memory when transferred back to the synthesiser. Note that the Information bar displays the selected Patch Snapshot as “Roland Boutique Series Pattern”.

### Roland Boutique JX-03 Patch

#### Poly Stabber

After importing from File or Disk Interface the next sixteen Patch Snapshots that proceed the sixteen Patterns above, will be Roland Boutique JX-03 Patches. A Roland Boutique JX-03 Patch contains all the Parameter Values required to make a Patch sound the way it does as listed in the JX-03 manual and fully detailed below. By default, these sixteen Patches have been named in accordance with their Preset Name, see FigureJX-03a above or the Roland JX-03 sound list. Any Patch that you have created and stored in your own backups will also be named in accordance with the Patch that you originally amended or selected last before entering Manual Mode. Patches created directly after the JX-03 was switched on but before selecting a Patch Number will have a blank name as with any subsequent copies, these Patches will be named in accordance with their patch number or Preset Number as detailed in the SoundDiviner main manual. Note that the Information bar displays the selected Patch Snapshot as “Roland Boutique JX-03 Patch”.

### SAMPLE OPTION

As detailed in the main manual, Sample Options are used to assign an audible example to Snapshot Items but are mainly used to Finalise Patch Snapshots. All Packs available from the SynthTools Sound Library have been Finalised using 22khz samples for identification and Edit protection.

#### Finalised

Once a Sample is assigned to a Patch Snapshot it is defined as Finalised and is not editable as detailed in the main manual, obviously editing the Patch Snapshot would create a different sounding JX-03 Preset to the one selected. Patterns can still be Finalised by assigning a Sample but it's worth remembering only the step sequence is stored within them. Remember; Edit Mode is both destructive and disconnected, it is standard practice to Edit Patch Snapshot copies as this also removes the assigned Sample as detailed in the main manual, see Snapshot Editor in the main manual for more information.

### NEW PATCH SNAPSHOT

Used to create a New Patch Snapshot as detailed in the main manual (see New Patch Snapshot), by selecting Roland Boutique JX-03 from the available manufacturer lists in the Create Patch Snapshot Window, the required Patch Snapshot Type can be selected from the available list. New Patch Snapshots will be created in the Workflow Area and all Parameter Values set to “True Zero”. True Zero values on the JX-03 differ depending on the Parameter. Rotary controls will all be set at “0” and all switches to “False” or the lower selection. Pattern lengths are set to maximum “16” and all notes will be at minimum “C-1” and all other values at minimum “0”.

Each Patch Snapshot Type is different and will populate the Parameter Lists in accordance with the chosen type, see Parameter Lists below. New Patch Snapshots can be used to create quick templates with known or anticipated results for exporting to the JX-03 for hands on audible editing before importing back into SoundDiviner for Finalising and adding to your own libraries.

### IMPORT OPTIONS

Now this JX-03 Plugin is installed, new Import Options are possible by selecting the Device Roland Boutique JX-03 from the available Select Device Window during the related Import Option. As detailed in the main manual selecting Roland Boutique JX-03 Plugin instead of Unknown Device at the appropriate time in the Import File Process or Import Disk Process will create Patch Snapshots instead of Disk Snapshots, for more information see IMPORTING SNAPSHOT FILES and the IMPORT FILE PROCESS or READ DISK SNAPSHOT and the Import Disk Process in the main manual or if you are familiar with these processes see IMPORT FILE WINDOW below. As a Roland Boutique user, you should already be aware of the data backup/restore method as detailed in the Roland JX-03 manual, these previous backups can be imported using the Import Directory Process as detailed in the main manual (see Directory... or Import Directory in the main manual).

Single Patch files can also be Imported, see BINARY DUMP below or multiple Patch Snapshots can be imported using the SoundDiviner project options as detailed in the main manual.

Remember; SoundDiviner defines the Roland Boutique JX-03 as a USB mass storage device and will be available in the Choose Removable Drive Window as “Drive1(E:) JX-03 (1.00MB)”, drive number and letter may differ. For additional help see DISK SNAPSHOT GUIDE, READING DISKS, USB mass storage device and USB Synth in the main manual.

### IMPORT FILE WINDOW

Available when importing Files or directly from the Disk Interface (see IMPORT OPTIONS) in the main manual for full details, Roland Boutique JX-03 Plugin will now be available as a Device.



FigureJX-03b

#### Device

Used to open the Select Device Window as listed in the main manual, expand the manufacturer list for Roland and select the Boutique JX-03 and then click OK to use the Plugin. Once selected the Do Not Import Duplicate tick box is now available for selection if required (see below).

#### Do Not Import Duplicates

Clicking this Tick Box instructs the Import Process to check all of the Patch Snapshots to be imported with the ones currently in your SoundDiviner Project and only imports any that are different. Using this Function, you can quickly see any new Patch Snapshots as only these are available in the new Patch Folder created using the Name inserted (see FigureJX-03b above).

### DUPLICATES FOUND WINDOW



FigureJX-03c

The total amount of Duplicates Found in the Import Process will be displayed in the Duplicates Found Window, see FigureJX-03c above.

#### Yes

Click the Yes button to display the list of Duplicates Found, see Duplicate List below.

#### No

Click the No button if you do not want to see the Duplicate List, see below.

### DUPLICATES LIST

A standard Windows text file containing a list of the Duplicate Patch Snapshots Found will be created, passed and automatically displayed in Windows Notepad. Entries will be listed using the full SoundDiviner Project path and Patch Snapshot Name followed by the Roland Boutique JX-03 Preset Name that matched the Patch Snapshot in your SoundDiviner Project, as detailed below.

Example

Roland\JX-03\Factory\Poly Stabber = Poly Stabber

Conclusion

Patch Snapshot “Poly Stabber” located in your SoundDiviner Project “Roland\JX-03\Factory\” was Duplicated in the Import Process with Roland Boutique JX-03 Preset Name “Poly Stabber”.

### EXPORT OPTIONS

This Roland Boutique JX-03 Plugin enables Patch Snapshots to be exported using a range of different functions. Single Patch Snapshots can be exported and saved with the Binary dump function see BINARY DUMP below, or multiple Patch Snapshots can be exported using the SoundDiviner project options as detailed in the main manual, or directly to the Roland Boutique JX-03 using the Export Item Process see EXPORT PATCH SNAPSHOT below.

### BINARY DUMP



By selecting a Patch Snapshot, you can now use (Item – Export – Binary Dump...), to open the Save As Window used to save a Patch Snapshot to a File. A Roland Boutique Series Pattern can be saved to File using the extension “.sdbd\_RBouPtn”, a Roland Boutique JX-03 Patch uses the extension “.sdbd\_JX03PAT”. These Files can then be imported or shared with other compatible SoundDiviner JX-03 Plugin users.

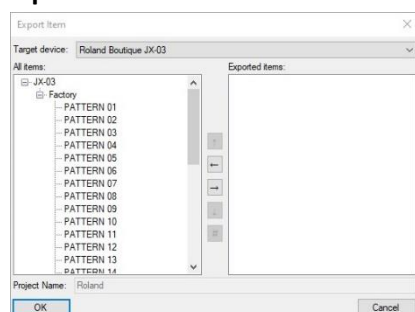
### EXPORT PATCH SNAPSHOT

After correct Item selection; Export File or Export Disk Image automatically starts the Export Item Process, see below. If more than one Plugin is installed the selections in this process can become more complex as detailed in the main manual, for a better understanding of Exporting Patch Snapshots see EXPORT PATCH SNAPSHOT in the main manual unless you are totally familiar with all of these processes and just need details relating to this Plugin.

#### Export Item Process

This Roland Boutique JX-03 Plugin gives you the ability to create Export lists that contain thirty-two Patch Snapshots one for every memory location, or Preset as defined in the SoundDiviner main manual. It doesn’t matter in which order you build the list as SoundDiviner will keep a running total of the different Patch Snapshot Types and both organises and limits the list to sixteen Patterns and sixteen Patches. Lists can be exported directly to the Roland JX-03 using the Disk Interface or saved to File in “.img” format. Remember; The Roland Boutique JX-03 must be connected as a USB mass storage device or USB Synth as detailed in the SoundDiviner main manual when exporting, for more information see Data Backup/Restore in the JX-03 manual and below.

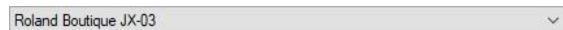
#### Export Item Window



FigureJX-03d

After selecting a Patch Folder in the Workflow Area (see Figure JX-03a above), in this example “JX-03” all compatible Items within the Parent Folder “JX-03” will be included in the Export Item Window – All Items list (see Figure JX-03d above). Full details on using the Export Item Window can be found in the main manual but the following is included to help with Roland JX-03 list building.

Target Device

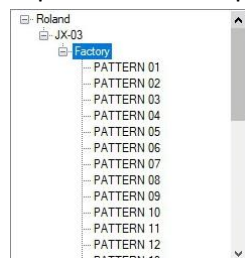


If the Roland Boutique JX-03 is not already selected by default choose it now before continuing.

All Items



Patch Folders can be selected and added to the Exported Items list for quick list creating, or expanded so that specific Patch Snapshots can be selected for compilation list building.



By using the scroll bar, different Patch Snapshot Types can be selected and added to the Exported Items list in any order you require, filling the Roland JX-03 memory locations from slots “1-16” for Patterns and “1-16” for Patches as detailed below.

Exported Items

As you should be fully aware the Roland Boutique JX-03 has thirty-two memory locations as mentioned above or the Preset memory capacity as defined in the SoundDiviner main manual, due to this the Exported Items list can only contain a maximum of thirty-two Patch Snapshots. Not all of these locations need to be filled as Exported Items will be automatically filed into the JX-03 memory replacing the lower slots first and leaving any remaining Presets untouched, however exceeding the Exported Items list will result in warning and or error as detailed below.

Exported Items List



Items can be selected and moved up or down in the Exported Item List using the Control Buttons automatically changing the JX-03 Preset Number, as detailed in the main manual.

Exported Item

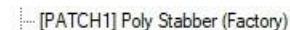
Both Patch Snapshot Types can be added to the list as mentioned above and each Type will be listed and managed differently as detailed below.

Patterns



Items will be listed by the Roland JX-03 memory location “Preset Number” displayed using [PTN1-16] followed by the Patch Snapshot Name “Preset Name” and Patch Folder. Roland JX-03 supports Preset Numbers and Preset Names so only these will be stored. Remember; Roland Boutique JX-03 supports a maximum of sixteen characters for Preset Names, larger names will be truncated.

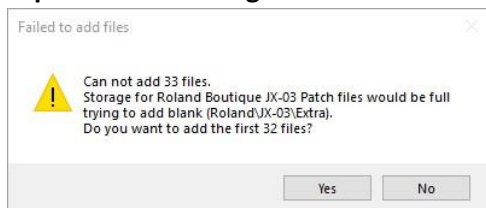
Patches



Items will be listed by the Roland JX-03 memory location “Preset Number” displayed [PATCH1-16] followed by the Patch Snapshot Name “Preset Name” and Patch Folder. Roland JX-03 supports

Preset Numbers and Preset Names so these will be stored. Only the Items in the list will be exported to the Roland JX-03, automatically replacing the Preset Numbers used and leaving the remaining Presets intact as mentioned above. Remember; Roland JX-03 supports a maximum of sixteen characters for Preset Names, larger names will be truncated.

### Export Item Warning



When trying to add more Patch Snapshots to the Export List than there are available Preset spaces will result in a Warning message Window. Failed to add files; will report how many Patch Snapshots you are attempting to place in the Export List and the total amount that would then be in the Export List, followed by a question "Do you want to add the first XX files".

Yes

Click the Yes button to add the first XX files you selected to add to your Export Item List.

No

Click the No button to cancel the selection and not add any files to the Export Item List.

### Export Item Error



When trying to add a Patch Snapshot to an already full Export Item List you will receive an Export Item Error. Failed to add files; Cannot add XX files.

OK

Click the OK Button to acknowledge the Error.

### PARSE

As detailed in the main manual Parse is used to extract Patch Snapshots from JX-03 Disk Snapshots. Any compatible Disk Snapshot in your existing SoundDiviner Project can be selected and then converted to a Patch Folder containing all thirty-two Patch Snapshots by using Parse. The new Patch Folder will be named in accordance with the original Disk Snapshot and all Patch Snapshots will be named using the JX-03 Preset Names, for full details see the main manual.

### ADAPT

Adapt is used to convert Patch Snapshots between compatible Synthesiser Plugins as detailed in the main manual. For this function to work, you require two Synthesiser Plugins and the related Adaptor Plugin. Roland Boutique JX-03 Synthesiser Plugin is currently compatible with the following Plugins.

Synthesiser Plugins

Roland JX-3P and Roland Sound Cloud JX-3P.

Patch Sheet Plugins

Roland Boutique JX-03.

Adaptor Plugins

Roland Boutique JX-03<-> Boutique JX-03 Patch Sheet, Roland Boutique JX-03<->Roland JX-3P, Roland Boutique JX-03<->Roland Sound Cloud JX-3P.



SNAPSHOT EDITOR

After Patch Snapshot selection the Snapshot Area becomes the Snapshot Editor see FigureJX-03a above, click the Edit button on the Control Bar to start Edit Mode and make Parameter changes unless Finalised in which case a copy is required as listed above. The Snapshot Editor has been designed so you quickly see all of the Parameters available to the different Boutique JX-03 Patch Snapshot Types and the values that have been selected, for full details on the Snapshot Editor see the main manual. Additional details for Patterns are listed below. Remember; All JX-03 controls and settings are known as Parameters in all SoundDiviner manuals.

PARAMETER LISTS

As listed in the main manual; Parameter Lists will be populated with all of the Parameters available to each Roland Boutique JX-03 Patch Snapshot Type, all arranged in Parameter Groups. As there are two different Patch Snapshot Types the Parameter Lists will change depending on the selected Patch Snapshot Type as detailed below.

Roland Boutique Series Pattern (PATTERN01)

|                           |           |
|---------------------------|-----------|
| <p>▼ <b>Sequencer</b></p> |           |
| Scale                     | Sixteenth |
| Pattern Length            | 16        |
| Pattern                   |           |

FigureJX-03e

Roland Boutique JX-03 Patch (Poly Stabber)

|  |                   |
|--|-------------------|
| <p>▼ <b>01) Low Frequency Oscillator</b></p>         |                   |
| Waveform   | Sine              |
| Rate   | 0                 |
| Delay Time   | 8.07843137254902  |
| <p>▼ <b>02) Digitally Controlled Oscillators</b></p> |                   |
| DCO1 Range   | 8'                |
| DCO1 Waveform  | Sawtooth          |
| DCO1 Frequency Modulation LFO                        | False             |
| DCO1 Frequency Modulation Envelope                   | False             |
| DCO2 Range   | 16'               |
| DCO2 Waveform  | Sawtooth          |
| DCO2 Tune  | 0.01960784313726  |
| DCO2 Fine Tune                                       | 0.01960784313726  |
| DCO Cross Modulation                                 | Disabled          |
| DCO2 Frequency Modulation LFO                        | False             |
| DCO2 Frequency Modulation Envelope                   | False             |
| Source Mix   | 0.01960784313726  |
| <p>▼ <b>03) DCO Modulator</b></p>                    |                   |
| LFO Modulation                                       | 6.90196078431373  |
| Envelope Modulation                                  | 7.17647058823529  |
| Envelope Polarity                                    | Normal            |
| <p>▼ <b>04) High Pass Filter</b></p>                 |                   |
| Cutoff Frequency                                     | 0                 |
| <p>▼ <b>05) Voltage Controlled Filter</b></p>        |                   |
| Cutoff Frequency                                     | 7.45098039215686  |
| Resonance  | 3.96078431372549  |
| Envelope Modulation                                  | 1.33333333333333  |
| Envelope Polarity                                    | Normal            |
| LFO Modulation                                       | 0.313725490196078 |
| Key Follow   | 0.588235294117647 |
| <p>▼ <b>06) Voltage Controlled Amplifier</b></p>     |                   |
| Mode   | Envelope          |
| Level  | 3.76470588235294  |
| <p>▼ <b>07) Envelope Generator</b></p>               |                   |
| Attack   | 0                 |
| Decay  | 3.96078431372549  |
| Sustain  | 10                |
| Release  | 3.41176470588235  |
| <p>▼ <b>08) Delay</b></p>                            |                   |
| Level  | 7                 |
| Time   | 11                |
| Feedback   | 6                 |
| <p>▼ <b>09) Portamento</b></p>                       |                   |
| Enabled  | False             |
| Time   | 100               |
| <p>▼ <b>10) Other</b></p>                            |                   |
| Chorus Enabled                                       | True              |
| Assign Mode  | Polyphonic        |
| Pitch Bend Range                                     | 2                 |

FigureJX-03f

## PARAMETERS

All of the original Roland Boutique JX-03 Parameters are listed below but more details can be found in the original synthesiser manual. All choices and values are the same as the original synthesiser, including some that required MIDI CC to select them. Only Parameters that are stored and restored using the data backup\restore process as detailed in the Roland JX-03 manual will be available. Settings including temporary ones that are lost after JX-03 power off will not be available. The Roland Boutique JX-03 is a true digital synthesiser that has some analogue controls, the Parameter Values for these will not be displayed as you may assume as they represent the rotary pot positions on the JX-03 and all other forms of the PG200 controller, see PARAMETER VALUES below for details.

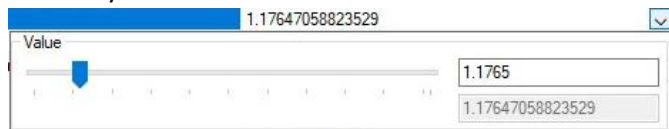
## PARAMETER VALUES

All Parameter Values will be stored in the selected Patch Snapshot and can be managed using all of the available SoundDiviner tools. Once exported back to the JX-03 synthesiser via the Disk Interface they can be modified as usual with the synth front panel for hands on audible editing and then imported back into SoundDiviner for naming, finalising and storing in your expanding library.

### Analogue Values

The Roland JX-03 is a true digital synthesiser with analogue controls, that emulates the famous Roland JX-3P analogue synthesiser as outlined above. Due to this the values displayed are derived from the rotary dial positions and original analogue circuitry. These values can be displayed down to a maximum of sixteen decimal places depending on the actual location of the Roland JX-3P or JX-03 control. As I am sure you are aware all potentiometers are slightly different and all synthesisers will be calibrated slightly differently, giving each one its own unique sound and characteristics. This is not the case with the Roland JX-03 as every unit is designed to sound exactly the same every time. The potentiometers may well be slightly different and trying to use an old-style patch sheet will probably result in a different sounding Patch especially considering the physical size of the controls but retaining these accurate values is very useful when comparing different units, software and the original hardware.

### Value Style 4



Parameter Values can be changed using one of three different Value Styles as listed in the main manual but Analogue Values have access to a fourth style similar to Value Style 2, but instead of one Value display there are two. The top Value display is rounded to four decimal places and can be used to input smaller values that represent the JX-03 controls more familiarly whilst the lower screen displays the emulation value. Note that due to hardware limitations odd number values like “1,3,5,7 and 9” cannot be obtained exactly but if you enter them, they will auto round.

## PATTERN

A Roland Boutique Series Pattern or step sequence as they are listed in the Roland Boutique JX-03 manual, allow up to sixteen notes to be stored and played back in a loop.

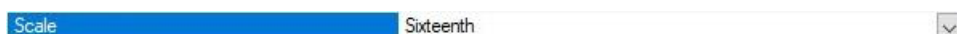
## SEQUENCER

|                |           |
|----------------|-----------|
| ▼ Sequencer    |           |
| Scale          | Sixteenth |
| Pattern Length | 16        |
| Pattern        |           |

FigureJX-03g

Sequencer is the only Parameter Group available to Roland Boutique Pattern Patch Snapshots and is used to display and create the step sequences used by the Roland Boutique JX-03, JP-08 and JU-06.

### Scale



Scale is used to define the rhythmical count. Four different choices are available, Thirty-Second “1”, Sixteenth “2”, Sixteenth triplet “3” and Eighth triplet “4”.

#### Thirty-Second

Choice “1” True Zero, Thirty-Second is the fastest rhythmical count by using every eighth beat or demisemiquaver “thirty-second note”.

#### Sixteenth

Choice “2”, Sixteenth is the Roland Boutique JX-03 default and probably the more common selection as the rhythmical count will equal every quarter beat or semiquaver “sixteenth note”.

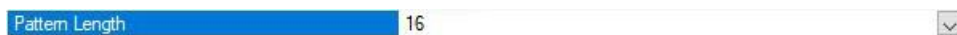
#### Sixteenth Triplet

Choice “3”, Sixteenth Triplet will be quicker than Choice “2” but slower than Choice “1”, as every two quarter beats become three.

#### Eighth Triplet

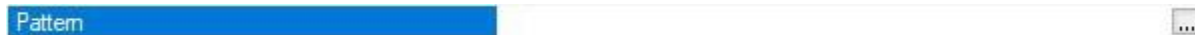
Choice “4”, Eighth Triplet is the slowest of all the counts as every two half beats become three.

### Pattern Length



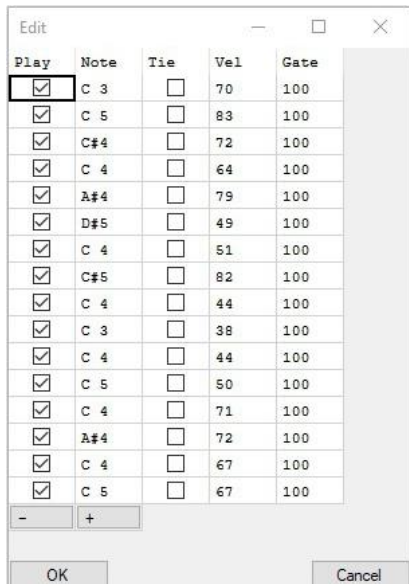
The Pattern Length defines how many steps are used when the Pattern plays, from one to sixteen. A single step sequence pattern is very useful for playing a continuous note not dissimilar to using a hold or sustain pedal, but with the freedom to play additional notes without them being held.

### Pattern



Each Pattern contains sixteen steps and each step contains five different Parameters used to control which and how each note is played. To open the Edit Pattern Window, click “...”. Remember; Finalised Snapshots cannot be edited but the Pattern Window can still be accessed.

### Edit Pattern Window



FigureJX-03h

A Pattern or step sequence as detailed in the Roland Boutique JX-03 manual contains everything required to make a Pattern trigger notes the way it does.

#### Play

Play or note On\Off as detailed in the Roland Boutique JX-03 manual is used to trigger the Note at that step (see Note below), tick the box for “On” or untick for “Off”.

#### Note

Defines the key that will be triggered if Play is ticked “see Play above”. Select the key and then double click to access the key drop down list used to select a different key, or enter the note followed by a space and then the octave “C 3”.

**Tie**

Increases the duration of a Note by joining two steps together, allowing the Note to sound across both steps. When Tie is not ticked “Off” the steps trigger as normal, one after another. When Tie is already ticked “On” the following step will have the same Parameter Values as the ticked step and these can’t be edited as both steps will trigger as one dual length step, the more step Ties the larger the trigger length becomes. When a Tie is added to a step “ticked on”, the following step will automatically acquire the Tie step Parameters. Remember; When a step has a Tie to a previous step you can’t change any Parameters until the Tie is removed, but Tie can still be “ticked on” adding a Tie to the next step to increase the trigger length if required.

**Vel**

MIDI Velocity is used to set how hard or soft the key is triggered, Parameter ranges from “0-127”. Remember; Roland Boutique JX-03 Key Velocity must be set to “Touch” as detailed in the manual, or velocity changes will not have any effect on the volume of the key triggered.

**Gate**

Defines the key trigger time, the higher the value the longer the trigger duration. This Parameter ranges from “0-127” but values below “20” maybe too quick to trigger unless the sequencer tempo is very slow. When setting values with the JX-03 “C2” controller the value range is from “20-100”.

**Minus**

Decreases every Note by one semitone, allowing Patterns to be transposed down.

**Plus**

Increases every Note by one semitone, allowing Patterns to be transposed up.

**OK**

Closes the Edit Pattern Window and keeps any changes, greyed out when Snapshot is Finalised.

**Cancel**

Closes the Edit Pattern Window and discards any changes.

**PATCH**

A Roland Boutique JX-03 Patch or Patch as they are listed in the Roland Boutique JX-03 manual, contains all the Parameter Groups and Parameters required to make a Patch sound the way it does. There are ten Parameter Groups containing thirty-nine different Parameters as detailed below.

**LOW FREQUENCY OSCILLATOR**

|                                     |                  |
|-------------------------------------|------------------|
| <b>01) Low Frequency Oscillator</b> |                  |
| Waveform                            | Sine             |
| Rate                                | 0                |
| Delay Time                          | 8.07843137254902 |

FigureJX-03i

The Low Frequency Oscillator or LFO as listed in the Roland Boutique JX-03 manual is the modulation source of the sound engine, used to create a range of different effects. Only one LFO is available to the JX-03 but it can be used to modulate DCO-1 pitch, DCO-2 pitch and Filter Cutoff. Unlike many analogue synthesisers of the time the original Roland JX-3P had a choice of three different LFO shapes, this has been increased to six on the Boutique JX-03 for more flexibility.

**Waveform**



Waveform or Waveform knob as listed in the Roland Boutique JX-03 manual, specifies the wave shape or Waveform used by the LFO. Originally only three choices were available but this has been increased to six on the JX-03. The choices are Sine “1” True Zero, Saw “2” (new choice), Reverse Saw “3” (new choice), Square “4”, Random “5” and Noise “6” (the last new choice).

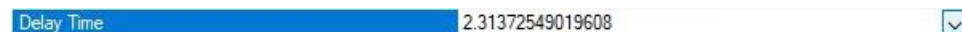
**Rate**



Rate or Rate knob as listed in the Roland Boutique JX-03 manual, sets the cycle speed or Rate of the

LFO, the lower the Parameter Value the slower the cycle speed. When Rate is at minimum “0” the cycle speed will be around “0.134Hz” or “7.43 seconds”, when the Rate is at maximum “10” the cycle speed will be just over eight cycles per second “8.26Hz” or “121ms”.

**Delay Time**



Delay Time or Delay Time knob as listed in the Roland Boutique JX-03 manual, specifies the time from when the tone sounds until the LFO reaches its maximum amplitude. Just like other Roland synths before it, the JX-03 like the original JX-3P, fades the LFO Modulation effect in. When the Delay Time is at minimum “0” the LFO Modulation is as the key is pressed but when at maximum “10” the effect will start at around “1.6 seconds” slowly rising to its maximum around “4.5 seconds”. Remember; the Delay time is not reset until any modulating notes are no longer held.

**DIGITALLY CONTROLLED OSCILLATORS**

|   |                  |
|---|------------------|
| <b>02) Digitally Controlled Oscillators</b> |                  |
| DCO1 Range                                  | 8'               |
| DCO1 Waveform                               | Sawtooth         |
| DCO1 Frequency Modulation LFO               | False            |
| DCO1 Frequency Modulation Envelope          | False            |
| DCO2 Range                                  | 16'              |
| DCO2 Waveform                               | Sawtooth         |
| DCO2 Tune                                   | 0.01960784313726 |
| DCO2 Fine Tune                              | 0.01960784313726 |
| DCO Cross Modulation                        | Disabled         |
| DCO2 Frequency Modulation LFO               | False            |
| DCO2 Frequency Modulation Envelope          | False            |
| Source Mix                                  | 0.01960784313726 |

FigureJX-03j

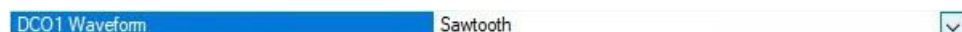
The Digitally Controlled Oscillators or DCO-1/DCO-2 as listed in the Roland Boutique JX-03 manual, is the main building block for creating sound. The original Roland JX-3P was a dual oscillator synthesiser and this is also true of the JX-03. However, quite a few additions have enabled the JX-03 to differ from the original specifications of the JX-3P.

**DCO1 Range**



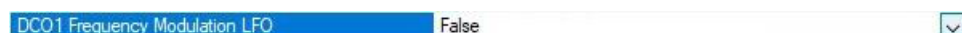
DCO1 Range or Range (64-2) Knob as listed in the Roland Boutique JX-03 manual, is used to set the basic pitch range or octave of DCO1. Originally a standard pitch designation borrowed from organ technology, indicating specific pitches placed one octave apart. The smaller the value the higher the pitch of the oscillator. Six choices are available instead of the original three, 64’ True Zero (pronounced sixty-four foot), 32’, 16’, 8’, 4’ and 2’ (16’, 8’ and 4’ only available on the JX-3P).

**DCO1 Waveform**



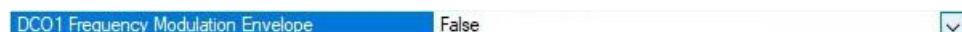
DCO1 Waveform or Waveform knob as listed in the Roland Boutique JX-03 manual, is used to set the wave shape used by DCO1. Originally only three shapes were available on the JX-3P but this has been increased to six for greater flexibility. Sine “1” True Zero (a new shape), Triangle “2” (a new shape), Saw “3”, Pulse “4”, Square “5” and Pink Noise “6” (another new shape).

**DCO1 Frequency Modulation LFO**



DCO1 Frequency Modulation LFO or Freq Mod LFO Switch as listed in the Roland Boutique JX-03 manual, enables\disables the LFO (detailed above). When set to on “True” the LFO (detailed above), will modulate the frequency “pitch” of DCO1 by the amount defined by the DCO Modulator (see DCO Modulator, LFO Modulation below).

**DCO1 Frequency Modulation Envelope**



DCO1 Frequency Modulation Envelope or Freq Mod ENV Switch as listed in the Roland JX-03 manual, enables\disables the Envelope Generator (detailed below). When set to on “True” the Envelope

Generator (detailed below), will modulate the frequency “pitch” of DCO1 by the amount defined by the DCO Modulator (see DCO Modulator, Envelope Modulation below).

### DCO2 Range

DCO2 Range

DCO2 Range or Range (64-2) Knob as listed in the Roland Boutique JX-03 manual, is used to set the basic pitch range or octave of DCO2. Originally a standard pitch designation borrowed from organ technology, indicating specific pitches placed one octave apart. The smaller the value the higher the pitch of the oscillator. Six choices are available instead of the original three, 64’ True Zero (pronounced sixty-four foot), 32’, 16’, 8’, 4’ and 2’ (16’, 8’ and 4’ only available on the JX-3P).

### DCO2 Waveform

DCO2 Waveform

DCO2 Waveform or Waveform knob as listed in the Roland Boutique JX-03 manual, is used to set the wave shape used by DCO2. Originally only four shapes were available on the JX-3P but this has been increased to six for greater flexibility. Sine “1” True Zero (a new shape), Triangle “2” (another new shape), Saw “3”, Pulse “4”, Square “5” and White Noise “6”.

### DCO2 Tune

DCO2 Tune

DCO2 Tune or Tune Knob as listed in the Roland Boutique JX-03 manual, allows the pitch of DCO2 to be adjusted up or down by almost twelve semitones. DCO2 Tune adjustment is very useful for creating intervals or Pulse shaping when combined with DCO Cross Modulation (detailed below). Remember; due to value rounding the twelve o’clock position or “0” will not display as such, by entering the required value the rounding is automatic.

### DCO2 Fine Tune

DCO2 Fine Tune

DCO2 Fine Tune or Fine Tune knob as listed in the Roland Boutique JX-03 manual, allows the pitch of DCO2 to be finely adjusted. The Fine Tune range is +-50 cent, at minimum “-5” the pitch will be down by 50 cent or half a semitone, when at maximum “5” the pitch will be up half a semitone. Remember; due to value rounding the twelve o’clock position or “0” will not display as such, by entering the required value the rounding is automatic.

### DCO Cross Modulation

DCO Cross Modulation

DCO Cross Modulation or Cross Mod Switch as listed in the Roland Boutique JX-03 manual, enables DCO1 and DCO2 to affect each other in different ways to produce very unique wave shapes. Originally only three choices were available including off, but this has been increased to six.

Disabled

DCO Cross Modulation Disabled or OFF as labelled on the front of the Roland Boutique JX-03, defines that none of the Cross Modulation effects are in use and the DCO’s will operate as normal.

Oscillator Sync (DCO2-DCO1)

DCO Cross Modulation; Oscillator Sync (DCO2-DCO1) or SYN1 as labelled on the front of the Roland Boutique JX-03, is the first of the oscillator synchronisation methods. This method hard syncs DCO2 to DCO1 by forcing DCO2 to restart its cycle with that of DCO1. When in sync the frequency “pitch” of DCO2 can no longer be adjusted through the intervals and remains locked to that of DCO1.

Adjustments to frequency now control the timber or tonal quality of the sound. Another major use of DCO synchronisation is Pulse Width Modulation “PWM” (see Pulse Width Modulation below).

Oscillator Sync (DCO1-DCO2)

DCO Cross Modulation; Oscillator Sync (DCO1-DCO2) or SYN2 as labelled on the front of the Roland Boutique JX-03, is a new synchronisation method only available on the JX-03. This method hard syncs DCO1 to DCO2 by forcing DCO1 to restart its cycle with that of DCO2. When in sync, adjustment to DCO1 frequency with use of the LFO “detailed above” or the Envelope Generator

“detailed below”, now control the timber or tonal quality of the sound along with some unique Pulse Width Modulation “PWM” effects (see Pulse Width Modulation below). DCO2 unlike DCO1, has additional tuning Parameters that now adjust the pitch of both DCO’s. Remember; If you Tune DCO2 to a different note, then DCO1 will follow and the sound will respond as if transposed.

**Metallic (DCO2-DCO1)**

DCO Cross Modulation; Metallic (DCO2-DCO1) or MET1 as labelled on the front of the Roland Boutique JX-03, is the first of the two metal effects. Audible only on DCO2, as DCO1 is used to modify the wave shape of DCO2, but remains unaffected itself. This metal effect more closely resembles those created by a Ring Modulator “detailed below”, than those created by frequency modulation “FM”, which is more associated with VCO Cross Modulation found on the JP-08.

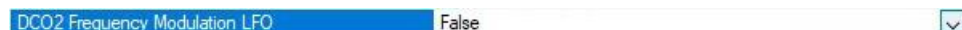
**Metallic (DCO1-DCO2)**

DCO Cross Modulation; Metallic (DCO1-DCO2) or MET2 as labelled on the front of the Roland Boutique JX-03, is a new Metallic choice only available on the JX-03. Audible only on DCO1, as DCO2 is used to modify the wave shape of DCO1, but remains unaffected itself. This metal effect like MET1 detailed above, closely resembles those created by a Ring Modulator detailed below. Unlike DCO1, DCO2 has additional tuning Parameters that now adjust both DCO’s. Remember; If you Tune DCO2 to a different note, then DCO1 will follow and the sound will respond as if transposed.

**Ring Modulator**

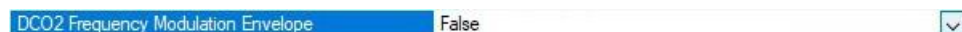
DCO Cross Modulation; Ring Modulator or Ring as labelled on the front of the Roland JX-03, is only available on the JX-03. Audible only on DCO2, as the sum or combination of DCO1 & DCO2 with Both original Waveforms removed. This new frequency rich waveshape can be both harmonically rich and discordant, with some Waveform combinations even becoming clangorous or harsh.

**DCO2 Frequency Modulation LFO**



DCO2 Frequency Modulation LFO or Freq Mod LFO Switch as listed in the Roland Boutique JX-03 manual, enables\disables the LFO (detailed above). When set to on “True” the LFO (detailed above), will modulate the frequency “pitch” of DCO2 by the amount defined by the DCO Modulator (see DCO Modulator, LFO Modulation below).

**DCO2 Frequency Modulation Envelope**



DCO2 Frequency Modulation Envelope or Freq Mod ENV Switch as listed in the Roland JX-03 manual, enables\disables the Envelope Generator (detailed below). When set to on “True” the Envelope Generator (detailed below), will modulate the frequency “pitch” of DCO2 by the amount defined by the DCO Modulator (see DCO Modulator, Envelope Modulation below).

**Source Mix**



Source Mix as detailed in the Roland Boutique JX-03 manual, is used to adjust the volume balance of DCO1 and DCO2. When set to minimum “-5” only DCO1 will be audible but when set to maximum “5” only DCO2 will be audible, adjusting the control away from minimum or maximum will slowly introduce the other oscillator creating the balance or mix you require. Remember; due to value rounding the twelve o’clock position or “0” will not display as such, but by entering the required value the rounding will be automatic and display as “0.01960784313726” or True Zero.

**DIGITALLY CONTROLLED OSCILLATOR MODULATOR**

|                          |                  |
|--------------------------|------------------|
| <b>03) DCO Modulator</b> |                  |
| LFO Modulation           | 6.90196078431373 |
| Envelope Modulation      | 7.17647058823529 |
| Envelope Polarity        | Normal           |

FigureJX-03k

The Digitally Controlled Oscillator Modulator or DCO Modulator for short, is located between DCO-2

and the VCF on the front of the Roland Boutique JX-03 and has no label. This Parameter Group defines how much if any the different modulation sources will control either DCO.

### LFO Modulation

LFO Modulation 6.90196078431373

LFO Modulation or LFO Knob as listed in the Roland Boutique JX-03 manual, defines how much if any the LFO (detailed above), controls the frequency “pitch” of either DCO, as defined by the Freq Mod LFO switches (see DCO1 Frequency Modulation LFO & DCO2 Frequency Modulation LFO above). When LFO Modulation is set to minimum “0” the LFO (detailed above) will have no effect on the pitch of the oscillators, but when set to maximum “10” the LFO will have full effect on the oscillators pitch. LFO Modulation of frequency or pitch as better described is more commonly known as vibrato. It is worth noting that when set to maximum the pitch shift will be two semitones and ten cents up, and the same amount down, creating just over four semitones of pitch shift.

### Envelope Modulation

Envelope Modulation 7.17647058823529

Envelope Modulation or ENV Knob as listed in the Roland Boutique JX-03 manual, defines how much if any the Envelope Generator or ADSR (detailed below), controls the frequency “pitch” of either DCO, as defined by the Freq Mod Env switches (see DCO1 Frequency Modulation Envelope & DCO2 Frequency Modulation Envelope above). When Envelope Modulation is set to minimum “0” the ADSR will have no effect on the pitch of the oscillators, but when set to maximum “10” the ADSR will have full control on the oscillators pitch. Envelope Modulation of frequency or pitch as better described is more commonly known as a pitch slide or glissando, used in combination with LFO Modulation detailed above to create a vibrato slide. It’s worth noting that when at maximum the pitch range will be forty cent shy of three octaves up from the key note when Polarity is Normal, or three octaves down from the key note when Polarity is Inverted (see Polarity below).

### Envelope Polarity

Envelope Polarity Normal

Envelope Polarity or [H/W] switch as listed in the Roland Boutique JX-03 manual, is used to define the polarity or direction of the Envelope Generator ADSR (detailed below). Two choices are available, Normal and Inverted “True Zero” as detailed below.

#### Normal

When Normal Polarity is selected the ADSR will operate as it does for the Voltage Controlled Amplifier “VCA” detailed below, in a positive direction. When controlling a DCO; the frequency or pitch of the oscillator will always travel up the scale heading away from and back to the key note as defined by the ADSR and in relation to the Envelope Modulation detailed above.

#### Inverted

When Inverted Polarity is selected the ADSR will operate in the reverse direction allowing for negative envelope shaping. When controlling a DCO; the frequency or pitch of the oscillator will always travel down the scale heading away from and back to the key note as defined by the ADSR and in relation to the Envelope Modulation detailed above.

## HIGH PASS FILTER

04) High Pass Filter  
Cutoff Frequency 0

### Figure JX-03k

The High Pass Filter or HPF as listed in the Roland Boutique JX-03 manual is the first of the filters in the JX-03 and is used to remove unwanted bass frequencies, sometimes referred to as muddiness

### Cutoff Frequency

Cutoff Frequency 0

The Cutoff Frequency or HPF Knob as detailed in the Roland Boutique JX-03 manual, sets the Cutoff Frequency of the High Pass Filter. When this Parameter is at minimum “0” no filtering will occur, by



increasing the value more of the lower harmonics will be removed until the sound becomes thinner or less full in body at maximum “10”.

**VOLTAGE CONTROLLED FILTER**

|                                      |                   |
|--------------------------------------|-------------------|
| <b>05) Voltage Controlled Filter</b> |                   |
| Cutoff Frequency                     | 7.45098039215686  |
| Resonance                            | 3.96078431372549  |
| Envelope Modulation                  | 1.33333333333333  |
| Envelope Polarity                    | Normal            |
| LFO Modulation                       | 0.313725490196078 |
| Key Follow                           | 0.588235294117647 |

FigureJX-03I

The Voltage Controlled Filter or VCF as listed in the Roland Boutique JX-03 manual, is the second of the filters in the JX-03 and is used to control the tonal quality or timbre of the sound by removing and emphasising different harmonics in the DCO waveforms. Unlike the first filter listed above this filter is a low pass filter and cuts high frequency allowing the lower harmonics to pass, but being a resonant filter, harmonics can be boosted or emphasised as detailed below.

**Cutoff Frequency**



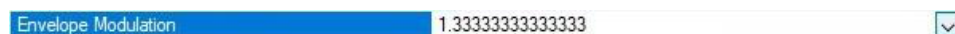
Cutoff Frequency or Cutoff Freq Knob as listed in the Roland Boutique JX-03 manual, sets the Cutoff Frequency of the Voltage Controlled Filter, allowing only the frequencies below this point to pass. When set to maximum “10” no filtering will occur, by decreasing the value more of the higher frequencies will be removed progressively creating a mellower sound until no frequencies can pass at minimum “0”, and no sound will be audible. Unlike the Cutoff of the High Pass Filter detailed above this Cutoff Parameter can be modulated or controlled by other Parameters detailed below.

**Resonance**



Resonance or Resonance Knob as listed in the Roland Boutique JX-03 manual, is used to emphasise the frequencies at the point where the Cutoff Frequency (detailed above), begins to filter the sound. When set to minimum “0” Resonance will have no effect, but as the Parameter is increased more emphasis or harmonic boosting will occur at the cutoff point until at maximum “10”, when full harmonic ringing will occur. Unlike some synthesisers the JX-3P filter did not go into self-oscillation but has a very pleasing characteristic of its own that has been duplicated in operation on the JX-03.

**Envelope Modulation**



Envelope Modulation or Env Mod Knob as listed in the Roland Boutique JX-03 manual; sets the amount if any the Envelope Generator (detailed below), will control the VCF Cutoff (detailed above) over time, in the direction determine by the Envelope Polarity (detailed below). When set to minimum “0” the Envelope Generator or ADSR will have no effect on the VCF Cutoff, but as the value is increased so does the depth of control the ADSR will have on the VCF Cutoff until reaching maximum effect at “10”. Using envelopes to control VCF Cutoff is a very useful tool when creating both natural or synthetic sounds and can be subtle and/or extreme, especially when combined with LFO Modulation detailed below.

**Envelope Polarity**



Envelope Polarity or [H/W] switch as listed in the Roland Boutique JX-03 manual, is used to define the polarity or direction of the Envelope Generator ADSR (detailed below). Two choices are available, Normal and Inverted “True Zero” as detailed below.

**Normal**

When Normal Polarity is selected the ADSR will operate as it does for the Voltage Controlled Amplifier “VCA” detailed below, in a positive direction. When controlling VCF; the filter frequency will always travel up the range removing less frequencies and then back to the Cutoff value, as define by the ADSR and in relation to the Envelope Modulation detailed above.

## Inverted

When Inverted Polarity is selected the ADSR will operate in the reverse direction allowing for negative envelope shaping. When controlling VCF; the filter frequency will always travel down the range removing more frequencies until reaching the Cutoff value and then back up the range, as define by the ADSR and in relation to the Envelope Modulation detailed above.

## LFO Modulation

LFO Modulation

LFO Modulation or LFO Mod knob as listed in the Roland Boutique JX-03 manual, sets the amount if any the LFO detailed above will modulate the VCF Cutoff also detailed above. When set to minimum “0” the LFO will have no effect on the VCF Cutoff, but as the value is increased so does the modulation of the Cutoff until reaching maximum depth at “10”. Cutoff modulation can be used to create a large range of effects from wah-wah to resonant sweeping.

## Key Follow

Key Follow

Key Follow or Pitch Follow knob as listed in the Roland Boutique JX-03 manual, adjusts the way in which the keyboard pitch controls the VCF Cutoff, in much the same way acoustic instruments do. When the value is at minimum “0” the Cutoff Frequency will not change in relation to the key played, allowing higher scaled notes to actually sound more mellow than the lower notes. As the Parameter value is increased the Cutoff Frequency will start to rise allowing the tone colour of the higher notes to become more akin to the lower until at maximum “10” when the upper notes will be brighter. Note; The Pitch Follow knob has a 100% marker or 1:1 basis, allowing the filter to track the keyboard scale note for note, creating a more natural response.

## VOLTAGE CONTROLLED AMPLIFIER

06) Voltage Controlled Amplifier  
 Mode   
 Level

### FigureJX-03m

The Voltage Controlled Amplifier or VCA as listed in the Roland Boutique JX-03 manual, adjusts the volume of the sound. No amplification takes place in the VCA but the contours of sounds passing through the VCA can be controlled by the Envelope Generator detailed below.

## Mode

Mode

Mode or [A/V] switch as listed in the Roland Boutique JX-03 manual, is used to define how the volume of the VCA is controlled. Two options are available “Envelope or Gate”, detailed below.

### Envelope

Envelope as listed in the Roland Boutique JX-03 manual, defines that the Envelope Generator detailed below, is used to control the volume of the VCA.

### Gate

Gate or gate signal as listed in the Roland Boutique JX-03 manual, defines that the Gate signal will be used to control the volume of the VCA. The Gate signal is a square wave trigger and works as expected, when the key is pressed, the volume is instantly set to maximum and remains at this constant level until the key is released and the volume is instantly return to zero or off.

## Level

Level

Level or Level knob as listed in the Roland Boutique JX-03 manual, defines the depth or loudness range that the Envelope Generator (detailed below), or Gate (detailed above) can control. When the value is at minimum “0” there will be no volume but as the value is raised the volume increases until at maximum “10” full volume. Use this Parameter to even out sounds and prevent output distortion.

## ENVELOPE GENERATOR

| 07) Envelope Generator |                  |
|------------------------|------------------|
| Attack                 | 0                |
| Decay                  | 3.96078431372549 |
| Sustain                | 10               |
| Release                | 3.41176470588235 |

FigureJX-03n

Envelope Generator or Envelope as listed in the Roland Boutique JX-03 manual, is used to create time-varying changes to the VCA Level, DCO1 and DCO2 frequency and VCF Cutoff depending on other Parameter settings as detailed above. Only one envelope is available to the JX-03 and this is a standard Attack, Decay, Sustain, Release or “ADSR” envelope as detailed below.

**Attack**

Attack or Attack knob as listed in the Roland Boutique JX-03 manual, is a time control and defines the amount of time it takes for the envelope to reach the maximum point after receiving note on. When set to minimum “0” the attack time will be instant but as the value is increased so does the attack time until reaching maximum “10” or ten seconds. The original JX-3P ADSR specifications are not listed in the service notes but the Roland Cloud JX-3P attack time is four and a half seconds.

**Decay**

Decay or Decay knob as listed in the Roland Boutique JX-03 manual, is a time control and defines the amount of time it takes for the envelope to reach the Sustain (detailed below), after completing the Attack as detailed above. When set to minimum “0” the decay time will be instant but as the value is increased so does the decay time until reaching maximum “10” or eighteen seconds. The original JX-3P ADSR specifications are not listed in the service notes but the Roland Cloud JX-3P decay time is nineteen and a half seconds.

**Sustain**

Sustain or Sustain knob as listed in the Roland Boutique JX-03 manual, is a level and not a time control like the others (A, D and R) and defines the level at which the envelope will Sustain after Decay completion but before note off. When set to minimum “0” the level will be at its lowest point in relation to any Parameter controlled by the envelope, as the Sustain value increases so does the level of the controlled Parameter until at maximum “10” or the highest point. However, when Polarity is Inversed, these points will be reversed. When controlling VCA for instance; the Sustain Parameter sets the constant volume after Attack and Decay times, in relation to the VCA Level detailed above. If Sustain is set to minimum “0”, any note reaching this point will be terminated “note off”, and no Release time will be followed. When controlling either DCO or VCF, the Sustain Parameter sets the constant frequency in relation to the Polarity, Envelope Modulation and any tuning or cutoff values as fully detailed above. Remember; the Envelope Generator has no effect on either DCO or VCF if Envelope Modulation is set to minimum “0”, or any related Frequency Modulation Envelope switch is set to “False”, as fully detailed above.

**Release**

Release or Release knob as listed in the Roland Boutique JX-03 manual, is a time control and defines the amount of time it takes for the envelope to complete after receiving note off. When set to minimum “0” the release time will be instant but as the value is increased so does the release time until reaching maximum “10” or eighteen seconds. The original JX-3P ADSR specifications are not listed in the service notes but the Roland Cloud JX-3P release time is nineteen seconds.

**DELAY**

|                  |    |
|------------------|----|
| <b>08) Delay</b> |    |
| Level            | 7  |
| Time             | 11 |
| Feedback         | 6  |

FigureJX-03p

Delay or Delay Effect as listed in the Roland Boutique JX-03 manual, can be used to create basic repeat effects that range from a very fast metallic ringing to timed pattern repeats.

**Level**

Level

Level or Delay Level as listed in the Roland Boutique JX-03 manual, defines the loudness of the effect generated by the Time and Feedback Parameters detailed below. Sixteen different choices are available, starting with minimum “0” or “Off” followed by “1” being hardly audible and then gradually increasing until at maximum “15”, which is slightly less than the original sound for the first repeat and getting progressively quieter over the duration of the effect Feedback (detailed below).

**Time**

Time

Time or Delay Time as listed in the Roland Boutique JX-03 manual, defines the Time by which the repeat will be delayed. Sixteen choices are available starting with minimum “0” or very fast and gradually increasing to a maximum of “15” or around 700ms, the slowest repeat choice.

**Feedback**

Feedback

Feedback or Delay Feedback as listed in the Roland Boutique JX-03 manual, defines the number of repeats used by the effect. Sixteen choices are available starting with minimum “0” or one repeat, gradually increasing the number of repeats until reaching the maximum “15” or full Feedback, which depending on the Time Parameter (detailed above) could continue for over two hundred repeats.

**PORTAMENTO**

|                       |       |
|-----------------------|-------|
| <b>09) Portamento</b> |       |
| Enabled               | False |
| Time                  | 100   |

FigureJX-03q

Portamento as listed in the Roland Boutique JX-03 manual, is used to create smooth pitch changes between one key and the next key played.

**Enabled**

Enabled

Enabled or Portamento Switch as listed in the Roland Boutique JX-03 manual, defines whether the Portamento effect is switched “On” True or “Off” False. When the Portamento effect is “True” notes will pitch slide from the last played key to the next played key, either sliding up or down to the new played key depending on the location of the last played key. The speed of the pitch slide is governed by the Time Parameter detailed below.

**Time**

Time

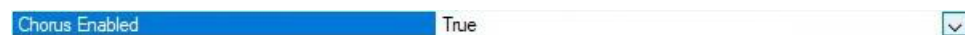
Time or Portamento Time as listed in the Roland Boutique JX-03 manual, defines the speed of the pitch slide as mentioned above. When set to minimum “0” the pitch slide will be so quick that it will not be noticed unless using the full key scale but becomes more noticeable as the Parameter is increased until reaching maximum “255” which is so slow that notes may not have actually reached the correct pitch before another key is played. Originally the JX-03 minimized the value to “100” as detailed in the JX-03 manual, but this has been increased to “255”, the maximum eight-bit value.

## OTHER

|                  |            |
|------------------|------------|
| 10) Other        |            |
| Chorus Enabled   | True       |
| Assign Mode      | Polyphonic |
| Pitch Bend Range | 2          |

FigureJX-03r

Other is the last of the Roland JX-03 Plugin Parameter Groups, containing three Parameters.

**Chorus Enabled**

Chorus Enabled or CHORUS Button as listed in the Roland Boutique JX-03 manual, defines whether the famous JX-3P Chorus effect is enabled “True” or Disabled “False”. Just like the original JX-3P, this Chorus effect has no controls and is considerably noisy, but unlike the original JX-3P the JX-03 noise level can be adjusted or even removed as detailed below

**Chorus Noise**

The chorus effect has been designed to emulate the original JX-3P chorus unit, that was generically noisy as many analogue chorus circuitries were. This Chorus Noise can be adjusted and the setting is saved to the unit but it is not backed up. The Chorus Noise has three settings, 100% “default”, 50% and off. To adjust this setting press and hold the “MANUAL” button, then press and release “12” button. LED’s 1-3 will light but the current selection will flash, to change the selection press either 1-3 buttons “1=Off, 2=50%, 3=100%”. Once you are happy with your choice, release the “MANUAL” button, and your selection will be stored until changed or the unit is Factory Reset.

**Assign Mode**

Assign Mode or Solo/Unison/Poly Mode as listed in the Roland Boutique JX-03 manual, defines how the keyboard keys trigger the JX-03 notes or voices as more commonly known.

**Solo**

When Solo Assign Mode is selected the JX-03 becomes a monophonic synthesiser and only one key or voice can be played at any one time (one note or voice polyphony). This Assign Mode was not available on the original Roland JX-3P but is available on the Cloud JX-3P.

**Unison**

When Unison Assign Mode is selected the JX-03 becomes one large synthesiser playing all four voices simultaneously or in Unison. This Assign Mode was not available on the original JX-3P but is available on the Cloud JX-3P. Like the original Jupiter-8, the JX-03 Unison works by sharing the voices between the keys played. When one key is played all four voices are used just like the JP-08, but when two keys are played the voices are shared “two each” and so on, this way Unison can still be polyphonic as required instead of monophonic as is the case with many other synthesisers.

**Polyphonic**

When Polyphonic Assign Mode is selected the JX-03 becomes a four note or voice synthesiser, playing or assigning one voice for every key or note played. In this mode chords can be played and envelopes can be honoured polyphonically allowing for some keys to release without getting instantly replaced as they are in Unison detailed above.

**Pitch Bend Range**

Pitch Bend Range or Bend Range as listed in the Roland Boutique JX-03 manual, specifies the range in semitones assigned to MIDI pitchbend. Twenty-five choices are available starting with minimum “0” or “Off”, followed by “1-24” each number representing a semitone of pitchbend up/down. By default, Roland have selected “2” but True Zero is “Off”. The JX-03 LED’s will only identify “1-12” semitones, “13-24” are all identified as “24” even though the exact value has been stored.

## PULSE WIDTH MODULATION

Pulse Width Modulation or PWM as often referred to, is a modulation technique that generates variable-width pulses of different duty cycles. Traditionally created on synthesisers using an asymmetrical pulse waveform and a pulse width control to adjust the width of the pulse shape, this waveshape could then be varied in width by the LFO to create PWM. The original Roland JX-3P implemented PWM differently to the norm and this has caused many a debate over the years. This different approach has been duplicated in the JX-03 and can be used to create some unique waveshapes, see PWM Settings below.

### How PWM Works

The JX-03 still uses the asymmetrical pulse Waveform, but unlike many other synthesisers the duty cycle is adjusted through the use of the different synchronisation methods. By synchronising one DCO to another, the waveshape of the slave becomes enlarged or reduced to match that of the master when adjusting the frequency of the slave, thus creating different duty cycles. By varying or modulating the slave frequency with the LFO or Envelope Generator, PWM is created.

### PWM Settings

Start with a new Roland JX-03 Patch Snapshot and change the Range of both DCO's to "16", and the Waveforms to "Pulse". Next change the Cross Modulation to Oscillator Sync (DCO2-DCO1) or SYN1 if using the front panel knob, and the Source Mix to DCO2 or "5". Change the VCF Cutoff Frequency to "10", and the VCA Level to 12 o'clock "5", and play a note, you should hear a standard pulse shape. By increasing the Tune of DCO-2, you should hear the duty cycle changing. Return DCO-2 Tune to centre "0.0196", and switch on the DCO2 Frequency Modulation LFO "True". Adjust the DCO Modulator LFO Modulation knob, so that the marker lines up with the graphic line that links to the switches "1.1764", and play a note. You should now hear a slow PWM, by increasing the LFO Speed the modulation becomes faster, and by increasing the LFO Modulation, the modulation deepens.

## BACKUP\RESTORE

Backup\Restore as detailed in the Roland Boutique JX-03 manual, enables the JX-03 to become a USB mass storage device or USB Synth as detailed in the SoundDiviner main manual. Once in mass storage mode SoundDiviner can read from and write to the JX-03 virtual drive but you will still need to complete the writing process by pushing the Manual button as detailed in the JX-03 manual. To activate Backup\Restore, turn the JX-03 "On" whilst holding patch number "2" then release the patch number button when the lights come on. A drive window will open called "JX-03 (X:)" where "X" is the assigned drive letter, you can close this as it is not required. Remember; When accessing Removable Drive JX-03 (1.00MB), you will need to confirm Admin Rights and User Account Control as detailed in the main manual to access the virtual drive (see READ or WRITE DISK SNAPSHOT).

## PATCH SHEET PLUGIN

Unlike the Roland Boutique JX-03, some synthesisers didn't have program or Preset memory and these models are supported in SoundDiviner through the use of Patch Sheet Plugins. Patch Sheets have always been a very useful way to share and keep records for all synths not just those without memory, taking this all into account the JX-03 Patch Sheet Plugin is also available separately.

### Roland Boutique JX-03 Patch Sheet Plugin

After installation Roland Boutique JX-03 (patch sheet) will be available as a Device and should be considered as a Device in its own right that works independently of the Roland Boutique JX-03 Synthesiser Plugin described throughout this manual. Either used on its own or in combination with the Synthesiser Plugin the Patch Sheet Plugin is a very useful addition that is supplied with the required Adaptor Plugin for Patch Snapshot conversion (Roland Boutique JX-03<-> Roland Boutique JX-03 Patch Sheet), for more information on the Roland Boutique JX-03 Patch Sheet Plugin see the related Patch Sheet Plugin manual.

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