



# VST-AU Pulse Editor™ 2.1.0 User Manual



 Windows XP, Vista, Windows 7

 OSX 10.5, 10.6

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# VST-AU Pulse Editor™ 2.1.0

## User Manual

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# Introduction

Thank you for choosing the reKon audio VST-AU Pulse Editor™. The VST-AU Pulse Editor™ (also referred to in this manual as 'Editor') is a real-time MIDI Synth Editor that allows you full control of every parameter of the sound on the Waldorf Pulse™ and Pulse Plus™ synthesizers (also referred to in this manual as 'Synth'). With it, you can view, manage and edit all your Patches with detail on the computer, visually. All parameters are fully automatable in your favorite VST or AU Host (see product web page for current Host support), giving you the ability to visually program the Pulse to your music via the Host sequencer. This ability to model your Synth Patches in real-time, inside your main music production environment is part of what makes the VST-AU Pulse Editor™ unique when compared to other hardware Synth Editors. If you don't need or use a DAW Host, you can still manage the Patches with the Standalone version.

## Complete Synth Editor

The VST-AU Pulse Editor™ is a visual editor allowing you to view and edit every parameter of a Waldorf Pulse or Pulse Plus Patch and supports the all the latest Pulse OS version 2.01 parameters.

## Advanced Patch Librarian

The VST-AU Pulse Editor™ includes an advanced 'Patch Manager' view that allows you to rename and arrange Patches to create your Bank. Drag and drop Patches where you want them with a complete overview of the Bank in either Swap, Copy, or Move mode. You can load and save your Patches and Banks as standard .FXB/.FXP files or standard System Exclusive .SYX files.

## Patch Randomizer

The VST-AU Pulse Editor™ also includes a 'Patch Randomizer' that allows you to easily create randomly generated Patches.

## MIDI Input and Output Monitoring

The 'MIDI Monitor' view allows you to view all MIDI data coming into and out of the VST-AU Pulse Editor™ for both the Host and Editor MIDI data paths. Easily switch between Host and Editor views. You can even copy the data from the event logs for pasting and saving into standard text editors or other applications.

## MIDI Setup

The VST-AU Pulse Editor™ is based on an entirely new framework that allows you to select the MIDI input and output ports and channels directly from within the Editor itself. This allows you to send and receive MIDI data directly to and from your Synth. You are no longer limited by any Host MIDI incapacibilities. 'MIDI Setup' also allows you to filter out specific MIDI data for both Host and Editor MIDI data paths or toggle MIDI In and Out operations.

## The Waldorf Pulse™ synthesizer...



The Waldorf Pulse™ is a rack mountable, monophonic analog synthesizer built in Germany. It sports three oscillators, two with pulse width, two LFOs, two assignable envelopes, a filter and amp section and an advanced arpeggiator. There is also a matrix of four modulation routings that are assignable by source and destination. This in part, is what gives the Pulse a unique sound characteristic. Later came the Waldorf Pulse Plus™, the same great synth, but fitted with the added capability of utilizing MIDI CV control and the ability to route external signals through the Pulse's filter and amp sections.

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# Installation

This product includes an installer which will help you with the installation of the product. Please follow the detailed instructions below to install and register your License Key to begin using the software product.

## WINDOWS USERS:

1. Be sure to read this User Manual before you begin using this product. It contains detailed information regarding the MIDI setup procedures required to successfully connect to your computer and synthesizer.
2. Run the installer file. This will install the VST and Standalone application and related files to the following folders on your computer:

### For 32-bit Windows operating systems:

VST: c:/Program Files/Common Files/VST2/reKon audio/VST-AU Pulse Editor/  
Standalone: c:/Program Files/reKon audio/VST-AU Pulse Editor/

### For 64-bit Windows operating systems:

VST: c:/Program Files (x86)/Common Files/VST2/reKon audio/VST-AU Pulse Editor/  
Standalone: c:/Program Files (x86)/reKon audio/VST-AU Pulse Editor/

*\*Note that this product is a 32-bit product and is not designed to run natively in 64-bit DAW Hosts. Bridge applications may or may not work.*

3. Place your provided license key (.rkl file) into each of the folders from step 2 to begin using the product.

## MAC OSX USERS:

1. Be sure to read the provided PDF manual before you begin using this product. It contains detailed information regarding the 'MIDI Setup' procedures required to successfully connect to your computer and synthesizer.
2. Run the installer file. This will install the VST, AU and Standalone application and related files to the following folders on your computer:

AU: Library/Audio/Plug-Ins/Components/reKon audio/VST-AU Pulse Editor/  
VST: Library/Audio/Plug-Ins/VST/reKon audio/VST-AU Pulse Editor/  
Standalone: Applications/reKon audio/VST-AU Pulse Editor/

*\*Note that you may need to copy the VST and Component folder files to your ~User/Library/Audio/Plug-Ins/ folder for your Host to be able to find them.*

3. Place your provided license key (.rkl file) into each of the folders from step 2 to begin using the product.
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# MIDI Setup

## Assumptions

It is assumed that the user is familiar with the basic functionality of the hardware synthesizer, its User Manual and the basic concept of MIDI itself. Without this knowledge, utilizing the Editor may be a bit more challenging to set up and use properly. By familiarizing yourself with the the synthesizer manufacturers User Manual, this User Manual, and having a basic understanding of MIDI, you should be able to get up and running in a short amount of time.

## Setting Up the Synth

Make sure you have your MIDI ports and channels set up and matching properly and that all cables are working and connected properly.

1. This software is designed to be used with Pulse OS version **1.4 or above**. Firmware versions above this may or may not be supported by this version of the VST-AU Pulse Editor™.
2. Set the MIDI IN and Out ports and channels to the one connected to your computer.

## Setting Up the Plug-in for your Host (DAW)

The setup procedure will vary by Host. Each Host will support plug-ins differently. Please refer to the 'Supported Hosts' list for this products support web page on the reKon audio web site at [www.rekonaudio.com](http://www.rekonaudio.com). Also, please refer to the setup instructions provided with your Host application for setting up a VST or AU plug-in.

## Syncing both the DAW Host and the Editor with the Synth

The Editor gives you several options for routing MIDI data bidirectionally. As a result, you can send Host MIDI data into the Editor, which in turn, will get sent on to the Synth via the Editors MIDI Out port. In this process, the MIDI data is actually transferring between two separate MIDI systems; the Host's, and the Editor's. This transfer process may work fine for previewing your sounds, and possibly smaller projects, but will likely not suffice for a lot of sequenced data. If you are having issues with syncing and hearing delayed or offset playback from the Synth when using the Host to send MIDI data to the Synth through the Editor, then you can create a setup that prevents the latency/syncing issues.

You can use a Virtual MIDI Cable and a MIDI Routing Application to allow BOTH the DAW host and the Editor direct access to the same MIDI Output port using their own systems. This allows you to have the DAW host sequencer send it's data straight to the synth. And, the Editor will have it's direct connection to the synth as well.

Here's how to set it all up. (In this example, the following tools were used. Other tools may work in a similar way):

- Windows 7 64bit (with a MOTU MIDI Express XT using port 8 to connect to the Synth MIDI In and Out)
- [MIDI-Ox](#) (a free MIDI Routing App)
- [LoopBe](#) (Virtual MIDI Cable). ([MIDI Yoke](#) and [Maple MIDI](#) will work with 32bit Win OS, but not 64bit Win OS).
- Any reKon audio VST-AU Editor™ product.
- [Cubase 5](#) 32bit (DAW host).

1. Open the DAW host. In the DAW host MIDI setup (typically found under 'Preferences') disable the port that you are using to connect the synth to the editor. (ex. port 8).
2. Using a Virtual MIDI Cable (MIDI Yoke, Maple MIDI or LoopBe for Windows, it's free. Use 'Audio MIDI Setup' app on Mac and create a virtual device, also free). Make sure the VMC is installed and working properly first!
3. Using a MIDI Routing app (MIDI-Ox for Windows, it's free. Use 'Audio MIDI Setup' app on Mac, also free). Open MIDI-Ox and make the following connections:
  1. Open the 'Options/MIDI Devices' view and make sure you have selected the MIDI Out port you are using to connect to the synth (ex. port 8).

2. Open the 'MIDI Port Routing' view and disconnect all cables first. Then connect the 'Loopbe MIDI Input' port to the MIDI port going to the synth (ex. port 8 Output).
3. Also connect the 'LoopBe MIDI Output' port to the 'MIDI-OX Event Port'.
4. Also connect the 'MIDI-OX Event Port' to the port connected to the synth (ex. port 8).
5. Load the VST-AU Editor plug-in. (see your host documentation for using soft-synth plug-ins).
6. Open the 'MIDI Setup' view in the VST-AU Editor.
7. Set the 'Editor MIDI In' and 'Editor MIDI Out' ports and channels to that connected to the synth (ex. port 8).
8. In the DAW host, select the track that was created for the plug-in.
9. A. Note that you do not need (or want, in this case) to connect the MIDI tracks I/O's to any MIDI Inputs or Outputs, or to the Editor. Instead, you can use this track to send Note On/Off, Pitch, Modwheel, etc. data straight to the synth by doing the following:
  - Set the track's MIDI Input to a MIDI Controller Keyboard.
  - Set the track's MIDI Output to the 'LoopBe Internal MIDI' port. This will send the Note On/Off, Pitch, Modwheel data to the synth directly from your Host sequencer track instead of through the Editor.

In this arrangement, the Editor has direct access to the synth AND the DAW Host sequencer also has direct access to the synth.

Your music should now be in sync with the DAW host and still have automation control through the plug-in. The Editor also has direct communication with the synth.

**IMPORTANT NOTE!!!** When using the plug-in in a Host application, you must first disable the MIDI port that you will be using the hardware Synth/ Editor on in the Host's MIDI setup. This will then make that port available for use within the plug-ins' MIDI setup. Failing to do this will not allow the MIDI port in the plug-in to work and the software will not be able to communicate with the hardware. You can use a virtual MIDI port (loopBe, etc.) if you wish to have your MIDI ports available to both the Host and the Editor.

## Setup Example for Cubase 4-6

To setup the VST-AU Pulse Editor™ for Cubase SX 2-3 or Cubase 4-6:

1. First be sure to open Cubase 'MIDI Setup' dialog and deactivate the MIDI ports you will be using to connect the Synth to the Editor. Be sure to check your Host's VST Instrument plug-ins folder to make sure the Editor got installed there properly. Also make sure the License Key and Preferences files are copied to the same folder as the plug-in.
2. Open Cubase.
3. Create a new project.
4. Open your 'VST Instruments' panel and then select the 'VST-AU Pulse Editor™' VST in a VST slot. Add a MIDI Track for this if you want one (useful for MIDI keyboard control to the Synth).
5. Click the 'MIDI Setup' button in the Editor and select the MIDI Input and Output port your Synth is attached to.
6. Open the 'MIDI Monitor' view to make sure data is transmitted properly between Synth and Editor.
- 7 If you are running the software for the first time, you will need to load the default bank file into the editor via the 'Patch Manager'. Once loaded and saved in your host, your host should remember the settings you last used automatically. You should always save your bank files manually to be certain you are not losing anything important.

### Automation:

1. Select the track the Editor is on. In the 'VST Instrument' track you will see one automated parameter showing called 'Volume', you can use the menu there to select the parameter(s) you wish to automate. Please refer to the Cubase User Manual for more information on using automation.

## Setup Example for Ableton Live 8

To setup the VST-AU Pulse Editor™ for Ableton Live 8:

1. First be sure to open Live's 'Preferences' dialog and deactivate the MIDI ports you will be using to connect the Synth to the Editor. Be sure to check your Host's VST Instrument plug-ins folder to make sure the Editor got installed there properly. Also make sure the License Key and Preferences files are copied to the same folder as the plug-in.
2. Open Ableton Live 8. Create an Empty Project.

3. Drag the plug-in from the 'Plug-In Devices' box to the track screen The Editor should appear.
4. In the Instrument track that was created, click the 'MIDI From' combo box and select a MIDI port that you wish to use for a MIDI controller keyboard. Activate this track to allow MIDI to go through.
5. Open the 'MIDI Setup' view in the editor and select the MIDI ports that are connected to your Synth for both the Editor MIDI In and Editor MIDI Out sections. Close the MIDI Setup view.
6. Turn a knob in the editor, you should see MIDI data being sent out to the port you selected in step 5. Open the 'MIDI Monitor' view to make sure data is transmitted properly between Synth and Editor.
7. If you are running the software for the first time, you will need to load the default bank file into the editor via the 'Patch Manager'. Once loaded and saved in your host, your host should remember the settings you last used automatically. You should always save your bank files manually to be certain you are not losing anything important.
8. Create another 'Audio' track and route the audio from the audio port your Synth is connected to.

**Automation:**

1. Select the track the Editor is on. In the 'Info View' panel in Live, click the 'Configure' button. Now select the parameters you wish to automate by clicking on them in the Editor. When you are done, click the 'Configure' button again. You can now automate these parameters in your Live tracks. Please refer to the Live User Manual for more information on using automation.

\*Note that Live 8 does not automatically create or show automated parameters for plug-ins that have more than 32 parameters. You have to add them manually using 'configure' mode. See the Live User Manual section 16.2.1 for more information on the subject.

## Setup Example for Logic Pro 9

To setup the VST-AU Pulse Editor™ for Logic Pro 9:

1. Be sure to check your Host's VST Instrument plug-ins folder to make sure the Editor got installed there properly. Also make sure the License Key and Preferences files are copied to the same folder as the plug-in.
2. Open Logic Pro 9. Create an Empty Project.
3. In the 'New Tracks' dialog that automatically pops up, select 'Type= Software Instrument'. Click 'Create' button.
4. In the Instrument track that was created, click the 'I/O' button (located on the far left near the bottom right below the 'I/O' label and above the 'Stereo Out' button).
5. Select the editor under 'AU Instruments/reKonaudio/VST-AU Pulse Editor'. The plug-in should appear.
6. Open the 'MIDI Setup' view in the editor and select the MIDI ports that are connected to your Synth for both the Editor MIDI In and Editor MIDI Out sections. Close the MIDI Setup view.
7. Turn a knob in the editor, you should see MIDI data being sent out to the port you selected in step 5. You can open the MIDI Monitor to verify this as well and see what messages are being sent or your MIDI hardware MIDI activity LED's.
8. Open the 'Patches' window and load in a bank of patches. You can use the default bank provided with the software to start with. When you change patches, the editor patch data will be sent to the synth.
9. In Logic, create another 'Audio' track and route the audio from the audio port your Synth is connected to.

**Automation:**

1. Select the track the Editor is on and click the 'View' menu and select 'Automation' (or use the 'A' key). You will see the automation lanes for the Editor. You can add automation lanes for parameters you wish to automate. Please refer to the Logic User Manual for more information on using automation.

\*Note that Logic Pro does not have a MIDI Setup dialog that would allow you to select the ports you wish to activate or deactivate. It uses the Mac IAC driver (OSX Audio/MIDI Setup application) for its MIDI ports. As a result, choose routings carefully to avoid MIDI feedback loops or breaking the Editor's MIDI connection.

*NOTES- Setup for other Hosts is similar to those listed above. Please refer to your Hosts documentation for setting up a plug-in.*

## Setting Up the Plug-in for Standalone

The setup procedure for Standalone operation is fairly straightforward...

1. If other Audio/MIDI applications are already open, then take this into consideration when using the Standalone application. Make sure the MIDI port you will be using is available for use with the VST-AU Pulse Editor™.
  2. Open the VST-AU Pulse Editor™.
  3. Open the 'Devices' dialog and select the preferred audio card settings and 'Host' MIDI Input. This is useful for controlling the Synth from a remote MIDI keyboard.
  4. Click the 'MIDI Setup' button in the Editor and select the MIDI Input and Output port your Synth is attached to.
  5. Open the 'MIDI Monitor' view to make sure data is transmitted properly between Synth and Editor.
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# Working With the VST-AU Pulse Editor™

## About Sound

The VST-AU Pulse Editor™ is a plug-in that deals only with MIDI data. As a result the VST-AU Pulse Editor™ makes no sound of its own. It is not an emulation software synth. The sound comes from the actual hardware synth itself, which is what you want (pure analog hardware generated sound, but with plug-in control). Connect your Synth to your audio card inputs as you normally would and use the Host to manage the audio tracks.

## Using the Controls

Most controls on the VST-AU Pulse Editor™ are self explanatory as to their use. The display readouts will vary based on the related ranges and values for that particular control.

## Mouse Wheel Support

You can use the mouse wheel to change knob and slider parameters in single increments for fine-tuned parameter control.

## Receiving MIDI Data

The VST-AU Pulse Editor™ can receive and interpret MIDI pitch wheel, modulation and control change data. All Editor controls will respond to their correlated MIDI messages from the hardware itself. All controls respond to their correlated MIDI CC numbers as listed in the Pulse User Manual.

## The MIDI LED Indicators

When the VST-AU Pulse Editor™ receives or transmits Host or Editor MIDI data, the corresponding MIDI LED's will blink to notify you. You can turn off the MIDI LED's in the 'MIDI Setup' view.

## The About Screen

To view the About screen, click on the VST-AU Pulse Editor™ logo button. The about screen shows your registered name and serial number as well as the product version.

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# The Graphical User Interfaces

## Using The Graphical User Interface

The graphical user interface of the VST-AU Pulse Editor™ is designed for maximum ease of use, giving you easy access to all of the parameters right on one screen. You are also able to rename, modify and browse the Patches right inside the Editor itself. All controls are handled via either a slider, knob, combo box, button or text edit box.

## The Main User Interface

The VST-AU Pulse Editor™ main screen (not to scale)...



## The Patch Interface



The 'Patch' area allows you to access all the functions of the Patch:

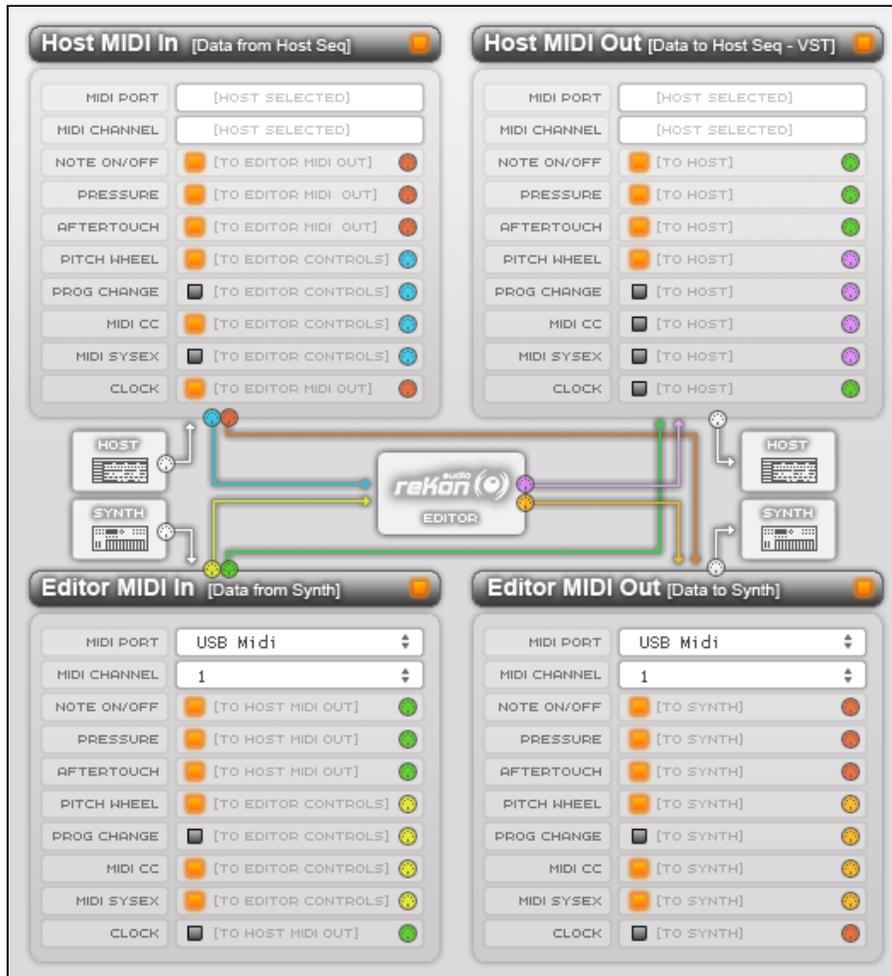
1. Patch Name - Shows the Patch name. Click on this to edit the Patch name (limit 16 characters). Some hosts do not allow plug-ins to use keystrokes on the main plug-in window. You can still use the Patch Manager to rename the Patch in this case.
2. Patch Number - Shows the Patch number. Click on this to select the Patch number from a list.

3. Patch Increment - Move up one Patch.
  4. Patch Decrement - Move down one Patch.
  5. COPY button - Copy this Patch to clipboard.
  6. PASTE button - Paste from clipboard to Patch.
  7. GET | SET PATCH buttons - This will get or set the current Patch to/from the Synth and Editor.
  8. GET | SET BANK buttons - This will get or set the current Bank to/from the Synth and Editor.
  9. RAND button - Click to randomize the Patch.
  10. PATCH button - Opens the 'Patch Manager' view (see 'Patch Manager' section).
  11. SETUP button - Opens the 'MIDI Setup' view (see 'MIDI Setup' section).
  12. MON button - Opens the 'MIDI Monitor' view (see 'MIDI Monitor' section).
-

## MIDI Setup

To access the 'MIDI Setup' view, click the 'MIDI Setup' button. The 'MIDI Setup' view allows you to connect and control the MIDI data coming into and out of the Editor and Host. You will need to open this view directly after instantiating the software in order to setup up communication between the Synth and Editor. Once you have done this, the software will remember your settings. You can toggle the filtering of specific MIDI data for both the Host and Editor MIDI data paths.

If you carefully inspect the diagram in the middle, you can see exactly what data gets routed where. To make things a bit easier to differentiate, there is a color coding scheme for the MIDI data. The 'MIDI Monitor' view will show messages in these same colors.



**IMPORTANT NOTICE!!!** Since this software allows you to route and filter MIDI data bidirectionally, it is best to activate only the check boxes for the specific messages you require. Otherwise, it may be possible to create a MIDI feedback loop under certain circumstances. It is up to the user to determine and understand the routings and connections being made to and from the Editor and also diagnose where any problems may be occurring.

## Host MIDI Setup

The top portion of the screen is for the 'Host' MIDI IN and Out data path. This is data that comes from and goes to the DAW Host. MIDI port selection is achieved in the Host's MIDI setup.

### Host MIDI In (data from Host):

The left portion is the Host MIDI In'. This is data that comes from the Host into the Editor. You may want to activate these if you are using a MIDI keyboard controller for sending Note, Pitch, Modwheel data to/from the Synth or if you are sending Host sequencer Note, Pitch, Modwheel data to the Synth through the Editor. You can activate these with the button on the top right of the module. Set the filtering options. Only activate the data paths and messages that you need. It is recommended to turn off the 'Program Change' functionality for all modules to avoid conflicts with the Editor.

### Host MIDI Out (data to Host):

The right portion is the 'Host MIDI Out'. This is data that comes from the Editor to the Host. You may want to activate these if you are sending data from the Synth or Editor for track recording in the Host. Set the filtering options. Only activate the data paths and messages that you need. It is recommended to turn off the 'Program Change' functionality for all modules to avoid conflicts with the Editor. Be sure to read the section on 'A note on Sysex MIDI and Host Plug-in Capabilities' as you normally cannot send Sysex MIDI data to a Host. Also, Hosts will differ on how and what MIDI data they can interpret. Please refer to your Host User Manual for this information.

## Editor MIDI Setup

The bottom portion of the screen is for the 'Editor' MIDI IN and Out data path. These should be activated to allow communication between the Editor and the Synth. You can activate these with the button on the top right of the module.

### Editor MIDI In (data from Synth):

The left portion is the 'Editor MIDI In'. This is data that comes from the Synth into the Editor. All Editor controls will respond to their correlated MIDI messages from the hardware itself. All controls respond to their correlated MIDI CC numbers as listed in the Pulse Users Manual. Set the MIDI port and channel that the Synth is connected to. Set the filtering options. Only activate the data paths and messages that you need. It is recommended to turn off the 'Program Change' functionality for all modules to avoid conflicts with the Editor.

### Editor MIDI Out (data to Synth):

The right portion is the 'Editor MIDI Out. This is data that comes from the Editor to the Synth. Set the MIDI port and channel that the Synth is connected to. Set the filtering options. Only activate the data paths and messages that you need. It is recommended to turn off the 'Program Change' functionality for all modules to avoid conflicts with the Editor. You will need all the other options turned on except the 'MIDI Clock' data for proper communication between Synth and Editor.

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## The MIDI Monitor

To access the 'MIDI Monitor' view, click the 'MIDI Monitor' button. The 'MIDI Monitor' allows you to view all MIDI data that is coming into or out of the Host and Editor. By default the view will show MIDI In/Out data from the Editor MIDI data path. You can switch between Host and Editor MIDI In and MIDI Out views independently. The colors of messages are related to the color coding found in the 'MIDI Setup' diagram. The 'Clear' button will clear the data in that view. The log view will show up to 1500 messages before clearing itself automatically. You can copy the data in the log view to other applications if necessary. The 'All' button will select and automatically copy to the clipboard that entire view's data. You can turn on/off the view with the button on the right.

The screenshot displays two panels of the MIDI Monitor interface. The top panel, titled 'Host MIDI In [Data from Host Seq]', shows a list of MIDI messages with a color-coded header. The bottom panel, titled 'Editor MIDI Out [Data to Synth]', shows a similar list of MIDI messages, including a SysEx message at the end. Both panels have a control bar with buttons for 'VIEW', 'HOST', 'EDIT', 'TEXT', 'ALL', 'COPY', and 'CLEAR', along with a status indicator.

```
Host MIDI In [Data from Host Seq]
90 21 65 Ch.1 Note On: A0 (33), Velocity: 101
90 21 00 Ch.1 Note Off: A0 (33), Velocity: 0
90 1D 2D Ch.1 Note On: F0 (29), Velocity: 45
90 1F 68 Ch.1 Note On: G0 (31), Velocity: 104
90 1D 00 Ch.1 Note Off: F0 (29), Velocity: 0
90 21 71 Ch.1 Note On: A0 (33), Velocity: 113
90 1F 00 Ch.1 Note Off: G0 (31), Velocity: 0
90 21 00 Ch.1 Note Off: A0 (33), Velocity: 0
B0 01 7F Ch.1 CC #1 (Modulation Wheel (coarse)), Value: 127
E0 67 3F Ch.1 Pitch Wheel: 8167 (-25)
E0 07 3F Ch.1 Pitch Wheel: 8071 (-121)
E0 17 3E Ch.1 Pitch Wheel: 7959 (-233)
E0 37 3D Ch.1 Pitch Wheel: 7863 (-329)
E0 47 3C Ch.1 Pitch Wheel: 7751 (-441)
E0 67 3B Ch.1 Pitch Wheel: 7655 (-537)
E0 47 3C Ch.1 Pitch Wheel: 7751 (-441)
E0 77 3D Ch.1 Pitch Wheel: 7927 (-265)
E0 07 3F Ch.1 Pitch Wheel: 8071 (-121)
E0 00 40 Ch.1 Pitch Wheel: 8192 (Center)

Editor MIDI Out [Data to Synth]
40 0E 04 B1 04 08 B8 02 01 01 03 34 02 40 48 7A 40 0C 0F 13 41 40 40 00 00
00 00 7F F7
90 21 68 Ch.1 Note On: A0 (33), Velocity: 107
90 21 00 Ch.1 Note Off: A0 (33), Velocity: 0
90 21 65 Ch.1 Note On: A0 (33), Velocity: 101
90 21 00 Ch.1 Note Off: A0 (33), Velocity: 0
90 1D 2D Ch.1 Note On: F0 (29), Velocity: 45
90 1F 68 Ch.1 Note On: G0 (31), Velocity: 104
90 1D 00 Ch.1 Note Off: F0 (29), Velocity: 0
90 21 71 Ch.1 Note On: A0 (33), Velocity: 113
90 1F 00 Ch.1 Note Off: G0 (31), Velocity: 0
90 21 00 Ch.1 Note Off: A0 (33), Velocity: 0
B0 01 7F Ch.1 CC #1 (Modulation Wheel (coarse)), Value: 127
E0 67 3F Ch.1 Pitch Wheel: 8167 (-25)
E0 17 3E Ch.1 Pitch Wheel: 7959 (-233)
E0 37 3D Ch.1 Pitch Wheel: 7863 (-329)
E0 47 3C Ch.1 Pitch Wheel: 7751 (-441)
E0 67 3B Ch.1 Pitch Wheel: 7655 (-537)
E0 77 3D Ch.1 Pitch Wheel: 7927 (-265)
E0 00 40 Ch.1 Pitch Wheel: 8192 (Center)
B0 7B 00 Ch.1 CC #123 (All Notes Off), Value: 0
Sysex: F0 3E 0B 7F 00 04 34 32 00 61 34 4D 00 61 00 01 34 4D 00 1E 1E 00
```

## The Patch Manager

To access the 'Patch Manager' view, click the 'Patch Manager' button. The 'Patch Manager' allows you to load and save Patches and Banks as .FXB/.FXP files or standard System Exclusive .SYX files. You can also export your Patch Names list as a .TXT file. The 'Patch Manager' also allows you to view and organize your Patches and Banks the way you like. Patch slots allow you to rename and organize your Patches by simply dragging and dropping them to another slot in either Swap, Copy, or Move mode. To do this, click on the Patch number box (with red numbers) and while holding down the mouse button drag this Patch to another location by dropping it on the Patch name box (with white letters). A valid drop target will be indicated by a red outline. You can also double click on a Patch number to go to that Patch. It is recommended that you use only the 'Patch Manager' to load and save .FXB/.FXP files, as some Hosts may add data to the header of the file and this may corrupt the interpretation of the file when reloading it.



## The Patch Randomizer

The Patch randomizer allows you to easily create randomly generated Patches. Note that randomization applies to the currently selected Patch and will overwrite the existing Editor Patch data. The randomized Patch will also be sent to the Synth. The Patch name is not randomized, but instead named 'Random Patch #'. You may want to rename the randomized Patch. Press the 'RAND' button to randomize a Patch.

# Working With Patches

## How Patches work

A Patch in the Editor represents a Patch on the Synth. When you change Patches in the Editor, the Patch data is sent to the Synth in the form of MIDI Sysex messages to the Synths edit buffer. As a result, this data is sent to the Synth, but NOT permanently stored in the Synth. This allows you to listen to Patches from the Editor while still preserving your original Patches that reside in the Synth. If you wish to store the Patch data the Editor sent the Synth, then use the SET PATCH button. Or, store it on the Synth by using the Synths' 'write' function (refer to the Pulse manual for information on how to store a Patch).

## Using the Patch Manager

The 'Patch Manager' is the easiest way to work with Patches. For more information refer to the 'Patch Manager' section of this manual. It is recommended that you use only the 'Patch Manager' to load and save .FXB/.FXP files, as some Hosts will add data to the header of the file and this may corrupt the interpretation of the file when reloading it.

## Changing the Current Patch

Use the arrow inc/dec buttons to the right of the display to change the currently selected Patch.

## Renaming the Current Patch

To rename your Patch, simply click on the name in the display readout and type the new name of your Patch, then hit the 'Enter' key. Pulse Patch names are limited to 24 characters. If you cannot type in text, then try using the Patch Manager to rename patches instead.

## Using the Copy/Paste Button

You can easily copy and paste Patches to and from the currently selected Patch to another location. First select the Patch you wish to copy by navigating to it. Now, click the 'Copy' button (you will notice the 'Copy' button light up). Next, navigate to the Patch you wish to paste to. Now click the 'Paste' button (the 'Copy' button will turn off). This tool is invaluable for creating variations of your favorite Patches and allows you to quickly build your library up.

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# Working With Sysex Patches and Banks

## Loading and Saving Sysex Patches and Banks

The VST-AU Pulse Editor™ can load and save standard sysex (system exclusive) Patch and Bank files. This makes importing, exporting and sharing your existing Patch libraries very easy. Use the 'Patch Manager' to load and save sysex Patch or Bank files. Once you have loaded a sysex Patch or Bank, the Editor will update with the loaded settings.

You can import banks into slots 1-40 or 41-80. To import to program slots 1-40, select any patch between 1-40 and then import a sysex bank file. To import to slots 41-80, select any patch between 41-80 and then import a sysex bank file.

## Importing Patches and Banks into the Editor From the Synth via Sysex

You can easily import your existing Patches and Banks directly from the Pulse into the Editor. There are a couple ways to do this. Choose the method below that is specific to your task.

Do not perform these tasks while running the Host sequencer. Stop the sequencer first!

### Importing a single Patch (Program Buffer to current Editor Patch):

1. Make sure you are connected bidirectionally (MIDI IN and Out to and from Synth).
2. Select the Patch on the Editor that you wish to import to.
3. Click the 'Patch Get' button and the Patch will be imported into the Editor.

### Importing a Bank (Programs 1-40 into the Editor Bank):

1. Make sure you are connected bidirectionally (MIDI IN and Out to and from Synth).
2. Click on the 'Bank Get' button. A dialog will open asking if you wish to proceed.
3. It will take about 20 seconds to complete the dump from the Synth into the Editor. You will see the Editor MIDI In LED's lighting up as the dump is processing and the progress bar showing the transfer progress.

## Saving Patches and Banks into the Synth via Sysex

You can 'permanently' save Patches and Banks to the Pulse from the Editor. (Note this will overwrite your existing Patches and Bank data in the Pulse. Be sure to back up your existing Patches and Banks first!)

Do not perform these tasks while running the Host sequencer. Stop the sequencer first!

### Permanently saving a single Patch to the Pulse:

1. Click the Send Patch button to permanently store the patch on the Pulse, or use the Pulse's 'write' capability to store a single Patch.

### Permanently saving the Editor Bank to the Pulse:

1. Make sure you are connected bidirectionally (MIDI IN and Out to and from Synth).
2. Make sure you turn off the 'Program Change' options in the 'MIDI Setup' view first!
3. In the Editor, click the 'Bank Send' button. A dialog will open asking if you wish to proceed. Transfer takes about 20 seconds.
5. The Pulse will now have permanently stored the new Bank data from the Editor.

**Note:** The Editor will only accept .syx files that are formatted specifically for the Waldorf Pulse.

### A note on Sysex MIDI and Host Plug-in Capabilities.

Sysex data from a VSTi to the Host is not widely supported by most Host DAW manufactures. Also, Sysex data is typically not real-time data, so incorporating Sysex data transmission into a VSTi is not exactly an elegant or feasible solution. Instead, we can import and export this data while the Host Sequencer is not running. You can still perform parameter edits while the Sequencer is running.

## MIDI Implementation Chart

The following MIDI data is transmitted (Tx) and Received (Rx) from the Editor and may be filtered as well...

| Message                       | Tx | Rx | Notes              |
|-------------------------------|----|----|--------------------|
| Channel                       | o  | o  | 1-16               |
| Mode                          | x  | x  | Omni mode          |
| Note On/Off                   | o  | o  | note numbers 0-127 |
| Velocity                      | o  | o  | 0-127              |
| Aftertouch                    | o  | o  | 0-127              |
| Poly Pressure                 | o  | o  | 0-127              |
| Pitch bend                    | o  | o  | 0-127              |
| Modulation                    | o  | o  | 0-127              |
| Continuous Controller (+NRPN) | o  | o  | 0-127              |
| Program Change                | o  | o  | 0-127              |
| System Common                 | x  | x  |                    |
| System Real-time              | x  | x  |                    |
| System Exclusive              | o  | o  |                    |

x = no

o = yes

For a full list of the parameters and their value ranges, please refer to the Pulse User Manual.

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