# SOUNDMAGIC Neo Piano Manual



Developed by:



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# **Operational Manual**

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# 1. Installing Neo Piano

Neo Piano is provided as an installer package.

After downloading, simply double-click the installer file to install Neo Piano to your computer.

Neo Piano for Apple Mac VST and AU versions are 32 Bit / 64 Bit universal.

Neo Piano for Windows VST has separate 32 Bit and 64 Bit versions. Both Versions will be installed to the same Folder. If you use a different folder for your 64 Bit plug-ins, please manually copy the 64 Bit dll file (has 'x64' at the end of the file name) into your 64 Bit plugin folder.

# SOUNDMAGIC Nea Plano Reverb on Noises Weroth Damping

2. Selecting a Piano Instrument & Register Keycode

SOUNDMAGIC Ned Planp 1 Reverb Off Time Width Mix Surface Strooth E.R C C C C C C C C C C C C C C C C C C C	Noises Vecorr Podat Strings Hammer Off Style: Amount	Detruit
Harmonics Tone Perspective Gain Shift Low High Lid Player Audience	Tuning System Scale Tuning File     No File Selected - Root Tuning     Root Note     O	Key Dynamics Lines Range Tracking Dis. T T T T T T T T T T T T T T T T T T T
		Master Dutrut

Click inside the loader panel (highlighted #1) to open a window to choose a piano instrument (.ins) file you want to play.

It is recommend that you put instrument files to default location, then you can use quick load.

Default folder under windows system should be:

C:/Users/Public/Public Documents/SoundMagic/Neo\_Piano/Instruments/

Default folder under macOS should be: Users/SoundMagic/Neo\_Piano/

If the instrument requires a Keycode, then *"Enter Keycode Required"* will be displayed in the Keycode panel (highlighted #2). You'll need to enter your Keycode into this panel. You'll only need to enter the Keycode once for each instrument. After you enter a valid Keycode, *"Keycode Active"* will be displayed. But you must ensure you've entered the correct Keycode for the instrument selected, otherwise it will not play correctly.

By default, instruments are set to play directly from disk which is suitable for most today's computers with fast hard disks and enough free system resources. If you have an older computer, or you want to play live on stage then you can choose to load "all" or "part" of the piano instrument into RAM which will reduce the demands on your hard disk.

#### *See '<u>Optimising Sample Performance</u>' for more details.* 2.1 Getting the Keycode

To receive a Keycode for the instrument, email your Machine I.D. code and instrument file name (i.e. Imperial Grand) to our customer service. You can find your Machine I.D. code on the "info" panel, click on the SoundMagic logo on the top left to open the panel.

SOUNDMINGIC	Neo Piono		Direct
Reverb Off Time Width Mix Conc	sept g Yichi, Chris Kerry w	Dania New supremepiano com	sing Trans
Surface Smooth E.R. Christ	ramming s Kerry Graphics	0D5ir-u30B3	-00000-Df7Cu
Harmonics To M	son Merry VST Plugin Te actine 1.0 005ir u2083-00	cty by Steinberg	

You can play the piano as soon as it loads, but it would be a good idea to set some of the

physical and tone parameters of the piano to suit your playing style or musical taste. Next you will learn how to set these parameters.

# 3. A.I. Tool Panel



The A.I Tools panel allows you to check your keyboard pedals and keyboard velocity response.

#### 3.1 Checking your pedals



Press each pedal in turn or in combination and the appropriate pedal indicators should illuminate on the panel. Each indicator should extinguish when the hardware pedal is released; if you find a pedal remains illuminated when you release your hardware pedal then you should have your pedals serviced or repaired.

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Neo Piano supports true half pedalling, to check if your hardware sustain pedal supports this feature, slowly press your sustain pedal from the Off to the fully On position, the 'Half Pedalling' indicator will illuminate and a Bar meter will display the sustain position if your hardware supports half pedalling.

If your hardware does not support dynamic sustain, the sustain bar meter will be either full On or Off and the half pedalling indicator will not illuminate.

#### 3.2 Checking your dynamic



Press any notes on your keyboard can check the dynamic. If your keyboard supports HD velocity, the indicator will illuminate.

# 4. Key Dynamics Panel

		Resonance
Properties Total Internet	Root Note	Key Dynamics       Linear         Range Tracking       Exp.         Exp. Inv.       Exp. 2         Curve       Curve 2         Curve Inv.       Curve Inv.
		MASTER

#### 4.1 Checking and adjust the Key Velocity response

Play a key with various amounts of force to see the response on the panel. The key's velocity is indicated using the standard bands between PPP and FFF and as a bar meter. You can change the dynamics sensitivity and key tracking using the two dials, and the velocity curve. Alter these settings to suit your hardware keyboard and particular playing style ensuring the full range from PPP to FFF is active, providing the most expressive range of the piano.

#### 4.2 Velocity Curve

Velocity response curves. This setting has a major impact on how the piano response to your play and how it sounds. So if you want to tweak the sound, this option is the first one you should consider.



Linear

Volume changes with constant rate as velocity changes.



#### Exponential

Volume changes slowly first and then gets faster as velocity increases.



#### **Inverted Exponential**

Volume changes fast first and then gets slower as velocity increases.



#### **Exponential 2**

Volume changes more slowly at first and gets faster as velocity increases.



#### Curve

Volume changes as an "S" shape as velocity changes. It changes more slowly in both ends and

gets faster while in the middle range.



#### Curve 2

Volume changes as an "S" shape as velocity changes. Changes are slowest in both ends and

fastest while in the middle range.



#### **Inverted Curve**

Volume changes as an inverted "S" shape as velocity changes. It changes fast in both ends and

gets slow while in the middle range.

# 5. Noises and Style Panel



#### 5.1 Noises

You set the amount of noise for Key-Off, Pedal Noise, and String Noise. Key-Off noise allows you to use Velocity On or Velocity Off level, or if your keyboard does not support Key-Off velocity you can use the Auto setting – this reduces the Key-Off noise level the longer the key is held down.

Neo Piano supports Key-Off Velocity but some hardware keyboards do not support this feature. To check if your keyboard supports Key-Off velocity, release the key with varying amounts of speed, if the 'Velocity Off' bar meter shows the same reading each time, then your keyboard does not support Key-Off velocity.

Neo Piano supports 'High Definition Velocity'. If your Keyboard supports 'High Definition Velocity' the "HD Velocity" indicator will illuminate on A.I. Tools panel.

String Noise only sounds when you press the sustain pedal, all the strings will begin to vibrate. But this sound has a very low volume. You can hear a bit if it is in maximum position.

Pedal Noise has different sound when you press or release the pedal. The suitable pedal noise volume will add realistic to your piano recordings.

#### 5.2 Style



The Style option applies multi-band EQ providing different genres from Pop, Rock, Jazz and Soft styles. The dial sets how much of the EQ is applied, from 0 to 100%.

# Image: Structure of the st

## 6. Damping & Resonance Panel

#### 6.1 Damping

On real Pianos the strings are damped (traditionally using felt or leather) and this stops the strings from continuing to sound after the key is released. Bass strings have more energy and require more damping to stop them sounding. However, on real pianos, over time these dampers can become worn and become less effective resulting in an 'after-tone' sound which can be heard after the key is released. This explains why brand new pianos have a 'tighter' sound than an old piano or one that has not been well maintained.

Neo Piano allows you precise control over the dampers; the main dial sets the damping time for Middle C and the smaller dial sets the damping key tracking from Off to Full. At Off, all keys will be damped within the same time. At Full, the bass keys will take longer to damp and the high keys will take a shorter time. On many pianos some of the highest notes have no damping at all, Neo Piano allows you to define at what point notes are not damped from F6 to C8. Neo Piano's damping emulation system allows you to decide what type of piano you want to play, a new 'tight/staccato' piano, an older 'loose/worn-in' piano, or anything in between - the choice is yours.

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#### 6.2 Sympathetic Resonance

This sets the amount of Sympathetic Resonance for your performance. The On/Off button allows you to perform A/B listening tests to hear the effect of Sympathetic Resonance on your performance.

#### 6.3 What is Sympathetic Resonance?

In simple terms, when notes are held or the sustain pedal is pressed the strings of the piano

are not damped and are free to resonate. In this state, strings that are harmonically related to

keys being played can vibrate (resonate) and this can result in a richer harmonic sound.

\*Note: Sympathetic Resonance emulation requires a large amount of resources; your system must have enough performance and free resources to support this feature.

# 7. Tuning System Panel



#### 7.1 Tuning

By default Neo Piano uses the equal temperament tuning system; with physical piano tuning variations being contained in the raw samples (Neo Piano samples every note).

But Neo Piano also supports different tuning scales using Scala tuning files (which can be freely downloaded)

Scala tuning files do not define the root Key or its root tuning, therefore you can set which Key to apply tuning from and its relative tuning in cents (+/-100)

Click the on/off button (top left) to apply Scala tuning to the piano.

# 8. Harmonic, Perspective & Tone Panel



#### 8.1 Harmonic

This option allows you to adjust Key Harmonics affecting the overall tone of the piano.

The large dial controls the harmonic level (+/-15dB) and the small dial sets the harmonic frequency relative to the key being played (+/-1.5 Octaves).

#### 8.2 Tone

These settings adjust the physical aspects that affect the piano's tone.

The large dial controls the piano's lid position which has a major effect on the sound; a closed

lid has a significant damping effect on the high frequencies.

The small dial on the left adjusts the bass tone and the right adjusts the brightness.

#### 8.3 Mic Perspective

The two dials set the close and distant microphone levels. This changes the listening position relative to the piano; close would be the player, and distant would be the audience.

## 9. Reverb & E.R. Panel



The Reverb & E.R. panel allows you to apply room acoustics to your performance.

Neo Piano's Reverb is comprised of two main elements, Early Reflections (E.R.) and Reverb space.

#### 9.1 Early Reflections

Early Reflections utilises convolution to emulate the initial reflections from the surfaces of the environment.

The E.R. dial controls the E.R. level and the option box allows you to select from various pre-set environments.

The surface dial defines the type of surface in the environment from soft to hard. This determines how quickly the sounds are absorbed by the surfaces. The softer the surface the more high frequencies are absorbed. Examples of hard surfaces are rock, steal or glass. Soft surfaces would be cloth, curtains or tapestries.

The "Time" dial sets the overall reverb time(s).

The "Smooth" dial sets the 'smoothness' of the decay from smooth to echo.

The "Width" dial sets the stereo width of the reverb sound.

The "Mix" dial sets the mix between the Reverb space and the Dry+E.R. sound.

### **10. Presets System**



Neo Piano has an internal presets system which is more flexible than the default presets system on your host. You can switch between presets, load and save presets and also copy and paste them. It's a full function presets management system.

To switch between presets, click on the left and right arrows to move forward or backward.

The displayed text is the current preset's name.

The downward arrow on the right will bring up the presets system menu.

# **11. Optimising Sample Performance**

Modern computers with fast hard disks and enough free system resources should have no problem playing instruments directly from disk. However, if you are using an older computer or you have enough installed RAM you can choose to load all or part of the instrument into RAM to reduce the demand on your hard disk by selecting [RAM] mode. The total amount of RAM (MB) required to load the whole instrument into RAM is displayed next to the instrument file name. If you are sure you have enough 'Available RAM' resources to load the instrument then set the 'RAM allocation' value higher than this amount.

You can restrict the amount of RAM available for samples by setting 'RAM Allocation'. In this mode some samples will be loaded into RAM and the rest will still be played from disk. You can optimise which samples are stored in RAM by 'Analysing' your track.

To 'Analyse' your track simply press the 'Analyse' button (flashes when active) and play your music either manually or from your music program. Once finished, press the 'Analyse' button again and the optimal RAM samples will be loaded.

The Sample-RAM settings are saved with the patch – so the optimal Sample-RAM usage can be recalled without having to 'Analyse' the song each time.

*On Windows system, 250 MB of 'Available Ram' will be left free to allow the Windows system to operate smoothly\*\** 

On Mac system, a maximum of 66% of physical RAM will be utilised\*\*

\*\*NOTE: If you open more programs or resources after loading a large Piano instrument into RAM, then your system may slow down if the OS needs to utilise the Page/Swap File system – this should be avoided. This is generally only an issue on systems with less than 4 GB installed RAM.

# 12. Live on Stage Performance

Live performance is stressful enough without having to worry about the technology!

Today's computers are excellent at playing samples directly from disk, however there are occasions when the Operating System or Anti-Virus scanners block access to the hard disk and it's 'sod's law' that this will happen when you least expect or want it to.

*To ensure a flawless live performance we recommend you load the whole instrument into RAM on a 64 bit machine with at least 8 GB of RAM installed.* 

# 13. Using Add-on Effects

The SoundMagic Add-on System provides a convenient way to use Add-on effects with Neo

Piano. To obtain Add-ons Effects, visit our website or use the recommended links shown.

#### Neo MasterTool



Neo MasterTool Product Page

Neo MasterTool is a powerful multi-band multi process mastering and enhancement system in one plug-in. With Neo MasterTool, you can quickly and effectively polish your piano sound and ready to release it. Neo EQ



#### Neo EQ Product Page

Neo EQ is a new type of EQ which automatically tracks the dominant pitch bands of the signal. With the free Piano Extension Pack, it can serve Neo Piano really well with quicker and precise result.



#### Neo DynaMaster

Neo DynaMaster Product Page

Neo DynaMaster is a stereo dynamics processer which can shape very complex dynamic

response curves and provides nearly all types of dynamic processes in one plug-in. The Piano

Extension Pack provides presets tailored specifically for Neo Piano.

# 14. Stand-Alone Mode

TheWindows version provides a stand-alone option; double click the EXE file with the same name of the dll file to open Neo Piano in stand-alone mode.

#### Record to wave file

In Stand-Alone mode, you can record performances into wave files. To do this, you need to

click the record button:

Then when you want to save to the wave file, you need to click the stop button: 📕

A dialog box will appear:



Click the Yes (Y) button to save your wave file.

### Adjust tempo/Speed

Clicking this icon will bring up speed/tempo menu. 🔼

Speed Setup	<b>—</b>
BPM ▲ 120 ▶	
	OK Cancel

You can set your tempo here.

### Switch presets

Click on the arrow to step through the presets.  $\blacklozenge$ 

If you want to choose a preset quickly, you can also use the menu: Plugin->Programs 0-15 and choose the preset you want to load.

There are a total of 16 factory presets available to customize. Just click the black box and a down drop list will appear. Click to choose your preferred preset. You can also load your own custom presets.

# 15. Troubleshooting

#### Why does the piano only play noise like white noise?

• The Keycode might be wrong in this case, please contact our customer service to solve this issue.

#### Can I put the .ins file (Sample Set file) anywhere on my hard drive?

• Yes, you can.

#### Can I rename the .ins file?

• No, the keycode will be invalid if you change the .ins filename.

# 16. Switch GUI Mode



An option top left, SD/4K - the GUI window has to be closed then reopened to view the new size. SD suitable for standard resolution such as 1080P and 2K, 4K mode is best for resolution of 4K (3840\*2160).

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