

# SoundFonts.it

## Presents



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## **License**

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## System Requirements

Minimum System Requirements:

- Microsoft Windows 98se/ME/2000/XP/Vista
- Intel Pentium 4 @ 1600 MHz or AMD Athlon @ 1600 MHz
- 256 Mb of RAM
- 4 Mb of free disk space
- An ASIO compatible sound card

MrRay73 Mark II is a VST plug-in, and needs a VST host application to run. We recommend [EnergyXT](#) or [Hermann Seib's VSThost / SAVIhost](#).

### **PLEASE NOTE:**

- MrRay73 Mark II can support samplerates up to 96 Khz but it's recommended to avoid using samplerates greater than 48 Khz as the sound may be distorted.
- The CPU usage is strongly dependant on the actual polyphony: the more notes you play, the more CPU power is required.

## Installation

Copy the file MrRay73mk2.dll (or whatever it may have been renamed to, in case of future updates) to your VSTplugins folder, usually  
**C:\Program Files\Steinberg\VSTPlugins\**

Inserting MrRay73mk2 into a project varies according to the VST Host used. For example, if you're using EnergyXT simply right click in the middle of the main window and choose VST -> MrRay73mk2, then connect its input and output to your desired source and destination. For further assistance, consult the documentation supplied with your host.

In the case you have bought a license, install it before running MrRay73 Mark II to prevent it from running in Demo mode.

The DEMO version shows a reminder screen at start-up for a few seconds, then it plays a white noise for 2 seconds every 10. No limitations are applied soundwise.

**If you would like to purchase a license , please visit [www.SoundFonts.it](http://www.SoundFonts.it).**

Please note that two versions of the plugin are supplied: as such, a license file will need to be supplied for both versions. Please make a copy of the "MrRay73mk2.lic" file and rename it to "MrRay73mk2\_fx.lic" to use both versions in licensed mode.

## Instrument Description

MrRay73 Mark II is a digital simulation of the famous american electro-mechanical piano of the seventies, invented during World War II by a music teacher, Harold B. Rhodes (1910 - 2000), and widely used in almost all musical genres ranging from soul/black music to jazz, blues, modern and pop. This instrument has rapidly become a legend, and is still used today, although samples have replaced the real thing so that very often music producers use huge sample libraries or hardware keyboards / workstations to achieve this kind of sonority, and often the result is a cold and 'dead' sound, with no vitality, no warmth, nothing that even compares to the unpredictability and genuineness of the real thing.



In 2007 an enterprising and far-seeing american businessman has started a new Company with the aim to re-manufacture the piano using the same recipe of the old factory, employing the same ingredients and offering the same "taste" of the vintage instrument. The new "Mark 7" piano was presented at the NAMM show and it was a big success. It's on the market again, after about 20 years, with the same name, same "soul" but largely improved under many important technical aspects.

In a similar manner, MrRay73 Mark II is the second version of [MrRay73](#), after two years from its introduction to the public, but with a huge difference in sound and functionality. While the old MrRay73 was one of the first successful simulations of such an instrument, capable of offering similar vitality, warmth and richness of the real thing, the new "Mark II" version brings many new improvements, first of all for what concerns "THE SOUND".

As opposite to sample libraries, a real-time reproduction of a certain sound has the ability to interact with the musician, producing different behaviours from time to time. Hardly you will hear exactly the same "waveform" twice. MrRay73 Mark II is a complete digital reproduction of the real instrument, with all the moving parts that, together, generate to the sound.

Summary of the main features:

- Full Polyphony (73 notes E - E)
- No note-stealing
- Adjustable single sound elements (metal, wood, pedal and damper noises)
- Sympathetic resonance and harp vibration
- Sustain pedal re-pedaling feature
- Six-stage vintage style Phaser effect
- Dual mode Tremolo effect
- Power amp simulation (Suitcase model)
- Adjustable wear of mallets and other elements (Piano Age)
- Stretch tuning or Equal Temperament
- Four velocity curves plus an adjustable "Dynamic range" level
- Fully Midi controllable with MIDI-Learn function
- Very Low CPU and memory usage

### Some details about the sound generation:

- **Full Polyphony & No note-stealing:** on the real vintage instrument you have a single "generator" (called "tone-bar") for each single key, so when you hit a key, the corresponding tine is put into vibration thus producing the sound. When you hit it again holding your foot on the sustain pedal, you add further energy to the vibrating tine, but depending on the relationship of the tine and the hammer-tip, you can either add or remove energy with each key press. This causes subtle variations with each note played.



- **Sympathetic resonance and harp vibration:** when you hold the sustain pedal, all damper felts leave the tines, so they all are free to vibrate, but if you hit a single note, the surrounding tines also get part of the mallet's energy and produce a slight vibration. Also, when the sound of a note decays completely but you are still holding the key down, playing other notes may introduce what's known as "sympathetic resonance". This is more evident on a classic piano, less audible on the electric piano but still there. Part of the vibrations is spread along the whole harp and captured by all pickups, giving the overall tone a more "alive" sensation.

- **Sustain pedal re-pedaling feature:** when you're playing holding the sustain pedal down, you may release it and depress it again immediately. In this case, the dampers don't stop the tines completely, but still leave a residual vibration. Sometimes, the dampers can even introduce a further energy as if they were "picking" the tines.

- **Six-stage vintage style Phaser effect:** MrRay73 Mark II also includes a phaser effect. It is modeled after a vintage stomp box of the sixties, sold in Europe under the name "Maestro PS-1". It was a 6-stage phase shifter, one of the first effects of this kind, with a deep and "liquid" tone.

- **Dual mode Tremolo effect:** the tremolo effect is an essential element of the classic Electric Piano sound of the seventies. In MrRay73 Mark II you can have the effect of the classical analogue tremolo driven by the photo-coupler element which gives you the smooth passage from one channel to the other. As an alternative, you can have the monophonic vibrato like the one found on the classic "Tweed" guitar amplifiers.

- **Power amp simulation (Suitcase model):** MrRay73 Mark II has a built-in FET power amplifier simulation with three degrees of "power", to bring you the classic tone of the famous "Suitcase" electric piano models. Turning on the simulation, you'll hear a darker tone with a punchy low-end, a slappy attack and a slight saturation on the high-end.

## Panel Controls

- MALLETS AND NOISES
  - Wood\*: adjusts the wood noises, mostly due to the movements of the wooden keys;
  - Metal: adjusts the metallic elements, mostly audible at the attack and release of each note, but also affecting the overall tone color;
  - Dampers: adjusts the noises caused by the damper stopping the tine when a key is released;
  - Pedal\*: adjusts the noise caused by the sustain pedal;
- TONEBARS
  - Decay: adjusts the overall decay times;
  - Release: adjusts the overall release times;
- MASTER
  - Bass Boost: adjusts the bass equalization;
  - Volume: adjusts the piano output volume. This knob only refers to the piano section of the plug-in, and is placed between the piano and the effects section, so if you wish to decrease the saturation caused by the Power Amplifier simulation, just lower the piano volume;
- PHASER
  - Width: adjusts the Phaser effect width. This knob also acts as an On/Off switch;
  - Speed: adjusts the Phaser effect oscillation speed;
- TREMOLO
  - Mono/Stereo: use this switch to choose between stereo (auto-pan) or mono (tremolo) mode;
  - Width: adjusts the width of the tremolo effect. This knob also acts as an On/Off switch;
  - Speed: adjusts the tremolo speed;
- POWER AMP: Turns on the Power Amplifier simulation;
- PIANO AGE: this knob affects a number of elements that, together, establish the average wear of the piano elements, giving a different sound character according to the piano age.

Note: \* these are the only two sampled elements used in MrRay73 Mark II.

## The Global Options Menu



Click the "Options" label to open the menu. Here you can set a few global settings:

- Tuning Type: choose the tuning type you prefer between Equal Temperament or Stretch Tuning;
- Dynamic Curve: this option lets you choose among four different velocity curves in order to obtain the best relationship between your keyboard's mechanical action and the sound you hear from the virtual instrument;
- Mallets Min. Force: sets the force assumed by the mallets corresponding to the minimum velocity level;
- Mallets Max. Force: same as above but for the maximum velocity level. Please note that these two parameters are related, and both may affect not only the dynamic response but the tone quality as well;
- Timbre / Character: you can choose the type of timbre you prefer, a darker tone, a brighter tone or something in between.
- Power Amp: sets the amount of "power" (affects sound compression, saturation, bass equalization and cabinet reflections).

Please note: all global settings are saved in the ".dat" file after the plug-in is closed.

## Using the GUI controls

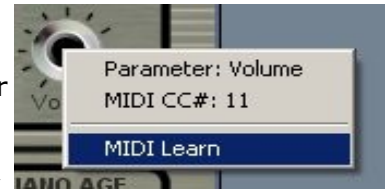
When you move a control on the User Interface, a small display appears on the screen showing the current value of the active control. Passing your mouse pointer over the controls, a pop-up text describes their function.

Tips on using the interface:

- to reset a control to its default value, hold down CTRL and click it;
- for "fine tuning" knob movements, hold down SHIFT while moving the knob;
- all knobs react to both vertical and horizontal movement;
- hold down the ALT key to activate the circular control of the knobs.

## MIDI Mapping

There's no default MIDI Mapping. You can assign your MIDI controllers to any of the available controls using the MIDI Learn function. It's very easy: just right-click on a knob or switch of your choice. A menu should pop-up. The first item shows the control's name, the second item shows the MIDI CC# currently associated to that control, the last item activates the MIDI Learn status. Click on "MIDI Learn", the tooltip text should say "Waiting for incoming MIDI data...". Now move a knob/slider/whatever on your physical controller. At this point you should see the virtual control following the movements of the physical control. To abort the "wait state" click on the first menu item, and to reset the assigned control (MIDI Forget) click the second menu item. The MIDI Map is automatically stored when you quit the plugin in a file named "{name\_of\_the\_dll}.dat" located in the same directory where the DLL file resides. This is a plain text file, but please don't edit it manually.



Please note: MIDI Controllers respond on all Channels, so be sure that your controller sends all controls with the same channel, or else you'll find two different physical controls (knobs, faders, etc.) moving the same parameters on the screen, or a single physical control moving more than one parameter on screen.

Please also note that MrRay73 Mark II:

- plays on all 16 MIDI Channels;
- doesn't respond to Program Change messages;
- doesn't allow assignment of CC# 0;
- doesn't respond to Pitch Bend messages;
- responds on CC#120 & CC#123 for "All Notes Off" (muting and reset).

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