

CHIP MAESTRO

INSTRUCTION BOOKLET



Look for this seal on all software and accessories for your entertainment systems. It represents a commitment to bringing you only the highest quality products. Items not carrying this seal will ultimately disappoint you and are not guaranteed to meet basic standards of excellence in workmanship, reliability and, most of all, entertainment value.



Thank you for selecting the **CHIP MAESTRO** cartridge. This accessory requires a MIDI keyboard, MIDI cable, and an NES console.

OBJECT OF THE CHIP MAESTRO

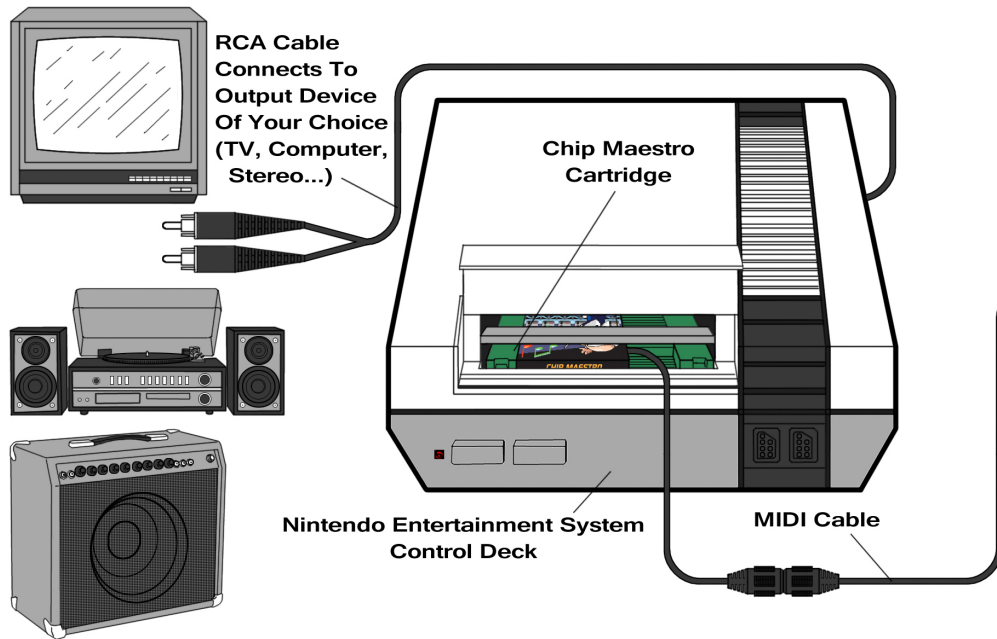
The Chip Maestro cartridge is designed for use with the classic Nintendo Entertainment System (NES) or compatible home entertainment consoles along with a MIDI keyboard to play and manipulate the real chip sounds of the NES, responsively and in real time. Players can create and share exciting new worlds of sound.

Please read this instruction booklet to ensure proper handling of your new accessory and then save the booklet for future reference.

PRECAUTIONS

- Always use the proper power supply for your console.
- Keep cartridge away from liquids. Avoid touching the connectors, do not get them wet or dirty.
- This is a high precision accessory. It should not be stored in places that are very hot or very cold. Never hit or drop it. Do not take it apart.
- It is important to note that a MIDI keyboard capable of reaching the -1 Octave is used. Most new keyboards should not have a problem with this, but some older models may only reach the 0 octave.
- Directions must be read and followed very carefully. If not followed properly, the device will not work as expected.

CONNECTING YOUR CHIP MAESTRO CARTRIDGE

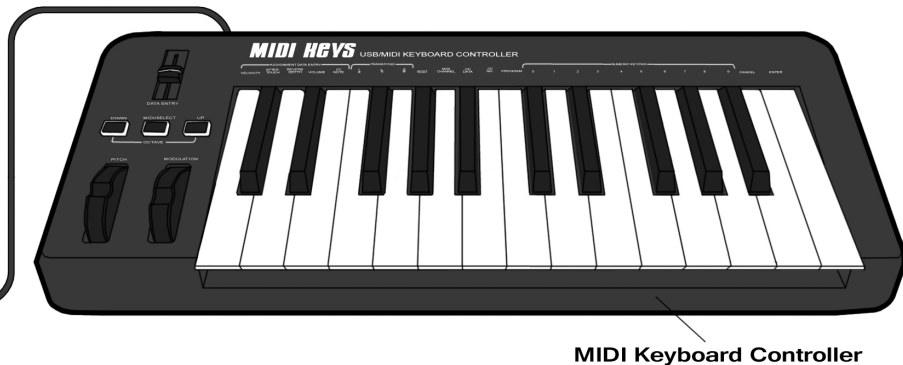


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QUICK START

The Chip Maestro cartridge is easy to use and following these simple steps you will be creating new chip music masterpieces in a matter of minutes.

1. Insert the Chip Maestro cartridge into the NES.
2. Connect MIDI cable to the cable coming out of the Chip Maestro
3. Connect the other end of the MIDI cable to your MIDI Keyboard's MIDI Out
4. Connect the RCA Audio Out of NES to Amplifier/TV/ Speaker System
5. Turn on NES and Keyboard
6. Play the classic sounds of the NES!



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FEATURES

The Chip Maestro has four different sounds to play:



Triangle Wave



Square Wave 1.



Square Wave 2.



Noise Wave

And three different modes to play them in:



Poly Mode



Arpeggio Mode



Glide Mode

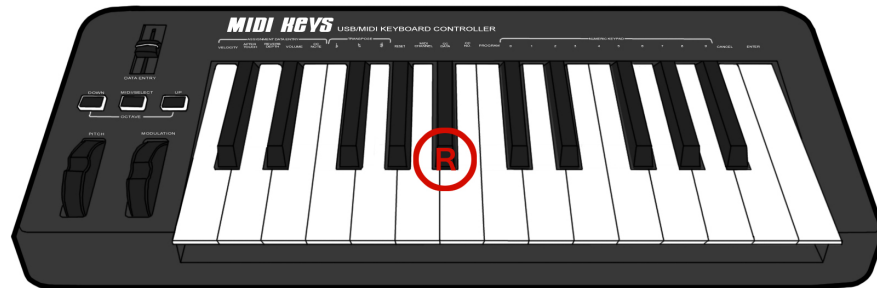
Using Chip Maestro, not only can you play the classic NES sounds, but you can further customize them and their play modes.

Chip Maestro is compatible with most forms of MIDI control including computer software, giving you a great deal of versatility for how you use the sounds.

IMPORTANT INFORMATION ABOUT THE RESET KEY





After you have finished connecting and starting your Chip Maestro, it is very important that you locate the **Reset Key**. The Reset Key can be located by shifting the octave of your MIDI keyboard to its lowest octave (-1) and pressing the **A#** key. This button is the go-to button if something goes wrong with your Chip Maestro. It is the lowest functioning button on the Chip Maestro and can therefore be used as a good reference point for finding other important keys. When this key is registered in lowest octave, a little jingle will be heard.

* The reset button on the actual NES does not function the same as the Chip Maestro Reset Key.



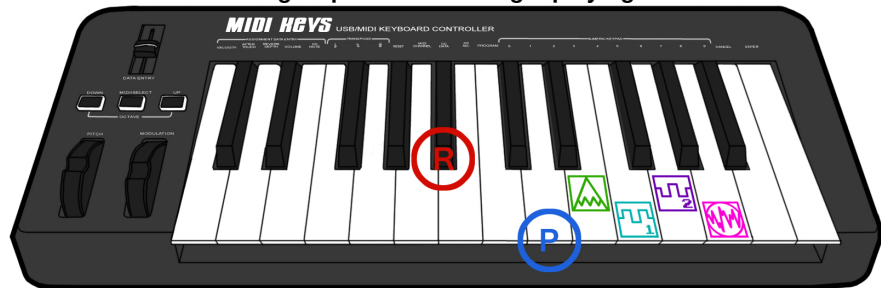
SELECTING SOUNDS

The Chip Maestro has four different sounds to play.

 Triangle Wave  Square Wave 1.  Square Wave 2.  Noise Wave

To select the sounds you want to use and the order in which they will play:

1. Press the Octave Shift Down button until the keyboard is at it's lowest functioning octave
2. Press the **D** key to the right of the **Reset Key (A#)** to enter **Program Mode**.
*Note that no noise will sound when the key is pressed
3. Select the desired sound or sounds in the order that you would like them to play in, by using the keys **E, F, G, and A**; all to the right of the Reset Button.
(**E - Triangle**, **F - Square 1**, **G - Square 2**, **A - Noise**)
4. Press the **D** key again to exit **Program Mode**. *Note that no noise will sound
5. Press the Octave Range Up button and begin playing classic NES sounds!



SELECTING PLAY MODE

The Chip Maestro has three different modes in which it can play:

Poly Mode - Allows one or multiple notes to be played at same time (up to 3)
Arpeggio Mode - Plays notes as ascending, descending or alternating pattern
Slide Mode - Playing two notes gradually sweeps from first note to the second

To toggle between the three different modes:

1. Press the Octave Shift Down button until the keyboard is at it's lowest functioning octave
2. Press the **Mode Selection Key (C0)** to cycle between the three different modes. Default mode is Poly. Press the **C0** key to cycle to Arpeggio. Press again to change to Glide. Pressing again brings you back to Poly.



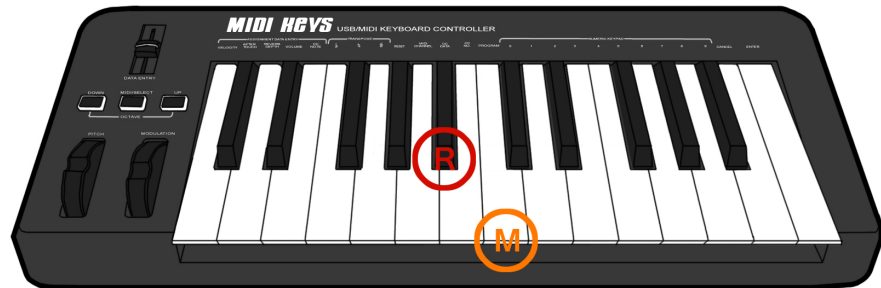
Poly Mode



Arpeggio Mode



Glide Mode

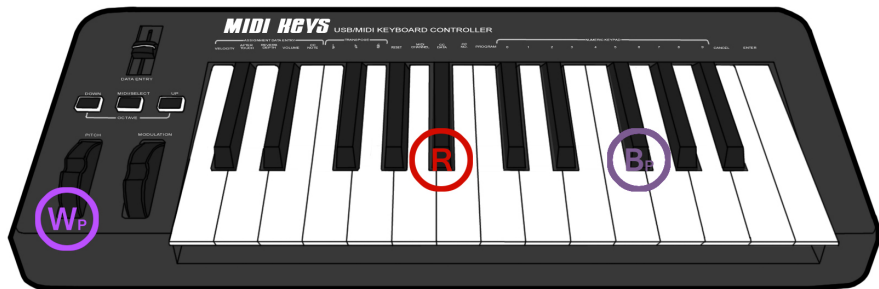


ADJUSTING SOUNDS: PITCH

Modifying the Pitch using the Pitch Wheel - The **Pitch Wheel** can be used to bend the **Pitch** of one or all notes being played. It is possible to modify the Pitch in all Keyboard Modes. One cannot solo a note within a pitch bend. If the pitch is modified while a chord is held out, all the notes will be affected.

Four different **Pitch Bend Ranges** can be selected by

1. Press the Octave Shift Down button until the keyboard is at its lowest functioning octave
2. Press the **Pitch Bend Range Key (F#0)** to the right of the Reset Button to cycle through the ranges. The default is set to +6 notes, but can be changed accordingly. [+6, +12, +1, +2]

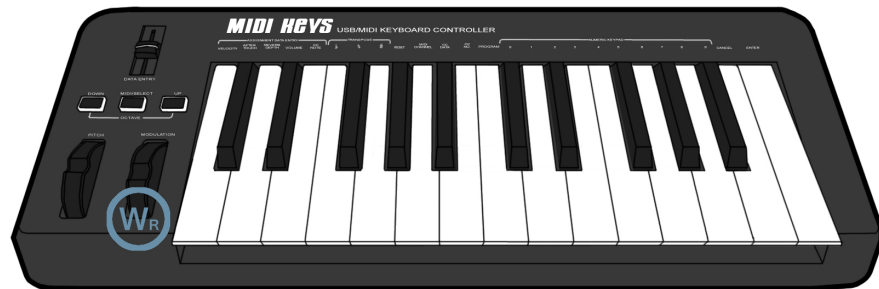


ADJUSTING SOUNDS: RELEASE

Modifying the Release using the Modulation Wheel - **Release** is how long a note lasts after a key is no longer pressed. The Release can be adjusted in accordance to how the **Modulation Wheel** is set. Release can only be used in Poly Mode.

Modulation Wheel Up sets the release to the longest release setting.

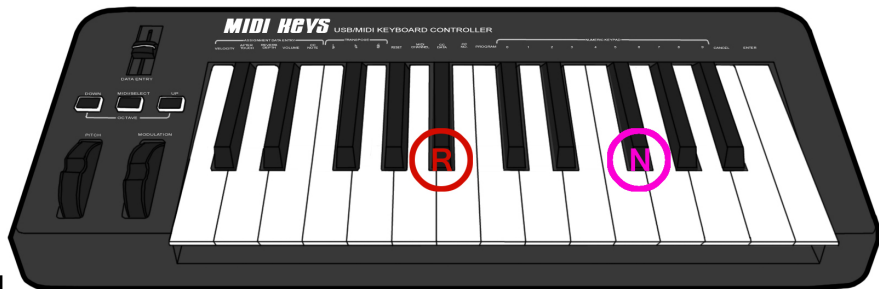
Modulation Wheel Down sets the release to the shortest release setting.



ADJUSTING SOUNDS: NOISE WAVE

The Noise Wave has two main settings: Tinny or Crunchy.

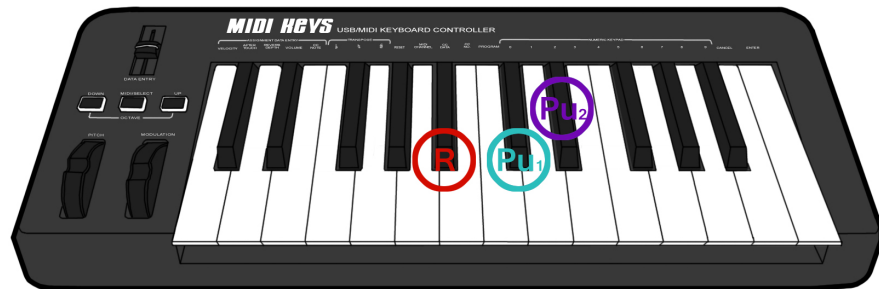
1. Press the Octave Shift Down button until the keyboard is at it's lowest functioning octave
2. Press **G0** to toggle between the two settings



ADJUSTING SOUNDS: SQUARE WAVES

Modifying the Pulse Width Length of the Square Waves changes the sound of the waves. The two Square Waves have four separate **Pulse Width** settings. The **Pulse Width** default is set to 50% for both Square Waves, and both can be changed individually to 75%, 12.5%, and 25%, respectively.

1. Press the Octave Shift Down button until the keyboard is at it's lowest functioning octave
2. Press **C#0** to cycle through the four different **Pulse Width** settings for **Square Wave 1** [50%, 75%, 12.5%, 25%]
3. Press **D#0** to cycle through the four different **Pulse Width** settings for **Square Wave 2** [50%, 75%, 12.5%, 25%]



ADJUSTING PLAY MODES: ARPEGGIO MODE

In Arpeggio Mode, the user has the option to change three separate functions:

Arpeggio Speed is controlled by the **Modulation Wheel**.

Modulation Wheel Up makes the arpeggiation slow.

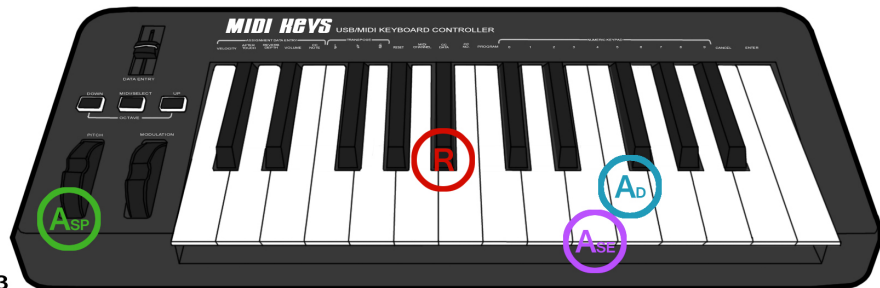
Modulation Wheel Down makes the arpeggiation fast.

Arpeggio Direction can be set to Up, Down, or Back and Forth. Default is Up. To change this, Octave Shift Down to lowest octave, and press the **F0** key.

Arpeggio Sound Selection allows one to choose which of the four different waves will be played in Arpeggio Mode.

To select a wave to play, Octave Shift Down to lowest octave, and press the **E0** key until the desired wave is heard.

*Please note that only waves that have previously been selected in Sound Selection will be able to be selected in Arpeggio Sound Selection.



ADJUSTING PLAY MODES: GLIDE MODE

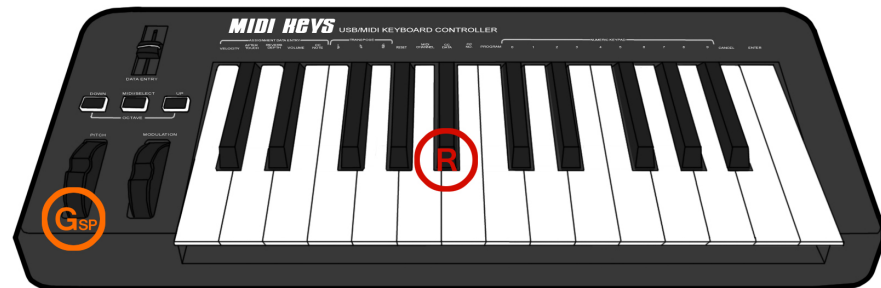
In Glide Mode, a note can glide from one note to another. The user must play at least two notes at a time in order for the change to be heard.

The **Modulation Wheel** controls the speed at which the notes glide.

Modulation Wheel Up sets the **Glide Speed** to the slowest speed.

Modulation Wheel Down sets the **Glide Speed** to the highest speed.

* The term Glide is also interchangeable with the terms Slide and Sweep.

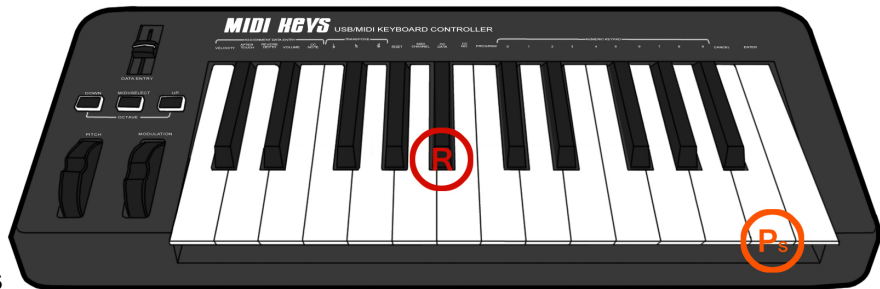


PROGRAM PARAMETER SOUNDS

The Program Parameter Sounds are the notification noises that are triggered when the user changes one of the set parameters on the Chip Maestro.

For example, when the Noise Wave is toggled between its Tinny and Crunchy settings, a tinny or crunchy sound is heard when the G0 key is pressed. Another example of this could be heard when the Pitch Bend Range is set, as four different bend ranges sound when the F#0 key is pressed.

It is possible to enable/disable these **Program Parameter Sounds** by pressing the **B-1** key, so no noises are triggered when a parameter is changed. This could be useful if a user wants to change parameters in a live setting, but does not want any sounds that are not part of a song to be heard.



MIDI CHANNELS

The Chip Maestro can be controlled by computer software (such as Ableton or Fruity Loops) and/or any software that can implement MIDI.

MIDI Channels 2-5 are used to access the single dedicated channels for each wave.

Each channel's wave is determined by the previously selected order of Selecting Sounds.

Meaning that the default mode for the MIDI Channels is as follows;

- MIDI Channel 2 is the dedicated Triangle Wave channel
- MIDI Channel 3 is the dedicated Square Wave 1 channel
- MIDI Channel 4 is the dedicated Square Wave 2 channel
- MIDI Channel 5 is the dedicated Noise Wave channel

Keep in mind that this is only the default setting. If the user changes the sound order in Selecting Sounds, then the channels will directly correspond to the order of waves chosen.

MIDI Channels 1 and 6-16 will be interpreted as if the Chip Maestro were being played live.

CONGRATULATIONS!

YOU NOW ARE ABLE TO USE THE BASIC
FUNCTIONS OF THE CHIP MAESTRO!



Now it's time to have fun using your CHIP MAESTRO!

The Chip Maestro is a hardy piece of software and the best way to familiarize yourself with its many intricacies is the hands-on approach.

You're not alone! There are many enthusiastic Chip Maestro users. Share your tips on configuring, playing, troubleshooting, performing... Share your creations! Upload sound samples and videos! Find someone to collaborate with!

Visit the Chip Maestro website to be a part of the chip music community!

www.CHIPMAESTRO.com