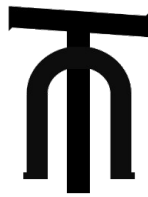


# 106-Emulation Manual english



TubeOhm



## 106 emulation, Introduction

There the J-106 is, the hardware and I can not help but think - damn how did even then hammer out this sound. If you play the hardware is the same feeling like you play an old instrument - plays like an old e-guitar.

Although old, and quirks, but nevertheless a musical instrument - and not a computer.

Also the sound is so ... so how can I say - different. Big... It's almost frightening how fat one oscillator can listen to.

Well I thought, let's see how good my software tools really are. If i already can not get the feel in your computer - perhaps least this sound.

After some positive testing software / hardware, come out is now the 106 emulation.

This can not only act as an independent VST Synthesizer, but also control the Juno hardware with all the (possible) parameters. The software serves as controller of Juno hardware and send even the set sound programs for a program change to Juno. Furthermore, it is possible to store again to load patches on the PC and to send directly to the Juno hardware.

It is a complete other thing to prog an emulation than a new synthesizer.

Mostly I need to simulate some circuits to see the behavior of the signals. To get the best possible match has driven the hardware via MIDI SYSEX. The values were determined separately and entered manually for almost all parameters. Pro Parameter 128 values.

Now, how similar sounds the software compardet to the software? And how is the controller's operation?

To make it short. I think over the entire range as approximately 95%.

Some sounds are almost indistinguishable from each other sounds have a slight coloring own. Furthermore, I have also noticed that my hardware with increasing temperature but something moves away. Sounds which were wonderful voices in direct comparison, listened to a half an hour something different.

I make several trys , but after hours and hours I have really given up. So are the parameters - relatively - consistent. As good as it went.

Moreover, I have taken as a basis of the software sounds my hardware. When I purchased the hardware, it was probably for 20 years in the basement / garage / studio room and looked like this. (Repair 15 minutes - clean 7 hours)

Thus it may be that your Juno quite something sounds different, and a slightly different control behavior has since even the pots and components age.

But - the 106 emulation is there and makes a PHATT sound and sounds good. And you can even transmit sound from the software to the hardware. The sounds can of course also be stored on the PC. And, the 106 emulation can also be used as a software controller for the hardware.

Ich hope you will have a lot of fun with it .  
TubeOhm 2016

## 106 emulation, Features and System Requirements

### features:

- 10 Voices (6 voices were not enough for me)
- 2x LFO
- 1x VCF
- 2x ADSR
- 1x Voice Doubler
- 1x DCO Sub Oscillator, rectangle with PWM, sawtooth and rectangle SYNC
- after touch, velocity on frequency VCF, velocity on SYNC
- Chorus, Stereo Delay
- 1x ARP
- hold And pedal HOLD function

To with this software make music should have the following.

- 1 :) a halfway actual PC (not 10 years!)
- 2 :) an ASIO sound card
- 3 :) a Midi / USB Keyboard

\*\* With ASIO4ALL it will work - but it is not recommended!

- 4 :) Windows XP, 7,8,10 (yes where is the 9 ??)
- 5 :) for a DAW I recommend J-Bridge V 1.5 or higher
- 6 :) latency 64 ..512 samples ,64..128 samples for use as a hardware controller
- 7 :) 106-Emu is a 32 BIT Plug and needed for a 64 BIT DAC J-Bridge.  
The standalone version runs with SAVIHost or Cantabile Software (86) 4Free
- 8 :) order should ensure the SYSEX data transport to the hardware in the standalone version (SAVIHost) latency to 64 .. 128 samples can be adjusted. Under Cantabile light (86) of 64 .. 512 samples.

\*\* This software runs only on Windows PC's. 7,8,10

The software requires a properly configured PC.

INFO. Switch off so the automatic down clocking the CPU - - In the Bios GREEN PC should be turned off.

Actual driver (ASIO) I suppose.

## **Exclusion Statement**

**The Software 106 Emulation you install at your own risk on your PC. While we carry out extensive tests with different PC's by, but it is impossible to test all PC's in all configurations for us. We are not responsible for data loss / crashes, destroyed speaker or hearing damage. (For trouble with the neighbors anyway)**

**Even the SYSEX - MIDI 'system exclusive Stream' was days tested by us, without the occurring any errors or oddities in our hardware. However, it may be also that the data transmitted incorrectly due to incorrect configuration or slower PC hardware and the hardware just hanging off. If the hardware synth hang or crash away, so it is usually sufficient, to swich the hardware off and again to turn on. But here there is no more extensive warranty for possible malfunctions and crashes, or a defect in the hardware instrument. Since the operating software has been burned into the hardware instrument is any defect due to faulty transmission SYSEX but very unlikely.**

**Furthermore, copying the software - 106 Emulation and disclosure to third parties, publication on the internet, rental and lending, release on DVD or other media, is not allowed.**

**All rights reserved by TubeOhm.**

**The software may be used without restriction on multiple PC's after purchase. The sounds can be fully used both commercially and non commercially.**

**If the sounds Sample CD / DVD's created, so the origin of the sounds must be declared on the cover. For example, 'Sounds were created using the TubeOhm 106 emulation'.**

### **106 EMULATION DEMO.**

**Only on consent of TubeOhm the demo are distributed as a booklet CD.**

**Download links to our download of Page 106 emulation DEMO can be enacted without prior demand from other websites.**

**Install and use the software only if you agree with the exclusion declaration !**

## Well, what can the 106 - emulation?

In principle, the 106 emulation is split into two parts.

Once out of the 'normal emulation'.

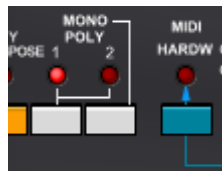
In the normal emulation, all parameters are -as present in the original hardware.

And the **EXTENTIONS**. The **red switch EXTENTION** gives advanced features . The small keyboard button switch keyboard visible or invisible. Is the keyboard connected invisibly so the new features are displayed. You can edit to the new functions but only- if the **Extentions are ON**. (this should be clear)

Is the EXTENTION on , than turned on the LED above the red button and indicator lights - EXTENTION AKTIV- appears under the button / keyboard.



## Differences in the software towards the hardware.



While is turned in hardware poly 1 and poly 2 through the switches 1 and 2, the solution is slightly different in the software.

Only through the first switch (1) can be changed by POLY1 to POLY. 2

Switch 2 turns in the unison mode. With a mouse you can unfortunately not press 2 buttons simultaneously - therefore.

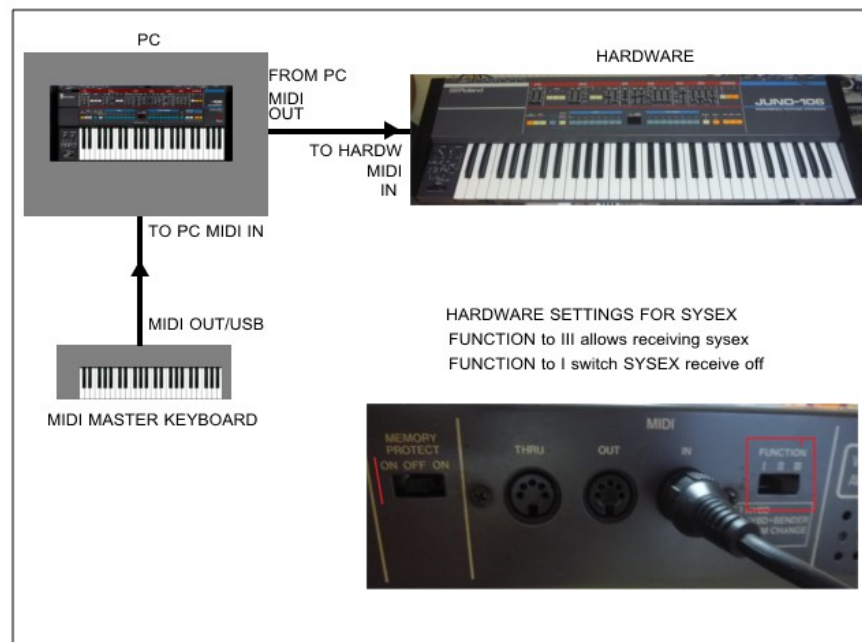
Instead of MIDI switch for setting the MIDI channel is now a 'MIDI hardware switches' there. If this is turned on so the keyboard information is given to the hardware.

MIDI SYSEX are always transmitted regardless of the switch position and can not be turned off in the software!

But if the function switch is set to the hardware at 1 is the SYSEX reception switched from.

The software can control your hardware - from the 106 emulation for Juno - not vice versa. Sysex are transmitted with every movement of the soft knob of the software to the

hardware. Always, unless this your turns off the switch on the hardware.  
Patch changings transmitted complete to the hardware.



If the reception SYSEX allowed (Juno-FUNCTION SWITCH 3), single sounds will transmitted to the hardware.

So you can take as a controller for your hardware and also store nor the patches on the PC 106 emulation.

Almost all parameters in the software are also MIDI learn capable.

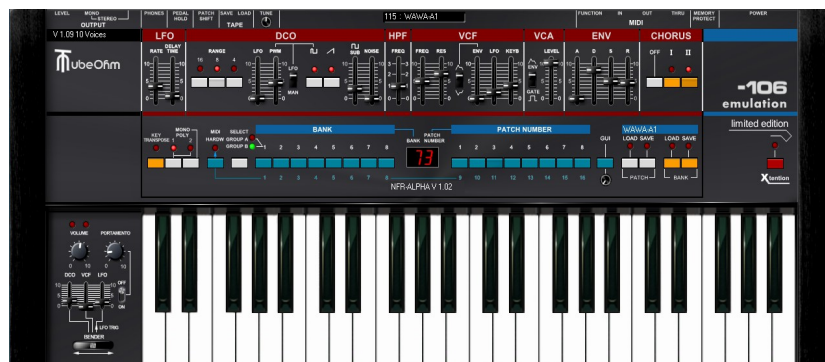
Summary: The 106 emulator can operate as an independent standalone PLUGIN, and with the J-Bridge it works also in a 64-bit DAWC. Furthermore, it is possible to use the Emu 106 as a controller for the hardware. SYSEX send the data to the hardware Be sure that your DAW support sysex Midi.

In the standalone version with Cantabile and SAVIHost everything works and has been tested several times.

\*\* Here a special thanks to Brad from Cantabile. He has specially Cantabile reprogrammed.

The options in the normal emulation mode - Xtention off.

## Overview:



## The LFO



The LFO has 2 parameters, rate is the frequency and is approximately 0.1 Hz to 32 Hz. **Delay Time** delays the modulation on the LFO > DCO and the cutoff frequency. The PWM of the rectangle oscillator is modulated without delay immediately. As with the original was omitted sync function.

## The DCO = digitally controlled oscillator



About **RANGE** octave is selected. The **LFO** Slider controls the pitch modulation of the **DCO**.

The **PWM** - slider (pulse width modulation) has 2 functions which are selected via the switch LFO / MAN.

When switched to **MAN**, the **PWM can be adjusted manually**.

If the switch is set to **LFO**, the **PWM** controller controls now influencing the LFO on the PWM. (When the square wave is turned on)

The switch below the rectangle symbol turns on the rectangular waveform of the oscillator.

The switch below the sawtooth waveform turns on the sawtooth oscillator.

With the slider **SUB** a square wave can be added continuously which is one octave below.

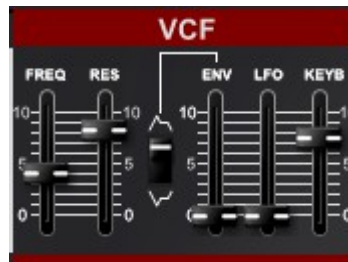
The oscillator is not key-synced. It runs through permanent. Depending on where the oscillator is in the attack of a button on the stage, it can sometimes lead to a PLOP or short crackling. This is with the hardware as is.

## The HP filter

Hp is a filter with four settings. It serves the sometimes brutal bass somewhat mitigate. The HP filter is before the actual 24 DB filter.



**The VCF = voltage controlled filter**



**FREQ..** also called **cutoff** represents the filter cutoff , RES is Resonancy and determines the quality of the filter. The filter have technically more or less feedback.

The **ADSR** envelope, this switch switches the envelope to the filter positive or negative. The actual ENV slider controls the envelope to the cutoff frequency.

With the LFO control the influence of the LFO on the cutoff frequency is set.

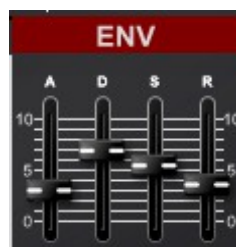
**The VCO = voltage-controlled amplifier**



About the switch **ENV / GATE** follows the VCA the envelope, or switch simply on/off.

**Level** controls the volume of the VCA's and should be set a little quieter in overdrive.

**The ENV attack, decay, sustain, release - GENERATOR.**



The Env-generator is designed as a classic ADSR generator.

**Attack** - linear - determines the time which it takes the signal to reach its maximum value. 0.1 ... 3.2 sec.

**Decay** -Inv log- moves down from the maximum value to the SUSTAIN level. 0.1 ... 12 sec.

**Sustain** - also hold phase sets the holding level.

**Release** - represents the time from sustain to signal fade complete off. Max 28 sec.



## The Chorus



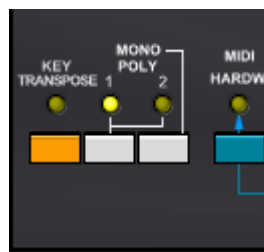
The Chorus has 2 stages.

Level 1 modulated with ca 0.5 Hz, level 2 with 1 Hz.

Off turns chorus.

Those were the actual sound-giving controls without the Xtention.

## Key Transpose and POLY1,2, unison, MIDI Hardware



Pressing the KEY TRANSPOSE button and held and played an additional key on the keyboard. This tunes the complete keyboard up or down . This key and the transposition is not stored.

## The Poly Mode

If LED 1 is on , so POLY MODE 1 is active. LED 2 indicates the POLY MODE 2 is active.

The Juno 106 emulation has 2 different polyphonic modes.

In the MODE 1, a new oscillator is played with each new keystroke.

In MODE 2 the same oscillator is always played. If a 2nd key played so OSZ 1 and 2 is active, etc..

Poly 1 or poly 2 are turned on key 1.

## UNISONO MODE

If the 2nd button is pushed both LEDs light up and the device is monophon

Without EXTENTION the voices are automatically doubled over the Voice Doubler to get a bigger sound.

## MIDI HARDW (are)

This switch is just to send the keyboard information from the software to the hardware.

On , you can play soft and hardware together , Off, you can only play with the software.

## Patch select



The memory locations are organized into 2 groups of 64 sounds.

Bank 1 Patch 11..18

Bank 2 Patch 21..28 to 81..88

Etc.

The SELECT switch switches from group 1 to group 2.

**Fast patch select**, click with the mouse direct in the top of the 106 Emulation in the text field. A menu opens and allows you to select the patches direct .

## The GUI

well, since you have the hardware can pimp with various accessories (Pimp My Juno)  
- it is also incorporated.



With the GUI switch can provide the emulation with wooden side panels, the slider below sets the color of the LEDs and the display.

(Hey guys, when I consider that only the wooden side panels cost 60 Euros and the LEDs again 15 .....)

## Loading and saving a sound / a Bank



## How to place a new name for a patch (sound)?

To do this click with the mouse on the text box and write in a new name.

After clicking on SAVE PATCH, a menu opens and you can save the patch to a folder of choice.

Click on LOAD opens the folder with the stored patches, select a patch and load it simply in to the 106-Emulation .

## Now ,how do I create a bank with 128 sounds ??

Well, first you must save a lot of single sounds .

If you now has 128 new sounds you had to load each single sound in a new position of the memory.

First Sound on 11, 2nd 12, 3rd 13, etc. Now, if all 128 sounds were renewed, clicking on 'SAVE BANK' and give a new name.

MY-FIRST BANK e.g. Then all new patches are stored permanently in the new bank.

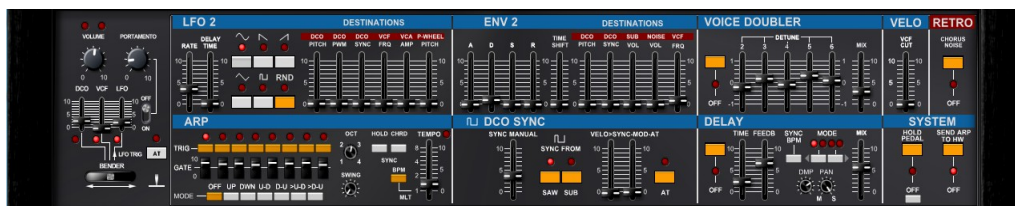
About 'LOAD BANK' can now be a bank selected and loaded back into the instrument.

Of course you can simply override the sounds of a bank with a new sound. After that you should complete save the bank but re-save it under a new name. For example, Default Bank1- change to P-33rd Then we will know immediately what kind of sound has changed.

Oh because I still think of something. The special character as e.g, Ä, ä, Ü, ü, Ö, ö / should NOT be used when assigning names. In English or American does not have this character !!

TIP: If you have programmed a sound so immediately stores it as a SINGLE SOUND. The hard drive is large the FXP files small. So you can also save multiple variations of sounds.

## The EXTENTIONS



### Introduction:

it was not so easy to get still useful functions in the 106 emulation without making a new instrument from this .

Character is not just a synth with all possibilities , but it is a Synth that produce a large number of typical sounds with given parameters .

Reduce to the max

### include the Extentions

- a second LFO with selectable waveforms
- a second ADSR
- a six-part Voice Doubler
- a ARPEGGIATOR with extensive functions
- DCO sync
- A stereo Delay
- Velocity - Velocity on the filter frequency
- Retro Rushing on the chorus (like the original)
- System parameters 'HOLD' and ARP SEND Hardware

## LFO 2



LFO2 = low frequency oscillator, works similarly LFO1.

It was the frequency setting slightly modified. Slow frequencies can be adjusted better.

The **delay time** fades in the LFO modulation – slow or fast .

The switches can be set different waveforms. RND-**Random** acts as master and provides the waveform with a random value.

**Sync** triggers phase new with each keypress.

**The following destinations are driven by LFO 2:**

1 :) DCO pitch - frequency, - vibrato.

2 :) the PWM - when the rectangle in the DCO is on

3 :) the DCO rectangle **SYNC** it is only the frequency modulated rectangular signal.

\*\*\* This later in SYNC MODE

4 :) the frequency of the filter

5 :) the amplitude of the VCA's

6 :) and we can route the frequency on the pitch wheel.

If the controller is on the pitch Wheel active - so the pitch wheel reacts to LFO 1, the second controller is in LFO 2. Is it is active so the pitch wheel on LFO 2 responds.

(Both controllers are active as LFO 1 and LFO 2 modulated by the pitch wheel)

## ENV 2



Even the ENV 2 is almost identical construction which ENV1. 1 However, the attack phase has a log curve - while ENV 1 Attack is linear.

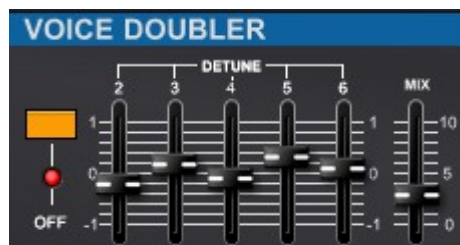
Both Envelopes own 'pickup mode'. That is, if e.g. a long release is adjusted and a new key is played, then accepts the envelope the last amplitude value as Attack value. When a new Note, the envelope travels so do not completely down, but takes the current amplitude value from the release and start from this value ATTACK new. Like the original. This setting prevents clicks.

New is a **TIME SHIFT** slider. This determines the entire envelope is extended in time - or shortened. Default = 0

## ENV 2 modulates the following destinations:

- 1 :) the DCO frequency
  - 2 :), the frequency of rectangle DCO - the Sync
  - 3 :) the amplitude of the sub oscillator. Now it is possible to fade in the sub oscillator .
  - 4 :) the amplitude of the noise signal. Also there is now a fade in possible
  - 5 :) And the frequency of the VCF. \*\*\* If, for example, the envelope controller in the filter menu to 0, and the ENV 2 menu of VCF FRQ to maximum, the filter now responds to ENV 2, ENV 1 will only control the VCA.
- Of course you can also route the two ENV on the filter. Then you have something like a multi-stage envelope.

## Voicedoubler



To make the sound ' bigger' and with more phasing we have build in a 5 Voice voicedoubler.

In addition to the main oscillator 5 more voices are generated. These can be individually detune positive or negative. About the **MIX** function the additional voices are mixed with the original signal.

**TIPS for Voice Doubler.** This is a 5-fold pitch shifter.

If you turn the MIX knob too far so the signal sounds quickly metallic.

Better is a discreet use of the MIX function, the light phasing is heard. But this is also dependent on sound. Since the pitch shifter have a small delay, smudge fast attack phases something. That said, it is the sound depends.

## Velocity and Retro



For expressive playing the 106 emulation now also has the ability to lay the velocity on the cutoff frequency. If a key on the keyboard struck quickly so the filter cut will open more. This also comes with VELO to SYNC really good and allows a dynamic play.

**Retro** - after some discussion I've decided to also incorporate the hated noise of the chorus in the device. Is switched off via the switch Retro.

## The SYNC FUNCTION



The SYNC function is actually the heart of Xtention.

How does it work ?

Well, we have only one oscillator in this unit. And so you can't normally use any oscillator synchronization.

Technically working in the software 3 oscillators which are coupled in phase. Thus, it sounds like an oscillator - and just so the typical sounds are possible.

When synchronizing you need at least 2 oscillators. A MASTER and a SLAVE. When the master has a positive edge so the phase of the slave is set to 0 again and he starts at a defined switch-on .

If both oscillators, master and slave, have the same frequency - nothing happens!

But as soon as the slave is changed in frequency, there is the typical SYNC sounds. It will generate new overtones. The trick is, the higher the slave is detuned the more harmonics includes the new signal.

To generate even more overtones the square-wave oscillator can modulate with PWM.

All sync functions in the device affects only the square-wave oscillator. If you want to have this effect so must be switched the square oscillator on!

You can serve both the SAW or the SUB oscillator as Master.

About the two switches> SYNC FROM (SAW / SUB) can select the Master.

### The controller at a glance:

Sync '**Manual**' increases technically the frequency of the square oscillator. This is coupled by SAW or SUB in its phase and changes only the overtone.

### VELO SYNC

controls on velocity the pitch of the rectangle and therefore the harmonics.

### MOD AT

very interesting sounds can be created directly on the SYNC of the square also by influencing the Mod-Wheels and aftertouch.

If the controller **VELO SYNC** is active, so you can change via velocity the SYNC frequency.

If the switch 'AT' - after touch turned on, the SYNC control is carried out directly via aftertouch. The controller MOD AT simultaneously represents a strength of influence for the MOD WHEEL AND AFTERTOUCH.

\*\* A nice playground can provide exceptional and very dynamic sounds.

## SYSTEM PARAMETERS

by popular request contains the 106 emulation now a HOLD FUNCTION which is switchable via a MIDI pedal. Depending on the MIDI HOLD pedal use, you may need to re-learn to this function. She stands by default to MIDI CC 64 - HOLD PEDAL.

## How do I MIDI learn ?

With the right mouse button on the HOLD switch click MIDI learn select and move the pedal or a button on your hardware master keyboard. Now can the Hold switch control controller separately via a MIDI CC.

Because not all people have a hold pedal (I, for example, does not), it is possible this function manually to switch on or off.

If the small switch is set to ON the Hold function is permanently switched on . Even so are very spherical sounds possible. \*\*

\*\*Am thrilled.

## SEND ARP TO HARDWARE

with this switch the arpeggiator on the MIDI output to a different hardware synth is sent. It does not necessarily have to be a Juno.

Thus, it is e.g. possible to play with the 106 emulation a Arp sequence, the connected hardware, only the note information, but not the ARP gets scores. Or - at ON- both instruments are controlled by the ARP.

## The ARPEGGIATOR



About the ARP can be programmed fast-moving pattern. The trigger switch turn a note on or off.

Gate determines the length of the note.

\*\* This, when the release time of only ENVELOPES small.

There, six different pattern is selected on the lower selector will . Off turns the ARP OFF.

The OCTAVE button determines whether the sequence is - sweeps up four octaves.

**SWING** added every 2nd note a delay.



The ARP is programmed that he always, when all keys are released and new notes are played at 1 begins with the sequence.

If you hold now a button and play new notes, the result is virtually a small step sequencer.

Hold keeps played the last notes in memory and repeats as long to play to new notes.

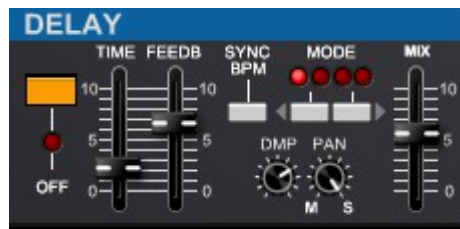
**CHORD** triggers a chord played not in individual notes on but plays the chord in the rhythm of the selected sequence.

**BPM** synchronizes BPM ARP for the DAW used.

**TEMPO** knob has 2 functions. Without BPM (BPM from) can be the speed of the ARP's freely adjust. With BPM (BPM turned on) can be set by the divider ratio of the tempo BPM sync. Possible values are 0.5. 1. 2.. 4

It is therefore possible that the ARP a BPM information from 120 receives, but running at 60 BPM - or, depending on the setting, at 240 BPM.

## DELAY



Also, the delay is easily explained.

The **yellow button** turns the Delay on / off.

Time has also - like pace of ARP -2 functions.

If **SYNC** off so the delay time can be set freely

**SYNC** is turned on and the ARP is switched on, the delay sync to the ARP frequency.

**TIME** will then act as a divider / multiplier for the delay time.

If **SYNC** is on, so the delay synchronized to BPM from HOST.

Is switched Sync, the ARP switched on and set the ARP to BPM, the delay sync on BPM.

The mode switch set one of four different modes of the delay.

- 1 :) normal stereo Delay
- 2 :) stereo delay with different Zeit for left-right
- 3 :) ping pong delay
- 4 :) ping pong with varying time left / right

**DAMP** attenuates the delay signal having a 6 dB from filter.

**PAN** = Panorama provides the delay continuously from stereo to mono.



**MIX** mixes the delay with the original signal.

**The play helps, PITCH WHEEL, WHEEL MOD and AFTERTOUC, PORTAMENTO and Master Volume**



Master Volume adjusts the overall volume of the instrument.  
The two LEDs on the volume knob indicate volume peaks.  
Lights this LED'S too often, should the volume be reduced to prevent distortion.

The portamento knob controls in conjunction with the on / off switch, the glide time. While these parameters in poly mode is of limited use, the result is in mono mode with very beautiful sliding sounds or sequences.

### **The pitch and mod wheel**

The pitch and modulation wheel is designed as a unit.  
If the wheel left / right

<---->

moved, so the synthesizer receives the 'pitch' or pitch modulation. The controller is centered, so he jumps after use immediately back to the center.

Targets for the pitch wheel are the DCO and the frequency of the filter.  
About the controller DCO and VCF the amount of pitch modulation wheel to the respective targets set.

Further, the wheel may also be moved forward or backward.  
With the regulator 'LFO' the strength of the influence of the LFO 1 via the MOD WHEEL is controlled to the DCO.

### **Aftertouch**

Is this Xtention Pannel displayed appears next to the pitch wheel, a new AT switches and 4 LEDs.

**The AT (aftertouch)** can be use by pressing and routed to the AT button on the following objectives.

- 1 :) DCO
- 2 :) VCF
- 3 :) LFO MOD
- 4 :) DCO and VCF
- 5 :) DCO and LFO MOD
- 6 :) VCF and LFO MOD
- 7 :) DCO and VCF and LFO MOD

Because actually aftertouch can replace the pitch wheel, the respective strength of the interference is set by the controller DCO, VCF and LFO.

So it can be modulate either by the pitch wheel or with the AFTERTOUC

### **Tipp: Pitch Wheel to LFO 2**

If you want only use LFO 2 for the MOD WHEEL or aftertouch modulate so, proceed as follows.

The LFO controller over the wheel is set to 0 - This is exclusively for LFO 1 .

Now I can affect with LFO 2 and the MOD Wheel the DCO.

Prefer the make over AFTERTOUC, so long as I click the mouse on the AT switches until the LED on LFO TRIG lights. About the M-Wheel controller in LFO2 menu the strength of the influence is adjusted equally for both sources, Mod Wheel and AT.

### **The emulation 106 in conjunction with the hardware**

As mentioned in the Manual, the 106 emulation also control the real hardware.

With a patch change in the software, the new sound program is automatically transferred to the hardware via MIDI SYSEX and is ready to play in the hardware.

\*\*\* If the FUNCTION SWITCH is set in the HARDWARE to 3

**Limitations: It is not possible to program the software on the hardware. The data flow is always running from the software to the hardware !!**

### **Conditions :**

The 106 emulation is running in standalone SAVIHost or in the free Cantabile (86) software.

There is a MIDI master keyboard available!

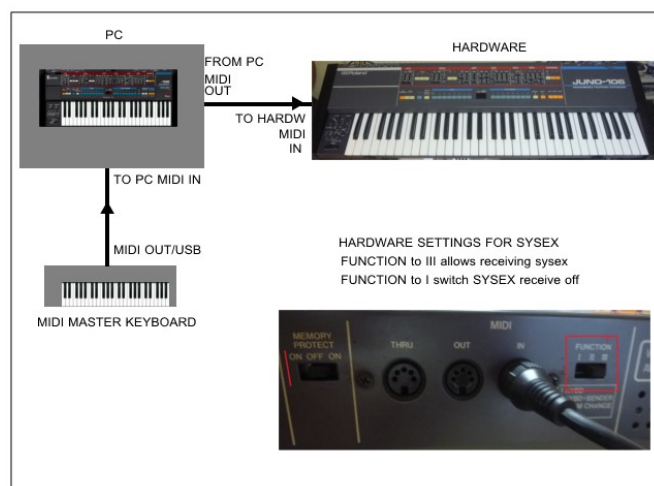
It is a DIN 5 pin MIDI Out connector available.

SYSEX with various DAW's.

Not all DAW'S can also transfer SYSEX.

This is to test an individual basis with the DEMO and before buying.

The function described here is with Cantabile - latest version, and tested SAVIHost.



### Here again the **ROUTING**.

We see that the MIDI KEYBOARD is connected to the PC.

The 106 emulation is started and is running either in SAVIHost or CANTABILE.

MIDI OUT FROM PC is connected to MIDI IN of the hardware.

**Caution when additional MIDI out of the hardware back into MIDI IN is connected from the PC so there is a MIDI LOOP and it works NOT !!**

On the back of the hardware to a FUNCTION switch is a three position.

Switch to 1 - sysex data is not received !!

A programming via the 106 emulation is switched off.

Switch to 3, SYSEX DATA are received, a programming via the 106 emulation is possible.

**Will you program the hardware from the software so the FUNCTION SWITCH must be set on 3.**

**MEMORY PROTECT** switch on the hardware set to OFF, the transmitted sound can be saved directly to the memory function in the hardware.

It is now also possible to store sounds for the hardware directly in the PC.  
You can now save sounds in the digital world .

However, transmitted are only individual sounds - but not a sound bank.

## The settings in the standalone version with SAVIHost

Before using the standalone version the MIDI keyboard, the sound card and the latency must be set in SAVIHost.

**About DEVICES one selects first the MIDI driver.**

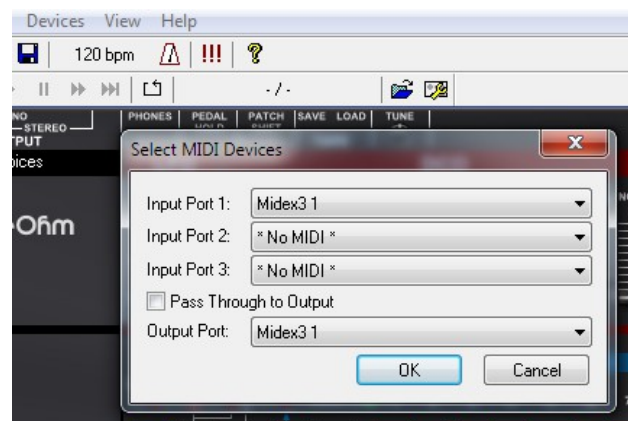


The Input Port - MIDI IN is here on the MIDI interface Port 1

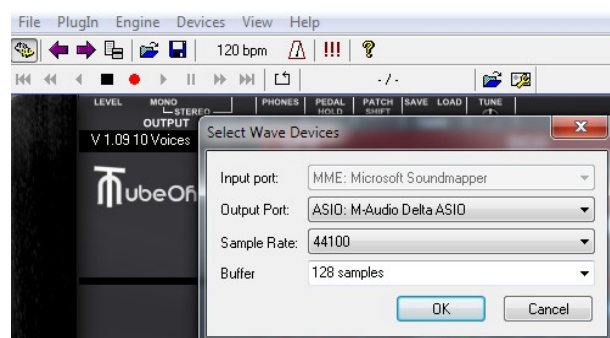
The Output Port - ie MIDI OUT is also provided on the first port.

MIDI Out is used to control the hardware and must be connected to the hardware.

The 'pass-through' feature is not turned on because otherwise the Midi would information be routed from the MIDI input directly to the MIDI output and not through the 106 emulation !!



Now set the ASIO SOUND CARD and the frequency and latency --AUDIO settings/ select wave devices.



We recommend 44,100 HZ and a latency 64 or 128 samples.

Curiously, works a SYSEX transmission in SAVIHost only with a latency 64 or 128 samples.

After do the settings, the software is ready for use in SAVIHost.

Should there be problems so I suggest you to use Cantabile light (86) as a standalone DAW.

<https://www.cantabilesoftware.com/download/>

The Cantabile light software is free - but you have to register.

The routing in Cantabile is a bit tricky.



Now the transfer of SYSEX also works with a latency up to 256 samples (tested).

\*\*Juno 106 is a trademark of Roland Company

<http://www.roland.com/>

\*\*Cantabile is a trademark of Software Cantabile

<https://www.cantabilesoftware.com/>

Thanks to Herman Seib for his Savihost

helpfull linkss:

<http://www.synthmania.com/juno-106.htm>

<http://www.hinzen.de/midi/juno-106/howto-02.html>

<http://www.vintagesynth.com/roland/juno106.php>

[https://www.youtube.com/watch?v=PsK22MpLL\\_k](https://www.youtube.com/watch?v=PsK22MpLL_k)

Have fun with the emulation

TubeOhm

29.08.2016