

Nome II Manual

For Firmware 5.0 For U-SYNC 1.4.1

This PDF is the full manual for the Nome II by Sim'n Tonic. Read it through to learn all the things this versatile device can do!

Complementarily to this PDF, you can watch this Video walkthrough:

Nome Walkthrough (Video manual)

Important Note: this walkthrough is quite <u>outdated</u>. A new full walkthrough for FW 5.0 will be made soon.

And another walkthrough for new features added in FW 4.0:

■ Nome Firmware 4.0 is OUT

And another video for FW 4.5:

■ Nome FW 4.5 - for Metronome users

If you need help, ask on:

- The Sim'n Tonic Forums
- The Sim'n Tonic Facebook Group
- Or contact Support (please prefer public channels if possible)

PS: if you have a Nome feel free to write a public review on Google to share your experience with the community! Thank you <3

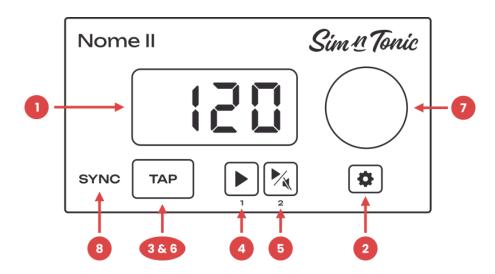
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1. Buttons & Connectors

1.1 - Front view

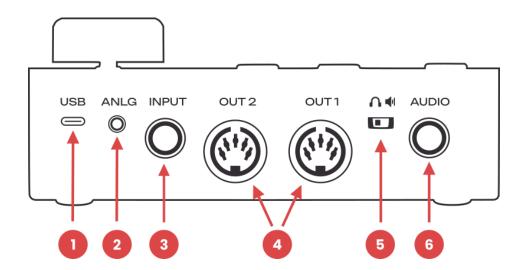


- 1. Display shows the current tempo (or current setting/value/info)
- 2. Setup Button enter and leave the settings
- 3. Tap Tempo Button
- 4. Play Button 1
 - o start/stop your gear on MIDI Out 1
 - o hold down to resync/restart your gear
- 5. Play Button 2
 - o Same as above, but for MIDI Out 2
 - Can be configured to mute the metronome (see the "PL.2" setting)
- 6. TAP LED blinks at tempo (purple on downbeat, yellow on other beats)
- 7. Knob
 - o turn it to change the tempo, or change settings/value
 - o press it to validate or change the tempo decimals
- 8. SYNC LED:
 - Yellow when the device is synced to U-SYNC
 - Purple when the device is synced to an external audio signal
 - Blinks momentarily **green** or **red** at every tap when tapping the tempo

Combo actions:

- Hold + rotate to change the metronome's volume
- Hold + press or to nudge the time backward or forward
- Hold while tapping to tap quicker tempo changes (no averaging)
- Hold TAP + hold KNOB for 1 sec to "lock" the tempo (see Quick start)

1.2 - Back view

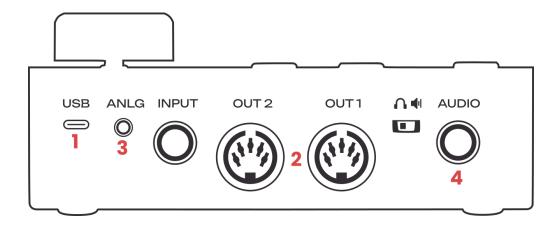


- 1. USB Type-C plug
 - o Powers the device
 - o USB communication with a computer
- 2. CV/Analog/DIN Sync Clock Output
 - 3.5mm TRS plug (stereo jack)
 - o sends 5V analog pulses on both Tip & Ring for your modular synths
 - o can be configured to DIN Sync (sync24) for vintage gear
 - this will require a TRS-to-DIN Sync adapter

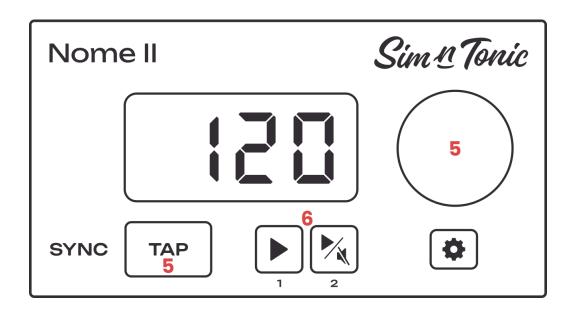
- 3. Multi-function Input
 - 6.35mm TRS plug (stereo jack)
 - o plug in 2 pedals here (one on Tip/Left and one on Ring/Right)
 - o plug a drum pad here (to tap the tempo and/or time signature)
 - o send an external sync signal here (see external sync section)
- 4. MIDI Outputs
 - o Sends MIDI Clock, MIDI Start/stop, and forwarded USB-MIDI messages
 - o Start/stop can be independently controlled on each port
- 5. Headphones/Line Out switch
 - selects headphones (♠)) or balanced line out (♠)) for audio out (6)
- 6. Audio Output
 - o 6.35mm TRS plug (stereo jack)
 - o plays metronome click
 - o Do not send phantom power (+48V) to this output

2. Quick start

Start by plugging cables on the back of the device:



- 1. Connect the USB cable for power
- 2. Connect a MIDI cable to the MIDI IN/Input connector of your MIDI devices
 - o Make sure your devices synchronise to external MIDI Clock
- 3. Connect a mini-jack (3.5mm) cable to send clock to your modular synths
- 4. Plug-in a pair of headphones to listen to the Metronome



Now your devices should be in time with each other, and you can:

- 5. Change the tempo:
 - Turn the Knob to change the tempo (1)
 - Turn the Knob while pressing to set tempo decimals
 - Tap the tempo to make the timing match your tapping
- 6. Start/stop your MIDI sequencers (button *x* for MIDI Out *x*)

Furthermore:

- Change the volume by holding down Setup and turning the Knob
- When pressing any of the two Play buttons:
 - The button will blink

 - Holding it down will send a re-sync/rewind signal (5 4 n)
- To mute/unmute the metronome, you can configure the second Play button as a Mute button instead see the "PL.2" setting
- Holding down both TAP and KNOB for 1 second will "lock" the tempo
 - The display will show \(\begin{align*} \begin{a
 - o Tempo changes need to be validated by pressing the Knob
 - This way you can make tempo jumps
 - Note that you cannot lock the tempo if:
 - if the InPsetting is set to 24P or 54∩
 - if the device is connected to a DAW via U-SYNC
 - o In this mode, count-off, smart tap tempo, and tempo decimals are disabled

(1)

This is designed so that accidental turns would not "erase" the decimals.

[•] Turn **fast** to change to a round integer (for ex. $120.46 \rightarrow 125.00$)

[•] Turn **slowly** to keep the decimals (for ex. 120.46 → 121.46)

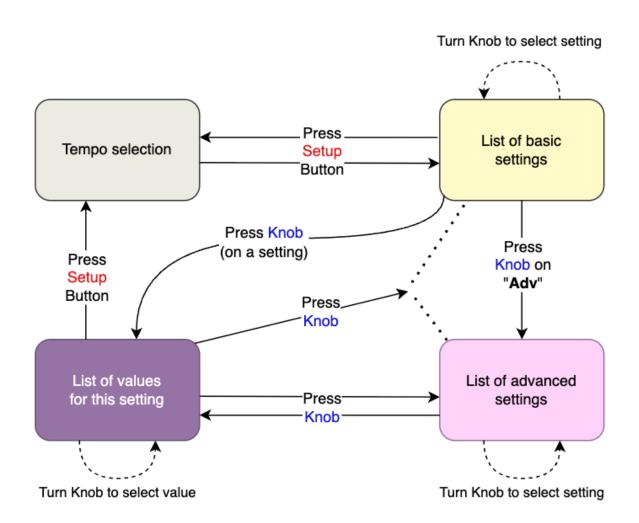
3. The settings

The settings are different configuration options changing the way the Nome will act or react, when for example a button is pressed, or when a piece of hardware is plugged in.

Because it is so versatile, the device has <u>many</u> settings and a lot of different possibilities to configure it. But you probably only want to change a few to fit your setup, so it's just a matter of having a **quick overview of what's possible**, changing it, and forgetting about it.

3.1 - Editing the settings

The settings are accessible by pressing the Setup Button. Use the Knob to select, change, and save a setting value.



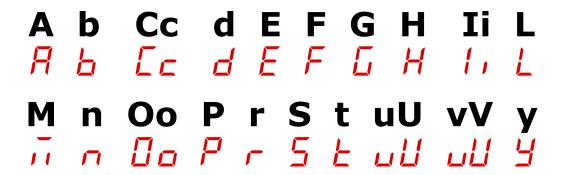
Step	Turning the Knob	Display example
Tempo selection	Changes the tempo	120
List of basic settings	Changes the selected setting	Uo. I
List of advanced settings	Changes the selected setting	PEd
List of values for this setting	Changes the value of this setting	<u> </u>

The color of the setup button will change according to the step:

All settings are saved and applied automatically. They are also preserved when the firmware is updated, unless stated otherwise in the changelog.

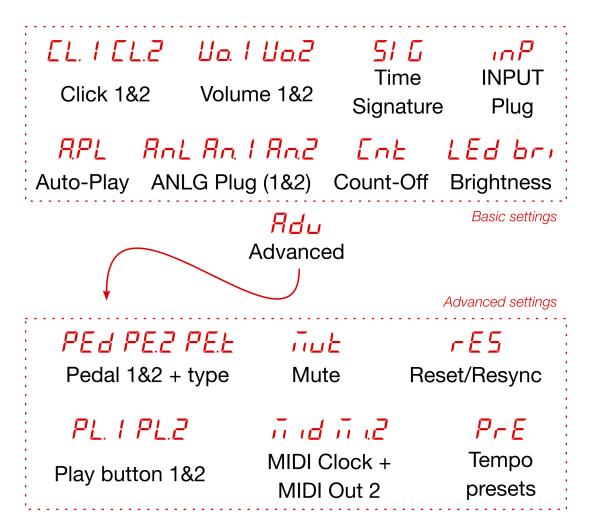
3.2 - Reading letters and abbreviations on the display

Understanding what the display is telling you can be a bit tricky if you are not used to it. This is the alphabet used by the Nome:



Note that the dot is used for separation, for example: RPL reads Auto-Play.

The 3-letter abbreviations used are trying to be as clear and as consistent as possible. Here is a list of all setting names abbreviations and their meaning:



And here are some of the other abbreviations used (as setting values, among others):

- II I. & II I. E: MIDI Output 1 and 2 (on the back of the device)
- both MIDI Outputs (1 and 2)
- PLP: Playing function, *i.e.* the ability of doing start/stop
- **C D** : constant, *i.e.* something that is permanently **on**
- FUL: follows Play, i.e. something that is only on after a Play button is pressed
- Fun: follows Mute, i.e. something that is on when the metronome is **unmuted**
- di n: DIN Sync mode (also called sync24)
- 5 4 c: resyncing, typically sent on the device's MIDI and ANLG outputs

3.3 - Considerations on how to configure your Nome

There are quite a lot of settings, but most of them are very simple. Just have a quick look at the list so **you know what is possible**, and you can forget about the settings that do not concern you.

Most users report they went to the settings once, to customize their Nome to their liking, then never went back in again.

To make it less overwhelming, they are separated in two lists, the advanced settings being less likely to be changed regularly.

Note that whenever the device has to choose between MIDI Output 1 and 2 to trigger an action, MIDI Output 1 is chosen. In other words,

For example:

- When the TAP LED, the Mute function, or the ANLG outputs "follow play", they will follow whether MIDI Output 1 is playing or not
- When configured in DIN Sync mode, the ANLG output follows MIDI Output 1
- When the first play button is configured to act on both outputs, it will light up according to MIDI Output 1

On the other hand, when it's explicit, the Nome chooses the appropriate output. For example:

- any configuration on the ANLG ring/right will follow MIDI Output 2 (while will follow output 1)
- The second play button will always act on MIDI Output 2
- Two pedals configured as PLR will each act on their own output

3.4 - The list of basic settings

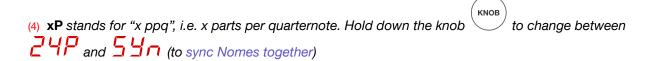
Setting Name	Meaning	Setting Values		
EL. I	Click Sound for Click 1 (downbeat)	TFF (sound off), or click sound 1 to 59, or custom user clicks L. I, L.Z, L.Z, or L.Y (1) Clicks 1-9 are "natural" (recorded), while 10+ are digital		
EL.2	Click Sound for Click 2 (other beats)			
Ua I	Volume of Click 1 ⁽²⁾	Volume of the click, 1 to 9 (6dB steps)		
Ua.2	Volume of Click 2 ⁽²⁾			
5/ [Time signature	Bar signature from 1/2 to 32/16 (16 shown as ö). For example: for 4/2 for 4/4 (default) (to change the denominator quickly, hold down the knob + turn)		
ınP	INPUT Plug Mode	Input plug is deactivated Pedal mode (default) Drum Pad/Trigger mode (3) as "Tap Tempo" Drum Pad/Trigger mode (3) as "Tempo" Tempo Following" (not yet implemented) Pto 249 external sync to audio/analog x ppq signal (3) (4)		

R.P.L	Auto-play Mode	Both outputs 1 & 2 will play automatically when syncing starts - see external sync Only MIDI Output 1 plays automatically Only MIDI Output 2 plays automatically (the two ANLG outputs always follow their respective MIDI output, so these will also play if Pollow is set to FOL)
AnL	Analog Clock Mode	Clock is sent constantly (default) Clock is following play DIN sync / sync24 output mode (for vintage Roland drum machines like the TR-303)
An. I	Analog Clock 1 Speed (left/tip part of the ANLG TRS plug)	Output is off, always at 0V 'I to '2' Clock sent at 1 to 24 ppq (pulses per quarter) Run gate signal, 5V = playing, 0V = stopped (5) Pulse/trigger sent when starting/stopping (5)
An.2	Analog Clock 2 Speed (right/ring part of the ANLG TRS plug)	Pulse/trigger sent when starting/resyncing (5) To DD Pulse sent every 2 to 99 quarter notes (speeds are ignored and hidden if Poll is set to DD)

	Count-off Mode	The count-off function is disabled (default)	
		Tapping the tempo will start a count-off when both MIDI/ANLG outputs 1 & 2 are stopped	
Ent		Tapping the tempo will start a count-off when MIDI/ANLG output 1 is stopped	
		Tapping the tempo will start a count-off when MIDI/ANLG output 2 is stopped	
		Tapping the tempo will start a count-off when the metronome is muted	
	TAP LED brightness	TAP LED blinking is turned off	
		LED is on constantly (default)	
LEd		"Follow" - LED is following <i>Play</i>	
		"Follow Mute" - LED is following <i>Mute</i>	
		Adjust brightness of the display and all LEDs	
bri	Display Brightness	From 100 to 800	
Rdu	Advanced settings	Opens the list of advanced settings	

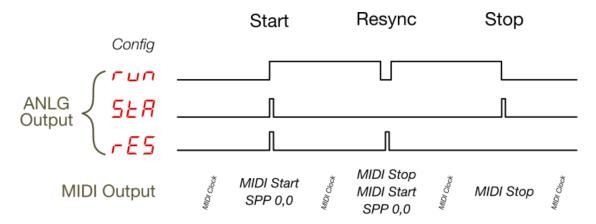
⁽¹⁾ Custom user click sounds can be uploaded to the device using the Sim'n Tonic Config Tool

⁽³⁾ when selecting PRD, FDL, or IP to IP, the tempo LED will stop blinking and react to taps on the pad, or to input audio/analog pulses. This way you can check the volume/strength of the input.



⁽²⁾ When out of the settings, adjust both volumes quickly by holding down the Setup button and turning the Knob.

(5) Here is a diagram to better understand those 3 options:



3.5 - The list of advanced settings

Setting Name Meaning		Setting Values
PEd	Pedal Function ⁽⁵⁾	Mute/unmute metronome (default) Play/Stop (1) Tap Tempo (6) Apply next/previous preset (2)
		(changing this will automatically set InP to PEd)
PE.2	Pedal 2 Function ^{(3) (5)}	Pedal 2 is disabled (default) Mute/unmute metronome Play/Stop (1) Apply next/previous preset (2)

PE.Ł	Pedal Type	Sustain - use momentary pedals like piano sustain pedals (default) Latching - use latching pedals like guitar amp footswitches (7)
ПШE	Mute Function	Follow Play - Pressing the Play button 1 will mute and unmute the metronome Same as Follow Play - but unmutes as soon as the play button is blinking (great to use with F E 5 set to E T E)
rE5	Reset Mode	Play is sent on the next bar (default) Play is sent right away and the audio metronome is reset/rewound Reset/rewind the metronome but also wait 1 bar of count-in before sending play (great to use with play set to F. L.L.)
PL. I	Play button 1 Output	both - button affects both MIDI Outputs MIDI 1 - affects MIDI Output 1 only (default)
PL.2	Play button 2 Function	Mute/unmute metronome Play/Stop (4) on MIDI Output 2 (default)
ī. id	MIDI Clock Setup	MIDI Clock is always off, never sent constant - MIDI Clock never stops (default) Follow Play - MIDI Clock is only sent on an output when it is playing (when an output is not sending MIDI Clock, the MIDI Start, Stop and SPP messages will not be sent either)

ī2	MIDI Output 2 Speed	MIDI Clock speed divider on MIDI Output 2 From = 1/1 (clock running at full speed - default) To = 1/8 (clock running at 1/8th of the speed)
Presets Configuration		See the Tempo Presets section

- (1) As of FW 4.0, pedals configured as PLP act like the play buttons: short press does start/stop, while a long press does resync. Using one pedal only will affect the MIDI output controlled by the play button 1 (i.e. PL. setting). Using two pedals will each control one MIDI output.
- (2) Short press applies the next preset, long press applies the previous preset.

 Or use both pedals, in this case pedal 1 = previous preset and pedal 2 = next preset.
- (3) Pedal 2 is the Ring/Right part of the INPUT plug, it can be used in conjunction with any of the settings.
- (4) When using this option, you can still mute/unmute with a pedal, MIDI Commands, or by changing the Libbs setting to Filb.
- (5) The two pedals' polarity is automatically detected when leaving the settings and when the device restarts. Make sure <u>not</u> to press the pedal at that time.
- (6) When count-off is enabled, a **double-tap** will stop the sequencers / unmute the metronome (depending on the count-off setting).
- (7) Latching pedals cannot be "long-press'ed", so using such a pedal will not give the possibility to load the previous preset or to resync (for example).

3.6 - Extra metronome settings, only configurable by software

Since Firmware 4.5, there are a few extra settings for the Metronome, which can only be configured using the Sim'n Tonic Config Tool.

These settings are saved on the device just like the others.

Sim'n Tonic Config Tool View	Setting Name	Setting Values
8th note click sound (CL.3) Same as CL.2 ✓ Same as CL.2 User Click U.3	Click Sound for Click 3 (8th notes)	Click sound for 8th notes on the metronome, set to: • Same click sound as [] (default) • Or custom click []
Same as CL.2 ✓ Same as CL.2 ✓ User Click U.4	Click Sound for Click 4 (16th notes)	Click sound for 16th notes on the metronome, set to: • Same click sound as [] (default) • Or custom click []
8th note click volume (Vo.3) Vo.2 minus 12dB	Volume of Click 3 (8th notes)	Volume of the click 3 , set to either: • Local volume minus 12dB (default) • or a set volume from 1 to 9 in 6dB steps
16th note click volume (Vo.4) Vo.2 minus 18dB ~	Volume of Click 4 (16th notes)	Volume of the click 4 , set to either: • Lic. volume minus 18dB (default) • or a set volume from 1 to 9 in 6dB steps

You can also use the same Sim'n Tonic Config Tool to upload custom user click sounds for the metronome (i.e. U, U, U, U, and U, and U.

4. Tempo presets

Since Firmware 4.0, you can now save tempo presets on the device. There are **50 presets**, each preset containing both the tempo and the time signature. Since FW 5.0, the Presets include the tempo decimals as well.

4.1 - Saving and managing tempo presets

To save and delete presets, find the P = E entry in the advanced settings list:



You will be presented with a list from 1 to X, with X the first available preset (X-1 being the last saved preset).

That preset X will be written as E.xx (E for empty), for example $E.\square \supseteq$ if you have one preset saved already (X=2).

- To save the **current** tempo and time signature as a preset, select the preset you want to save and hold down
 - The display will show 5 P u (SAved) when the preset is saved
- You can only delete the last preset that was saved (the one just before E.xx).
 - To delete it, select it and then hold down **both** and KNOB
 - The display will show ☐ ☐ ☐ (dELeted) when the preset is deleted

To exit the list, either press to go back to the (advanced) settings list, or press to exit the settings and go back to the main display showing the tempo.

4.2 - Applying tempo presets

The last applied preset is always saved in the device.

To see which preset is currently applied, make sure you exit the settings, then hold

and rotate once. The display will show P.xx, for example P.D.D., until you release the TAP button.

No new preset is applied at this point, but if you keep rotating the knob, the next or previous preset will be applied (and the display will also show you).

When one of the play buttons or is lighting **yellow** (*i.e.* a sequencer is playing), the preset will only be applied at the **end of the bar**. The main tempo display will have blinking dots to indicate that a preset is pending.

When the tempo is in locked mode, the preset will only be loaded by not applied until is pressed down.

Note that you can also apply presets using pedals or using MIDI commands.

5. USB communication and commands

The Nome is USB-MIDI Class compliant. It will add 6 MIDI interfaces on your computer. 3 INs:

- Nome II Clock [IN] sends MIDI Clock to your DAW
- Nome II DAW Control [IN] sends MIDI commands to control your DAW
- Nome II Module Itf [IN] forwarded MIDI from the Module interface

And 3 OUTs:

- Nome II Commands [OUT] receives MIDI commands for the Nome
- Nome II MIDI Out 1 [OUT] forwards any MIDI to the "MIDI OUT 1" Jack
- Nome II MIDI Out 2 [OUT] forwards any MIDI to the "MIDI OUT 2" Jack

Note that on Windows the interfaces might be called differently, usually simply "Nome II", then "MIDIIN2 (Nome II)", "MIDIIN3 (Nome II)", and the same for outputs ("MIDIOUT2", etc). They should be in the same order as written above.

<u>Important</u>: if you recently upgraded the firmware, and cannot see all the interfaces, then you need to delete the Nome Setup registered in your computer, then unplug-replug your Nome. You can do this in the "Audio MIDI Setup" on macOS and in the "Device Manager" on Windows.

5.1 - The Clock interface

The first MIDI IN interface, "Clock", sends the MIDI Clock as well Start and Stop messages. Use it with software or hardware that can follow MIDI Clock, for example it can be a way to get your DAW to follow the Nome.

5.2 - The DAW Control

The second MIDI IN interface, "DAW Control", is used to send special MIDI messages which you can map on your DAW to do specific actions. This is used together with U-SYNC to control the DAW (only available on certain DAWs - see the U-SYNC documentation)

5.3 - The module interface

This will be used in the future, for when you connect a physical add-on module to your Nome. For example a MIDI IN module could forward data from its MIDI IN jacks to these interfaces.

5.4 - MIDI Forwarding interfaces Out 1&2

Send MIDI data to "MIDI Out 1" or "MIDI Out 2", and that data will be forwarded to the corresponding DIN-MIDI port on the back of the device.

The MIDI data is merged with the MIDI generated by the Nome so that:

- The clock has the highest priority and is 100% unaffected by other data
- Start & Stop messages also have high priority and will be sent on time

MIDI System Common messages and MIDI System Realtime messages (which all start with 0xFn) are **not** forwarded, except Song Select message (0xF3).

All other MIDI messages, including Note On/Off, Aftertouch, CC, PC, Channel Pressure, and Pitch Bend are all forwarded.

System Exclusive (SysEx) messages are forwarded, but limited to **500 bytes**. They have lower priority than realtime messages and could be interrupted and resent later if a higher priority message needs to be sent (for example Start).

5.5 - MIDI Commands

You can send MIDI to the "Commands" interface in order to control your Nome.

5.5.1 - Change tempo

On Channel 12, use MIDI CC 85 & 86 to set the tempo to (128 x CC85) + CC86

- CC85 val. 0 followed by CC86 val. 30-127 will set the tempo to 30-127
- CC85 val. 1 followed by CC86 val. 0-127 will set the tempo to 128-255
- CC85 val. 2 followed by CC86 val. 0-127 will set the tempo to 256-383
- CC85 val. 3 followed by CC86 val. 0-16 will set the tempo to 384-400

For example:

- To set the tempo to 170, send CC85 val. 1 followed by CC86 val. 42
- Later on, sending CC86 val. 117 (and no CC85) will set the tempo to 245.

Alternatively, still on Channel 12, using MIDI CC 87, 88, and 89:

- CC 87 val. 0-127 will set the tempo tempo to 60-187
- CC 88 val. 0-127 will set the tempo tempo to 100-227
- CC 89 val. 0-127 will set the tempo tempo to 140-267

Note that all those MIDI messages will reset the tempo decimals to zero (tempo in x.00).

5.5.2 - Change tempo decimals

Firmware 5.0 introduced tempo decimals down to the 100th, from x.00 to x.99. The decimals can also be set using MIDI CC:

• CC110 val. 0-99 will set the tempo to x.00-x.99

For example, if the tempo is currently set to **134.53**, sending CC110 val. 27 will set **134.27** as tempo.

Note that all MIDI messages (above) changing the tempo, i.e. MIDI CC 86, 87, 88, 89 will reset the tempo decimals to zero.

5.5.3 - Change time signature

On Channel 12, use MIDI CC 90 to set the time signature:

- CC 90 val. 1-32 will set the time signature *numerator*
- CC 90 val. 101-104 will set the time signature denominator
 - \circ 101 = x/2
 - \circ 102 = x/4
 - \circ 103 = x/8
 - \circ 104 = x/16
- For example CC 90 val. 6 and CC 90 val. 103 will set a time sig. of 6/8

5.5.4 - Mute/unmute metronome

On Channel 12, MIDI CC 102, with the following values:

- 0 = mute metronome
- 1 = unmute metronome
- 2 = toggle mute (unmute if muted and mute if unmuted)

5.5.5 - Change analog clock speed ("An.1" and "An.2" settings)

On Channel 12, use MIDI CC 104 or 105 with the following values:

- CC 104 val. 0-109 will set ANLG clock 1 speed
- CC 105 val. 0-109 will set ANLG clock 2 speed

Note that this corresponds to the \overline{A} and \overline{A} settings, with the following values :

- CC val. 0 corresponds to DFF
- CC val. 1-8 corresponds to "X ppqn" values, from ' to ' \(\frac{2}{4} \)
- CC val. 9-11 correspond respectively to $\Gamma \sqcup \Gamma$, $5 \not\vdash R$ and $\Gamma \not\vdash S$
- CC val. 12-109 correspond to "X beats" values, from \vec{c} to $\vec{5}\vec{5}$

See the list of basic settings section for more details.

5.5.6 - Apply tempo presets

On Channel 12, use **MIDI Program Change** (PC), with the preset number (0 to 49). Alternatively use a **MIDI Song Select** message, also with the preset number (0 to 49). Or, also on Channel 12, use MIDI CC **106** or **107** with the preset number (1 to 50).

- PC val. 0-49 will apply a preset
- Song Select val. 0-49 will apply a preset
- CC 106 val. 1-50 will apply a preset
- CC 107 val. 1-50 will apply a preset right away

MIDI CC 106 and MIDI PC will wait if the Play button is lit or if the device is in Locked Mode (like when doing it on the device or on a pedal), while MIDI CC 107 bypasses this and applies the preset right away.

On your devices/software, CC values usually start from 0, while PC and Song Select start from 1, so whatever you use, the number shown on your device should match with the preset number.

5.5.7 - Start/stop sequencers

- MIDI Continue: (re)start machines on MIDI Port X⁽¹⁾ on the next bar
- MIDI Start: reset/rewind the clock⁽²⁾ and start machines on MIDI Port X⁽¹⁾
- MIDI Stop: stop machines connected to MIDI Port X⁽¹⁾
- On Channel 12, MIDI CC 103:
 - 0 = same as MIDI Continue
 - 1 = same as MIDI Continue but for Port 1 only
 - 2 = same as MIDI Continue but for Port 2 only
 - 10 = same as MIDI Stop
 - 11 = same as MIDI Stop but for Port 1 only
 - 12 = same as MIDI Stop but for Port 2 only
 - o 20 = same as MIDI Start
 - 21 = same as MIDI Start but for Port 1 only
 - o 30 = same as MIDI Start, but with a 1-bar count-in
 - 31 = same as MIDI Start, but with a 1-bar count-in and for Port 1 only

⁽¹⁾ Port X = the MIDI output port selected by the PL. I setting (both or output 1 only)

⁽²⁾ This is independent of the **rES** setting. But no resets or count-in are possible when syncing to an external clock (24P mode or U-SYNC for example).

These start/stop commands are acting no matter the current playing state and no matter the configuration of the device (in particular $\longrightarrow PL$. I and $\longrightarrow PL$. I and $\longrightarrow PL$. I and $\longrightarrow PL$.

This way, if you have started your sequencer manually you can still stop it by sending MIDI Stop. Or if you want to send a resync message (= hold down the Play button), you can do that by sending MIDI Continue.

Note: To avoid conflicts with a DAW sending transport messages, the MIDI Start/Continue/Stop commands are disabled if the device is connected to a U-SYNC plugin and if the auto-play is on at the same time. The MIDI CC Commands (including CC 103) are always enabled.

6. External sync - follow other devices & DAWs

The Nome has been designed to be used as a Master Clock, and if you can you should always let it be the master. But there might be some situations where this is not possible, this section is about how to get your Nome to follow another device.

6.1 - Sync to an analog clock or an audio signal

Setting the setting to one of the **1P** to **24P** values will get your Nome to follow an analog or audio signal sent to the "INPUT" jack of the device.

The analog sync signal can be any loud short sounds or analog pulses sent at **X ppq** (parts per quarternote). This could be for example a recorded sound sent regularly or a 5V analog clock like the ones sent by modular or vintage synths. The available signal speeds **X** (in ppq) are the following:

Make sure the pulses are **sharp and short**, otherwise one pulse could be counted as two.

This is a great way to get the Nome to follow a machine **without MIDI**, for example a tape machine, a hardware recorder, a DJ turntable, an SPD Drum pad, a piece of software, etc.

Important: the Nome cannot sync to any audio, like a song, it needs <u>regular</u> pulses. Syncing to any audio is usually called Beat Detection. **However**, in the future, it will be possible for the Nome to do "*Tempo Following*", i.e. follow a drum beat, by setting the

6.2 - Syncing to your DAW with U-SYNC (Mac)

Syncing your hardware to your DAW has **never been easier**! Firmware 3.0 added a very innovative feature which we decided to call **U-SYNC**.

U-SYNC now has its dedicated PDF manual regarding its setup.

Note: for now, U-SYNC is <u>only available on **Mac**</u>. On Windows you will have to use the 24P mode and the old plugin.

6.3 - Syncing to your DAW using the 24P mode (Windows)

If you are on Windows, or if your DAW does not work with U-SYNC, you can sync using the "Midronome" plugin. This plugin sends analog (audio) pulses at 24ppq, so that the Nome can sync to it like it would to an analog clock for example. It works with <u>both generations</u>, Nome I **and Nome II** (despite its name).

Note: this "Midronome" plugin is open-source. Feel free to report or even correct any bugs on its github page. You can download the VST/AU/AAX files on the github page.

Once you have the plugin installed:

- Load the plugin on a track in your DAW
- Then configure your DAW and your audio interface so that this track is routed to a dedicated (physical) output on your audio interface
- Make sure that only this track is sent on that output
- Make sure the volume of that output is loud is loud
- Connect a cable from this output to the Nome's "INPUT" plug
- Enable the 24P mode on the Nome

Then press play in your DAW, the Nome's "**SYNC**" LED should turn on and it should follow your DAW's timing.

For more information about how to set up the old plugin, see the old PDF for FW 2.0 called "How to sync with DAWs", also on the github page.

6.4 - Syncing your DAW to the Nome using MIDI over USB

U-SYNC and the 24P mode will get the Nome to follow your DAW (*i.e.* the <u>DAW is the master</u>), but you might prefer it the other way around, getting your DAW to follow the Nome (*i.e.* the <u>Nome is the master</u>).

The Nome sends MIDI Clock over USB, which you can use to sync your DAW to it. Please refer to your DAW's documentation regarding how to do this. For example, the "Syncing Live to another device or application" section in the official Ableton documentation describes how to set it up for Ableton.

Most DAWs have a setting to adjust the synchronisation delay, see your DAW's documentation regarding this as well. Please note:

- as of today, only Ableton, Bitwig, FL Studio, and Reason can do this
- this type of synchronisation is not very precise

6.5 - Automatically start and stop sequencers

The setting gives the possibility to automatically "press" a play button when the sync starts and stops. Simply set this setting and the Nome will automatically send Start/Stop on its physical MIDI Outputs ports when the sync starts and stops, whether it's syncing to a DAW or to an analog/audio signal (sync to 1-24ppq, i.e. 1P - 24P settings).

Since Firmware 4.0, you can choose which output should start automatically:

- b c will start both MIDI Output 1 and 2
- // will start MIDI **Output 1** only
- II LZ will start MIDI **Output 2** only

As with everything else, the **Analog Outputs** 1 (left part of the ANLG plug) and 2 (right part) **follow** the respective MIDI outputs, so they will also be affected by this setting.

Note that:

- when syncing multiple Nomes together, this setting also affects the follower Nomes react to pressing play on the master Nome.
- when the count-off setting $\longrightarrow \square \square \sqsubseteq$ is set to $\square \square \sqsubseteq$ (start count-off when **Mut**ed), the autoplay setting determines which MIDI/ANLG output starts after the count-off.

7. Extra functionalities

7.1 - Syncing multiple Nomes together

To get more outputs you can sync multiple Nomes together. This sync is <u>one-way only</u>: one Nome will be the *master* and <u>all</u> the others will *follow*. The tempo and time signature numerator can only be changed on the master, while the time signature denominator can be set individually on each follower Nome.

There is no real limit regarding how many Nomes you can sync (in fact, we tested it with 36!), and this works with **any combination of Nome I and Nome II** devices.

To set it up, do the following:

- On the *master* Nome:
 - Select the → LL. I setting, and set it to 59
 - Press (KNOB) for 1 second
 - The value will change from **59** to **5 4 7**
- On **every** <u>follower Nome</u>:
 - Select the → ITP setting, and set it to
 - Press (KNOB) for 1 second
 - The value will change from 24P to 54n

Now connect a 6.35mm jack cable from the AUDIO plug of the master Nome to the INPUT plug of every follower Nome (use Y splitter cables if syncing more than 2 Nomes).

For best results, set the audio output switch to line out () on the master Nome.

To get a follower Nome to play automatically when the master Nome is also playing, see the section above about the \longrightarrow RPL setting.

7.2 - Tempo decimals

As of FW 5.0, you can now set the tempo **down to the 100th decimal**, from *x.00* to *x.99*.

The decimals are also:

- automatically set when tapping a tempo
- saved in the tempo presets
- supported by U-SYNC 1.4 and newer
- modifiable using MIDI CC Commands

On the device, **press** once to open the tempo decimal page. The display will then show a dot and the decimal part of the BPM ".xx". For example if the current BPM shown is



Note that:

- You can instead hold down and turn (while pressing) for a quick adjustment
- Changing to a new BPM integer number will
 - Reset the decimals when turning **fast** (for ex. $120.46 \rightarrow 125.00$)
 - Keep the decimals when turning slow (for ex. 120.46 → 121.46)
 (this is to avoid accidental turns resetting the decimals)

7.3 - Count-in and count-off

You can do both a count-in (since FW 4.5) and a count-off (since FW 5.0) with the Nome.

7.3.1 - Count-in: count done by the Nome

Count-in is when you press the play button and the machine will count one bar for you until it starts.

- To activate this, you can set the $\longrightarrow Rdu \rightarrow rE5$ setting to LnE
- (both of these are advanced settings)
- Then pressing the Play button will start the count-in right away, you will hear one bar of metronome and your machines will start on the next bar

7.3.2 - Count-off: count done by the musician

Count-off is almost the same, except that you tap the bar of count-in <u>yourself</u>. This is a great way to set both the start point and the tempo, either at the beginning of a song or to catch a live tempo already running, as described in the <u>section below</u>.

- To enable it, choose a value for the → ☐ ☐ b setting
 - o This setting determines when tapping will start a count or adjust the tempo
 - For example setting it to // (MIDI Out 1) means:
 - tapping while the MIDI output 1 is stopped starts count-off
 - tapping while the output is playing will adjust the tempo
- Then set the time signature, and tap exactly one bar, for example 1, 2, 3, 4
- On the next bar, the machine takes over and starts everything
 - \circ What MIDI/ANLG output is starts is what the $\longrightarrow \square \cap \square$ setting is set to
 - When it is set to \square , the metronome is unmuted and the output that starts is the one indicated by the autoplay setting \longrightarrow \square \square
 - Note that the metronome is unmuted <u>after</u> the first beat, to avoid a "click flam" if a musician is slightly off-beat
- After this, tapping will adjust the tempo, matching the music to the tapping
- A double-tap on a pedal or a drum pad stops (and/or mutes)
 - It does the exact opposite of what was done after the count-off

7.4 - Catch up live timing with Smart Tap Tempo

Since Firmware 5.0, you can now "catch" a live tempo already running, which is great if you are playing with live musicians without a metronome, or with a machine that cannot send a 1-24ppq signal to sync to.

Before trying to catch a tempo, it's a great idea to **set the start timing of the Nome** right - you can do this by counting off.

Then, once started, <u>simply tap</u>, as the *Smart Tap Tempo* algorithm will set not only the tempo but also **match the timing to your tapping**. It might take a few beats to catch up, simply keep tapping until the music aligns.

Note that the **SYNC** LED will show you how precise your taps are by changing its color:

- Perfect Green means your taps are in time with the Nome's internal timing
- Perfect Red means your taps are at least 50% off
- Anywhere in between will give you a mix of the two colors (green -> yellow -> red)

The Nome will try to keep the tempo stable as much as possible, while at the same time be ready to change the tempo if your tapping changes. To achieve this, it detects if your taps are regular or not:

- When they are, they will be *heavily* averaged, so just <u>keep tapping</u>, the more you tap the more stable it will be
- When not, it will "reset" the average so that the tempo can quickly change and follow your tapping

Pro Tip: If you want to temporarily disable the averaging, hold down the Setup button while you are tapping, this will let you make much quicker tempo changes.

Note: on the 5.0-**beta** firmware, there is a <u>debug</u> feature for you to check what the algorithm is doing under the hood: will light up <u>red</u> every time the Nome "resets" the average tapped tempo. Feel free to use this so you know when it happens. This feature is <u>not</u> present in the (non-beta) 5.0 firmware.

7.5 - Match external gear's timing with Time Nudging

The smart tap tempo mentioned above is great with a source with a variable or unknown tempo, like Live musicians for example.

But if you are trying to sync to a machine with a precise BPM, for example a DJ turntable, it is better to:

- 1. Set the **same BPM** (down to the 100th decimal) on the Nome
- 2. Use Time Nudging to match the timing

To **nudge the timing**, *hold down* and either or . The left button will nudge backwards, the right button will nudge forward.

This will "move" the timing of the Nome without changing its tempo. The longer you hold the buttons (you can let go of the Setup button), the faster the nudge will be.

The two buttons and will change from green to red to indicate how fast the nudge is going.

7.6 - Follow a Live drummer with the "Tempo Following" mode

This is **not** implemented yet, and the option ("FOL") is hidden in the settings. This feature has been postponed for a future firmware release, probably 6.0. There is no ETA for now.

8. Update the Nome Firmware

8.1 - Why update

New firmware versions are regularly released, and for now they are all free!

If you have never updated, then you are probably running an old firmware and would get access to **new features and bug fixes** by updating to the newest version.

Feel free to have a look at the Nome Firmware Changelog for more details.

8.2 - How to update

Updating your Nome is extremely easy:

Download the Firmware Update tool
 Launch it and click "Check for updates..."

New firmware available
The current firmware of your Nome II is
FW 3.2
New firmware available: FW 4.0

Upgrade
See Changelog
Close
Close
Close
Close

You can also update using the **U-SYNC Daemon** and the **Sim'n Tonic Config tool**.

8.3 - How to load a custom, beta, or alpha firmware

The Firmware Update tool mentioned in the section above updates your Nome to the most recent firmware by default.

If you want to load a different firmware on your Nome, you can:

- Download a specific *.fw firmware file (do not rename the file)
- 2. Launch the tool
- 3. Right click "Check for updates..." and load the chosen *.fw file



You can go back at any time to the newest firmware by <u>left</u> clicking "Check for updates..." again.



Important: switching to any firmware will not damage your device in any way, and it will be fully functional.

But downgrading might mess up your device settings (depending on which version). Upgrading back to the same version after a downgrade might also mess up your device settings.

(upgrading to a newer version after that will preserve the settings as normal)

In all those cases, make sure to remember what your settings were so you can set them back.

8.4 - Troubleshooting

There is **no way to "brick" the device** (make it unusable), so feel free to unplug and restart the update if there is any issue. The update process should take no more than <u>15 to 20</u> seconds.

If your device is not detected, please check the USB cable and check in your OS if the device is recognized (*Device Manager* on Windows, *Audio MIDI Setup* on Mac). Please try disconnecting and reconnecting the device as well.

If none of this helps, you can **force** the "update mode" of the device by doing as follows:

- Unplug the USB cable
- Hold the TAP and the two play buttons down
- Replug the USB cable while holding the 3 buttons
- Wait 4 seconds (the screen will stay blank during that time)

After those 4 seconds, the device will start in update mode:

• it will show "rdY" if it is connected successfully (if not, check your USB connection/cable and check your OS)

Now, try running the update from the software tool again.

9. Error Reporting and Firmware crash

<u>Do not hesitate to report any bug you find</u>, no matter how minor, it's a huge help! You can do it on the Sim'n Tonic Bug Reporting forum.

If the firmware were to crash, the display will show "**Er.X**", with X from 2 to 9. This could be caused by a hardware issue or by a firmware bug.

If it ever happens (it still hasn't to this day!), all you have to do is press the MUTE button and your Nome will restart (reboot). But the device will have also saved some info about the crash, which we would **very much like to get**, so if this happens to you, please reach out to support@simntonic.com.

Thank you!