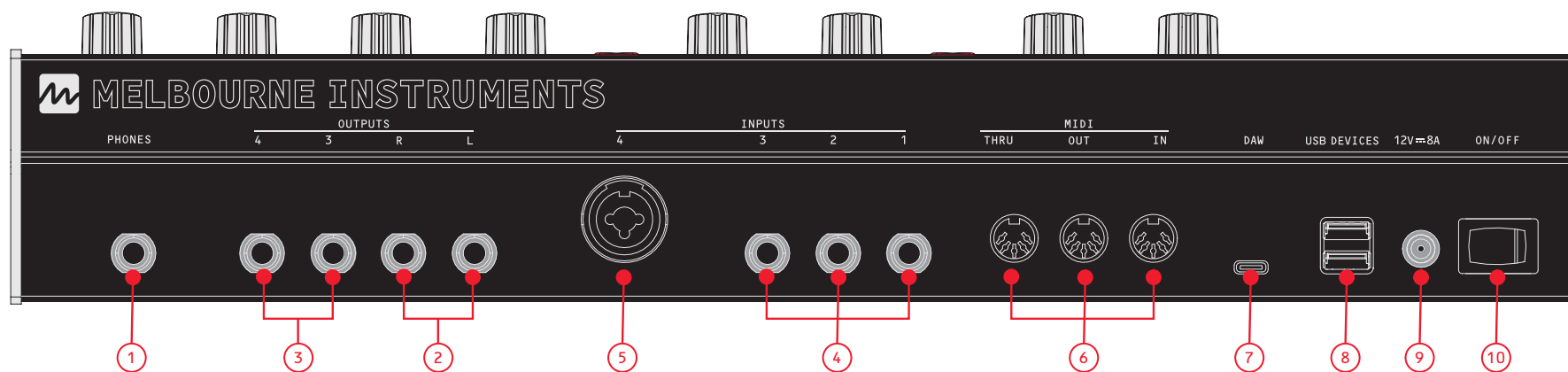


 MELBOURNE INSTRUMENTS

**NINA: 12 Voice Analog Polyphonic Synthesizer**

## Getting started: NINA's connections



① **PHONES:**  
1/4" Headphone jack.

**OUTPUTS:**  
② Main Audio Left & Right: Line Out.  
For best results use a TRS Balanced cable.

③ Aux Audio Left & Right.

④ **INPUTS:**  
Inputs 1/2/3: Line level Audio or CV.

⑤ Input 4: Line or Mic Level Audio or CV.

⑥ **MIDI:**  
Standard DIN MIDI.

⑦ **DAW (USB HOST):**  
USB-C connection for Mac/PC.

⑧ **USB DEVICES:**  
USB MIDI Keyboards and controllers,  
USB thumb drives.

⑨ **POWER INPUT:**  
Use supplied power accessories only.  
12V 8A.

⑩ **POWER SWITCH:**  
On/Off.

# MELBOURNE INSTRUMENTS NINA: 12 Voice Analog Polyphonic Synthesizer

## NINA Knobs

- 1 OSC 1 – TUNE  
FINE TUNE +/- 7 semitones (1/5).  
COARSE TUNE +/- 2 octaves.
- 2 OSC 1 – WIDTH  
Shape shift from Triangle to Saw.
- 3 OSC 2 – TUNE  
FINE & COARSE TUNE for Analog VCO 2.
- 4 OSC 2 – WIDTH  
Shape shift from Triangle to Saw.
- 5 OSC 3 – TUNE  
FINE & COARSE TUNE for Digital OSC 3.
- 6 OSC 3 – POS  
Wavetable position for Digital OSC 3.
- 7 GLIDE  
Glissando/Portamento – causes smooth changes in pitch between notes.
- 8 TEMPO  
Sets the playback speed of arpeggio or sequence.
- 9 MIX – BLEND (OSC 1)  
Blend between Pulse and Saw.
- 10 MIX – OSC 1  
Level of OSC 1 into mix.
- 11 MIX – BLEND (OSC 2)  
Blend between Pulse and Saw.
- 12 MIX – OSC 2  
Level of OSC 2 into mix.
- 13 MIX – OSC 3  
Level of OSC 3 into mix.
- 14 MIX – NOISE  
Level of Noise/XOR source into mix.
- 15 LFO – RATE  
LFO rate control.
- 16 LFO – LEVEL  
Set the LFO Level (Gain).
- 17 VCF – RESONANCE  
Set the VCF Resonance.
- 18 VCF – CUTOFF  
Set VCF Cutoff Frequency.
- 19 VCF – DRIVE  
Amount of overdrive for smooth distortion control.
- 20 VCF – EG1 CUT  
How much the VCF Envelope (EG1) affects VCF Cutoff. MOD EG1 Level as Destination
- 21 EG1 – ATTACK
- 22 EG1 – DECAY
- 23 EG1 – SUSTAIN
- 24 EG1 – RELEASE
- 25 EG2 – ATTACK
- 26 EG2 – DECAY
- 27 EG2 – SUSTAIN
- 28 EG2 – RELEASE
- 29 OUTPUT – MAIN  
Main/Master level control.  
Outputs 1, 2 and phones.
- 30 OUTPUT – EFFECT  
Level of Effects mix in output. Choose type and parameters. MOD PAN as Destination
- 31 OUTPUT – SPIN  
Speed control of Stereo Infinite Panning Spin.
- 32 OUTPUT – MORPH  
MORPH all patch parameters between A and B sounds. MOD EG2 LVL as Destination.

## NINA Keys

- C1 SOFT KEY 1  
Corresponds with screen mode.
  - C2 SOFT KEY 2  
Corresponds with screen mode.
  - C3 SOFT KEY 3  
Corresponds with screen mode.
  - C4 MOD  
Press MOD to enter Modulation Matrix setup.
  - C5 LAYER  
Press LAYER to display the Layer Menu. NOTE: Layers must have voices assigned. Total number voices across all layers can not exceed 12.
- Arpeggiator, Load, Save, A/B**
- C6 ARP  
Press ARP to display the Arp Menu, and turn arpeggiator on/off.
  - C7 LOAD (PRESET or BANK)  
Press LOAD to access Presets Library. Press again to exit.
  - C8 SAVE  
Press to save new presets, rename presets or move existing presets.
  - C9 A/B  
Switches between A and B sound for active preset. When key is illuminated you are affecting/adjusting the B sound.
- Sequencer, Keyboard**
- S1 RUN  
Run/Play the current sequence.
  - S2 REC  
Start recording a new sequence.
  - S3 SEQ  
Display Sequencer Settings.
  - S4 KBD  
Use Quick Keys 1-16 as a keyboard. Useful when exploring presets or in the absence of USB/MIDI Keyboard.
- Oscillators, Mix, LFO & more**
- A COARSE  
Switch between FINE and COARSE tuning for OSC 1, OSC 2 & OSC 3 Tune Knobs.
  - B SYNC  
Hard Sync VCO 2 to VCO 1.
  - C SHAPE  
Select Wavetable for Digital OSC 3.
  - D LFO 1/2  
Switch LFO RATE, LEVEL, SHAPE controls between LFO 1 and LFO 2.
  - E SUB  
Switch VCO 1 pulse to sub-octave square.
  - F OVERDRIVE  
Large boost for very overdriven sound.
  - G TYPE (NOISE)  
Select White/Pink/Analog XOR for Noise source.
  - H LFO SHAPE  
Select LFO waveform.
  - I QUICK KEYS 1-16  
LOAD Mode: Quick Select Preset or Bank from first 16 Banks and Presets  
MOD Mode: Select the Modulation Source using keys 1-16.  
KBD Mode: Simple keyboard. Sharps and flats keys are illuminated.

## Basic Operation

**LOAD PATCHES / PRESETS**

Press LOAD (C7) and the display will show a list of Presets in the current BANK.

Press KEYS 1-16 (I) to instantly load Presets 1-16 from current Bank.

Use DATA KNOB to scroll through all Presets (up to 127 per bank). Press LOAD Soft Key to load the desired preset.

Press BANK Soft Key to view all Banks. Scroll with DATA KNOB. ENTER Soft Key will select the bank and show available presets.

Press EXIT Soft Key or LOAD again to return to home screen.

**LOAD A/B:**  
Every Patch has an A and B sound. If A/B (C9) is lit, the LOAD Soft Key will load the Preset into the B sound. If A/B is not lit, the LOAD Soft Key will load both the A and B sounds from the Preset.

**COMPUTER**

Access NINA's settings via the onboard computer. NINA uses the DATA wheel and 'Soft Keys' to navigate and adjust settings.

The three Soft Keys located below the screen will vary depending on what you are adjusting. Soft button values appear at the base of screen.

Illuminated keys indicate that you are performing a specific function, such as EDIT.

**HOME SCREEN TOP BAR:**  
- Patch Name  
- \* indicates Patch has been modified  
- L1 indicates active Layer Setup  
- Keyboard icon indicates active MIDI signal  
- Number 090 indicates tempo

**HOME SCREEN SOFT KEYS:**  
SYSTEM: press to access System settings and to perform backups or updates.  
EDIT: Press and hold to perform Edit tasks  
ENTER: Press to confirm or continue.  
EXIT: Exit current screen/mode.

**SYSTEM**

Access from NINA'S Home Screen.

SYSTEM provides access to NINA settings and configuration. Press SYSTEM (C3) to view menu.

**ABOUT:**  
View System, OS, Version, host name etc.

When a correctly formatted USB drive is inserted to USB-A port, The RESTORE and BACKUP options will become accessible.

USB drives should be formatted as FAT32.

**BACKUP:**  
Save Patches, Layer Configurations and User Wavetables to the inserted USB drive. Refer to User Manual for more information.

**RESTORE:**  
Restores all new or modified patches and layers from USB drive. Other patches and layers already stored on NINA are not affected.

**MORPHING / A/B POSITION**

Every preset has 2 sounds, A and B. KEY A/B (C9) switches between A and B.

The MORPH Knob (32) will morph all parameters between the A and B sounds, including the MOD Matrix.

To store a morphed sound (a position between A and B) press the STORE to A or STORE to B Soft Key.

When you are at a MORPH position between A (0) and B (100), any other knobs that you move will 'lock out' and stop moving if you continue to MORPH.

SAVE your morphed sound with STORE TO A or STORE TO B Soft Keys, or press A/B to reset the morph and discard your changes. To save a new preset simply press the SAVE KEY (see below SAVE Presets) for more info.

**MODULATION**

To enter Modulation Mode press MOD (C4). The MOD Key will blink to indicate you are in Modulation Mode, and continue to blink until you exit.

Use KEYS 1-16 to choose a Modulation source, and use the knobs to set the amount of modulation to the destination.

NINA's display shows a list of modulation source to destination amounts. Items on the list can be adjusted using the DATA wheel and Soft Keys, or removed with the RESET Soft Key.

NOTE: GLIDE, TEMPO and MAIN are not available as Mod destinations. Similarly, the destination cannot be the same as the mod source.

All Modulation settings are saved to your desired Preset, and are instantly recallable by returning to MOD mode and choosing your MOD source.

**LAYER setup**

Press LAYER to display the Layer Menu

Select a Layer 1-4.

Set "Layer Voices" to more than 0 to enable the layer. If Layer Voices cannot be increased you may need to reduce the Layer Voices on another layer.

Set the "Low Note" and "High Note" for the keyboard split. Layer note ranges may overlap.

Press the LAYER key again or EXIT Soft Key to return to the home screen. The active layer is displayed as L1-L4 on the top line of the display.

NOTE: If the layer has 0 voices assigned, the Patch Name display will be "LAYER DISABLED". Choose another layer, or assign voice/s to the layer.

**SEQUENCER**

Press the SEQ button to access the sequencer options. The TEMPO Knob controls the BPM.

QUICK KEYS 1-16 light up to show the current sequencer step.

Press REC to start recording a new sequence from STEP 1. Play a single note or chord to record the step and move to the next step. To insert a REST, press the current step. To insert a TIE, press final step key in the TIE, then play the note/s for the TIE.

Press REC again to stop recording and set the length of sequence to the current step.

Press RUN to play the sequence.

Note that the sequence is part of the current Patch and is loaded and saved with a Preset.

**SAVE Presets**

Press SAVE to save your current patch to a Preset. By default this will take you to the Preset you last loaded. If you wish to overwrite the Preset, press the SAVE Soft key.

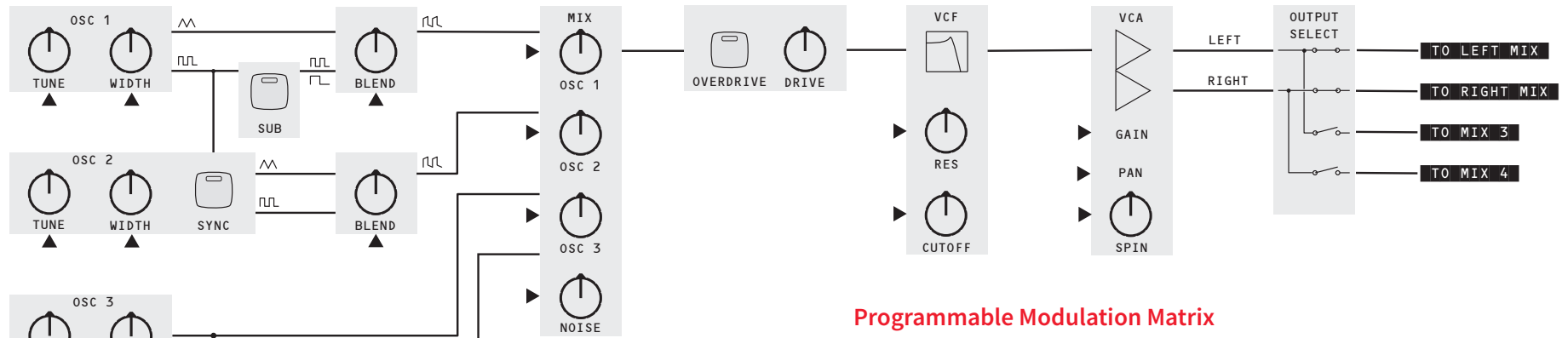
If you wish to save over another Preset or a Blank position, scroll with the Data Knob. If you wish to save to a different BANK, press BANK, select a new BANK and Preset to save to.

When you press SAVE, the next step is to choose the name for the Preset. Use the DATA Wheel with the EDIT Soft Key (press and hold) to choose characters. Press SAVE again when done.

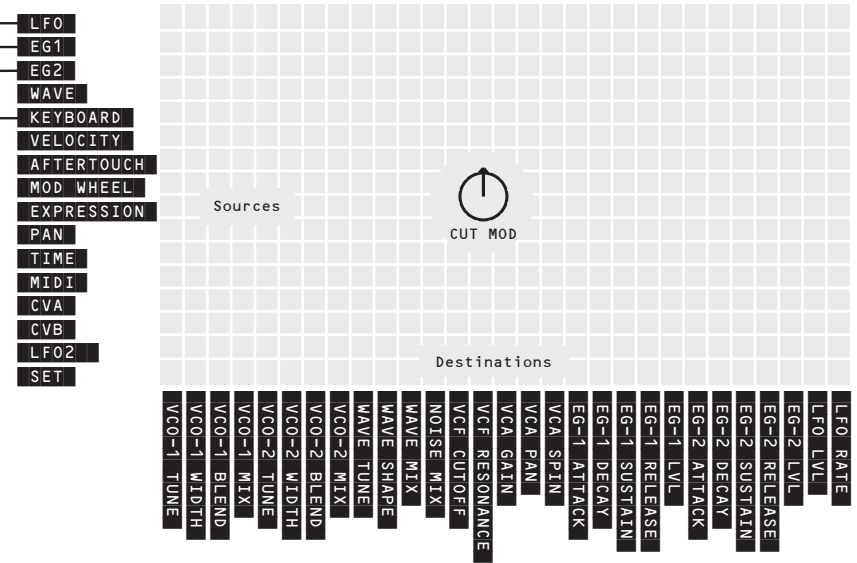
NINA's character set is deliberately very basic: SPACE, A-Z, 0-9, and - (dash).

**SAVING B SOUND:**  
Note that SAVE will save both the A and B sound to the Preset. The Morph position is always set to the A sound (0) when a Preset is loaded.

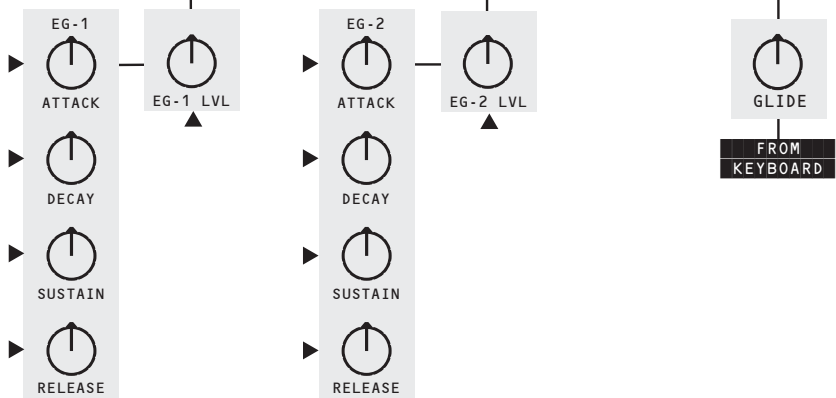
## Voices 1-12



## Programmable Modulation Matrix

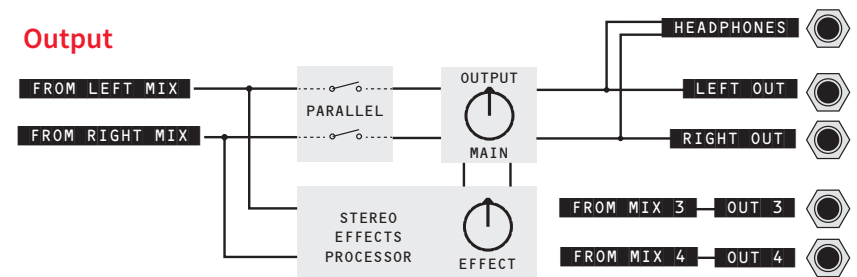


## Envelope Generators



KEY: ▶ = CV FROM MOD. MATRIX    LABEL = SOURCE / DESTINATION

## Output



# Warranty

Melbourne Instruments Pty. Ltd. warrants that:

- (a) The main product, not including or any external accessories, will be free from defects in materials and workmanship for a period of 2 years from the date of purchase.
- (b) Please contact us by email at [rma@melbourneinstruments.com](mailto:rma@melbourneinstruments.com) to notify us of any material or processing faults or defects to the Goods during the Warranty Period. Our authorised Personnel will review your claim and may request any further details of the fault or defect including photos, proof of purchase, the serial number of the Goods (if any) and any other material required to substantiate the claim. We reserve the right to reject a warranty claim if you fail to provide any of the information requested by us that is reasonably necessary for us to substantiate your claim.
- (c) The warranty only extends to the original (first) owner and is not transferable. If the goods have been used for hire, the warranty does not apply and is voided.
- (d) You must not return the goods to us unless requested to do so by our authorised personnel. We will pay the associated shipping costs and insurance provided the warranty claim is made within 30 days of delivery of the Goods (and we have approved the return of the goods back to us). You must pay all relevant shipping costs and insurance when shipping the goods to us in respect of any warranty claim received after 30 days from delivery. All risk in respect of the goods will remain with you.
- (e) You must remove all accessories and components attached to the goods prior to shipping the goods back to us. Under no circumstances will Melbourne Instruments Pty. Ltd. be liable for any loss or damage to any accessories or components attached to the goods.
- (f) Any repair work carried out on the Goods by any person other than our Personnel will void the warranty.
- (g) We incur no liability for, and no warranty claim may be made by you for, any damage caused by normal wear and tear, accidents, accidental damage, unauthorised modifications, negligence, or improper handling of the Goods or arising as a result of the occurrence of any of the other events set out in clause 16.
- (h) Full details of our warranty policy are set out in our User Manual and which form part of these Terms. You can access the User Manual at the [melbourneinstruments.com/support](http://melbourneinstruments.com/support). Please follow the instructions in our User Manual for making a warranty claim.
- (i) Any goods accepted by us as being defective or faulty in accordance with the warranty policy during the Warranty Period will be replaced or repaired by us (at our option).
- (j) The Warranty Period is not extended in the case of a repair or replacement.
- (k) We reserve the right to change our warranty policy (including the duration of the warranty) from time to time. Notice of any such changes to these policies or schemes will be provided by Melbourne Instruments by posting a notification on our Site or providing an updated User Manual, or as otherwise deemed appropriate by Melbourne Instruments.

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