

Patrick DSP's Sequential Pro 3 Cheat Sheet

Sequential Pro 3 · OS 1.2 · 28 Oct 2026

1.1 marks features added in OS 1.1.0.0 **1.2** marks features added in OS 1.2

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Start Here: The Big Picture	↑ Contents
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Read this first. It explains how the Pro 3 is laid out, how

sound flows and how modulation works.

Signal flow

Osc 1, Osc 2, Osc 3, noise, audio in > mixer > filter > amp (VCA). Distortion, tuned feedback and 2 effects are also on board

Osc 1 and 2 are analog. Osc 3 is a digital wavetable oscillator

3 filters: Low-Pass 1, Low-Pass 2, State-Variable
4 envelopes (filter, amp, aux 1, aux 2), 3 LFOs, 32
mod slots, 16 track sequencer, arpeggiator

Mono by default. Paraphonic: 3 notes. Duophonic

1.1: 2 notes

Controls

Front panel for the main parameters. Turn any control and its extra tabs show in the display
4 soft knobs and 4 soft buttons edit the display tabs

SHOW then turn a knob: read a value without changing it

Hold **SOURCE** and move a control, then hold **DESTINATION** and move a control: quick mod routing

Memory

1024 programs: 8 banks of 128. U1 to U4 user, F1 to F4 factory. Save to user banks only

Every factory program has a sequence. Press **PLAY**

Setup and Programs

[↑ Contents](#)

Read when you are connecting the synth, choosing, comparing and saving programs, or starting a sound from scratch.

Rear panel

USB: class compliant MIDI only, no audio. Do not use MIDI In and USB together

MIDI: In, Out 1, Thru, Out 2

Footswitch: sustain or arp latch. Pedal: expression, TRS

CV In 1 to 4, CV Out 1 to 4: 3.5 mm, 0 to 10 V, 1 V per octave possible

Gate Out: 3.5 mm, 10 V. Audio In: unbalanced 1/4 inch. Audio Out L and R: unbalanced 1/4 inch

Edit and save

COMPARE: hear the saved version. No writing while on

Save: **WRITE**, name, **WRITE**. Other slot: **WRITE**, pick U1 to U4 slot first

Cancel save: **GLOBAL**. Audition target: **WRITE**, **COMPARE**, bank and program knobs

Power on program: pick it, press **GLOBAL** twice

Basic program: **GLOBAL** > basic program >

SOFT BUTTON 1. Shortcut: **TRANPOSE DOWN** + **LATCH**

Voice modes

Paraphonic: **PARAPHONIC**, raise all 3 oscillator levels. Shared filter and filter envelope

Duophonic **1.1**: Osc 1 and 2 up, **PARAPHONIC**, Osc 3
LOW FREQ. Osc 3 becomes an LFO

Oscillators and Mixer

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Read when you want to choose waveforms, tune oscillators, set levels or load custom wavetables.

Oscillators

Osc 1 and 2: triangle, saw, pulse. Shape Mod is pulse width, 0 is square

Osc 3: sine, saw, super saw, pulse, then wavetables 1 to 32 (custom 33 to 64 **1.1**). 16 waves per table, Shape Mod scans them

Super saw: Shape Mod is detune

Pitch: -700 to +699 (7 semitones). Octave: 5 octave range

Sync (Osc 1 and 2): hard sync. Low Freq (Osc 3): oscillator becomes an LFO

Tabs: Tuning (Frequency, Fine Tune, Sync, Key Follow), Shape (Shape, Shape Mod, Wave Reset, Osc Slop), Level, Misc (Glide Rate)

Wave Reset: on restarts the wave on each note. Off is free running

Osc Slop: 0 to 127 random detune

Mixer

Osc 1, 2, 3, Noise, Ext Audio: 0 to 127. Raise at least one

Ext Audio tabs: Input Level, Input Gain, In Gate Thresh (0 to 127), Input Attack (0 to 15), Input Release (0 to 127)

Custom wavetables 1.1

Slots 33 to 64. Make 16 single cycle waves: 16 bit, 48 kHz, 1024 samples, same length, zero crossing at both ends

Build the table at www.sequentialwaves.com (name max 8 characters), save SysEx

GLOBAL > MIDI tab > midi sysex cable = usb, send with SysEx Librarian or MIDI-OX

Filters

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Read when you want to pick a filter type and set cutoff, resonance, drive and the filter envelope.

Types

Low-Pass 1: 4 pole OTA, 24 dB per octave, self oscillates

Low-Pass 2: 4 pole ladder, 24 dB per octave, self oscillates. Ladder Res Comp keeps the bass

State-Variable: 2 pole OTA, 12 dB per octave. LP, Notch, HP (State knob), BP button. No self oscillation

Parameters

Cutoff: 0 to 1019. Resonance: 0 to 255. Drive: 0 to 127

Key>LPF Freq: 0 to 127, key tracking. 127 tracks in half steps

SV destinations: sv lp-n-hp (mode), sv norm-bp

Filter envelope

Delay, Attack, Decay, Sustain, Release: 0 to 127

Amount: -127 to +127, negative inverts. Velocity on or off

Loop: repeats delay, attack, decay while the key is held

Envelopes

[↑ Contents](#)

Read when you want to shape volume and modulation over time with the amp and aux envelopes.

All four

Delay, Attack, Decay, Sustain, Release, 0 to 127.

Velocity on or off. Loop (repeat on aux)

Any envelope can be a mod source

Amp

Env Amount: 0 to 127. Volume: 0 to 127 per program (VCA tab, **SOFT BUTTON 1**)

Gated VCA: amp amount 0, LFO square to env vca amt at 127, hold a note

Aux 1 and 2

Amount: -127 to +127. Destination: any (Aux Dest tab)

Quick assign: hold **AUX ENV** and turn a knob

LFOs

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Read when you want cyclic modulation such as vibrato,

tremolo or wah.

Parameters

Shapes: triangle, saw, reverse saw, square, S&H. Triangle and S&H are bipolar

Frequency: 0 to 150 (0.022 Hz to 500 Hz). Amount: 0 to 127. Sync locks to the clock

Slew Rate: 0 to 127. Phase: 0 to 127 (needs Wave Reset on). Wave Reset: restart on each note

Quick assign: hold the LFO selector or destination button and move a control

Osc 3 **LOW FREQ** gives a wavetable LFO

Modulation Matrix

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Read when you want to route any source to any destination, including wheels, slider, pedals and CV.

Use

SOURCE > **SOFT KNOB 1** slot > **SOFT KNOB 2**
source > **SOFT KNOB 3** amount > **SOFT KNOB 4**
destination

32 slots, 46 sources plus Off, 171 destinations plus Off. Amount is positive or negative

Sort tabs: slot, source, destination

Sources

Osc 1 to 3, Noise, LFO 1 to 3, Env LPF, Env VCA, Env Aux 1, Env Aux 2

Pitchbend, Mod Wheel, Slider, Pressure, Breath, Foot Pedal, Expression Pedal, Velocity, Note Number

Random, DC, Audio Out, Audio In, Env Follow, Peak Hold, CV In 1 to 4, Seq Track 1 to 16

Destinations

Osc coarse and fine freq, shape (Osc 1, 2), shape mod, slop, level. No Osc 3 shape entry

Noise, ext audio level, drive, cutoff, resonance, sv lp-n-hp, sv norm-bp

Feedback amount and tune, distortion, panning, FX 1 and 2 mix and params 1 to 3

LFO freq and amt. Envelope amt, attack, decay, release. Mod 1 to 32 amount

CV 1 to 4 out, CV 1 to 4 trig out, MIDI 1 and 2 note and CC channels 1 to 16

Effects and Feedback

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Read when you want delay, chorus, reverb, distortion or tuned feedback.

Effects

2 slots. **EFFECT 1** or **EFFECT 2** on, **SHOW EFFECTS** opens, press again to switch. Mix 0 to 127

Stereo delay and BBD delay: time, feedback, lpf cutoff

Chorus: depth, rate, lpf cutoff. Flanger and phaser: depth, rate, feedback

HP filter: frequency, resonance. Ring mod: frequency, track, shape

Rotating speaker: drive, speed, mic distance.

Super plate reverb: time, tone, pre-delay (Effect 2 only)

Flanger and HP filter: use mix 127

Delay sync: time becomes note values. Maximum about 1 s, longer values are halved

Stereo delay ping-pongs when panning is modulated **1.1**

Distortion and tuned feedback

Distortion: 0 to 127

Feedback Amount: -127 to +127. Tuning: 0 to 48 (C0 to C4). Grunge: extreme at high levels

Performance Controls

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Read when you want glide, wheels, slider, aftertouch, hold, transpose or key priority.

Keys and wheels

Transpose: octave shift, global, not saved with programs. Hold: latch notes

Glide: button on, rate per oscillator (rate 0 is off). Modes: FixRate (default), FixRate A, FixTime, FixTime A. The A modes glide on legato notes only

Pitch wheel: range up 12, down 24 semitones.

MISC PARAMS > **SOFT BUTTON 3**

Mod wheel, touch slider (latch holds the value), aftertouch (source pressure, 4 curves): route in the mod matrix

Key modes (misc params)

Key Mode: low, high or last note. Retrigger on or off

Gate Source: Keyboard or Ext Audio. Scale: per program tuning or Use Global

Patch Morphing and Play List

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Read when you want to morph between two programs or organize programs for live use.

Patch Morphing 1.2

MISC PARAMS > **SOFT BUTTON 4** morph tab

Soft Knob 1: controller. 2: parameter set (default all - freq). 3 and 4: target bank and program

Save with **WRITE**. Edit the target: **COMPARE**, edit, **WRITE**, **COMPARE**

Not morphed: on/off switches (except Osc 1 and 2 sync), selectors, sequencer, misc, mod routing
Effect parameters, wavetable position and filter settings morph only if both programs use the same effect, wavetable or filter

Play List

10 sets, 4 lists each, 4 programs each. **PLAY LIST**, Soft Knob 4 set, Soft Knob 3 list, Soft Buttons 1 to 4 programs

Lists point at programs, so editing a program changes it everywhere

Controls stay active in Play List 1.1. Back up with dump playlists

Arpeggiator and Clock

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Read when you want arpeggios, tempo, divide, swing or MIDI clock settings.

Arpeggiator

ARPEGGIATOR on, hold notes, **HOLD** latches

Mode: Up, Down, Up + Down, Random, Assign.

Octave Range: 1 to 3. Repeats: 1 to 3

Relatch: on restarts the arpeggio when new notes are played

Arp plus sequencer: sequencer mode trigger, note tracks ignored, parameter tracks play

Footswitch function (global): sustain, arp hold, arp hold mom

MIDI notes out: GLOBAL > midi arp/seq notes (sequencer Track 1 too **1.1**), then midi out select

Clock

BPM: 30 to 250. Tap tempo: 4 taps. Swing: 50 percent to 75 percent

Divide: Half, Quarter, 8th, 8 Trip, 16th, 16 Trip, 32nd, 64th

Clock mode (global): off, master, slave, slave thru, slave no s/s. Out and in in OS 1.1.0.0 menus **1.1**

Slave modes with no clock: arp and sequencer do not run

External clock: set clock mode and clock cable in, press **PLAY**, start the master

Read when you want to record notes, automate parameters, chain phrases or copy sequences.

Overview

16 tracks and 4 linkable phrases A to D, 16 steps each. Chain them for up to 64 steps

Per step: note, velocity, duration, ratchet (1 to 8), rest or tie

Track 1 is hard wired to oscillator pitch (notes).

Paraphonic: tracks 1, 2 and 3 are Osc 1, 2 and 3.

Tracks 4 to 16 go to any mod destination

Modulation use: route tracks to cutoff, resonance, noise level for drum like accents, and so on. Each step sets a different value

Every factory program has a sequence. Recall a program and press **PLAY**

Save: save the program (**WRITE** twice). The sequence is stored with it

Printed under step LEDs 1 to 16: notes/vel, duration, ratchet, cutoff, assign 1 to 8, CV out 1 to 4
Tempo, Divide and Swing are shared with the arpeggiator, see Arpeggiator and Clock

Play modes and transport

Mode button: Normal, Gated, Trigger

Normal: starts when you press **PLAY**

Gated: plays while a key is held. Restart on starts from step 1 at every key press. Off continues from where it was

Trigger: each keyboard press advances one step. The arpeggiator can run it. Or an external audio, MIDI or CV trigger

Trigger plus arpeggiator: turn the arp on, hold a chord. Note tracks are ignored and only parameter tracks play, which adds sequenced filter sweeps to an arpeggio

Direction: fwd, rev, fwd/rev, random. **RESET**: restart at step 1, also while playing

Tempo: BPM 30 to 250, **TAP TEMPO** (4 taps works best). BPM has no effect when synced to external MIDI clock. Divide works with internal and external clock

Transpose while playing: press a key above or below middle C. Middle C plays it as recorded. Transpose buttons add range

Record notes

Pick a program with a sharp attack and short release

Press **RECORD**. Phrase A is selected by default. Play the notes, one per step

Step LEDs: white is the current step, red is a recorded note, unlit is a rest or empty

Fewer than 16 steps: play only the notes you want. Notes beyond 16 are ignored

Wrong note: toggle **RECORD** off and on, then replay

Record over: press **RECORD** and play new notes. Press **PLAY** to hear it

Quick step edit when stopped: hold the step LED, play a note. The note and your velocity are updated. Other step parameters are editable while you hold it

Rests, ties and velocity

Rest while recording: press the step LED where the rest goes. Press a later step LED for several rests in a row

Rest afterwards: toggle the step LED off in the editor. It shows an asterisk. Toggle it on to undo

Tie while recording: play the note, hold its step LED (red), press the step LED where the tie ends

Tie afterwards: show the track, hold the start step LED, press the end step LED. Tied steps are dimmed

Envelope settings and the duration parameter affect how tied notes sustain

Velocity is recorded with each note and edited in the editor

Sequence editor

TRACK SEL shows the editor. Hold it and press a step LED to show that track (step 1 is track 1, and so on). Release to edit

Soft Knob 1: step. Soft Knob 3: note on track 1 (C0 to G10) or value on modulation tracks (1 to 127, most -127 to +127)

Velocity: **SOFT BUTTON 1**, Soft Knob 4, 1 to 127. Fully counterclockwise sets a rest

Duration: **SOFT BUTTON 2**, Soft Knob 4. Low is staccato, high is legato

Ratchet: **SOFT BUTTON 3**, Soft Knob 4. 1 to 8 repeats per step. Adjust envelopes and duration to hear each repeat

Velocity is editable only on note tracks or tracks sent to MIDI Out 1 or Out 2

MIDI track only sends note offs: check velocity. Zero velocity sends only a note off

Paraphonic: tracks 2 and 3 are also note tracks

Save after editing: **WRITE** twice

Phrases A to D and extended sequences

Press A, B, C or D to record or select a phrase. You can switch phrases live during playback

Longer than 16 steps: show the sequencer menu with **ARPEGGIATOR** (press again if the arp is on), **SOFT BUTTON 3** seq modes

Soft Knob 1: extended. Soft Knob 2: length, maximum 64. Record as usual, the phrase LED moves on after step 16

Paraphonic sequencing

Set all three oscillators to the same mixer level, and probably the same octave

Press **PARAPHONIC**, **SOFT BUTTON 2** seq params, Soft Knob 4 para seq on

RECORD and play notes and chords of up to 3 notes. Tracks 1, 2 and 3 get one note each

Modulation tracks

Live: while playing, hold **RECORD** and move front panel knobs. Each knob takes a free track from 4 to 16

The sequencer keeps recording as it loops, so it can overwrite your moves. Watch the loop point

Step by step, e.g. cutoff on track 4: hold **TRACK SEL** and press step LED 4 (or Soft Knob 1), hold and turn Soft Knob 4 to cutoff, release

Then Soft Knob 1 to choose a step and Soft Knob 3 for its value. Repeat for each step

Quick destination: hold **TRACK SEL** and turn the front panel knob you want to route to that track

Interactive step edit **1.1**: press **RECORD** twice quickly (it flashes). Hold a step to hear it, turn knobs while holding, release. More knobs record to more tracks. **RECORD** exits

Tracks of different lengths: turn on sync to track 1 in the seq params menu so all tracks restart when track 1 plays step 1

Slew: show the track, press **SLEW**. Smooths steps into glides or sweeps. Set per track

Track destinations include MIDI 1 and MIDI 2 note and CC, USB note and CC **1.1**, and CV 1 to 4 out and trig out

Copy, mute and erase

Copy a track: select the sequence, hold **TRACK SEL**, **SOFT BUTTON 2** copy track, step LED of the source track, step LED of the destination track

Copy a whole sequence: hold **TRACK SEL**, **SOFT BUTTON 2**, source A to D button, destination A to D button. All tracks are copied

Mute: select the sequence, hold **TRACK SEL**, press the track step LED, **SOFT BUTTON 4** mute on. Repeat to unmute

Erase track **1.1**: hold **TRACK SEL**, **SOFT BUTTON 3** erase track, press a track step LED. Or press A to D to erase all tracks of that sequence

Notes off: use the sequencer for parameters only. Hold **TRACK SEL** on track 1, **SOFT BUTTON 3** notes off, then **MODE** gated. Play your own notes while it moves other parameters

Seq params menu

Show it with **ARPEGGIATOR** (**SOFT BUTTON 2** seq params, **SOFT BUTTON 3** seq modes). The guide also mentions **RECORD**

Play Source: Keyboard, Ext In, CV 1 to 4. Ext In starts playback from the audio in signal, CV from the matching CV jack

Sync to Track 1: on restarts all tracks at track 1 step 1. Off lets each track run its own length

Restart: gated mode only, restarts from step 1 on every key

Para Seq: on records chords to tracks 1 to 3. Needs paraphonic on

Seq Mode: normal or extended. Seq Length: up to 64 steps

Seq Lock and Cue Program

Seq Lock: keeps the running sequence while you change programs. If you save, it overwrites the sequence in the saved program

Cue Program: start playback, hold **CUE PGM**, pick a program with the bank and program knobs, release. It loads when track 1 plays its last step and the sequence continues

Copy a sequence to another program: cue the program, then press **WRITE** twice. This overwrites its sequence

Output to other gear: track 1 notes can go to MIDI with midi arp/seq notes on **1.1**

External Audio and CV

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Read when you want to process outside audio, sync to MIDI clock or drive a modular system.

External audio

Audio In, **HOLD** and a key opens the VCA. Oscillators 0. Raise Ext Audio, amp and filter sustain 127

Auto wah: env follow to env vca amt (+120) and cutoff (+90). In Gate Thresh 100, attack 5, release 38, cutoff 0, resonance 160

Gate Source Ext Audio or sequencer Play Source Ext In to trigger from audio

CV

CV Out 1 to oscillator CV in. Mod slot: source note number, destination cv 1 out, amount 127

Tuning: GLOBAL > cv out scale. Range 0 to 10 V, middle C is 5 V

5 V module: cv out offset -64 is -5 V. -16 = -1.25 V, -32 = -2.5 V, -48 = -3.75 V

Global Settings

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Read when you want to change tuning, MIDI, pedals, curves, CV scaling or run system commands.

Menu

GLOBAL, Soft Knob 1 scrolls, Soft Knob 3 or Soft Button 1 sets. OS 1.1.0.0 adds tabs: General, MIDI, CV, Commands **1.1**

Items

1 Master Coarse Tune: -12 to +12. **2 Master Fine Tune:** -50 to +50

3 MIDI Channel: all or 1 to 16. **4 Clock Mode.** 5 Clock Cable In. 6 Clock Cable Out

7 Param Send, 8 Param Receive: off, CC, NRPN (NRPN preferred). **9 Control Enable.** **10 SysEx Enable,** **11 SysEx Cable**

12 MIDI Out Select. **13 Program Send,** **14 Program Receive.** **15 Arp/Seq Notes** **1.1**. **16 Arp Beat Sync**

17 Local Control: all off, key/wheels off (panel stays active, keyboard and wheels silent, avoids MIDI loops), on

18 Mono/Stereo: stereo or mono. Mono defeats pan settings and pan modulation

19 Pot Mode: relative, passthru, jump

20 Footswitch Polarity, **21 Footswitch Function.** **22 Pedal Polarity** (normal or reversed)

23 Pedal Function: lpf full sweeps cutoff over the whole range, lpf half over the lower half

24 Aftertouch Enable, 25 Curve 1 to 4. 26 Velocity Curve 1 to 8. 27 Scale (alt tuning, 64 tunings)

28 to 43 CV in and out offset and scale: -127 to +128. 44 Screen Saver

45 Basic Program. 46 Calibrate Wheels. 47

Calibrate VCOs & Filters. 48 Reset Globals

49 to 52 Dump program, bank, all user banks, playlists

Sound Recipes

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Read when you want a starting point: bass, brass, pad, sync lead or plucks.

Synth bass

GLOBAL > basic program > **SOFT BUTTON 1**

Cutoff 40, resonance 100, filter env amount 50.

Play a low note

Try the filter envelope amount and decay. For a longer filter release, set the amp envelope release to 75 first

The sawtooth has plenty of harmonics, the pulse has a different harmonic mix, the sine has none and adds weight, the super saw on Osc 3 is thick when detuned with Shape Mod

Synth brass

Basic program. Osc 2 level 127. Both oscillators sawtooth, Osc 2 pitch -5

Osc 2 shape tab: osc slop 10

Filter: cutoff 26, resonance 15, drive 100. Filter envelope: amount 105, attack 17, decay 64, sustain 50, release 90. Turn velocity on

Aux Env 1 destination osc 2 coarse freq, amount 35, decay 20

Quick assign: hold the **AUX ENV** 1 button and turn the Osc 2 frequency knob

Play in the upper range for the pitch blip

String pad from the brass

PARAPHONIC on. All three oscillator levels 127, all sawtooth, octave 2

Filter: cutoff 800, resonance 122. Filter envelope: amount 12, attack 59, decay 75, sustain 67, release 71

Amp envelope: attack 66, decay 62, sustain 124, release 80

Effect 1 chorus: mix 62, depth 131, rate 40, lpf cutoff 127

Effect 2 phaser: mix 64, depth 179, rate 15, feedback 255. Mix 127 for more extreme phasing

Hard sync lead

Basic program. Osc 2 level 127. Both oscillators sawtooth. Sync on Osc 1, Osc 1 octave 1

Aux Env 1 destination osc 1 coarse freq, amount 127, attack 23, decay 60, sustain 100, release 65

Effect 1 delay stereo: mix 30, time 135, feedback 20, lpf 100

Effect 2 super plate: mix 30, time 100, tone 138, pre-delay 12

Karplus-Strong plucks

All oscillator levels 0 in the mixer

Aux Env 1 destination noise, amount 127. Attack 0, decay 45, sustain 0, release 16

Feedback amount 66, tuning 12

Shape the result with the filter envelope attack and decay, feedback amount and the aux envelope settings

Troubleshooting and Maintenance [↑ Contents](#)

Read when something sounds wrong, or you want to calibrate, back up programs or contact support.

Fixes

No sound: basic program, check volume, output cables, local control on

Arp or sequencer stopped: clock mode must be off or master, or receive clock

Sounds different: scale must be equal temperament, check mod wheel and clock mode

Hum: USB ground loop. Use MIDI

Erratic: MIDI feedback loop, turn off MIDI Thru

Out of tune: master coarse and fine 0, calibrate VCOs and filters

Wheels or slider off range: calibrate wheels

SysEx not working: midi sysex cable must match the port

Calibrate, reset, back up

GLOBAL > calibrate vcos & filters > start tuning. Do not power off

GLOBAL > reset globals > reset now. Do this after an OS update

Dump program, bank or all user banks over SysEx, then send them back to restore them

Support: support@sequential.com. Include purchase date, serial number, OS version

Manual Corrections

Where the guide (v1.2) disagrees with itself

Resonance range: 0 to 255 on the front panel list, the pot mode example says 0 to 254

CV voltage: the rear panel text says the CV jacks are +/-5 V. The CV outputs are 0 to 10 V

Sequencer track menu: Soft Button 3 is notes in the guide and erase track in the OS 1.1.0.0 addendum

Scale item points to Appendix C for tunings. They are in Appendix E

Mod counts: page 48 says 34 sources and 88 destinations. Appendices give 46 and 171

NRPN 4096 and 4097 labels look swapped. NRPN 4133 to 4136 repeat a label

MIDI Reference Appendix F

[↑ Contents](#)

Read when you need CC and NRPN numbers, MIDI messages or SysEx formats.

Channel messages

Message	Received	Sent
Note off	Yes, velocity ignored	Yes
Note on	Yes, velocity 0 is note off	Yes
Polyphonic key pressure	Yes	Not listed
Control change	Yes	Yes
Program change	Yes, 0 to 127 in the current bank	Yes, 0 to 127 in the current bank
Channel pressure	Yes	Yes
Pitch bend	Yes	Yes
Timing clock, start, stop, continue	Follows midi clock mode	Follows midi clock mode

NRPN

NRPN message: send CC 99 (parameter MSB), CC 98 (parameter LSB), CC 6 (value MSB), CC 38 (value LSB). The MSB is usually 0 or 1 and never more than 2. The Pro 3 remembers the last NRPN number, so you can send only the data. CC 96 and 97 step the value up and down, and RPN reset (CC 101 and 100) clears the selected NRPN.

The full program NRPN list (parameters 0 to 352) and the global NRPN list (4096 to 4140) are in Appendix F of the User's Guide.

Controllers with special handling

CC	Received as
1	Mod wheel, directly assignable
4	Foot controller, directly assignable
7	Volume, combined with master volume and program volume
74	Brightness, added to filter cutoff
32	Bank select: 1 to 4 user banks 1 to 4, 5 to 8 factory banks 1 to 4, 9 to 12 add-on banks 1 to 4, others ignored

CC	Received as
64	Damper pedal: 64 or higher holds envelopes in sustain
123	All notes off
121	Reset all controllers: controllers to 0, MIDI volume to maximum

CC	Sent as
1	Mod wheel
2	Breath controller, when assigned to pedal/CV
4	Foot controller, when assigned to pedal/CV
11	Expression, when assigned to pedal/CV
7	Volume, when assigned to pedal/CV and from the volume knob
74	Brightness, when assigned to pedal/CV
32	Bank select, 0 to 9
64	Damper pedal: 0 off, 127 on

Control NRPN

NRPN	Meaning
4188	Seq play/stop, value 0 to 1
304	Morph source 1.2
305	Morph target bank 1.2
306	Morph target program 1.2
307	Morph target mode 1.2
308	Morph amount 1.2

Continuous controllers (MIDI Param Send or Receive set to CC)

CC	Parameter
0	Bank Select Coarse
1	Mod Wheel
2	Breath Controller
3	BPM
4	Foot Controller
5	Glide Mode (Portamento Time)
6	Data Entry MSB
7	MIDI Volume
8	Audio In Level
9	Audio In Gain

CC	Parameter
10	Unassigned
11	Expression
12	Voice Volume
13	Paraphonic On/Off
14	Slider 1 Position
15	Unassigned
16	FX 1 On/Off
17	FX 1 Type
18	FX 1 Mix
19	FX 1 Param 1
20	FX 1 Param 2
21	FX 1 Param 3
22	FX 1 Sync On/Off
23	FX 1 Sync Rate
24	FX 2 On/Off
25	FX 2 Select
26	FX 2 Mix
27	FX 2 Param 1
28	FX 2 Param 2
29	FX 2 Param 3
30	FX 2 Sync On/Off
31	FX 2 Sync Rate

CC	Parameter
32	Bank Select Fine
33	Filter Cutoff
34	Filter Resonance
35	Filter Keyboard Tracking Amount
36	Filter Drive
37	Filter Type
38	Data Entry LSB
39	Unassigned
40	VCA Env Amount
41	VCA Env Velocity On/Off
42	VCA Env Delay
43	VCA Env Attack
44	VCA Env Decay
45	VCA Env Sustain
46	VCA Env Release
47	Filter Env Amount
48	Filter Env Velocity On/Off
49	Filter Env Delay
50	Filter Env Attack
51	Filter Env Decay
52	Filter Env Sustain
53	Filter Env Release
54	Osc 1 Glide Rate
55	Osc 2 Glide Rate
56	Osc 3 Glide Rate
57	Swing

CC	Parameter
58	Arp On/Off
59	Arp Mode
60	Arp Range
61	Arp Relatch On/Off
62	Clock Divide
63	Arp Repeats

CC	Parameter
64	Sustain Pedal
65	Oscillator Glide On/Off
66	Osc 1 Octave
67	Osc 1 Fine Frequency
68	Osc 1 Level
69	Osc 1 Shape
70	Osc 1 Shape Mod
71	Osc 1 Sync On/Off
72	Osc 1 Slop
73	Noise Level
74	Brightness
75	Osc 2 Octave
76	Osc 2 Fine Frequency
77	Osc 2 Level
78	Osc 2 Shape
79	Osc 2 Shape Mod
80	Osc 2 Sync On/Off
81	Osc 2 Slop
82	Osc 3 Octave
83	Osc 3 Fine Frequency
84	Osc 3 Level
85	Osc 3 Shape
86	Osc 3 Shape Mod
87	Osc 3 LFO Mode On/Off
88	Osc 3 Slop
89	Feedback Amount
90	Feedback Tuning
91	Distortion Amount
92	Grunge On/Off
93	Ext In Env Follower Attack
94	Ext In Env Follower Release
95	Ext In Gain Threshold

CC	Parameter
96	Data Inc
97	Data Dec
98	NRPN Param LSB
99	NRPN Param MSB
100	RPN Param LSB
101	RPN Param MSB
102	Ladder Res Comp
103	State Variable Filter Mode (LP-Notch-HP)

CC	Parameter
104	State Variable Filter Normal/Bandpass
105	LFO 1 Freq
106	LFO 1 Amount
107	LFO 1 Shape
108	LFO 1 Sync On/Off
109	LFO 2 Frequency
110	LFO 2 Amount
111	LFO 2 Shape
112	LFO 2 Sync On/Off
113	LFO 3 Frequency
114	LFO 3 Amount
115	LFO 3 Shape
116	LFO 3 Sync On/Off
117	Unassigned
118	Unassigned
119	Unassigned
120	All Sound Off
121	Reset Controllers
122	Local Control On/Off
123	All Notes Off
124	Omni Mode Off
125	Omni Mode On
126	Mono Mode On
127	Poly Mode On