PRO-800

Classic Analog 8-Voice Polyphonic Synthesizer with 2 VCOs, Classic VCF, Arpeggiator, Sequencer and 400 Program Memories in Eurorack Format

behringer

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EN **Important Safety Instructions**

CAUTION
RISK OF ELECTRIC SHOCK!
DO NOT OPEN!

ATTENTION
RISQUE D'ÉLECTROCUTION !
NE PAS OUVRIR !

Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock. Use only high-quality professional speaker cables with ¼" TS or twist-locking plugs pre-installed. All other installation or modification should be performed only by qualified personnel.

This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.

This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.

Caution
To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside. Refer servicing to qualified personnel.

Caution
To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Caution
These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Use only attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.
16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
17. Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law. This product should be taken to a collection center licensed for the recycling of waste electrical and electronic equipment (EEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the efficient use of natural resources. For more information about where you can take your waste equipment for recycling, please contact your local city office, or your household waste collection service.
18. Do not install in a confined space, such as a book case or similar unit.
19. Do not place naked flame sources, such as lighted candles, on the apparatus.
20. Please keep the environmental aspects of battery disposal in mind. Batteries must be disposed-of at a battery collection point.
21. This apparatus may be used in tropical and moderate climates up to 45°C.

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LIMITED WARRANTY

For the applicable warranty terms and conditions and additional information regarding Music Tribe's Limited Warranty, please see complete details online at community.musictribe.com/pages/support#warranty.

PRO-800 Hook-up

Studio System

EN **Step 1: Hook-Up**
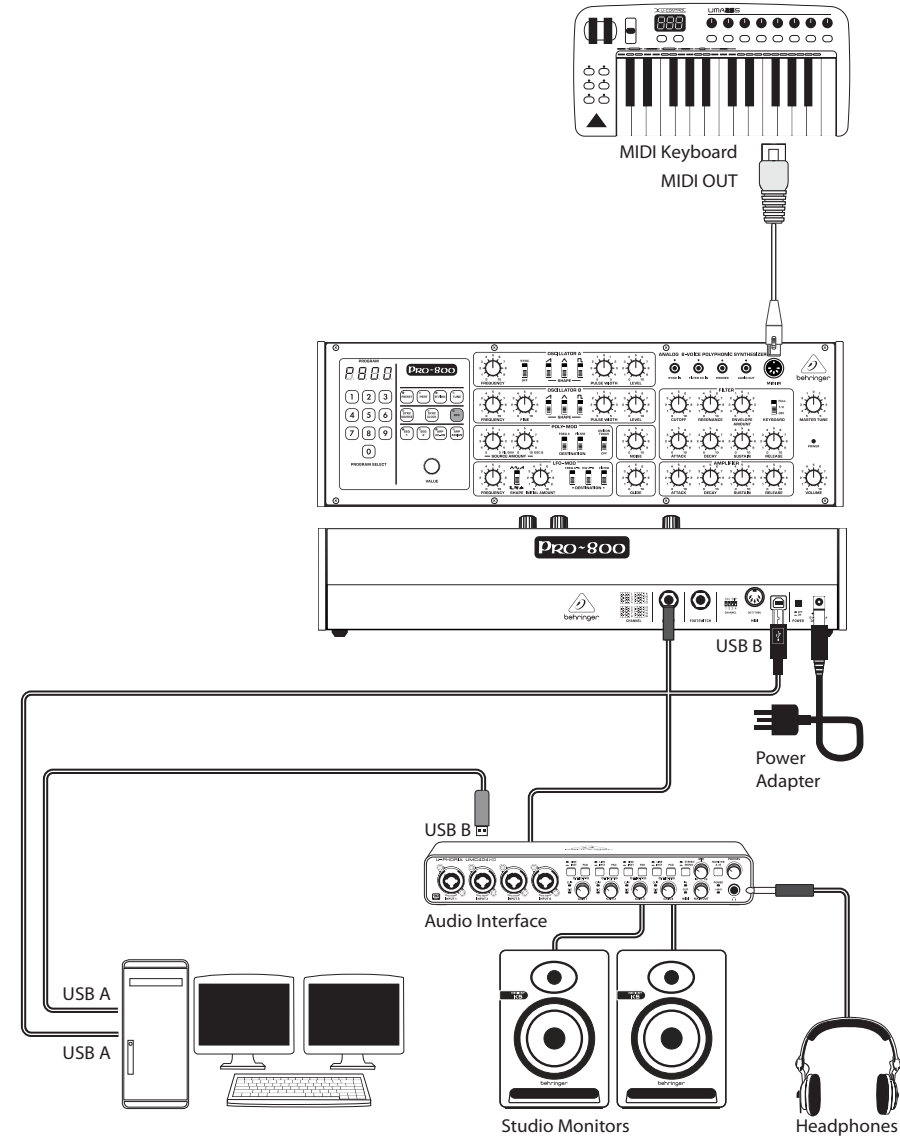
Band / Practice System

Practice System

MIDI Keyboard

MIDI OUT

Power Adapter

Keyboard Amplifier

USB B

Power Adapter

USB B

Audio Interface

USB A

USB A

Headphones

Power Adapter

Studio Monitors

Headphones

PRO-800 Control

EN **Step 2: Controls**

Top Panel

Rear Panel

EN **Step 2: Controls**

Top Panel

1. **PROGRAM DISPLAY** – indicates current program in Preset or Manual Modes; and parameters when using the menus.

2. **PROGRAM SELECT 0-9 switches.** used to select program numbers 0-100. There are four banks of programs, making 400 programs overall. These buttons are also used to access menu functions as described below.

3. **PRESET** – when active, shows the PRO-800 is programmed according to memory. When unlit indicates manual mode, when blinking indicates that a parameter has been edited but not stored.

4. **PERF** – switches the PRO-800 to manual mode. Front panel controls will be active. First press accesses patch parameters, second accesses manual mode (display shows P800)

5. **SETTINGS** – enter the settings menu.
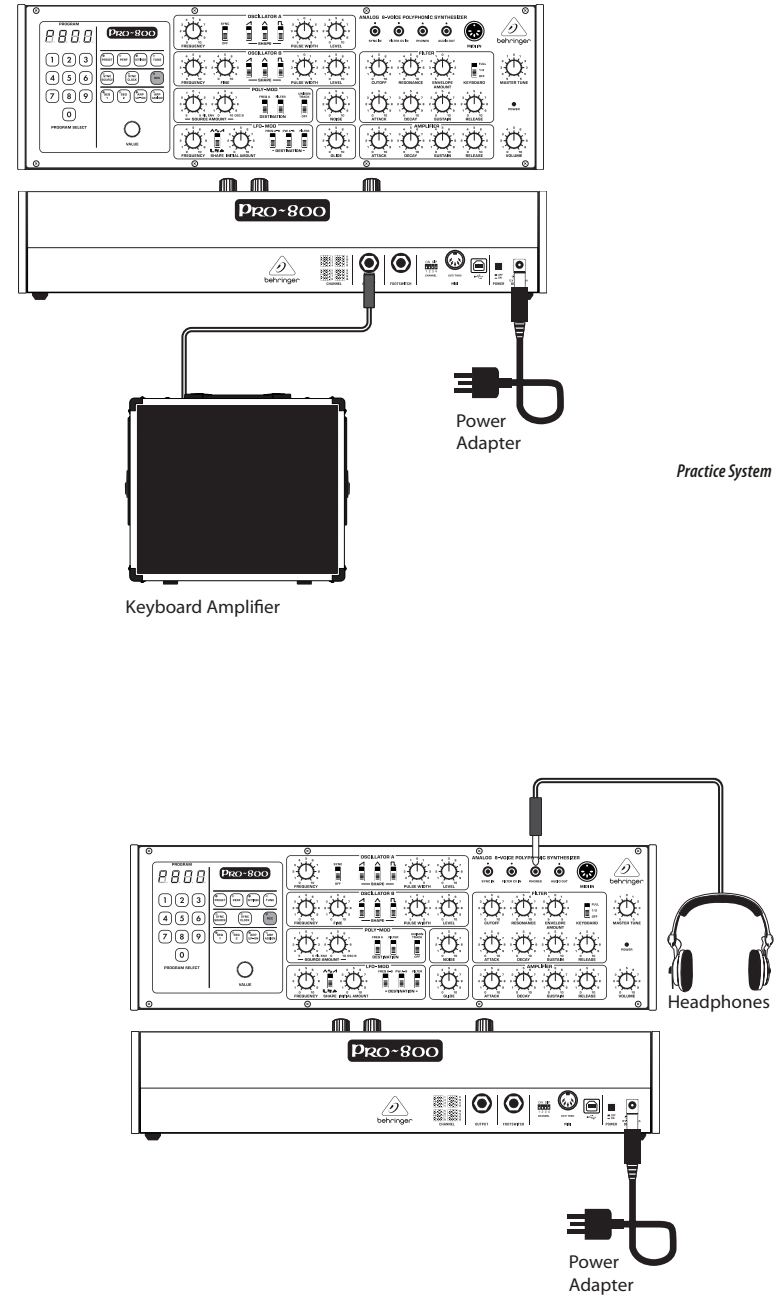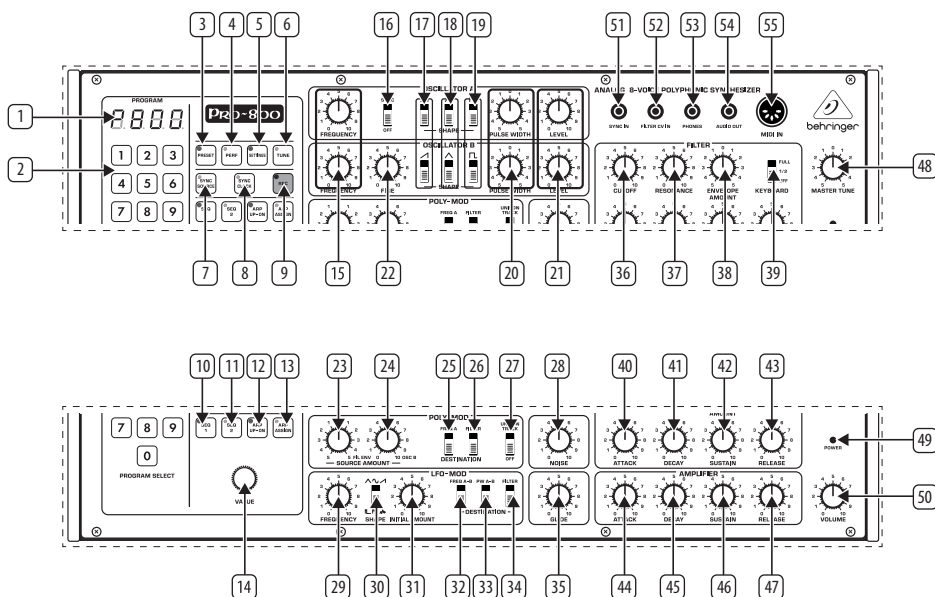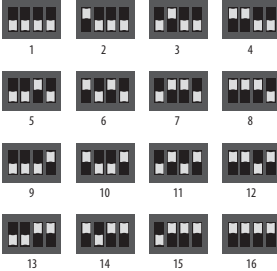
6. **TUNE** – activates tuning of oscillators and filters.

7. **SYNC SOURCE** – choose from internal, MIDI, USB or Sync In.

8. **SYNC CLOCK** – First press sets clock BPM. Second press: clock subdivision (¼, ⅛ etc) Third press: clock in PPQN settings: 24, 48, 96, 192 are available.

9. **REC** – used for storing programs or sequences. Also used to latch the arpeggiator.

10. **SEQ 1** – selects sequence bank 1 for recording or playback.

11. **SEQ 2** – selects sequence bank 2 for recording or playback.

12. **ARP UP DN** – controls arpeggiator by key position. See Arpeggiator below.

13. **ARP ASSIGN** – controls arpeggiator by key order. See Arpeggiator below.

14. **VALUE** – used to adjust parameter values such as tempo.

15. **FREQUENCY** – adjusts the over a 4 octave range for both oscillators. The frequency range can be set using the additional parameters menu (see below).

16. **SYNC** – forces OSC A to follow OSC B in hard synchronization.

17. **SAWTOOTH** – enables a full-level waveshape containing all harmonics.

18. **TRIANGLE** – enables a full-level triangle wave, containing little harmonic energy.

19. **PULSE** – enables a full-level waveshape depending on the setting of the pulse width control.

20. **PULSE WIDTH** – adjusts the harmonic content of the pulse wave by setting its cycle from around 1 to 99%. 50% is approximately a square wave.

21. **LEVEL** – determines the volume of the oscillator. Signal is clean up to 5, then a distortion effect is gradually introduced.

22. **FINE** – raises OSC B frequency up to one semitone for detuning effects.

23. **FIL ENV** – adjusts the level of the filter envelope generator source for the Polymod.

24. **OSC B** – adjusts the level of OSC B source for the Polymod.

25. **FREQ A** – selects OSC A frequency as a destination of the Polymod.

26. **FILTER** – selects filter cutoff frequency as a destination of the Polymod.

27. **UNISON TRACK** – with no keys pressed the current program will be switched to UNISON operation where all 8 voices are assigned to one note monophonically. With a chord held and unison then engaged, the chord will track up and down the keyboard. Pressing the button while holding a single note turns the Pro 800 into a monophonic synthesizer.

28. **NOISE** – increase the noise generator level.

29. **LFO FREQUENCY** – adjust the LFO speed from about 0.25 to 20 Hz.

30. **SHAPE** – LFO shape selection is made in the additional parameters menu and are assigned in pairs. 1. Tri-Pulse 2. Sine-Random 3. Saw-Noise.

31. **INITIAL AMOUNT** – programs mod depth independently of an external MOD wheel.

32. **FREQ A-B** – applies LFO modulation to both oscillator frequencies.

33. **PW A-B** – applies LFO modulation to pulse width of both oscillators.

34. **FILTER** – applies LFO modulation to the filter cutoff frequency.

35. **GLIDE** – increases the portamento between notes.

36. **CUTOFF** – adjusts the cutoff frequency of the 24 dB/octave (4-pole) low-pass filter.

37. **RESONANCE** – adjusts the resonance of the filter. This emphasizes the frequencies around the cutoff point.

38. **ENVELOPE AMOUNT** – sets the depth of the applied envelope. If set to 0, the filter envelope will have no effect.

PRO-800 Control

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㊲ **KEYBOARD** – when the FULL switch is selected CV is applied to the filters cutoff frequency with the filter tracking the keyboard. When in the OFF position notes played higher on the keyboard will have more of their overtones suppressed than notes played in the lower register. The ½ setting gives an effect in between the FULL and OFF settings. Full setting allows a self-oscillating filter to accurately track the keyboard.

㊵ **ATTACK** – controls the attack time of the filter's envelope.

㊶ **DECAY** – controls the decay time of the filter's envelope.

㊷ **SUSTAIN** – controls the sustain level of the filter's envelope.

㊸ **RELEASE** – controls the release time of the filter's envelope.

㊹ **ATTACK** – controls the attack time of the amplifier's envelope.

㊺ **DECAY** – controls the decay time of the amplifier's envelope.

㊻ **SUSTAIN** – controls the sustain level of the amplifier's envelope.

㊼ **RELEASE** – controls the release time of the amplifier's envelope.

㊽ **MASTER TUNE** – adjust the overall tuning of the synth (+- 1 semitone).

㊾ **POWER LED** – indicates power is on.

㊿ **VOLUME** – sets the master volume.

� **SYNC IN** – allows sync connection to external sources.

㉒ **FILTER CV IN** – allows the filter cutoff to be controlled by external sources. (amount set in settings)

㉓ **PHONES** – headphone connection.

㉔ **AUDIO OUT** – ⅛ᵗʰ audio output.

㉕ **MIDI IN** – accepts incoming MIDI data from the selected midi channel.

Rear Panel

㉖ **OUTPUT** – Connect to a mixer or audio interface ¼" Jack cable.

㉗ **FOOTSWITCH** – connect a footswitch for sustain control.

㉘ **MIDI CHANNEL SELECTION.** Move the four dip switches to select the MIDI channel.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

㉙ **MIDI OUT/THRU** – MIDI OUT/THRU for outputting MIDI data.

㉚ **USB PORT** – Capable of sending and receiving MIDI information over USB. Also used for updates.

㉛ **POWER SWITCH** – Turns the synthesizer on and off.

㉜ **POWER INPUT** – Connect the supplied power supply only.

PRO-800 Getting started

[EN] **Step 3: Getting started**

OVERVIEW

This 'getting started' guide will help you set up the PRO-800 and briefly introduce its capabilities.

CONNECTION

To connect the PRO-800 to your system, please consult the connection guide earlier in this document.

SOFTWARE SETUP

The PRO-800 is a USB Class Compliant MIDI device, and so no driver installation is required. The PRO-800 does not require any additional drivers to work with Windows and MacOS.

HARDWARE SETUP

Make all the connections in your system. Keep the PRO-800 power turned off when making any connections.

Ensure your sound system is turned down.

Turn on the PRO-800 before turning on any power amplifiers and turn it off last. This will help prevent any turn on or turn off "pops or thumps" in your speakers.

WARM UP TIME

We recommend leaving 15 minutes or more time for the PRO-800 to warm up before recording or live performance. (Longer if it has been brought in from the cold.) This will allow the precision analog circuits time to reach their normal operating temperature and tuned performance.

FIRMWARE UPDATE

Please check the behringer.com website regularly for any updates to the Behringer SYNTHTRIBE app.

The app looks for the latest firmware file which can then be downloaded and used to update the PRO-800.

PRO-800 Getting started

WARM UP TUNE TIME

Upon first power-up, the PRO-800 tunes itself. The tune light illuminates, and the display indicates the oscillator or filter being tuned from A1 through A8, b1 through b8 and F1 through F8 for Oscillator A, B and the Filter respectively. The routine takes about 20 seconds to complete depending on the tuning of your instrument.

It is normal to have to retune the instrument during the first 30 minutes of operation as the electronics warm to a stable operating temperature. To tune, simply press the tuning button as required.

MANUAL/PRESET MODES

Pressing the **PRESET** button switches between manual mode, in which the synthesiser parameters sound parameters reflect the active sonic state of the instrument, and preset mode in which the sound is a stored patch.

You can edit a stored patch, manual patch or preset patch at any time by completing the following:

1. Press the **RECORD** button on the keypad. It will blink.

2. Press the two-digit location to which you want to save the patch.

The patch is saved. It will overwrite whatever sound patch was there before.

You can cancel a patch store any time while the **RECORD** button is blinking by pressing it before pressing another button.

ADDITIONAL PARAMETERS MENU

Below is a table summarising the parameters and keypad buttons required to access the synthesiser additional parameters. To access these parameters, press PERF once.

To select a parameter, press the keypad number repeatedly to scroll through the options, name and value will be displayed. To edit it, used the **VALUE** control.

Key	Parameter	Choices
1	LFO Shape	Pulse-Triangle / Random-Sine / Noise – Saw (see below)
	LFO Target	AB / A / B
	LFO Speed Range	Fast / Slow
2	Vibrato Speed	-
	Vibrato Amount	-
3	Mod Wheel Amount	Min / Low / High / Full
	Mod Wheel Target	LFO / Vibrato
	Modulation Delay	-
4	VCA Env Shape	Fast Exp / Fast Lin / Slow Exp / Slow Lin
	VCF Env Shape	Fast Exp / Fast Lin / Slow Exp / Slow Lin
5	Pitchbend Target	Off / VCO / VCF / Volume
	Pitchbend Range	0-24
6	OscA Freq Pot Mode	Free / Semitone / Octave (see below)
	OscB Freq Pot Mode	Free / Semitone / Octave (see below)
7	VCA Velocity Amount	-
	VCF Velocity Amount	-
8	VCA Aftertouch Amount	-
	VCF Aftertouch Amount	-
	LFO Aftertouch Amount	-

LFO SHAPE

The PRO-800 supports six waveforms in addition to the standard Triangle and Square waves including Sine, (Saw) Ramp Up, Random, Noise. To select the desired waveform:

1. For Triangle, Sine or Saw:
    1. If you are in preset mode, make sure Settings is lit, else press it to access the additional parameters menu.
    2. Switch the LFO-MOD Shape button to Triangle.
    3. Press the 1 button once and use the Value control to select the Triangle, Sine or Saw. The display indicates the current selection.
2. For Square, Random or Noise:
    1. Enter Pref mode,
    2. Switch the LFO-MOD Shape button to Square.
    3. Press the 1 button once and use the Value control to select the Square, Random or Noise. The display indicates the current selection.

OSCILLATOR FREQUENCY CONTROL MODE

Oscillator A and B frequency ranges are now controllable in three modes: Octave (the default value), Chromatic and Free. The range remains the same, but it is now possible to sweep the frequency of the oscillators with a greater or smaller degree of fine control. To select the oscillator sweep mode, press button 8 twice on the additional parameters page and use the **VALUE** control to select it.

GLOBAL SETTINGS MENU

Access Global Settings by pressing **SETTINGS** once and use the keypad numbers to scroll through the options.

Key	Parameter	Choices / (Comments)
1	MIDI Rx Channel	Off / 1 – 16 / All / Dipswitch
	MIDI Tx Channel	Thru / 1 – 16 / All / Dipswitch
	MIDI CC	Off / Tx / Rx / TxRx
	MIDI PC	Off / Tx / Rx / TxRx
	Sync In Forward	On / Off
	Sync In Polarity	Rise / Fall
	Sync In Start/Stop	On / Off
	Sync In PPQN	1 PPS / 2 PPQ / 4 PPQ / 24 / 48
2	Transpose	-
3	Preset Dump	(Second press to confirm SysEx dump)
4	Voice Select	1 – 8
	Voice Kill	On / Kill
5	Retune Element	Osc A / Osc B / VCF
	Octave	All / Oct 0-7
6	Retune Encoder	Second press to initiate
7	Screen Brightness	-
	Display Parameter Time	-
	Preset Name Display	
8	Unison Detune	-
	Voice Spread	On / Off
	Autotune Precision	0.5 c / 1.0 c / 1.5 c / 2.0 c
9	External Filter Mod	-
	Voice Priority	Last / Low / High
	Glide Mode	Tine / Speed
0	Factory Reset	(second press confirms restoration of factory settings)

Holding the SETTINGS button and pressing the TUNE button lets you tune the last note played.

This will be saved in the preset data.

PRESET PARAMETERS

To access the PRESET parameters hold the PRESET button and use the keypad buttons to select the parameter required.

Key	Parameter	Comments
1	Bank A	-
2	Bank B	-
3	Bank C	-
4	Bank D	-
5	Preset Copy	(copies the current preset values)
6	Preset Paste	(pastes the copied preset to a new location. Second press confirms)
7	Randomise Preset	-
8	Bank Copy	First press copies current bank. Then navigate to another bank and use 9
9	Bank Paste	Hold PRESET and press twice to paste the copied bank to its new location
0	Reset to basic patch	

AUTOTUNE

The TUNE button starts the auto-calibration of the oscillators and filters, muting the output during the process. A short press will reset all tuning data and fully calibrate the device. A long press will start a faster recalibration of the tuning, adjusting to temperature changes of the analog circuits.

CHORD MODE

Holding a chord and switching the UNISON TRACK on stores that chord an allows it to be transposed across the keyboard. The chord will be saved as part of the preset. This can also be set by pressing the sustain pedal while holding a chord in UNISON mode.

TRANSPOSITION

By holding the PERF and SETTINGS buttons then playing a note on an attached MIDI keyboard the keyboard will transpose to the note played relative to C.

KEYBOARD MODES

The PRO-800can be either in Polyphonic, Unison or Chord mode.

1. The synthesizer starts in Polyphonic mode, in which any new note will be assigned to one of the 8 voices.
2. If you switch **Unison Track** on with no pressed key, you are in Unison mode, all 8 voices will play the same note.
3. If you switch **Unison Track** on with one or more pressed keys, you are in Chord mode. The pattern those keys made will now be transposed over the whole keyboard range by new notes.

4. If you switch on Unison Track with one key pressed you enter single voice unison mode.

The foot switch input can be used to latch a new pattern of notes. New notes will be assigned to voices using one of those priority rules:

1. Last: New notes will always play; the oldest notes may be stolen.
2. Low: Only the lowest notes will play. In Unison or Chord mode, legato will be active.
3. High: Only the highest notes will play. In Unison or Chord mode, legato will be active.

The assignment priority is set in the additional parameters menu.

ARPEGGIATOR

The arpeggiator has two buttons to set its parameters. To set the arpeggio type hold the ARP UP-DN button and use the keypad to select:

1 – Arpeggio Up
2 – Arpeggio Down
3 – Arpeggio Up and Down
4 – Arpeggio Up then Down

To assign the arpeggiator hold the ARP ASSIGN button and use the keypad to select:

1 – Played order
2 – Random order

Holding ARP button and pressing REC holds the current notes played. The foot switch input can also be used to hold the arpeggiator.

SEQ RECORDING

1. Switch RECORD on.
2. Press either SEQ 1 or SEQ 2.
3. Start playing. (Recording does not begin until the first key is pressed.)
4. When finished, press the footswitch or RECORD at the end point you want.
5. The sequence will play continuously loop until the appropriate SEQ switch is switched off. Adjust the SPEED control as required.
6. Care must be taken to not exceed the note limit, which is approximately 400, but may be less if the specific sequence contains long rests. If the note limit is exceeded, the sequence will only contain the last 400 notes— the earliest notes will be lost.
7. When both banks are being used, care must also be taken to not exceed the 400-note limit. The sequencer assigns memory priority to the bank which is currently being recorded, and will "steal" notes from the other bank once the 400 total note limit is reached. For example, if SEQ 1 already has a 250-note sequence recorded in it, you will erase SEQ 1 if you attempt to record more than about 150 notes in SEQ 2.

SEQ PLAYBACK

1. To playback a sequence, press SEQ 1 or SEQ 2.
2. The playback speed can be varied from 1/4 to 4X real-time. The SPEED control position for 1:1 playback speed is to the left of centre. This provides more control range of higher speeds.
3. The playback speed can also be programmed. As the sequencer is playing back, set SPEED as desired, then press the RECORD switch (which will not light). Now whenever the sequence is selected it will play at this speed. The programmed speed can be edited and re-recorded (just like the synthesizer controls).

To stop, press the appropriate SEQ switch or the footswitch

POWER UP

Pressing the PRESET button while powering up the PRO-800 loads a generic preset, which can then be edited. Holding the SETTINGS button while powering up resets all settings to factory default. Holding the 0 key on the keypad while powering up performs a button test.

Eurorack Installation

The PRO-800 can be taken out of its factory chassis and fitted into a standard Eurorack case (not supplied).

We recommend that this procedure is carried out only by an experienced service technician to prevent personal injury or damage to the PRO-800. The Eurorack case will need to have a suitable power supply with enough capacity to power the PRO-800. Consumption is 1.2 A at 12 v DC.

A 10 pin to 16 pin adapter ribbon cable is supplied with the PRO-800.

Please ensure that the Eurorack case will supply +/- 12v DC and ground to the correct pins, and that the cable is at the correct orientation before proceeding.

Procedure

Please follow all steps in the correct order.

1. Disconnect the power and all other connections to the PRO-800.

2. Undo the eight screws on the top panel as shown. There is no need to undo any other screw.

3. Carefully lift the top panel assembly, and turn it over so that the PCB is facing upwards. Be careful not to pull the ribbon cable from the lower side of the main PCB.

4. Disconnect the 24 pin ribbon cable from the main PCB of the PRO-800 and remove the assembly from the chassis.

X58

X59

+12 VDC
Pins 3 to 8 Ground
No Connection
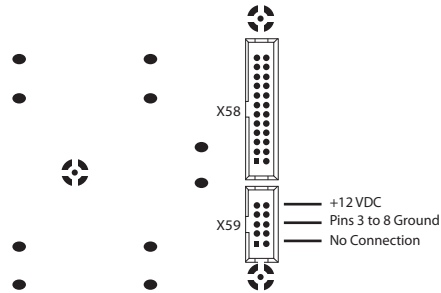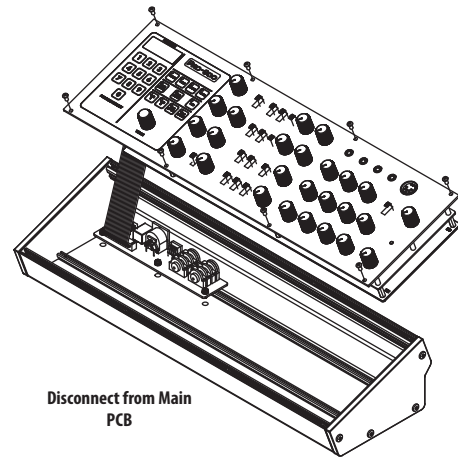
5. Store the chassis assembly and power supply in a safe, dry place.

6. Securely connect the 10 pin end of the supplied ribbon cable adapter to the main PCB of the PRO-800.

7. Having ensured that your Eurorack case is isolated from the mains connect the 16 pin end of the ribbon cable to a spare outlet in the case.

8. Secure the PRO-800 to the case using the eight panel screws.

9. Perform a full safety test before using the PRO-800.

Disconnect from Main PCB

MIDI Continuous Controllers

EN **The Pro 800 responds to a number of MIDI CC Controls:**

CC Num	Hex	Continuous - Coarse	Continuous - Fine tune	Stepped params	MIDI standard
0	0	-	-	-	Bank sel
1	1	-	-	-	Mod Wheel
2	2	-	-	-	Breath
3	3	-	-	-	Master Tune
6	6	-	-	-	NRPN Data MSB
7	7	-	-	-	Main volume
8	8	OSC A Freq	-	-	-
9	9	OSC A Vol	-	-	-
10	A	OSC A PW	-	-	-
11	B	OSC B Freq	-	-	-
12	C	OSC B Vol	-	-	-
13	D	OSC B PW	-	-	-
14	E	OSC B Fine	-	-	-
15	F	VCF Freq	-	-	-
16	10	VCF Reso	-	-	-
17	11	VCF ENV amount	-	-	-
18	12	VCF Rel	-	-	-
19	13	VCF Sus	-	-	-
20	14	VCF Dec	-	-	-
21	15	VCF Atck	-	-	-
22	16	VCA Rel	-	-	-
23	17	VCA Sus	-	-	-

EN

CC Num	Hex	Continuous - Coarse	Continuous - Fine tune	Stepped params	MIDI standard
24	18	VCA Dec	-	-	-
25	19	VCA Atck	-	-	-
26	1A	Pmod Filter Env amount	-	-	-
27	1B	Pmod OSC B amount	-	-	-
28	1C	LFO Freq	-	-	-
29	1D	LFO Amount	-	-	-
30	1E	Glide	-	-	-
31	1F	VCA Vel	-	-	-
32	20	VCF Vel	-	-	-
33	21	Mod delay	-	-	-
34	22	Vib Freq	-	-	-
35	23	Vib Amt	-	-	-
36	24	Unison Detune	-	-	-
37	25	Noise	-	-	-
38	26	-	-	-	NRPN Data LSB
39	27	VCA Aftertouch	-	-	-
40	28	VCF Aftertouch	-	-	-
48	30	-	-	OSC A Saw	-
49	31	-	-	OSC A Saw	-
50	32	-	-	OSC A Square	-
51	33	-	-	OSC B Saw	-
52	34	-	-	OSB B Tri	-
53	35	-	-	OSB B Square	-
54	36	-	-	OSC B Sync	-
55	37	-	-	Pmod Freq A	-
56	38	-	-	Pmod VCF	-
57	39	-	-	LFO Shape	-
58	3A	-	-	LFO Speed	-
59	3B	-	-	LFO Targets	-
60	3C	-	-	VCF Keyboard	-
61	3D	-	-	VCF ENV Exp	-
62	3E	-	-	VCF ENV Speed	-
63	3F	-	-	VCA ENV Exp	-
64	40	-	-	-	Sustain pedal
65	41	-	-	Unison	-
66	42	-	-	Bender target	-
67	43	-	-	Modwheel Amount	-
68	44	-	-	Chromatic Pitch A	-
69	45	-	-	Chromatic Pitch B	-
70	46	-	-	Modwheel Target	-
71	47	-	-	Vibrato Target	-
72	48	-	-	VCA ENV Speed	-
73	49	-	-	Arp Mode	-
74	4A	-	-	LFO Dest Freq	-
75	4B	-	-	LFO Dest Filter	-

CC Num	Hex	Continuous - Coarse	Continuous - Fine tune	Stepped params	MIDI standard
76	4C	-	-	LFO Dest PWM	-
80	50	-	OSC A Freq	-	-
81	51	-	OSC A Vol	-	-
82	52	-	OSC A PW	-	-
83	53	-	OSC B Freq	-	-
84	54	-	OSC B Vol	-	-
85	55	-	OSC B PW	-	-
86	56	-	OSC B Fine	-	-
87	57	-	VCF Freq	-	-
88	58	-	VCF Reso	-	-
89	59	-	VCF ENV amount	-	-
90	5A	-	VCF Rel	-	-
91	5B	-	VCF Sus	-	-
92	5C	-	VCF Dec	-	-
93	5D	-	VCF Atck	-	-
94	5E	-	VCA Rel	-	-
95	5F	-	VCA Sus	-	-
96	60	-	-	-	NRPN Data increment
97	61	-	-	-	NRPN Data decrement
98	62	-	-	-	NRPN Param LSB
99	63	-	-	-	NRPN Param MSB
100	64	-	VCA Dec	-	-
101	65	-	VCA Atck	-	-
102	66	-	Pmod Filter Env amount	-	-
103	67	-	Pmod OSC B amount	-	-
104	68	-	LFO Freq	-	-
105	69	-	LFO Amount	-	-
106	6A	-	Glide	-	-
107	6B	-	VCA Vel	-	-
108	6C	-	VCF Vel	-	-
109	6D	-	Mod delay	-	-
110	6E	-	Vib Freq	-	-
111	6F	-	Vib Amt	-	-
112	70	-	Unison Detune	-	-
113	71	-	Noise	-	-
114	72	-	VCA Aftertouch	-	-
115	73	-	VCF Aftertouch	-	-
116	74	-	LFO Aftertouch	-	-
120	78	-	-	-	All sounds off
123	7B	-	-	-	All notes off

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Specifications

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Synthesizer Architecture	
Number of voices	8
Type of oscillators	2 x 3340 per voice
Type	Analog
Oscillators	16 (32.70 Hz to 8372.02 Hz across 4 ranges)
LFO	1 (0.08 Hz to 20 Hz)
VCF	1 x 4-pole low pass (24 dB/oct. slope)
Envelopes	VCF, VCA

Connectivity	
Output	¼" TS, unbalanced, max. +5.0 dBu
Audio out	⅛" TS, unbalanced, max. +20.0 dBu
Footswitch	¼" TS, unbalanced
Headphones	⅛" TRS, unbalanced, max. 7.5 mW @ 32 Ohm
Headphones output impedance	8 Ω
MIDI In Out/Thru	2 x 5-pin DIN/ 16 channels
USB (MIDI)	USB 2.0, type B
Sync in	TS 3.5 mm 1PPS, 2PPQ, 24PPQ, 48PPQ
Fliter CV IN	TS 3.5 mm 0 V to +10 V

USB	
Type	Class compliant USB 2.0, type B
Supported operating systems	Windows 7 or higher/ Mac OS X 10.11.6 or higher

Program Section	
Display	4 number, 8-segment display
Buttons	0 – 9 program select
	Preset, perf, settings, tune
	Sync source, sync clock, rec
	SEQ 1, SEQ 2, ARP UP-ON, Arp Assign.
Control	Value encoder

Oscillator Section	
Controls	Frequency (OSC A & B): -5 to +5
	Level (OSC A & B) 0 to 10
	Pulse Width (OSC A & B) 0 to 10
	Fine (OSC B only)
Switches	Shape (OSC A & B): Sawtooth, Triangular and Pulse
	OSC A sync: on/off

POLY-MOD Section	
Controls	FIL ENV 0 to 10
	OSC B S 0 to 10
Switches	Freq A destination
	Filter destination

Noise Section	
Control	Noise level 0 to 10

LFO-MOD Section	
Controls	Frequency 0 to 10
	Initial amount 0 to 10
Switches	Shape: Triangle or Pulse
	Freq A-B
	PW A-B
	Filter

Glide Section	
Controls	Rate: 0 to 10

Filter Section	
Controls	Cutoff frequency: 0 to 10
	Resonance: 0 to 10
	Envelope amount: 0 to 10
	Attack: 0 to 10
	Decay: 0 to 10
	Sustain: 0 to 10
	Release: 0 to 10
Switch	KYBD amount: off, ½, FULL

Specifications

Amplifier Section	
Controls	Attack: 0 to 10
	Decay: 0 to 10
	Sustain: 0 to 10
	Release: 0 to 10

Output Section	
Controls	Volume: 0 to 10
	Master tune -5 to +5
LED	Power

Power Requirements	
External power adaptor	12 V DC 1200 mA
Power consumption	14.4 W maximum

Environmental	
Operating temperature range	5°C to 40°C (41°F to 104°F)

Physical	
Dimensions (H x W x D)	96.6 x 424.4 x 135.6 mm (3.8 x 16.7 x 5.3")
Weight	1645 g (3.63 lb)
Eurorack HP	80 hp

Other important information

EN   Important information

1. Register online.
Please register your new Music Tribe equipment right after you purchase it by visiting musictribe.com. Registering your purchase using our simple online form helps us to process your repair claims more quickly and efficiently. Also, read the terms and conditions of our warranty, if applicable.

2. Malfunction. Should your Music Tribe Authorized Reseller not be located in your vicinity, you may contact the Music Tribe Authorized Fulfiller for your country listed under "Support" at musictribe.com. Should your country not be listed, please check if your problem can be dealt with by our "Online Support" which may also be found under "Support" at musictribe.com. Alternatively, please submit an online warranty claim at musictribe.com BEFORE returning the product.

3. Power Connections.
Before plugging the unit into a power socket, please make sure you are using the correct mains voltage for your particular model. Faulty fuses must be replaced with fuses of the same type and rating without exception.

FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION

Behringer

PRO-800

Responsible Party Name: **Music Tribe Commercial NV Inc.**

Address: **122 E. 42nd St.1,
8th Floor NY, NY 10168,
United States**

Email Address: **legal@musictribe.com**

PRO-800

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Important information:

Changes or modifications to the equipment not expressly approved by Music Tribe can void the user's authority to use the equipment.

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Hereby, Music Tribe declares that this product is in compliance with Directive 2014/35/EU, Directive 2014/30/EU, Directive 2011/65/EU and Amendment 2015/863/EU, Directive 2012/19/EU, Regulation 519/2012 REACH SVHC and Directive 1907/2006/EC.

Full text of EU DoC is available at https://community.musictribe.com/

EU Representative: Music Tribe Brands DK A/S
Address: Gammel Strand 44, DK-1202 København K, Denmark

UK Representative: Music Tribe Brands UK Ltd.
Address: 6 Lloyds Avenue, Unit 4CL London EC3N 3AX, United Kingdom

PRO-800 Factory Presets

00	Organ I		52	High Strings
01	Classical Brass		53	Pulse mod I
02	Strings		54	High Plucky *
03	Poly Glide I		55	Descending Bells
04	Metallic I *		56	Harpsi Synth
05	Triangle Waves W/Octave Release		57	Nasal Bass
06	Power Synth		58	Xylophone *
07	Mini Lead (Unison)		59	Obnoxious Mod
08	Poly Glide II		60	Cathedral Organ
09	Video Games		61	Slow Brass
10	Organ II		62	Arco Bass Viol (Unison)
11	Brass I		63	Frog City
12	Muted Strings		64	Dog's Bark
13	Clav I *		65	Cats Meow
14	Percussive Electric Piano		66	Sustained Sync W/Glide
15	Flute		67	Modor (Unison)
16	Harpsichord I		68	Tack Synth
17	sync I		69	Gonzoid Steel Drums
18	Club Organ		70	Organ Percussive I
19	Sleeping Orgs		71	B.D.I.'s
20	Organ Flute Stop		72	R.F.M.
21	Brass II		73	Harmonium
22	Light Strings		74	Metallic II *
23	Clav II *		75	Poly-Mod Pitch Glide
24	Ice Cream *		76	Sync III *
25	Muted *		77	Fat Octaves (Unison)
26	Sync II *		78	Low Plucky *
27	Full Bass (Unison)		79	Space Race (Unison)
28	Movies		80	Organ Percussive II
29	Leeches From Space		81	Detuned
30	Organ W/Chorus		82	Vocal Harmonica
31	Bach Trumpet		83	Square Wave Bubbles
32	Low Strings		84	Metallic III
33	Harmonica		85	Josef
34	Wurlie Piano		86	Pulso Width Mod II
35	Dinkity Dink *		87	Lucky Man (Unison)
36	Buddy		88	Super Percussion
37	Cutting Bass (Unison)		89	Noise Scream (Unison)
38	Echo-Repeat		90	Full Organ
39	Screamin' Memes		91	Filter Funk
40	Chiffy Organ		92	Banjo *
41	Brass III		93	Clav III
42	Arco Strings		94	Pulso Width Mod III
43	Runaway		95	Drunken Synth
44	Honky Tonk Synth *		96	Tears
45	Whistle		97	Fifths Lead (Unison)
46	Angelic Synth		98	Oops!
47	Hard Lead Bass (Unison)		99	Alien (Unison)
48	Harp *			
49	Indigestion			* = Arpeggiator
50	Distorted Organ			
51	Digital Brass			

We Hear You

behringer