

Sequential Pro-One - modifications and upgrades (part 3)

Part 3 of our Pro-One upgrade trilogy provides hints for a new CPU, MIDI kits, and some very simple modifications. The material for the latter can be purchased in any hardware store for a few Euros, and lend the Pro-One a higher degree of stability ...



 GREATSYNTHESIZERS.com

First, however, an after-thought on the side panels of the Pro-One. These may be had not only in the USA, but also in Europe. Strictly speaking, *any* experienced craftsman musician could manufacture them himself, but entrepreneurs / professional carpenters often have better access to noble woods.

One company in question is based in London / UK and can be found on *Reverb.com*: [Mint Case](#). The provider not only offers side panels for the Pro-One (and a complete Pro-One wooden case as well), but side panels for a large number of synthesizers - from the Korg Mono/Poly to the new Behringer vocoder ...

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Sequential Circuits Pro One Wooden Case American Walnut Analog synthesizer

Brandneu

€524,21 EUR

Versandkostenfrei

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Der Reverb Schutz bietet dir eine sichere Community, um das Musikinstrument zu finden, das du suchst.

VERSAND AUS

Mint Case

London, Vereinigtes Königreich

★★★★★ (47)

Sales 60+ Mitglied bei Reverb seit 2018



Bevorzugter Verkäufer



Blitzkommunikation

Verkäufer anschreiben

Zahlung & Rücksendungen

Beschreibung

Custom wooden case for Sequential Circuits Pro One. Build using american walnut. Finished in Liberon Wax. Ready for shipping.
This listing is for wooden case only.

https://reverb.com - Mint Case (London / UK)

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Keyboards und Synthesizer > Keyboard Einzelteile > Sequential Circuits

Sequential Circuits Pro One Wooden Ends Custom Side Panels American Walnut wood

Brandneu

€68,65 EUR

+ €10,47 EUR Versand

In den Warenkorb legen

Beobachten



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Der Reverb Schutz bietet dir eine sichere Community, um das Musikinstrument zu finden, das du suchst.

VERSAND AUS

Mint Case

London, Vereinigtes Königreich

★★★★★ (23)



Verkäufer anschreiben



Zahlung & Rücksendungen

Beschreibung

A pair of custom wooden side panels for SEQUENTIAL CIRCUITS PRO-ONE synthesizer. These panels are created using the exact profile of the originals. Handcrafted. Finished with wax and flat oil varnish. These panels push the aesthetics of your synth to a new level. Made from American Walnut wood.

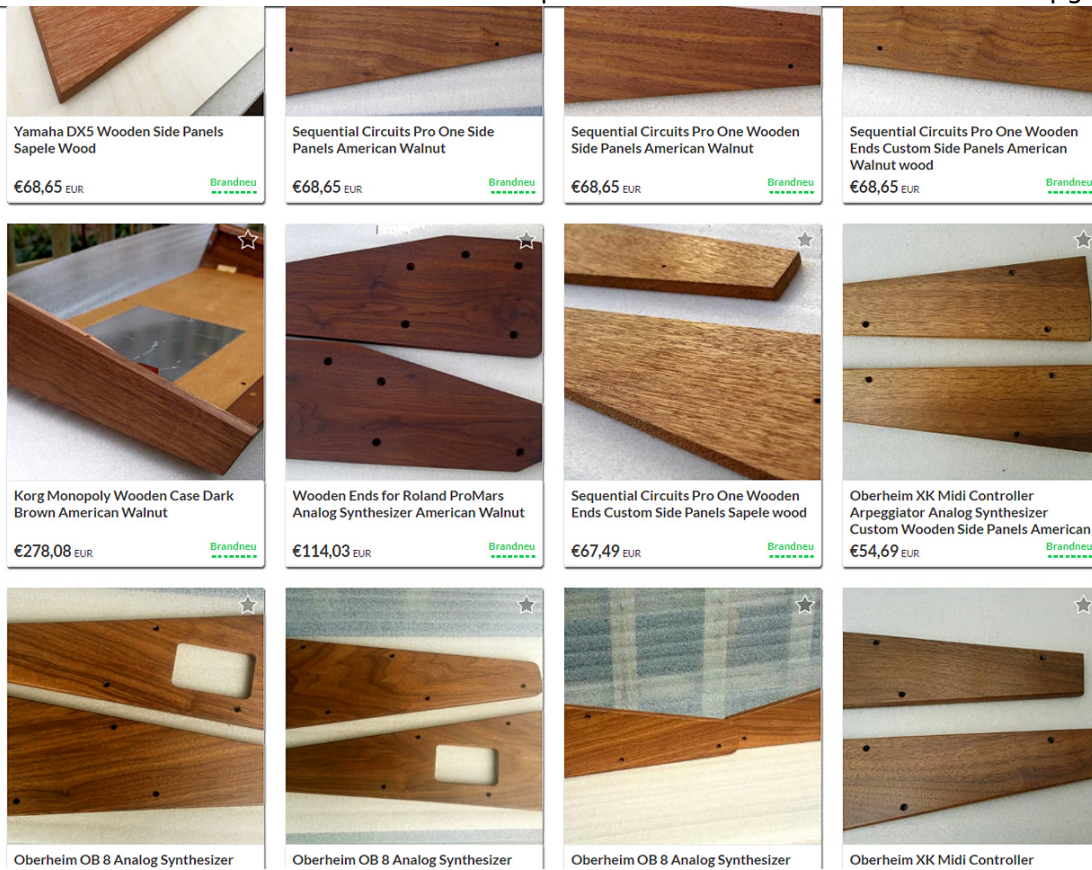
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<https://reverb.com> - Mint Case (London / UK)

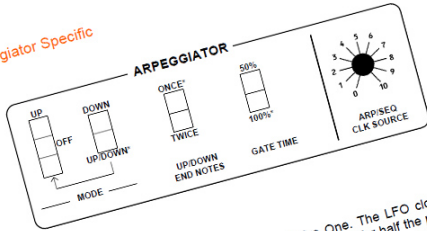
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Now to the insides of the Pro-One. From today's perspective, the computer-technical facts of this 1981 synthesizer are ridiculously elementary. There is the ROM and RAM area of the Pro-One, for example, which is tiny. It is not surprising that the sequencer can only store a maximum of 40 steps and that it immediately loses its memory when the instrument is switched off.

An upgrade brings some light into this digital darkness: [Music Technologies Group](#) (MTG) is the manufacturer of a CPU which not only extends the Pro-One sequencer memory to 256 steps, but also ensures that sequences are retained after the instrument is switched off.

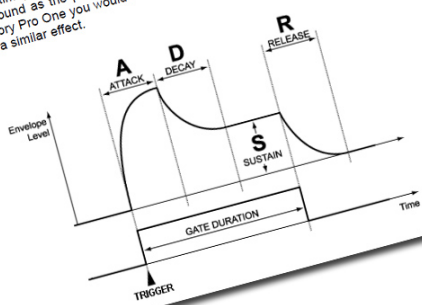
Music Technologies Group

Arpeggiator Specific



Arpeggio Gate Time

This is a fairly subtle change from the original Pro One. The LFO clock has a 50% duty cycle. That means the LFO square wave is high for half the period and low for half the period. The Sequential Pro One leaves the gate on the whole time an arpeggio runs (100% gate time). The attack/decay sound is generated by a separate short trigger pulse that occurs on every note. The Arpeggio Gate Time setting allows you to turn the gate time off half-way through the LFO clock (50% gate time). Depending on the patch you are using, it can provide a slightly different sound as the patch can enter the Release portion of the ADSR cycle. For a factory Pro One you would have to lower the Sustain and extend the Decay value for a similar effect.



www.musictechnologiesgroup.com

.:Music Technologies Group.:

Parts and information for engineers, musicians and hobbyists

* Please check out the BLOG for latest news and notes *

MTG Pro One TurboCPU MIDI

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*** MTG Pro One Turbo CPU ***

The ultimate upgrade for one of the world's most loved monosynths!

Turbo CPU

The MTG Pro One Turbo replacement CPU Module is a drop-in replacement microcontroller for the Sequential Circuits Pro One's 8021 CPU (AKA P8021/8021H/P8021H).

Features:

- Plug-n-Play! No soldering required!
- Non-destructive FLAT pins. We don't use square pins that destroy the CPU socket.
- Supports the original functionality including the sequencer and arpeggiator.
- Each sequence can be up to 256 steps (compared to total of 40 steps on the original).
- Sequences are retained in memory even after power-down. The CPU module does not use a battery.
- Power-on settable parameters for clock start mode, arpeggio up/down end notes, arpeggio down mode and arpeggio gate time.
- Sequence Tie mode allows for a variety of note lengths.
- Sequence End mode lets you chain the two sequences.
- Non-destructive FLAT pins. We don't use square pins that destroy the CPU socket.
- Optional: If you want to make your own MIDI interface, instructions are in the manual. If you want MIDI hardware included, see CPU+MIDI.

Turbo CPU + MIDI

The above plus a MIDI In/Out interface board that adds the following features**:

- Firmware update ("re-flashing") over MIDI (using MIDI/OX or similar).
- Settable MIDI channel.
- Receive MIDI note data.
- Monophonic MIDI output of arpeggiator and sequencer data.
- Polyphonic MIDI output of keyboard data.
- Arpeggiator and sequencer sync-able to MIDI Sync In (settable clock rate).
- Load/Save sequence data over MIDI.
- MIDI In, MIDI Out and optional MIDI Thru.
- Optional MIDI In/Out activity LEDs.
- Location for optional DAC chip (see CV option below).
- ~~Soldering and installation are required for MIDI~~

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"The MTG Pro One Turbo replacement CPU Module is a drop-in replacement microcontroller for the Sequential Circuits Pro One's 8021 CPU (AKA P8021/8021H/P8021H). Plug-n-Play! No soldering required!"
www.musictechnologiesgroup.com

For another option, Music Technologies Group offers a MIDI kit (IN / OUT), in which, as a special feature, the Pro-One arpeggiator / sequencer is MIDI clock syncable (MIDI IN) and can transmit its data to the exterior (MIDI OUT). In addition, the Pro-One keyboard can be used to play other MIDI synthesizers polyphonically (!) ...

Due to COVID-19, items built-to-order (kits) may take longer than usual. Please click [here](#) to see latest information from Kenton regarding COVID-19.

[Home](#) > [Retrofit kits and Socket Upgrades](#) > [SEQUENTIAL CIRCUITS](#) > [Retrofit Kits](#) > Pro-One



Pro-One

£195.00 to £300.00 ex VAT

£234.00 to £360.00 inc VAT

Kit

Choose an option ▾

1

Add to basket

Description

PLEASE NOTE: Fitting a retrofit kit is a skilled job which should be undertaken only by a competent synth service engineer or fitted by us at our premises in South West London.

Note also that retrofit kits are always built to order after your payment has been processed. It then takes us up to 10 working days to build and test the

<https://kentonuk.com/product/pro-one>

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[Kenton Electronics](#) should also be mentioned. The company offers a Pro-One retrofit kit that can receive pitch bend / mod wheel / filter cutoff frequency and sustain MIDI values (with a range of a respectable 60 notes).

So, finally, to our two last suggestions, which again concern the hardware of the Pro-One. One of the few unpleasant aspects of this instrument is the instability of the pots. Fastened directly to the (one and only) large main board, they are not screwed to the panel and therefore lack stability. They feel shaky – they don't feel good.



This problem can be tackled very easily with washers. Assuming the diameters of the washer and the knob match, this modification is not detrimental to the appearance of the Pro-One. To the contrary: The washers and the aluminum knob caps (mentioned in [part 2](#) of our trilogy) contribute to a coherent overall impression of the instrument, above and beyond the stability that is gained.

Of course, such a modification needs to be considered carefully, since you have to attach the washers to the panel with glue (superglue?). Ideally this should be done with light pressure against the potentiometer axis at the moment of sticking, in order to alleviate the wobble factor (the original problem) once and for all.



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Once glued on the Pro-One, the washers cannot be easily removed – at least not without leaving stubborn residues. Caution is advised! Take your time – work slowly and precisely. You don't want to ruin your Pro-One.

In most cases, removing the pasted washers won't be an option anyway. Since a Pro-One *with* stabilized potentiometers is a lot more comfortable to operate (and also looks much better!), you will hardly want to revert it back to its original condition.



Pro-One with potentiometer shaft stabilization. A simple, but effective upgrade ...

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Another - even simpler - modification is the rear stabilization of the Pro-One metal housing. If you look at the innocent simplicity with which Sequential accommodated the inputs / outputs on the main board and from there (via holes in the housing) to the outside, you wonder why the company didn't invest in 7 spindle nuts as binding (and stabilizing) elements.

This is no criticism, of course. The Pro-One was designed, manufactured and sold as an inexpensive instrument. Therefore, it had to be assembled with just a few quick steps. Especially in the first two years - 1981 and 1982 - this great monophonic synthesizer was manufactured non-stop, with an output of up to 50 pieces a day. So it's no surprise there wasn't time for mounting extra spindle nuts.



Pro-One with phone jack nuts ...

But what was missed in the early 80s can be made up for today. The threads are there, so it's just a matter of the few seconds needed to mount the nuts and stabilize the rear side of the Pro-One. A slight pressure against the rear wall is recommended during assembly, making the jacks protrude a little more and facilitating the mounting of the spindle nuts.



Original Pro-One rear side ...

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The result is not only a visual upgrade, it also gives the Pro-One significantly more stability. In addition - now we are back to the optics - the spindle nuts with the silver Pro-One / Sequential badges and the aluminum pot caps (if they have been added) effect an even greater visual harmony.



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This ends the trilogy of Pro-One upgrades. All modifications - even the handling of that superglue - are of course at your own risk. The individual articles serve primarily to illustrate some options of improving the hardware of this classic synthesizer - if you want to.



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The fact is: only a small investment is required to diffuse the dominantly cheesy, plastic look of the original. A few washers, nuts, wooden parts or aluminum knob caps are enough to achieve a balance between the instrument's SOUND and (after upgrades) its valuable DESIGN.

Sequential Pro-One - modifications and upgrades (part 3)

CPU Upgrade

MIDI Upgrade

Simple poti stabilization

Simple rear side stabilization

Links:

[Sequential Pro-One - modifications and upgrades \(part 1\)](#)

[Sequential Pro-One - modifications and upgrades \(part 2\)](#)

[Sequential Pro-One - modifications and upgrades \(part 3\)](#)

Review:

[Sequential Pro-One - best vintage monophonic?](#)