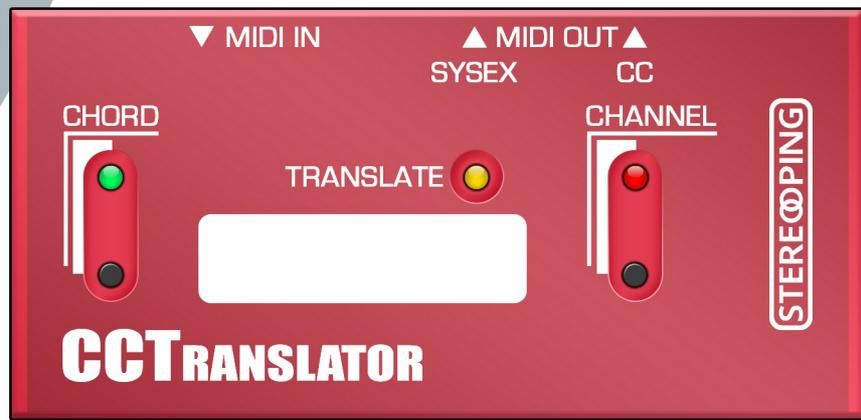
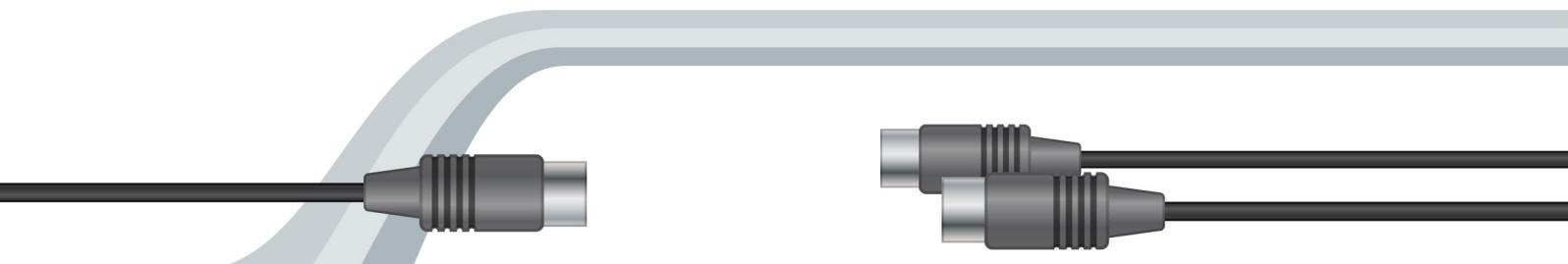


STEREOPING

MIDI TOOLS



Owner's Handbook

CCTranslator? What is it?

Several decades ago, the Synthesizer's were designed to listen to „System Exklusive“ commands (in short „SysEx“) to change their parameters. These commands are not uniformed, each manufacturer / model had it's own command structure, sometimes quite cryptic due to checksums or nibble splitting. This is e.g. the command to set the Sync of DCO1 to „Mid“ on the Oberheim Matrix 1000: 0xF0,0x10,0x06,0x06,0x02,0x02,0xF7. Apart from the complexity and diversity most DAWs and sequencers can not handle, record or edit this System Exclusive data.

Nowadays manufacturers and DAWs are using „Midi Control Change“ messages (in short „CC“) for parameter changes and automation in the midi world. CC is an abstracts midi command containing three information elements: Midi channel, desired CC-function (aka. CC-number) which will be changed and finally the desired value. CC-number as well as the value can range between 0 and 127. Some of the CC-functions are officially defined/occupied by the midi standard like e.g. the modulation wheel (CC 1), volume (CC 7), panning (CC 10). Most synthesizers will react on these few universal CC-functions as long as the midichannel of the CC command and the synth itself are identical. Most or all DAWs/Sequencer conveniently support CC-automation and editing with graphical curves or customizable dashboards.

Unfortunately the sound parameters on vintage synths can not be changed directly with CC messages, in most cases they will be simply ignored. This is where the CCTranslator comes into play: it will be plugged right in between your DAWs MIDI OUT and the Synth's MIDI IN and translates ordinary CC messages into the complex SysEx-Strings your Synthesizer needs to be feeded with. All remaining sequencer/keyboard data like notes, pitchbend etc. will be passed unchanged to the Synthesizer of course. This means: the CCTranslator allows editing and automating your Synth parameters right from the DAW.

Oh, apart from the CC/SysEx-translation feature you will get a Chord memory on top.

Power supply

The CCTranslator does not have a jack for power supply. It will be supplied with energy by the midi device connected to the MIDI IN jack. This perfectly works with the vast majority of midi equipment like e.g. Midi interfaces using the 3,3V standard.

When being switched on - by connecting it's MIDI IN with a MIDI OUT jack or powering up the device connected to MIDI IN - the CCTranslator should blink a few times quickly with it's Leds. If it should not give light signs on powerup, the connected midi device is not capable of supplying the CCTranslator with sufficient energy.

Connections

Normally you connect the MIDI IN of the CCTranslator with the MIDI OUT of your midi interface or patchbay. The MIDI OUT jack labeled „SYSEX“ will be plugged to the MIDI IN of your synthesizer. The CCTranslator should be the last device before going into MIDI IN of your Synthesizer.

The „SYSEX“ jack sends out the parameter change SysEx data together with all the ordinary midi data like e.g. notes or pitchbend. The CC-data which will be used for translation will be filtered out. These CC commands are sent out to the MIDI OUT jack labeled „CC“. You could use this data stream to record it in a DAW and send it back later into the CCTranslator for automation.

CHANNEL pushbutton & Led

The CCTranslator uses a basechannel on which it will react to incoming notes (Chord function) and CC-messages (Translation). The remaining other 15 channels will not be modified and passed through. After a new firmware flashing it's set to 1, you can change it to any other channel of course:

Shortly pressing the CHANNEL pushbutton sends an ALL NOTES OFF command on the basechannel. This helps to stop hanging notes.

After holdig the button down for 2 seconds the Led starts to flash slowly. You just entered BASECHANNEL LEARN mode. The first incoming note on MIDI IN will be used to extract (and save) the new basechannel being used for the CCTranslator's functions. The base channel will be restored on next powerup. You can leave the LEARN mode anytime by pressing the CHANNEL button shortly.

The CHANNEL Led has another function: it shortly flashes on incoming and forwarded messages on the basechannel.

TRANSLATE Led

Everytime the CCTranslator translates incoming CC data the TRANSLATE Led shortly flashes. Of course you need to know first which CC number changes which parameter, right?

For each synthesizer supplied we offer a PDF table with the CC number/Parameter assignments in the DOWNLOAD section of the Midi Tools on our website www.stereoping.com

Chord Memory

This function allows to learn up to 9 intervals (relative to the 1st played note, above or below) and let them play together with a played note. Functions of Led and pushbutton:

- pressing the CHORD button shortly switches Chord für ON (Led on) and OFF (Led off)
- hold the button for 2 seconds to enter CHORD LEARN mode. In this mode the LED keeps blinking slowly. Press the CHORD button shortly again to exit CHORD LEARN mode.

Now to learn the intervals it is advisable to choose a sound on your synthesizer with a defined SUSTAIN phase like e.g. an organ sound. Otherwise the sound might fade away which makes it difficult to impossible judging notes to fit together musically. The individual intervals will be programmed like this:

- Press the first key, this is the base note of the chord. The formerly saved Chord will be erased. You can release the key again, the CCTranslator will keep the note playing.
- Now press up to 9 other keys on the keyboard. Again you can release pressed notes, they will be held active. If a note was wrong or needs to be removed for other reasons just press it again and it will be stopped.
- Keep doing like so until you are satisfied with your chord.
- In the end shortly press CHORD again to leave CHORD LEARN mode. Your intervals will be saved to internal memory for being available on next powerup.

For the CHORD Led to be ON you can play the learned Chord with just one note anywhere on the keyboard. Try pressing multiple keys, the chord will be built on each pressed key as long as the polyphony of your sound device allows it. For chords with quite few notes (2 or 3) this can lead to interesting results. Also nice for making sounds thicker or brighter: learn a note lying one or two octaves above or below the base note.

Firmware Update

Each firmware for the CCTranslator supports exactly ONE Synthesizer. If you want to control another model you need to flash another firmware into the CCTranslator – the procedure is explained here.

For dumping a new firmware into the CCTranslator there is a BOOTLOADER mode. Keep the CHANNEL button pressed while powering up the CCTranslator – even by plugging a cable into MIDI IN or by firing up the supplying device connected to MIDI IN. The CHANNEL Led should light up, you can release the button now.

Open your favourite freeware SysEx-Dump-Tools to transmit the new firmware file into the CCTranslator. For PC there is e.g. 'MidiOX', for the Mac you could use 'SysEx Librarian'. In the prefs of the sysex-dump-tool you will find a setting like 'Delay between Buffers' or 'Delay after F7'. Set it to about 70mS (Milliseconds).

After you've started the transmission the CHANNEL Led starts to flash slowly. The whole process should not take much longer than a minute and your CCTranslator restarts automatically by indicating its typical startup Led show. If for some reason it does not restart or something else was going wrong you can try it again. There is nothing you can break on the CCTranslator.

FAQ – frequently asked questions

I connected my CCTranslator as advised but it does not flash on powerup. It looks dead.

The CCTranslator gets its power supply from the device being connected to its MIDI IN. If no Leds show anything after the Translator's MIDI IN being plugged to a MIDI OUT it looks like the connected device is not capable of powering the ChordTransposeFilter. To go sure the CCTranslator is working at all try plugging it to another midi device's MIDI OUT.

I send CC-commands into the CCTranslator but the synthesizer does not change it's sound?

Does the TRANSLATE Led light up?

If YES: please check the settings on your synth? Some of them (e.g. Alpha Juno, TX81Z) have settings in their PREFS to allow (of not) the response to System Exclusive data.

If NO:

- does the midichannel of the sent CC-Daten correspond to the learnt base channel of the CCTranslator?
- Is the current firmware in the CCTranslator capable of translating the sent CC-number? Not all CC-numbers are used to control parameters?

Chord Memory does not work?

Chord Memory works **only** with notes being sent on the learnt basechannel. Most probably the incoming notes are sent on another midi channel. Or you simply did not teach the CCTranslator a chord yet.

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)

This symbol on the product(s) and / or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge. Alternatively, in some countries you may be able to return your products to your local retailer upon purchase of an equivalent new product. Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

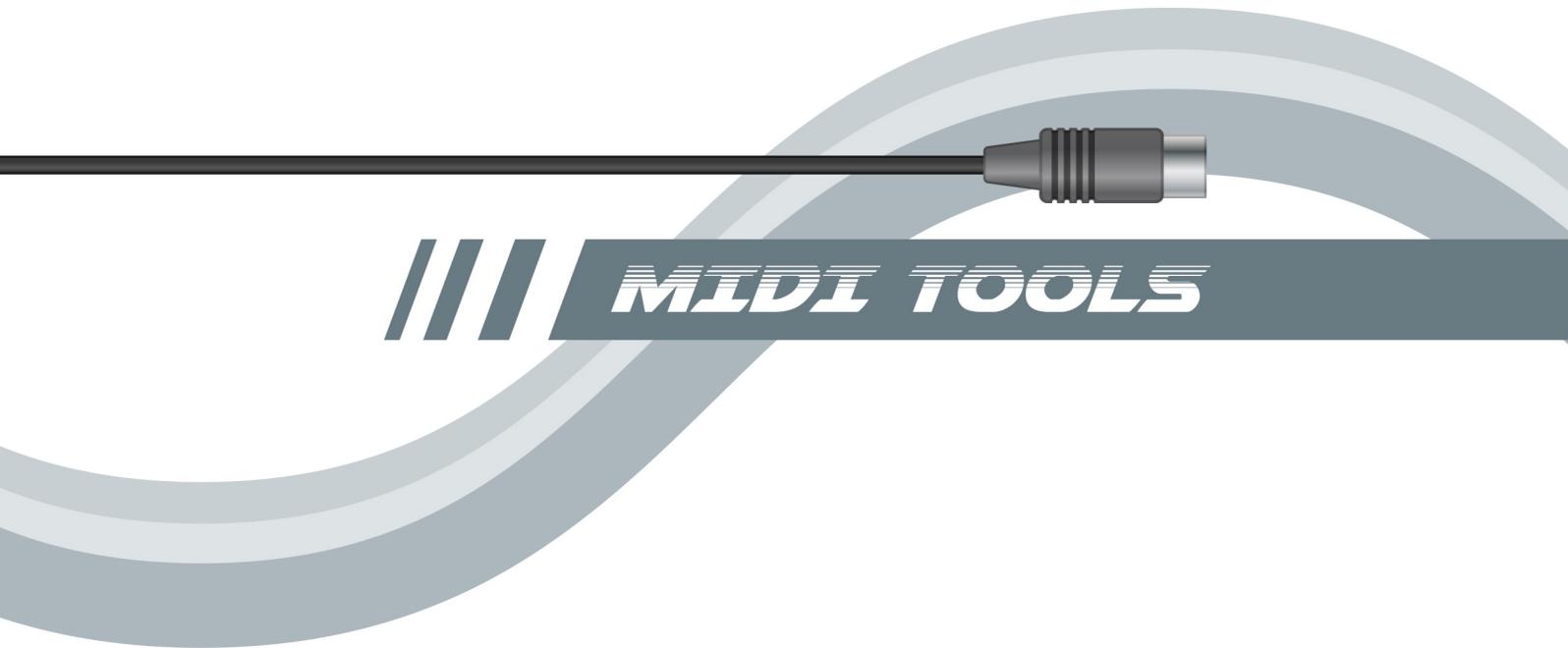


For business users in the European Union: *If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.*

Information on Disposal in other Countries outside the European Union: *This symbol is only valid in the European Union. If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.*

Version 1.0, 03/2020 - <http://www.stereoping.com>

STEREOPING



MIDI TOOLS