





Owner's Handbook

ChordTransposeFilter? What is it?

The ChordTransposeFilter manipulates Midi data on their way from the MIDI IN jack to both MIDI OUT jacks. It offers 4 features:

- 1. MIDI THRU (1 MIDI IN, 2 identical MIDI OUTs)
- 2. Transposing of incoming Midi notes by a user definable interval
- 3. Chord Memory up to 8 notes
- 4. Filtering of undesired Midi data

Power supply

The ChordTransposeFilter 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 equiepment 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 ChordTransposeFilter should blink a few times quickly with it'sLeds. If it should not give light signs on powerup, the connected midi device is <u>not</u> capable of supplying the ChordTransposeFilter with sufficient energy.

Connections

Connect the MIDI IN jack of the ChordTransposeFilter with the MIDI OUT jack of your Masterkeyboard. The midi cable which formerly was connected to the keyboards MIDI OUT is now plugging to the ChordTransposeFilters left MIDI OUT jack. Of course you can as well plug the ChordTransposeFilter to a Midi Interface or Hardware sequencer, in fact it's just a midi data manipulator.

CHANNEL pushbutton & Led

Before we move on to the features ... the ChordTransposeFilter has a dedicated basechannel (midi channel) which is used for transposition and chord memory. All of the other midichannels (different from the basechannel) are NOT manipulated – unless the according filter is set. By default the basechannel is 1.

Pressing the CHANNEL button short sends as ALL NOTES OFF command on the current basechannel. This allows stopping hanging notes. If you are using a Yamaha DX7 or TX7 with the ChordTransposeFilter: there is a special firmware for both as they do not react to the common midi messge for "AllNotesOff". The firmware fopr DX7/TX7 really sends an OFF message for all 128 keys, it therefore is slightly slower in handling.

After holding the CHANNEL button for about 2 seconds the Led starts to blink slowly. You just entered BASECHANNEL LEARN mode. The first incoming midinote is used to extract the new basechannel which will be used by the ChordTransposeFilter, it's stored permanently in memory and will be active after the next powerup.

But there is one more thing the ChordTransposeFilter extracts here! The incoming note is the <u>reference note</u> which will be used by the TRANSPOSER when learning the interval. If e.g. you press one of the middle Cs when learning the BASECHANNEL you are on the safe side as it's much easier to learn predictable intervals.

After you sent a midi note, the ChordTransposeFilter automatically leaves the BASECHANNEL LEARN Mode and saves the new basechannel as well as the interval reference note in it's memory. They will be available again on next powerup. You can leave the BASECHANNEL LEARN mode even without sending a midi note by just pressing the pushbutton shortly once more.

The CHANNEL Led is flickering shortly when midi data is detected on MIDI IN and forwarded to MIDI OUT, the basechannel does not play a role for this function.

Feature 1 – MIDI THRU

The second MIDI OUT-jack is a leftover from the sister product 'PolyChainer'. Sometimes it makes sense to have a second MIDI OUT sending identical data. The right MIDI OUT jack sends exactly the same data as the left one.

Feature 2 – Transposing of incoming midi notes

The X-POSE function offers another pushbutton with status Led. **Pressing the button shortly switches the transpose function on and off, the Led indicated the ON/OFF status.**

While the Led is off, nothing will be transposed, incoming notes are going right through the ChordTransposeFilter unchanged. If the X-POSE Led is on, the ChordTransposeFilter adds the learned interval to each incoming note – positive as well as negative (to the left or right of the reference note) intervals are allowed. If you try to activate X-POSE and the Led flashes a few times stopping unlit, there simply is no interval defined yet.

Holding the pushbutton for 2 seconds enters INTERVAL LEARN mode. The first incoming midi note will define the interval in relation the the reference note you already programmed in CHANNEL LEARN mode. You can leave the TRANSPOSE LEARN mode anytime by pressing the X-POSE button shortly. Pressing the same note in INTERVAL LEARN mode as already learned as reference note in CHANNEL LEARN mode will result in an interval of 0, having no effect.

Example: in CHANNEL LEARN mode you pressed the key C3. Now you are in INTERVAL LEARN mode and press F3. The ChordTransposeFilter automatically leaves the INTERVAL LEARN mode and quickly flashes a few times with the X-POSE Led. As long as Transpose is active (Led is on) all incoming notes from MIDI IN will be transposed 5 semitones upwards. Pressing C4 on your keyboard will result in the note F4 to be sent out on the MIDI OUTs.

Hint: Apart from shifting scales this feature comes in handy for shifting your whole keyboard by 1 or 2 octaves up or down which might be helpful to reach high or low notes your midikeyboard range normally does not allow.

Feature 3 – Chord Memory

This feature offers memorizing up to 8 intervals (relative to the first played note, above or below) which will be sent to MIDI OUT along a single note you play. The functions of the pushbutton and Led are similar to X-POSE:

- pressing the CHORD button shortly for ON (Led on) and OFF (Led off)
- Hold the button for 2 seconds to enter CHORD LEARN mode the Led flashes slowly. You can press the CHORD button shortly again to leave the CHORD LEARN mode.

It's a good idea to choose a sound with a defined sustain phase like an organ or string sound, otherwize the already held notes fade away making it difficult to judge about the chord you are trying to learn. Now this is how to learn the chord:

- Press the first key, this is the basenote from which the intervals are deviated. The complete chord being in memory before entering CHORD LEARN is erased. You can release the keyboard, the note will be held from the ChordTranslator.
- Press now up to 8 different keys on your keyboard. Again you can release the keys. If you made mistake and want to remove a note: just press (and release) it again on the keyboard. Notes beyond the 8th note are ignored and the Led flashes quickly a few times.
- keep doing like so until you are happy with your chord.
- Finally press the CHORD button again to exit CHORD LEARN mode and save the intervals in memory. They are restored on next startup.

While CHORD is active (Led on) you can play the learnt chord with just one single key and of course play it transposed on the keyboard. You can even press multiple keys. This might be especially interesting if the learnt chord is quite simple from 2 or 3 notes. Also nice: just take notes being one or 2 octaves above or below the basenote.

Feature 4 - Filtering incoming Midi data

Your ChordTransposeFilter can filter out certain data of the midi stream. At the time there are 7 filters which can be activated individually. The process of activating them in detail:

- For programming the filter switches we first need to enter CHANNEL LEARN mode by holding the CHANNEL button for 2 seconds. The CHANNEL Led starts to flash slowly.
- Now shortly press the CHORD pushbutton. The Leds for CHORD and CHANNEL start to blink slowly one after the other – you just entered FILTER LEARN mode, all the filter settings were set to OFF. This means: you always have to program <u>all</u> of the desired filters after entering FILTER LEARN mode.
- Now individually press the notes associated with the individual filters (the octave does not matter) to set them to ON. The X-POSE Led flashes to indicate the activation of a filter. There is no OFF – if you make a mistake you have to exit and re-enter FILTER LEARN mode and start over - simply by pressing CHORD twice to exit and re-enter FILTER LEARN.
- After programming your desired filter switches you finally can decide if your settings should be stored in the ChordTransposeFilter <u>permanently</u> or just <u>be active until the next powerup</u>:
 - press the CHORD button to save your filter settings into the ChordTransposeFilter's permanent memory. You will automatically revert from FILTER LEARN back into CHANNEL LEARN mode. After the next powerup these filter settings are restored and active again.
 - Or you press the BASECHANNEL button to directly leave CHANNEL LEARN mode, your filter settings only remain active until switching the ChordTransposeFilter off. On next powerup they are replaced by the filter settings lastly stored as described above. If there never were any filter settings saved (= factory default) all filters are set to OFF.

The filters and their appropriate switching note:

- C.....Active Sens
- C#....SysEx data
- D.....Realtime messages (Start, Stop, Continue..)
- D#....All Notes Off
- E.....all channel data <u>not</u> being sent on the basechannel
- F.....Program Change
- F#.....Aftertouch (channel & key)

Firmware Update

There might be an update for your ChordTransposeFilter's firmware one day. For this situation there is a Bootloader mode. Keep the CHANNEL pushbutton pressed when plugging the MIDI IN cable to power up the ChordTransposeFilter. Alternatively you can as well powerup the connected device on MIDI IN. The CHANNEL Led should be permanently on. You can now release the button.

Open your favourite freeware SysEx-Dump-Tools to transmit the new firmware file int the ChordTransposeFilter. 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 ChordTransposeFilter restarts automatically by indicating it's 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 ChordTransposeFilter.

FAQ – frequently asked questions

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

The ChordTransposeFilter gets it's power supply from the device being connected to it's MIDI IN. If no Leds show anything after 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 ChordTransposeFilter is working at all try plugging it to another midi device's MIDI OUT.

I keep sending midinotes into the ChordTransposeFilter but they are not forwarded to the MIDI OUT jack?

Most likely the midi filter *"all channel data <u>not</u> being sent on the basechannel"* is active and the notes going into MIDI IN are sent on a midichannel being different to the basechannel you teached it in CHANNEL LEARN mode. You can enter CHANNEL LEARN mode to set the basechannel on the channel of the incoming midinotes or you can deactivate the midi filter named above.

Neither Transpose nor Chord Memory are working although the Leds are ON.

Transpose and Chord Memory **only** work if the midichannel of incoming notes is identical to the ChordTransposeFilter's basechannel. Most likely the notes coming in are sent on a different channel.

The midifilter switches i teached disappear after a powerup.

It looks like you forgot to save your settings permanently in memory by leaving the FILTER LEARN mode with the CHORD button. Leaving FILTER LEARN with the CHANNEL button keeps the filter settings active only until

powerdown - they are not saved to permanent memory.

The teached interval does not fit. I teached F3 as interval, but it is not 5 semitones wide.

When learning the BASECHANNEL you set <u>the reference note for the TRANSPOSER</u> at the same time. Most probably you've pressed another note than a C when learning the BASECHANNEL. To avoid confusion it's easiest to press C3 or C4 as reference note in BASECHANNEL LEARN mode. It makes things much easier to hit the desired interval in TRANSPOSE LEARN mode.

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 you 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.

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