miditech Midi Thru Box Owner's Manual

miditech Midi Thru Box

Many thanks for buying our Miditech MIDI THRU 4/FILTER box. With this little MIDI Tool, the MIDI THRU 4/FILTER box, you can easily play with one keyboard up to 4 MIDI expanders or MIDI devices. You can connect up to 4 MIDI keyboards or MIDI hardware to one masterkeyboard.
Basically the MIDI THRU 4/FILTER box works like a MIDI THRU box. It multiples the incoming MIDI signal and routes the data to all 4 MIDI THRU ports.

Additional you can filter multiple MIDI controllers, SysEx data, transpose keys or map the incoming MIDI channel to each MIDI channel you want.
The Miditech MIDI THRU 4/FILTER box is MIDI powered and works with each MIDI conform masterkeyboard.

Contents

Technical specs of the Miditech MIDI THRU 4/FILTER box

- Easy to connect to your keyboard with standard MIDI cables
- Panic Button
- LED for MIDI Input activity
- MIDI powered, no additional power necessary if you use a standard MIDI conform masterkeyboard.

The cabinet of the MIDI THRU 4/FILTER box is clearly marked.

On the front side you find the MIDI Input , the activity LED and the Panic Button. The Panic Button stops at once each MIDI transmission, if it is been pressed. On the both sides of the MIDI THRU 4/FILTER box you will find the 4 MIDI TRHU ports. On the bottom, there are the 8 DIP switches for making filter settings. The settings always will be stored in the box and loaded at the next restart automatically.
The MIDI THRU 4/FILTER box is full MIDI powered, and gets its power from the MIDI masterkeyboard, which is connected at the MIDI Input. You do not need additional power or batteries.

Have much fun with this poduct!

Front View

Bottom View

When power on, the LED flash once to indicate the system running.The LED flash once when received MIDI IN.
If not filtered, the MIDI IN message send to the four MIDI OUT.

The DIP Switch definition

1. Channel
2. Transpose
3. Velocity
4. Program
5. Controller
6. Pitch bend / After touch
7. System
8. Real

What the Switches do:

Switch 1: MIDI Channel
How to re-map the MIDI channel:
Set switch 1 to ON, all MIDI message should modify the channel as preset channel. If switch 1 is OFF, don't modify channel.

Switch 2: Transpose
How to transpose note:
Set switch 2 to ON, all NOTE ON/OFF should transpose as preset value. If switch 2 is OFF, don't modify note

Switch 3: Velocity On/Off
How to turn on/off velocity:
Set switch 3 to ON, note with velocity
Set switch 3 to OFF, note with fixed velocity
If at ON position, any NOTE ON event should change to specified velocity. (fixed velocity).

Switch 4: Program
How to filter program changes:
Set switch 4 to ON, all program change and bank select are disabled
Set switch 4 to OFF, all program change not filtered

Switch 5: Controller
How to filter controller change:
Set switch 5 to ON, the specified controller are disabled
Set switch 5 to OFF, all controller change not filtered

If at ON position, any CC event should filter by the specified mode. There are 12 CC filter mode.
CC Filter Mode 1: The system will check the CC Filter Table, all 128 CC event could be specify filter ON/OFF.
CC Filter Mode 2 to 12, just filter one CC event.

E.g.
Current CC Filter Mode is 1, in the CC Filter Table, CC0 is ON, CC1 is OFF, CC2 is ON, etc.
If MIDI IN a CC0 event, in the Filter Table, it's filter ON, so, it'll not send MIDI OUT.
If MIDI IN a CC1 event, in the Filter Table, it's filter OFF, so, it'll send MIDI OUT.

E.g..
Current CC Filter Mode is 10, it's filter CC number is 7.
If MIDI IN a CC7, it should not send MIDI OUT, but other CC event allow to send MIDI OUT

Switch 6: Pitch Bend
How to filter pitch bend or after touch:
Set switch 6 to ON, pitch bend of after touch are disabled
Set switch 6 to OFF, don't filter pitch bend and after touch

E.g.
The system filter pitch bend flag is OFF, any pitch bend event should sent MIDI OUT, even the switch 6 is ON.

E.g.
The system filter pitch bend flag is ON, any pitch bend event should not send MIDI OUT.

E.g.
The system filter after touch flag is ON, any key after touch or channel after touch event should not sent MIDI OUT.

Switch 7: System
How to filter system message:
Set switch 7 to ON, specified system are disabled
Set switch 7 to OFF, don't filter system message

If at ON position, it should filter any MIDI system and common event. (F0H, F1H, F2H, F3H, F6H)
For System Exclusive event, there is a mode to just filter specified SysEx.

E.g.
If filter SysEx mode is specified SysEx, the table is 41H, 00H, 42H, 12H, 40H, (all Roland GS SysEx start from these bytes)
If MIDI IN a GS Reset SysEx: F0H, 41H, 00H, 42H, 12H, 40H, 00H, 7FH, 00H, 00H, F7H, it match the filter table, should not send MIDI OUT.
But another SysEx, F0H, 01H, 02H, 03H, F7H, should not been filtered and send MIDI OUT.

Switch 8: Real
How to filter MIDI realtime message:
Set switch 8 to ON, specified realtime message are disabled
Set switch 8 to OFF, don't filter realtime message

E.g.
If switch 8 is ON, all MIDI IN active sensing event should been filtered.

"Setup mode" and "Work mode"

To setup the MIDI THRU 4 /FILTER, you must enter the “setup mode”. Hold down and press the PANIC button minimum 5 Seconds while plugging the MIDI In to power the system. The LED flashes, to show that you are now in “setup mode” .
Now you can program the Switches. The last setup will be stored in the MIDI THRU 4/FILTER box.

To exit this mode, and go back to the working mode, please press the PANIC button once again a short time. This is NECESSARY to confirm the new settings.

In Setup mode, if you disconnect the MIDI IN cable, the MIDI THRU 4 / FILTER box looses power and after reconnecting, it starts again with the old unchanged settings.
You need to confirm new settings by pressing the Panic button a short time again.

The “work mode” – you are always in the “work mode” after booting. If you have all DIP switches set to OFF, except the Switch 3 should be ON to keep the MIDI velocity active, the MIDI THRU 4 / Filter box will work only as a MIDI Thru box without filter functions.

To reset all DIP switch and controller filter settings, hold down and press the PANIC button while powering on the MIDI THRU 4/Filter box minimum 10 seconds. The LED will give a stable light to show the reset of the filter box.

How to re-map the MIDI channel:

1. Hold down and press the PANIC button minimum 5 Seconds while plugging the MIDI In to power the system. The LED flashes, to show that you are now in “setup mode” .
2. Set switch 1 to ON, all MIDI message should modify the channel as preset channel.
   if switch 1 is OFF, don’t modify channel
3. Press keyboard, the key C5 is channel 1, next key C#5 – channel 2.. and so on.
   C5 – channel 1
   C#5 – channel 2
   D5 – channel 3
   D#5 – channel 4
   E5 – channel 5
   F5 – channel 6
   F#5 – channel 7
   G5 – channel 8
   G#5 – channel 9
   H5 – channel 10
   C6 – channel 11
   C#6 – channel 12
   D6 – channel 13
   D#6 – channel 14
   E6 – channel 15
   F6 – channel 16
4. To confirm the changed setup, press the Panic button a short time again. After this the box starts again with the work mode.

How to set transpose preset:

1. Hold down and press the PANIC button minimum 5 Seconds while plugging the MIDI In to power the system. The LED flashes, to show that you are now in “setup mode” .
2. Set switch 2 to ON
3. Press keyboard, the key C4 is transpose 0, next higher key is transpose +1, etc. You can step up and down to set the Transpose in a maximum of +/- 2 octaves.
   For example:
   C#5 – Transpose +1
   D5 – Transpose +2
   D#5 – Transpose +3
   and so on.
   Also downwards:
   H4 – Transpose -1
   B4 – Transpose -2
   A4 – Transpose -3
   and so on.
4. To confirm the changed setup, press the Panic button a short time again. After this the box starts again with the work mode.

How to set velocity preset value:

1. Hold down and press the PANIC button minimum 5 Seconds while plugging the MIDI In to power the system. The LED flashes, to show that you are now in “setup mode” .
2. Set switch 3 to ON, all MIDI message should modify the channel as preset channel.
   If switch 1 is OFF, don’t modify channel
3. Press keyboard, the velocity is used for velocity OFF mode, (the default value is 100), e.g. press the key with hardest velocity, then when velocity off mode, all note with the max velocity.
   If you want to play with velocity sensitive dynamics, please set this switch to ON.
4. To confirm the changed setup, press the Panic button a short time again. After this the box starts again with the work mode.

How to select controller type:

1. Hold down and press the PANIC button minimum 5 Seconds while plugging the MIDI In to power the system. The LED flashes, to show that you are now in “setup mode” .
2. Set switch 5 to ON
3. There are 12 modes respond for octave keys
   Press any key C, e.g. C4, C5, C6, C7, for select mode 1
   Press any key D, e.g. D2, D3, D7, for select mode 3
   Press keyboard, the C5 is as index 0, the higher key is index 1, etc.
   For the filter one CC table:
   1 = (CC0) Bank Select
   2 = (CC1) modulation wheel
   3 = (CC2) breath
   4 = (CC75 portamento time

5 = (CC7) volume

6 = (CC10) pan

7 = (CC11) expression

8 = (CC64) damper pedal

9 = (CC65) portamento ON/OFF

10 = (CC66) sostenuto pedal

11 = (CC67) soft pedal

12 = (CC80) reverb program

13 = (CC81) chorus program

14 = (CC91) reverb level

15 = (CC93) chorus level

16 = (CC120) all sound off

17 = (CC121) reset all controller

18 = (CC123) all notes off

4. To confirm the changed setup, press the Panic button a short time again. After this the box starts again with the work mode.

   Note: with the PC editor software, you can specify to filter any combination of them by check the items. The Mode 13-18 can only setup by the MT4 editor software.

How to select filter pitch bend or after touch:

1. Hold down and press the PANIC button minimum 5 Seconds while plugging the MIDI In to power the system. The LED flashes, to show that you are now in “setup mode” .
2. Set switch 6 to ON
3. Press keyboard, a white key is for set filter Pitch Bend, a black key is for filter Aftertouch, if you press both white and black keys, filter both.
4. To confirm the changed setup, press the Panic button a short time again. After this the box starts again with the work mode.

E.g.
Press a white key, then the system set filter Pitch Bend flag.
If not press black key later, the After Touch filter flag will not set.

How to select filter MIDI system message type:

1. Hold down and press the PANIC button minimum 5 Seconds while plugging the MIDI In to power the system. The LED flashes, to show that you are now in “setup mode” .
2. Set switch 7 to ON
3. Press keyboard, a white key is to filter System Exclusive Messages. a black key is to filter Common Messages, if you press both white and black keys, filter both.

   If you specify to filter the Sys Ex events, e.g. the table is 41H, 00H, 42H, 12H, 40H, (all Roland GS SysEx start from these bytes). If MIDI IN a GS Reset SysEx: F0H, 41H, 00H, 42H, 12H, 40H, 00H, 7FH, 00H, 00H, F7H, it match the filter table, should not send MIDI OUT.

   But another SysEx, F0H, 01H, 02H, 03H, F7H, should not been filtered and send MIDI OUT.

If you choose to filter both, the MIDI THRU 4 / Filter filters any MIDI System and Common event. (F0H, F1H, F2H, F3H, F6H)

4. To confirm the changed setup, press the Panic button a short time again. After this the box starts again with the work mode.

How to select filter MIDI Realtime message type:

If switch 8 is at ON position, it filters any MIDI Real event.
(F8H, FAH, FBH, FCH, FEH, FFH)

E.g.
If switch 8 is ON, all MIDI IN active sensing event should been filtered.

All new setting keeps in the chip, it will not lost and when power on again, it will be loaded.

User Setting by Software

With the PC editor software you are able to handle all above settings, update the system via a USB to MIDI cable.

1. Connect the MIDI Input of the Miditech MIDI THRU 4/ FILTER to computer via MIDI. Use a normal USB MIDI Interface, which can power the MIDI THRU 4 / FILTER, or use our product “MIDI POWER” to power the MIDI THRU 4 / FILTER .
2. Install and running software “MIDI Filter 4.exe”
3. Make your user settings.
4. Click “Device” to select the MIDI device, for an USB-MIDI interface, the name normally is on Windows XP “USB Audio Device”, on Windows 7 or 8, the device drivers name.
5. Click “Update”, then the LED of MIDI Filter/Thru 4 should flashing when system is updating.

6. Click “Save” to save the current setting and “load” for load the file.

You do NOT need to set any switches in this Update-mode with the MT4-editor software. The switches are ONLY for programming with a MIDI keyboard.

Default Settings
The device comes out from the factory with default settings, and when you press the PANIC button for over 10 seconds, it also reset as this default settings.

The PC editor with the default setting when running.
Or could load the file

MIDI Channel 1 (range :1 to 16)
Note Transpose 0 (range: -11 to 11)
Note Velocity 100 (range 1 to 127)

Filter CC ALL
All CC are filter enabled

For the filter one CC table:

1. = (CC0) Bank Select
2. = (CC1) modulation wheel
3. = (CC2) breath
4. = (CC75 portamento time
5. = (CC7) volume
6. = (CC10) pan
7. = (CC11) expression
8. = (CC64) damper pedal
9. = (CC65) portamento ON/OFF
10. = (CC66) sostenuto pedal
11. = (CC67) soft pedal
12. = (CC80) reverb program
13. = (CC81) chorus program
14. = (CC91) reverb level
15. = (CC93) chorus level
16. = (CC120) all sound off
17. = (CC121) reset all controller
18. = (CC123) all notes off

Filter SysEx ALL
Specified SysEx string is F0H, 65, 0, 66, 18, 64, …. F7
(Rorland SysEx)

Important Safety Instructions

1. Read Instructions – Be sure to read all of the safety and operating instructions before operating this product.

2. Retain Instructions – The safety instructions and owner's manual should be retained for future reference.
3. Heed Warnings – All warnings on your Miditech product and in the Owner'sManual should be followed.
4. Follow Instructions – All operating and use instructions should be followed.
5. Moisture – Water and moisture are detrimental to the continued good health of your Miditech product. Do not install or operate your Miditech product near sources of water or moisture such as sinks, damp basements, leaky roofs, etc.
6. Heat – Your Miditech product should be situated away from sources of heat such as heaters or radiators.
7. Grounding –Precautions should be taken so that the grounding capabilities of the unit are not undermined. The Audiolink Pro 24/96 provided with a cord with an equipment grounding conductor and grounding plug. This plug must be plugged into an outlet that is properly installed and grounded in accordance with all local rules and ordinances. Do not modify the plug provided with the equipment. If the plug will not fit into your outlet, have a proper outlet installed by a qualified electrician.
8. Power Cord Protection – Power supply cords should be routed so that theyare unlikely to be walked on or pinched by items placed upon or against them. Pay particular attention to protecting the plugs, outlets and the point at which the cord exits your Miditech product.
9. Servicing–Do not attempt to service this unit yourself, as opening the case will expose you to hazardous voltage or other dangers. All servicing should be referred to qualified service persons.

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Documents / Resources

	miditech Midi Thru Box [pdf] Owner's Manual Midi Thru Box, Thru Box, Box

References

- Home - Miditech
- Manual-Hub.com - Free PDF manuals!
- User Manual