



TOTTERmidi

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Programming manual

ver. 1.01 - 19.8.2009

TOTTER MIDI ser.TM-4

Programming of TOTTER MIDI systems

I.) Installation demo kit (TM-4-LUX)

Kit contains:

- MIDI processor (motherboard)
- MIDI controller (display)
- Treble PCB
- Bass PCB
- MIDI programming adapter
- Connection cable between PC and MIDI programming adapter
- Connection cable between programming adapter and MIDI processor (DIN connector).
- Adapter between DIN connector and SPEEDY connector for direct connection on MIDI processors
- Software

II.) Connection (Rs232 or USB)

Connect PC (port RS232) with MIDI programme adapter and MIDI programm adapter with MIDI processor on port MIDI OUT. For computers without port Rs232 it is possible to use converter from USB to RS232. Not all adapters funtion properly.

We tested ATEN Model UC-232A (www.aten.com). It works without problem. Upon installation change in properties menu name of port from normaly com3 to com1 or com2.



III.) Software installation (Win95, Win98, Win2000, WinXP)

- Make a new folder C:\TOTTER MIDI.
- Download the latest version of software from www.totter-midi.si. Unzip and copy it in TOTTER MIDI folder
- Read your HD serial number. Open the command window (DOS Window), type "label" and press enter.
- Send serial number from your hard disc to info@totter-midi.si to become a password.
- Enter password number in file "Totter MIDI.ini" in second row forward from sign "="

For example: (Totter MIDI.ini)

[splosno]

kljuc=405932404

teksti=C:\TOTTER MIDI\Totter MIDI en.txt

geslo=44d545

podatki=C:\TOTTER MIDI

...

- start "Totter MIDI.exe"



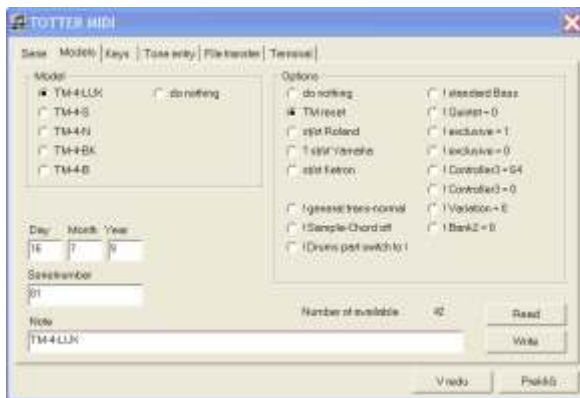
IV.) Open connection (page SERIE)

- With option "version" choose the correct MIDI series
- With option "port" choose the correct COM-PORT (where MIDI programme adapter is connected)
- Press key "open connection"
- Switch on programming adapter (Power ON)
- If baudrate 4800 is selected, it will be set automatically. Of course it is possible to choose a any baudrate manually.
- Yellow light (RTS) on programming adapter means COM-PORT is opened and ready to communicate. Red light (TXD) and (RXD) indicates data transfer.
- When more tabs are opened, connection with MIDI and PC is established. MIDI is ready for programming.



V.) Setting of accordion type (page MODEL)

- In menu "model" it is possible to reset system parameters for controlling hardware. It must be used the same model as MIDI is manufactured.
- In menu "options" is possible to set some parameters in user programmes. Selection followed a sign ! means, that this parameter will be changed in all user programs.
- Date, serial number and mark are just for selfcontrol and service purpose. We recommended entering a date of installation and name of customer.
- With button "write" all datas from this page will be written in MIDI processor.
With button "read" date of building, serial number and mark will be read from MIDI and shown in a display.

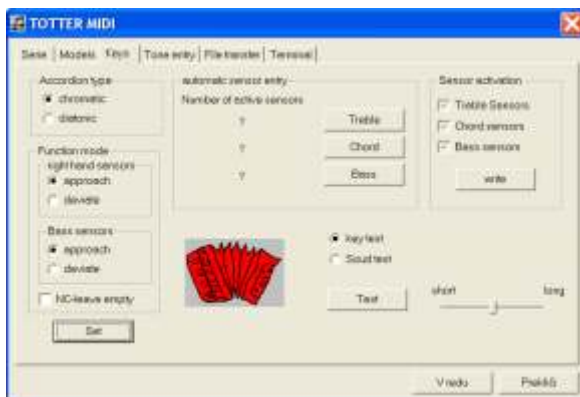


Description of options

- do nothing <=> leave data unchanged (nothing will be written)
- TM reset <=> set type of controller1=reverb(91), set type of controller2=chorus(93), set type of controller3=panorama(10), set regions for sample chord (major=48-59, minor=60-71, 7th=72-73; reduced chord=84-95) and set start/stop on MIDI standart (same as by Roland - Start=250; Stop=252)
- st/st Roland <=> set start and stop for Roland synths and modules (equal to MIDI standart)
- ? st/st Yamaha <=> not set (we didn't recive technical data)
- st/st Ketron <=> set start and stop on non standart Ketron commands
- ! general trans-normal <=> set on all programs general transposition on 12 (no transpose)
- ! sample-Chord off <=> switch on all programs sample chord off (chord2=off)
- ! drums set to ch10 <=> set on all programs drums part on MIDI ch10 (MIDI standart)
- ! standard Bass <=> set on all programs part bass2 on standard bas
- ! quintet = 0 <=> set on all programs base quintet function (TM quintett=0)
- ! exclusive = 1 <=> set on all programs exclusive switching of part Solo2 and Effect (exclusive=1)
- ! exclusive = 0 <=> set on all programs parts Solo2 and Effect unlinked (exclusive=0)
- ! controller3 = 64 <=> set on all programs and all parts panorama in the middle (left speaker = right speaker; panorama=64)
- ! controller3=0 <=> set on all programs and all parts value of controller3 on null (P00={Solo1_{cnt3}=0, Solo2_{cnt3}=0,...}, P01={Solo1_{cnt3}=0, Solo2_{cnt3}=0,...},...)
- ! variation = 0 <=> set on all programs and all parts variations of instruments on null
- ! bank2 = 0 <=> set on all programs and all parts bank2 of instruments on null

VL.) Sensors activation (meni KEYS)

- Select appropriate accordion type (chromatic = by push/pull play the same sound, diatonic = by push/pull play different sound).
- Select function mode for right hand sensors. It can work on approach or deviation principle.
- For write the upper two options in MIDI press button "set". Option NC leave-empty is reserved and must be unselected.
- For key test and roughly setting of sensors position after installation, all sensors must be active. (At new MIDI processor all sensors are active.) So you can test if everything works. Activate all sensors (black hook), deactivate all sensors (without hook) or leave as is (gray hook).
- PCBs for sensors have a lot of places on which can be soldered sensors. Normally they are not all occupied. There are places with soldered sensors and empty places. Places with sensors must be activated in software. Only on active place can be later written MIDI tone. For activation choose appropriate group Treble, Chord or Bass in software and then pres all keys or buttons on accordion which belong choosed group. On finish press escape. For example to activate right hand sensors press button "treble" and then every keys on right side of accordion. On finish press "escape". The same goes for chord and bass. It must be activated all used sensors. For control watch number of activated sensors on display.
- Keys of instrument can be tested with button "test". With button "ESC" you leave test mode. It was developed for win95. Later it is not more updated. Test is made now in terminal. Go in terminal window and press key "T". It offer more info about key and sensor. For ending press escape.



VII.) Writing tones in MIDI (meni TONES)

Different accordions have different tuning. They are described in a separated files which are in directory "C:\TOTTER MIDI\tip". Each file contain information how tones are organized. Each user can edit this or make a new file.

On press button "start" the first data line of file is read. Data are displayed on left side under "Tone table". You should press an appropriate key or button on accordion. Data of key number, key address, sensor number and sensor address are displayed on right side under "Pressed key on instrument".

If option "automatic entry" is choosed, tone from file (left side) will be written automatically in MIDI on locations described right "Pressed key on instrument". It will be done immediately, when key is pressed or released. If option is not choosed, tone pitch can be edited before entry. For writing a tone to MIDI press button "write".

- Choose suitable tuning file. You can make new or edit a file with Text Editor. For using it, it must be copied in C:\TOTTER MIDI\tip directory.
- If you have a propriate tuning table select "automatic entry".
- Press "Start" button and then press appropriate key or button on accordion.
- By diatonic accordions below status is important. It must be the same as status in tone table (PUSH or PULL). Pull or press bellow of instrument to get the same position as is described in file.
- Process can be stopped with key "escape", with buttons "next" and "previous" you can move in tone table forward and backward.
- For stop the proces press key escape and then button stop.



Specification of file "name.tip"

- Each row must be terminated with "enter".
- Each row which is started with signs "/" mean remark (for software not seen).
- At the beginning of the file before any definition must be statement "Number of key-address bits : 8".
- After the first statement follows key definitions.

VIII.) Data transfer:

It is possible to read or write different data from/to MIDI. Which data are transferred, you can select. Different files describe a different data which will be transferred. Files can be edited or made new with text editor.

- Choose the type of data which should be transferred. (For example: dynamic, individual programme, all programmes together, system data,...)
- Choose the offset. (For example: for reading individual programme P-05 you must enter number five.)
- Press Read or Write button to transfer a data from MIDI to PC or vice versa.
- Each read data file contains a unique name of file with description what to read. Data file can be written only with the same template as it was read. (For example: If you read dynamic curve you can not write the same data file as program.)

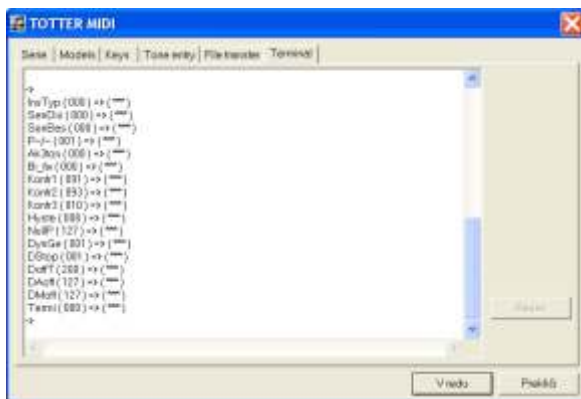


IX.) Terminal:

In terminal menu, all parameters from MIDI-modules can be change/set/read manually. Terminal is a basic communication with MIDI. All graphical menus and functions work with this basic commands. It is possible to do with any standard terminal program example Windows HyperTerminal.

There are different commands with which all parameters can be set, read or write in MIDI-module.

- B - read any data from MIDI-module
- V - write any data in MIDI-module
- A - automatic sensors activated (Press A then select right part - Treble, Bass or Chord and press all keys or buttons from this part.) You can do this exactly the same in graphical mode in menu Keys.
- T - test of keys (sensors and tones) Press command T and then any taste on instrument. You can check if key work and read all informations about tone and sensor. It is easy on key address with command V to write/change MIDI tone directly.
- H - different settings of hardware
- I - display unchangeable information about serial number and lot
- M - set bellow zero piont. It must be 127 (first column). It can be set with trimpot. This parameter must be checked/set allways on end of installation with connected sensors and controller, bevore closing the instrument.



With command V it is possible to change any parameter in memory in MIDI processor. This can be made with any terminal program example Windows HyperTerminal. Command format is V (xxxxx, y, zzz).

- xxxxx - mean address in memory
- y - number of bites to write
- zzz - data (which will be written in address xxxxx and is lang y bit)

The same is command B for reading data from any location from memory. Memory locations you can find in additional tables.