



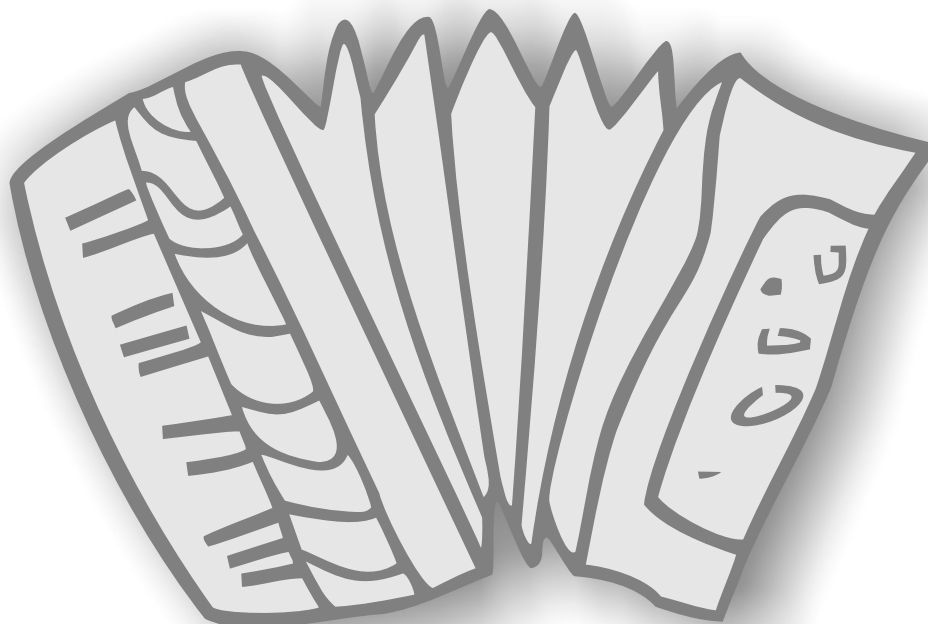
TOTTER MIDI www.totter-midi.si

SERIES TM-4

USER MANUAL FOR TOTTER MIDI INTERFACE

version 4.04

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IMPORTANT!



1. Before connecting the TOTTER MIDI interface read the instructions carefully.
2. For connecting the TOTTER MIDI interface only use the enclosed original connecting cable and adapter.
3. When transporting the TOTTER MIDI interface, be careful not to damage the connecting cable or the adapter.
4. The digital electric elements are very sensitive to static electricity and lightning strikes, therefore remove all cable connections and the adapter from the electric network during a storm.
5. The TOTTER MIDI interface does not need any additional maintenance. In case of any difficulties contact:

TOTTER MIDI DOES NOT ASSUME LIABILITY FOR ANY MALFUNCTION OR INJURY THAT RESULTS FROM UNPROFESSIONAL OR UNAUTHORIZED ACCESS OR ACCIDENTAL PHYSICAL DAMAGE TO ANY PART OF THE TOTTER MIDI INTERFACE, NOR WILL REMEDY BE COVERED UNDER THE WARRANTY.

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INTRODUCTION

We congratulate you for your choosing to purchase the TOTTER MIDI interface for your accordion and thank you for your confidence. You have chosen a high quality state of the art midi system that will serve you well for many years.

The TOTTER MIDI interface installed in your accordion represents the culmination of years of exhaustive research and development of midi technology by our team of Electrical Engineers and Accordionists into of midi technology - with special emphasis on the best design interface for use by the performing live accordionist.

We wish you a pleasant midi playing experience!

The TOTTER MIDI team



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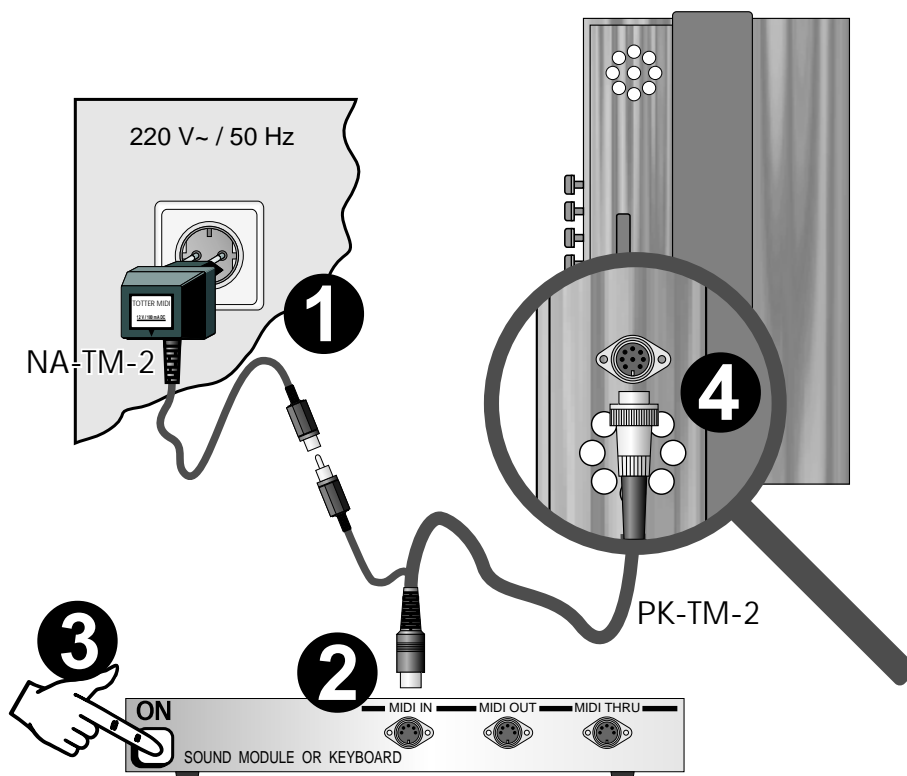
Connection of accordion with TOTTER MIDI interface

To achieve optimal performance connect the TOTTER MIDI interface with a MIDI device (sound module, synthesizer, sequencer, PC, etc.) **only** with the provided connection cable and AC adapter.

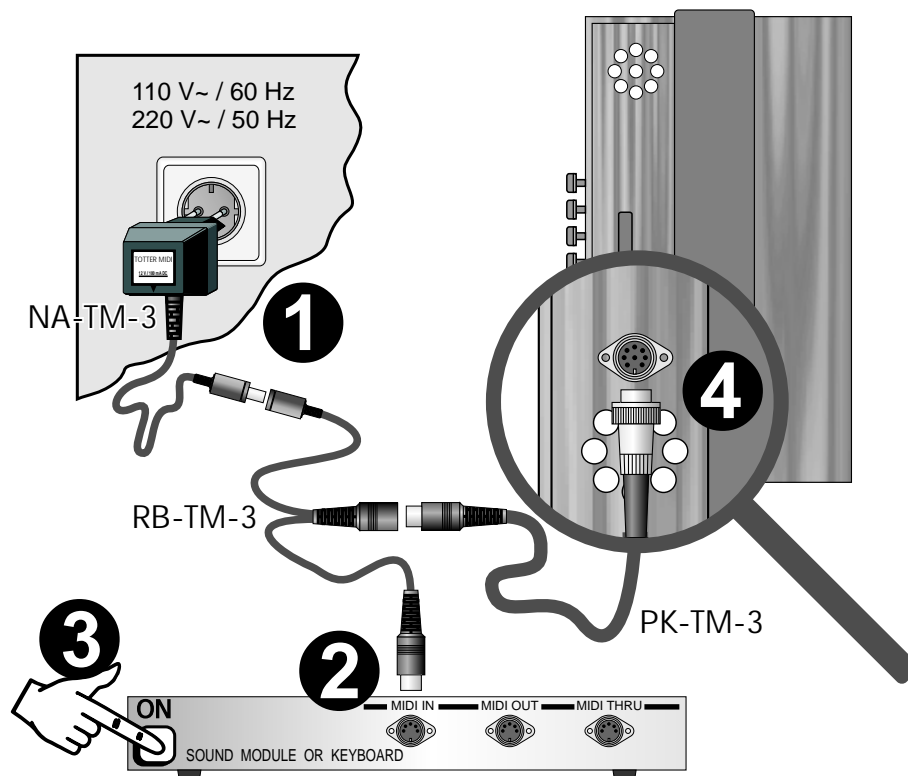
Use the following sequence:

- ❶ First connect the AC adapter NA-TM-2 to the connection cable, then connect it to an electrical power source.
- ❷ Plug the 5-pin DIN plug into the MIDI IN plug on the module.
- ❸ Turn on the sound module (or other connected MIDI device).
- ❹ Finally, plug the PK-TM-2 connection cable end (with the safety ring) into the MIDI system jack on the accordion and turn the ring clockwise to secure the cable.

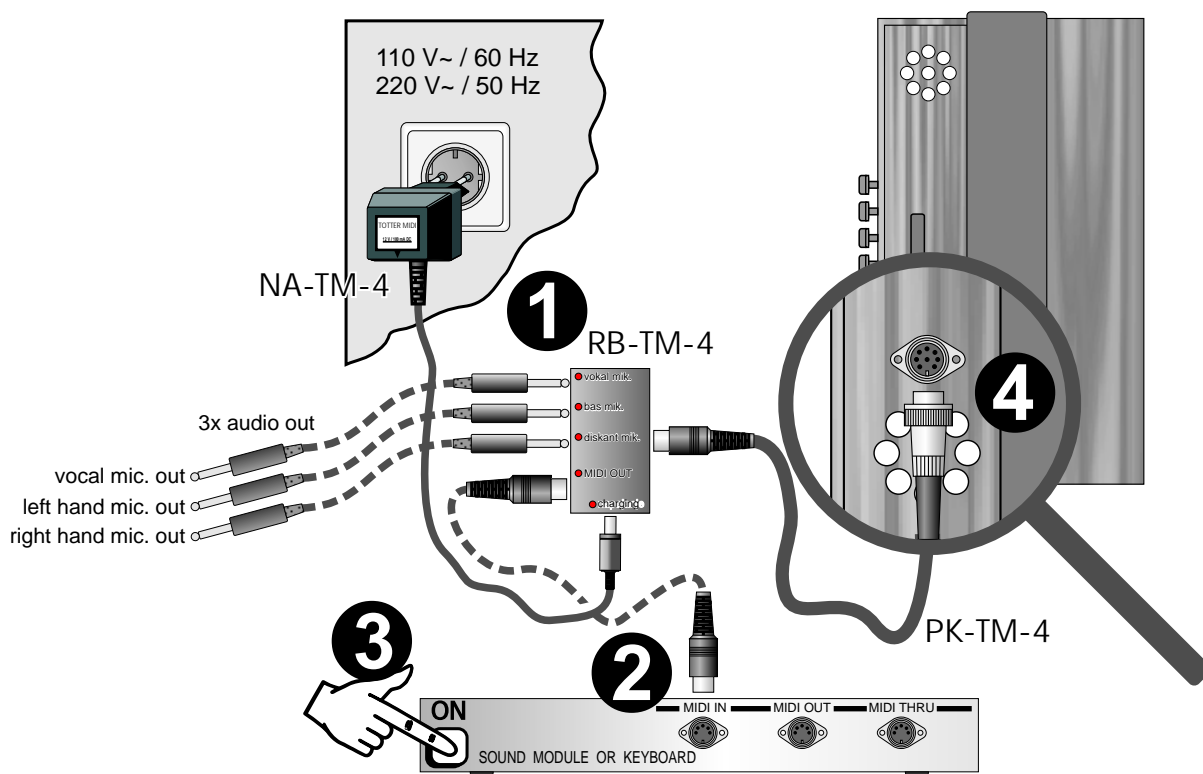
When disconnecting the system use the reverse sequence.



Connecting cable PK-TM-3 to the splitter RB-TM-3 and to **AC** adapter NA-TM-3



Annexation to annexational cable PK-TM-4, splitter RB-TM-4 and to supply adapter NA-TM-4.

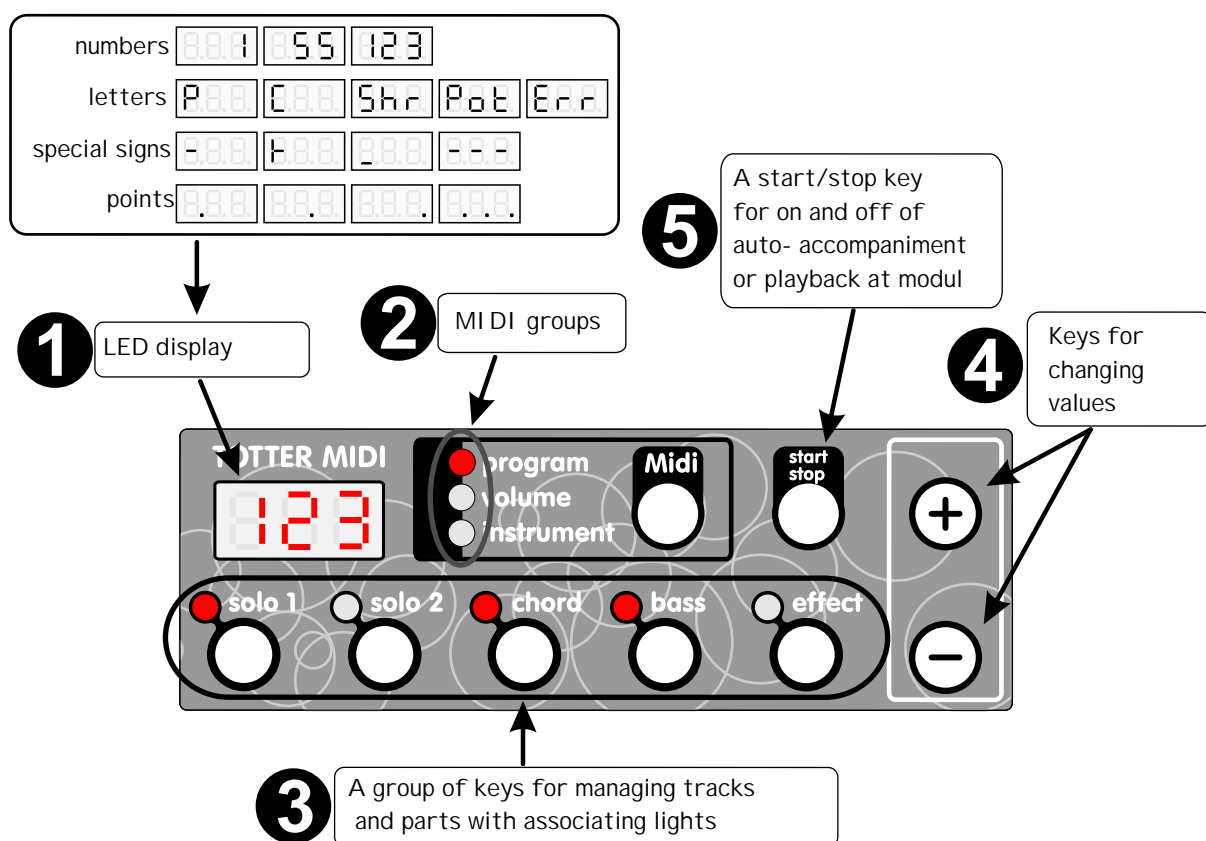


Control panel

Take a look at the control panel, there are:

- ❶ The LED display (showing numbers, letters and special signs),
- ❷ MIDI groups (program, volume, instrument),
- ❸ A group of keys for managing of tracks and parts with indicator/status lights,
- ❹ A key for changing values (+ in ⊖),
- ❺ A start/stop key for on and off of automatic accompaniment or playback from module.

While playing you can always use the program group.



THE ⊕ IN ⊖ KEYS FOR CHANGING THE VALUES OF PARAMETERS

These keys have been improved in their operational quality to provide faster response and easier use. These keys always have the same function.

- 1) If you press the ⊕ (plus) or ⊖ (minus) key, the value of the parameter changes by one unit (up or down).
- 2) If you hold the ⊕ or ⊖ key, the value of the parameter changes faster to its highest or lowest point.
- 3) If the parameter is at its end point it can be changed to its opposite value at once by pressing the ⊕ or ⊖ key.

Examples:

- ⇔ The parameter of volume has the value 127 (the highest value). Press ⊕ once more and you will get the value 0 (the lowest value).
- ⇔ The parameter of channel has the value 1 (the lowest value). Press ⊖ once more and you will get the value 16 (the highest value).

- 4) If you are holding the ⊕ or ⊖ key to change the parameter faster, you can make this operation even quicker by pressing the opposite key.

Example:

- ⇔ The parameter of intensity has the value 30, but you wish it to have the value 110. Hold the ⊕ key and then press also the ⊖ key. The changing goes faster.

All changes of parameters are memorized immediately, so there is no need for exiting any menus or for extra memorization of changes.

The start/stop key

is used to start or stop the automatic accompaniment (arranger), the automatic drums or the midi compositions (from a floppy disk) from the outer unit. This key always has the same function. With the initial press you start the arranger and you can turn it off by pressing it a second time.

Note:

- ⇔ To achieve the proper function of this key, you have to set the appropriate common channel on the module and on the accordion.
- ⇔ Some modules or keyboards do not use standard MIDI code for triggering the start/stop function used to start up auto arrangers. In this case contact TOTTER MIDI service to see if any adjustments to your midi interface can be performed to enable use of the STOP/START button on the accordion midi control panel.

program

When playing always use this group

In group program during playing you can switch on or off different parts or you can change outer (external) or inner (internal) programs.

OUTER PROGRAMS are settings of the module (called user programs, panel memories, performances, presets, etc.) which can be called up at any time, if necessary.

⇒ For correct selection of outer programs you must format right and common address at midi interface (see page 24)

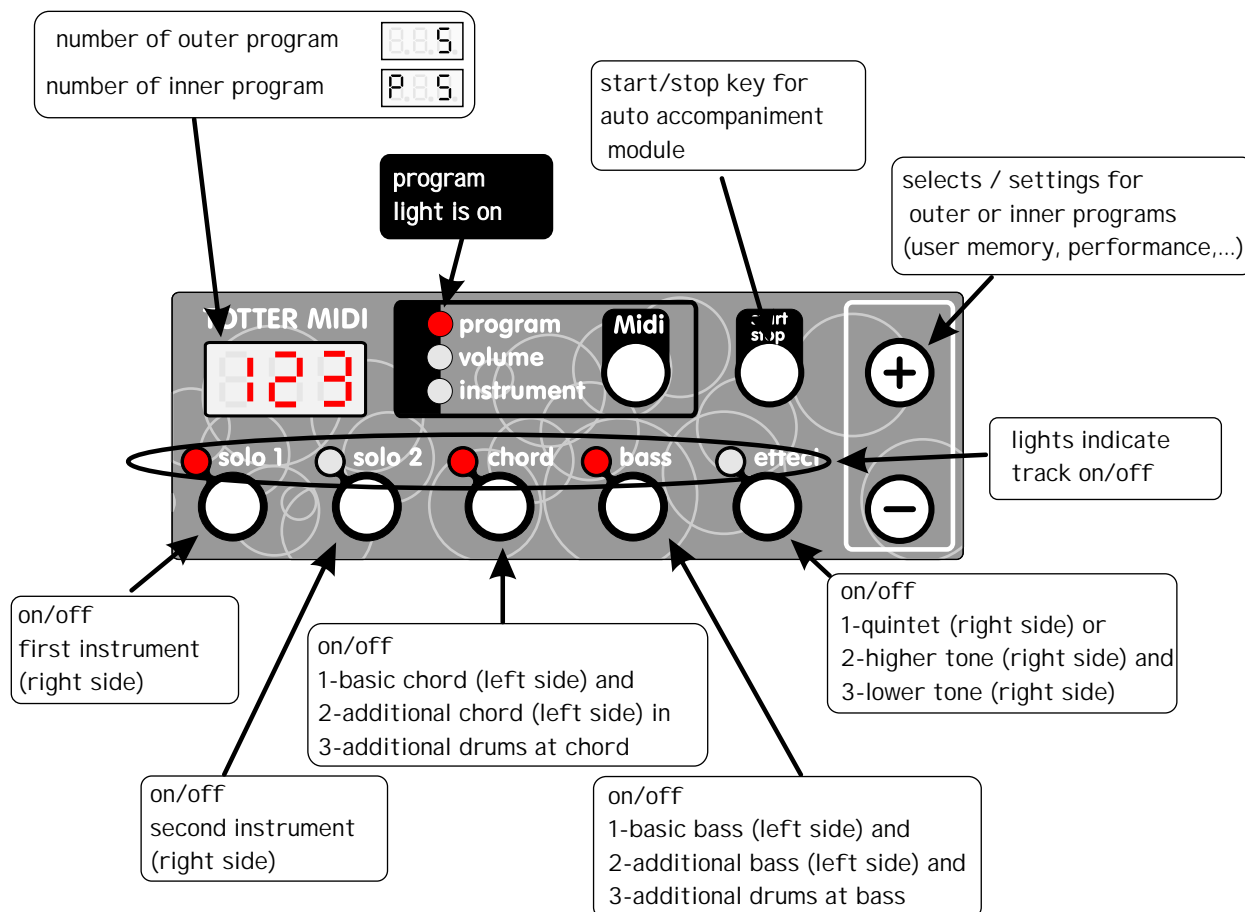
INNER PROGRAMS are settings of the accordion, which can, if necessary, influence the settings of the module.

⇒ Outer or inner programs can be chosen with \oplus and \ominus keys.

You can choose between:

- ⇒ 128 outer programs (if the external module is capable of so many) and
- ⇒ 100 inner programs for model TM-4-LUX and 50 inner programs for models TM-4-S or TM-4-BK.

Selection of inner vs. outer programs is made by the procedure “Changing between two sections” described on page 13.



WHAT IS PART?

Part is each instrument, which can be programmed. These are:

- ⇒ first instrument of right hand (solo 1)
- ⇒ second instrument of right hand (solo 2)
- ⇒ higher tone of right hand
- ⇒ lower tone of right hand
- ⇒ basic chord (left hand)
- ⇒ additional chord (left hand)
- ⇒ basic bass (left hand)
- ⇒ additional bass (left hand)
- ⇒ drums (left hand)

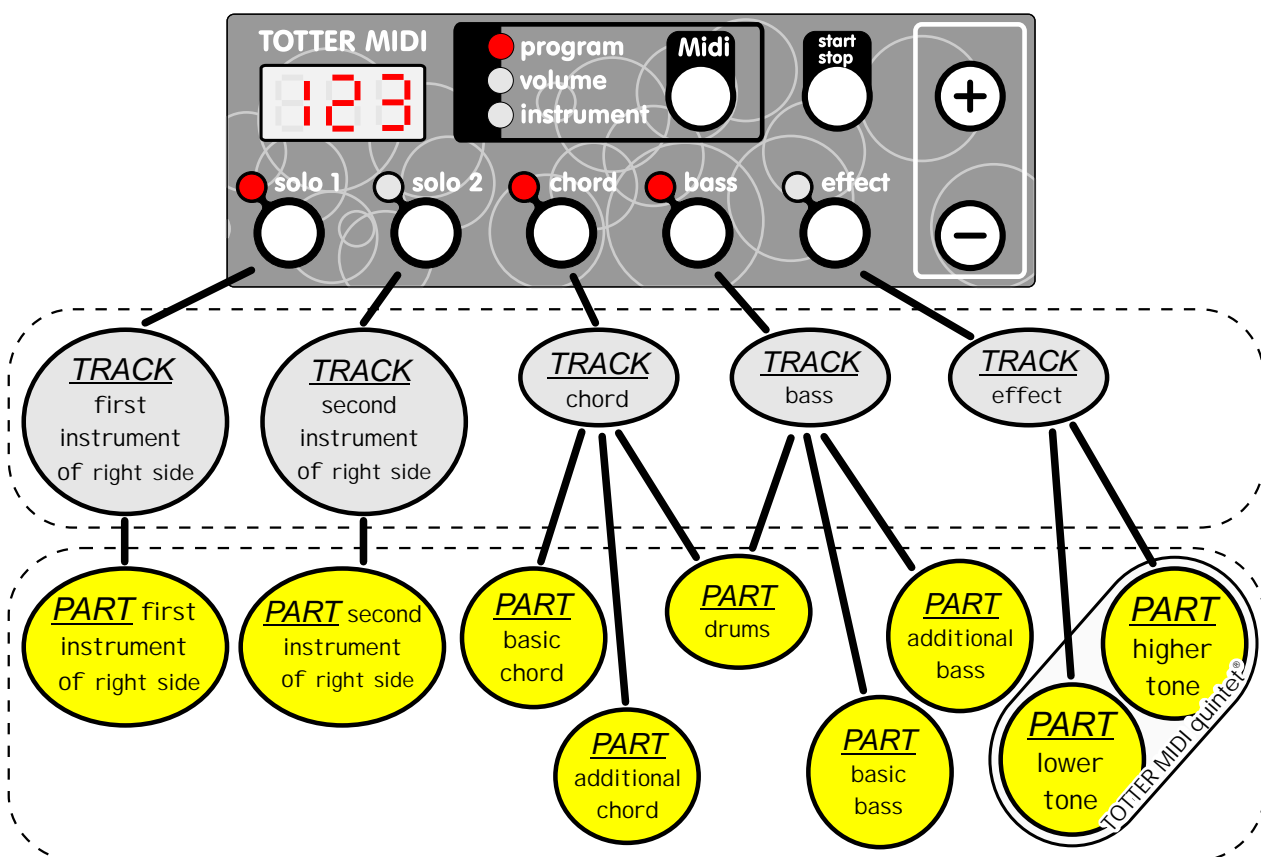
WHAT IS A TRACK?

A track is one part or a group of parts.

Parts are put together to tracks because of better operative functionality.

Examples:

- ⇒ the parts accord and additional drums are united to track ACCORD in order to be able to be started or stopped at the same time.
- ⇒ the parts bass, additional bass and additional drums for bass are united in the track BASS, which can be turned on or off as the same bass.
- ⇒ the parts upper and lower tone are united in the track EFFECT, which is managed as QUINTET



volume or instrument

When programming we use these groups

Changing and/or memorizing (saving) settings:

The TOTTER MIDI interface can be programmed when either the volume or instrument groups are activated (i.e. the volume light or instrument light is on). The track keys (i.e. solo1, solo2, chord, bass or effect panel buttons) have here a slightly different functions as compared to when they are used while the program group is activated.

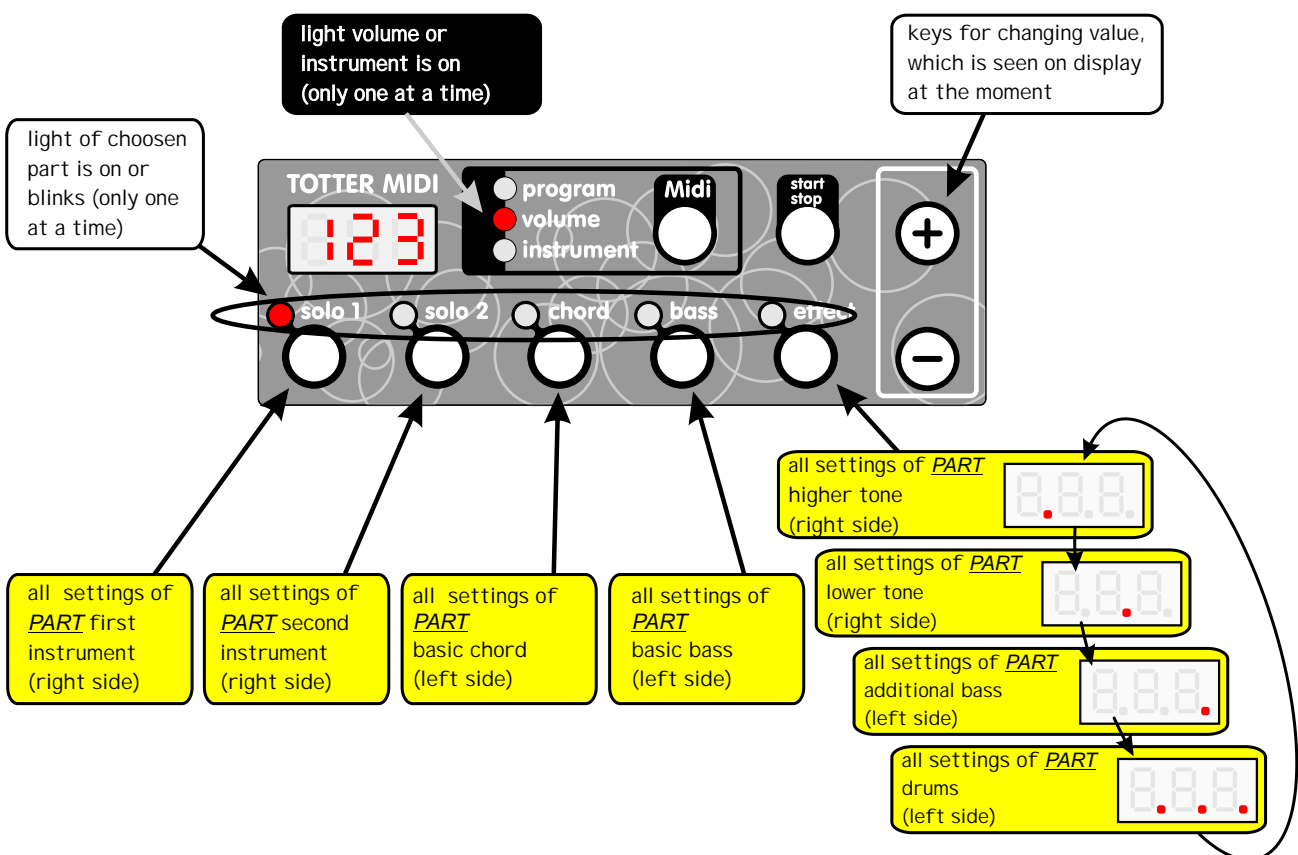
There is only one track key active at any one time (solo1 or solo2 or chord or bass or effect). The light next to the track button pressed turns on or blinks.

General ideas for programming

During programming the status indicators on the LED Display are very important:

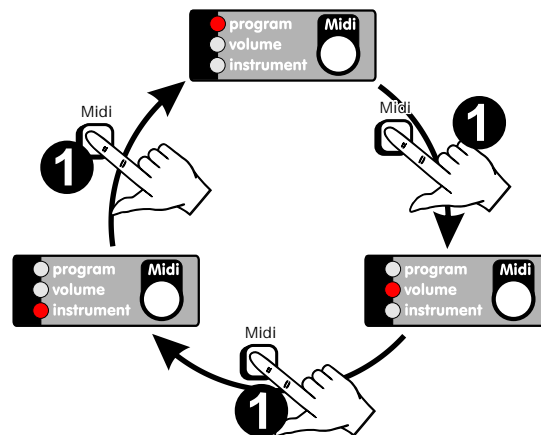
- ⇒ Midi light of groups.
- ⇒ LED display with all elementary and special signals,
- ⇒ The indicator lights of the trackkeys.

⇒ We recommend that you pay attention to them. So the programming will be easier and simpler.



CHANGING BETWEEN GROUPS

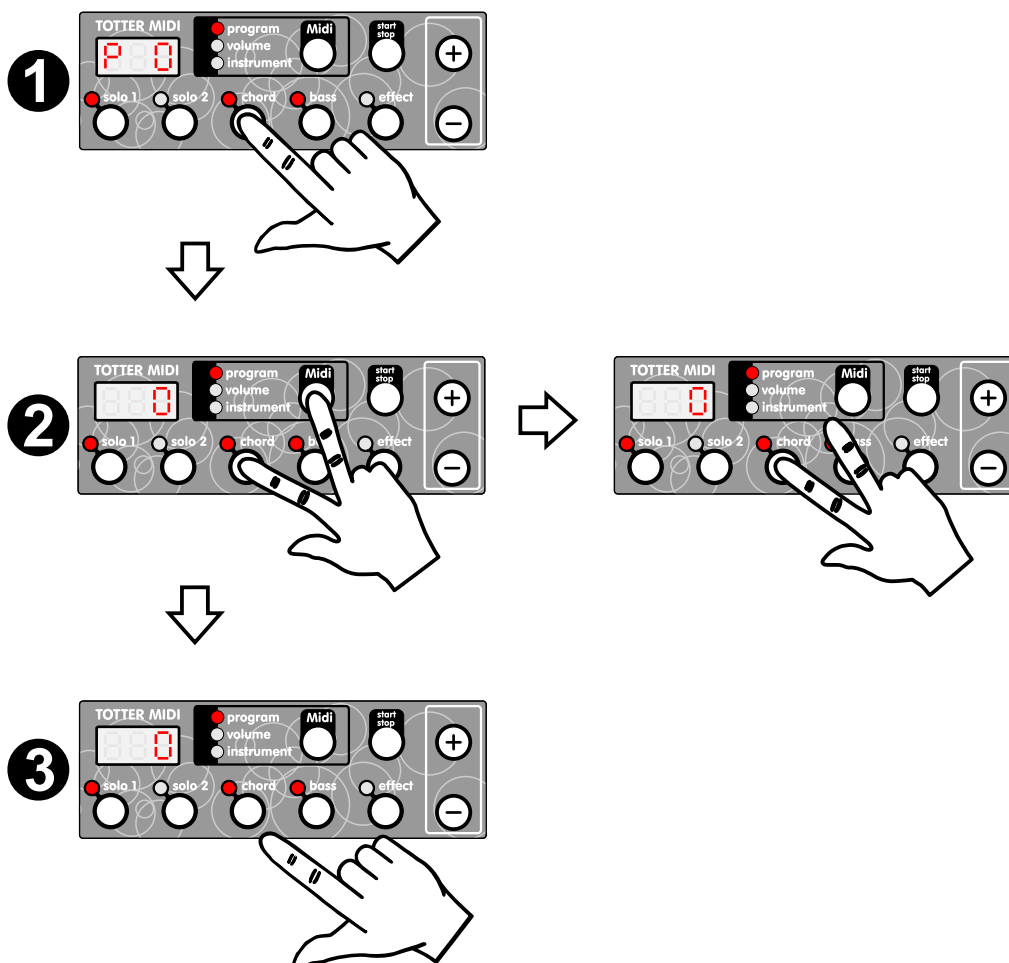
- ❶ Press the Midi key.



CHANGING BETWEEN SECTIONS

- ❶ Hold one of the track-keys (solo1 or solo2 or chord or bass or effect).
- ❷ Press the Midi key. You can see a change on the left side of the display.
- ❸ Release the track key (solo1 or solo2 or chord or bass or effect).

⇔ Look Also at Picture On Page 15



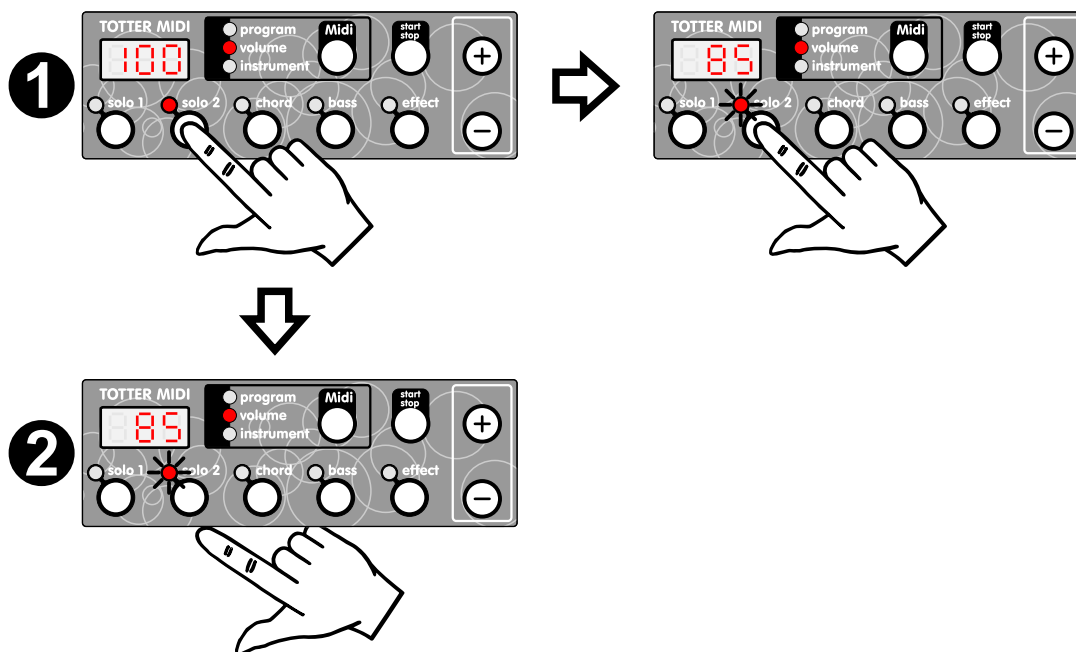
CHANGING BETWEEN SECTION AND SUBSECTION:

- ❶ Hold one of the track keys (solo1 or solo2 or chord or bass or effect) for approx. one second, until the light next to the key starts blinking.
- ❷ Release the track key (solo1 or solo2 or chord or bass or effect).

⇔ If the track light blinking, do the same procedure to stop it blinking.

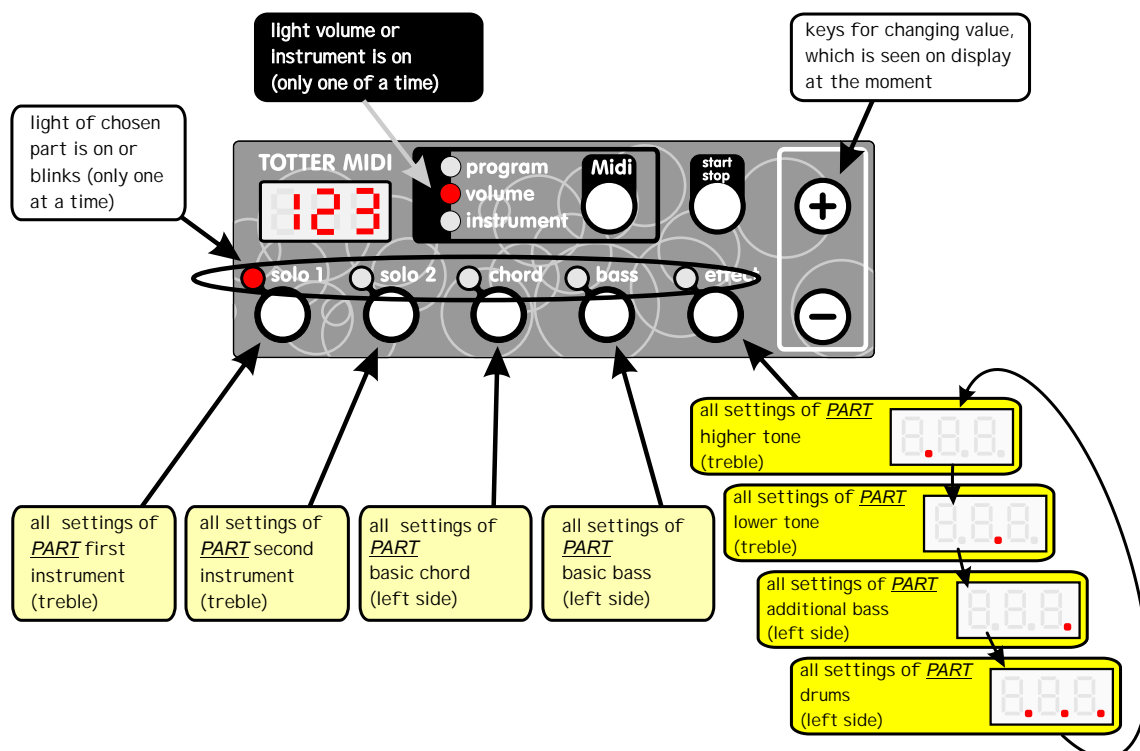
⇔ If you change a group, the light will always stops blinking.

⇔ Also See Picture On Page 15

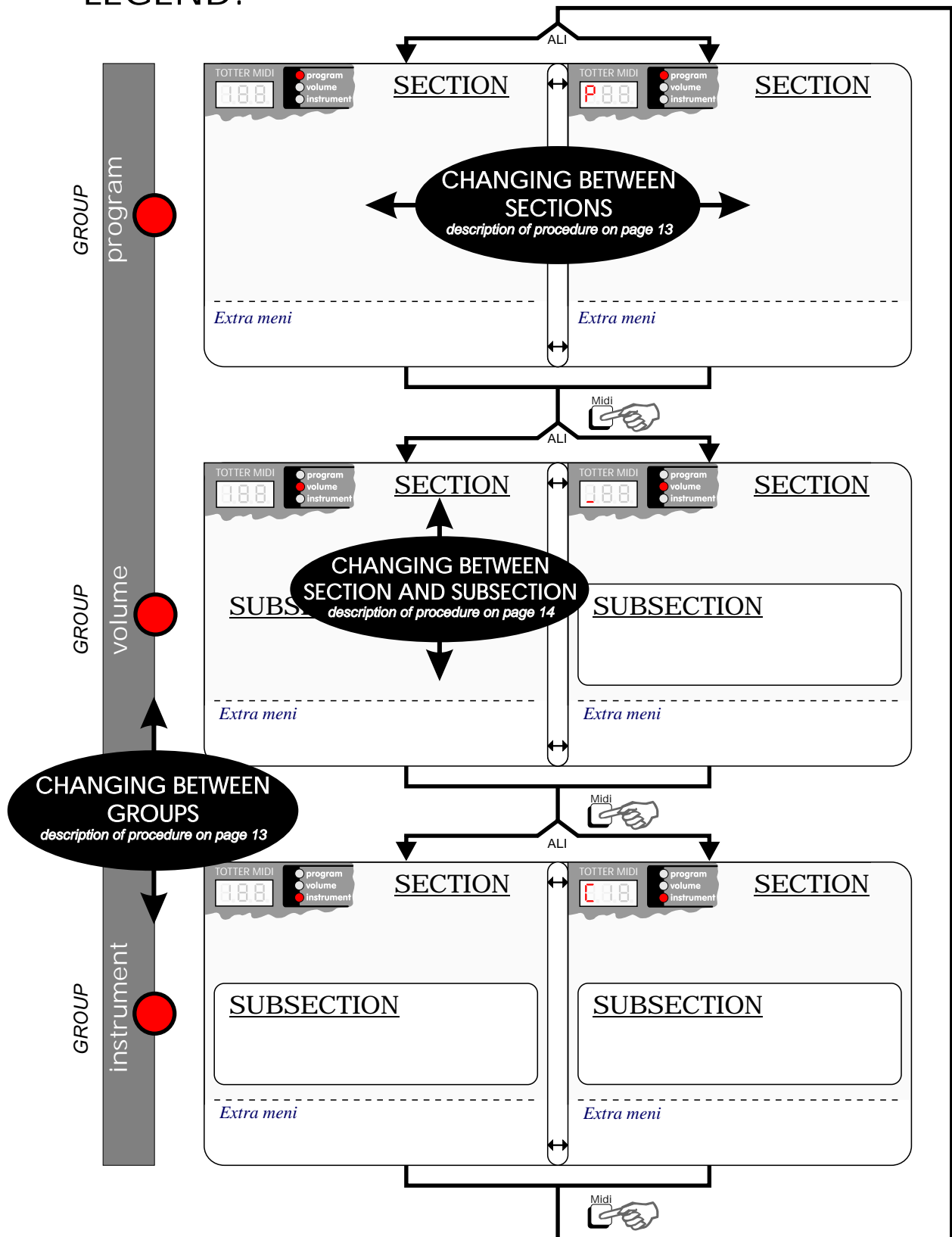


CHANGING BETWEEN EFFECT TRACK PARTS

- ❶ Press effect key

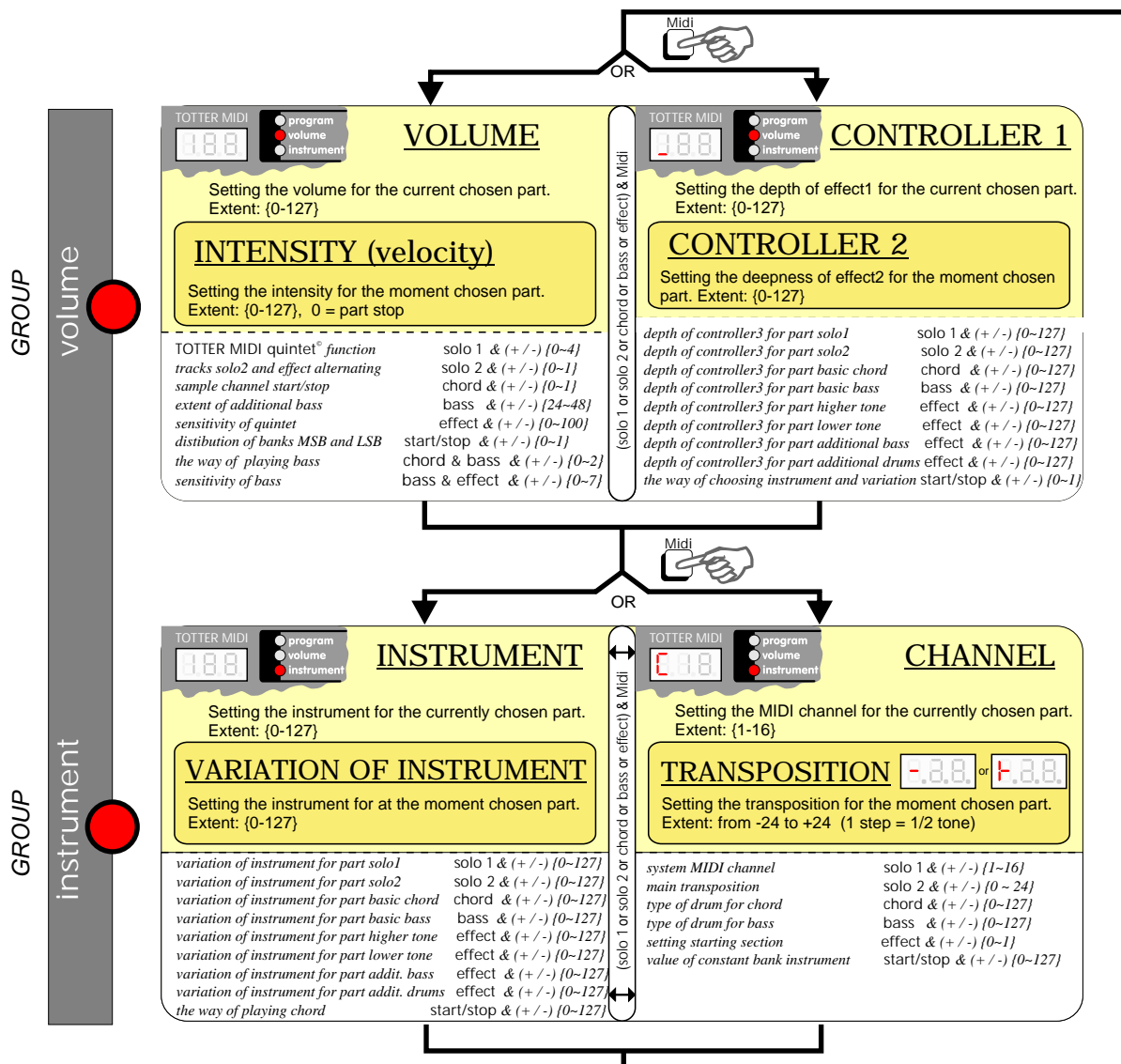


LEGEND:



Programming procedure for basic settings

- ❶ Choose the parameter to be changed:
 - a) in the volume group:
 - * section VOLUME (or its subsection INTENSITY)
 - * section CONTROLLER1 (reverb) (or its subsection CONTROLLER2)
 - b) in the instrument group:
 - * section INSTRUMENT (or its subsection VARIATION OF INSTRUMENT)
 - * section CHANNEL (or its subsection TRANSPPOSITION)



② Choose the part to be changed:

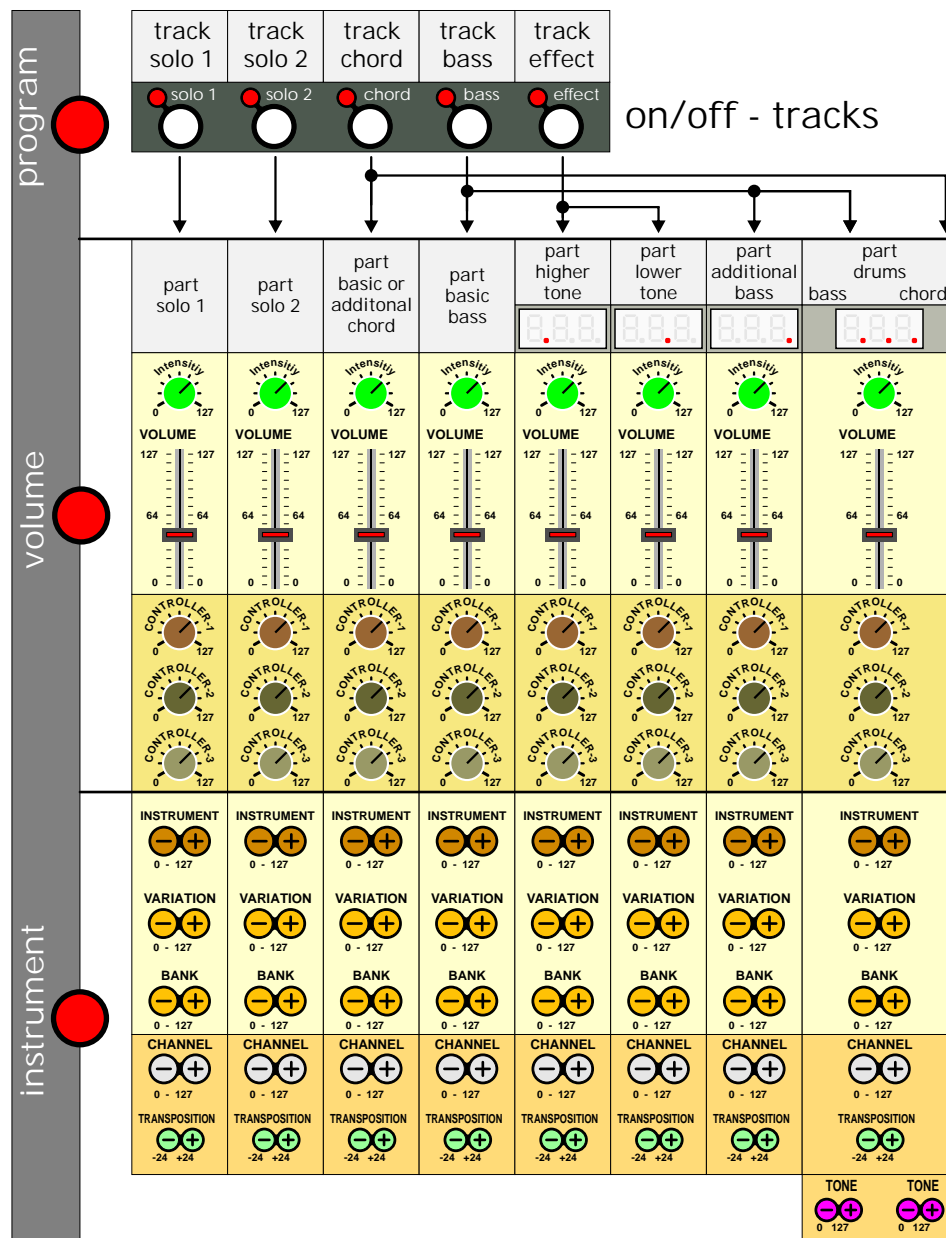
⇔ *What is a part? See Page 11.*

- ⇒ first instrument of treble (Solo 1) or
- ⇒ second instrument of treble (Solo 2) or
- ⇒ basic chord (left side) or
- ⇒ higher tone of treble or
- ⇒ lower tone of treble or
- ⇒ additional bass (left side) or
- ⇒ drums (left side)

③ If necessary choose the subsection.

④ Change the setting with the \oplus or \ominus . The change is accepted immediately!

⑤ If necessary, save to an internal program (just models which have this feature).





SECTIONS AND SUBSECTIONS WHAT CAN BE CHANGED?

program

- ➔ the OUTER PROGRAM section contains settings for the external sound. source(called user programs, panel memories, performances, presets, etc.) which can be called up any time if necessary.
- ➔ the INNER PROGRAM section contains settings for the accordion midi system, which can, if necessary, affect the settings of the external module. (Only on models TM-4-LUX, TM-4-S and TM-4-BK)

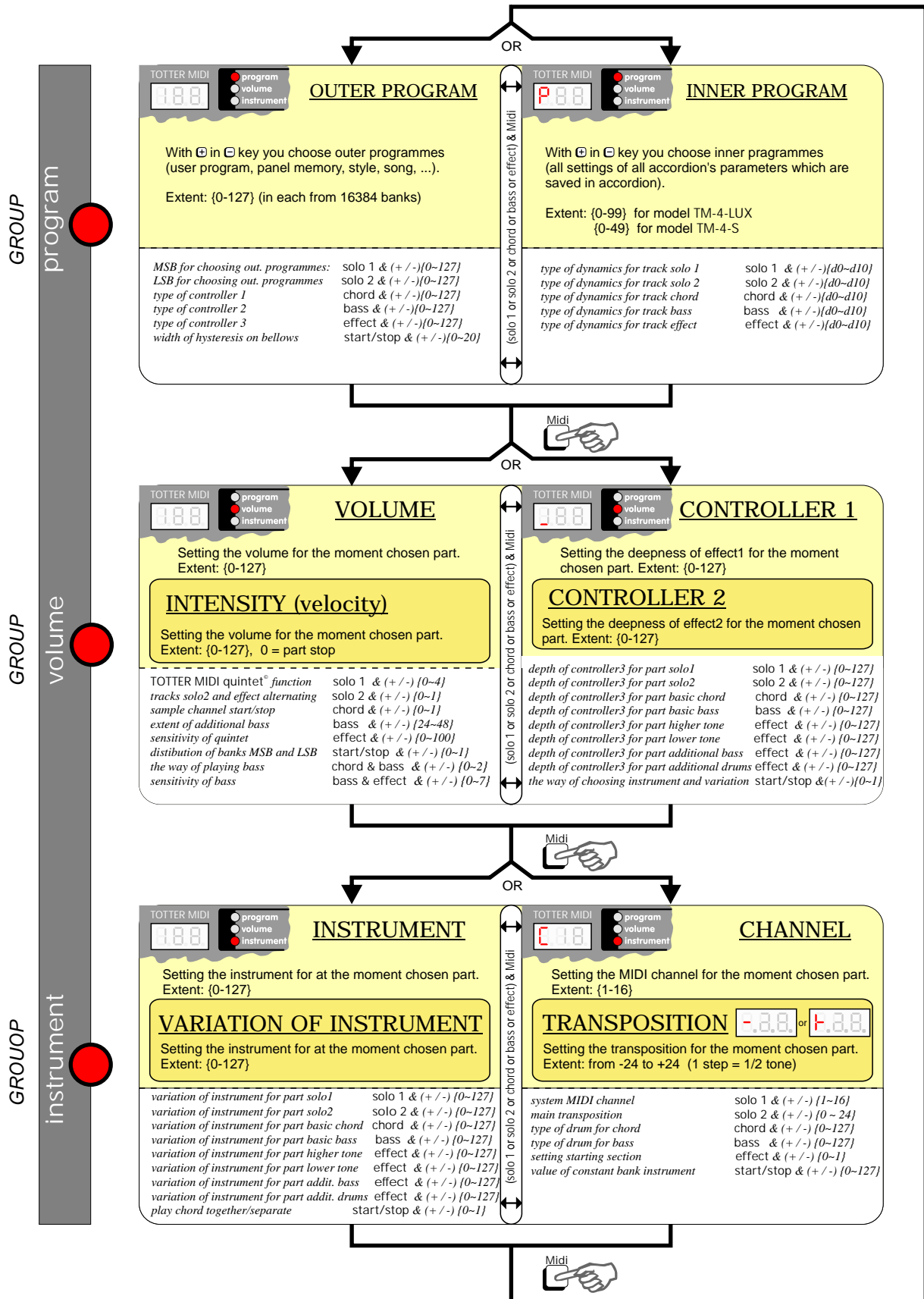
volume

- ➔ the VOLUME section allows setting the volume of each individual part.
 - ⇒ the INTENSITY subsection lets you set the color of the sound. If an instrument is played quietly, it sounds soft and dark (i.e. low intensity). Increasing the volume, the intensity of the sound becomes harder, sharper and dynamic. Changing the intensity of a sound can change its character greatly.
- ➔ the CONTROLLER1 section manages each additional effect of the module. Mostly these are different echoes (reverb, echo, delay, hall...) and other changes of sound (chorus, flanger,...). You can decide for yourself which effect will be managed by this section.
 - ⇒ the CONTROLLER2 subsection manages the same effects as CONTROLLER1. Mostly, these are different echoes (reverb, echo, delay, hall...) and other changes of sound (chorus, flanger,...). You can decide for yourself which effect will be managed. Usually it is different than for CONTROLLER 1.

instrument

- ➔ the INSTRUMENT section is used for the choice of instruments just like on a module or synthesiser. According to the GM Standard all instruments have the same address on all modules. You can choose an instrument for every track.
 - ⇒ the VARIATION OF INSTRUMENT subsection provides the ability to choose instruments beyond the GM Standard (GS, XG, etc.), which expands the range and selection of available instruments .
- ➔ the CHANNEL section is used for choosing a MIDI channel for each part. It is very important that the channels of the accordion match the channels on the module.
 - ⇔ Note: The main thing to understand the TOTTER MIDI interface in accordion is: Channel is not the same as track.
 - ⇒ the TRANSPPOSITION subsection is used for changing the basic scale or "Key". You can play in one scale, but it sounds as if it were another, lower or higher. This is very useful for all accordions. You can transpose every part up to two octaves in pitch (+/- 24).
 - ⇔ Advice: For diatonic accordions only: Activating the transposition function, pull the bellows very softly, just to make the sensor find out if the bellows iare being opened or closed.

TABLE OF ALL FUNCTIONS

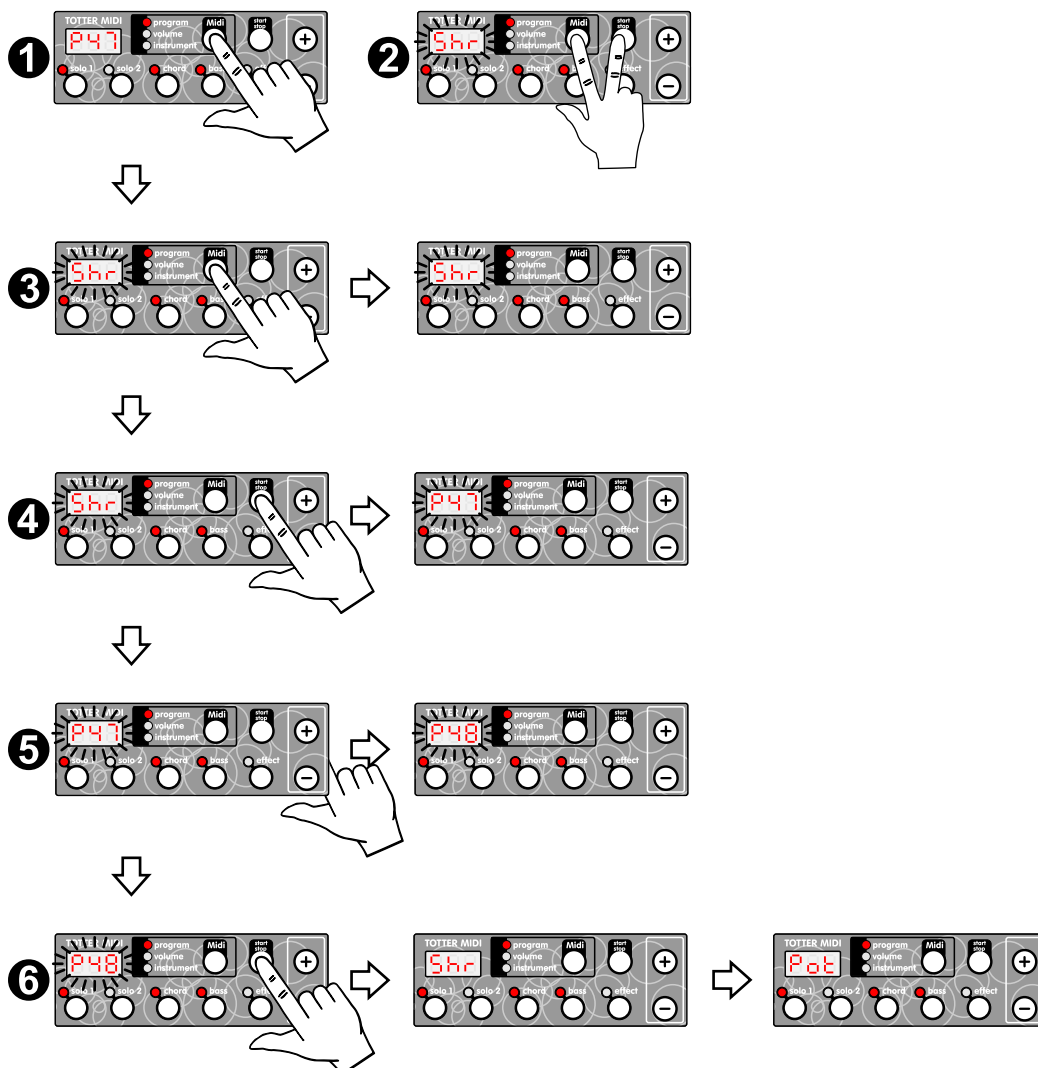


SAVING SETTINGS INTO (INTERNAL) MEMORY

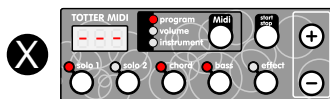
All parameter settings can be saved as user settings into the internal memory.

The procedure is as follows:

- ❶ Hold key Midi.
- ❷ Press key start/stop.
- ❸ Release key Midi. On the display appears the abbreviation "**Shr**" (**Save?**).
- ❹ Press key start/stop. On the display blinks the abbreviation "**Pxx**". ("xx" is the address in the memory from P0 to P99 for model TM-4-LUX and from P0 to P49 for model TM-4-S).
- ❺ Choose the address in memory with the \oplus or \ominus key.
- ❻ Press key start/stop. The display shows "**Shr**" and "**Pot**" (**Saved and Confirmed!**)



- ✕ In case of mistakes in the memorization procedure (the display indicates this condition with three lines) the procedure can be broken up any time without losing the settings. You can retry the whole procedure immediately.



REVIEW OF STORED PARAMETERS

PARAMETER	P00										P01										P99										PART							
	solo 1										solo 2										basic chord										PART							
	addit. chord										basic bass										addit. bass										PART							
	higher tone										lower tone										drums										PART							
	system										lower tone										drums										PART							
	volume										intensity										type of first effect										PART							
	level of first effect										type of second effect										level of second effect										PART							
	type of third effect										level of third effect										instrument (PC)										PART							
	variation of instrument										bank of instrument										MIDI channel										PART							
	transposition										start / stop track										tone of additional drums										PART							
	dynamics										range of additional bass										sensitivity of quintet										PART							
	distribution of bank MSB in LSB										TOTTER MIDI quintet [®]										Solo2 / Effect exclusive										PART							
	main transposition																														PART							

COMMON PARAMETERS TO ALL PROGRAMMES									
setting starting section									✓
address of outer programmes (CC-0)	✕	✕	✕	✕	✕	✕	✕	✕	✓
address of inner programmes (CC-32)	✕	✕	✕	✕	✕	✕	✕	✕	✓
hysteresis of bellows									✕
lock the bank of instruments									✕
value of locked bank instruments									✕
nullification of bellows									✕

- ✓ - possible
 ✕ - not possible
 ✓* - possible, when MIDI channels (basic chord and system channel) are the same
 ① - adjustable together with the bass or chord part
 ② - sent by system channel

Procedure of programming for additional settings

The procedure to set and change parameters is always the same in momentary menus. The button you press in the second step must always be held until the end of the procedure.

SETTING THE POSITION OR EXTENT OF THE ADDITIONAL BASS

Bass notes play within a one octave range. We appoint the lowest tone of bass with this setting.

- ❶ Choose the VOLUME section.
- ❷ Hold bass key.
- ❸ Press ⊕ or ⊖ key. The display shows the number of the momentary pitch (from 24 to 48)
- ❹ The pitch can be changed with the key for changing parameters. Press ⊕ or ⊖ key.
- ❺ Release the bass key.

⇔ *Example: The usual value of the parameter is 27 (the lowest E for el. guitar, contrabass,...) and 33 or 32 (for the lowest A or B for tuba or trombone,...) We are recommending that you try to change the position of additional bass on your own.*

SETTING THE SOUND OF ADDITIONAL DRUMS

The sound of the additional drums can be set separately for bass drums and chord drums. You have the choice of all the drum sounds of a connected sound module.

Setting the tone (type) of additional drum sound - activated by all the bass buttons

- ❶ Choose the CHANNEL section.
- ❷ Hold the bass key.
- ❸ Press ⊕ or ⊖ key. The display momentarily shows the sound number for the drum. (You can reference the table of drum sounds in the user manual for the module.)
- ❹ Change the number of the drum sound with keys ⊕ or ⊖.
- ❺ Release the bass key.

Setting the tone (type) of additional drum sound - activated by all the chord buttons

- ❶ Choose the CHANNEL section.
- ❷ Hold the chord key.
- ❸ Press ⊕ or ⊖ key. The display momentarily shows the sound number for the drum. (You can reference the table of drum sounds in the user manual for the module.)
- ❹ Change the number of the drum with keys ⊕ or ⊖.
- ❺ Release the chord key.

⇔ *Note: According to the GM Standard, the drum sounds are between 27 and 81. Highest or lowest values can be empty (there is no drum for the empty locations.).*

SETTING THE CONTROLLERS

Functions and effects of the module can be managed by the help of Controllers. The settings of all Controllers are the same for the entire memory (for all addresses from P0 to P99 - model TM-4-LUX or from P0 to P49 - model TM-4-S. (For details about Controllers look in the drum table located in the MIDI module's User Manual). Usual values of Controllers regarding the GM (General MIDI) Standard are as follows:

reverb - 91,
chorus - 93,
delay - 94, (Roland)
panorama - 10, ...

Setting the first Controller

- ❶ Choose the section OUTER PROGRAM
- ❷ Hold the key chord.
- ❸ Press \oplus or \ominus key. The display shows the number of the Controller (0 - 127).
- ❹ Change the controller number by using the keys \oplus or \ominus .
- ❺ Release the key chord.

⇔ *Note:* We are recommending number 91, that is reverb.

Setting the second Controller

- ❶ Choose the section OUTER PROGRAM
- ❷ Hold the key bass.
- ❸ Press \oplus or \ominus key. The display shows the number of the Controller (0 - 127).
- ❹ Change the controller number by using the keys \oplus ali \ominus .
- ❺ Release the key bass.

⇔ *Note:* We are recommending number 93, that is chorus or 94, that is delay (za Roland).

Setting the third Controller

- ❶ Choose the section OUTER PROGRAM
- ❷ Hold the key effect.
- ❸ Press \oplus or \ominus key. The display shows the number of the Controller (0 - 127).
- ❹ Change the controller number by using the keys \oplus ali \ominus .
- ❺ Release the key effect.

⇔ *Note:* We are recommending number 10, that is panorama.

BANK OF INSTRUMENT

- ❶ Choose the INSTRUMENT section
- ❷ With track key (solo 1 or solo 2 or chord or bass or effect) choose the part.
- ❸ Hold the track key (solo 1 or solo 2 or chord or bass or effect)
- ❹ Press ⊕ or ⊖ key. The display shows the number of bank of instrument (0 - 127).
- ❺ Change the address with ⊕ or ⊖ key.
- ❻ Release the track key (solo 1 or solo 2 or chord or bass or effect)

DISTRIBUTION OF BANK MSB (CC0) AND LSB (CC32)

If we choose the value of distribution of bank 1 means, that with parameter variation of instrument (in subsection VARIATION) we set MSB, with parameter called bank of instrument (Look On Page 24 above) we set LSB. If the value of distribution of bank is 0, is the other way round.

- ❶ Choose the VOLUME section.
- ❷ Hold the start/stop key
- ❸ Press ⊕ or ⊖ key. The display shows the current position of switch (0 - 1).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release the key start/stop.

⇔ *Note: For Roland, Ketron,... the setting is 1, Yamaha, Korg have 0. If the instruments are arranged that none of the groups- banks is no longer constant, in this way we can not choose all instruments.*

SIMPLIFIED OR FULL SELECTABILITY OF INSTRUMENT

Modules or keyboards have their instruments sorted in two groups (by the MIDI standard)-into banks called MSB or CC0 and LSB or CC32. Every instrument in a module or keyboard is called up or selected with a combination of three numbers (from 0 to 127). Number MSB, number LSB and the instrument's number called PC (Program Change).

One of the group banks is constant in many modules, normally value 0 (zero). In this case, choosing the instrument can be simplified, from three parameters to two. Number of changeable group-banks (here in this user manual called a variation of instrument) and the instrument's number (called instrument) must be chosen.

- ❶ Choose the CONTROLLER section.
- ❷ Hold the start/stop key.
- ❸ Press ⊕ or ⊖ key. The display shows the current position of switch (0-simplified choosing or 1-full choosing).
- ❹ Change the position of switch with ⊕ or ⊖ key.
- ❺ Release the key start/stop.

⇔ *Note: If you choose the value of parameter 1 (simplified choosing), you must suitably set the distribution of banks MSB and LSB (which bank will be constant) and the value of this constant bank.*

VALUE OF THE CONSTANT BANK INSTRUMENTS

If we set “simplified choosing of instrument” and its variation (see page 24), one of groups banks (B or LSB) is constant.

The procedure is as follows:

- ❶ Choose the CHANNEL section.
- ❷ Hold start/stop key.
- ❸ Press ⊕ or ⊖ key. The display shows the constant bank of instrument (0 - 127).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release the start/stop key.

ADDRESS FOR MANAGING THE OUTER (EXTERNAL) MEMORY

Having connected an accordion outfitted with a TOTTER MIDI interface to a MIDI module with its own memory, the memory can be managed from the accordion. The address consists of two parts and is different for different modules. The setting of both parts of the address is the same for the whole memory (for all programmes; 0-127).

Setting the first part of the address

- ❶ Choose the OUTER PROGRAM section.
- ❷ Hold solo 1 key.
- ❸ Press ⊕ or ⊖ key. The display shows the number of first part of the address (0 - 127).
- ❹ Change the address with ⊕ or ⊖ key.
- ❺ Release the solo 1 key.

⇔ *Example: For Roland synthesisers set the first part of the address to 120.*

Setting the second part of the address

- ❶ Choose the OUTER PROGRAM section.
- ❷ Hold the solo 2 key.
- ❸ Press ⊕ or ⊖ key. The display shows the number of second part of the address (0 - 127).
- ❹ Change the address with ⊕ or ⊖ key.
- ❺ Release the solo 2 key.

⇔ *Example: For Roland keyboards set the second part of the address to 0.*

⇔ *Note: For correct working of this function, the system MIDI channel must be set.*

FUNCTION TOTTER MIDI QUINTET[®]

The patented function TOTTER MIDI QUINTET[®] provides the ability to combine and play the sounds of more instruments like in an ensemble. Via parameter settings you can choose between 5 basic functions which can be joined with other exclusive functions such as active overlap of instruments via the bellows.

TOTTER MIDI quintet[®] = 0

The higher part and lower tone are always heard when the effect track is on. It does not matter what is played. (The higher tone is usually a clarinet, lower is trumpet.)

TOTTER MIDI quintet[®] = 1

Higher part tone (usually clarinet) is heard playing in unison (one tone, one finger melody), multivoices (chords are played on the treble side) are also playing the lower tone (usually trumpet). effect track must be on.

TOTTER MIDI quintet[®] = 2

In unison playing the solo 2 track is automatically on, multivoices are heard while playing with the effect track turned on - with higher and lower tones (as parts) are turned on.

TOTTER MIDI quintet[®] = 3

In unison playing the solo 2 track is automatically on, at more-vocal playing track effect with higher and lower tone as parts are on and at multivoices playing solo 1 track is on (usually accordion).

TOTTER MIDI quintet[®] = 4

In unison playing the solo 2 track is automatically on, multivoices (chord type playing on treble side) playing tracks effect with higher and lower tone as parts are on and part solo 1 (usually accordion).

- ❶ Choose the VOLUME section.
- ❷ Hold the solo 1 key.
- ❸ Press ⊕ or ⊖ key. The display shows the current position of switch (0 - 1).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release the solo 1 key.

↔ *Advice: Setting 2 is very suitable for playing Alpine music, when clarinet or some other instrument plays unison solo melody. When forming and playing treble chords, the trumpet and clarinet are also played. This is a very effective effect, which is reached without any switching between playing.*

↔ *Advice: Setting 3 is very suitable when playing accompaniment diatonically with the accordion in unison with the melody and at the same time we wish to imitate trumpet and clarinet. All this can simply and efficiently be managed with TOTTER MIDI QUINTET[®]*

↔ *Advice: Setting 4 is suitable for playing solo melody with any instrument and for multivoices with other instrument. At this type of using parts higher and lower tone must be off.*

SENSITIVITY OF THE TOTTER MIDI QUINTET[®] FUNCTION

To make the Quintet sound more natural we invented a special section for sensitivity. This causes the trumpet and the clarinet sound to be a little delayed (in live bands also, the musicians do not start absolutely at the same time).

- ❶ Choose the VOLUME section.
- ❷ Hold the effect key.
- ❸ Press ⊕ or ⊖ key. The display shows the number of current sensitivity (0 - 100).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release the effect key.

ALTERNATING START OF TRACKS - solo 2 track AND effect track

When you set the parameter on value 1, the solo 2 and **effect** tracks are working alternately. At any one time, just one or none of tracks is active. When an inactive track is turned on, the other track is automatically turned off. If the parameter value is 0 both tracks work independently. Both can be on or off at the same time, or one on and the other off.

- ❶ Choose the VOLUME section.
- ❷ Hold the solo 2 section.
- ❸ Press ⊕ or ⊖ key. The display shows the current position of switch (0 - 1).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release the solo 2 key.

THE WAY OF PLAYING CHORD

The piano accordion chord button combines the tones of several instruments which can be made to not all sound exactly at the same time - for more realism. If the value of the parameter is set to 0, tones play separate- by turns, With a parameter setting of 1, all of the chord's tones play together and at once.

- ❶ Choose the INSTRUMENT section.
- ❷ Hold the start/stop key
- ❸ Press ⊕ or ⊖ key. The display shows the current position of switch (0 - 1).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release the start/stop key.

⇔ *Note: Some bass mechanics works that if you press bass button will also play the basic tone of chord. When this is desirable.*

START / STOP OF ADDITIONAL CHORD (sample channel)

Part additional chord is for playing to balance singers, recorded chords, ...
 Whatever chord is played, it is always represented just with one tone- a basic chord tone, The type of chord is represented with different octave position of this chord.
 Data is sent via system channel. If the system channel is set on the same value as the basic chord, then the basic chord stops playing. The sample channel takes over all settings of the basic chord (volume, instrument,...).

- ❶ Choose the VOLUME section.
- ❷ Hold the chord key.
- ❸ Press ⊕ or ⊖ key. The display shows the current position of switch (0 - 1).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release the chord key.

⇔ *Note: It is possible to set the octave position for individual types of chords. Contact TOTTER MIDI service for details.*

⇔ *Note: How does the Chord sample work? Press the C-major chord, additional chord plays tone c1, for chord C-minor plays tone c2 and for chord C7 tone c3... for chord G-major there is an additional chord which is the same as tone g1 etc.*

THE WAY OF PLAYING BASS

The additional bass part can work in different ways:

0 - normal bass

Additional bass works as a basic bass. Every bass button always plays just one tone. Tones are in the range of one octave. You can set the octave's position (lower tone) as you wish. (see page 22)

1 - chord sample

Every bass button always plays just one tone. Tones are in the range of one octave. Octave position is chosen in advance. It always plays the tone of the last pressed chord.

For example: If you play C-bass, c-chord in G-exchange bass, always plays basic tone of playing tone manner, in case c-major - plays tone C. In short, it always plays basic tone of tone manner.

2 - normal chord

Works similar to the chord sample, except that instead of just one tone, the whole chord plays. This function is very useful for modules which do not have samples of whole chords. It enables playing the guitar's rhythm using only the bass on all modules.

- ❶ Choose the VOLUME section.
- ❷ Hold together chord & bass keys.
- ❸ Press ⊕ or ⊖ key. The display shows the value of parameter (0 - 2).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release chord & bass keys.

⇔ *Example: With bass (baritone or bass guitar) on the first bass button press plays also rhythm guitar (the whole chord).*

⇔ *Note: How works Chord sample? Press chord C-major, additional chord plays tone c1, for chord C-minor plays tone c2 and for chord C7 tone c3... for chord G-dur is additional chord the same as tone g1 etc.*

SENSITIVITY OF BASS

This parameter regulates the correct assignment of a tone's behavior.

- ❶ Choose the VOLUME section.
- ❷ Hold together bass & effect key.
- ❸ Press ⊕ or ⊖ key. The display shows the value of parameter (0 - 7).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release bass & effect keys.

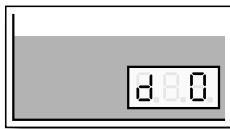
⇔ *Advice: Value of the parameter should be low and should be allowed the correct recognizing of chords. Start with values 1-3. In case, that real chord won't be recognized always, increase value. For normal use we recommend values between 3 and 5.*

SETTING THE DYNAMICS

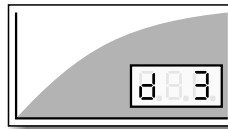
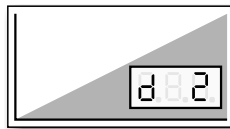
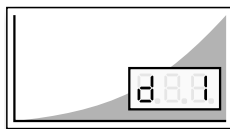
You can choose between eleven types of dynamics. Each track can be set separately to have any type of dynamics (for models TM-4-LUX, TM-4-S and TM-4-BK).

- ❶ Choose the INNER PROGRAM section.
- ❷ Hold a track key (solo 1 or solo 2 or chord or bass or effect).
- ❸ Press ⊕ and ⊖ key. The display shows "d" and type of dynamics (0 - 10).
- ❹ Change the type with ⊕ or ⊖ key.
- ❺ Release the track key. (solo 1 or solo 2 or chord or bass or effect).

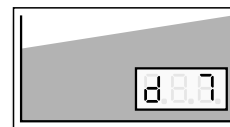
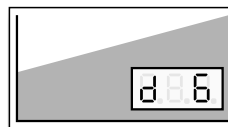
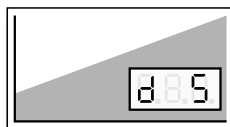
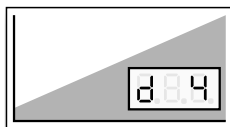
"d0" - dynamics is disconnected - i.e. not dependent on expression or the volume of playing. In this case the volume of the module is at a constant maximum value..



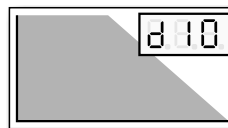
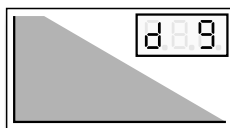
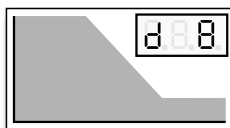
dynamics "d1" - "d3" are in full extent, positive and differently sensitive.



"d4" - "d7" are in limited extent, positive and have different beginning volume.



"d8" - "d10" are inverse, useful for active overlaps between active tracks.



↔ *Note: Dynamics is set to track, not to part. For example, dynamics which is set for the bass track is for all parts of the bass track (basic bass, additional bass and additional drums)..*

"NUL" FUNCTION, "PANIC" FUNCTION AND DISABLE FUNCTION

These unique TOTTER MIDI functions can help to save your performance if certain malfunctions occur. These functions are necessary in the following situations:

➤ If the module continues to play even when you are not pressing any keys or buttons.

OR

➤ if you realize that the dynamics are different opening the bellows vs. closing them.

- ❶ Hold key solo 1.
- ❷ Hold key solo 2.
- ❸ Press key chord.
- ❹ Release all three keys.

⇔ *Note: In case of an error, where one key still plays or "hangs up", the disable function temporary turns off the sensor under the key. At the same time the "shut" function stops the playing of all sounds. With these exclusive emergency features it is possible to continue playing without use of the broken key. This solution is **temporary**. These helpful functions will be cancelled upon reboot of the MIDI interface. The sensor must be repaired or adjusted to correct the situation. Contact TOTTER MIDI service center for expert assistance.*

SETTING THE WIDTH OF HYSTERESIS OF BELLOWS

A diatonic accordion has different "in" and "out" tones. Our MIDI system utilizes this concept, as well.

For unique layering of sounds using bellows pressure you must exceed a definite threshold (hysteresis) to activate this effect. The higher that this parameter's value is, the more power you must use to pull or squeeze the bellows for layering of sounds to occur.

- ❶ Choose the OUTER PROGRAM section
- ❷ Hold the start/stop key.
- ❸ Press ⊕ or ⊖ key. The display shows the current value of width of hysteresis (0 - 20).
- ❹ Change the value number with ⊕ or ⊖ key.
- ❺ Release the key start/stop.

⇔ *Advice: For normal playing we recommend values between 3 and 10, for example 5.*

COMMON (BASIC) MIDI CHANNEL

A common or system channel is usually needed for sending MIDI messages to a sound module or keyboard. For example: managing the external memory, choosing rhythms and MIDI songs (playback), etc. A common channel (also known as basic or system channel) must be set to be the same on the accordion and on the connected module.

- ❶ Choose the CHANNEL section.
- ❷ Hold the solo 1 key.
- ❸ Press \oplus or \ominus key. The display shows the number of the system midi channel (1 - 16)
- ❹ Change the value number with \oplus or \ominus key.
- ❺ Release the solo 1 key.

TRANSPOSITION - GLOBAL

With this parameter transposition for all Parts (instruments) is set at the same time. Normal value is 12. Change for one up or one down means change of tonality for 1/2 tone up or down (0 means -1 octave and 24 means +1 octave).

- ❶ Choose the CHANNEL section.
- ❷ Hold the solo 2 key.
- ❸ Press \oplus or \ominus key. The display shows the current value of transposition (0 - 24).
- ❹ Change the value number with \oplus or \ominus key.
- ❺ Release the solo 2 key.

↔ *Note: Value 12 is without transposition - natural tuning.*

SETTING THE START-UP SECTION IN THE program GROUP

Whenever you turn on the TOTTER MIDI interface it defaults to the program group. You can decide by yourself if this is section is OUTER PROGRAM or INNER PROGRAM.

- ❶ Choose the section CHANNEL
- ❷ Hold the key effect.
- ❸ Press \oplus or \ominus key. The display shows the current position of switch (0 - starting with inner program, 1 - starting with outer program).
- ❹ Change the value number with \oplus or \ominus key.
- ❺ Release the key effect.

↔ *Advice: We recommend you to set the starting section as INNER PROGRAM.*

What is a MIDI channel?

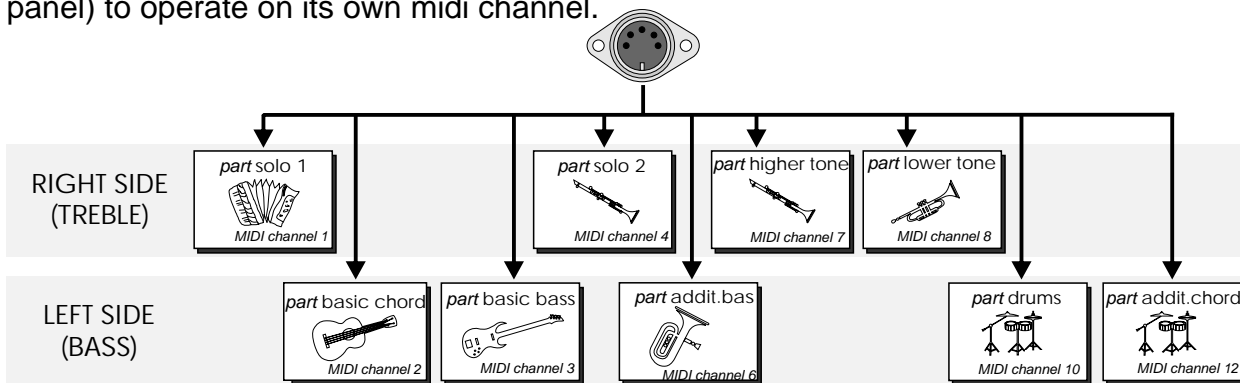
A MIDI channel is the way the midi information takes to get from one instrument to another. To achieve a proper functioning of the TOTTER MIDI interface, every part gets its own midi channel.

⇒ *In short: We do not want the accordion and sound module (or keyboard) to require a 16 cable connection! So MIDI was designed such that MIDI information is separated into channels and not individual cables. (A letter carrier also does not need sixteen bags to deliver sixteen letters, merely different addresses at the post office and he still knows the destination for each letter - even though all the letters are in the same bag.) It is important that the accordion and connected midi device (module, etc.) “fit” each other (if we want John to receive the letter, we must write down his address and not some other one).*

⇒ *Note: The main thing to understand about the TOTTER MIDI interface for accordion is: A Channel is not the same as a Track! For each instrument(s) you select to make up the contents of a Track, you can set or assign whichever midi channel(s) you desire.*

Setting the midi channel:

Correct cable connection of MIDI devices still isn't enough to ensure their proper MIDI communication. MIDI enables sending many kinds of separate information through a single cable. This makes it possible for every midi part (set via the TOTTER MIDI control panel) to operate on its own midi channel.



For correct performance of the MIDI channel connection, the transmitting instrument (accordion) and receiving instrument (sound module, keyboard, arranger,...) must be set on the same midi channel.

EXAMPLES

Example of setting for model TM-4-LUX

ACCORDION			SOUND MODULE	
midi part	midi channel		midi channel	instrument
part solo 1	midi channel 1	↔	midi channel 1	accordion
part basic chord	midi channel 2	↔	midi channel 2	guitar
part basic bass	midi channel 3	↔	midi channel 3	bass guitar
part solo 2	midi channel 4	↔	midi channel 4	clarinet (solo)
part addit. bass	midi channel 6	↔	midi channel 6	tube
part higher tone	midi channel 7	↔	midi channel 7	clarinet
part lower tone	midi channel 8	↔	midi channel 8	trumpet
part drums	midi channel 10	↔	midi channel 10	drums
part system	midi channel 12	↔	midi channel 12	system channe

↔ Note: Table for accordion is informative. In each midi part the midi channel can be changed or saved at any time.

Example of setting for model TM-4-S

ACCORDION			SOUND MODULE	
midi part	midi channel		midi channel	instrument
part solo 1	midi channel 1	↔	midi channel 1	accordion
part basic chord	midi channel 2	↔	midi channel 2	guitar
part basic bass	midi channel 3	↔	midi channel 3	bass guitar
part solo 2	midi channel 4	↔	midi channel 4	clarinet (solo)
part addit. bass	midi channel 6	↔	midi channel 6	tube
part drums	midi channel 10	↔	midi channel 10	drums
part system	midi channel 12	↔	midi channel 12	system channel

↔ Note: Table for accordion is informative. In each midi part the midi channel can be changed or saved at any time.

Example of setting for model TM-4-N

ACCORDION			SOUND MODULE	
midi part	midi channel		midi channel	instrument
part solo 1	midi channel 1	↔	midi channel 1	accordion
part basic chord	midi channel 2	↔	midi channel 2	guitar
part basic bass	midi channel 3	↔	midi channel 3	bass guitar
part solo 2	midi channel 4	↔	midi channel 4	clarinet (solo)
part addit. bass	midi channel 6	↔	midi channel 6	tube
part drums	midi channel 10	↔	midi channel 10	drums
part system	midi channel 12	↔	midi channel 12	system channel

↔ Note: Each midi part has a specific midi channel. Change of setting is possible only by authorized service.

Example of setting for model TM-4-B or TM-4-BK

ACCORDION			SOUND MODULE	
midi part	midi channel		midi channel	instrument
part basic chord	midi channel 2	↔	midi channel 2	guitar
part basic bass	midi channel 3	↔	midi channel 3	bass guitar
part addit. bass	midi channel 6	↔	midi channel 6	tube
part drums	midi channel 10	↔	midi channel 10	drums
part system	midi channel 12	↔	midi channel 12	system channell

↔ Note: Table for accordion is informative. In each midi part midi channel can be changed or saved any time.

TOTTER MIDI

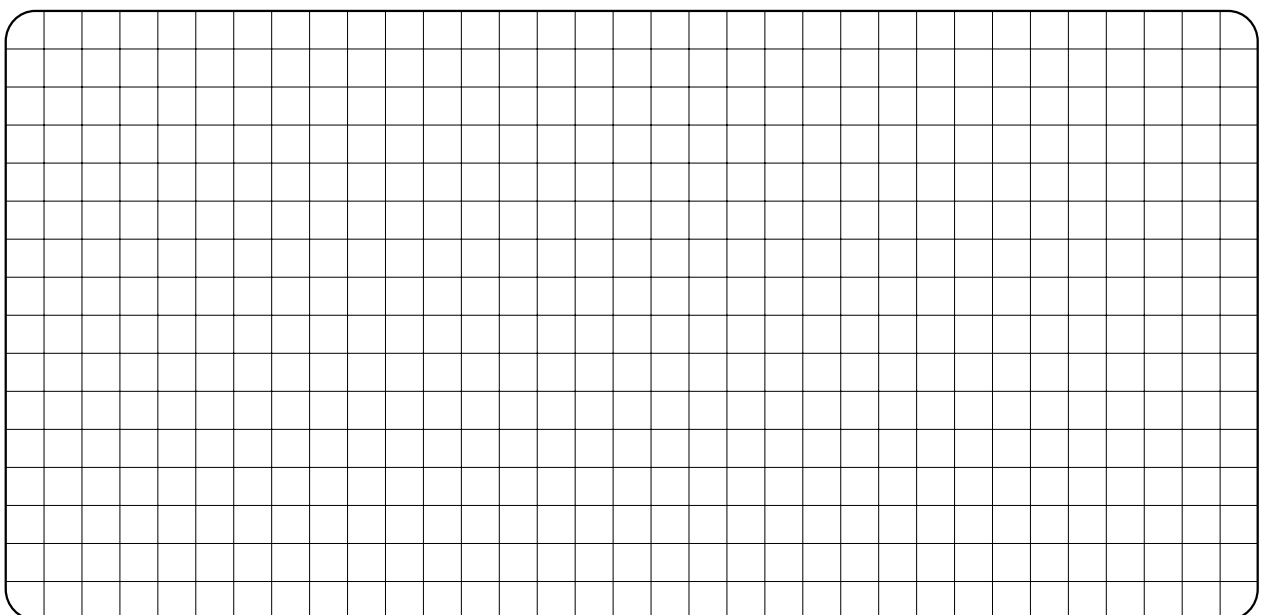
IMPLEMENTATION CHART

TOTTER MIDI Accordion

Date: April 2009
Ser. IV. / Version: 4.04

FUNCTION		TRANSMITED	RECOGNIZED	REMARKS
Basic channel	Default	1,2,3,4,6,7,8,10,12 1 - 16	X	
	Changed		X	
Mode	Default		X	
	Messages		X	
	Altered		X	
Note Number		0 - 127	X	
	True voice	0 - 127	X	
Velocity	Note ON	0-127	X	
	Note OFF	X	X	
After Touch	Key's	X	X	
	Ch's	X	X	
Pitch bender		X	X	
Control change	0, 32	O	X	Bank select
	7	O	X	Volume
	0 - 127 (selectable)	O	X	Effect 1 depth
	0 - 127 (selectable)	O	X	Effect 2 depth
	0 - 127 (selectable)	O	X	Effect 3 depth
	11	O	X	Expression
	120	O	X	All sound off
Prog change		O	X	Prog. 1 - 128
	True #	0 - 127	X	
System exclusive		X	X	
System common	:Song pos	X	X	
	:Song sel	X	X	
	:Tune	X	X	
System Real Time	:Clock	X	X	Start, Stop
	:Commands	O	X	
Aux Messages	:Local ON/OFF	X	X	
	:All Notes OFF	O	X	
	:Active Sense	X	X	
	:Reset	X	X	
Notes O: YES X: NO				

Note



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

