

The TG500 Mididesigner layout

With the TG500 Mididesigner layout almost all of the TG500 parameters can be controlled. In this document specific design aspects of the layout are explained.

Banks and tabs

Every bank of the layout addresses a specific play mode or function of the TG500. Bank 1 is for control and voice tabs. Bank 2 is for PFM. MLT is in bank 3, and DRM in bank 4. Bank 5 has XY and preset tabs. In bank 6 are a control tab and the main setup tab. In every play mode bank there is a dedicated effect tab.

Graphic design

To be able to create a compact design and given the amount of parameters, the size of the controllers had to be as small as possible. To keep the design transparent a laidback grey and black color scheme is used, with some color accents, reflecting the color scheme of the TG500.

Missing parameters

Not all of the parameters can be addressed with the current MD version 1.7.3. Problems occur if one address contains more than one (packed) parameter and one of the parameters is a value range. Only one range or all of the single bits can be addressed without problems at one time. In some cases this can be overcome when a limited value range can be addressed with single bit changers. Single bit buttons then can be combined to address all possible values. This is the case for:

- bank 1, voice tab: the filter mode switches
- bank 2, PFM tabs: the AT, MC1 and MC2 switches
- bank 3, Multi tabs: the voice switches 1/2 & 3/4 switches
- bank 4, Drum tabs: the Gte grp (Gate group) switches

For instance the filter mode switches (THRU/LPF, HPF/BPF, BEF/LP12) on the voice tab of bank 1: combine all switches. Only button THRU/LPF on is LPF. THRU/LPF on and HPF/BPF on is BPF, etc.

For some parameters a bit 8 operation is needed. MD does not allow this. Most affected parameter is the switch for individual output 4. It is not implemented. You have to switch it on the TG.

Hidden controllers

A lot of parameters need hidden sub controllers to function correctly. Every play mode, especially PFM, is packed with hidden sub controllers. Do not remove them or change them. In general be very careful when changing values in designer mode. Only do this if you understand how a controller works. Especially if a value uses hidden sub controllers.

Download the TG500 manual and midi data sheet from the Yamaha website. And read them. Especially if you want to change the layout. Use the MD log screen, and midi-ox (pc) or midi-monitor (Mac) to check on the midi communication.

Jumping values

When touching a control in MD the value of the chosen parameter in the TG500 will jump to the value in MD. It's not possible to synchronize the values of presets in MD with the values of the presets in the TG500. The values can only be synchronized by changing the values in the MD layout, causing the value in the TG500 to jump to the selected value in the MD layout.

Preset names

Where possible parameter preset names are loaded as named ticks and are being shown in the layout. If selected correctly

The controller and the control tabs

The controller section on the control tabs fully emulates the controller buttons of the TG500, with some additional functions. There's a control tab in bank 1 and in bank 6. There are useful smaller

controller sections on the effect tabs and some other pages. The left N/Y slider and the -1/No and +1/Yes knobs make it easier to scroll through value lists. The - and + side have to be wiggled up and down for either -/+ values.

Enable the Utility/Select function with the select on button as long as it is actually needed. Turn it off so it will not interfere with regular operation. Do not engage the Select On button if the wave screen of the PFM mode is opened on the TG.

Voice tab

Voice presets can be selected with the controller buttons and from the TG. On the preset tab in bank 5 the voice presets for every bank can be directly selected. Set the Prg Chg Sw on the setup page in direct mode, otherwise the direct remote bank/voice selection will not work.

To synchronize wave names with the actual wave first select Pre 1 or Pre 2 and then select a Pre 1 or 2 wave.

QED and presets

QED for FEG, AEG and LFO is emulated with MD preset controllers. PEG presets are an added feature.

Default values

For every parameter a default value is set. Triple click on a controller to set the parameter to it's default value. The controller will then jump up and down in MD.

Effect tabs

Effect parameters are implemented on a dedicated tab for every play mode: voice, pfm, multi and drum. The parameter section is implemented with generic values. Check the manual for exact values.

McAt/Sc tab

On this tab you find the settings for mc 1,2,3,4 controllers, but also the voice scaling settings. Some extra 4 midi controllers are placed here to make it easier to test changes.

An example for use of MC3, for instance if you want to use midi controller mc3 to adjust filter resonance in voice mode with the midi controller for value 40 on the McAt/Sc tab, then first select 40 as value for mc3 on the setup tab in bank 6. Now go to the McAt/Sc tab and select Flt_res as param for mc3. Now you can adjust filter resonance with midi controller 40.

Performance (PFM) tabs

For every layer of the performance mode there is a section added. Two tabs where needed to accomplish this. To make it easier to switch between layers on the TG500 PFM layer screen the buttons << (left) and >> (right) are added on the bottom of the tabs. Now you can easily switch between layers and the name of the selected preset is shown on right top of the TG500 screen. The memory preset slider is covered with a button so it can not be used. If only the slider would be used the memory and voice presets do not synchronize. By using the Mem+ button the memory presets do synchronize with the voice presets.

Multi tabs

Four tabs with each four multi sections are created to make operation of all 16 multi channels possible. To synchronize PFM and Voice preset names with actual PFM and Voice values, first click on either the PFM or Voice button and subsequently select the actual preset with the slider or the – (down) or ++ (up) button.

Drum tabs

To be able to edit the drum voices of the TG500 first select a drum kit on preset 63 of a voice bank, and then press Edit. The four drum tabs have four sections each, so the parameters of 16 keys or note values can be controlled. Of course you can change the note values of a section, but note that you have to change the address of every controller in the section with an address. And don't forget the sub controllers. The default TG500 MD layout covers note values C1 to D#2. If you have a

controller like the Arturia Beatstep pro you can now press a key, and the TG500 drum parameter screen will show the settings for the note value of that key if in edit mode.

Setup tab

Here the general settings of the TG500 can be set. Be careful with changing the settings on this tab. Check the TG500 manual first. Note that the setting for the program change switch (Prg Chg SW) should be set to Direct in order to be able to use direct preset/bank selection on the preset tab in bank 5.

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