

*Zeta Music Systems, Inc.*

**User Manual**

# **SYNTHONY II MIDI CONTROLLER**

*Model ZMC-200*

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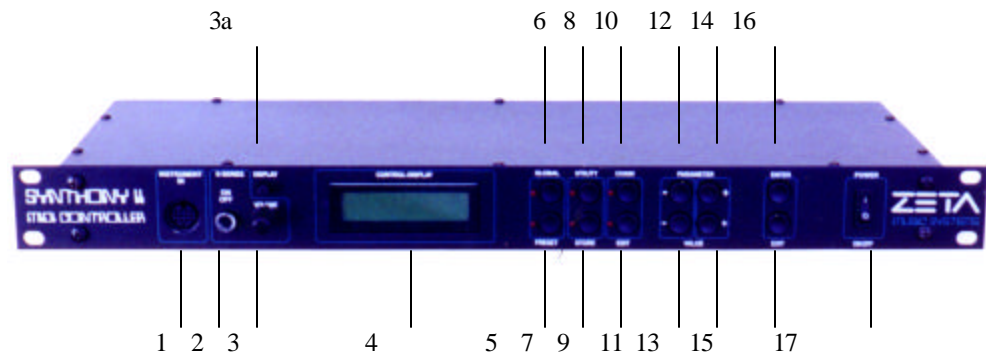
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## ZMC-200 Front Panel



1. **ZETA MIDI CABLE** input. Connect your Zeta instrument to this jack using the Zeta MIDI cable provided.
2. **E-SERIES ON/OFF** : This button must be pushed and locked in the “on” position in order for violins equipped with Zeta’s E-Series pickups to function properly with the ZMC-200. *Note*: The E-Series violin pickups are mono-MIDI capable, and will not access the ZMC-200 multi-channel MIDI features.
3. **VOLUME CONTROL**: Controls the output of the ZMC-200.
- 3a **DISPLAY CONTROL**: Adjusts contrast level of LCD display.
4. **DISPLAY**: The high contrast LCD display shows preset names as well as various parameters some of which are shown graphically.
5. **PRESET**: Using the PRESET button, you can change from GLOBAL, UTILITY and CHAIN modes directly to PRESET mode. The LED just to the left of the PRESET button shows you the status. In PRESET mode, the presently selected preset is shown in the display. You also have the option of seeing the built in instrument tuner in the bottom half of the display. Use the +/- Value buttons to cycle through and select presets. In the Text-Editor, using the PRESET button gives you space.
6. **GLOBAL** : Using this button, you have access to general system settings such as MIDI channel instrument settings as well as the default values of all MIDI controllers. In addition you can prohibit output of Panorama, Reverb, Chorus and Variation controllers separately. In the Text-Editor, using the PRESET button (A...Z) changes the presently selected character to a capital or if no character is selected, gives you a capital “A”.
7. **STORE**: The STORE button allows you to save preset data, arpeggiator patterns, drum sequences and chains to the permanent battery-backed-up RAM of your Synthy II. In the Text-Editor, using the STORE button inserts a

character at the present cursor position, shifting all following characters one character to the right.

8. **UTILITY:**

In UTILITY mode there are various special functions available:

- Output of Sysex (system exclusive) data for archival purposes
- Access to the pattern oriented sequencer built into the Synthy II
- Flexible effect editor for all available effects including reverb, delay, modulation, equalization etc.

In the Text-Editor, using the UTILITY button (a...z) removes the presently selected character to small case, or if no character is selected, inserts a small case "a".

9. **EDIT:** Using the EDIT button in PRESET mode allows you access to the various preset parameters. In CHAIN mode you can select various series of presets that can be toggled using a foot pedal. In the Text-Editor, using the EDIT button (delete) removes the presently selected character and moves all the following characters one character to the left.

10. **CHAIN:** Use the CHAIN button to get to CHAIN mode, where you can use a foot pedal to cycle through pre-programmed presets. In the Text-Editor, using the CHAIN button (!...@) inserts a punctuation or special character

- 11 - 13. **VALUE:** The +/- Value buttons increase or decrease the presently selected value of a parameter in the display.

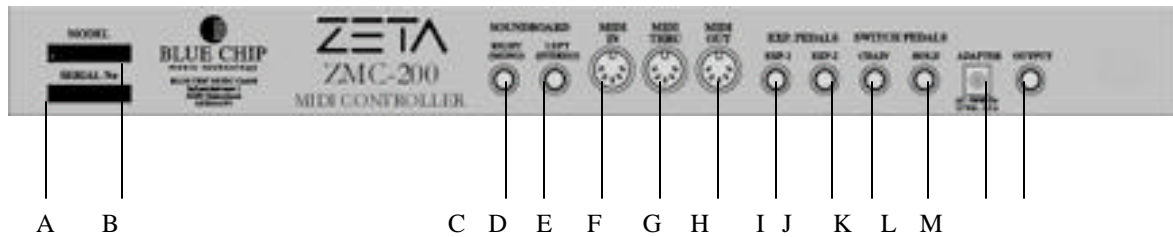
- 12 - 14 **PARAMETER:** The +/- parameter buttons allow you to cycle through various parameters in a parameter list in the display.

15. **EXIT:** Use the EXIT button to leave the present sub menu. Pressing it several times brings you to the root level of PRESET mode. Use the EXIT button to cancel a save function as well.

16. **ENTER:** The ENTER button serves as a confirmation of saves and copies as well as opening a sub menu. The presence of a sub menu is shown as "...." in the display. You can leave any sub menu using the EXIT button.

17. **POWER ON/OFF:** Here is where you turn your Synthy II on and off. When you turn it on, the display shows your last used preset in PRESET mode and is in LOCAL ON mode.

## ZMC-200 Rear Panel



- A. Model number of your Zeta Synthony II.
- B. Serial number for your Zeta Synthony II.
- C. **RIGHT (MONO)**: This is the right side line level output from the internal sound board. If this output jack alone is connected (without the left output being connected) the resulting signal from this output is a composite MONO signal.
- D. **LEFT (STEREO)**: This is the left side line level output from the internal sound board. If this output jack alone is connected (without the right output being connected) the resulting signal from this output jack is still the left side of the stereo signal alone.
- E. **MIDI IN** jack: Your ZMC-200 receives program change and sysex data on this port. If you also use the setting **LOCAL OFF** in **GLOBAL** mode, you can have all incoming MIDI data sent directly to the internal sound board. This is the typical setting if you are using your ZMC-200 with a sequencer.
- F. **MIDI THRU** jack: All data that is received on the MIDI IN jack will be echoed unchanged to this port.
- G. **MIDI OUT** jack: All MIDI data generated by your ZMC-200 will be sent to this port. If you are using an external MIDI instrument with your ZMC-200, be sure to connect this port with the MIDI IN port on your external instrument.
- H-I **EXP1, EXP2** jacks for foot swell pedals: You can connect separate swell pedals to these jacks to control any MIDI controller you choose. Especially valuable when assigned to modulation and filter effects. Because your ZMC-200 supports the NRPN/RPN controllers, you can assign controllers #6 and #38 to these pedals and have access to a wide variety of usable functions that are not presently available in any other machine of this category.
- J. **CHAIN** foot pedal jack: In chain mode, you can use a pedal switch attached to this port to cycle through a series of pre-programmed presets.
- K. **HOLD** foot pedal jack: You can connect a foot pedal to this port to access any of the various **HOLD** modes such as **COMMON, SEPARATE, LAYER, ARPEGGIATOR** and **CONTROL**.
- L. **ADAPTER**: Connect the power supply included with your ZMC-200 to this jack.
- M. **OUTPUT** jack: The normal analog signal from your Zeta instrument is transmitted through the Zeta MIDI cable.



## About the SYNTHONY II

Congratulations on your purchase of the ZETA SYNTHONY II, the fastest and highest performance bowed instrument-to-Midi Converter on the market. The result of years of research and refinement, the SYNTHONY II represents a new generation of MIDI controller from Zeta Music Systems that raises the industry standard to the highest levels ever. The ZETA SYNTHONY II is capable of recognizing the exact pitch that you play immediately as you play it, providing excellent tracking capability and instant response to the unique dynamics of bowed string instruments. The ZETA SYNTHONY II immediately and simultaneously recognizes and translates pitch, volume, and crescendo- features that are unique to the ZETA SYNTHONY II. The ZETA SYNTHONY II is the only true bowed instrument-to-MIDI converter available today.

Other effects such as COMMON (Bypass), SEPARATE (Hold), LAYER ensemble/doubling), etc. can be controlled by the fully programmable hold pedal.

The implementation of a sophisticated Arpeggiator gives you variation, expression, and accompaniment. Unique to the ZETA SYNTHONY II is the use of Zeta's special pick-up system for violin, viola, cello and bass instruments, allowing you complete control of your ZETA SYNTHONY II from all bowed string instruments and opening a door to the MIDI world for string players giving access to new and modern forms of musical expression.

The internal sound board built into the ZETA SYNTHONY II makes your SYNTHONY II a professional synthesizer with 480 sounds, as well as 11 drum kits. The soundboard adheres to XG-MIDI-MODE, the newest standard in General-MIDI, and there are numerous digital effects. All of the reverb, chorus and variation effects (11 reverb, 11 chorus, 42 variation) can be freely combined and simultaneously implemented. In addition, the ZETA SYNTHONY II is a freely editable drum sequencer.

# QUICKSTART

It's certainly understandable that you are not in the mood right now to learn all about the theory and structure of your ZETA SYNTHONY II. You can do that later in the pages of this manual. Now it's time to dabble a little:

## BASIC SETTINGS

Before you start, it's important to tell the ZETA SYNTHONY II a few things about the instrument you'll be playing. The more exact you are about these basic settings, the more exact your ZETA SYNTHONY II's neural net will be able to interpret your playing style and adjust to how you play. The default parameters are set so that you will probably only have to change a few of them. Then later, when you get to know your ZETA SYNTHONY II a bit better, you will be able to fine-tune these settings (Global Parameters).

1. Using the 13 pin jack on the front side of the ZETA SYNTHONY II, connect your Zeta instrument to the SYNTHONY II using the connector cable provided. The cable has two different ends and can only be connected to the instrument and SYNTHONY II one way. If you will be using an external MIDI instrument, connect it using the MIDI-out port on the ZETA SYNTHONY II and the MIDI-in port on the synth using normal MIDI cables.

2. Turn on the ZETA SYNTHONY II. Wait for a moment until the SYNTHONY II has completed its initialization process and the display is still.



3. Press the GLOBAL button. In the display you now see "BASIC CHANNEL." If you see a "1" after the colon, leave it. If not, use the +/- Value buttons to set this value to 1.

4. Press the + Parameter button, to get to the next Global parameter. Check to make sure that the parameter "HOLD CHANNEL" is set to "7." Press the + Parameter button again and set the value for "SEQ CHANNEL" to "16" (+/- Value buttons) if the value is different than 16.



5. Press the + Parameter button to set the values for "PBEND RANGE." This value sets the maximum number of half-steps that are allowed when Pitchbend information is analyzed. When using the internal soundboard, set this value to 24 (two octaves).



6. Press the + Parameter button to get to "SND PBENDRG." If you are using the internal sound card of the ZETA SYNTHONY II, set this value to "OFF." If your MIDI instrument supports setting separate pitchbend parameters for each sound preset, set this value to "ON" (+/- Value buttons). If in doubt, read the user's manual of your MIDI instrument.



7. Press the + Parameter button to get to "LOCAL MODE." If you are using the internal sound card of the ZETA SYNTHONY II, set this value to "ON".

8. Press the + Parameter button to get to "TUNE BASE." Set this value to "0."

9. Press the + Parameter button to get to "INSTRUMENT." Now press the ENTER button to get to the submenu. At the prompt "TYP:" use the +/- Value buttons to set the instrument you will be playing into your ZETA SYNTHONY II: "VIOLIN 4, VIOLIN 5, VIOLA, CELLO or BASS.



10. Press the + Parameter button to get to "NOTE OFF LIM." Set this parameter to "15.

11. Press the Parameter button to get to "TRIG LEVEL." Set this parameter to "4."

12. Press the + Parameter button to get to "INPUT SENSE." Press the + Parameter button to access each string sensitivity. Set each string to "20".

You have now completed the basic settings and your ZETA SYNTHONY II is ready to be played. The changes you made have been automatically saved in static RAM so that they

will still be available after you restart your ZETA SYNTHONY II. Press the "EXIT" button twice to get back to normal play mode.



## CHANGING A PRESET SOUND

Make sure your ZETA SYNTHONY II is in PRESET MODE (PRESET LED on the front panel is on). This is the mode that your ZETA SYNTHONY II is in when you first turn it on or if you have not pressed any of the other mode buttons (GLOBAL, UTIL, CHAIN). The top half of the display contains the name of the active preset. To the right, the preset number. You can change the preset by pressing the +/- Value buttons. Presets 1-128 can be freely manipulated and edited by the user. 129-256 contain factory presets that can be edited, but only stored in Presets 1-128.

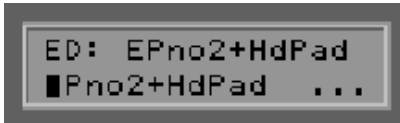
Now that you have sufficiently looked at and tried the factory presets, let's edit one of them to PIANO:



1. Using the +/- Value buttons, find Preset number 27 "EPno2+HdPad." Now press the EDIT button.
2. Press the ENTER button twice.
3. Press the - Parameter button and use the +/- Value buttons to select the GrPno group. groups. With the + Parameter button, you can now move to the area here you can select a particular instrument for that group.
4. Use the +/- Value buttons to choose a piano sound.
5. Press the + Parameter button. Set the value for "VOLUME" to your desired level using the +/- Value buttons. If you like, you can also change the next parameter "TRANSPOSE." This parameter changes the pitch value of your MIDI instrument in half-step increments. To do this, press the + Parameter button again and set it's value using the +/- Value buttons. (" +12" or " -12" for up an octave or down and octave respectively.)
6. Press the +Parameter button. Set the "Quantize" value to "TRIGGER."
7. Press the +Parameter button. Set "Vel Sense" to "82."
8. Press the +Parameter button. Set "Vel Offset" to "+12."



9. Press the +Parameter button. "DYNAMIC CONTR1"
10. Press "Enter." Set to "Volume 7."
11. Press the +Parameter button. Set "INTENSITY" to "0."
12. Press "Exit" three times.
13. Press the +Parameter button to "STRING MODE." Using the +/- Value buttons set to "Sep."
14. Press the +Parameter button to "WHEELCNTL." Press "ENTER"
15. Using the +/- Value buttons set to "NO CONTROLLER"



16. Press the EXIT button. Press the EDIT button. to get back to the top of the Preset area. We now want to give our new (changed) preset a new name. Press the +PARAMETER button. Press the ENTER button. The editor cursor is now over the "E" of the old name "EPno2+HdPad." With the +/- Value buttons you can change the letter where the cursor is. Think of a new name and change the first letter accordingly. With the +/- Parameter buttons you can move the editor cursor one character to the right or to the left respectively. Repeat this process until your new name is complete in the display. If your new name is shorter than the old one, you can simply change the left over letters to spaces.

17. Press the EXIT button twice to end your Preset text editing session. The upper half of the display is blinking. This signals that you have changed some parameters that have not yet been saved. Press the STORE button. Now you can determine at which slot you want to save your new Preset. You can either overwrite the Preset you have been editing or save it at another location within the user-definable area (1-128). Choose, for example, Preset No. 128 (+/- Value buttons). Now when you press the ENTER button, your preset will be copied to slot 128 and saved there. This also now becomes the active preset.

# ABOUT THE USER INTERFACE

The flexibility of your ZETA SYNTHONY II with all of its sophistication also requires that many parameters must be set in order to achieve all the possibilities. Here is a short description of the structure of the user interface, in order to give you an overview of how the ZETA SYNTHONY II works.

In order to keep the user interface as simple and as transparent as possible, the structure of functions has been divided into four modes or sections of operation that can all be accessed directly from the front panel. Each of these Modes (GLOBAL, PRESET, UTILITY, CHAIN) contain a series of related parameters that are accessed by pressing the +/- Parameter buttons. The + Parameter button takes you to the next parameter in the series, the - Parameter button to the previous.

The values of each individual parameter can then be changed by using the +/- Value buttons. The + Value button increases the value to the next highest and the - Value button to the next lowest. By holding the value buttons down, you can cycle through the available values step by step. And so that you don't fall asleep waiting for the appropriate value in a long list, you can, after pressing the desired +/- Value buttons and are holding it down, also pressing the other one (+ or -) and holding both down. This will speed the scrolling of values considerably.

Some of the parameters have submenus with further parameters. You can tell if this is the case by the "... " at the end of the Parameter name. Use the ENTER button to get to these submenus. You can then navigate the submenus using the +/- Parameter buttons. The EXIT button takes you back to the next level up in the submenu hierarchy; to the parameter (...) before you pressed the ENTER button. Also use the EXIT button to get back to the PRESET mode, the standard mode of your ZETA SYNTHONY II.

# INSTRUMENT INTERFACE FEATURES

## E-SERIES PICKUP SELECTOR SWITCH

A button labeled “E-Series On/Off” is located on the front panel of the Synthony II. This button must be pushed in and locked in the “on” position in order for violins equipped with Zeta’s E-Series pickups to function properly with the ZMC-200.

The E-Series violin pickups are mono-MIDI capable, and will not access the ZMC-200 multi-channel MIDI features.

Please note that instruments equipped with Zeta’s Jazz or Strados pickup systems will not function properly if the E-Series button is set in the “On” position.

## ANALOG/DIGITAL BLENDING

The *Jazz and Strados* pickup systems on all Zeta instruments allow the User to control the relative volume levels of both the MIDI/synthesizer volume and the analog pickup volume independently of each other when used with an external amplifier, sound mixer or other electronic device. This permits the User to output (i) all analog sound with no synthesized sound, (ii) all synthesized sound with no analog sound, or (iii) a blend of analog and synthesized sounds.

For *analog volume levels*, simply adjust the standard volume knob on the instrument to reach the desired volume level of the device (ex; amplifier) plugged into the 1/4” “Instrument Output” jack on the back of the Synthony II.

For *synthesized-sound volume levels*, adjust the output using the Volume control knob on the front panel of the Synthony II to reach the desired level of the device (ex; amplifier) plugged into the “Soundboard” 1/4” “Mono” and/or “Stereo” jacks on the back of the Synthony II.

The *E-Series* pickup systems require the use of the volume controls of the external electronic device (for example, an amplifier) to obtain a blend of analog and digital sounds.

For *synthesized-sound volume levels* for instruments with E-Series pickups, adjust the volume knob on the instrument and/or the Volume control on the front panel of the Synthony II to reach the desired level of the device (ex; amplifier) plugged into the “Soundboard” 1/4” “Mono” and/or “Stereo” jacks on the back of the Synthony II.

For *analog volume levels*, adjust the standard volume control on the external electronic device (ex; amplifier) that is plugged into the 1/4" "Instrument Output" jack on the back of the Synthony II to the desired volume level.

**NOTE:** Remember, the "E-Series" button on the front panel of the Synthony II must be *PUSHED-IN* (showing white through the clear top of the button) in order for instruments with E-Series pickup systems to function properly with the Synthony II MIDI Controller.

## **TRACKING ENHANCERS**

Included with each Synthony II is a set of black rubber tracking enhancers for installation on the Zeta instrument that will be used as the MIDI controller. Separate installation instructions are included with the enhancers, with directions for application of the proper gaskets to each type of Zeta pickup system.

The use of the provided tracking enhancers is essential for optimum performance of the Synthony II MIDI controller. The gasket applied under the strings at the nut minimizes unwanted harmonics and overtones of the vibrating strings, preventing mis-triggering and enhancing tracking speed. The enhancer applied under the pickup serves to eliminate unwanted body vibrations and overtones, and minimizes "crosstalk" between the pickups of the individual strings.

The use of tracking enhancers *may* affect the tone of the instrument in analog applications. Installation of the gasket set does not need to be permanent, although the gaskets must be installed for proper performance of the Synthony II and it is not recommended to remove or re-install them unnecessarily.



## INSTALLATION INSTRUCTIONS

**Important:** Using the tracking enhancers on your Zeta Violin will maximize the performance of the Synthy II.

*(Please refer to the following diagrams for illustrations of each step)*

**Step 1: Remove strings from violin.** Be careful not to let the tailpiece fall on to the violin's top. We recommend wrapping the tailpiece with a soft cloth before string removal to prevent damaging the violin finish.

**NOTE:** The standard tailpiece can be fully removed only if the ground wire is cut.

\*This is not recommended.

\*The Jazz Fusion violins have stationary tailpieces and also do not need to be removed.

**Step 2: Install the tracking enhancer at the nut.** (See diagram #1) You must first trim the tracking enhancer to fit the width of the nut. Once trimmed to the proper size, glue it in place (using superglue) with the "fat" end under the "G" string. It should fit flush against the nut, on the surface of the fingerboard. Use only a small amount of super glue to hold it in place.

\*The tracking enhancer at the nut helps control false triggering on open strings when playing in MIDI mode.

**(WARNING!** Super glue can damage the finish of the violin. We recommend putting a small amount of super glue on the end of a toothpick and applying it to the fingerboard where glue is needed. Please take all necessary precautions to prevent the spread of glue in sensitive finish areas of the neck and fingerboard.)

**Step 3: Trim Tracking Enhancer to fit under the bridge foot.**

Trim the edges of the tracking enhancer using a pair of sharp scissors or an exacto/razor blade knife.

**NOTE:** For best fit, measure the bridge foot on your violin and trim the tracking enhancer to the exact size of the bridge foot, before installing it on the violin.

**Step 4: Install Tracking Enhancer under bridge** (See diagram #2)

Gently lift the bridge about 1/8" off the top of the violin and slip the tracking enhancer under the bridge. The slit on the edge of the tracking enhancer's centerhole will allow you to slip it around the bridge wire where it enters the top of the violin.

**Step 5: Re-String the violin**

Align the bridge foot evenly over the tracking enhancer and put the strings back on the bridge. You may want to re-adjust the action at the bridge, bringing it down 1/16" to compensate for the thickness of the tracking enhancer.





# THE FOUR MODES OF OPERATION

## GLOBAL MODE

All of the parameters in Global mode apply to all the presets in your ZETA SYNTHONY II including information regarding MIDI channels, the instrument you are playing, basic tuning, or the sensitivity of each string you play. Some of these parameters should be checked/changed before you use your ZETA SYNTHONY II for the first time so that it can operate optimally with your instrument.

## GLOBAL SETTINGS FOR PICKUP SYSTEMS

Zeta's three MIDI-capable pickup systems each demonstrate different performance characteristics when used with the Synthony II. In order to optimize the performance of each specific pickup system, Zeta has created preset sensitivity settings that the User can select for their specific instrument.

Although certain Global parameters have been preset to approximate sensitivity levels, you will still need to tell your Synthony II which instrument you are playing.

## VIOLINISTS AND BASSISTS

If you are a Violinist, the Synthony II defaults to Violin for INSTRUMENT (1-3; see Chart, below, for appropriate pickup system). If you are a Bassist, the Synthony II defaults to Bass (Crossover or Upright) for INSTRUMENT (4-5; see Chart, below, for appropriate pickup system).

1. Press the GLOBAL button.
2. Using the PARAMETER+ button, scroll up until you reach INSTRUMENT.
3. Using the VALUE +/- buttons, select the appropriate INSTRUMENT preset, based on the Chart (below).  
(Violinists and Cellists - skip #4 and see VIOLINISTS AND CELLISTS section below).
4. Press EXIT twice to return to PRESET mode.

## VIOLINISTS AND CELLISTS

If you are a Violist, you will use the same Global Settings for the Violin. If you are a Cellist, you will use the same Global Settings for the Bass. However, you will need to program your Synthony II to know that you are playing either the Viola or Cello. Please follow these additional steps.

5. Once you have selected the appropriate INSTRUMENT (1-3; see Chart, below, for appropriate pickup system) for Viola, or INSTRUMENT (4-5; see Chart, below, for appropriate pickup system) for Cello, press the ENTER button.

6. Using the VALUE +/- buttons, scroll until you reach VIOLA or CELLO.

7. Press the EXIT three times to return to PRESET mode.

Global Setting	Instrument	Pickup System
1	violin/viola	Jazz
2	violin/viola	Strados
3	violin/viola	E-Series
4	Upright/cello	Jazz
5	Upright/Crossover bass/cello	Strados

The User can customize these settings to optimize the performance of the Synthony II to the unique characteristics of their individual instrument.

*CAUTION: Improper settings of the Global parameters can cause too much sensitivity resulting in mis-triggers and false notes, or too little sensitivity that will inhibit the proper performance of the Synthony II*

## PRESET MODE

This is where you find all the parameters that relate to the administration of individual presets. This is where all your sounds, sequences, drum beats, and effects will be saved. This is also where they will be accessed by Chain Mode. The Preset mode along with the Utility mode is most sophisticated of the modes and contains numerous settings. If you are not in any of the other modes, Preset mode is always active.

## UTILITY MODE

Owners of the ZETA SYNTHONY II will find here numerous settings for drum sequences and programmable digital effects. Here are also functions for loading and saving SYSEX data using MIDI, so that you can, for example, back up all your ZETA SYNTHONY II settings to a floppy or

hard disk drive on your computer, providing you have the appropriate software.

## **CHAIN MODE**

You can define chains of presets for use in live performance that are then easily accessible. All of these settings must first be saved in Preset Mode and simply accessed and organized in Chain Mode.

## GLOBAL MODE

The GLOBAL MODE is activated by pressing the GLOBAL button on the front panel of your ZETA SYNTHONY II. This is confirmed by the lighted LED just to the right of the GLOBAL button.

### GLOBAL PARAMETERS

All of the parameters in Global mode apply to all the presets in your ZETA SYNTHONY II, for example information regarding MIDI channels, the instrument you are playing, basic tuning, or the sensitivity of each string you play. Some of these parameters should be checked/changed before you use your ZETA SYNTHONY II for the first time so that it can operate optimally with your instrument.

#### BASIC CHANNEL

Basic MIDI Channel (1...11)

The MIDI information that your ZETA SYNTHONY II generates based on the vibrations of your strings that are sent to it have to be assigned to a channel in order for that information to get to the sound module or the external MIDI instrument that will then play the information. The ideal scenario (see STRING MODE SEPARATE) is for each individual string to be assigned its own MIDI channel. The advantage is that controller information that is generated parallel to pitch information only effects the sound generated by that particular string. For example pitch bend information generated by vibrato on one string should only affect that one string and not all the others that are presently sounding. With the parameter BASIC CHANNEL, you need only set the FIRST of the channels for your strings. The other channels will automatically be assigned respectively. For example, if this value is set to "1", then channels 1-4 will be reserved for the four strings. Typically this parameter is set to "1", reserving channels 1-4 for string input.

#### HOLD CHANNEL

Hold MIDI Channel (1...11)

In the same way that the first of four channels was set for the BASIC CHANNEL parameter, so the first of an additional four MIDI channels is set here for Hold effects such as SEPARATE, LAYER, ARPEGGIO. It is

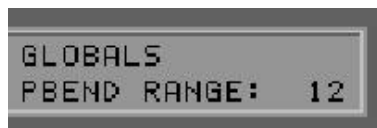


important here that basic channels and hold channels do not coincide. In other words, make sure that the basic channel and the hold channel values are at least five digits apart. Typically this parameter is set to "7", reserving channels 7-12 for the hold functions.

## SEQ CHANNEL

MIDI channel for internal soundboard drum sequences (1...16)

The output from the drum sequencer that is built into the internal soundboard will have its own separate MIDI channel. It is important here that the SEQ CHANNEL not coincide with any of the BASIC CHANNEL or HOLD CHANNEL reserved MIDI channels. Make sure you choose a free channel and reserve it for drum sequences using this parameter. Typically this value is set for "16." This parameter is only available to those who have the internal sound board installed.



## PBEND RANGE

Pitchbend limit values (OFF, 1...24). Techniques often used by string players are vibrato, glissando, slurs & slides. In order to effectively interpret these techniques that are fairly unique to string players, your ZETA SYNTHONY II uses the MIDI controller Pitchbend. In much the same way that a keyboard player hits a key and then uses his pitchwheel to modify the pitch, your ZETA SYNTHONY II can generate pitchbend information for bowed notes. In order for the built-in sound module or the external MIDI instrument to correctly play this pitchbend information the limit values for pitchbending need to be set. The value you choose relates to the number of halfsteps that the pitch will be allowed to be bent. Make sure that your MIDI instrument can interpret the values you program for this parameter. If possible, set this value to 24 (two octaves). The value OFF sends no pitchbend information, so that when you bend strings or slide, the resulting pitch will change in halfstep increments.



## SND PBENDRG

Send Pitchbend Range (ON/OFF)

If your MIDI instrument allows pitchbend parameter settings for every Preset (sound), set this parameter to ON. In this case your ZETA SYNTHONY II

sends the pitchbend range event directly after every program change event.

If your MIDI instrument saves pitchbend information in its global area, set this value to OFF.





## LOCAL MODE

Local operation mode (ON/OFF)

**ON:** This is the internal operating mode of your ZETA SYNTHONY II. The internal sound module will be directly triggered. Received program change events (via MIDI IN) will affect the program selected in your ZETA SYNTHONY II. These events are then sent on to the MIDI OUT port. In this way, other connected MIDI instruments can be controlled. This value should be set if you are not using an external sequencer to drive your ZETA SYNTHONY II or other synths. This would probably be the case most often in live situations.

**OFF:** If you want to control your ZETA SYNTHONY II from a hardware or software sequencer in cooperation with other connected MIDI instruments, you can deactivate local control. Your internal sound module will now act like a normal expander. You can no longer change the Presets of your internal sound module through the MIDI IN port. Of course you can still select presets using the front panel buttons. All the MIDI data that your ZETA SYNTHONY II generates will now be exclusively sent to the MIDI OUT port. Make sure you have the sequencer connected to the MIDI OUT port of the ZETA SYNTHONY II and that the MIDI OUT port on the sequencer is connected to MIDI IN on your ZETA SYNTHONY II. Switch the echo function in your sequencer on, so that the incoming signal from your ZETA SYNTHONY II will be echoed to the OUT port and back to the ZETA SYNTHONY II and to its internal sound module.

After turning off your ZETA SYNTHONY II, the LOCAL MODE parameter is automatically reset to ON. If you set this parameter to OFF, it will only remain off as long as your ZETA SYNTHONY II is powered up.



## TUNE BASE

Basic Tuning (-99...+99)

All the MIDI notes generated by your ZETA SYNTHONY II are compared to the reference tuning of 40 Hz plus or minus the value you set with this parameter. If you are playing with other musicians using instruments that are difficult to tune (piano for example), it is much easier to tune your ZETA SYNTHONY II to their instrument. When you play alone (solo), you should set the tune base value to "0".

## INSTRUMENT NO.

Instrument number and instrument-specific settings (1...4)

In order for your ZETA SYNTHONY II to optimally translate the information coming from your instrument into MIDI information, there are a few basic parameters that need to be set in terms of sensitivity, etc. These settings are dependent upon the structure of your instrument, and are very specific. They can be totally different for different instruments. If, in the middle of a live performance, you decide you want to play another instrument with your ZETA SYNTHONY II, you can quickly call up settings for that particular instrument. It is simply a matter of selecting the appropriate instrument number. You can program basic settings for five totally distinct instruments into your ZETA SYNTHONY II. When you press the ENTER button, you toggle through the various settings. Use the +/- Parameter buttons to select the individual functions. The values can then be changed using the +/- Value buttons. Within these basic settings, the first line in your display shows a VU meter. The position of the small dashes correspond to the strings of your instrument. When you play a string, you will see that the associated dash fills in more and more until playing loudly fills out the entire character space.



## TYP

Type of instrument (VIOLIN 4, VIOLIN 5, VIOLA, CELLO, BASS). You decide here what type of instrument you will be using. This is particularly important for the assigning of string and hold channels.



## NOTE OFF LIM

Note off Limiter (10...30)

Unlike a keyboard, where a key is pressed and the note ends when you release the key, a instrument string sounds until its vibrations decay totally or until it is dampened. The decay time is most definitely dependent upon the quality and structure of the instrument and the strings. Some instruments sound more percussive; others have a longer sustain. Synthesizers recreate these characteristics using a so-called "envelope curve," to graphically reproduce an instrument's characteristic of decaying amplitude (volume) as it diminishes to zero. By setting a limit point within the envelope, we can determine at what point in time a note's "release" comes; the point at which it ceases to sound. The higher this value, the earlier a MIDI NOTE OFF event will be sent to the MIDI instruments. Smaller values will allow the note to be held longer. In this way you can adjust this value to match your instrument optimally.



## TRIG. LEVEL

Trigger Level (0...9)

Using this parameter you can set the volume level at which your ZETA SYNTHONY II reacts to a signal from your instrument (at which volume level a MIDI NOTE ON event is sent). The smaller the value, the more sensitively your ZETA SYNTHONY II reacts even to very softly played notes. Higher values mean that you have to play loudly in order for the ZETA SYNTHONY II to send a NOTE ON event. You should experiment with this parameter in order to find a setting that feels good to you and your playing style.



## SENSE

Instrument input sensitivity: C5...E1 or E5...G2 (1...50)

Using the +/- Parameter buttons you can toggle through all the strings of your instrument and set each one's input sensitivity separately. Higher values mean a higher level of sensitivity. Your ZETA SYNTHONY II, like many electronic devices that translate analog audio into a digital signal, is very sensitive and can easily be overdriven. But the other extreme is equally as true: you shouldn't drive your ZETA SYNTHONY II with too low of an input signal level either. You will probably have to increase the sensitivity of the thin strings to obtain a balance between the strings and to reproduce a natural sound. When setting up a bass instrument, for reasons of compatibility, your ZETA SYNTHONY II takes for granted that you are playing a six-string bass. If you are playing an instrument with less than six strings, simply bypass the strings that don't apply.

## Tutorial: Sensitivity Adjustments

The Synthony II is set up for real-time performance. If you would like to set it up for interfacing with a computer and various software applications, the sensitivity settings for each string must be adjusted accordingly. This is relatively easily done. Without making these adjustments, the computer will "hear" many more notes than you want it to. In other words, it will receive too much information.

You will also use this process when your Synthony II is triggering notes that you don't want. When that happens, it means that your Sensitivity settings are too high. Pay attention to the specific string that the problems seem to be focusing around. Frequently, a player will use a different sensitivity for each string.

To make these adjustments, follow the following steps.

Turn on Synthony II

Select Global Mode

Press Parameter + seven times until you see Instrument 1

Press Value + one time so that it reads Instrument 2 (This way, the Synthony II remembers your real-time settings. When you want to go back to real-time performance, simply follow these steps to this point and select Instrument 1. All of your original settings are there.)

Press Enter

Select the type of instrument you are playing by scrolling through the Value + or – buttons

Press the Parameter + button four times (It should read SenceC5 followed by a number)

Using the Value + or – buttons, adjust the sensitivity for each string of your instrument to a very low number. This will vary based on your playing style and software. (Try anything from 1 – 10.) The Parameter buttons select the string that you are adjusting, the Value buttons adjust the sensitivity for that string.

When you have the strings set at appropriately low sensitivities, simply press Exit two times.

These settings will be saved automatically.

Now when you are using the Synthony II for data entry into a computer, remember to select Instrument 2 in your global settings. When you are using it for real-time performance, select Instrument 1.



## PAN ENABLE

Panorama Controller (ON/OFF)

With your ZETA SYNTHONY II, it is possible to set distinct stereo panorama placement for each individual PRESET. Panorama is MIDI Controller #10 which is sent to your MIDI instruments. If you don't want to send Controller #10 events, perhaps because you would rather use the panorama settings within a connected keyboard, for example, or because a given MIDI instrument is older and doesn't support Controller 10 information, set this value to OFF. If this parameter is set to ON, the values will be sent that were set in the Play Area parameters (see PRESET MODE). As will all other controller information, you ZETA SYNTHONY

It will only send Controller 10 if the panorama settings have changed from what was previously sent, so as not send redundant information.



### REV ENABLE

Reverb Controller (ON/OFF)

For the same reasons (see PAN ENABLE), you may not want MIDI Controller #91 information (Reverb) for a preset split sent to your MIDI instruments. Set this value to OFF. NO EFFECT, is also listed as a choice. If this is selected, the programmed reverb function of the preset will be ignored by the soundboard.



### CHOR ENABLE

Chorus Controller (ON/OFF)

Here you determine whether MIDI Controller #93 (Chorus) will be sent to your MIDI instruments or not. (see PAN ENABLE) A third parameter, NO EFFECT, is also listed as a choice. If this is selected, the programmed chorus function of the preset will be ignored by the soundboard.



### VAR ENABLE

Variation Controller (ON/OFF)

Here you determine whether MIDI Controller #94 (Variation) will be sent to your MIDI instruments or not. (see PAN ENABLE) if your ZETA SYNTHONY II is equipped with the internal soundboard, a third parameter, NO EFFECT, is also listed as a choice. If this is selected, the programmed variation function of the preset will be ignored by the soundboard.

## CC DEFAULTS...

Controller defaults...

In using the various possibilities of control you have using modulation wheels, it is necessary for the controller value to be reset to its default value (usually zero) after a preset change for example. But there are exceptions. The soundboard expects a standard value of 64 for Controllers 71-74 because these controllers are used as offsets. Because there are numerous non-standard Controllers available in the MIDI Protocol, that manufacturers can use at will, your ZETA SYNTHONY II is equipped with the ability to determine and set the default value for all these controllers. Press the ENTER button to get to the submenu. In the first line of the display shows the name and number of the presently selected controller and in the second line, its default value in hexadecimal format.

The cursor is in the first line and by using the +/- Value buttons, you can select the controller you want to work with. The + Parameter button moves the cursor to the second line, and then the default value can be changed using the +/- Value buttons. The value you enter here will be saved in a battery-backed-up memory area of your ZETA SYNTHONY II. The table contains the factory default values. All standardized MIDI controllers have a default value of zero. Refer to the user manual of MIDI instrument or module you are using for the default values of any controller used by the manufacturer and set it here. Use the EXIT button to leave the Submenu.



### **MIDI MAPPING:**

Program change commands that are received on the selected active BASIC CHANNEL can be assigned to any ZETA SYNTHONY II presets using this mapping table. Press the ENTER button. The first line of the display shows the program number that your ZETA SYNTHONY II receives; the second line of the display shows the Preset to which the change will be made. The default setting is the program change will be sent to the ZETA SYNTHONY II preset with the same program number. If you want to change this setting, use the +/- VALUE buttons to change to the appropriate value. Your entry will be immediately saved in the ZETA SYNTHONY II's internal battery-backed-up memory, and does not have to be saved. Use the EXIT button to leave the submenu.

## PRESET MODE

Preset Mode is always active unless you activate another mode. When you leave one of the other modes, you will always be sent back to Preset Mode. Preset Mode is signaled by a lit LED just to the right of the PRESET button on the front panel.

## PRESET PARAMETERS

These parameters contain all the settings that relate to individual presets. A preset is a playing environment that you determine, saved and easily retrievable, with the flexibility and complexity to give you total control over playing and sound characteristics. You can program, save and recall up to 128 complex presets. How complex a preset is, is something you determine. Each of these presets can have its own set of effects, selected from a copious list, as well as its own set of playing parameters.

## RECALLING PRESETS

Use the +/- Value buttons to cycle through your presets. Use an optional MIDI foot controller.



## INSTRUMENT TUNER

In the default setting (see UTILITY MODE, DISPLAY) the bottom half of the display shows a tuner that monitors your instrument as you play to insure correct tuning. It is important that your instrument is tuned within a certain tolerance so that your ZETA SYNTHONY II will send the proper MIDI pitch information to your MIDI instruments. Tune every string so that the meter pointer is directly over the arrow in the middle of the scale. As long as the Tune Base Parameter is set to "0", the arrow in the middle of the scale represents a standard tuning of 440 Hz. There may be reasons for changing this basic tuning standard, for example if you want to play with an acoustic piano that is somewhat under the pitch (see Global Parameters, TUNE BASE). In this case you can tell the ZETA SYNTHONY II to orient itself to the tuning of your instrument, giving you a new standard. In this case the arrow in the middle of the tuning scale represents the new tuning standard.





## PRESET PROGRAMMING

When your ZETA SYNTHONY II is in preset mode, you can press the EDIT button to program/edit a preset. Press the EXIT button until you return to normal play mode.



## VOLUME

Volume level (0...127)

Every preset allows for an independent volume level that you set here. Using the +/- Value buttons set the level for your sound to a value of your choosing.



## TRANSPOSE

Transposition (-36...+36)

You can set a pitch offset in half step increments to affect the tuning for this split. This is a way for you to play notes with your instrument that you couldn't normally reach with the instrument alone. For our example set this value to -12 (-1 octave), so that the Bass will play within its typical range.



## QUANTIZE

Pitch Quantization (AUTO, OFF, ON, TRIGGER)

With this parameter you tell your ZETA SYNTHONY II to execute pitch changes using your normal pitchbend settings or step-wise (quantized):

AUTO:

This setting corresponds to your ZETA SYNTHONY II's unique ability to recognize your intentions as you play with respect to pitch quantization and then translate them appropriately. Chords for example, are interpreted exactly (no pitchbend information), whereas for melodic notes of a solo which contain string bends and slides, pitch quantization is turned off, allowing for normal pitchbend information to be sent.

OFF:

All pitch changes (slides, etc.) will be translated into pitchbend information allowing for true representation of what you play. (see Global Parameters: Pitchbend range).

ON:

Any variation in pitch will NOT be translated in pitchbend information until the given pitch reaches the next half step and will at that point jump to the new pitch chromatically, but using pitchbend information and NOT sending new note information. Slides, etc. will not be carried out as they



are intended. The pitches you play are then locked (quantized) to the nearest half step. This setting is advantageous for playing chords.

#### TRIGGER:

This setting turns pitchbend off altogether, affecting simple chromatic half steps when playing bends or slides. It is the same as setting the global setting PBEND RANGE to OFF (see Global Parameters), but only affects this one particular split zone. It is recommendable to use this setting when using a piano sound, for example, which characteristically cannot be bent.



### PAN POS

Panorama Position (L15...L1, MID, R1...R15)

This is where you place the selected sound of your MIDI instrument in the overall panorama left to right in stereo. The values L15 to L1 represent the left side, L15 being all the way to the left and R15 to R1 being the same in reverse. R1 and L1 are close to the center. MID is exactly centered in the stereo panorama.



### PAN SPREAD

Panorama spread (-15...+15)

So that not all sounds aren't all in the same panorama position (see above), you can use this parameter to separate each of the sounds within the general panorama set above in PAN POS. Set the PAN POS to MID, for example, and then while you play your instrument, adjust the PAN SPREAD value, keeping in mind that your MIDI instrument must be capable of interpreting Panorama

information. If you need to, read your user's manual for the MIDI instrument in question.



### REVERB

Reverb mix (0...127)

If your MIDI instrument is equipped with built-in reverb, you can control it with this parameter. The higher the value, the more reverb will be added to the mix in the output signal of your MIDI instrument.



### CHORUS

Chorus Effect (0...127)

If your MIDI instrument is equipped with built-in Chorus, you can control it with this parameter. The higher the value, the more chorus will be added to the mix in the output signal of your MIDI instrument. The sound board has this feature built in.



## VARIATION

Variation Effect (0...127)

If your MIDI instrument is equipped with built-in variation effects (such as Auto-wah), you can control it with this parameter. The sound board contains numerous variation effects that can be randomly combined with Reverb and Chorus.



## VEL SENSE

Velocity Sensitivity (0...127)

You can limit the dynamic range of your MIDI instrument by adjusting the value of this parameter. The smaller the value, the less dynamic range there will be between note events. In the extreme case, a value of zero plays all notes on your MIDI instrument at the same dynamic level, regardless of how loud or softly you play your instrument. With a value of 127, you achieve the highest sensitivity and dynamic range for the notes you play.



## VEL OFFSET

Velocity Offset (-64...+64)

If the average dynamic level of your MIDI instrument is too soft or too loud after limiting the dynamic using VEL SENSE (see above), you can set the middle/average volume here (see the graphic on the following page).

## DYNAMIC CONTROLLER

Volume 7

The ZETA SYNTHONY II uses Volume 7 as its default controller. This allows for the proper MIDI conversion of continuous volume increase (crescendo) information.

Intensity (0...63)

Adjusts the crescendo volume level. A value of 0 produces no increase of level. A value of 63 produces the greatest level change



## PRESET NAME

In order to identify your preset easily, you should name it carefully with a description of its function. The name can be up to 12 characters in length. Press the ENTER button to begin editing the preset name. The cursor jumps to the first letter which can now be changed using the +/- Value buttons. You can use both small case or capital letters as well as special characters. To move the cursor to the right or back to the left by one character, use the +/- Parameter buttons. While in this edit mode some of the buttons on the front panel have special functions:

The GLOBAL button changes to capital letters, jumping directly to capital 'A'.

The UTIL button changes to small case letters, jumping directly to small case 'a'.

The CHAIN button changes to special characters, jumping directly to '!'.

The PRESET button changes the presently selected character to a space.

The STORE button provides for an insert function, allowing you to insert a character at the cursor position, and displacing all the characters after it one position to the right. The last character (at position 12) will be overwritten.

The EDIT button provides a delete function, deleting the character at the cursor and moving all characters to its right one position to the left. A space is then inserted at the end of the string.

The EXIT button allows you to leave the Text Editor.

## STRING MODE

String Mode (COM, SEP)

String mode allows you to decide how the various strings of your instrument/Bass are assigned to MIDI channels:

### COM

In COMMON mode all the strings of your instrument are assigned to the basic MIDI channel. To avoid conflict of strings that continue sounding when you play new ones, no pitchbend information is sent in this mode, when more than one note are played simultaneously. Solo playing is still possible, although somewhat limited. If your MIDI instrument can only receive on one channel, you should set STRING MODE to COM. In the same way, some sequencer software programs only allow recording on one channel at a time. In this case you should set STRING MODE to COM.



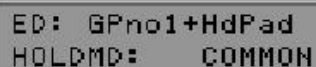
ED: GPrn1+HdPad  
STRING MODE: SEP

## SEP

In SEPARATE mode, every string on your instrument is assigned a separate channel all its own (see Global Parameters). This is the setting that allows you the most flexibility. Pitchbend information such as slides, etc. only effect the string on which they are actually played. All this information is string specific and will maintain the desired effect. Most modern MIDI instruments are equipped “multi-mode” allowing reception of MIDI information on more than one channel. You should use the SEP setting whenever it’s at all possible.

## HOLDMD

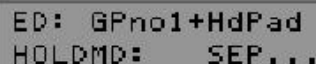
Hold Mode (COMMON, SEP..., LAYER..., ARPEG..., CNTRL..., TACK). While playing, you have access to several different “hold” functions using the hold pedals. Your ZETA SYNTHONY II supports 5 different hold functions:



ED: GPrn1+HdPad  
HOLDMD: COMMON

## COMMON

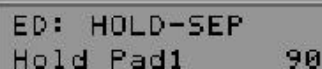
When you press the hold pedal, no MIDI data can be received until you release the pedal. This is a sort of bypass function allowing you to play a chord, press and hold the pedal so that the played chord will be sustained on your MIDI instrument until you release it, no matter what you may play on your instrument while the pedal is being held.



ED: GPrn1+HdPad  
HOLDMD: SEP...

## SEP

Using this setting, you can make use of the various HOLD CHANNELS (see Global Parameters) that you defined. You can, for example, play and hold a pad sound, and then play a solo over it, allowing you to in effect accompany yourself. Using the sub menu (ENTER), set an appropriate pad sound for the accompaniment. Press the hold pedal and play the chord you want your pad sound to play and then immediately release the pedal. The chord you played will continue to sound until you press the pedal again, which causes the chord to stop, at which time you can play a new one, which will then continue to sound when you release the pedal again. To get back to normal play mode, simply press and release the hold pedal without playing anything. In the sub menu, you can set the following parameters:



ED: HOLD-SEP  
Hold Pad1 90

## HOLD PRESET

(1...128)

Using the +/- Value buttons, choose the sound you want to hear after pressing the hold pedal.

### **VOLUME:**

(OFF, 0...127)

In order to have a balanced relationship between the volume of the Main and Hold presets, you have the option to adjust the volume of Hold presets. The settings within the Hold preset itself will not be affected.



ED: HOLD-SEP  
SEQ PATTERN: OFF

### **SEQ PATTERN**

(OFF, 1...32)

If you own the ZETA SYNTONY II, you have the option alongside the normal Hold Preset, to set a drum pattern sequence (see UTILITY MODE, EDIT SEQUENCE). As soon as you press the hold pedal, the selected drum pattern will play on a separate MIDI channel. The pattern will be repeated until you press the hold pedal two times quickly. Choose one drum pattern of 1-32, that you want to play when you press the hold pedal, or set this parameter to OFF.

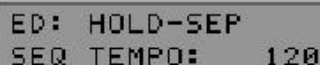


ED: HOLD-SEP  
SEQ TRACK: OFF

### **SEQ TRACK**

(OFF, 1...8)

You can set a complex track sequence to play instead of a pattern (see UTILITY MODE, EDIT SEQUENCE) parallel to the hold preset. As soon as you press the hold pedal, the selected track pattern will play on a separate MIDI channel. The pattern will be repeated until you press the hold pedal two times quickly. Or you can set the number of times that you want the sequence to be played. Choose one track pattern of 1-8, that you want to play when you press the hold pedal, or set this parameter to OFF. Please note that you can only use one of the two sequence possibilities at a time: either SEQ TRACK or SEQ PATTERN. Make sure the other one is set to OFF.

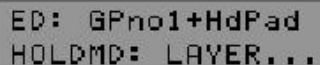


ED: HOLD-SEP  
SEQ TEMPO: 120

### **SEQ TEMPO**

(EXT., 41...240)

The tempo of your sequence can be set externally using Midi clock (EXT/MIDI IN) or internally using BPM (beats per minute) between 41 (very slow) and 240 (very fast). In the case of external synchronization, (e.g., MIDI-Drums, sequencer software) the sequence will only start when the "start" command is received from the MIDI IN port.



ED: GPno1+HdPad  
HOLDMD: LAYER...

### **LAYER...**

This function allows you to play 2 sounds over each other (layer). In this way you can play particularly full, rich sounds by layering them one on top of the other. Using the sub menu (ENTER) select a sound for layering. Now when you press the hold pedal, this sound will be added to your present sound as long as the hold pedal is depressed. After pressing the ENTER button, you can set the following parameters in the sub menu:



ED: HOLD-LAYER  
Hold Pad1 90

### LAYER PRESET

(1...128)

Using the +/- Value buttons select the sound you want to layer with your normal play sound as long as you have the hold pedal depressed.



ED: HOLD-LAYER  
SEQ PATTERN: OFF

### SEQ PATTERN

(OFF, 1...32)

If you own the ZETA SYNTHONY II, you have the option alongside the normal Hold Preset, to set a drum pattern sequence (see UTILITY MODE, EDIT SEQUENCE). As soon as you press the hold pedal, the selected drum pattern will play on a separate MIDI channel. The pattern will be repeated until you press the hold pedal two times quickly. Choose one drum pattern of 1-32, that you want to play when you press the hold pedal, or set this parameter to OFF.



ED: HOLD-LAYER  
SEQ TRACK: OFF

### SEQ TRACK

(OFF, 1...8)

If you own the internal sound board, you can set a complex track sequence to play instead of a pattern (see UTILITY MODE, EDIT SEQUENCE) parallel to the hold preset. As soon as you press the hold pedal, the selected track pattern will play on a separate MIDI channel. The pattern will be repeated until you press the hold pedal two times quickly. Or you can set the number of times that you want the sequence to be played. Choose one track pattern of 1-8, that you want to play when you press the hold pedal, or set this parameter to OFF. Please note that you can only use one of the two sequence possibilities at a time: either SEQ TRACK or SEQ PATTERN. Make sure the other one is set to OFF.



ED: HOLD-LAYER  
SEQ TEMPO: 120

### SEQ TEMPO

(EXT., 41...240)

The tempo of your sequence can be set externally using Midi clock (EXT/MIDI IN) or internally using BPM (beats per minute) between 41 (very slow) and 240 (very fast). In the case of external synchronization, (e.g., MIDI-Drums, sequencer software) the sequence will only start when the "start" command is received from the MIDI IN port.



ED: GPho1+HdPad  
HOLDMD: ARPEG...

### ARPEG

In addition to the above mentioned sequencing possibilities you can use the powerful arpeggiator in your ZETA SYNTHONY II to accompany yourself.

Along side the function SEP, which allows you to hold a single chord as accompaniment, the ARPEG function allows you more complex accompaniment structures. When you press the hold pedal, and play a series of notes, these notes are received and then played back in the same

order as you played them. The recording of your arpeggio is ended when you release the hold pedal. The sequence of recording notes is now played back immediately and endlessly (on the preselected Hold channel), allowing you to play your solo or other part above them. By pressing the hold pedal again, the arpeggio is stopped, but simultaneously able to record a new sequence of notes, making it possible to play and change your accompaniment sequence without stopping. To stop the arpeggio, simply press the hold pedal once and release without playing any notes.

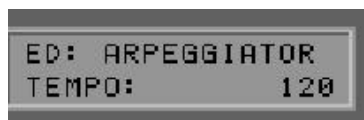
The parameter settings for the arpeggiator determine how the notes you play into it will be played back. You can control the order in which the notes are played back, or stretch out the intervals between them into several octaves. But the most interesting characteristic of the arpeggiator is its ability to quantize the notes played into it into freely programmable rhythmic patterns. Press the ENTER button to get to the Sub menu of the arpeggiator:



### ARPEG PRESET

(1...128)

Select the sound you want to use when playing back by using the +/- Value buttons.



### TEMPO

(EXT., 41...240)

The tempo of your arpeggiator can be set externally using Midi clock (EXT/MIDI IN) or internally using BPM (beats per minute) between 41 (very slow) and 240 (very fast). In the case of external synchronization, (e.g., MIDI-Drums, sequencer software) the sequence will only start when the "start" command is received from the MIDI IN port.



### LENGTH

(1...32)

This parameter allows you to set the maximum number of notes for the arpeggiator sequence. The buffer memory of the arpeggiator is expanded to include one more note every time you play a new one with the hold pedal depressed, until this maximum number is reached. If you play more notes than this maximum number, the oldest note in the series will be replaced for every note played beyond the limit you set here. An arpeggiator sequence can be as long as 32 notes long.



### SCAN

(ASSIGN, REVERS, RECYCLE, UP, DOWN, UP/DOWN, RANDOM)

There are a number of options that determine how an arpeggiator sequence will be played back:



**ASSIGN** allows for playback of notes in the same order in which they were recorded. **REVERS** acts like a stack of notes where the last one recorded is the first one replayed. The arpeggiator plays the notes in reverse order than they were entered. **RECYCLE** plays the arpeggiator sequence in normal order as with **ASSIGN**, but when the end of the sequence is reached, it is played back in reverse order as with **REVERS** until the first note in the sequence is reached, at which point the process begins from the beginning again. In **UP** mode, the notes will be sorted from lowest to highest in pitch and played in that order. In **DOWN** mode, the notes are sorted from highest to lowest in pitch and played in that order. In **UP/DOWN** mode, the pitches are played from lowest to highest and then back down to lowest, somewhat simulating finger picking. **RAND** plays back the notes of the arpeggiator sequence in total random order.

### **PATTERN**

(1/16thSt...USER#1...16)

This parameter allows you to set the quantize function of the arpeggiator sequence. The following quantize functions are available:

**1/16thSt:**

Classic Arpeggio. Plays back the arpeggiator sequence in staccato 16th notes.

**1/16thLg:**

16th notes same as above except legato.

**1/8thSt:**

Plays back the arpeggiator sequence in staccato 8th notes.

**1/8thLg:**

8th notes same as above except legato.

**1/4thSt:**

Plays back the arpeggiator sequence in staccato quarter notes.

**1/4thLg:**

Quarter notes same as above except legato.

**1/2th:**

Plays back the arpeggiator sequence in quarter note values with quarter rests.

**1/8Trpl:**

Plays back the arpeggiator sequence in 8th note triplets.



The following patterns represent rhythmical styles (grooves) and have been preprogrammed for you:

**BLUES 1:**

Blues rhythm. Especially effective for Bass instrument riffs.

**BLUES 2:**

A variation on BLUES 1.

**BOOGI 1:**

Boogie rhythm. Especially effective for Bass instrument riffs.

**BOOGI 2:**

A variation of BOOGI 1.

**DISCO 1:**

Disco groove. Especially effective for Bass instrument riffs.

**DISCO 2:**

A variation of DISCO 1.

**ROCK:**

Rock groove for Bass instrument riffs.

**HOUSE:**

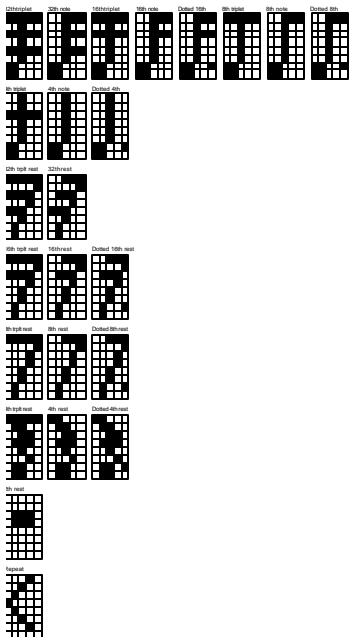
House rhythm. Effective for Organ riffs.



Using the patterns USER#1...USER#16, you can program up to sixteen of your own quantize patterns for use with arpeggiator playback. Select one of the user patterns and press the ENTER button. In the display you will see the Pattern Editor, with which you can set the note values for the arpeggiator playback. Move the cursor to the desired position using the +/- Parameter buttons, and select the appropriate note value using the +/- Value buttons. The "<" represents the end of the sequence (the LOOP). The pattern will be continuously repeated from beginning to end using the notes that are recorded into the sequence as described above. A maximum of 8 different note values can be implemented for every pattern. The "<" LOOP symbol is not affected by the note values entered.

While in this edit mode some of the buttons on the front panel have special functions:

The STORE button provides for an insert function, allowing you to insert a character at the cursor position, and displacing all the characters after it one position to the right. The last character (at position 12) will be overwritten.



The EDIT button provides a delete function, deleting the character at the cursor and moving all characters to its right one position to the left. A “<” LOOP symbol is then inserted at the end of the string.

The EXIT button allows you to leave the Text Editor.



### **SYNC**

(ON, OFF)

If you enter fewer notes than the value set in LENGTH, the quantize pattern is continued with the next note value, but using the beginning pitch in the sequence again.



### **OCTAVES**

(1...4)

Here you determine if the arpeggio should be repeated in another octave than the one in which it was recorded. If you enter a 2 for this value, for example, the first playback of the sequence will be in the original octave, the first repetitions in the octave directly above the original. The maximum value is 4. The value 1 plays back the arpeggio in the original octave in which the notes were recorded.



### **REPEATS**

(1...16)

The individual notes in an arpeggio can be repeated up to 16 times. If you set this value to 1, each note in the sequence is played only once.



### **VELOCITY**

(OFF, 0...127)

If this value is OFF, the velocity (loudness) of the recorded notes are played back in the velocity at which they were recorded. Otherwise you can set the loudness of the playback notes to a constant level, 127 being the loudest.



### **SEQ PATTERN**

(OFF, 1...32)

If you own the ZETA SYNTHONY II, you have the option alongside the normal Hold Preset, to set a drum pattern sequence (see UTILITY MODE, EDIT SEQUENCE). As soon as you press the hold pedal, the selected drum pattern will play on a separate MIDI channel. The pattern will be repeated until you press the hold pedal two times quickly. Choose one drum pattern of 1-32, that you want to play when you press the hold pedal, or set this parameter to OFF.



### **SEQ TRACK**

(OFF, 1...8)

If you own the internal sound board, you can set a complex track sequence to play instead of a pattern (see UTILITY MODE, EDIT SEQUENCE)

parallel to the hold preset. As soon as you press the hold pedal, the selected track pattern will play on a separate MIDI channel. The pattern will be repeated until you press the hold pedal two times quickly. Or you can set the number of times that you want the sequence to be played. Choose one track pattern of 1-8, that you want to play when you press the hold pedal, or set this parameter to OFF. Please note that you can only use one of the two sequence possibilities at a time: either SEQ TRACK or SEQ PATTERN. Make sure the other one is set to OFF.

## EDITING HOLD PRESETS

While you are editing HOLDMD: SEP..., HOLDMD: LAYER... and HOLDMD: ARPEG..., it is possible to move directly to the parameter settings for the Hold Presets when the Hold preset is in the display by pressing the EDIT button. The first line of the display now shows the text: ED: <Presetname>. Except for the Effect types, all parameters can be edited normally. When you press the EXIT button, you are taken back to where you were last. The display of the Hold preset name blinks until you save your changes using the STORE button.

### CNTRL

ED: GPno1+HdPad  
HOLDMD: CNTRL...

With this function, you have the ability to link your Hold pedal to any MIDI controller you desire. When you press the hold pedal, the controller value is set to its maximum value 127 (7Fh). As soon as you release the pedal, the controller value 0 is sent. Controllers that work well with this function are Sustain (64), Portamento (65). To get to the sub menu, press the ENTER button to set the following parameters:

### HOLD CONTROLLER

HOLDCONTROL IS:  
PORTAMNT TIME 5

(CNTRL 0...119)

Choose the appropriate MIDI controller that will be set to its maximum value (127) when you press the hold pedal. The function of the controller will appear in text in your display.

### SEQ PATTERN

HOLDCONTROL IS:  
SEQ PATTERN: OFF

(OFF, 1...32)

With the ZETA SYNTHONY II you have the option alongside the normal Hold Preset, to set a drum pattern sequence (see UTILITY MODE, EDIT SEQUENCE). As soon as you press the hold pedal, the selected drum pattern will play on a separate MIDI channel. The pattern will be repeated until you press the hold pedal two times quickly. Choose one drum pattern of 1-32, that you want to play when you press the hold pedal, or set this parameter to OFF.

A screenshot of a digital display showing two lines of text: "HOLDCONTROL IS:" on the first line and "SEQ TRACK: OFF" on the second line.

## SEQ TRACK

(OFF, 1...8)

Using the internal sound board, you can set a complex track sequence to play instead of a pattern (see UTILITY MODE, EDIT SEQUENCE) parallel to the hold preset. As soon as you press the hold pedal, the selected track pattern will play on a separate MIDI channel. The pattern will be repeated until you press the hold pedal two times quickly. Or you can set the number of times that you want the sequence to be played. Choose one track pattern of 1-8, that you want to play when you press the hold pedal, or set this parameter to OFF. Please note that you can only use one of the two sequence possibilities at a time: either SEQ TRACK or SEQ PATTERN. Make sure the other one is set to OFF.

A screenshot of a digital display showing two lines of text: "HOLDCONTROL IS:" on the first line and "SEQ TEMPO: 120" on the second line.

## SEQ TEMPO

(EXT., 41...240)

The tempo of your sequence can be set externally using Midi clock (EXT/MIDI IN) or internally using BPM (beats per minute) between 41 (very slow) and 240 (very fast). In the case of external synchronization, (e.g., MIDI-Drums, sequencer software) the sequence will only start when the "start" command is received from the MIDI IN port.

## STACK

The effect is the same as in Hold Mode LAYER. The difference is that in this mode the Hold pedal must not be explicitly pressed. The Layer effect is always available. Otherwise all parameters of LAYER mode are available. (see LAYER.)

A screenshot of a digital display showing two lines of text: "ED: GPno1+HdPad" on the first line and "WHEELCNTL:..EXP1" on the second line.

## WHEELCNTL

WHEEL CONTROLLER (AIX, EXP1, EXP2)

Your ZETA SYNTHONY II offers you the option of using up to three different wheel controllers simultaneously: AIX is the wheel on the instrument interface

AX101/102,( not currently used with Zeta instruments) EXP1 and EXP2 are swell pedals, which can be plugged into the back of the ZETA SYNTHONY II. Choose the desired wheel using the +/- Value buttons, that you want to link a controller to, and press ENTER. The first line of the display shows the wheel that you just choose; the second line shows the controller that is assigned to the selected wheel. Use the +/- Value buttons to select the desired controller. The function of the selected controller appears in simple text in the display. The nonstandardized MIDI controllers have the "\_\_\_\_\_" description. The setting "NO CONTROLLER" means that no MIDI controller at all is assigned to the selected wheel. To do this, set the wheel AIX 101/102 to a Filter Controller (74).

Your main preset should then be set to “NO CONTROLLER” instead of “VOLUME 7”, so that only the arpeggiator will be affected by the wheel and the volume setting of the main sound will remain constant.

Use the EXIT button to get back to the main menu.

## NRPN/RPN

NRPN/RPN (NONE, NRPN, RPN)

Many manufacturers of synths allow you to set sound characteristics of their presets using so called NRPN's (nonregistered parameter numbers) or RPN's (registered parameter numbers). According to MIDI specifications RPN's have standardized functions and NRPN's do not. The functions of NRPN's are dependent upon the manufacturer and are found in the individual user's manuals. The process for using RPN's and NRPN's is identical as follows:

NRPN-LSB and MSB or RPN-LSB and MSB set system parameters using Controller #6 (DATA ENTRY MSB) or Controller #38 (DATA ENTRY LSB) to access them. Here is how you access these settings in your ZETA SYNTHONY II:

You have extracted from the user's manual of your synth/sound module that the manufacturer uses NRPN: MSB=01h and LSB=21h for a filter function for example. Use the +/- Value buttons to select the setting “NRPN/RPN:...NRPN” and press the ENTER button. The first line of your display shows you whether you are editing NRPN's or RPN's. The second line shows you the present value for MSB and LSB. The cursor is in the MSB field at first. Use the +/- Value buttons to set this value to 01h. With the +/- Parameter buttons move the cursor to the filed LSB and set the value here to 21h. You have now set the NRPN so that Controller #6 (or #38) can be used as a filter controller. As a source for controller #6/#38, you have the option of using any of the three wheel options. Press the EXIT button to leave the sub menu.

Note: If you are not an experienced user, it is advised that you steer clear of using the RPN controllers because pitchbend and even tuning information can be changed.

Another note for “Insiders”: Normally after using a DATA ENTRY controller for NRPN or RPN Data, these values are reset to “NULL” (7fh), so that the DATA ENTRY controller has no more influence.

Your ZETA SYNTHONY II does NOT do this, because this would drastically increase the amount of MIDI data processed and sent. However, when you change a Preset, or when you edit an NRPN/RPN, these controllers ARE set to NULL.



```
ED: GPno1+HdPad
REV:      HALL1
```

## REV

Reverb Program (NO EFFECT, HALL1...BASEMENT)

You can use this parameter to choose one of several reverb options. The program Name then appears in your display. If you don't want to use reverb, set this parameter to NO EFFECT.

```
ED: GPno1+HdPad
CHOR:      CELESTE4
```

## CHOR

Chorus Program (NO EFFECT, CHORUS1...FLANGER3)

The optional sound module is equipped with numerous chorus options, from which you can choose here. The name of the program you choose is shown in the display. Set this parameter to NO EFFECT if you don't want to use chorus.

```
ED: GPno1+HdPad
VAR:      DELAY LCR
```

## VAR

Variation Program (NO EFFECT, HALL1...AUTOWAH)

The soundboard is equipped with further variation effects that can be mixed with reverb or chorus effects. The name of the chosen variation effect is shown in your display. If you don't want to use a variation effect, select NO EFFECT.

For more detailed information about the digital effects in the sound module and their programmable options, see the chapter UTILITY MODE.

## CHAIN MODE

In live performance, you will need to have easy access to your various programmed presets. In Chain Mode, your ZETA SYNTHONY II offers you the ability to “chain” presets together in a series that you can quickly and easily recall in the order that you need them for your performance. Most people think of a “chain” as being another term for a “song” and a “step” as one of the sounds that you use within a song. For instance, if you used three different sounds within one song, you could set them as Chain 1, Step 1; Chain 1, Step 2; and Chain 1, Step 3. The second song would then be Chain 2 with several steps within that chain.

### UNDERSTANDING THE DISPLAY

When you access the Chain mode, the top, right number will be highlighted. This number represents the Chain. By pressing the Parameter + and - buttons, you can highlight the lower, right number. This is the Step within the selected Chain. The lower, left number is the Preset sound that you are accessing. (This is the number that relates back to the “Preset Mode.”) The upper left number is simply part of the factory name for the Chains before you create your own name (ie. No Name 1, No Name 2, No Name 3, etc.)

You can store up to 32 “chains”, each containing up to 32 “steps”. Using the Value + or - buttons, you can toggle through the “chains” when the upper right number is highlighted. This is the only way to toggle through your Chains. You can toggle through you presets in two different ways. While the upper right number (Chain) is highlighted, with a footpedal plugged into the “Chain” jack in the back of your ZETA SYNTHONY II, you can access the different Steps within the highlighted Chain. Pressing the pedal once moves to the next step in the chain, pressing it twice quickly moves to the previous step. You can also access the different steps by pressing the Parameter + button, highlighting the “Step” number. Then the Value + and – buttons will access the different steps. Remember, you can only change the Chain by accessing the front of your ZETA SYNTHONY II. The Steps, however may be changed from the Footswitch.

When displaying or entering new chains, the initial Chain Display screen lists the following information:

- Chain Name



- Chain Number
- Preset Chain and Number
- Step Number

This information is displayed when the “Chain” button is pressed.

The following Table shows the location of each of these information labels:

Chain Name	Chain Number
Preset Name & Number	Step Number

Example:

No Name 5	5
Heaven 17	1

## CREATING CHAIN PRESETS



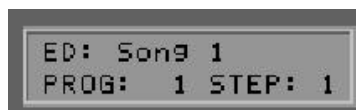
Press the CHAIN button on the front of your ZETA SYNTHONY II, and select the desired chain preset using the +/- Value buttons. Press the EDIT button, and you are now ready to begin programming your chain. The following parameters can be accessed by pressing the +/- Parameter buttons:



### CHAIN PRESET NAME

(max. 12 Characters)

Use a name that describes the function of of your chain, e.g. the name of the song with which it will be used. Press the ENTER button and use the +/- Value buttons to select each character and the +/- Parameter buttons to maneuver to the next (or previous) character.. Press the EXIT button when you are finished naming your Chain Preset. As with all other Text-Editor functions some of the front panel buttons have special functions when in this mode (A...Z, a...z, !...9, space, insert, delete).



### PROGRAM

(1...128)

Use the +/- Value buttons to select the desired Preset number for the present step. Press the ENTER button. This moves you to the next step in the chain.



## STEP

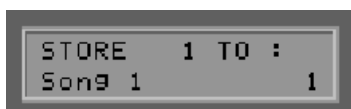
(1...32)

Using the +/- Value buttons, select the step in the chain you want to edit. In the display you see the program number of the presently selected preset for that step.

If you want to add a step in the middle of a chain, simply press the STORE button on the front panel. A new step is inserted directly after the selected step and all the following steps are moved one step down in the chain.

When you create a new step, the default settings for the new step are the same as the step from which you inserted the new one.

In the same way you can delete a step in the chain by selecting the one you want to delete and pressing the EDIT button. The step is deleted and the following steps are moved one up in the chain to fill the empty spot.



## SAVING CHAIN PRESETS

Press the EXIT button to leave CHAIN MODE. If you have made changes, the display will flash to remind you that you have not yet saved the changes. Press the STORE button and your ZETA SYNTHONY II asks you where (at which chain preset position: 1...32) to store your preset.

Pressing the ENTER button saves your changes. If you don't change the preset number, your changes will be written over the preset that you just edited. You can, of course, save your changes to a different preset if you may want to save the previous version of the preset for later use. If you don't want to save your changes at all, simply press the EXIT button again.

## TUTORIAL- SETTING UP A CHAIN

Here is a set of step-by-step instructions for setting up a chain using your SYNTHONY II. Remember that after you set this chain up, there are a total of 32 chains available to you. Generally, a chain is considered to be the different sounds that a player uses for one song. The steps are the different sounds within that song.

1. Turn on your SYNTHONY II.
2. Be sure that all of the sounds (and drum patterns and sequences, as well as arpeggios) that you want to put into your chain are saved in the Presets of your SYNTHONY II.
3. Press “Chain”.
4. Using the “Value” + or – buttons, scroll to the chain that you wish to create. For the purposes of this tutorial, let’s scroll to #6, named No Name 6
5. Press “Edit”. (At this point, both the “Chain” and “Edit” lights should be illuminated.)
6. Press the “Parameter +” button. The Name and number to left of the colon are the preset name and number. The number to the right of the colon is the step number. At this point, the step number should be 1.
7. Use the Value + or – buttons to scroll to the Preset sound that you wish to be the 1st Step in your Chain. For the purposes of this tutorial, scroll to Marimba 4.
8. Press Enter. This will automatically advance you to the 2<sup>nd</sup> Step in the Chain.
9. Use the Value + or – buttons to scroll to the Preset sound that you wish to be the 2nd Step in your Chain. For the purposes of this tutorial, scroll to Trumpet 12.
10. Press Enter. This will automatically advance you to the 3rd Step in the Chain.
11. Use the Value + or – buttons to scroll to the Preset sound that you wish to be the 3rd Step in your Chain. For the purposes of this tutorial, scroll to Heaven 17.
12. Use the Value + or – buttons to scroll to the Preset sound that you wish to be the 4th Step in your Chain. For the purposes of this tutorial, scroll back to Marimba 4.

13. Let's assume that is all the Steps that you need/want in your Chain.  
(Remember, you can program up to 32 steps.) Continue adding Steps if you want to.
14. Press the "Parameter –" button. The bottom line should read "No Name 6 ..."  
and the cursor should be blinking over the last dot.
15. Press "Enter". The cursor should be flashing over the first letter of the name in  
the 2<sup>nd</sup> line.
16. You may now edit the name of your Chain using the Parameter and Value  
buttons. Try changing the name to *My First Chain*. See directions for editing  
names on p. 26, in the section entitled "Preset Name."
17. Press "Exit".
18. Press "Exit" again. The "Store" light should be flashing and the top line of the  
display should be flashing.
19. Press "Store".
20. Use the Value buttons to scroll to the number that you wish the Chain to be.  
For now, simply store it as Chain #6. (It is not necessary to scroll the Value  
buttons to store it at 6.)
21. Press "Enter"
22. Your Chain is now stored at Chain #6.
23. Be sure your pedal is plugged into the "Chain" jack in the back of you  
SYNTHONY II.
24. Press "Chain" on the front of your SYNTHONY II.
25. Using the "Value" + or – buttons, scroll to Chain number 6, "*My First Chain*".
26. Press the footswitch to advance from Step to Step. (To go backwards, press  
the pedal, quickly, two times. (Like a double click of a mouse.)
27. Notice that there are a variety of arbitrary Steps after the steps that you  
programmed. They will remain there until or unless you change them to other  
Preset sounds. In other words, there will always be 32 Steps in each Chain.  
You may only choose to use the first 4, as in our tutorial, for your purposes.  
Those that appear after your Steps are simply meaningless.

28. Congratulations! You have programmed your first Chain. Now try to create some more!

# UTILITY MODE

To activate UTILITY MODE, press the UTIL button on the front of your ZETA SYNTHONY II. The LED next to the UTIL button will be lit.

## UTILITY PARAMETERS

Utility Mode controls the appearance of information in your display. This mode also controls the load and save functions via MIDI (SYSEX), so that you can save all of your valuable presets and parameters to a floppy disk using the appropriate communications software. Owners of the ZETA SYNTHONY II will find here numerous settings for drum sequences and programmable digital effects.

## DISPLAY

Control instrument and the LCD display (TUNING, LEVEL)  
Here you decide which instrument in PRESET MODE you want be shown in the bottom half of the display:



### TUNING

With this setting selected, the bottom half of your ZETA SYNTHONY II's LCD display shows a instrument tuner, that can be used during play to check and correct the tuning of your input instrument. Tune each string so that the arrow points to the middle of the scale. If the Tune Base Parameter is set to 0 (zero), the middle point on the tuning scale in the display represents the standard tuning calibration of 440 Hertz.

### LEVEL

With this selection, instead of a tuner, you see a VU (LEVEL) meter in the bottom half of the display. The small vertical bars represent the present levels of each of the six strings of your instrument. The higher the bar, the louder the string.



## PRESET NAMES

Display of sound presets (patches) (NUM, GM, XG)  
Your ZETA SYNTHONY II has the ability to display selected presets in various forms:

### NUM

All sound presets (patches) will be displayed in their numeric form in their given MIDI bank. A MIDI bank contains 128 preset numbers. It is possible to split MIDI banks using MSB (most significant byte) and LSB (least

significant byte) information, so that you can actually have as many as 128 x 128 MIDI banks. Use this option if your sound module/synth is not GM (General MIDI) capable.

### **GM**

The sound presets or patches follow the GM (General MIDI) standard. The names of patches appear in text form in the display. The General MIDI standard dictates 128 sounds, and some manufacturers of GM capable sound modules have implemented kits that allow for choosing various MIDI sound banks. Your ZETA SYNTHONY II divides it's MIDI bank into an MSB (most significant byte) and an LSB (least significant byte) data group, which allows 128 x 128 GM kits. Use this option if your sound module/synth is not GM (General MIDI) capable.

### **XG**

The sound presets or patches follow the XG (Extended General MIDI) standard. The names of patches appear in text form in the display. Information about MIDI bank numbers is not included. If your MIDI instrument is XG capable, you should certainly make use of it. It is a very easy way to maintain an overview of the numerous normal patches available. The built-in sound module of the ZETA SYNTHONY II is XG compatible and offers you all of the XG sounds in superior quality.

### **DCLIC RESPNS**

Double-click response (1...20)

Here you set the amount of time in which a double click (double press) of the two foot switches should take place in order to be recognized as a double click. Remember that you can double click the chain foot switch in order to jump one step back in your chain. Double clicking the Hold pedal allows you to stop the presently running drum sequence.

### **XMIT SYSEX...**

Send System Exclusive Data

This sub menu gives you access to all the important parameters and settings that allow your ZETA SYNTHONY II to send data over MIDI. The receiver can be a computer with the appropriate software (e.g. Sequencer software) or another ZETA SYNTHONY II. One possibility would be to save the numerous settings of your ZETA SYNTHONY II to a floppy disk to be shared with others, or as an archive for later use. Users of the ZETA SYNTHONY II can use this method to collect an entire sound library from external programmable synth section. Press the ENTER button and use the +/- Parameter buttons to select the area you would like to send. Use the +/- Value buttons to select individual parts. The transfer begins when you press



the ENTER button again. When you see “READY” in the display, you know the transmission has been completed.



### **TOTAL DUMP...**

This allows you to transmit the entire contents of the ZETA SYNTHONY II with all its present parameters and settings in one large file.

### **PRESET...**

(ALL, 1...128)

You can choose to send all 128 USER presets or individual ones.

### **CHAIN...**

(ALL, 1...32)

Sends all or individual Chain presets.

### **ARP-PATTRN...**

(ALL, 1...16)

Send all or individual rhythm patterns used by the arpeggiator.

### **EFFECTS...**

(ALL, REV, CHOR, VAR)

Owners of the ZETA SYNTHONY II can choose to send the parameters for the entire effect section or just those for the individual areas: reverb, chorus, variation.

### **SEQUENC...**

(ALL, PATTRN, TRACKS)

Owners of the ZETA SYNTHONY II can send their programmed drum sequences either in complete form or separately.



### **RECEIVE SYSEX**

Receive System Exclusive Data


In the same way as the ZETA SYNTHONY II sends sysex data to another ZETA SYNTHONY II or computer via MIDI, it can also receive sysex data with the help of this sub menu. The data blocks that are received by the ZETA SYNTHONY II will overwrite the same parameters in the ZETA SYNTHONY II.



### **EDIT SEQUENCE**

Drum Sequence Editing

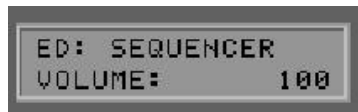
Owners of the ZETA SYNTHONY have the option of programming drum sequences that can be accessed in PRESET MODE using the hold pedal. It is necessary to differentiate between pattern sequences and track sequences. A pattern is made up of 16 steps that are divided into equal time units over the entire pattern. You have the option of choosing up to 4 drum sounds from any drum kit to be played within each step. This can be given 3 different dynamic levels. Up to 32 patterns can be created in the Pattern Editor. These patterns can then be integrated into a track sequence, that controls the playing of the pattern according to your wish. 32 program steps are possible that can be combined in any order or repetition. Press the ENTER button to get to the Drum sequencer menu.

A screenshot of a digital display showing 'ED: SEQUENCER' on the first line and 'TEMPO: 120' on the second line.

### TEMPO

Tempo (EXT, 41...240)

The tempo of the drum sequencer can be set externally using Midi clock (EXT/MIDI IN) or internally using BPM (beats per minute) between 41 (very slow) and 240 (very fast). In the case of external synchronization, (e.g.. MIDI-Drums, sequencer software) the sequence will only start when the “start” command is received from the MIDI IN port.

A screenshot of a digital display showing 'ED: SEQUENCER' on the first line and 'VOLUME: 100' on the second line.

### VOLUME

Volume Level (0...127)

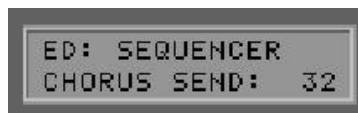
The drum sequencer is equipped with its own separate volume control. Set the level here to create a good mix with the other sounds.

A screenshot of a digital display showing 'ED: SEQUENCER' on the first line and 'REVERB SEND: 64' on the second line.

### REVERB SEND

Reverb (0...127)

The drum sequencer is equipped with its own separate reverb control. Using the +/- Value buttons, set this value to your desired strength of reverb for drum sounds. If you want totally “dry” drums, select 0 (zero).

A screenshot of a digital display showing 'ED: SEQUENCER' on the first line and 'CHORUS SEND: 32' on the second line.

### CHORUS SEND

Chorus (0...127)

Set your desired amount of chorus for drums here. If you don't want any chorus effect on the drums, set this value to 0 (zero).

A screenshot of a digital display showing 'ED: SEQUENCER' on the first line and 'VARIAT SEND: 0' on the second line.

### VARIAT SEND

Variation Effect (0...127)

Set your desired amount of variation effect for drums here. If you don't want any chorus effect on the drums, set this value to 0 (zero).

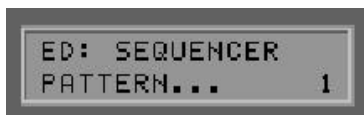




## MODE

Mode (PATTERN, TRACK)

As we have already discussed, your ZETA SYNTHONY II allows two different ways to play drum sequences. You can play either individual patterns, or entire tracks made up of several patterns. Here is where you decide whether you want simple patterns or entire tracks to be played when you press the hold pedal in PRESET MODE.



## PATTERN

Pattern Editor (1...32)

With this sub menu, you can edit your drum patterns. You can create up to 32 patterns that can be played back either individually or as part of a track sequence. Use the +/- Value buttons to select the desired pattern number and press the ENTER button to begin editing it.



## KIT

(STANDARD1...SFX2)

There are 11 drum kits available, from which you can choose a maximum of four instruments for each pattern. Use the +/- Value buttons to select the drum kit from which you want to use drum sounds.



## STEPS

(1...16)

Here is where you select the actual step in the pattern you want to edit. Every step can contain 4 drum sounds with 3 different dynamic levels. The larger the number of steps you set with this parameter, the finer the resolution of your pattern will be. You can also set values for uneven meters. The value of 12, for example, will result in 3/4 time with a resolution of 16th notes.



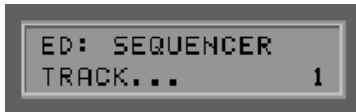
## DRUM INSTRUMENT

(1...4)

Choose a drum instrument from the list of drum sounds available in the presently active drum kit and press the ENTER button to begin editing. In the bottom half of the display appears a dotted line with a cursor whose position is dependent upon the individual steps (see STEPS). You can move the cursor to the left or right by using the +/- Parameter buttons. Use the +/- Value buttons to then add an accent at the proper step position. You will see a small vertical bar at that position. Press the +/- Value buttons repeatedly to increase or decrease the strength of the accent, visible in the display as a thicker or thinner bar. You can make the accent so weak that it disappears altogether. When you are finished, press the EXIT button. You can of course repeat this process for the 3 other instruments you have selected for the pattern. A further press of the EXIT button takes you out of the PATTERN EDITOR.



The flashing display signals you that you have changed a pattern but have not yet saved it. Press STORE to save the pattern to battery-backed-up RAM.



## TRACK

Track Editor (1...8)

With the help of this sub menu, you can use the Track Editor for drum sequences to create up to 8 tracks that can be accessed from PRESET MODE by pressing the hold pedal. A track sequence contains up to 32 steps in which your own programmed patterns can be combined in any order or repeated as desired. Use the +/- Value buttons to select the desired track number and press the ENTER button to begin editing. Press the EXIT button when finished.

The following is a description of the parameters in the sub menu:

### ST:

(0...31)

Here you select the step number of the track sequence you want to work on. The individual steps will then be chained together step-wise according to their number. You can have a maximum of 32 steps.

### C:

(0...127)

This is the number of repeats the pattern will execute within the step. The value 1 plays the pattern one time. The value 0 (zero) indicates the end of a track sequence. When the drum sequencer gets to this point, it will automatically stop playing.

### PT:

(1...32)

Choose the pattern number to be used in the selected step (ST).

When you press EXIT, the flashing display indicates that you have not yet saved your changes to the track. Press STORE to save your changes in battery-backed-up RAM.



## ADC MONITOR

This option allows you a small window into the actual ANALOG/DIGITAL CONVERTER of your ZETA SYNTHONY II. When you press the ENTER button, you can see the actual (digital) HEX data that have been converted by your ZETA SYNTHONY II from the analog string information sent from your instrument. This feature is primarily for diagnostic purposes like detecting which conductor of the cable between instrument interface and ZETA SYNTHONY II may be bad, for example.



# APPENDIX

## FACTORY RESET

Press the PRESET and EXIT buttons together to initialize the ZETA SYNTHONY II and reset it to the factory settings. This applies to all presets as well, so be sure to save your work to a sequencer or computer beforehand.

## PROBLEM SOLVING

### **External MIDI instrument doesn't play**

*Description:* When I play the instrument, the ZETA SYNTHONY II reacts properly on the meters in the display but my external MIDI instrument does not play.

*Possible problem:* Set up... cable connections

*Solution:*

1. Make sure the MIDI cables are connected properly. From the ZETA SYNTHONY II's MIDI OUT jack to the instrument's MIDI IN jack.
2. The MIDI channels of both instruments need to be correctly set.
3. The MIDI instrument should be in multi timbral mode.
4. Make sure the audio cable between your MIDI instrument and the amplifier is correctly connected.
5. Check the volume control on your instrument interface.
6. The select button on your instrument interface could be set to "INSTRUMENT".

(This would cause no signal to the ZETA SYNTHONY II.)

### **String bending does not function properly.**

*Description:* When I play a string, I hear the right note, but slides, slurs and glissandos do not function like I expect.

*Possible problem:* The Pitchbend settings on your ZETA SYNTHONY II do not match the settings in your MIDI instrument; or Pitch Quantize is turned on.

*Solution:*

1. Make sure that the pitchbend range settings in your MIDI instrument correspond to the same settings in your ZETA SYNTHONY II (GLOBAL MODE).
2. Make sure the QUANTIZE value in the preset split (PRESET MODE) is set to AUTO or OFF.

### **Sometimes wrong notes**

*Description:* When I play the instrument, the notes I hear are all or partly wrong notes.

*Possible problem:* Discrepancy in tuning.

*Solution:*

1. Tune your instrument using the ZETA SYNTHONY II's tuning aids.
2. If you want to tune your ZETA SYNTHONY II to your instrument, use the Tune-Base function in GLOBAL MODE.
3. It's possible that the transpose function in the preset split is ON.
4. Turn TRANSPOSE OFF in PRESET MODE.
5. Your MIDI instrument may be set to another tuning or have its transpose function turned ON. Check to see if these parameters are set to the correct values.

### **Varying string volume levels**

*Description:* One or more strings are not loud enough in comparison to the others.

*Possible problem:* The string sensitivity of the individual strings is not set well.

*Solution:*

1. In GLOBAL MODE, try resetting the sensitivity of the problematic strings.

### **Dynamic difference between notes is too great**

*Description:* With some sounds the drastic dynamic differences between notes is irritating.

*Possible problem:* Setting problems in the touch sensitivity parameters.

*Solution:*

1. The touch sensitivity settings in your ZETA SYNTHONY II should correspond to the sound in your MIDI instrument that you are using.
2. Try reducing the value in the touch sensitivity parameter of the preset split (PRESET MODE) and then try adding some value to the Velocity Offset parameter.

### **Wrong sounds**

*Description:* The sounds that appear in the ZETA SYNTHONY II's display do not correspond with the sounds I hear from my MIDI instrument.

*Possible problem:* Your external MIDI instrument is not set to XG/General MIDI mode or does not support this standard.

*Solution:*

1. Set your MIDI instrument to GM mode. Set the ZETA SYNTHONY II's parameter for preset names to "GM" (see UTILITY MODE).
2. If your MIDI instrument doesn't support these standards, set your ZETA SYNTHONY II's preset names parameter to "NUM". You can now access the desired sound using the corresponding MIDI bank and program number.

## SYSTEM EXCLUSIVE IMPLEMENTATION

F0H	- Exclusive status
00H	- European ID's
20H	- European ID's
2DH	- BCM ID
20H	- Model ID AX100
00H	- Device ID
ah	- Address high
am	- Address mid
al	- Address low
ch	- Byte Count high
cm	- Byte Count mid
cl	-Byte Count low
dh	- Data #0 high 7 bits
dl	- Data #0 low 7 bits
...	- Data ...
...	- Data ...
dh	- Data #n high 7 bits
dl	- Data #n low 7 bits
cc	- Checksum
F7H	- End of exclusive

The following dumps are presently supported:

Total dump  
Presetdump (All, 1...128)  
Chaindump (All, 1...32)  
Patterndump for Arpeggiator (All, 1...16)  
Total Effectdump (Rev setup, all revs, chor setup, all chors, var setup, all vars)  
Reverbdump (Rev setup, all reverb programs)  
Chorusdump (Chor setup, all chorus programs)  
Variationdump (Var setup, all variation programs)

Total Sequencerdump (Seq setup, pattern 1...32, tracks 1...8)  
Patterndump for Sequencer (All)  
Trackdump for Sequencer (All)

## MASTER SOUND BANK – LIST

The Synthony II Master Sound Bank can be accessed from the PRESET Mode by pressing the EDIT button, then pressing ENTER twice. The Master Sound Bank is organized by instrument family – each family contains instrument sounds specific to that family.

You may save any of the 480 sounds from the Master Sound Bank into your User Presets, as well as edit tracking parameters, add up to 3 effects per sound, etc. However, you cannot save permanent changes to the Master Sound Bank itself.

Please refer to the following list of 480 sounds from the Master Sound Bank:

<b>Family:</b>	<b>Sounds:</b>
<b>Piano</b>	Grand Piano Mello Grnd Pno PianoString Dream Brite Piano Bright Piano K Elec. Grand Elec. Grand Piano K Det. CP80 Elec. GrPno 1 Elec. GrPno 2 HonkyTonk HonkyTonkK
<b>Electric Piano</b>	Elec. Piano 1 Elec. Piano 2 Mello EP1 Chor. EP1 Hard El.Piano VX El. Piano 1 60's Elec. Piano Elec. Piano 2 Elec. Piano 2K Chor. EP2 DX Hard DX Legend DX Phase DX+Analog DX Koto EP VX Elec. Piano 2 Harpsichord Harpsichord K Harpsichord 2

Harpsichord 3  
Clavi.  
Clavi. K  
ClaviWah  
PulseClavi.  
PierceClavi.

## **Cpercussion**

Celesta  
Glocken  
Music Box  
Orgel  
Vibes  
Vibes K  
Hard Vibes  
Marimba  
Marimba K  
Sine Marimba  
Balafone 2  
Log Drum  
Xylophone  
Tubular Bells  
Church Bells  
Carillon  
Dulcimer  
Dulcimer 2  
Cimbalom  
Santur

## **Organ**

Draw Organ  
Det. Draw Organ  
60's Draw Organ 1  
60's Draw Organ 2  
70's Draw Organ 1  
Draw Organ 2  
60's Draw Organ 3  
Even Bar  
16+2''<sup>2/3</sup>  
Organ Bar  
70's Draw Organ 2  
Cheez Organ  
Draw Organ 3  
Perc. Organ  
70's Perc. Organ  
Det. Perc. Organ  
Lite Organ  
Perc. Organ 2  
Rock Organ  
Rotary Organ  
Slow Rotary Organ  
Fast Rotary Organ  
Church Organ  
Church Organ 3  
Church Organ 2  
Notre Dam



Organ Flute  
Tremlo Organ Flute  
Reed Organ  
Puff Organ  
Acordion  
Acordit  
Harmonica  
Harmonica 2  
Tango Acordion  
Tango Acordion 2

#### **Acoustic Guitar**

Nylon Guitar  
Nylon Guitar 2  
Nylon Guitar 3  
Velocity Guitar Harm.  
Ukelele  
Steel Guitar  
Steel Guitar 2  
12 St. Guitar  
Nylon & Steel  
Steel & Body  
Mandolin

#### **Electric Guitar**

Jazz Guitar  
Mellon Guitar  
Jazz Amp  
Clean Guitar  
Chorus Guitar  
Muted Guitar  
Funk Guitar  
Mute Steel Guitar  
Funk Guitar 2  
Jazz Man  
Overdrive  
Guitar Pinch  
Distortion Guitar  
Feedback Guitar  
Feedback Guitar 2  
Guitar Harmonics  
Guitar Feedback  
Guitar Harmonics 2

#### **Acoustic Bass**

Acoustic Bass  
Jazz Rhythm  
VX Upright  
Finger Bass  
Finger Dark  
Flange Bass  
Bass & DistEG  
Finger Slap  
Finger Bass 2  
Mod Alem

## **Electric Bass**

Pick Bass  
Mute Pk Bass  
Fretless  
Fretless 2  
Fretless 3  
Fretless 4  
Synth Fretless 1  
Smooth  
Slap Bass 1  
Reso Slap  
Punch Thm  
Slap Bass 2  
Velocity Slap

## **Synth Bass**

Syn Bass 1  
Syn Bass 1 Dark  
Fast Res Bass  
Acid Bass  
Clav. Bass  
Tekno Bass  
Oscar  
Square Bass  
Rubber Bass  
Hammer  
Syn Bass 2  
Mello SB 1  
Seq Bass  
Clk Syn Bass  
Syn Bass 2 Dk  
Smooth Bass 2  
Modular Bass  
DX Bass  
X Wire Bass

## **Strings**

Violin  
Slow Violin  
Viola  
Cello  
Contrabass  
Tremelo Strings  
Slow Tremelo Strings  
Suspended Strings  
Pizz. Strings  
Harp  
Yang Chin  
Timpani

## **Ensemble**

Strings 1  
Suspended Strings  
Slow Strings  
Arco Strings  
60's Strings

Orchestra  
 Orchestra 2  
 Tremelo Strings  
 Velocity Strings  
 Strings 2  
 Susp. Slow Strings  
 Legato Strings  
 Warm Strings  
 Kingdom  
 70's Strings  
 String Ensemble 3  
 Syn Strings 2  
 Reso Strings  
 Syn Strings 4  
 SS Strings  
 Syn Strings 2  
 Choir Aah's  
 Susp. Choir  
 Choir Aah's 2  
 Mello Choir  
 Choir Strings  
 Voice Ooh  
 Syn Voice  
 Syn Vox  
 Choral  
 Analog Voice  
 Orchestra Hit  
 Orchestra Hit 2  
 Impact

## **Brass**

Trumpet  
 Trumpet 2  
 Bright Trumpet  
 Warm Trumpet  
 Trombone  
 Trombone 2  
 Tuba  
 Tuba 2  
 Muted Trumpet  
 French Horn  
 French Horn Solo  
 French Horn 2  
 Horn Orchestra  
 Brass Section  
 Trumpet & Trb. Sec.  
 Brass Section 2  
 Hi Brass  
 Mello Brass

## **Synth Brass**

Syn Brass 1  
 Quack Brass  
 Rezo Syn Brass  
 Poly Brass  
 Syn Brass 3

Jump Brass  
 Analog Velocity Brass  
 Analog Brass 1  
 Syn Brass 2  
 Soft Brass  
 Syn Brass 4  
 Chorus Brass  
 Velocity Brass 2  
 Analog Brass 2

## **Reeds**

Soprano Sax  
 Alto Sax  
 Sax Section  
 Hyper Alto  
 Tenor Sax  
 Breathy Tenor Sax  
 Soft Tenor  
 Tenor Sax 2  
 Baritone Sax  
 Oboe  
 English Horn  
 Bassoon  
 Clarinet

## **Pipe**

Piccolo  
 Flute  
 Recorder  
 Pan Flute  
 Bottle  
 Shakhchi  
 Whistle  
 Ocarina

## **Slead**

Square Lead  
 Square 2  
 LM Square  
 Hollow  
 Shmoog  
 Mello  
 Solo Sine  
 Sine Lead  
 Saw. Lead  
 Saw 2  
 Thick Saw  
 DynaSaw  
 DigiSaw  
 Big Lead  
 Heavenly Syn  
 Waspy Syn  
 Pulse Saw  
 Dr. Lead  
 Velocity Lead  
 Seq Ana

CaliopLead  
 Pure Pad  
 Chiff Lead  
 Rubby  
 Charan Lead  
 Distortion Lead  
 Wire Lead  
 Voice Lead  
 Synth Aah  
 Vox Lead  
 Fifth Lead  
 Big Five  
 Bass & Lead  
 Big & Low  
 Fat & Perky  
 SoftWurl

### **Synth Pad**

New Age Pad  
 Fantasy  
 Warm Pad  
 Thick Pad  
 Soft Pad  
 Sine Pad  
 Horn Pad  
 Rotary Strings  
 Poly Synth Pad  
 Poly Pad 80  
 Click Pad  
 Analog Pad  
 Square Pad  
 Choir Pad  
 Heaven 2  
 Itopia  
 CC Pad  
 Bowed Pad  
 Glacier  
 Glass Pad  
 Metal Pad  
 Tine Pad  
 Pan Pad  
 Halo Pad  
 Sweep Pad  
 Shwimmer  
 Converge  
 Polar Pad  
 Celestial

### **SyEffect**

Rain  
 Clavi Pad  
 Harmonic Rain  
 African Wind  
 Caribbean  
 Sound Track  
 Prologue

Ancestral  
 Crystal  
 SynDrCmp  
 Popcorn  
 Tiny Bell  
 Round Glocken  
 GlockChi  
 Clear Bell  
 Chorus Bell  
 Syn Mallet  
 Soft Crystal  
 Loud Glocken  
 Xmas Bells  
 Vibe Bell  
 DigiBell  
 Air Bells  
 Bell Harp  
 Gamelmba  
 Atmosphere  
 Warm Atmosphere  
 Hollow Rls  
 Nylon EP  
 Nylon Harp  
 Harp Vox  
 Atmosphere Pad  
 Planet  
 Bright  
 Fantasy Bell  
 Smokey  
 Goblins  
 GoblinSyn  
 50's Sci-fi  
 Ring Pad  
 Ritual  
 To Heaven  
 Night  
 Glisten  
 Bell Choir  
 Echoes  
 Echo Pad 2  
 Echo Pad  
 Echo Bell  
 Big Pan  
 Syn Piano  
 Creation  
 Stardust  
 Reso Pan  
 Sci-fi  
 Starz

#### **Ethnic**

Sitar  
 Det. Sitar  
 Sitar 2  
 Tambra  
 Tamboura

Banjo  
Muted Banjo  
Rabab  
Gopichnt  
Oud  
Shamisen  
Koto  
T. Koto  
Kanoon  
Kalimba  
Bag Pipe  
Fiddle  
Shanai  
Shanai 2  
Pungi  
Hichriki

#### **Percussion**

Tinkel Bell  
Bonang  
Gender  
Gamelan  
S. Gamelan  
Rama Cymbol  
Asian Bell  
Apogo  
Steel Drum  
Glass Percussion  
Thai Bell  
Wood Block  
Castanets  
Taiko Drum  
Grand Cassa  
Melodic Tom-tom  
Melodic Tom-tom 2  
Real Tom-tom  
Rock Tom-tom  
Syn Drum  
Analog Tom-tom  
Elec. Percussion  
Reverse Cymbol

#### **Sound Effects**

Fret Noise  
Breath Noise  
Sea Shore  
Tweet  
Telephone  
Helicopter  
Applause  
Gunshot

#### **SFX**

Cutting Noise  
Cutting Noise 2  
String Slap

Fl. Kclie  
Rain  
Thunder  
Wind  
Stream  
Bubble  
Feed  
Dog  
Horse  
Bird 2  
Ghost  
Maou  
Telephone Dial  
Door Squeak  
Door Slam  
Scratch  
Scratch 2  
Wind Chime  
Telephone 2  
Car Engine  
Car Stop  
Car Pass  
Car Crash  
Siren  
Train  
Jet Plane  
Starship  
Burst  
Coaster  
Submarine  
Laughing  
Scream  
Punch  
Heart  
Foot Step  
Machine Gun  
Laser Gun  
Explosion  
Firework

## **Drums**

Standard Kit 1  
Standard Kit 2  
Room Kit  
Rock Kit  
Electric Kit  
Analog Kit  
Jazz Kit  
Brush Kit  
Classical Kit  
SFX 1  
SFX 2



## USER PRESETS – 1-128

The Synthony II comes equipped with sounds pre-programmed for PRESET #'s 1-128. These sounds can be edited and saved by the user.

Below is a list of the PRESET sounds, nos. 1-128:

1	Grand Piano	44	Contrabass	87	Fifth Lead
2	Brite Piano	45	Tremolo Strings	88	Bass & Lead
3	Electric Grand	46	Pizzicato Strings	89	New Age Pad
4	Honky Tonk	47	Orchestral Harp	90	Warm Pad
5	E. Piano1	48	Timpani	91	Polysynth Pad
6	E. Piano2	49	Marcato Strings	92	Choir Pad
7	Harpsichord	50	JLP	93	Bowed Pad
8	Clavi	51	Synth Strings1	94	Metal Pad
9	Celesta	52	Synth Strings2	95	Halo Pad
10	Glockenspiel	53	Choir Aahs	96	Sweep Pad
11	Music Box	54	Voice Oohs	97	Rain
12	Vibes	55	Synth Voice	98	Sound Track
13	Marimba	56	Orchestra Hit	99	Crystal
14	Xylophone	57	Trumpet	100	Atmosphere
15	Tubular Bells	58	Trombone	101	Brightness
16	Dulcimer	59	Tuba	102	Goblins
17	Drawbar Organ	60	Muted Trumpet	103	Echoes
18	Percussive Organ	61	French Horn	104	Sci-Fi
19	Rock Organ	62	Brass Section	105	Sitar
20	Church Organ	63	Synth Brass1	106	Banjo
21	Reed Organ	64	Synth Brass2	107	Shamisen
22	Accordion	65	Soprano Sax	108	Koto
23	Harmonica	66	Alto Sax	109	Kalimba
24	Tango Accordion	67	Tenor Sax	110	Bagpipe
25	Nylon Guitar	68	Baritone Sax	111	Fiddle
26	Steel Guitar	69	Oboe	112	Shanai
27	Jazz Guitar	70	English Horn	113	Tinkle Bell
28	Clean Guitar	71	Bassoon	114	Agogo
29	Mute Guitar	72	Clarinet	115	Steel Drums
30	Overdrive	73	Piccolo	116	Woodblock
31	Distortion Gtr.	74	Flute	117	Taiko Drum
32	Guitar Harmonics	75	Recorder	118	Melodic Tom
33	Acoustic Bass	76	Pan Flute	119	Synth Drum
34	Finger Bass	77	Bottle	120	ReverseCymbal
35	Pick Bass	78	Shakuhachi	121	Gtr Fret Noise
36	Fretless Bass	79	Whistle	122	Breath Noise
37	Slap Bass1	80	Ocarina	123	Seashore
38	Slap Bass2	81	Square Lead	124	Bird Tweet
39	Synth Bass1	82	Saw Lead	125	Phone Ring
40	Synth Bass2	83	Calliope Lead	126	Helicopter
41	Violin	84	Chiff Lead	127	Applause
42	Viola	85	Charang Lead	128	Gunshot
43	Cello	86	Voice Lead		

## EFFECTS TYPES – LIST

The Synthy II includes 64 Digital Effects, up to 3 of which can be added to any savable MIDI sound. Effects are added in the PRESET Mode, under EDIT.

Below is a list of the available digital effects in the Synthy II:

### Type:

### Effect:

#### REVERB

##### NO EFFECT:

Turns the reverb off.

##### HALL1:

Simulates the reverb found in a concert hall.

##### HALL2:

A variation of HALL1.

##### ROOM1:

Simulates the reverb found in a normal room.

##### ROOM2:

A variation of ROOM1.

##### ROOM3:

A variation of ROOM1.

##### STAGE1:

For use with a solo instrument's reverb program.

##### STAGE2:

A variation of STAGE1.

##### PLATE:

Simulates the reverb effect generated by metal plate reverb units found in recording studios.

##### WHITE ROOM:

A short reverb program followed by a fast delay.

##### TUNNEL:

Simulates a tunnel that becomes increasingly wider.

##### BASEMENT:

A short delay followed by massive reverb.

## **CHORUS**

**NO EFFECT:**  
Turns Chorus off.

**CHORUS1:**  
Conventional chorus effect for a full sound.

**CHORUS2:**  
Variation of CHORUS1-Effect.

**CHORUS3:**  
Variation of CHORUS1-Effect.

**CHORUS4:**  
Variation of CHORUS1-Effect with Stereo-Input.

**CELESTE1:**  
LFO modulated in 3 Phases.

**CELESTE2:**  
Variation of CELESTE1-Effect.

**CELESTE3:**  
Variation of CELESTE1-Effect.

**CELESTE4:**  
LFO modulated in 3 Phases.

**FLANGER1:**  
Chorus with Phase-shifting (Jet-Effect)

**FLANGER2:**  
Variation of FLANGER1-Effect.

**FLANGER3:**  
Variation of FLANGER1-Effect.

## **VARIATIONS**

**NO EFFECT:**  
Turns variation effects off.

**HALL1:**  
Simulates reverb in a concert hall.

**HALL2:**  
Variation of HALL1 Effect.

**ROOM1:**  
Simulates reverb in a normal room.

ROOM2:  
Variation of ROOM1 Effect.

ROOM3:  
Variation of ROOM1 Effect.

STAGE1:  
For use with a solo instruments reverb program.

STAGE2:  
Variation of STAGE1 Effect.

PLATE:  
Simulates the metal plate reverb system found in recording studios.

DELAY L;C;R:  
Delay effect(Panoramaposition Left, Right, Center).

DELAY L;R:  
Delay effect (Panoramaposition Links und Rechts).

ECHO:  
Echo effect with independent feedback control for left and right.

CROSSDLY:  
Delay effect with changing Panorama-Feedback-Loops.

EARLYREF1:  
Only generates the first reverb reflection.

EARLYREF2:  
Variation of EARLY REF1-Effect.

GATED REV:  
Gated Reverb Effect. (made popular by Phil Collins)

REV GATE:  
Reverse Gated Reverb Effect.

KARAOKE 1:  
A Karaoke-typical reverb effect.

KARAOKE 2:  
Variation of KARAOKE 1-Effect.

KARAOKE 3:  
Variation of KARAOKE 1-Effect.

CHORUS1:  
Conventional chorus effect for a full sound.

CHORUS2:  
Variation of CHORUS1-Effect.

CHORUS3:  
Variation of CHORUS1-Effect.

CHORUS4:  
Variation of CHORUS1-Effect with Stereo-Input.

CELESTE1:  
LFO with 3 Phase Modulation.

CELESTE2:  
Variation of CELESTE1-Effect.

CELESTE3:  
Variation of CELESTE1-Effect.

CELESTE4:  
LFO with 3 Phase Modulation.

FLANGER1:  
Chorus with Phaseshifting (Jet-Effect)

FLANGER2:  
Variation of FLANGER1-Effect.

FLANGER3:  
Variation of FLANGER1-Effect.

SYMPHONIC:  
Multi-Phase-variant of CELESTE1-Effect.

ROTARY:  
Simulation of a Leslie cabinet.

TREMOLO:

Effect based on amplitude variation.

**AUTO PAN:**

Effect based on panorama variation.

**PHASER1:**

Effect based on phase shifting.

**PHASER2:**

Variation of PHASER1 -Effect with Stereo-Input.

**DISTORTION:**

Distortion simulator.

**OVERDRIVE:**

Simulation of overdriving a tube instrument amplifier.

**INSTRUMENTAMP:**

Simulation a tube instrument amplifier.

**3BANDEQU:**

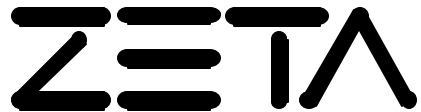
A MONO-Equalizer with controls for Lows, Mids, Highs..

**2BANDEQU:**

A STEREO-Equalizer with controls for Lows, Mids, Highs.

**AUTOWAH:**

Automatic Wah- Wah Effect.



## **Synphony II**

*Model ZMC-200*

**Manufactured Exclusively for**

**ZETA MUSIC SYSTEMS, INC**  
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Oakland, CA 94606

**By:**  
***Blue Chip Music GmbH***  
Germany