EMAX II

Getting Started

E-MU

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E-mu P/N FI404
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Welcome to Emax II Getting Started

This booklet is not a replacement for the Emax II Owners Manual, but merely a supplement.

Emax II - Getting Started gives you a quick, hands-on guide to the Emax II, one of the most powerful samplers on the market today.

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Drive Select/Loading Banks

(Emax II Operation Manual Pages 50-51)

The Emax II is one of the most powerful sampling instruments on the market today. One of the features that makes it so powerful is its ability to use various storage media to save sounds. Because sampled sounds are so memory intensive, it is important to realize that loading large sample files can be done quickly and easily using SCSI (Small Computer Systems Interface).

SCSI is a computer protocol (standard in the music industry), which allows computers to communicate with storage devices like hard disk drives, CD-ROM drives or magneto/optical drives. By connecting one or more of these devices to the Emax II, large banks can be loaded into the instrument in seconds rather than what would typically take several minutes using floppy disks. This not only saves you time, but also money on the purchase of floppy disks as your sound library grows.

Follow the instructions in your Emax II operations manual regarding formatting a disk and, if necessary, changing a SCSI ID number.

The display in these examples will vary according to your selections.

ACTION	DISPLAY	RESULTS
Press Drive Select	SCSI 0:Floppy	Enter Drive Select Module
**	SCSI <Drive Name> Avail: xMB xx%	Drive is Selected & Shows Available Disk Space
Press Load Bank	Load Bank	Enter Load Bank Module B00 <Bank Name>
**	Load Bank	New Bank is Selected B07 <Bank Name>
Press Enter	Loading Bank ...	New Bank is Loading B07 <Bank Name>
	P00 <Bank Name>	New Bank is Loaded

**** Use up/down cursors, data slider or numeric keypad to select a drive.**

Loading Banks

Note: You will find that different drives have faster or slower load times. This is due to the access time of the drive itself. These access times are measured in milliseconds. So even the slowest hard drive will load banks many times faster than floppy disks.

CD-ROM drives are capable of storing large amounts of read only data (up to 600MB or more) but are unable to save banks. If you are using a CD-ROM drive, always remember to save changes you have made to a bank on another writeable drive or your work will be lost.

As with any purchase you make for your system, make sure the drive is compatible with Emax II. Theoretically, any SCSI device should work once you instruct Emax II to format it. Also, be aware that once formatted, the disk cannot be used by another device such as a computer without reformatting (unless you are using a removable media such as a hard drive cartridge or magneto/optical cartridge and insert a cartridge that is formatted for the other device.)

Call E-mu Systems Customer Service for an ongoing list of compatible external devices.[1]

[1] E-mu Systems support for the Emax II is now very limited. Contact The Emulator Archive (www.emulatorarchive.com) for current disk drive information.

Formatting Disks & Saving Banks

(Ernax II Operation Manual Pages 57-59 & 112)

Regardless of the media you choose to save your work (whether it is floppy, hard disk or magneto/optical), it is important to format **your disks before starting** your programming efforts.

If you are using a floppy disk as your system disk, leave the disk in the drive until instructed to remove it.

ACTION	DISPLAY	RESULTS
Press Master	Master [1-9] / Slider	Enter Master Module
Press "5"	Format Erases Memory OK? Y/N	Enter Format Disk Option
Press Yes	Please Insert Source Disk	Insert or Confirm System Disk in the Floppy Drive

(The above menu will not appear if you have booted from hard disk)

Press Enter	Format Disk Select A Drive	Choose a Drive

(Select a drive using the data slider, up/down cursor or numeric keypad)

Press Enter	Pls Insert Disk To Be Formatted	Asks for Destination Disk

(Eject system disk if necessary and insert the disk you wish to format)

Press Enter	Formatting …	Disk is Formatting
Then …	Format Another Disk? Y/N	Asks if You Want to Format Another Disk

- **Formatting erases the sample RAM memory.**

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Loading Presets

(Emax II Operation Manual Pages 107-108)

The Emax II is capable of having as many as 100 presets in memory (a Bank) at one time. Presets consist of raw samples which make up voices. Voices can be processed and defined so they make up a Preset. The “Emax II Basics” section in your operations manual will clarify this if you are still unclear about what constitutes a preset.

It is sometimes desirable for you to build a “custom bank” so that the presets you need are all loaded into memory at the same time.

In this exercise, we will assume you are using a hard disk.

ACTION	DISPLAY	RESULTS
Press Enter	Master [1-9] / Slider	Enter Master Module
Press 4	Erase ALL Memory Are You Sure? Y/N	Enter Erase Memory Option

(Be sure you have saved any previous work before proceeding)

Press Yes	Master [1-9] / Slider	Select to Erase Memory

(Select a drive if you have not already done so)

Press Preset Management	Preset Management [1-8] / Slider	Enter Preset Management Module
Press 1	Load Preset From Bxx <Bank Name>	Enter Load Preset Option

(Select a bank using the data slider, up/down cursor or numeric keypad)

Press Enter	Load Pxx Select Preset	Choose A Preset To Load

(Select a preset using the data slider, up/down cursor or numeric keypad)

Loading Presets

ACTION	DISPLAY	RESULTS
Press Enter	Load Pxx to P01 Select a Preset	Choose a Preset Number to Load It Into

- **The Emax II automatically defaults to the lowered numbered empty preset**

(Select a preset location using the data slider, up/down cursor or numeric keypad)

Press Enter	Loading Preset …	Seen Briefly, then …
	Rename Preset P01 Preset Name	Rename Preset
Press Enter	Preset Management	Load Preset Complete

- To continue loading more presets, follow the same instructions starting at the Press 1 step.
- This process can be repeated until memory is exhausted or the 100 preset limit is reached.
- If you have reached your memory limit, “Not Enough Memory” will flash on the screen. Simply press enter to escape.
- If at any time you wish to check how much memory you have available:

Press Master	Master [1-9] / Slider	Enter Master Module
Press 2	Sample: xxxxxxx Preset : xxxxxxx	Displays Memory Remaining

(Sample memory is displayed as how many 16-bit samples remain, not how many 8-bit bytes remain)

Real-time Controllers

(Emax II Operation Manual Pages 138-144)

Each Preset in the Emax II is capable of accepting and simultaneously processing up to six real-time controllers and two footswitches. This means that your presets have the ability to be changed as you play.

To use this feature, you simply route the appropriate controller to the desired destination. Each controller has a number and each destination has a number. Remember, however, that footswitches are not real-time controllers and destinations are listed on the front panel graphics.

For the sake of this example, set your filter frequency low and its Q high with no envelope or tracking. Consult your manual or see "Adjusting Filter Settings" (page 12) if you have questions about this procedure.

ACTION	DISPLAY	RESULTS
Start …	Pxx Preset Name	
Press Preset Definition Module	Preset Definition	Enter Preset Definition
Press "9" Option	1:x 2:x 3:x 4:x 5:x 6:x 7:x 8:x	Enter Real-time Controls

- You will note that there is no cursor blinking; In this window, you must choose a controller number on the keypad first, then assign it to a destination.

Press "2"	1:x 2:x 3:x 4:x 5:x 6:x 7:x 8:x	You Have Chosen The Right Wheel As Your Controller
Press "2"	1:x 2:2 3:x 4:x 5:x 6:x 7:x 8:x	You Have Chosen Filter Frequency As Your Controller

- Play a note and use the Mod Wheel to adjust the filter frequency in real-time.

- Try assigning other controller destinations, experiment so that your preset gives you the control you want over the sound.

- Don't forget to **SAVE YOUR WORK.**

Setting Up A Supermode Map

(Emax II Operation Manual Pages 177-179)

You may ask, “Why do I need to create a Supermode Map?” Supermode allows the Emax II to read all 16 MIDI channels at once and to route each channel to a different preset. This is called Supermode Mapping. It is important to remember that each Emax sequencer track corresponds to a particular MIDI channel. For example, Emax II sequencer track one transmits on MIDI channel one, Emax II track two transmits on MIDI channel two, Emax II track three transmits on MIDI channel three and so on.

If the bank you have loaded does not already contain a Supermode Map (which allows you to assign presets to various MIDI channels), then you must make one.

ACTION	DISPLAY	RESULTS
Press Select	Sxx Supermode	Bank Contains Supermode Map. Skip to “Assign Presets to MIDI Channels” on page 10.
OR		
Press Select	S00 Empty Seq.	Make a Supermode Map for This Bank
Press Setup	Sequencer Setup [1-6] / Slider	Enter Seq. Setup Mode
Press “6”	Super Mode: off Select on/off	Enter Supermode Module
Press ON	Super Mode: on Select on/off	Turn Supermode On
Press Enter	Sequencer Setup [1-6] / Slider	Confirms your choice
Press “1”	T01 R - - - - - - - - Status: - - - - - - - -	Enter Track Status Module

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Setting Up A Supermode Map

ACTION	DISPLAY	RESULTS
Press >	T02 R - - - - - - - - Status: - - - - - - - -	Bank Contains Supermode Map.
Press ON	T02 RR - - - - - - - - Status: - - - - - - - -	Turn on Record For The Next Track

- **Repeat the above two steps until all tracks are Record Enabled.**

Press Enter	Sequencer Setup [1-6] / Slider	Continues Your Choice
Press Record	Press Play to Engage Recording	Ready to Record
Press Play	Press a Key or Enter to Start	Set to Record
Press Enter	S00 Untitled Tempo ♪ = 120.00	Recording A Blank Sequence To Setup A Supermode Map
Press Stop	S00 Untitled	Stop Recording

- **Rename the sequence.**

Press Manage	Sequencer Manage [1-6] / Slider	Enter Manage Module
Press "6"	Rename S00 Select Sequence	Choose a Sequence To Rename
Press Enter	Rename Sequence S00 Untitled	You May Now Proceed To Rename Your Sequence (Supermode Map)

Setting Up A Supermode Map

ACTION	DISPLAY	RESULTS
▪ **When this is finished, proceed to these next steps.**		
Press Enter	Sequencer Manage	Confirms Your Choice [1-6] / Slider
Press ON	T02 RR - - - - - - - - Status: - - - - - - - -	Turn on Record For The Next Track
▪ **Assign Presets To MIDI Channels (Track Numbers Correspond to MIDI Numbers).**		
Press Setup	Sequencer Setup [1-6] / Slider	Enter Sequencer Setup Module
Press "2"	Track xx Pxx (Preset Name)	Enter Track Preset Module
Press Enter	Track xx -> Pxx Select A Preset	Choose The Desired Preset With The Cursor Or Slider
Press Enter	Track xx Select Track	Choose Another Track With The Cursor or Slider
▪ **Repeat The Above Two Steps Until All Presets Are Mapped**		
Press Setup	Pxx (Preset Name)	You Are Ready To GO!

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Basic Sampling

(Emax II Operation Manual Pages 33-34)

Sampling is an art. It entails much more than just sticking a microphone in front of something. This section is only designed to get you started on sampling with the Emax II. More in-depth coverage on sampling is available from the operations manual pages 183 - 200, as well as various other books and magazines.

Start by erasing all memory in your machine. Plug in a microphone, tape deck or other audio signal to the Sample Input jack on the back panel of the instrument. Use a ¼ inch stereo phone plug (tip, ring, sleeve) when sampling in stereo.

ACTION	DISPLAY	RESULTS
	P00 Untitled	Default Window When The is Nothing in Memory
Press Sample	Calibrating ADC	Emax II Is Calibrating The Analog to Digital Converters
Then see…	Stereo Sample	Enter Sample Menu [0-7] / Slider
Select Sample 2	STER/PRI or SEC	Selection of Stereo or Mono (PRI/SEC)

- **Note: In mono your sample will only be heard from the left audio output.**

Press "1"	Stereo G1 -10dB	Enter VU mode/ Gain Module

- **Talk into the microphone or start your audio.**

- **Adjust the input level using the data slider or up/down cursor. The signal level should be set so the peak bar comes close to the extreme right side without actually reaching it.**

Basic Sampling

ACTION	DISPLAY	RESULTS
Adjust Level	Stereo G1 +xxdB ||||||||||||||||	Adjust the Input Level
Press “6”	Sample Armed	The Emax II Is Waiting For An Audio Signal

- **Start your audio now.**

Reads . . .	Sampling	The Emax II Is Sampling The Input

- **When the sample memory is full . . .**

Reads . . .	Saving Sample	The Emax II Is Saving The Sample
Then . . .	Stereo Sample [0-7] / Slider	Return to The Sample Menu

- **You may now hear the sample by playing G1 on the keyboard.**
- **You can redo the sample by pressing “6”.**
- **If you are pleased with the sample, it can now be placed into a preset.**

Adjusting Filter Settings

(Emax II Operation Manual Pages 154-156)

There are several ways to synthesize sounds in the Emax II. Among them is Subtractive Synthesis. This form of synthesis involves subtracting harmonics and / or overtones from a sound. This subtraction is done using Emax's digital dynamic resonant filters *(the H chip).* Put simply, these filters only let certain frequencies pass through them. They are also capable of being changed in real-time and have the ability to resonate.

The filter is a highly sophisticated tone control that can affect the timbre or tone color of your samples. The filter changes timbre by removing frequencies above its cutoff point from any sound that is passed through it. If the cutoff point is set to its highest level then no frequencies are removed. As the filter is closed, the sound will progressively change.

To give you a good idea of what the filters are capable of, choose a preset with lots of high frequencies such as cymbals or a raspy synthesizer sound.

ACTION	DISPLAY	RESULTS
Start Here	Pxx <Preset Name>	Preset Window Displayed
Press Dynamic Processing	Edit Pri, Sec or Both Voices <Pri>	Do You Want To Process Primary, Secondary or Both Voices
Press Enter	Lo: low note Select a Lo Voice	Choose Low Note of Range to Process
Press Enter	Lo:xx -> Hi:hi note Select Hi Note	Choose High Note of Range to Process
Press Enter	Dynamic Proc. [11-22] / Slider	Enter Dynamic Processing Module
Press "13"	Fc Q Env Trk xxx xx +xx x.xx	Enter The Filter Section

Fc = Frequency Cutoff - where the filter starts cutting harmonics
Q = Filter Resonance - how much resonance at center frequency
Env = Filter Envelope - how much envelope is applied to the filter
Trk = Keyboard Tracking - how much the note number adds to the filter's cutoff

Adjusting Filter Settings

- Right and Left arrows (< & >) move the cursor between options
- Use the data slider to change settings
- When done adjusting the filter, adjust the Filter Envelope.

ACTION	DISPLAY	RESULTS
Press Enter	Dynamic Proc. [11-22] / Slider	Returns to Dynamic Processing Main Window
Press "14"	F: A H D S R xx xx xx xx xx	Enter Filter Envelope Module

A = **Attack** - time from key strike to maximum value
H = **Hold** - time held at maximum value
D = **Decay** - time from Hold to Sustain
S = **Sustain** - value while key is held down
R = **Release** - time from key release to zero value

- Right and Left arrows (< & >) move the cursor between options
- Use the data slider to change settings

You can go back and forth as many times as you wish by pressing Enter to return to the main option window, then pressing the appropriate number.

Remember that a negative envelope setting will move the filter down instead of up. Some interesting effects can be created using a reverse setting.

Downloading Sequences

(Emax II Operation Manual Pages 165-177)

The Emax II sequencer is capable of recording all 16 MIDI channels simultaneously. This feature can be very useful when you use an external sequencer for its editing capabilities, but do not wish to take it with you when going to a gig. Downloading sequences into the Emax II allows you to save your sequences right along with the presets in a bank.

To create a sequence using an external MIDI sequencer, you must first do the following:

1) Load the presets you wish to use into a bank. Or you may choose to load a bank that has a lot of different instruments already included in it, such as the “Pop Composer” or “Orch Composer’ banks. Follow the instructions in ”Loading Banks and Presets” (page 4).

2) Create a Supermode Map that assigns a Preset to each track. Follow the instructions in “Setting Up A Supermode Map” (page 7).

Once your sequence is edited and produced to your satisfaction, it is time to download it into the Emax II sequencer.

ACTION	DISPLAY	RESULTS
Press Select	Sxx Seq. Name	Select A Sequence
Press Setup	Sequencer Setup [1-6] / Slider	Enter Sequencer Setup Module
Press “1”	T01 R - - - - - - - - Status: - - - - - - - -	Enter Track Status Module

Downloading Sequences

ACTION	DISPLAY	RESULTS
Press >	T02 R - - - - - - - - Status: - - - - - - - -	Move The Cursor To The Next Track
Press ON	T02 R R - - - - - - - Status: - - - - - - - -	Turn On Record For The Next Track

- **Repeat the above two steps for until all the tracks are Record enabled.**

Press Enter	Sequencer Setup [1-6] / Slider	Confirms Your Choice
Press Record	Press Play To Engage Recording	Ready to Record
Then See . . .	Press A Key Or Enter To Start	Set to Record
Start External Seqeuncer	Sxx Seq Name Tempo ♪ = 120.00	Recording Sequence Into The Emax II Sequencer

When the external sequencer has finished playing back:

Press Stop	Sxx Seq Name	Stop Recording

- You may now play back the sequence by simply pressing PLAY.
- Save the bank as you normally would.
- The next time you load this bank, your sequence can be played by simply selecting the sequence and pressing PLAY.

Note: Sequences automatically loop at the end. Press STOP once to stop at the end of the sequence.

- Press STOP twice to stop immediately.

For Further Questions:

E-mu Customer Service

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Scotts Valley, CA 95067-0015

408.438.1921

For a current listing of E-mu Sounds

Contact our
Customer Support Department

Notes

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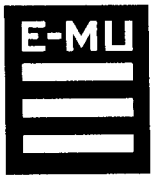

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