5 Sample Management

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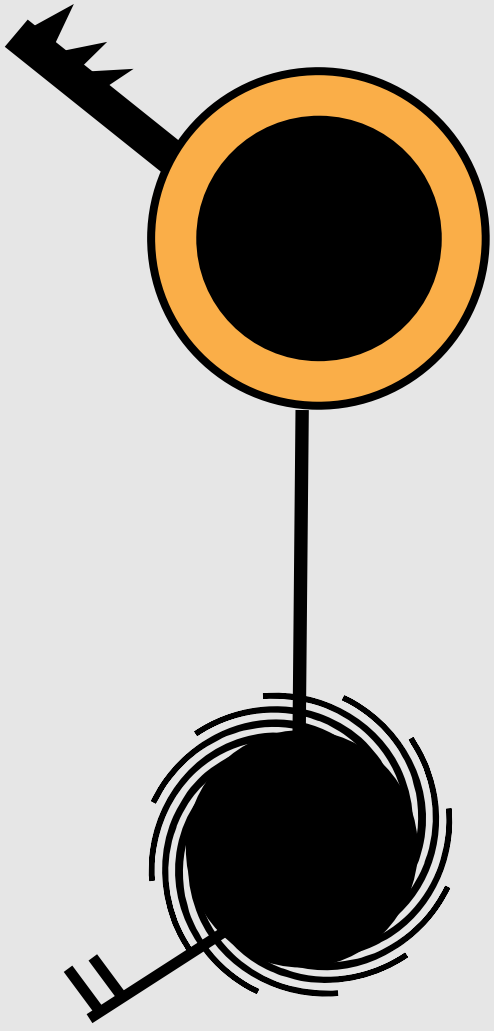
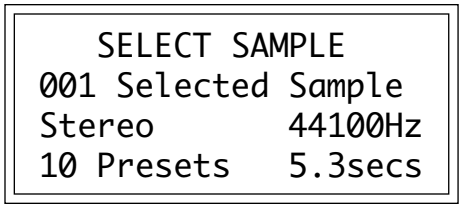


0. Select Sample

This submodule selects a sample for placing on the keyboard, or the sample into which a sound will be recorded.

1. **Activate Sample Management module.**
2. **Select the Select Sample submodule (0).**
3. **Select the desired sample and press ENTER.** As you scroll through non-empty samples, the display will show the sample number, name, sampling rate, sampling length, how many presets use the sample, and whether the sample is stereo, left, or right. And, as you scroll through the samples, they will be playable on the keyboard.



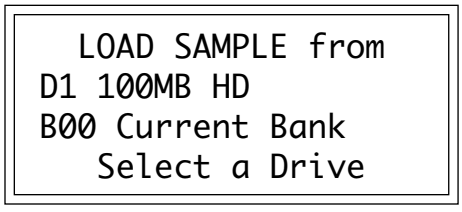
1. Load Sample

Samples can be loaded individually from the floppy disk, the internal ZIP disk or external storage devices.

1. **Activate Sample Management module.**
2. **Select Load Sample (1).**
3. **If you wish to select a different drive, press the up cursor button.** If not, proceed to step five.
4. **Select the drive containing the sample to be loaded, then press ENTER.**

★ **Tip:** *Pressing the Audition button from this submodule auditions the selected sample directly from the hard disk without having to first load it.*

5. **Select the bank that contains the sample to be loaded, then press ENTER.**



6. **Select the sample to be loaded, then press ENTER.** As you scroll through the samples, the display shows the names of the existing samples, whether stereo or mono, sampling rate, and sample length.

```
  LOAD SAMPLE from
001 Current Sample
Stereo       44100Hz
             3.0secs
```

7. **Select the destination sample number into which the source sample will be loaded, then press ENTER.** If you try to overwrite an existing sample, you will be asked if you do want to overwrite. Enter Yes to replace the existing sample, No to cancel the operation.

```
  LOAD SAMPLE into
001 Selected Sample
000 Empty Sample
 Select Dest Sample
```

8. **If desired, rename the sample.** The Rename Sample screen automatically appears. Choose the characters to be changed with the left and right cursor buttons. Select the desired characters by using the ten key pad, Data Entry Control and keyboard. You can also use the up cursor to insert spaces and the down cursor to delete spaces. (See Sample Management, Rename Sample (2).)
9. **Press ENTER to exit the submodule.** The ESI will return to the Module Identifier.

2. Rename Sample

This submodule allows you to rename any sample.

1. **Activate Sample Management module.**
2. **Select Rename Sample (2).**
3. **Scroll through the samples available for renaming, then press ENTER.**

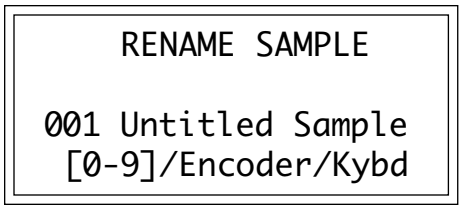
```
   RENAME SAMPLE
001 Current Sample

   Select a Sample
```

4. **Rename the sample.** Choose the characters to be changed with the right and left cursor buttons. Select the desired characters by using the ten key pad, Data Entry Control and keyboard. You can also use the up cursor to insert spaces and the down cursor to delete spaces.

★ **Tip:** *Use the data entry knob or increment/decrement buttons to access the full character set. Most keyboards do not have enough keys to access all available characters.*

See the character chart on page 241 for a complete listing of characters.

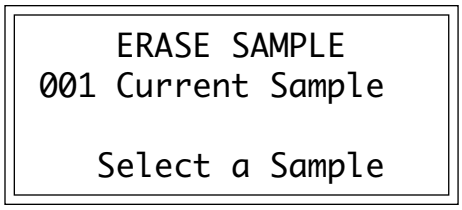


5. **Press ENTER to exit the submodule.** The ESI will return to the Module Identifier.

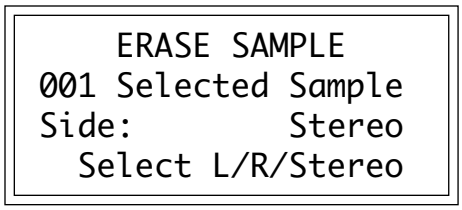
3. Erase Sample

Individual samples can be erased from the bank, and newly created samples in memory can be erased using this function.

1. **Activate Sample Management module.**
2. **Select Erase Sample (3).**
3. **Select the sample to be erased, then press ENTER.**



4. **If the sample is stereo, select whether you want to erase the left side, right side, or the entire stereo sample.**

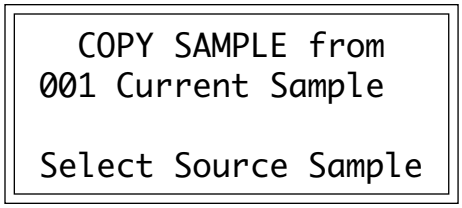


5. **Decide if you really want to erase the sample.** ESI displays a screen asking if you are sure. If you are sure you want to erase the sample, press the INC/YES button. If you are unsure or change your mind, press the DEC/NO button. ESI returns to the Module Identifier screen.

4. Copy Sample

Samples can be copied to other sample numbers within the same bank.

1. **Activate Sample Management module.**
2. **Select Submodule 4.**
3. **Select the sample to be copied, then press ENTER.**



4. **Select the destination sample number into which the source sample will be copied, then press ENTER.** If you try to overwrite an existing sample, you will be asked if you do want to overwrite. Press Yes to replace the existing sample, or No to cancel the operation.

5. **Rename the sample.** Choose the characters to be changed with the right and left cursor buttons. Select the desired characters by using the ten key pad, Data Entry Control and keyboard. You can also use the up cursor to insert spaces and the down cursor to delete spaces.
6. **Press ENTER to exit the submodule.** The ESI will return to the Module Identifier.

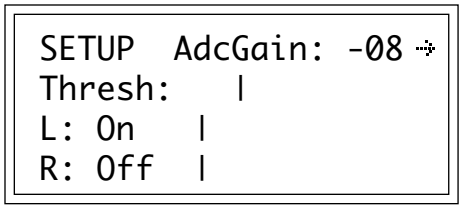
★ **Tip:** *Use the Copy Sample function (Sample Management, 5) to paste the clipboard contents to an empty sample location.*

5. Sample Setup

Use this module to prepare the ESI for sampling. Either the analog inputs or the optional digital input can be sampled.

1. **Activate Sample module.** If you want to sample into the sample number shown on the display, you need do nothing except proceed to the next step. To sample into a different sample number, refer to Select Sample (0).
2. **Select Submodule 5.**
3. **Use the cursor buttons to select one of the following parameters to edit.** Page one displays:

★ **Tip:** *The optimum gain level setting for ESI is +00. For high-quality sampling, use an external microphone preamplifier such as the one built into your mixer. The mic preamp in the ESI, while acceptable for some applications, is not designed to be used for ultra-critical sampling.*



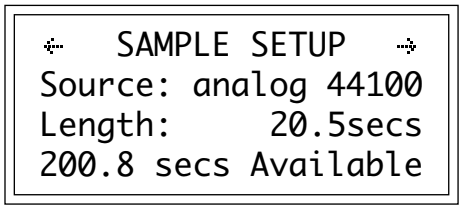
- **Gain:** Set the analog sample level with the Data Entry Control so that the left and right side meters indicate optimum sampling level. Play the sound to be sampled and observe the bar graph display. The signal level should be set so that the peak bar comes close to the extreme right side without actually reaching it. The gain is adjustable from -16 dB to +40 dB in 4 dB steps. This control has no effect on the digital input.

! **Caution:** *When sampling in stereo, the Threshold circuit only reads the left channel to initiate sampling.*

- **Thresh:** (Threshold) Set the sampling threshold with the Data Entry Control. If you arm sampling (Arm Sampling, 7) and the signal to be sampled exceeds the threshold, sampling will begin.
- **L:** (Left Channel) Line three shows the left input level, record status, and whether on or off. Press Yes or No to enable or disable recording into the left channel. When sampling into one channel only, turn off the other channel to conserve memory.
- **R:** (Right Channel) Line four shows the right input level, record status, and whether on or off. Press Yes or No to enable or disable recording into the right channel. When sampling into one channel only, turn off the other channel to conserve memory.

★ **Tip:** *The ESI actually begins sampling just before the threshold is exceeded in order to preserve the attack transient. (Presampling times are set for 12mS at 44.1kHz and 17mS at 22050Hz)*

4. **Select page two by pressing the right cursor button.** Page two shows:

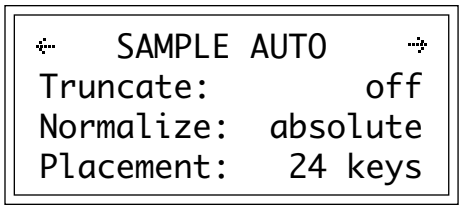


★ **Tip:** *If the digital interface card is not installed in the ESI, the digital sampling options will not appear in the display.*

- **Source:** Choose between 22050 Hz and 44100 Hz when using the analog inputs. When a digital interface card is installed, three more options, S/PDIF 32K, 44.1K or 48K will appear in the display. When using the digital input, the display setting should match the sample rate of the incoming digital data, otherwise the sample will play back at the wrong pitch.

- **Length:** This allows you to select the amount of sampling (recording) time. The maximum available length depends on the amount of memory available and the sampling rate.

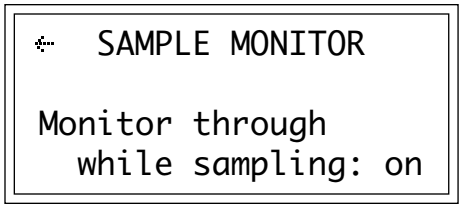
5. **Select page three by pressing the right cursor.** Page three shows the following parameters:



- **Auto Truncate:** automatically truncates the start, end, or both start and end as soon as the sample is taken. Selecting Off disables auto-truncation.
- **Auto Normalize:** increases the amplitude of a sound until the peak amplitude of the loudest sample reaches 100% of full scale. If either Absolute or Relative is selected this is done automatically after the sample is taken. Selecting Off disables auto-normalization. Relative increases the amplitude of stereo samples until the peak sample of either the left or right sample reaches 100% of full level. The relative amplitudes of the left or right samples remain intact. Selecting absolute will increase the amplitude of both the left and right samples to full level. When sampling in mono, selecting absolute or relative makes no difference.
- **Auto Placement:** selects the transposition range in which new samples will be placed. For example, selecting a range of 24 keys places the next sample over a 24 key range with the original pitch in the center of that range. Selecting white keys places each new sample on the next white key, which is useful for sound effects.

Sample Placement Rule - ESI keeps adding samples until the next one won't fit on a 5 octave keyboard - then it starts a new preset. The only exception is "All Keys", which creates a new preset for each sample and places the sample over the entire 88 note range.

6. **Select page four by pressing the right cursor.** Page four shows the monitor through while sampling select screen.



! **Caution:** *Sample monitoring does not work when sampling in S/PDIF mode.*

- **Monitor Through While Sampling:** Allows you to monitor through the main outputs while sampling is occurring.

7. **Press ENTER to exit the submodule.** The ESI will return to the Module Identifier.

6. Place Sample

Samples in the bank can be placed to cover a particular range of the keyboard.

1. **Activate Sample Management module.** The display will show the current sample number and name. If this is not the sample you want to place, refer to Sample Management, Select Sample (0).
2. **Select Place Sample (6).**
3. **Select whether you want to place the sample to a primary or secondary zone, then press ENTER.**

```
    PLACE SAMPLE
pri

   Select pri/sec
```

★ **Tip:** *Preset "templates" may be created by placing empty samples and assigning dynamic processing parameters to keyboard locations and then saving the bank.*

To use the template, simply load or copy new samples into the empty locations.

4. **Select the original pitch of the sample, then press ENTER.** As you select notes, the display will show the samples mapped into the preset.

```
    PLACE SAMPLE
pri G1

 Select Original Key
```

5. **Select the lowest key of the sample range, then press ENTER.** The display will indicate the preset status (described in step four).

```
    PLACE SAMPLE
pri G1 C1

   Select Low Key
```

6. **Select the highest key of the sample range, then press ENTER.** The display will indicate the preset status (as described in step four).

```
    PLACE SAMPLE
pri G1 C1 to B1

   Select High Key
```

7. **If the display asks Overwrite Zone? Press Yes to overwrite, or No to return to the Module Identifier.** If you press Yes to overwrite, any previously assigned samples that fall within the just-specified keyboard zone will be de-assigned from that zone.

7. Arm Sampling

Upon initiating this submodule, the ESI will begin sampling as soon as the sound to be sampled exceeds the threshold set in Sample Setup (5).

1. **Activate the Sample Management module.**
2. **Select Arm Sampling (7).** If you did not select a specific empty sample prior to arming, the first empty sample will be automatically selected. To overwrite an existing sample, erase it first.
3. **Play the sound to be sampled.** When the sound level exceeds the threshold set in 5. Setup, the display will indicate that sampling has begun.
4. **Terminate sampling.** This will occur automatically after reaching the end of the sample length set in Sample Setup (5), or if the ESI runs out of memory. To stop sampling manually, press ESCAPE. In either case, the display will return to the Module Identifier.
5. **Decide if you like the sample.** Play the keyboard. If you don't like the sample, re-arm sampling or force sampling and re-sample before deactivating the module. Once you deactivate the module, the sample will be locked against re-sampling. To erase a locked sample, use Erase Sample (3).

8. Force Sampling

Force Sampling lets you initiate sampling manually as an alternative to threshold-sensitive sampling. This is useful for situations where the signal to be sampled is more or less continuous. Continuous signals greatly complicate the threshold-setting process described in Sample, 5. Setup. Upon initiating this submodule, the ESI will begin sampling immediately.

1. **Activate Sample Management.**
2. **Select Force Sampling (8)** when you are ready to begin sampling. If you did not select a specific empty sample prior to force sampling, the first empty sample will be automatically selected. To overwrite an existing sample, erase it first.
3. **Wait as the signal is sampled.**
4. **Terminate sampling.** This will occur automatically after reaching the end of the sample length (if set in Sample Setup), or if the ESI runs out of memory. To stop sampling manually, press ESCAPE. In any case, the display will return to the Module Identifier.
5. **Decide if you like the sample.** Play the keyboard or press the AUDITION key. If you don't like the sample, re-arm sampling or force sampling again and re-sample BEFORE deactivating the module. Once you deactivate the module, the sample will be protected against re-sampling.

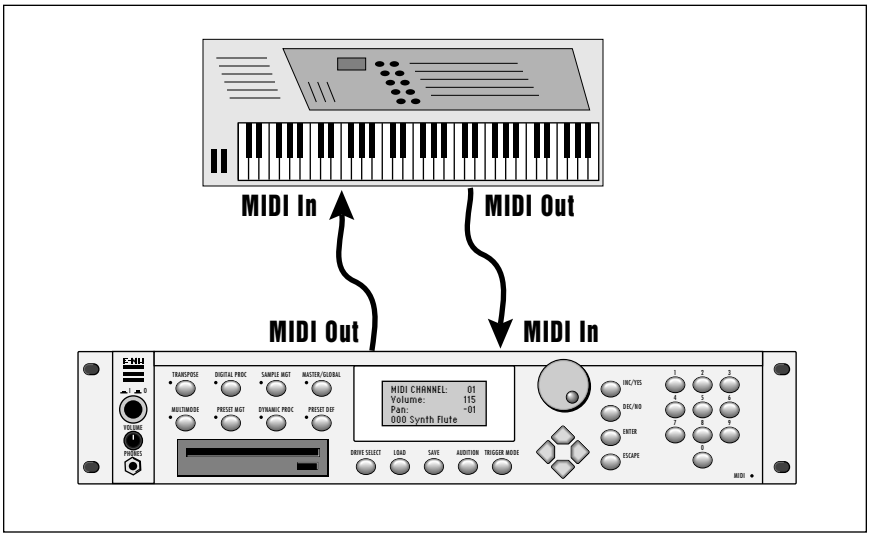
9. MIDI Sample Dump

MIDI Sample Dump allows sample data to be transferred to and from the ESI using the MIDI Sample Dump Standard. This is a way of transferring samples to and from other samplers, although none of the preset parameters are transferred. Sample loop data is retained. If imported samples have loop problems such as "ticks or pops", the Sample Integrity function (Digital Processing module, Digital Tools I (7), Sample Integrity (7)) may be able to automatically repair them. Otherwise adjust the loop points.

The ESI can transmit sample data with a word size of either 14 or 16 bits (Certain instruments such as the SP-1200 require the use of the 14 bit word size). In addition, for instruments that use 14 bits or less, 14 bit mode transmits data 30% faster.

★ **Tip:** *If you are having trouble transferring samples to your computer, try quitting any other programs running simultaneously.*

Before initiating MIDI Sample Dump, make sure that the MIDI cables are properly connected. A single MIDI cable (open-loop) is sufficient but the data transfer will be much faster if two MIDI cables are used (closed-loop). The closed-loop allows the two units to handshake and prevents idle time between each data packet. The cables should be connected between the MIDI In and MIDI Out of both units.



A "closed-loop" connection greatly accelerates MIDI Sample Dumps.

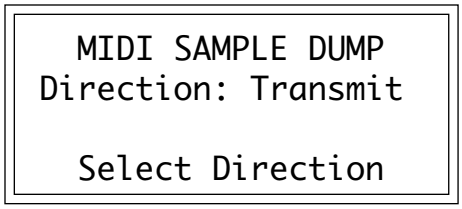
! **Caution:** *The ESI cannot receive samples to location 000 (clipboard).*

In the Sample Dump Standard and in the ESI, samples are assigned numbers. The ESI sample number and the MIDI sample number remain the same. For example, sample #36 transferred from another device to the ESI will be placed in sample location 36.

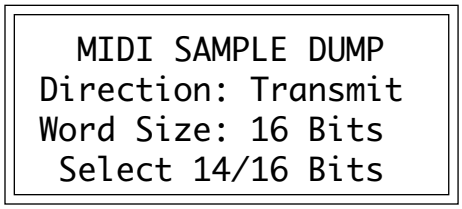
! **Caution:** *When transferring files to the Emax II, be sure that the sample rates match the Emax or the samples will play back at the wrong pitch. (Use sample rate conversion.)*

- When transferring samples to the Emax II, the sample location numbers correspond to sample dump MIDI key numbers. For example, a sample placed in location #60 in the ESI, once transmitted, will be placed on MIDI key #60 (middle C) of the Emax II. If sample location #36 is chosen as a reception location on the ESI, the ESI will request that the sample placed on MIDI key # 36 (C1) of the Emax II be sent.

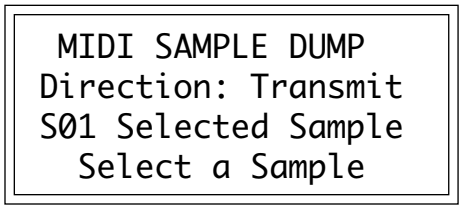
1. **Activate the Sample Management module.**
2. **Select MIDI Sample Dump (9).**
3. **Select whether you want to transmit or receive a sample and press ENTER.**



4. **Select the word size and press ENTER.**



5. **Select a sample to be transmitted and press ENTER.** If the selected sample is stereo, the ESI will ask you to select which side is to be transmitted.



6. **Press ENTER to begin the Sample Dump.**