

S-330

DIGITAL SAMPLER
GUIDE BOOK

INTRODUCTION

This guide book plainly explains the basic concept and necessary procedures of the Roland Digital Sampler S-330.

If you need more information, read the owner's manual.

Also, refer to "Basic Operation Table" at the back of this guide book.

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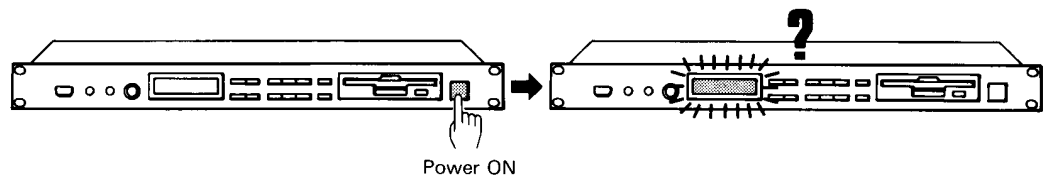
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The S-330, an Open System

1. The S-330 System Disk

The S-330 cannot be played as a musical instrument just after being turned on. This is because the “brain” of the S-330 is still empty and therefore cannot work, judge or command.



To play the S-330 as a musical instrument, it is necessary to transfer **the System Program** from **the supplied System Disk** to the “empty brain”. In other words, the System Program determines how the S-330 should function. Switch the S-330 on, then insert the System Disk into the Disk Drive, and it will automatically read the System Program from the disk. A device which does not function unless reading the system program are called “Open System”.

2. What the S-330 can do

There are two kinds of System Programs for the S-330; the Sampler System disk which is supplied with the S-330, and an optional disk the SYS-333 “DIRECTOR-S”.

The Sampler System disk is used for digitally recording sounds, editing wave data, combining samples, etc. In other words, it is designed to turn the S-330 into a Sampler. Data programmed using the Sampler System is called **Sound Data**.

The SYS-333 “DIRECTOR-S” (optional) is provided for using the S-330 as a MIDI sequencer including a sampling sound module. That is, the sequencer data recorded on the S-330 itself, plays the S-330's sound module. Data programmed using the SYS-333 sequencer disk is called **Song Data**. For a detailed explanation on this system, see page 25.

*** Please ask for the SYS-333 “DIRECTOR-S” at the store where you have purchased the S-330.**

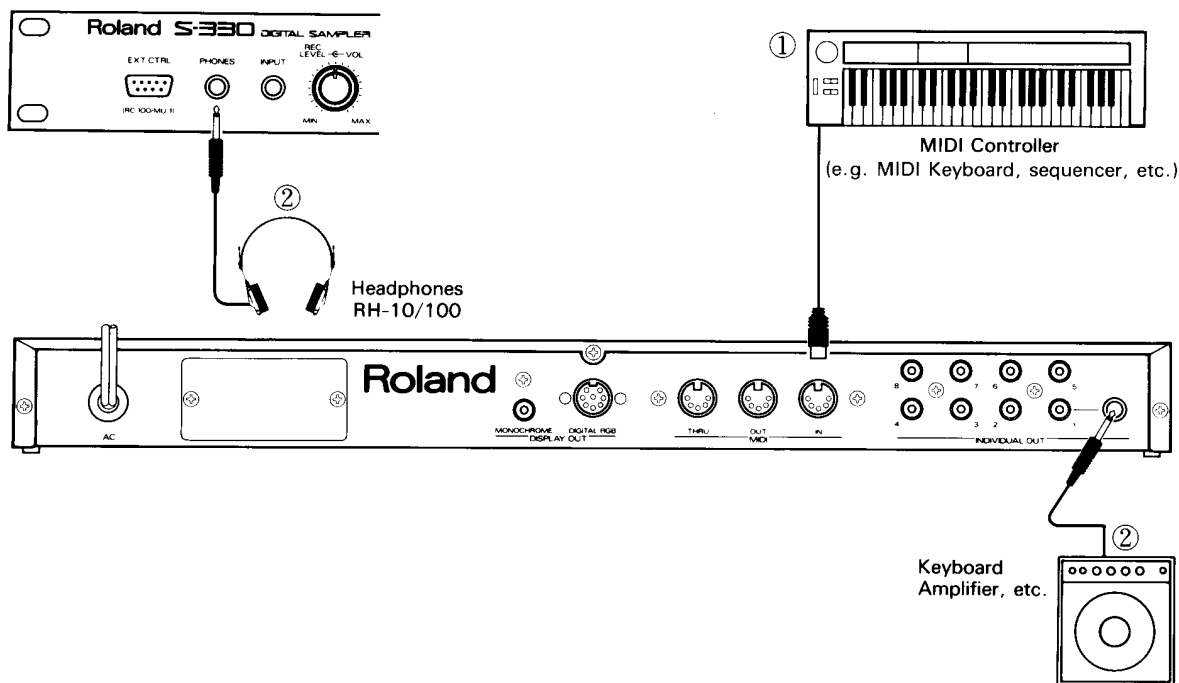
Necessary Preparations

Now, follow these necessary preparation, then boot up the S-330 with the supplied Sampler System disk.

1. Connections

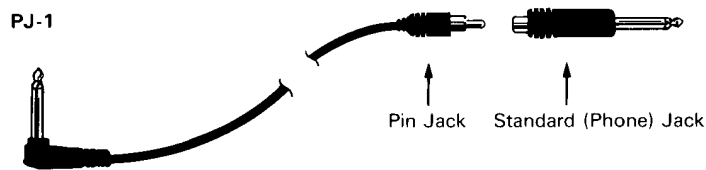
a. Basic Setup

The following is an example setup, using the minimum number of devices to play the S-330.

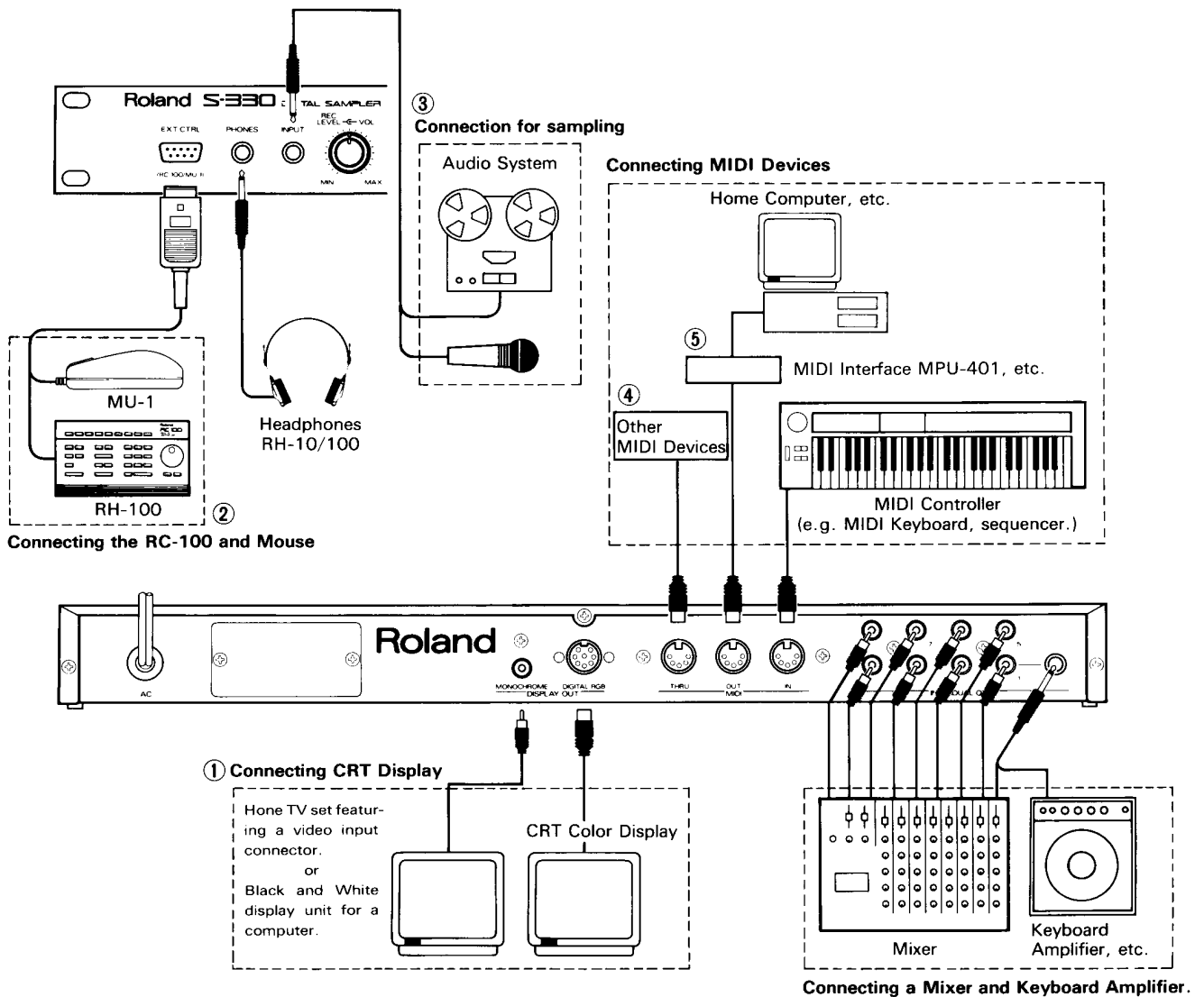


- ① The S-330 is played by MIDI performance messages received through the MIDI IN connector. Connect the MIDI IN connector of the S-330 to a MIDI Controller such as the D-50, S-50 or GM-70 Guitar Controller, or sequencer. To enjoy the expressive performance of the S-330, use a controller featuring the touch sensitivity or aftertouch.

- ② To fully benefit from the high quality sound of the S-330, use an amplifier and speaker with a wide dynamic range and frequency characteristics, such as a keyboard amplifier. You can use headphones if you cannot prepare an amplifier or speaker. (Note that the headphone output is a monaural output.)



b. More Integrated Setups



① Using a CRT Display will improve the operation on the S-330. The S-330 has two connectors for a CRT display, one is the Color Monitor connector and the other is the Monochrome Monitor connector. The Color Monitor connector is to be connected to a home computer display or a TV set featuring an RGB socket. However, before connecting a display, check if the display's input specifications match the output of the S-330 (see page 11 in the S-330's owner's manual). If not, it cannot be used with the S-330. Even when you do not have the above display, a home TV with a video input socket can do. Connect the Monochrome Monitor Connector to the Input Video Socket on a TV. The display, however, will always be black and white, even on a color TV.

② The Mouse MU-1 and the Remote Controller RC-100 (both optional) will be extremely useful for operating the S-330 with the CRT display. The Mouse requires only a forefinger and middle finger of the right hand to operate the S-330, therefore you can use your left hand for playing the keyboard. Therefore, except for turning on or off the unit or when changing a disk, you can operate the S-330 from a distance.

The Remote Controller RC-100 allows you to control the S-330 at a distance and to use the Ten Key Pad or Alpha Dial for quicker and easier operation. Also, by connecting the Mouse to the rear panel of the RC-100, you can use both units simultaneously with the S-330.

Use the EXT CTRL Connector for the connection of the Mouse or the Remote Controller.

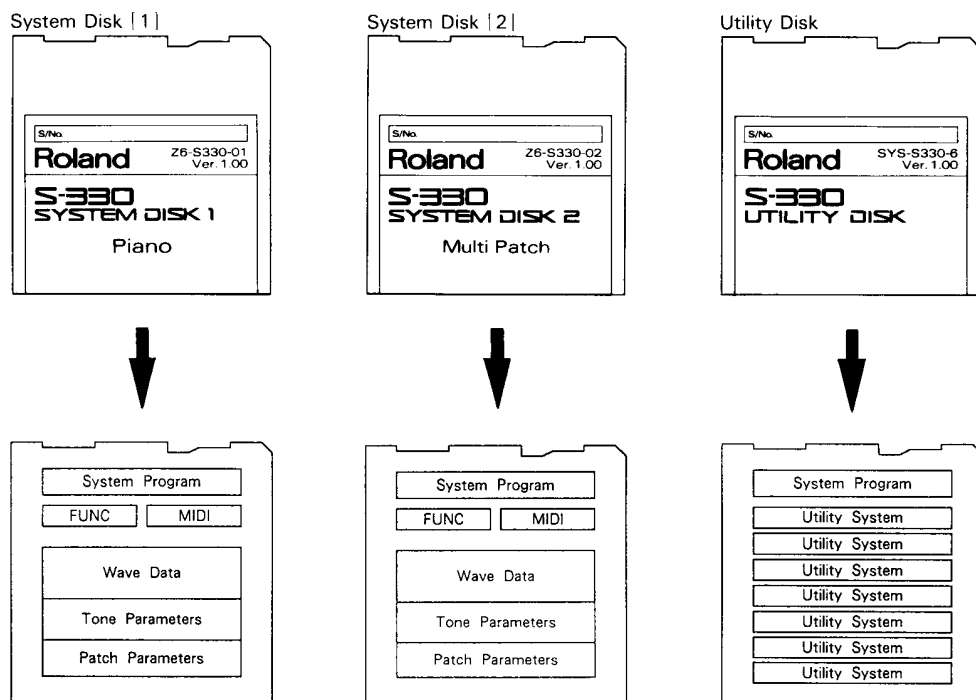
③ Connect a microphone, or the output socket of the audio equipment from which you wish to sample, to this socket when sampling a sound. Please use a cardioid microphone if possible, to avoid picking up extraneous noise.

④ Through the MIDI THRU connector, an exact copy of the messages fed from the MIDI IN will be transmitted.

⑤ Normally, the MIDI OUT connector is hardly used. It is used only for transmitting the S-330's internal data to a computer to save or edit it in the computer's memory.

2. Disk Types

The S-330 is supplied with two System Disks and a Utility Disk. All these three disks contain the same Sampler System Programs, therefore, any of them can boot up the S-330. Each of the two System Disks contains a different Sound Data. The Utility Disk contains the additional system programs that are used for sampling or modifying wave data.



Creating a Backup of the System Disk

To prevent loss of the System Program which is essential to activate the S-330, please make a few backups of a System Disk. (See page 136 in the S-330's owner's manual)

If possible, please use Roland MF2-DD floppy disks. They can be purchased at the store where you bought the S-330.

3. Power-up and Booting up

When you have made all the necessary connections, turn the units on in the following order, then boot up the S-330 using the "Multi Patch" System Disk. Before turning the S-330 on, check that a disk is not inserted in the Disk Drive, or data on the disk may be erased.

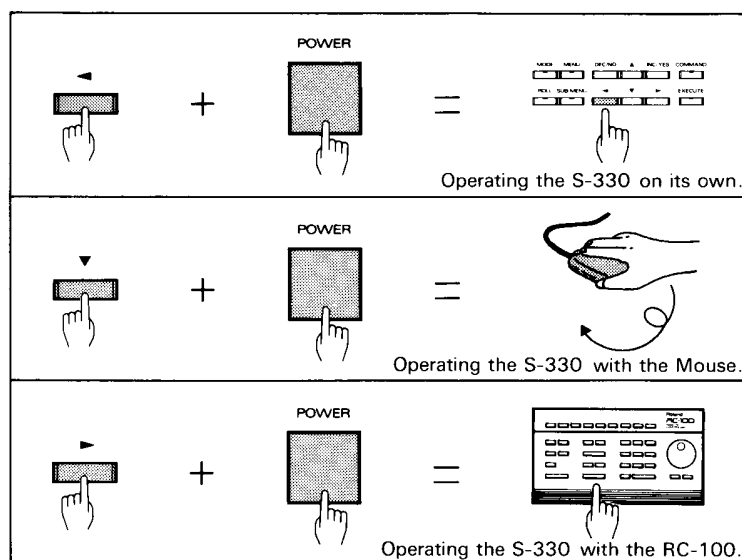
1. Turn the MIDI Controller on.

2. Turn the S-330 on as follows

If do not wish to use the Mouse, the RC-100, or the CRT display, switch the S-330 on while holding the ◀ button.

If you use a CRT display and the Mouse, turn the S-330 on while holding the ▼ button down.

If you use a CRT display and the RC-100, turn the S-330 on while holding the ▶ button down.

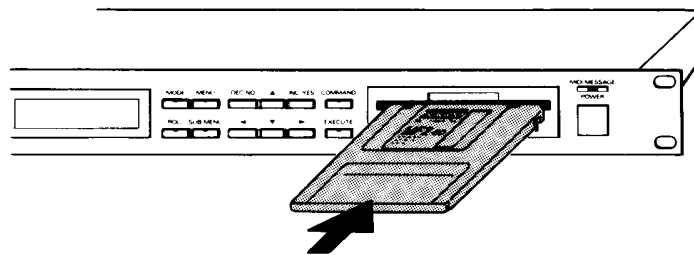


* Keep pressing the button for a while even after the unit is switched on.

* If it is possible to write your preference on a disk, that is, whether to use the Mouse and/or RC-100 or not, using the "Save SYS" function. (See page 138 in the owner's manual.) When the S-330 is turned on simply by using the Power Switch, the S-330 is booted so that it can be controlled by the controller (the Mouse and/or RC-100 or not) written on the disk. If booted with a System Disk, it will not be controlled by either of them ("off").

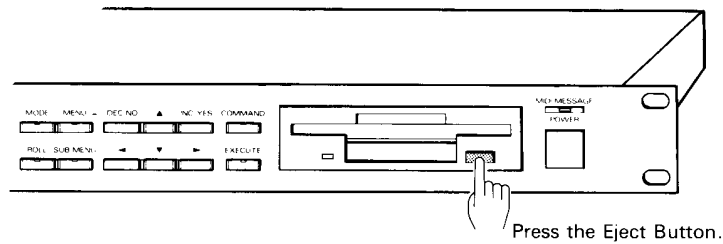
3. Switch on the Display, keyboard amplifier, then mixer.

4. Insert the "Multi Patch" System Disk into the Disk Drive as shown below.



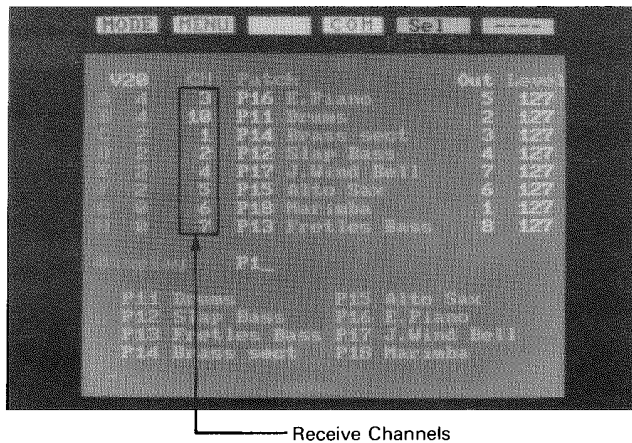
When the disk is inserted, the System Program, then the Sound Data on the Disk will be automatically load into the S-330's memory. While loading, the number in the Display counts down to zero, then returns to the Play Mode Display. (When the Utility Disk is used, as it has no Sound Data, the Play Mode Display will appear right after the System Program is loaded.)

5. As shown in the picture, push the Eject Button to remove the disk from the Disk Drive.



When the S-330 has booted up, it will automatically return to the Play mode.

To return to the Play mode from another mode, push the **MODE** button, then the **EXECUTE** button.



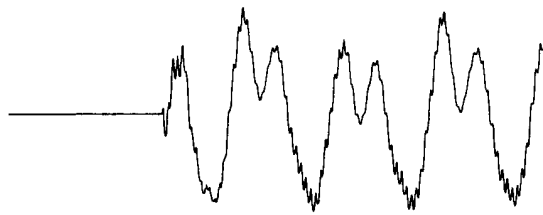
The Play mode switches the S-330 to the usual playing mode. The following shows the entire structure of the S-330; including the combination of Tones which are made from sampled wave data. We will study this later on page 21. Now, listen to the Sound Data loaded from the System Disk.

The S-330 is played by the MIDI messages sent from an external MIDI controller. The MIDI channels of the controller and the sound module should be set to the same number, otherwise, the MIDI messages cannot be communicated between the two devices. The S-330 has 8 MIDI receive channels which can be simultaneously used. The following pictures show the MIDI channels currently set on the S-330. Set the MIDI transmit channel of the controller to one of these channel numbers to listen to the S-330's sound.

Sampling and Playing

1. Sampling

“Synthesizing” can create a wide variety of sounds, but it is often very difficult to synthesize natural sounds. “Sampling” is a completely different method, which is recording real sounds which can be modified.



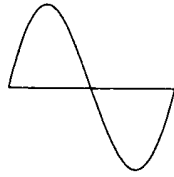
Attack wave of an electric Piano
It is difficult to make such waveforms by combining sine waves and saw tooth waves.



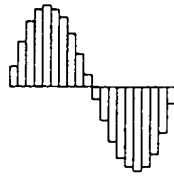
Reverberation wave of an electric Piano 1.5 second after the attack
When the reverberations calm down, wave-forms become gentle.

The S-330's sampling is conceptually like a tape recorder in that it records sounds. However, the recording process is very different since the S-330 is recording into computer memory. This is called a PCM sampling system, which is used not only for samplers but also for rhythm machines or digital effects such as digital delays. The PCM recording converts audio signal into digital. It does this by examining (sampling) the incoming signal level a great many times each second, and sequentially recording these different levels in computer memory. The Sampling frequencies are the number of times per second that a sample is made of the input signal. The S-330 can sample either at 30,000 or 15,000 samples per second (30 or 15kHz).

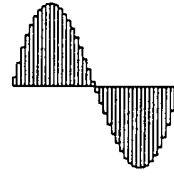
At higher sampling frequencies, the sampling time is shorter, but the audio quality of the sample is better. On the other hand, at lower sampling frequencies, longer samples are possible, but the audio quality of the sample is slightly lowered.



Input Wave form



Converts the levels of a wave into digital signals.

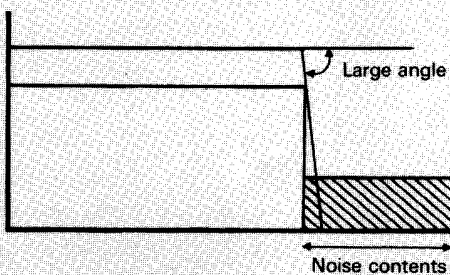


Roland S Series' DI System

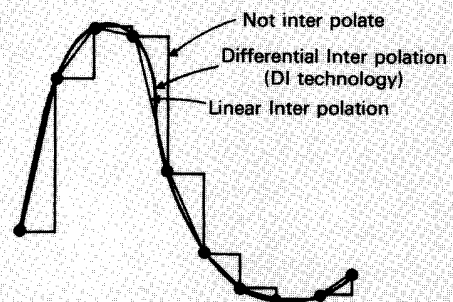
The Roland S Series Samplers adopt the DI system, which is a new technology invented for resolving noise generated while sampled data is being played.

A sampler, different from a CD player, should reproduce samples at various pitches. Many samplers change pitch by changing frequency, but the Roland S-series Samplers play the sampled data by changing the intervals. This is called the fixed sampling method. In fixed sampling, the generated noise can be cut at a certain frequency band using a sharp digital filter, resulting in successful playback of the original sound without affecting the harmonic contents.

The most important element of the DI technology is how to achieve a correct calculation of the interval points. The S-series can perform high speed calculations, supplying imaginary point data. This makes the interval setting extremely accurate, therefore, noise is greatly reduced, resulting in high quality sounds.



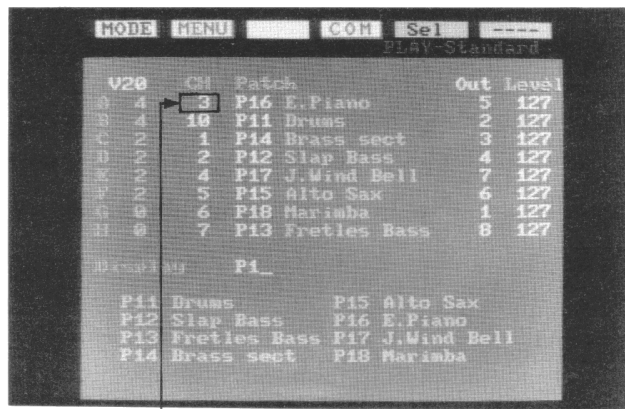
The Digital Filter sharply cuts the noise.



The data of the sampled sound is called **Wave data**, and the place where the Waves are sorted is a Wave Bank. The S-330 contains two Wave Banks, A and B. Each Wave Bank can store one long tone or many smaller tones.

Now, let's sample a sound.

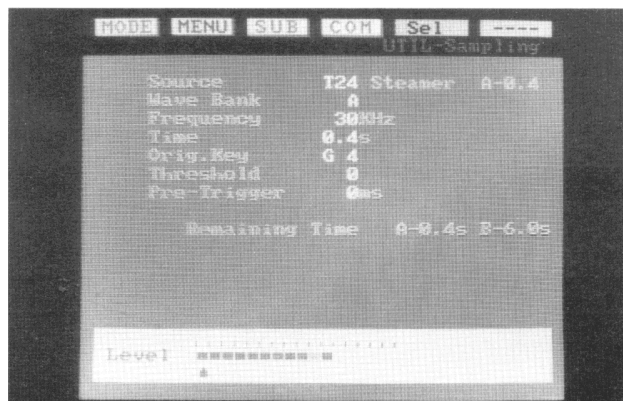
To be able to hear the sampled sound properly, set the MIDI channel of Voice Group A to the MIDI transmit channel of the controller, while in the Play mode.



MIDI Channel (Receive) of Voice Group A

Call the Sampling Menu.

The Sampling System is stored on the Utility Disk. Insert the Utility Disk into the Disk Drive, then push the MODE button. Select "UTIL" using the Cursor Buttons (▲▼), then push the EXECUTE button and MENU button to display all the menus stored on the Utility Disk. With the Cursor Buttons (▲▼), select "Sampling", then push the EXECUTE button. Now, the system program necessary for sampling will be loaded.



The Wave data you have sampled can be numbered from 11 to 18 or 21 to 28, or 31 to 38, 41 to 48. Before sampling, select a Tone Number for the Wave data you are to sample, using the relevant SUB MENU button.

Here, we select Tone Number 17 "Crash" (when the S-330 is booted up with the "Multi Patch" System disk). When you sample new Wave data, the Tone Number "Crash" will be erased. ("Crash" is erased from the internal Wave Bank but retained on the System Disk, and therefore can be loaded back to the internal memory at any time.) Move the cursor to T17, and push the EXECUTE button. Here, pushing the SUB MENU button will return to the original Sampling Display.

Original Tones and Sub Tones

The S-330 has two types of Tones; Original Tones and Sub Tones. Each sample has a Tone Number. Therefore, for example, if each sample uses an entire Wave Bank, A or B, only two Tones can be programmed, leaving the other 30 Tone Numbers meaningless. To use the remaining Tone Numbers effectively, the S-330 allows you to borrow any of the existing Tones (=Original Tones) to make a completely different Tone with a modified setting of Tone Parameters. This is called a Sub Tone.

If the selected Tone Number is an Original Tone, the wave data of the existing Tone will be rewritten with a new sample. However, if you wish to sample a longer tone than the original data, you should make a space by deleting some extra data such as another Original Tone.

If the selected Tone Number is a Sub Tone, the new sample does not automatically rewrite the existing data, therefore, when the Wave Banks are full of existing data (=when the S-330 is booted up with a System Disk), you should make sufficient space by deleting unnecessary Original Tones before sampling.

Deleting only erases data from Wave Banks in the internal memory, therefore, if the original data is saved on a disk, it can be loaded back to the internal memory. See page 63 in the owner's manual for a detailed explanation on deleting.

Now, you have selected a Tone Number. Next, you should assign a Wave Bank where the new data is to be written.

“Crash” is stored in Wave Bank A, so select “A” here.

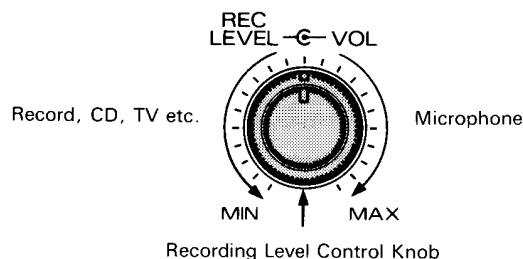
Set the Frequency (=sampling frequency), Time (sampling time), Orig. Key (original key number).

At 30kHz sampling frequency, the sound quality can be higher, while longer (double) sampling time can be obtained at 15kHz. When 15kHz is selected, “X2” is indicated beside the sampling time. The sampling time can be set in 0.4 second steps. Even if there is no empty space in the Wave Bank, up to 1.2 second sampling (at 30kHz) is possible since the Wave data of “Crash” is 1.2 second long. In other words, you can select 0.4, 0.8 or 1.2 seconds.

The original key number determines which key on the keyboard should play the original sample. For instance, when sampling a middle C(C4) piano sound, the original key number may be set to C4. If, however, D4 is set, pressing the middle “D” key will play a “C” note, and pressing the middle “C” key will play a “B \flat ” note.

Now, connect for sampling.

To sample from a record, CD or TV, connect the output socket to the Input Socket on the S-330 using an audio cable, then rotate the Recording Level Knob to the MIN position. To sample your voice or natural sound around you, connect a microphone and set the Recording Level Knob to MAX.



Now, let's feed the sound you wish to sample.

Set the volume and Recording Level Knob to the appropriate level, which is the highest possible level without the word "Over" being indicated in the Display. Connecting headphones to the headphone Sockets will allow you to monitor the sample.

The S-330 features three types of sampling; Auto, Manual and Previous. For a detailed explanation on Auto and Previous sampling, see page 42 in the owner's manual.

Here, we sample using Manual Sampling. Set the Pre-Tigger to zero.

Push the COMMAND button, then select "Manual" with the cursor Buttons (▲▼). When "Ready" appears in the Display, the S-330 is ready for sampling. Push the EXECUTE button, and feed a sound immediately. The sampling automatically stops after the set sampling time.

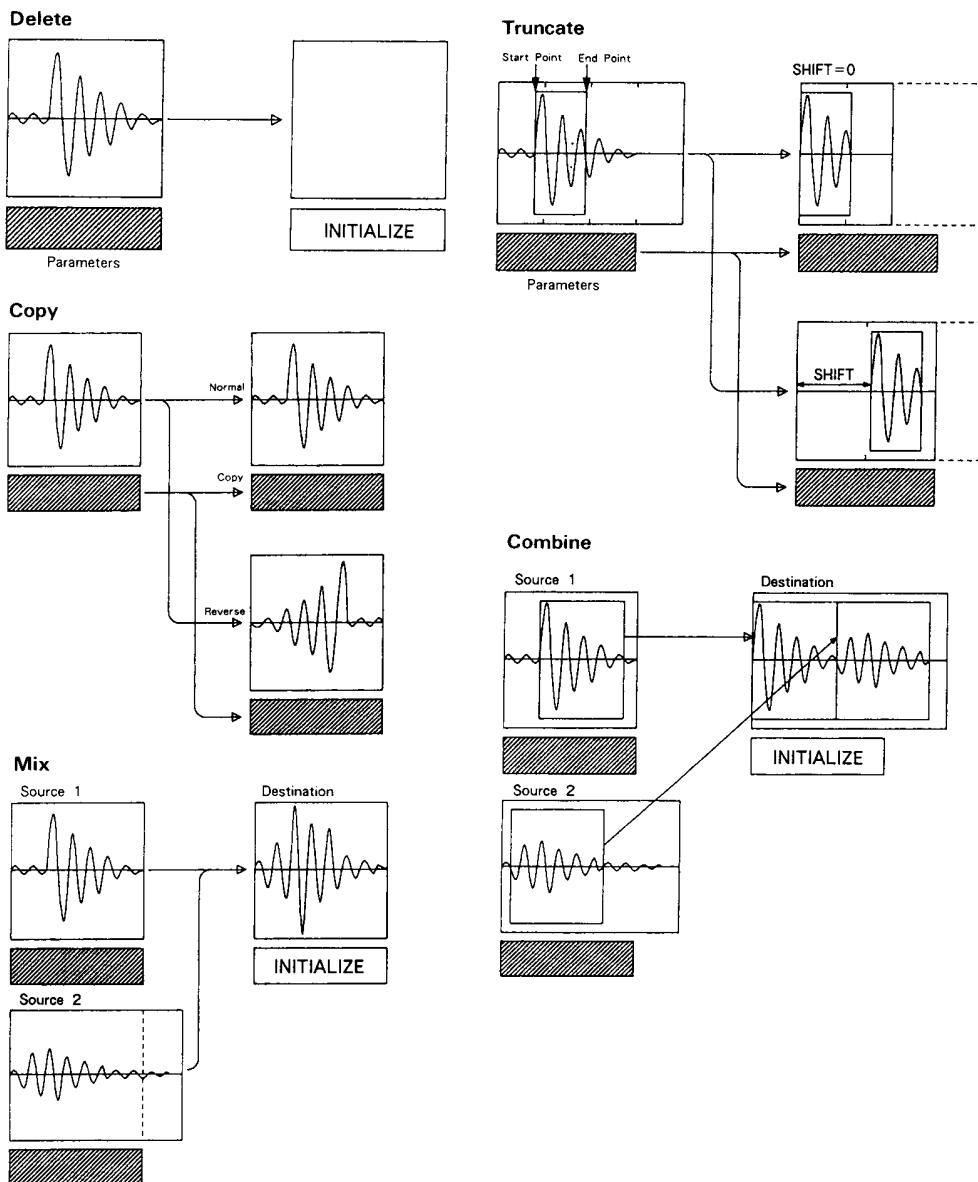
Now, play the keyboard.

The original sample will be played by pressing the Original Key. If the sound is distorted or cut, open the Command Window and re-sample at a lower volume level. If the sample does not sound immediately after the keyboard is played, resolve it later, seeh "Playback points and Loop" on page 17.

2. Editing Wave Data

The Wave data of the sample can be modified. For example, unneeded portions of the Wave data can be truncated, or you may process the tone of the Wave data, or mix two Waves, or even draw a completely new waveform using the optional Mouse (MU-1).

Here, we skip all those editing procedures and move to Setting Tone Parameters.

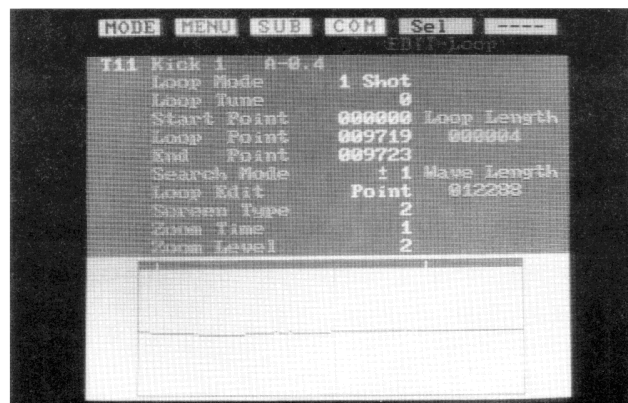


3. Setting Tone Parameters

The Wave data can be used intact or with different Tone Parameter setting. Tone Parameters involve how the recorded Wave data is read and reconstructed.

[Playback points and Loop]

Push the **MODE** button, select “**EDIT**” with the **Cursor Buttons** (▲▼), then push the **EXECUTE** button. The Display shows the **Edit Mode Menu**. Select “**Loop**” with the **Cursor Buttons** (▲▼), and push the **EXECUTE** button. The Display shows the **Loop Menu** and the **Tone** you have sampled is selected.



Loop Display

An intact sample (= Wave) is played from the beginning to the end. By setting the Start Point and the End Point, you can play only a particular portion of the wave. For example, you meant to sample “Hello” but some noise or silence is accidentally inserted before or after “Hellow”, you can resolve it by setting the Start Point before “He...” and setting the End Point after “...o” while actually listening to the sound.

Here, we set the Loop Mode to "Reverse". The loop you have made will be played in reverse.

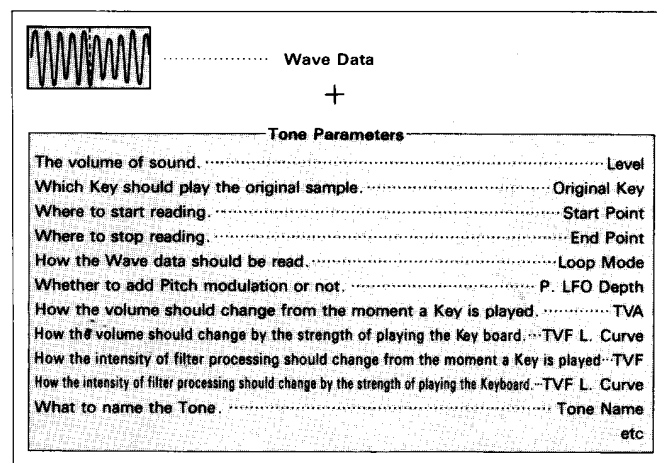
The Loop function, one of the outstanding characteristics of the S-330, plays a part of the wave data (=loop) repeatedly, while a key is being pressed.

Set the Loop Mode to "Forward". Set the Address of the Loop Point to the same number as the Start Point. As long as a key is pressed, the wave from the start to the End points sounds repeatedly. For example, our "Hello" sample will be played as "Hello Hello Hello...". Now, move the Loop Point toward the End Point. The portion from the Start to the End points is played once, then the portion from the Loop to the End points is played repeatedly like "Hello lo lo lo...".

Next, set the Loop Mode to "Alter". The portion from the Start to the End points is played once, then the loop repeats, playing forward and backward between the Loop and the End points "Hello ol lo ol lo...".

Using the above Loop function, you can make a long sustained sound successfully by combining only a stable parts of a sound. For example the sustained portion of a violin sample.

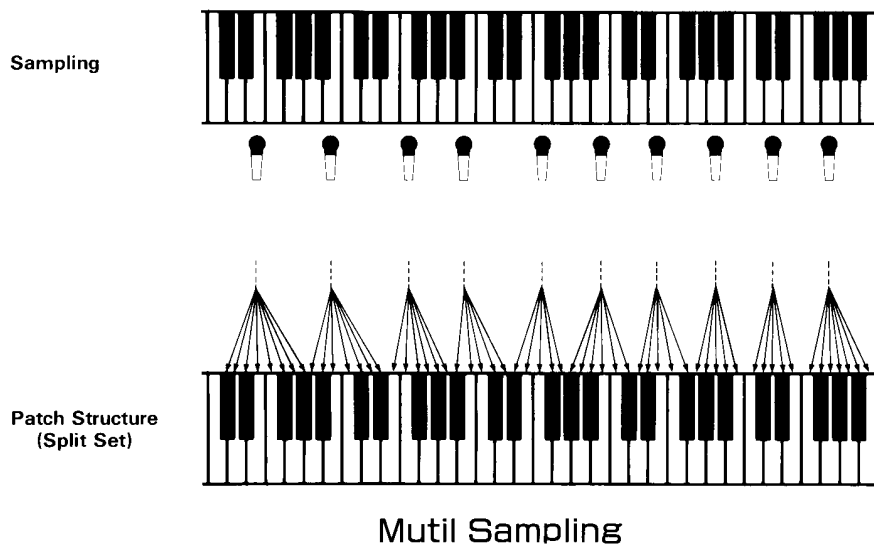
Other Tone Parameters are LFO, for modulating pitch, volume or tone, and TVF and TVA for setting envelope curves of volume or tone. The Tone Name is also a Tone Parameter. Consequently, a Tone consists of a Wave and a set of Tone Parameters.



Tone

4. Patches

The S-330 allows you to assign each Tone to a different keyboard range. A sample can be played in different pitches (=keyboard ranges), but may sound unnatural or strange in much higher or lower pitches. When pitched more than one octave higher or lower the sound may appear completely different from the original sample. So, when you wish to play an instrument sound over a wide keyboard range, for instance, if using a piano sound, divide the keyboard into 7 to 8 sections. Then sample a certain notes, and distribute the tones made by the wave data of the sample to each keyboard sections. In this way, all the key ranges will sound natural. It is also interesting to distribute a different sound to each keyboard range so that you can hear various sounds depending on the key you play. The Tone assignment to each key range is called a **Patch**.



Changing sounds depending how you play the keyboard

Actual piano sounds change depending not only on the pitch but also the strength of playing. When you play the keyboard softly, softer and rounder sound are produced, and when played hard, sharp sounds are created. Changing the volume is not sufficient for expressing different playing manners. To reproduce realistic piano sounds, separately

sample the sounds which are created by playing the keyboard strong and weak. Then make the stronger sound play only with stronger playing manner and the weaker sound play only with a weaker playing manner. This can be performed using the Key Modes, V-MIX (Velocity Mix) and V-SW (Velocity Switch). etc

The Tone assignment is performed in the “Split” menu. Push the **MODE** button, select “**EDIT**” with the **Cursor Buttons (▲▼)**, then push the **EXECUTE** button, and the **Edit Mode** menu appears in the **Display**. Using the **Cursor Buttons (▲▼)**, select “**Split**” then push the **EXECUTE** button.

Now, play the keyboard, and the **Patch** currently called is played. You can tell that various **Tones** are assigned to the keyboard.

Now, assign the **Tone** you have made. Set the **Key Mode** to “**Normal**”, the **Type Select** to “**1st**”, then call **T17** at the “**1st Tone**” position. when the **S-330** receives **MIDI** key messages from an external **MIDI** controller, the **Tone** is assigned to the corresponding keys. Press the keys where you wish to assign the **Tone**. Also, you can indicate the relevant keys on the **CRT** display by moving the **Mouse**, then push the left button on the **Mouse**. Pushing the right button will return the **Mouse Cursor** to the upper part of the **Display**.

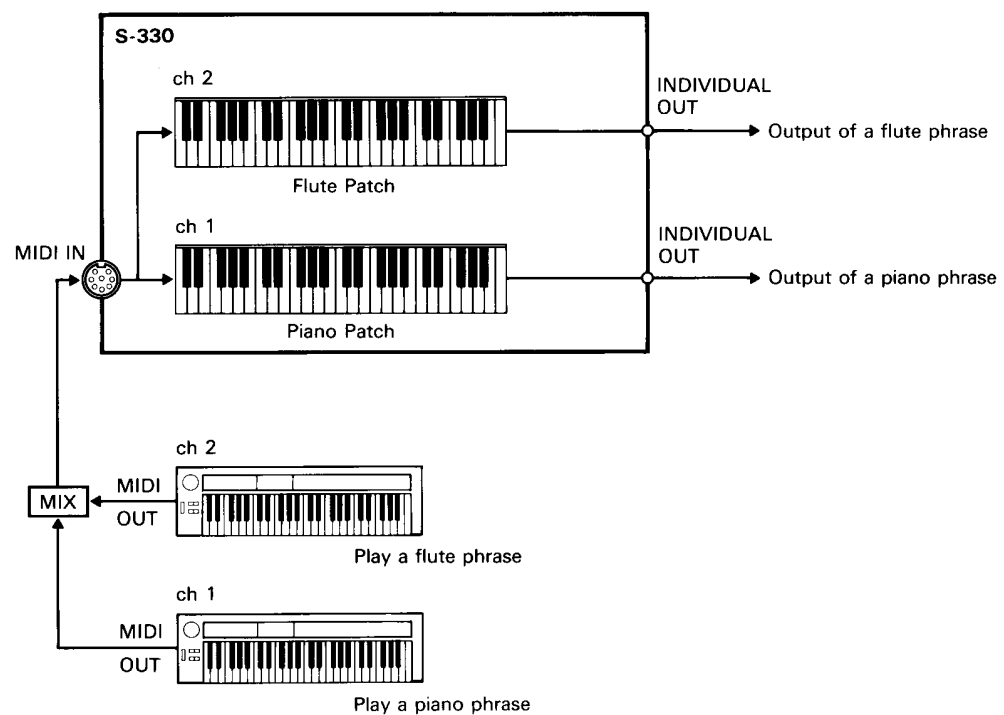
When you’ve finished assigning the **Tone**, set **Type Select** to “**Info**”, and play the keyboard to hear how it sounds.

A Patch (=Tone Assignment to Key Ranges) can have various **Patch Parameters** such as **Bend Range** or **Aftertouch**. The **Patch Name** is considered as one of the **Patch Parameters**.

5. Multi Timbre Function and 8 Individual Outputs

Now, we are back to the Play Mode.

The S-330 can play up to 8 Patches at the same time. For example, when there are two Patches; Piano and Flute, set the MIDI channel of the Piano to 1 and that of the Flute to 2. Set up two keyboards as shown below, and set the MIDI channel of A to 1 and that of B to 2. Now, playing the A keyboard will create a piano sound, while playing the B keyboard will create the flute sound. Both the piano and flute can be played simultaneously. In other words, the S-330 can play more than one sound at the same time. This is called the Multi-Timbre function.



(fig. Play two Patches)

The above example plays two Patches, but the S-330 can play up to 8 Patches simultaneously on different MIDI channels. Therefore, the S-330 can be used as 8 sets of sound modules. However, the maximum number of voices is 16.

Moreover, the S-330 can send each Patch or Tone separately through the Individual Output Sockets.

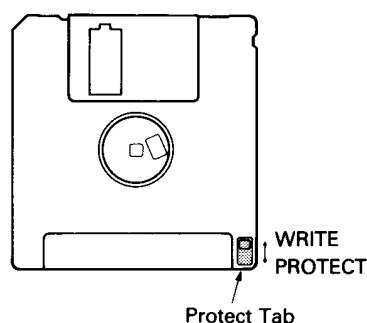
There are 8 Individual Output Sockets numbered 1 through 8. The Output 1 Phone Socket and the Headphone Socket on the front panel send exactly the same signal as Output Socket 1. “Mix” shown in the Play mode indicates that mixed signal of the 8 Individual Outputs is being sent through these three sockets. When you use headphones (when a mixer cannot be prepared), use the “Mix” mode.

If you wish to send each Patch individually, move the cursor to the “Mix” position, then change it to “Out”, and each Patch will be sent from the Individual Output set with each Patch (= the number shown under “Out” represents the number of the Individual Output). Please note that exactly the same messages are sent from the Output 1 Phone Socket and the Headphone Socket.

Data Saving and turning the Power off

1. Memory Backup of the Internal Memory

The entire data in the internal memory of the S-330 will be erased when the unit is turned off. If you wish to retain the data, save it onto a floppy disk. Each disk has a **Protect Tab** to prevent accidental erasure of data. Normally, set the Protect Tab to the **“PROTECT”** position, and set it to **“WRITE”** when saving data onto the disk. If you try to save with the Protect Tab set to the **“PROTECT”** position, the Display shows “Disk Protected” and data cannot be saved. Always return the Protect Tab to **“PROTECT”** after saving.



✦ To prevent accidental loss of data, be sure to set the Protect Tab to the PROTECT position except when writing (recording) data.

The entire data in the internal memory of the S-330 can be saved onto a new floppy disk (Roland MF2-DD) with “Backup” procedure explained on page 136 in the owner’s manual. The Roland MF2-DD can be purchased in a store where you purchased the S-330.

2. Making a Collection Disk

Various Sound Library disks for the S-330 are optional. (See the separate sheet.) The Sound Library disks L-501 to 509 are sound data for the S-50 which can be used for the S-330 if converted using the “Conv → S330” program stored on the utility Disk. (See page 145 in the owner’s manual.)

It may be a good idea to make your favorite collection from the Sound Libraries, Sound Data supplied with the S-330, or your own samples.

First of all, delete all data except for the data you want, using the “Delete” function in the EDIT mode. (See page 63 in the owner’s manual.) Then insert the disk which contains the Tone you wish to use into the Disk Drive.

If you wish to use a Patch stored on the disk without modifying it, load the Patch Parameters (including Split setting) to the S-330, using the “Load Patch” function (see page 124 in the owner’s manual), then load the Tones to the Tones of same number, one after another using the “Load Tone” (see page 126 in the owner’s manual). If the Tone of same number is used, load to the another Tone, then split set over again.

If you wish to collect many different Tones to make a Patch, collect Tones you wish to use with the “Load Tone” function, then make a Patch in the Split or Patch Parameter Display.

When loading a Tone, watch that the wave is not too long for the remaining memory of the Wave Bank.

When you’ve finished collecting data, or wish to turn off the unit in the middle of the collecting procedure, save the data using the “Backup” function (see page 136 in the owner’s manual).

3. Turning the Power off

When you have saved data onto a disk, **remove the disk**, then turn off the units in the following order.

1. **Turn off the Display, Keyboard Amplifier then Mixer.**
2. **Turn off the S-330 by pushing the Power Switch.**
3. **Turn off the MIDI Controller.**

Sequencer System “DIRECTOR-S”

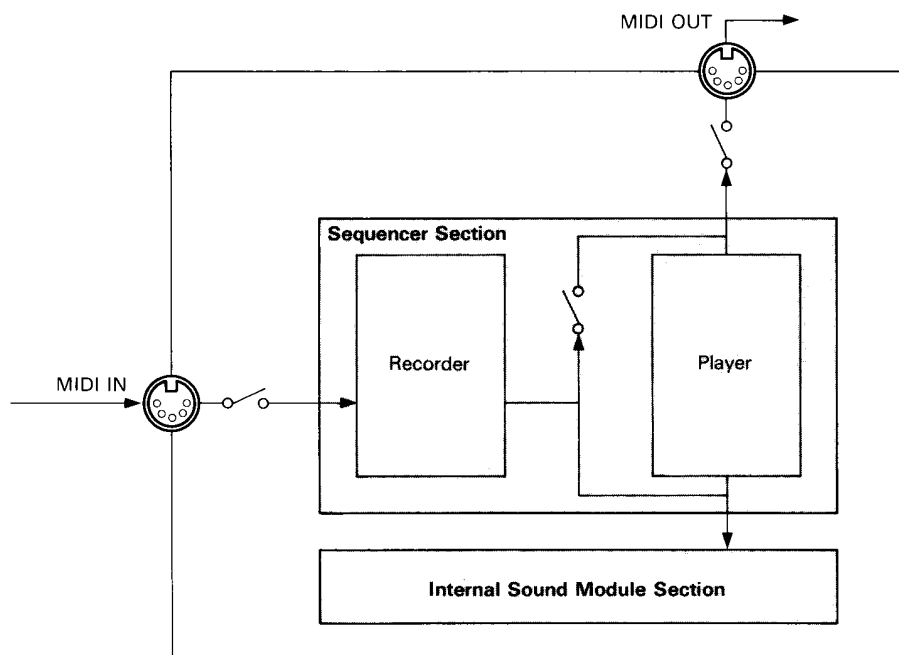
1. MIDI Sequencer and Sound Module

An S-330 booted with the SYS-333 “DIRECTOR-S” is a MIDI sequencer that features a sampling sound module.

The sequencer section records the MIDI messages fed into the MIDI IN Connector and can play them back, sending them to the MIDI OUT or to the sampling sound module section. The sampling sound module section works almost the same as when booted with the Sample System Disk supplied with the S-330 (except that the sampling wave data cannot be edited).

The sampler sound module can still be played by MIDI messages received at the MIDI IN, but is also played by the messages sent from the sequencer section when it is playing. The S-330’s sound module section has 8 different MIDI channels and, therefore works just like 8 independent sound modules.

The S-330’s sequencer and sound module may be considered as being connected with MIDI cables as shown below.



2. Programming Patterns

The SYS-333's sequencer allows you to make patterns of up to 16 bars, and make a song by combining these existing patterns.

A pattern is programmed by recording an actual performance (=real time recording). Each channel, in other words, each Patch is recorded separately. For example, you can set the receive channel of the bass guitar to the same number as the transmit channel of the keyboard which is to be used for recording the performance, and set the receive channel of the piano sound module to the transmit channel of the keyboard. Then playing the keyboard will have the same effect as overdubbing, both the bass and piano being recorded. By repeating this, song data using up to 16 channels may be entered. The recorded data can be finely modified with the Microscopic Editing functions. The entire channel data can also be edited.

3. Programming a Song

Up to 200 patterns, or 15,000 notes can be used for a Song. When making a song, you can use the same pattern as many times as you want.

Up to 6 Songs can be stored in the S-330's internal memory. However, the maximum number of notes that the internal memory capacity can accept is 15,000. That is, if a Song uses 15,000 notes, no more song can be written in memory, while all the 6 Songs of 2,000 notes can be written in memory.

These Songs can be played in sequence with 2 to 3 second interval between two Songs.

Trouble-Shooting

Q I cannot boot up the S-330.

A Check the following points.

- ① If the S-330's Display does not show any characters, check if it is switched on, and also make sure that the AC socket is firmly connected.
- ② Check if the System Disk is securely connected. A disk should be inserted until it clicks.
- ③ If the Display shows "Disk Load Error", the S-330 cannot read the system program properly. Boot it up again. If the same error message is shown, not matter how many times you try, it is likely that the System Disk is damaged, so change to a proper disk.

*** It is important to make a few backups of the System Disks.**

- ④ If the number which is counting down is turned to red, data may not be loaded properly. If this is not remedied even after re-booting, replace the disk with a proper one.

Q The Mouse does not function properly.

A To control the S-330 using the Mouse, the Controller Switch should be set to "Mouse". Check the Controller Switch indication shown on the Message Line in the "Master" menu in the Function mode.

- ① If the Controller Switch is not set to "Mouse", set it to "Mouse" as explained on page 111 and 112 in the owner's manual.
- ② If the Controller Switch is set to "Mouse", disconnect the Mouse from the EXT CTRL connector, then re-connect it securely.
- ③ Boot up the S-330 as shown on page 7.

Q The RC-100's buttons do not function.

A To control the S-330 using the RC-100, the Controller Switch should be set to "RC-100". Check the Controller Switch indication shown on the Message Line in the "Master" menu in the Function mode.

- ① If the Controller Switch is not set to "RC-100", set it to "RC-100" as explained on pages 111 to 113 in the owner's manual.
- ② If the Controller Switch is set to "RC-100", push the Reset Button on the rear of the RC-100.
- ③ Boot up the S-330 as shown on page 7.

Q The buttons or Mouse suddenly stop working.

A If pressing the buttons on the S-330 does not have any effect on the Display, the program is out of control. Turn the unit off, then turn it on after waiting a few seconds.

Q I turn off the unit by mistake during data programming.

A Data is lost, and there is no way to restore it. To prevent accidental loss of data, make it a rule to save data onto a disk as frequently as possible.

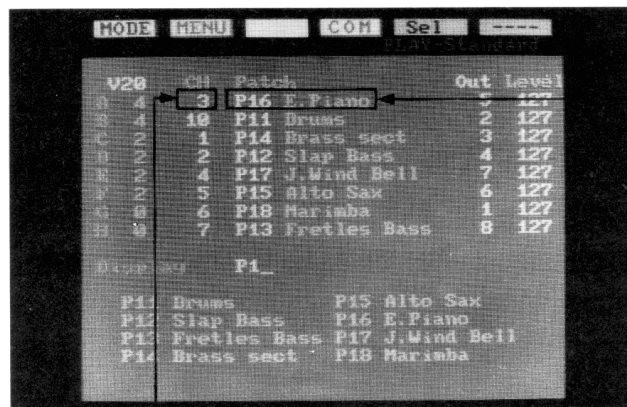
Q I cannot hear any sound.

A Check the following points.

- ① See if the Volume Knob on the front panel of the S-330 is raised and the volume of the mixer or amplifier connected to the S-330 is set sufficiently high.
- ② See if the units are correctly connected.
- ③ See if the MIDI channel of the Controller (or the Data of the SYS-333) is set to the same number as the receive channel of the S-330.

Q I cannot monitor the sound during editing or sampling.

A During sound data editing or sampling, Voice Module A is used for monitoring. The sound to be monitored is affected by the setting of the Patch assigned to Voice Module A. So, check the following points.



Check the Patch assigned to Voice Group A.

Set this number and the MIDI channel (transmit) of the MIDI Controller to the same number.



Raise the Patch Level.

Call the Patch assigned to Voice Group A.

- ① Check the receive channel of Voice Module A in the Play mode, then set the MIDI channel of the Controller (or the Data of the SYS-333) to the same number.
- ② Raise the Level of Voice Module A in the Play mode.
- ③ Check the Patch assigned to Voice Module A in the Play mode, then select that Patch in the "Patch PRM" menu in the Edit Mode. Increase the Level in the Patch Parameters.

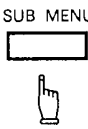








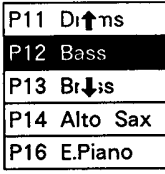
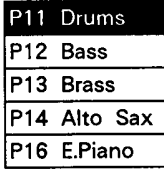






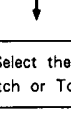




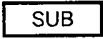
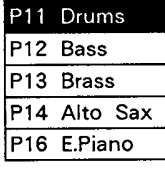
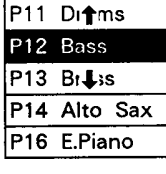
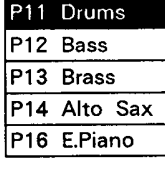
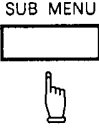
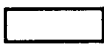
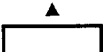



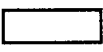


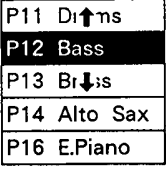
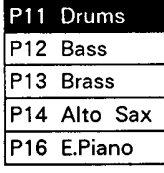
Q I want a disk which a friend of mine has given to me.

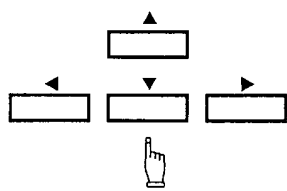
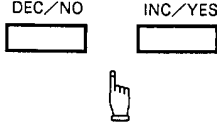
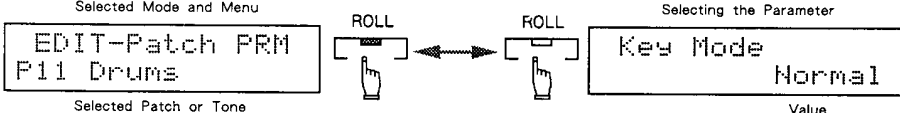
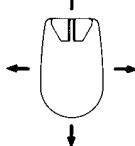
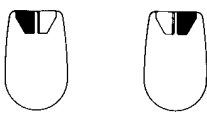
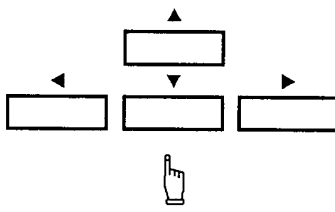
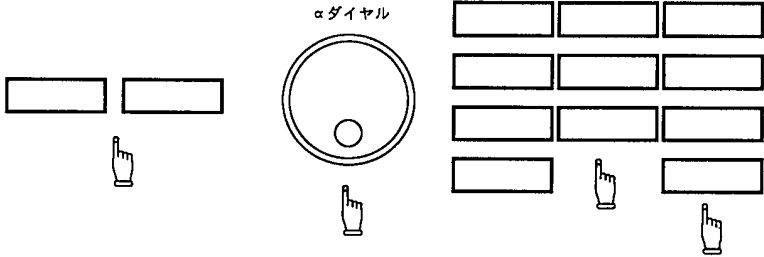
A The disk may cause trouble when used with your Utility Disk. On the S-330, the Version Number (=the number put on softwares) of the System Disk should be the same number as the utility Disk. If not, they cannot be used together. The Version number can be checked in the default Display. To use the System Disk and the Utility Disk of different Version Numbers, save the System program using the "Save SYS" function to match the Version Numbers. (Higher number mean a later system).

*** The supplied System Disks and Utility Disks have the same Version Numbers, so there is no problem.**

Basic Operation Table 1. Basic Procedure

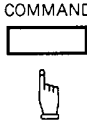
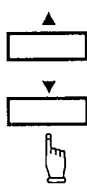
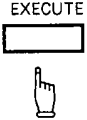

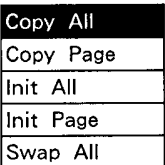
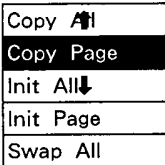
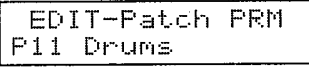


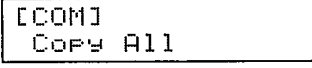



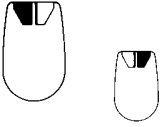

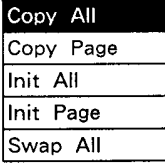
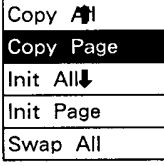

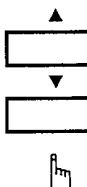
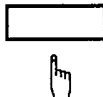

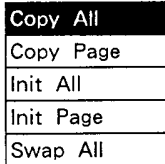
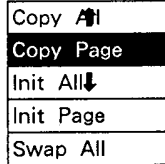
MODE and MENU Selection		Each mode has various menus. The selected mode and menu are shown at the right corner on the Message Line.						
S-330 Panel	Step							
		Open the Mode window.	Select the Mode.	Open the Menu Window. (Exit)	Select the Menu.	Execute (Exit)		
	CRT Display							
LCD Display								
MU-1	Step							
		Lit in red	Open the Mode window.	Select the Mode.	Open the Menu Window. (Exit)	Select the Menu.	Execute (Exit)	
	CRT Display							
RC-100	Step							
		Select a mode using the appropriate Mode Button. If you want the same mode, open the Menu Window with the Menu Button.			Select the Menu.	Execute (Exit)		
	CRT Display							

Sub Menu		By using the Sub Menu, you can choose Patch or Tone watching the list. The Patch or Tone previously selected is shown at the left of the → mark on the Message Line.			
S-330 Panel	Step	 EXECUTE 	  	EXECUTE  SUB MENU 	SUB MENU 
	CRT Display	Open the list. 	Select the Patch or Tone 	Decite and change the list. (Exit) 	Return to a normal display.
	LCD Display	Selected Mode and Menu ROLL ROLL The Patch or Tone previously selected.  Selecting the Patch or Tone.			
MU-1	Step		  	  	  
	CRT Display	Lit in red. 	Open the list. (Push again to change the list.) 	Select the Patch or Tone 	Decite and change the list. (Exit) 
RC-100	Step	 EXECUTE 	  	EXECUTE  SUB MENU 	SUB MENU 
	CRT Display	Open the list. 	Select the Patch or Tone 	Decite and change the list. (Exit) 	Return to a normal display.

Value Entry		Move the cursor to the parameter to be changed and enter a value.	
S-330 Panel			
	Move the cursor	Increases or decreases a number .	
CRT Display	Key Mode Normal Key Assign ↑tary Unison Detune -12 V-SW Thresh. ↓ 65 V-Mix Ratio 0	Key Mode Normal Key Assign Rotary Unison Detune -12 V-SW Thresh. 65 V-Mix Ratio 0	
			
MU-1			
	Move the cursor	Increases or decreases a number .	
RC-100			
	Move the cursor	Increases or decreases a number .	Using the Ten Key Pad, push the ENTER to set.
RC-100	Key Mode Normal Key Assign ↑tary Unison Detune -12 V-SW Thresh. ↓ 65 V-Mix Ratio 0	Key Mode Normal Key Assign Rotary Unison Detune -12 V-SW Thresh. 65 V-Mix Ratio 0	

Executing a Command

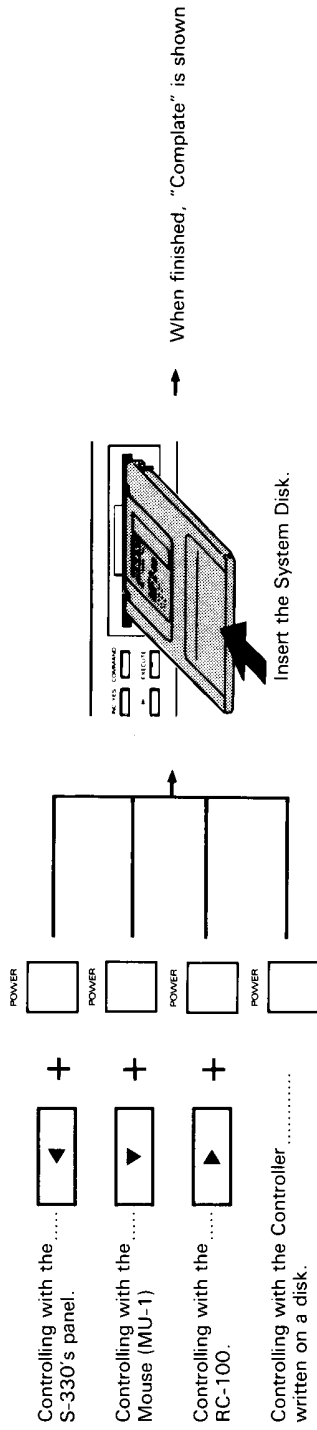
To execute a command, such as sampling, wave processing, data saving or loading, you should open the Command Window.

S-330 Panel	Step				
		Open the Command Window	Select the Command	Execute	(Exit)
	CRT Display				
LCD Display	<p>Selected Mode and Menu</p>  <p>Selected Patch or Tone</p>				 <p>Selecting the Command</p>
MU-1					
		Lit in red	Open the Command Window	Select the Command	Execute (Exit)
	COM				
RC-100	Step				
		Open the Command Window	Select the Command	Execute	(Exit)
	CRT Display				

2. Useful Functions

When the EXT CTRL is OFF, proceed your operation watching the LCD Display on the unit.

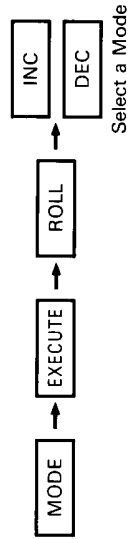
① Booting



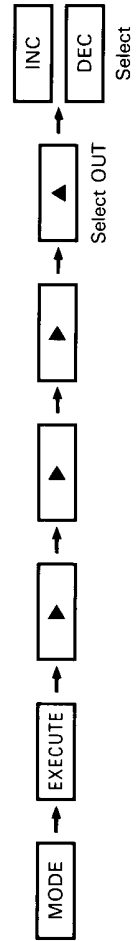
② Play Mode



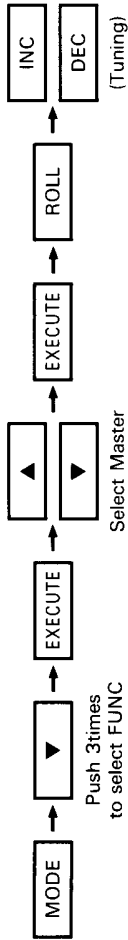
③ Changing the Voice Mode



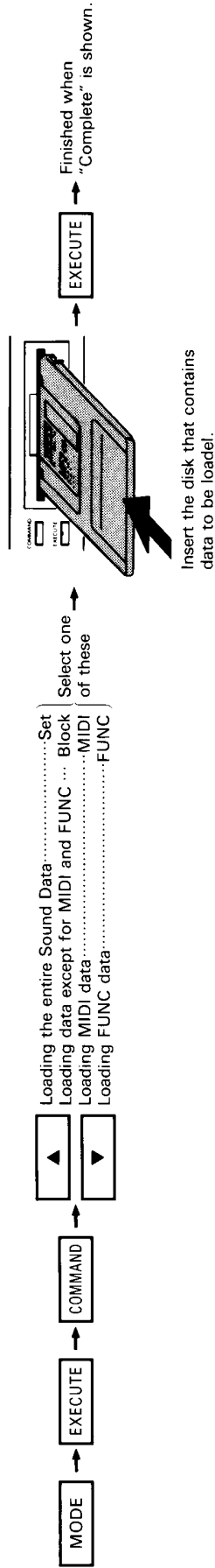
④ Selecting the Individual Out or Mix Out



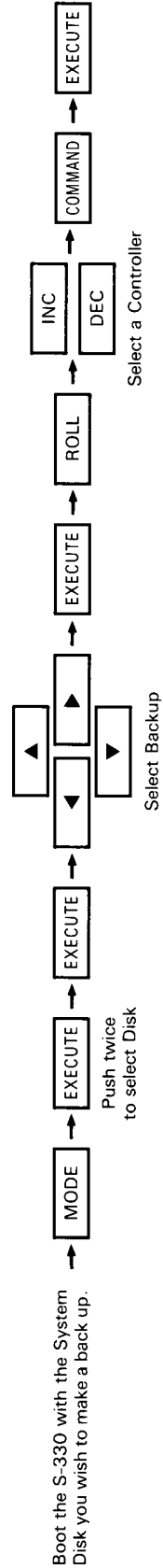
5 Master Tuning



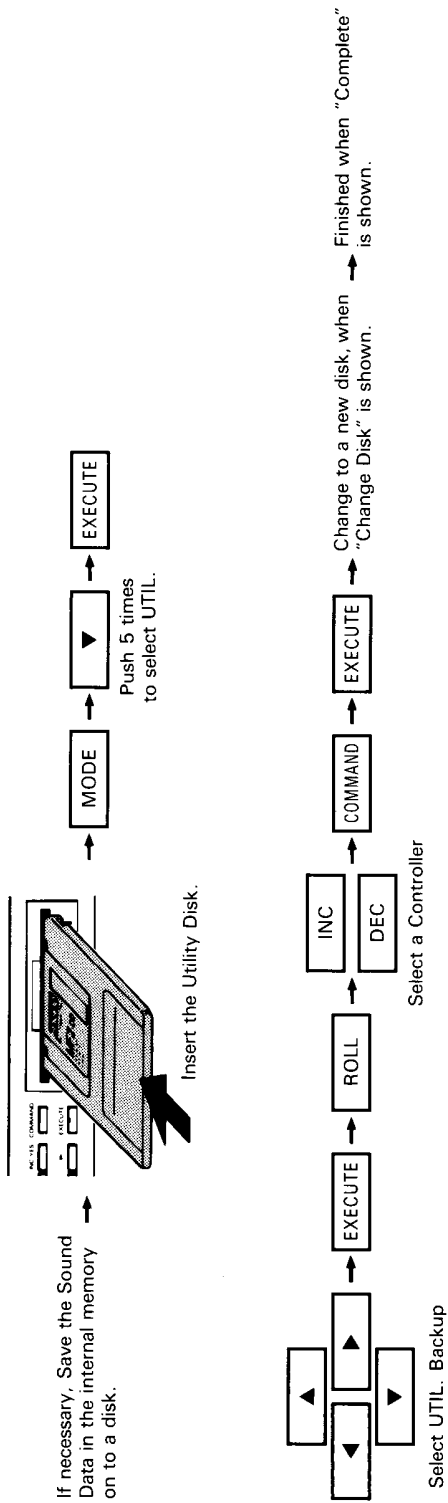
6 Loading Sound Data



7 Back up of the System Disk



⑧ Backup of the Utility Disk



⑨ Changing the Controllers

