

## S-50 Basics

The S-50 is a 12bit mono digital sampler housed in a 5 octave velocity and aftertouch sensitive keyboard. It is four part multitimbral with 16 voice polyphony. The S-50 can hold up to 32 different Tones and 8 Patches in RAM. The total sampling time provided is 14.4 seconds at 15Khz, or 7.2 seconds at its maximum sampling rate of 30Khz. In addition to the onboard LED display, the S-50 offers a mouse input and video output for control and viewing of all functions on an optional RGB or monochrome monitor. This document is intended to provide a step by step guide to a few of the S-50's most commonly used procedures. First we will show you how to create a Performance Disk. Next, we will create a Patch and show you how you can conserve memory by using Sub Tones. Then, we will cover the sampling procedure. Finally, we will provide a list of compatible peripheral devices. It is our hope that you will find this document a useful companion to the owners manual.

### I. Creating a Performance Disk

An S-50 Performance disk is a set of up to 8 Patches saved as a group on a single floppy disk. Creating a Performance disk allows you to assemble a group of your own Patches from multiple source disks. Use the following procedure to create a Performance Disk:

- 1) Insert a disk containing one or more Patches into the floppy drive.
- 2) Press DISK MODE followed by P4 to select "Load Patch."
- 3) CURSOR to the Patch name you wish to load (on the left side of the screen under "Disk").
- 4) Press SHIFT (the Command window will open) followed by ENTER to load the Patch. "Now Loading" will be displayed.
- 5) Press PLAY MODE. The Patch you just loaded will now be displayed in the first Patch location.
- 6) Use the PATCH SELECTOR buttons to select an empty Patch location.
- 7) Repeat steps 1 - 6 as desired to load additional Patches (up to eight) into the memory of the S-50.
- 8) Press DISK MODE followed by +PAGE to access additional disk functions.
- 9) Insert a formatted disk (blank) that can be used to store the final Performance data.
- 10) Press P1 to select "Save All." This will save all the Patches in memory together as a Performance onto a single disk.

*NOTE: To perform this function it is necessary that you use system version 2.0. Earlier versions of the operating system do not allow an individual Patch to be loaded into the S-50. This file is available without charge from the Roland U.S. website ([www.rolandus.com](http://www.rolandus.com)). The disk and manual for the S-50 2.0 system are available from the Roland U.S. Customer Service department. They can be reached by calling (213) 685-5141, ext. 289. The part number for the disk is SU-06 and the part number for the manual is 10491. Also, there is a conversion utility disk available to convert S-550 sound disks into S-50 format. It is the SYS-505 Conversion Disk and the part number is SU-07.*

### II. Creating a Patch (Using the 2.0 System Software)

When a sound is first sampled, that sample is referred to as a Tone. In order to use a Tone, it must be assigned to a Patch. A Patch consists of one or more Tones, each mapped to a key or range of keys across the keyboard. In Edit Mode, the Patch PRM page contains parameters that determine how the Tone(s) will respond when played. The first parameter is the Key Mode. There are 5 Key Modes to select from. A full explanation of these Key Modes and the other parameters found on this page are in the S-50 manual on pages 39-42. The default Key Mode for a Patch is "Normal."

#### Loading Tones

Use the following procedure to load Tones on the S-50:

- 1) Insert the disk containing the desired Tone(s) and press P5.
- 2) Next to "DISK," enter the number of the Tone you wish to load.
- 3) Press +PAGE to display a list of the Tones currently loaded in the S-50's internal memory.

### Loading Tones (continued)

- 4) Next to "INT," enter the desired destination for the Tone you are loading.

*NOTE: If you select a destination Tone that is not empty, the Wave data for the current Tone will be replaced by the Wave data for the Tone you are loading. Any Sub Tone that uses Wave data of the previous Tone will be deleted, becoming an empty Tone (see Section III for more information regarding Sub Tones).*

- 5) Press SHIFT to open the command window.
- 6) Press ENTER to begin loading the Tone. "NOW LOADING" will be displayed on the Message Line. When the S-50 has finished loading the Tone, "COMPLETE" will be displayed on the Message Line.

### Creating a Patch

Use the following procedure to create a Patch with one or more Tones assigned to the keyboard:

- 1) Load the desired Tone or Tones into the S-50's memory (as described previously).
- 2) Use the PATCH SELECTOR buttons to select an empty Patch location.
- 3) Press EDIT MODE followed by P2 to select "Split." The Split Info page will be displayed.
- 4) CURSOR to 1st Tone and use the ALPHA DIAL to select the Tone you wish to assign to the keyboard.
- 5) Press +PAGE to display the Split Set page.
- 6) Press the desired key(s) you wish to use to trigger the selected Tone. A marker will be displayed on the line just above the keyboard graphic on your screen. This indicates the key (or keys) where the Tone has been assigned.
- 7) Press -PAGE to return to the Split Info page. Play the keyboard to audition your settings.
- 8) Repeat steps 4-6 above to assign additional Tones to the keyboard as desired for your Patch.
- 9) Press P1 to display the Patch PRM page. Use the CURSOR buttons and ALPHA DIAL to set values for parameters 5-10 as desired before naming and saving your Patch.

*NOTE: When creating a Patch using the V-SW, X-Fade or V-Mix modes, use the CURSOR buttons and ALPHA DIAL to select values for parameters 1-10 on the Patch PRM page and select two Tones in step #4 above - one to be assigned to 1st Tone, and one to 2nd Tone.*

## III. Creating Sub Tones

Sub Tones are used by the S-50 to conserve memory. A Sub Tone allows you to share the same sample data between two different Tones. You can edit sample information on a Sub Tone without affecting the original Tone. Since Sub Tones read the waveform data of an original Tone, the original waveform must be in memory along with the Sub Tone. Use the following procedure to create a Sub Tone:

- 1) Load the desired Tone(s) into the S-50's memory (as described previously).
- 2) Press EDIT MODE followed by P3 to display the Tone PRM page.
- 3) Use the ALPHA DIAL to select an empty Tone location.
- 4) CURSOR to Original Tone and use the ALPHA DIAL to select an Original Tone containing the waveform data that you wish to use. A number at the top of the Tone PRM page will be displayed next to "Sub." This number refers to the number of the original Tone for which the Sub Tone is borrowing its waveform data.

You have now created a Sub Tone. You can edit, name, and use the Sub Tone in any Patch as long as the original Tone is in the memory of the S-50.

## IV. Sampling

The steps below provide a basic set of instructions for sampling a sound with the S-50. Information on how to loop a sample, and other sample editing processes can be found in the S-50 Owner's Manual beginning on page 50.

- 1) Connect the output of your sound source to the Input Jack on the back of the S-50.
- 2) Set the GAIN knob on the back of the S-50 to MIC or LINE (depending on the source signal).
- 3) Press REC MODE followed by -PAGE (if necessary) to access the Record SEL page.
- 4) Use the ALPHA DIAL to select an empty Tone location.
- 5) Press +PAGE to display the SET page.
- 6) Use the CURSOR buttons and ALPHA DIAL to select a Wave Bank (A or B), sampling Frequency (15kHz or 30kHz), and the length of Time (0.4 - 3.6) for the sample to be recorded. Your choices should be based on the length of the sound to be sampled, the quality of sound required, and the amount of sampling time available (indicated at the bottom of the display).

**Sampling (continued)**

- 7) Play the sound source while watching the level meter in the display. Adjust the REC LEVEL SLIDER on the left side of the keyboard as high as possible without causing the display to indicate "OVER."
- 8) Use the ALPHA DIAL to move the Threshold marker in the display just above the level of any noise or ambiance that may be present in the input signal.
- 9) Press SHIFT to open the Command window. Wait for the display to indicate "READY" and press ENTER to start recording. The display should now indicate "WAITING TRIG."
- 10) Play or start the sound to be sampled. The display will indicate "START" when the input level exceeds the threshold level. The S-50 will record the input signal from that moment for the length of time you specified and "Working" will be displayed.
- 11) When the S-50 is finished sampling, play middle "C" on the keyboard to hear your sample.

**V. Compatible Peripherals with the S-50****RGB Monitors**

These monitors require special adapter cables from Redmond Cable (206) 882-2009 / (615) 478-5760.

Atari 1224	Atari 1435	Mitsubishi DiamondScan	Commodore 1080 & 1084
Darius TSM-1431	Taxan 610/420	Sony KV1311	Sony PVM
NEC 3D	Magnavox 8762	Zenith ZVM133	

**Discontinued Accessories:**

DT-100 Digital Drawing Pad  
Director-S Sequencer Program

**Additional Hardware Support:**

Tone Genics - (415) 964-2560  
Sound Logic - (800) 753-6558

We hope that this document has provided you with a better understanding of the S-50 Digital Sampler. The operations we have covered such as sampling, creating Patches, Performance Disks, and Sub Tones, are fundamental to the basic operation of the S-50. A thorough understanding of these concepts will be helpful when you begin to create you own samples. For further information on these and more advanced operations, please consult the S-50 Owner's Manual.