

SUPER LAB™ FS2000

Owner's Manual

Main Features of the FS2000

- ◆ *The FS2000 offers 100 realistic tones and 100 exciting rhythms all with high-resolution 16-bit PCM sound quality.*
 - ◆ *The FS2000 has velocity sensitive keys which allow the volume be loud or soft depending on hard or soft you touch the keys.*
- ◆ *The Arrangement Expander varies the auto-accompaniment patterns, adding dynamic variation to your performances.*
 - ◆ *The stereo speaker design produces high-fidelity sounds, especially in the low frequency bass sounds.*
- ◆ *The Microphone IN jack allows you to sing along using the attached head set microphone.*
 - ◆ *Digital Reverb adds echo effects to the sounds of the FS2000 or to the voice input from the microphone.*
- ◆ *ONE FINGER AD-LIB gives you earcatching melodic phrases with just one touch of the keyboard.*
 - ◆ *A 22-parameter Digital Synthesizer lets you create and store new sounds.*
- ◆ *The Pattern Maker feature allows you to create and store up to five personalized auto-accompaniment patterns.*
 - ◆ *The Registration Memory section lets you store up to 20 different panel "set-ups" for instant recall.*
- ◆ *The Real-time recorder lets you record 3 performances. The Overdubbing function permits recording of individual parts one by one.*
 - ◆ *Different percussion sounds or phrases can be assigned to each of the four percussion pads.*
- ◆ *The 3.5" Disk Drive lets you store your own sounds, accompaniments, ONE FINGER AD-LIB phrases or songs on to floppy disks.*
 - ◆ *The Song Library function lets you play songs with melody part off so that you can practice playing or singing the melody part on your own.*
- ◆ *FS2000's full MIDI capability allows virtually limitless system expansion.*

KAWAI

Thank you for purchasing the KAWAI FS2000 SuperLab Personal keyboard

How to use this manual:

This manual is divided into two sections: Basic Operations and Advanced Operations.

The Basic Operations section will help you become familiar with the primary, but extremely powerful, features of the FS2000. By the time you're through with this section you will have a clear understanding of how to select Tones and Rhythms, adjust Tempo, use Auto-Accompaniment and Recorder functions, combining Tones, adding Effects, operate ONE FINGER AD-LIB, and play from the Disk Library.

The Advanced Operations section will help you explore the FS2000's more advanced features such as using the Synthesizer and MIDI, and programming Accompaniments or ONE FINGER AD-LIB phrases. To get the most from your FS2000, please read this entire manual carefully - beginning with the important information on page B - 1.

Should you have any trouble getting the FS2000 to perform properly, please refer to the Table of Contents on the next page and review the pertinent section of this instruction manual.

NOTES:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

■ This instrument complies with the limits for class B digital apparatus, pursuant to the Radio Interference Regulations, C.R.C., c. 1374.

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Introducing the FS2000

Before Using the FS2000 SuperLab

Cautions

- Do not subject the FS2000 to severe shocks.
- Do not expose the FS2000 to direct sunlight or high temperatures such as inside your car on a warm day.
- Do not use the FS2000 where there is excessive moisture or dust.
- Do not disassemble or attempt to modify the FS2000.
- Should the FS2000 become soiled, clean it using a soft, dry cloth. If this does not remove the stain, wet the cloth slightly before wiping. Never use alcohol or thinner to clean the FS2000.
- Do not allow foreign matter to enter the gaps between the keys or around the buttons.
- Do not put combustible or flammable materials near the adapter, especially when it gets hot after being plugged in for a long time.
- Take care to run power cords and connector cables so that you don't trip over them.
- Make sure the power is turned off when you hook up other pieces of equipment to the FS2000.
- Do not unplug the FS2000 by yanking on the cord; grab the plug itself and pull it out. Make sure your hands are dry before doing this, because there is some danger of shock from handling it with wet hands.
- Unplug the FS2000 if you won't be using it for a long period of time.

Check the accessories

Open the carton box and make sure all the following accessories are enclosed with FS2000.

- Owner's Manual
- Music rack
- Headphone with microphone (ST-7MF)
- Foot switch (F-1)
- Cable (Male stereo pin to mini male)
- Cable (Male monaural mini to standard female)
- Cable (Male stereo pin to female phone)
- 5 pcs. of SONG LIBRARY DISKS
- USER DISK
- AC adaptor PS-152
- Dust cover

Connecting the Power Supply

Connect a PS-152 adaptor (included) to the adaptor terminal on the rear panel of the FS2000. Then, plug the adaptor into a wall socket.



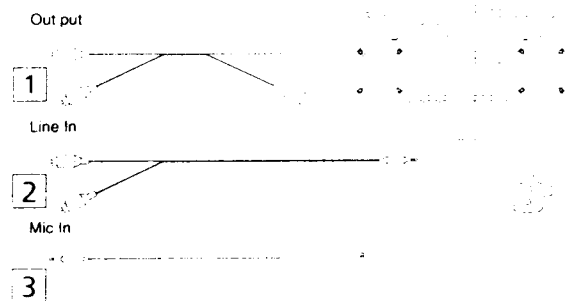
Important:

We recommend that you use a KAWAI AC adaptor (15 volt 2400 mA) with the FS2000. If you decide to use a universal adaptor (from another manufacturer) be sure that the voltage selector on that adaptor is set at 15 volt 2400 mA. The polarity selector must be set to "negative" (-) polarity. If your universal adaptor is set on "positive (+)", your FS2000 will not operate.

■ Connecting the FS2000 to External Devices

1. Listening Through Home Stereo System

You can listen to your FS2000 through your home stereo system by connecting the LINE OUT jacks on the FS2000 to the LINE IN or AUX IN jacks on your stereo system. The FS2000 uses standard RCA type phono jacks as do most home stereo systems. The standard RCA phono stereo cable is all that is needed.



2. Playing Another Device Through the FS2000

You can play an external audio device, such as a tape deck or portable radio, through your FS2000's sound system. Simply connect the LINE OUT from your external device into the FS2000's LINE IN jacks which again are RCA type phono jacks. If the LINE OUT from your external device doesn't use standard RCA type phono jacks, then you will need an adaptor to make the connection. If the adaptor or cable you need isn't one of those included with your FS2000, they can be purchased at most electronics specialty stores.

3. Connecting a Microphone to the FS2000

Your FS2000 Headphone Set comes complete with a microphone. Simply plug the monoaural mini plug on the headphone set into the MIC IN jack on the FS2000. You may also connect any type of microphone into the MIC IN jack with the appropriate adaptors. These adaptors and cables can be purchased at most electronics specialty stores.



You can adjust the volume of external audio and mics in the main Super Lab speakers by using the INPUT MIXER Volume sliders. Set the INPUT MIXER sliders to their minimum settings when not using an external audio device or a microphone.

■ About the FS2000's internal memory

The contents of the FS2000's internal memory will be kept stored by a battery built into the unit for a period of up to five years. The data that is maintained by this battery is as follows:

- Song data recorded using the recorder.
- Sounds created using the synthesizer.
- Accompaniment patterns created using the pattern maker.
- Phrases created using the programmable ONE FINGER AD-LIB feature.
- Registration settings.
- SYSTEM/MIDI data (except Rererb type select)

■ Returning to the Factory Settings

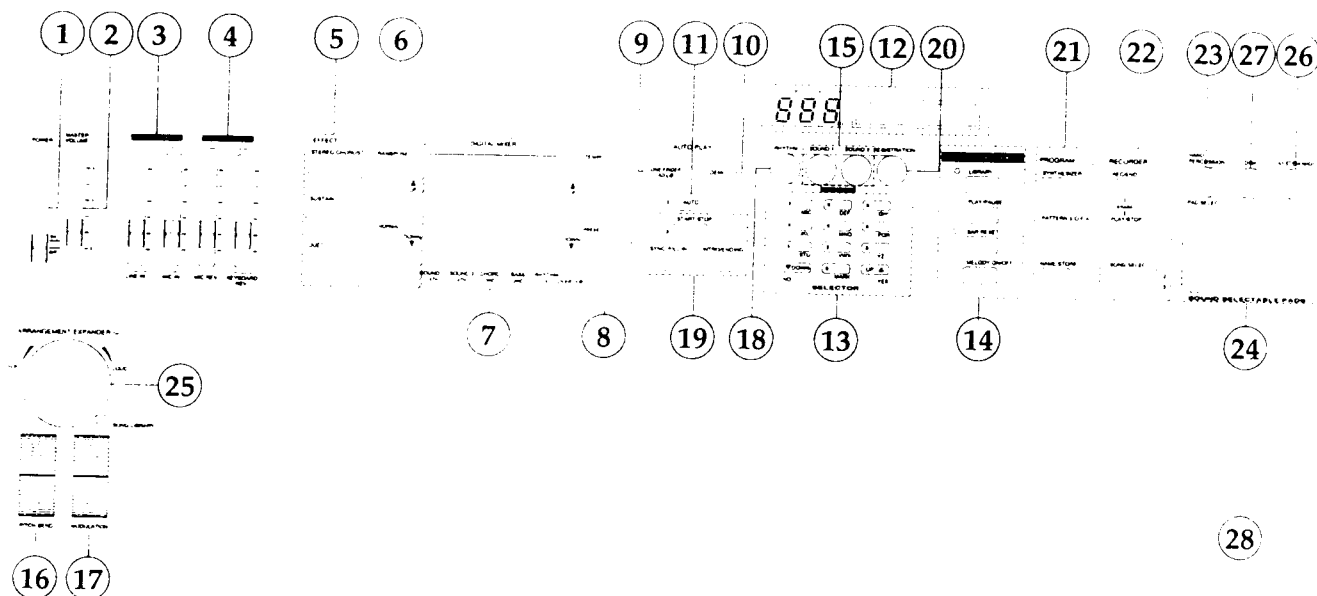
Note that if you turn the power switch ON while holding down keys C and E at the left end of the keyboard, all of the contents of the memory will be erased, and the keyboard's factory settings will be restored.

■ Protective plastic covering on front panel

Your FS2000 comes equipped with a thin plastic covering over the front panel, designed to protect the panel from dust and scratches. If you want to remove this covering, carefully use a fingernail to lift up one of the corners. Then, slowly peel off the covering and discard it.

Overall Diagram and Explanation – Operation panel

[Operation panel]



① POWER Switch

The Power Switch turns the FS2000's power on and off.

② MASTER VOLUME Slider

The master volume slider controls overall volume of all notes played on the keyboard.

③ INPUT MIXER Volume

Adjusts the volume of external audio and mics in the main SuperLab speakers.

④ DIGITAL REVERB Slider

Adjusts the level of reverb for either the sounds or the mic and external inputs.

⑤ EFFECT Buttons

These buttons allow you to add variety to the FS2000's one hundred sounds by adding effects such as Sustain, Stereo Chorus, Duet harmony.

⑥ TRANPOSE Buttons

You can use the TRANPOSE function to adjust the FS2000's pitch by one full octave upward or downward (that is, -12 half steps to +12 half steps). As you press the UP or DOWN buttons in the TRANPOSE Section, the display will briefly flash to tell you the number of half-steps you've moved above or below the "normal key". When you press the middle TRANPOSE button (between the UP and DOWN buttons), the FS2000's pitch goes back to the "normal key".

⑦ DIGITAL MIXER Section

Sound 1, Sound 2, Chord, Bass, and Rhythm volumes can be adjusted individually with these buttons. Holding down the UP ▲ button for a particular part raises the volume for that part. Holding down the ▼ DOWN button, lowers the volume for that part. Pressing the middle button ■ will establish a preset volume for that part which is in "balance" with the other parts of the accompaniment.

⑧ TEMPO Buttons

The tempo buttons can be used to control changes in Rhythm and Auto-Accompaniment tempo.

⑨ ONE FINGER AD-LIB Button

This feature allows you to sound like a "pro" by activating hundreds of impressive preset melodies stored in the FS2000 all with the touch of a finger.

⑩ DEMO Button

Select from four built-in Demo songs or the first song on your disk library. To listen to the built-in demo songs, simply press the DEMO button without inserting a disk into floppy disk drive. To demo a song from your disk library, insert a library disk and press DEMO; the first song on the disk will play.

⑪ **AUTO Button**

The AUTO button is used to select between two "playing modes" for the nineteen keys on the left end of the keyboard (which we will refer to as the Lower Keyboard). In "Normal Mode" (when the AUTO light is off), the Lower Keyboard plays the same sound selected for the Upper Keyboard.

In "AUTO Mode" (which is in effect when the AUTO light is lit), the Lower Keyboard can be used to control the FS2000's Auto-Accompaniment.

⑫ **DISPLAY**

The display window shows the name of the sound on the LED display. The window is also used to display a wide variety of other information which will be described later in this manual.

⑬ **Selector Buttons**

(a) **Numeric Buttons (Ten keys)**

Used to enter the number that appears in the LED display. To enter a number from 1 to 9, just press the number you desire. The SuperLab will wait for one second to see if you're going to press another digit. After this brief pause, the display will show the number you selected (01 to 09). To enter a number from 1 to 9 without the one-second pause, put a "zero" before the number. For example, you would press "0" and "6" to select sound number "6" immediately (with no pause).

To enter a two-digit number, enter the two digits in rapid succession. For example, to enter sound number 25, press 2 followed quickly by 5. If you wait more than one second to enter the second digit, the SuperLab will think you meant to enter a one-digit number. Referring again to the "25" example, if you wait too long to enter the second digit "5", the SuperLab will think you meant to enter a "2" and then changed your mind to enter "5". The display will end up showing "5" instead of "25". **BE SURE TO ENTER TWO-DIGIT NUMBERS IN RAPID ORDER.**

(b) **"▼ DOWN" "UP ▲" Buttons**

These buttons are used to increase or decrease the numbers in the display window by a value of 1. The same buttons are also used as "NO" or "YES" buttons for storing or transmitting MIDI data. This latter function will be described later in this manual.

⑭ **SONG LIBRARY Button**

Used when playing something that utilizes the Song Library.

⑮ **SOUND 1 and SOUND 2 Buttons**

These buttons are used to select from among the one hundred sounds stored in the FS2000.

⑯ **PITCH BEND Wheel**

Rotating this wheel up or down allows you to change the pitch of a sound.

⑰ **MODULATION Wheel**

This wheel can be used to apply vibrato to a sound.

⑱ **RHYTHM Button**

This button is used when selecting from among the one hundred rhythm and accompaniment patterns stored in the FS2000's memory.

⑲ **RHYTHM CONTROL Button**

The FS2000's Rhythm and Auto-Accompaniment section gives you four types of patterns to work with: Intro Patterns, used at the start of a song; Fill-in Patterns, to add contrast and variety during a song; Ending Patterns, used to end a song; and Basic Patterns which will be the foundation of any song using Auto-Accompaniment. These four types of patterns are controlled using these buttons. Lastly, the SYNC. button lets the rhythm and/or accompaniment start when you press any key in the Lower Keyboard.

⑳ **REGISTRATION Button**

Preset song set-ups can be stored and recalled with the **REGISTRATION** button.

㉑ **PROGRAM Section**

These buttons allow users of the FS2000 to:

- (a) Create new sounds (with the synthesizer);
- (b) Create Rhythm and Auto-Accompaniment Patterns (Basic, Intro, Fill-in, and Ending) with Pattern Maker; and
- (c) Create ONE FINGER AD-LIB phrases.

㉒ **RECORDER Section**

These buttons allow you to record the songs you write or perform on the FS2000.

㉓ **HAND PERCUSSION/PAD SELECT Button**

Pressing this button transforms the entire keyboard into a complete percussion ensemble. When Hand Percussion is on, you can also use the keys of the keyboard to assign a percussion sound to one of the four **SOUND SELECTABLE PADS**. Holding down a pad while pressing a key assigns that key's percussion sound to the pad.

㉔ **SOUND SELECTABLE PADS**

These pads allow you to add drum solos or fills to the rhythm and automatic accompaniment. As mentioned above, these pads can be assigned any of the percussion sounds available from the notes.

㉕ **ARRANGEMENT EXPANDER Dial**

Adds dynamics to the auto-accompaniment by increasing the accompaniment complexity.

㉖ **SYSTEM/MIDI Button**

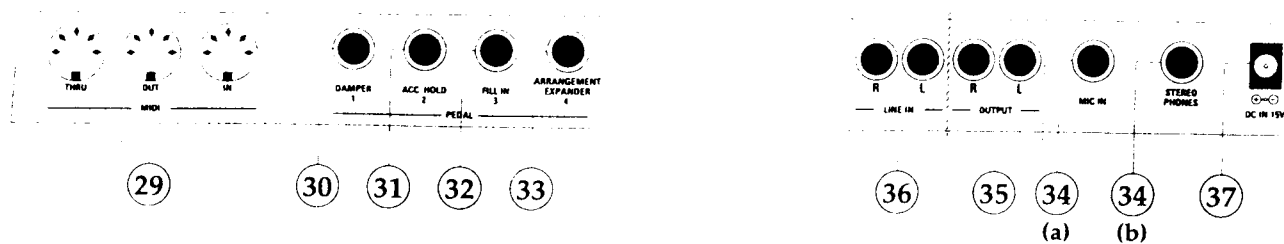
Allows access to the advanced System and MIDI functions which are described in the Advanced Operations section.

㉗ **DISK Button**

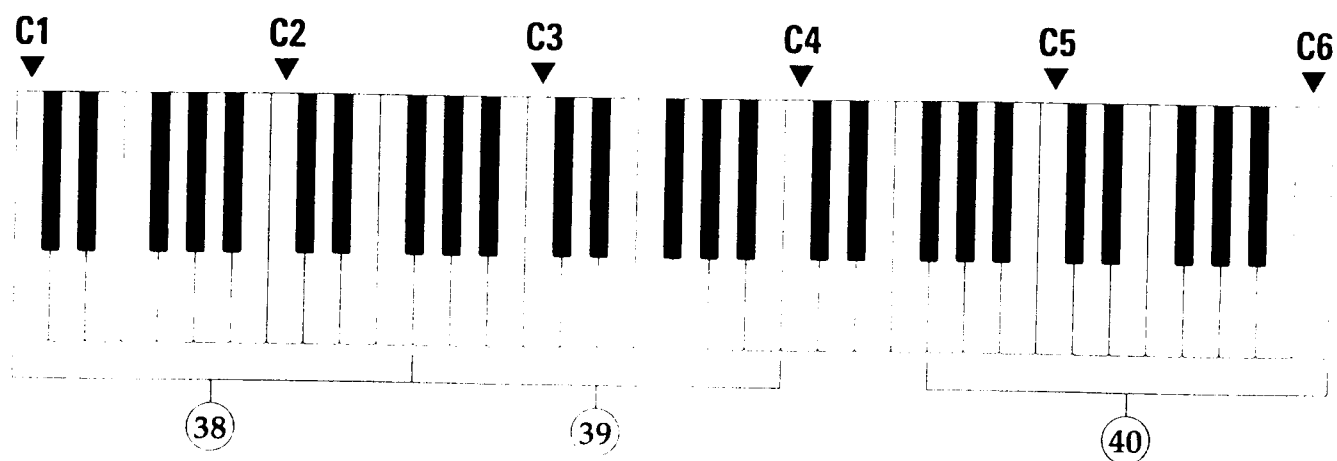
㉘ **DISK Slot**

Disks containing Song Library data or your own creations are inserted here.

[Rear Panel]



[Keys]



Overall Diagram and Explanation – Rear Panel and Keys

Rear Panel

②⑨ MIDI IN/OUT/THRU jacks

These jacks are used to connect the SuperLab to other MIDI instruments and equipment.

③⑩ Pedal 1 (DAMPER Pedal) jack

This jack allows you to connect the F-1 footswitch to the SuperLab. When the footswitch is depressed, notes played on the keyboard will play continuously for as long as the footswitch is held down. It operates like a sustain pedal on a piano. (This pedal has no effect on Rhythm and Auto-Accompaniment performance.)

③① Pedal 2 (Accompaniment Hold) jack

The jack allows you to use the F-1 footswitch in a different way from above. When connected to the Accompaniment Hold jack, the F-1 footswitch can be depressed to add variety to Rhythm and Auto-Accompaniments.

③② Pedal 3 (SYNC/FILL IN) jack

Allows the F-1 pedal to control the FILL IN function for rhythm and accompaniment.

③③ Pedal 4 (ARRANGEMENT EXPANDER) jack

The optional V-20X pedal is plugged in here to add dynamics to the accompaniment using the ARRANGEMENT EXPANDER function.

③④ MIC, Headphone jack

The headset mic that came with your FS2000 is plugged in here.

(a) MIC jack

(b) Stereo Headphones jack

When stereo headphones are connected to this jack, the sound from the speakers is cut off. This allows you to play the FS2000 at night and at other times when you might be concerned about disturbing others.

③⑤ OUTPUT jacks

These jacks are used to send the SuperLab's sound through external speakers or a home stereo system.

③⑥ LINE IN jacks

These jacks allow you to play external audio devices (like a compact disk player or cassette tape recorder) through the FS2000's speakers.

③⑦ Power Adaptor jack

This jack is used when connecting a AC Power Adaptor.



See page B-2 for special instructions if you are using a universal AC adaptor or other brand of adaptor.

Keys

③⑧ Lower Keyboard (C1 ~ F#2)

Used as a specific set of keys when the AUTO (chord detection) or Hand Percussion functions are selected.

③⑨ ONE FINGER AD-LIB keys (G2 ~ B3)

Used to play One Finger Ad-Lib phrases when the ONE FINGER AD-LIB function is selected.

④⑩ User program keys (G4 ~ C6)

Used for programming Synthesizer sounds, Auto-Accompaniments (with Pattern Maker), and ONE FINGER AD-LIB phrases.



The keys in the special keyboard sections named above also function as a normal keyboard when all automatic settings are off.



Throughout this manual, the keys on the FS2000 will be referred to in the following manner:

— C1 stands for "the first C" on the keyboard, counting from the left.

— B2 stands for "the second B" on the keyboard from the left.

The total range of the FS2000 is C1 to C6.

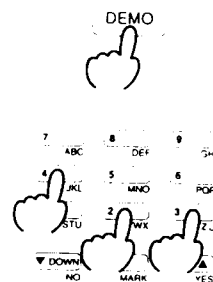
Getting Started on your FS2000

Playing Demo Songs

There are four DEMO Songs in the FS2000.

1. Press the **DEMO** button. There are four songs that will play in consecutive order and then return to the first song to begin the "cycle" again. To select DEMO Songs #2, #3, or #4 directly, press #2, #3, or #4 with the numeric **SELECTOR** buttons just after pressing the DEMO button. You can also play the first song on your disk library by pressing the **DEMO** button after inserting the disk containing your desired song.

1



2. Press the **DEMO** button one more time to stop the demo song.

2



Selecting Sounds

This section will show you how to select and play any of the sounds listed in the *100 SOUND LIBRARY* on the FS2000's front panel.

1. First, check to be sure that the **POWER** is on. The sound numbered 01 (PIANO) should show in the display.

Check the **POWER** switch.



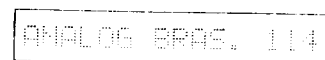
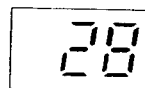
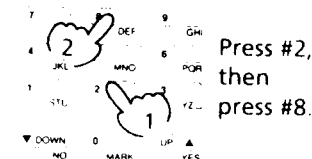
Display 1



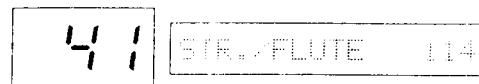
Display 2

2. Check to be sure that the lamp above the **SOUND 1** button is lit. Press #2 and then #8 with the numeric keys to select sound number 28 (ANALOG BRAS).

Display 1 will show the number and Display 2 will show the name of the sound you selected. You can use the numeric keys to choose any of the FS2000's one hundred sounds quickly and easily. The **UP** ▲ button adds one to the number in the display, while the **DOWN** ▼ button subtracts one from the number. The number shown in the display is the sound currently selected.



3. Press #4 and then #1 with the numeric keys to select sound number 41. If you select one of the **SPLIT** sounds, which are numbered 41 through 50 in the **100 SOUND LIBRARY**, you will find that the 19 keys on the left end of the keyboard (the Lower Keyboard) produce a different sound from the rest of the keys to their right.



Lower
Keyboard



OFA means
ONE FINGER AD-LIB.



Summary:
To select sounds:

1. Check to be sure that the lamp above the **Sound 1** button is lit. If not, press the **Sound 1** button.
2. Select a sound from the "**100 SOUND LIBRARY**" and input the sound number using the selector buttons.



Two-digit numbers must be entered in rapid succession. A single-digit number will be automatically entered if you take too long to enter the second digit.

You can control the volume of the sound with Master Volume slider and Sound 1 volume buttons. (See page B-31 "The Digital Mixer Section" for a detail.)

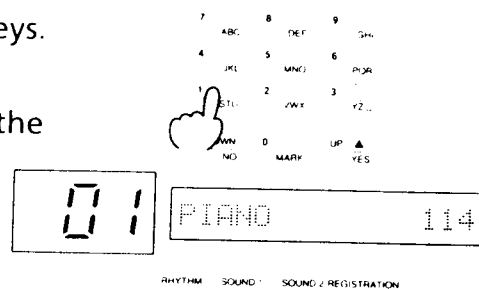
You can also control the volume with **VELOCITY** (how hard you hit the keys).

Using the DUAL Function

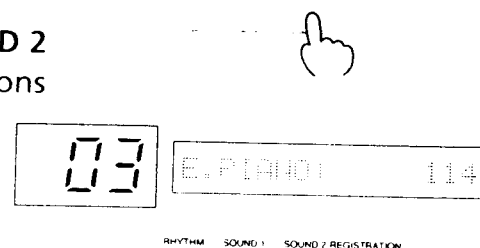
Combining Two Sounds

Try combining two of the sounds listed in the FS2000's "100 SOUND LIBRARY", for a rich DUAL sound effect.

1. First, select any sound you like using the numeric keys. As an example, choose sound number 01 (PIANO).
2. Next, press the **SOUND 2** button. The lamp above the button will light up. Now select another sound. [We will choose number 03 (E.PIANO 1) for our example.]

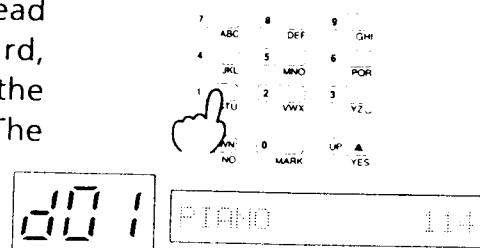


3. Now press both the **SOUND 1** button and the **SOUND 2** button simultaneously. The lamps above these buttons will light up and the display 2 should change to read **000**. If you press one of the keys on the keyboard, you will hear the combination of sounds 01 and 03, PIANO and E.PIANO 1.



What does 000 mean? — When two sounds are played at once, varying the pitch of the sounds slightly with respect to each other makes the combined sound much richer. This varying of the pitch of two sounds is called "Detuning." The FS2000 allows you to detune two sounds when using the DUAL effect. The "0" in the display therefore stands for "Detune," and the "00" following it represents the difference in pitch between SOUND 1 and SOUND 2.

4. Press the **#1** button. The display should change to read **001**. Now, when you press a key on the keyboard, you will hear a slightly richer sound. You can use the numeric keys to set a detune value of 00 to 07. The higher the number is, the greater the difference in pitch becomes. You have up to 40,000 different DUAL sound variations available when using the DUAL effect with 7 levels of detune.



The volume of the sound 1 and sound 2 can be adjusted using the volume buttons in the DIGITAL MIXER section. (See page.B-31 "The Digital Mixer Section" for a detail.)

Adding Effects

The FS2000 has several effects which can add realism or excitement to your selected sounds.

A Few Points To Remember About Selecting Tones

- When you choose the DUAL effect, the STEREO CHORUS effect, or the DUET effect, the number of notes that can be heard at the same time (polyphony) will be reduced.
- When using the Dual and Stereo Chorus together, the Stereo Chorus effect is applied only to the tone selected as SOUND 1.

PITCH BEND Wheel:

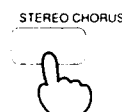
Pitch bend is an effect by which the pitch of a sound is bent smoothly up or down. It is useful for copying the sound of a guitar being played with a "Choking" technique. Try rotating the Pitch Bend Wheel while holding down one of keys on the keyboard. The pitch of the sound will bend smoothly.

MODULATION Wheel:

The Modulation Wheel is used to add vibrato to a sound. When you do not want to use vibrato, rotate the Modulation Wheel downward (toward you) as far as possible. This minimizes the vibrato effect. Turn the wheel upward (away from you) to increase vibrato depth.

STEREO CHORUS:

Pressing the **STEREO CHORUS** button adds a deep stereo richness to the currently selected sound. Pressing the button a second time cancels the effect.



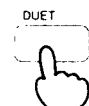
SUSTAIN:

Pressing the **SUSTAIN** button lengthens the duration of notes played on the keyboard. Pressing the button a second time cancels the effect.



DUET:

The FS2000 will add a harmonizing note to each melody note that is played on the keyboard when the **DUET** button is pressed. This lets you play a duet performance while playing only one melody note. It is extremely effective when used together with the Auto-Accompaniment function. Pressing the button a second time cancels the DUET effect.



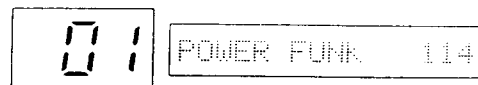
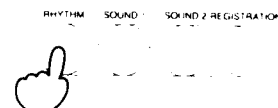
REVERB:

Reverb can be easily applied in the SuperLab. Reverb is different from the other Superlab effects in that all it affects everything, not just the SOUND 1 and SOUND 2 tones. Push up the KEYBOARD REVERB slider in the DIGITAL REVERB area. When you play a key you'll hear that reverb has been added to the sound. You can select 2 different kinds of SuperLab reverb (see page A-33).

Selecting Rhythms

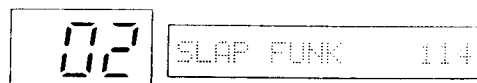
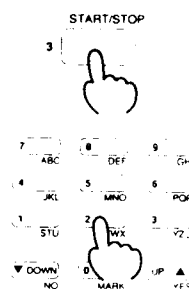
This section will show you how to select and play any of the rhythms listed in the "100 RHYTHM LIBRARY" on the FS2000's front panel.

1. Begin by pressing the **RHYTHM** button. The lamp above the switch will light and Display 1 will change to read 01. Display 2 will show the rhythm name on the left side and tempo on the right side.

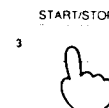


2. If you press the **START/STOP** button at this point, rhythm number 01 (POWER FUNK) will begin to play. Now find the **numeric** keys and press the #2 button. The display will change to indicate the number, name, and tempo of the new rhythm selected.

Use the **SELECTOR** buttons in this way to select any rhythm you desire. The display will change to indicate the number, name, and tempo of the rhythm currently selected.

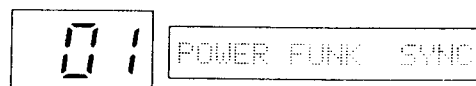


3. Try pressing the **START/STOP** button again. The rhythm will stop instantly.
4. You can adjust the volume of the rhythm part using the **RHYTHM volume** buttons in the DIGITAL MIXER section. (See p. B-31 "The Digital Mixer Section" for details.)



Changing Rhythm Tempo

Use the **TEMPO** buttons to change the tempo of a rhythm pattern. The **UP ▲** button causes the display to increase in value and the tempo to increase. The **DOWN ▼** button causes the display to decrease in value and the tempo to decrease. The longer you hold the button down, the more the tempo will change.



Pressing the **TEMPO PRESET** button (middle button) will change the tempo to a "standard" rate.

Display 2 shows the current tempo value and a small lamp in the lower right area of Display 1 will blink in time with the tempo. You can change the value of the tempo from 48 to 200.

If you continue to press the **TEMPO ▼ DOWN** button to minimum tempo, the display will change to read "SYNC" which is an abbreviation for "synchronized". This setting is a MIDI-related function and is discussed on page A-43 in the Advanced Operations section of this manual.

Using Rhythm Functions

There are four kinds of rhythm patterns that can enhance your SuperLab performances:

- **BASIC Pattern**

This is for the main part of the song. All the rhythms you've heard up to now were this basic pattern.

- **INTRO Pattern**

This is used to begin a song. An INTRO pattern will give your songs a good, solid kick off.

- **ENDING Pattern**

This is used to end a song. When you use an ENDING pattern, you'll get a nice smooth tag to wrap up the song.

- **FILL-IN Pattern**

This pattern will be used anytime during the song you want to add extra emphasis and accents.

Adding INTRO, FILL IN and ENDING patterns to a song.

1. Listen to an INTRO Pattern

Press the **INTRO/ENDING** button. You will hear an Intro Pattern followed by the Basic Pattern.

Rhythm is stopped.

INTRO/ENDING



Pressing this button starts the Intro Pattern.

2. Listen to a FILL IN Pattern

Try pressing the **SYNC./FILL-IN** button at this point. The rhythm will play a "Fill-in" pattern suited to the rhythm. The Fill-in function is great for adding variety within a song.

SYNC./FILL IN



3. Listen to an ENDING Pattern

Next, press the **INTRO/ENDING** button. An Ending Pattern which matches the rhythm will play and the rhythm performance will end.

INTRO/ENDING



4. Using the SYNC. Feature.

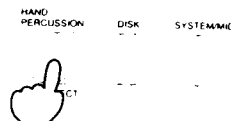
The SYNC. feature lets you start the rhythm at the same time you begin playing your chords and melody. Press the **SYNC./FILL-IN** button and begin playing on the keyboard. You will hear the rhythm immediately begin.

You may also SYNC. start with an INTRO pattern. After stopping the rhythm you want to play, press the **SYNC./FILL-IN** button and then press the **INTRO/ENDING** button. As soon as you press a key in the lower keyboard, the rhythm will kick in with the INTRO pattern.

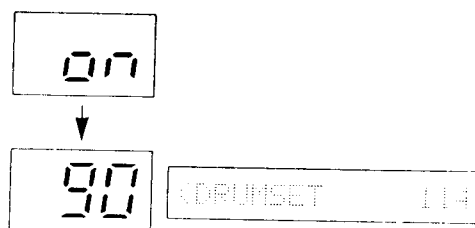
Using Hand Percussion and Sound Selectable Pads

The keys can also be used to play percussion instruments.

Press the **HAND PERCUSSION/PAD SELECT** button and the letters "ON" will briefly appear in Display 1. Press any of the keys on the Lower Keyboard and you will hear the sound of the instrument pictured above that key. With this feature you can play simple drum solos in time with the rhythm. Drum sounds can be played when the rhythm is turned off as well. The drum sounds are assigned to the keys as shown in the chart on the next page.



The keys in the rest of the keyboard will also produce drum sounds even though no pictures are above them. Drum phrases are assigned to the five keys from G#5 to C6 instead of drum sounds. These drum phrases can also be assigned the four Sound Selectable Pads.



Pressing the **HAND PERCUSSION/PAD SELECT** button again, the Hand Percussion feature will turn off and the keyboard will again function as a normal keyboard.

Assigning Percussion Sounds to the Sound Selectable Pads

To assign percussion sounds to the Sound Selectable Pads, press the **HAND PERCUSSION/PAD SELECT** button which puts the keyboard in the Hand Percussion mode. Then hold down a pad while you pressing the key that contains the sound that you want assigned. For example, if you want to assign the "bass drum" sound to the first pad, hold down the pad while you press C1 on the keyboard (which has a picture of a bass drum over it). Be certain not to lift your finger off the pad until you've pressed C1. Now, the first pad should sound like a bass drum. You can assign percussion sounds to the other three pads in the same way.

DRUM Assignment

Key	MIDI Key#	Instrument name
C1	36	Bass Drum
C#1	37	Rim Shot
D1	38	Normal Snare
D#1	39	Claps 1
E1	40	Pop Snare
F1	41	Low Electronic Tom
F#1	42	HH Close
G1	43	Low Tom
G#1	44	Finger Snap
A1	45	Middle Electronic Tom
A#1	46	Hi-hat Open
B1	47	Middle Tom
C2	48	High Electronic Tom
C#2	49	Crash Cymbal
D2	50	High Tom
D#2	51	Ride Cymbal
E2	52	Scratch 1
F2	53	Scratch 2
F#2	54	Tambourine
G2	55	Brushes 1
G#2	56	Cow Bell
A2	57	Brushes 2
A#2	58	Sound Effect 1
B2	59	Scratch Guitar
C3	60	High Bongo
C#3	61	Low Bongo
D3	62	Slap Conga
D#3	63	High Conga
E3	64	Low Conga
F3	65	High Timbales
F#3	66	Low Timbales
G3	67	High Agogo
G#3	68	Low Agogo
A3	69	Sound Effect 2
A#3	70	Splash Cymbal
B3	71	Low Timpani

Key	MIDI Key#	Instrument name
C4	72	High Timpani
C#4	73	Sound Effect 3
D4	74	Bar Chime
D#4	75	Claves
E4	76	Muted Triangle
F4	77	Triangle
F#4	78	Reverse Snare 1
G4	79	Reverse Snare 2
G#4	80	Slow Attack Cymbals
A4	81	Sound Effects 4
A#4	82	Sound Effects 5
B4	83	Sound Effects 6
C5	84	Orchestra Hit 1
C#5	85	Orchestra Hit 2
D5	86	Orchestra Hit 3
D#5	87	Orchestra Hit 4
E5	88	Orchestra Hit 5
F5	89	Orchestra Hit 6
F#5	90	Orchestra Hit 7
G5	91	Orchestra Hit 8
G#5	92	E. Tom Roll
A5	93	Conga Solo
A#5	94	Tom Roll
B5	95	Snare Roll
C6	96	Timbales



MIDI Key Numbers are given for sending and receiving MIDI data on the D CHANNEL (Drum Channel).

Using Auto-Accompaniment Section:

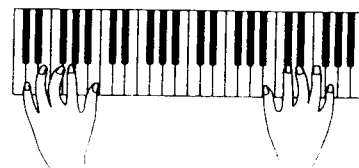
AUTO-PLAY

The FS2000's Auto-Accompaniment section is one of the most powerful found on any portable keyboard. It will work in four different modes. Each mode is designed to fit people at different levels of musical ability — from beginners to experienced professionals.

The following outlines the four modes of the FS2000 Auto-Accompaniment. A more detailed explanation for each is on the next page.

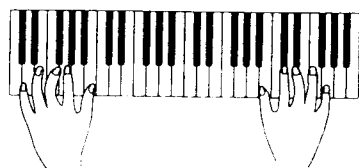
● AUTO 1: (NORM)

Lets you play single-finger or fingered chords with your left hand while playing the melody with your right. Your left hand chords trigger the Auto-Accompaniment.



● AUTO 2: (PRO1)

Lets you play the bass with your left hand while playing chords and melody with your right. Preset Auto-Accompaniment chords will play — but are triggered by the chords you play in your right hand.

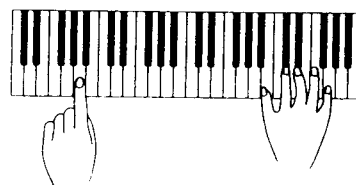


● AUTO 3: (PRO2)

AUTO 3 lets you play chords with your right hand and bass notes with your left just as in AUTO2. However, in AUTO 3 the actual notes you play are not heard. They simply "trigger" the auto accompaniment chords. The advantage to AUTO 3 is that it allows the SuperLab to follow any chord you play, even chords that are not recognized by AUTO 2.

● AUTO 4: (EASY)

The mode to use when you're not sure what chords to play. AUTO 4 has a preset chord sequence for each rhythm (the same sequence used with ONE FINGER AD-LIB). You can play through the entire chord sequence by playing successive notes (in order starting with C1) in the Lower keyboard with your left hand.




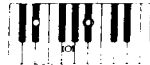

















































































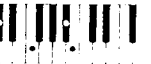






Explanation of AUTO 1 (NORM)






































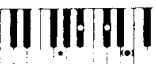
















































Your FS2000 is automatically set for AUTO 1 operation when it is turned on. In AUTO 1 mode you play chords with your left hand (which will generate full accompaniment) while playing the melody with your right hand. Even a simple songs can use lots of chords. There can be up to 16 different chords using the same root note in the FS2000. So if the root is C for example, you could have 16 different chords based on it, like C minor, C7, C13, etc. Look over the chord forms on the next page. By playing the melody with the right hand and these chord forms with the left, you'll be able to play quite a number of songs in a variety of styles.

The FS2000 has 100 different kinds of Accompaniments that you can play along with - you're sure to find something appropriate for just about any musical genre. Let's say you want to play a song with a bossa nova beat. Select 61 BOSSA NOVA from the 100 RHYTHM LIBRARY and play along. Even if you don't know what kind of style it is, quickly listening to the tune will give you an understanding of what to play. There's bound to be something with a "feel" that's close to what you're looking for. After you've found an Accompaniment you like, pick a tone you'd like to use for the melody. You can even add a Duet or Stereo Chorus effect. (see page B-10)

Chord Chart

	C	C#/Db	D	D#/Eb	E	F
Major						
minor (m)						
Seventh (7)						
minor 7th (m7)						
Major seventh (M7)						
Augment (aug./+5)						
Diminished (dim/o)						
Suspend fourth (sus4)						
Sixth (6)						
minor sixth (m6)						
minor Major seventh (m maj7/mΔ7)						
minor seventh flated fifth (m7-5)						
Ninth (9)						
minor ninth (m9)						
Thirteenth (13)						

* must be the lowest note in the chord. You may have to play the same notes in a different chord voice notes in a different chord voicing, i.e., play C6 instead of A minor.

	F#/Gb	G	G#/Ab	A	A#/Bb	B
Major						
minor (m)						
Seventh (7)						
minor 7th (m7)						
Major seventh (M7/Δ7)						
Augment (aug./+5)						
Diminished (dim/ø)						
Suspend fourth (sus4)						
Sixth (6)						
minor sixth (m6)						
minor Major seventh (m maj7/mΔ7)						
minor seventh flatted fifth (m7-5)						
Ninth (9)						
minor ninth (m9)						
Thirteenth (13)						

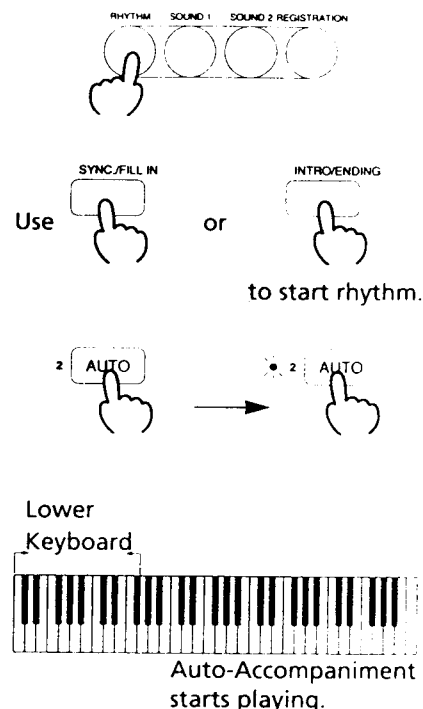
Using AUTO 1 (NORM)

AUTO-1 Auto-Accompaniment mode allows you to create a realistic ensemble performance by simply pressing and holding left hand chords as you play the melody. The nineteen keys on the left end of the keyboard (called the Lower Keyboard) are used to play the chords which control the Auto-Accompaniment. Up until now we have used the Lower Keyboard as a regular keyboard.

1. Select a rhythm using the **RHYTHM** button and the **SELECTOR** buttons. Next, start the rhythm by pressing the **START/STOP** button or the **INTRO/ENDING** button.
2. Find the **AUTO** button and press it. The small lamp beside the button will light up. Try pressing any key in the Lower Keyboard. The Chord part and Bass part will begin to play.
3. Using the Lower Keyboard to activate Auto-Accompaniment.

Now try pressing a chord on the Lower Keyboard. You should hear the Auto-Accompaniment will begin to play that new chord.

The **SYNC./FILL-IN** button and the **INTRO/ENDING** button can also be used to start the Auto-Accompaniment. The tempo can be controlled with the **TEMPO** buttons.



*When you press the **SYNC./FILL-IN** button, the next note you play on the lower keyboard will start the Accompaniment. If you press the **INTRO/ENDING** button right after pressing **SYNC./FILL-IN**, the Accompaniment will start with the **INTRO** pattern as soon as you play a key on the lower keyboard.*

*The volume of each part can be adjusted using the volume buttons in the **DIGITAL MIXER** section (See page B-33 "The Digital Mixer Section" for a detail.)*

Explanation of AUTO 2 (PRO1)

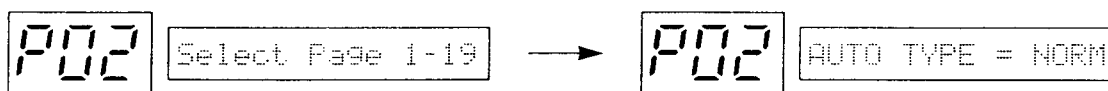
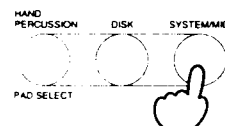
AUTO 2 (PRO1) is an advanced form of Auto-Accompaniment which lets you play a bass line with your left hand while your right hand plays the chords and melody. How is AUTO 2 different from AUTO 1? The Auto-Accompaniment chords in AUTO 1 are only triggered by the chords you play in your left hand. In AUTO 2, your right hand notes trigger the Auto-Accompaniment Chords and your lowest left-hand note controls the bass.

■ Why is AUTO 2 valuable? There are two primary reasons:

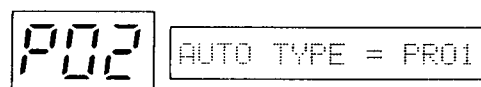
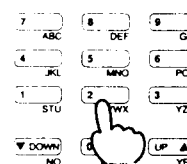
- Many people feel more comfortable playing chords with their right hand rather than their left and AUTO 2 suits that playing style better than AUTO 1.
- If you play the FS2000 as you would normally play a piano while using AUTO 2, the preset Auto-Accompaniment chords will follow the chords of your performance.

Using AUTO 2:

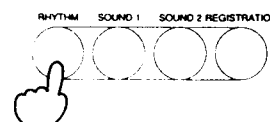
- With the rhythm stopped, press the **SYSTEM/MIDI** button twice. On Display 2 you will see "AUTO TYPE = NORM".



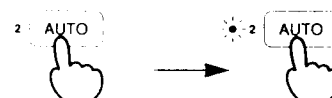
- Now press "2" on the ten-key pad to change the value of the AUTO TYPE to PRO1. You are now in AUTO 2 mode. You may also press the **UP ▲** button or **DOWN ▼** button to scan through your options. Press any key outside the **SELECTOR** section to exit the **SYSTEM** mode.



- Select a rhythm using the **RHYTHM** button and the numeric **SELECTOR** buttons.



- Press the **AUTO** button so that the LED lamp is lit.



- Press the **START/STOP** button and begin playing. The Auto-Accompaniment will start.





Information about AUTO 2

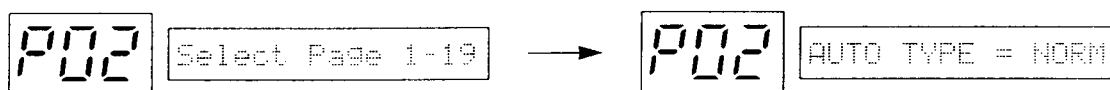
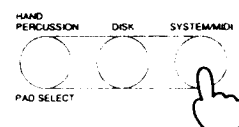
- *The Auto-Accompaniment changes when you press three or more keys (total) on the Lower and Upper Keyboards. The Auto-Accompaniment chords will not change when you play a chord that FS2000 cannot recognize as a chord. See page B-17 for a chart of the chords that FS2000 can recognize.*
- *When you press only one key on the Lower Keyboard, only the Auto-Accompaniment bass part will change.*
- *If you press more than one key on the Lower Keyboard, the bass part will respond to the lowest key pressed.*
- *Only when three or more keys are pressed on the Upper keyboard, will the Auto-Accompaniment change to the new chord.*
- *When AUTO 2 is activated, neither the ONE FINGER AD-LIB (see page B-26) nor the DUET will function.*

Explanation of AUTO 3 (PRO2)

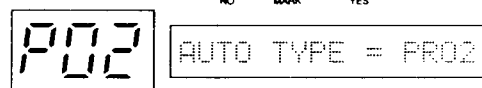
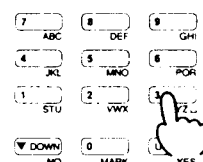
Like AUTO 2, this third Auto-Accompaniment mode lets you trigger chords with your right hand while your lowest left-hand note triggers the bass. AUTO 3 is different from AUTO 2 in two important ways. First, AUTO 3 gives you total freedom in chord selection by allowing you to play any chord you want. It is not restricted by the chords set within the FS2000. The second difference is that the actual notes that you play on the keyboard will not be heard in AUTO 3. Your "played" notes or chords serve only to "trigger" the chords that are heard as part of the Auto Accompaniment. As you play, you will hear the accompaniment chords change to match the notes you are playing on the keyboard. AUTO 3 will be used most often by composers or arrangers in a MIDI sequencing environment. AUTO 3 allows them to create complete accompaniments using complex chord structures and build upon this foundation through a MIDI system.

Using AUTO 3:

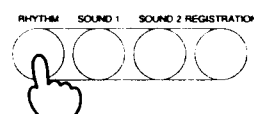
1. With the rhythm stopped, press the **SYSTEM/MIDI** button twice. On Display 2 you will see "AUTO TYPE = NORM".



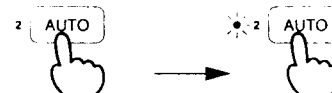
2. Now press "3" on the ten-key pad to change the value of the AUTO TYPE to PRO2. You are now in AUTO 3 mode. You may also press the **UP ▲** button or **DOWN ▼** button to scan through your options. Press any key outside the SELECTOR section to exit the SYSTEM mode.



3. Select a rhythm using the **RHYTHM** button and the numeric **SELECTOR** buttons.



4. Press the **AUTO** button so that the LED lamp is lit.



5. Press the **START/STOP** button. The rhythm will start.
6. Try playing the music to one of your favorite songs and sing the melody. AUTO 3 will allow the FS2000 to follow every chord you play.



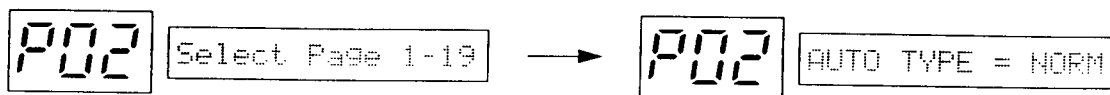
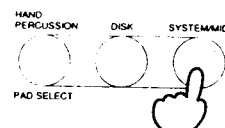
When AUTO 3 is activated, neither ONE FINGER AD-LIB nor DUET will function.

Explanation of AUTO 4 (EASY)

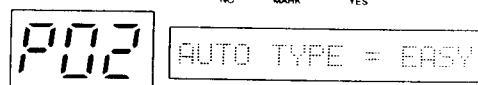
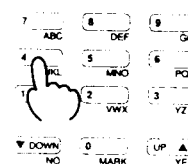
AUTO 4 (EASY) is the best Auto-Accompaniment mode when you're not sure what chords to play. There is a preset chord sequence (the same one used with ONE FINGER AD-LIB) for each of the 100 Rhythms built-in to the FS2000. You can activate the preset sequence by pressing the notes of the Lower Keyboard (beginning with C1) in successive order.

Using AUTO-4

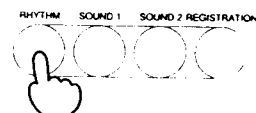
1. With the rhythm stopped, press the **SYSTEM/MIDI** button twice. On Display 2 you will see "AUTO TYPE = NORM".



2. Now press "4" on the ten-key pad to change the value of the AUTO TYPE to EASY. You are now in EASY mode. You may also press the **UP ▲** button or **DOWN ▼** button to scan through your options. Press any key outside the SELECTOR section to exit the SYSTEM mode.



3. Select a rhythm using the **RHYTHM** button and the numeric **SELECTOR** buttons.



4. Press the **AUTO** button so that the LED lamp is lit.



5. Press the **START/STOP** button. The Rhythm will start.



6. Now, count "ONE... TWO... THREE... FOUR" at the same tempo as the blinking red "Tempo" dot in the display. These are the "Beats" of the Auto-Accompaniment. Starting with the lowest "C" (called C1), hold each note of the Lower keyboard in successive order (C... C#... D... D#) for four beats. You'll hear the chord sequence change as you move up the chromatic scale.

With AUTO 4, you won't have to worry about chords. It lets you concentrate on making great melodies with your right hand.



*Before moving on to the next section, press the **SYSTEM/MIDI** button twice and use the numeric keys to return to AUTO 1*

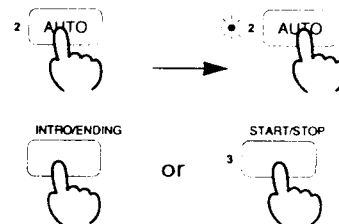
Using the ARRANGEMENT EXPANDER Dial

Every song has a dynamic flow, becoming louder and more exciting in some parts and quieter in others. Songs can become monotonous if the same accompaniment pattern is played throughout. The ARRANGEMENT EXPANDER allows you to vary any accompaniment you select. There are four sets of variations for each Auto-Accompaniment pattern. Turning the Expander dial clockwise activates each level of variation. The feature is called "Expander" because each variation is building upon the previous variation. Arrangements get more complex as you turn the dial.

Using the ARRANGEMENT EXPANDER.

Changing expander patterns

1. Use the **RHYTHM** button and the **SELECTOR** buttons to select a rhythm. Let's try #48 SLOW ROCK.
2. Press the **AUTO** button. The small dot lamp above the button will light up.
3. Start the Rhythm using the **INTRO/ENDING** button or **START/STOP** button.
4. Using the Lower Keyboard to activate the Auto-Accompaniment.
5. Turn the **ARRANGEMENT EXPANDER** dial and the number in the display 1 will go from _01 to _04.



The number increases as you turn the dial to the right, and the Rhythm and Auto-Accompaniment will become louder and more exciting. As you turn the dial back to the left, the number will decrease and the Auto-Accompaniment will become softer and less complex. Every time you start a rhythm, the number is set to _01 automatically.



You can hear one more part added to the usual rhythm, bass, and chord part when the number of the display 1 is three or four. This part is called obligato. This part will not be added when ONE FINGER AD-LIB or Sound 2 are used.

Changing the Fill-In patterns

Two Types of Fill-in patterns.

1. When the Expander dial is set for variation 1 or 2, there will be a soft fill-in when the **SYNC./FILL-IN** button is pressed. When the Expander dial is set for variation 3 or 4 there will be a louder more dynamic fill-in.
2. Turn the **ARRANGEMENT EXPANDER** dial quickly and one of the two Fill-in patterns will automatically begin to play, followed by the basic Auto-Accompaniment pattern you have selected.



You can also use the ARRANGEMENT EXPANDER function with an expression pedal V-20X (available separately). See page B-30 Pedal Section for a detail.

Using ONE FINGER AD-LIB

We trust by now you've become very familiar with the Auto-Accompaniment function of the FS2000. But you may be wondering what you can do to spice up the melody a bit. If so, the ONE FINGER AD-LIB function is just for you! This feature separates KAWAI keyboards from all others.

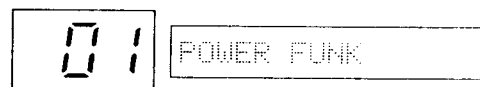
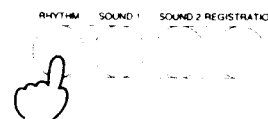
What is ONE FINGER AD-LIB?

ONE FINGER AD-LIB is a feature which allows anyone at any level of musical ability to sound like a "pro". With the touch of a finger, you can play hundreds of impressive ad-lib melodies with full Auto-Accompaniment and chord progressions. It's great fun!

The ONE FINGER AD-LIB phrases are determined by the rhythm you select. For example, there are funky ad-lib phrases for rhythm number 02 (SLAP FUNK) and some exciting rock'n roll phrases that go well with number 38 (R&R1). There are seventeen pre-set ONE FINGER AD-LIB phrases for each of the FS2000's one hundred rhythms; a total of 1,700 phrases in all!

How does ONE FINGER AD-LIB work?

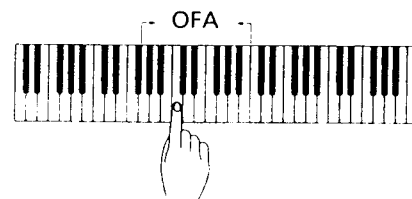
1. Use the **RHYTHM** button and the **SELECTOR** buttons to select a rhythm. Let's try #01 POWER FUNK. Next, press the **ONE FINGER AD-LIB** button. The small dot lamp beside the button will light up.



2. Now press and hold down one of the keys in the ONE FINGER AD-LIB section of the keyboard (shown in the drawing at right). You can play an entire ad-lib phrase just by holding down a single key! Try other ONE FINGER AD-LIB keys. You will see that each key plays a different phrase and that some keys use different sounds than other keys.



Keys in this range

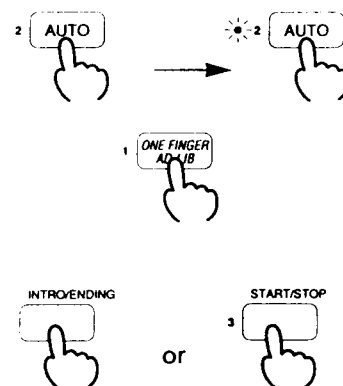


3. Press the **ONE FINGER AD-LIB** button again to leave the one finger ad-lib function.



Adding Rhythm and Auto-Accompaniment

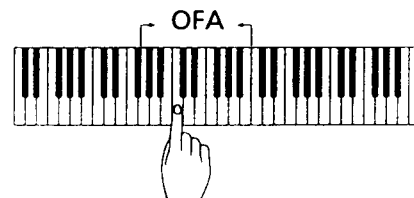
1. Press the **AUTO** button. The small dot lamp beside the button will light up.
2. Press the **ONE FINGER AD-LIB** button. The small dot lamp beside the AD-LIB button will light up.
3. Start the Rhythm using the **INTRO/ENDING** button or the **START/STOP** button. The Rhythm and Auto-Accompaniment should begin to play. When you listen, you will notice that the Auto-Accompaniment chords are changing automatically and that Display 2 will show the current chord name.



The FS2000 has been programmed so that each Rhythm is accompanied by an authentic sounding chord progression that plays automatically.

4. Now hold down one of the keys in the ONE FINGER AD-LIB section of keyboard. The ad-lib phrase will play. If you hold the ONE FINGER AD-LIB key down, you'll notice that the phrase changes automatically with the chord progression!
5. If you decide that you'd like to change the preset chord progression, play any chord on the Lower Keyboard. This will override the preset progression. Then, the ONE FINGER AD-LIB phrases will change to match your own chords.
6. To return to the preset chord progression, press the **ONE FINGER AD-LIB** button twice.

Keys in this range.



Make sure that the AUTO TYPE is set to AUTO 1 (NORM). ONE FINGER AD-LIB will not operate when the FS2000 is in AUTO 2 or AUTO 3.

A note about the ONE FINGER AD-LIB chord progressions

When you start the Auto-Accompaniment with the ONE FINGER AD-LIB function turned ON, the chord progression that plays is always in the key of C. For example, the progression for rhythm number 01 (POWER FUNK) is as shown at right.

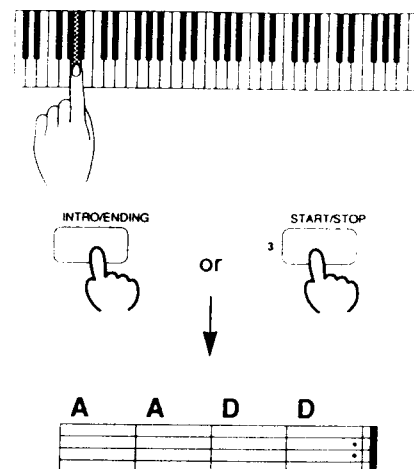
C	C	E	E

The next page will describe how you can play one finger AD-LIB music in a different key.

Changing Keys

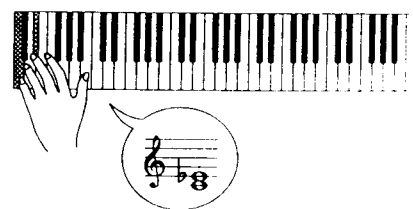
If you prefer the chord progression is in a key other than "C" then perform the following operation (after stopping the rhythm for a moment):

1. Check that the **ONE FINGER AD-LIB** button and the **AUTO** button are both turned ON.
2. Before starting the rhythm, press the A key, shown in the Illustration at right.
3. Then press the **INTRO/ENDING** button or the **START/STOP** button to start the Rhythm and Auto-Accompaniment. The chord progression will now be in the key of "A" as shown at right.



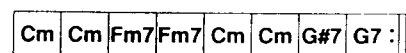
You can also change it to a minor key. Simply perform the operation described below (again, you should stop the rhythm first):

1. Check that the **ONE FINGER AD-LIB** button and the **AUTO** button have both been turned ON.
2. Play a Cm chord as shown in Illustration at right.
3. Then press the **INTRO/ENDING** button or the **START/STOP** button to start the Rhythm and Auto-Accompaniment. The chord progression will now be in the key of "C minor" as shown at right.



There are two **ONE FINGER AD-LIB** chord progressions for each Rhythm; one in a major key and one in a minor key. (See page Ap-5 for chord progressions for each rhythm.)

If you would prefer that the chord progression play in the key of Am, just perform that the operation above playing an Am chord instead of the Cm chord we used in the example.



You can adjust the volume of the one finger ad-lib phrases using **SOUND 1** or **SOUND 2** volume buttons in the **DIGITAL MIXER** section. (See page B-31 "The Digital Mixer Section" for a detail.)

Changing the Sounds

Changing The Sounds Used For ONE FINGER AD-LIB.

Each phrase in ONE FINGER AD-LIB can use a different tone, and what tone gets used is all decided ahead of time. This way you can change it so the phrase plays with whatever tone you like.

Check to see that the ONE-FINGER AD-LIB switch is set to ON. Press the **SOUND 1** button; the light above it should come on. (If it's already on, then you're already in that mode so you don't need to press the button again.) Enter the number of the tone you want using the ten-key pad. You should now be able to hear the tone you have selected by playing the upper keyboard.

If you decide after all that you liked the first sound better, you can go back to it by pressing the **ONE-FINGER AD-LIB** button once to temporarily get out of that mode (the light should go out), and then again to turn it back on (the light goes on again).

Special use of ONE FINGER AD-LIB

We have recorded some special melodies into the FS2000 for use with ONE FINGER AD-LIB. These melodies can be found on the ONE FINGER AD-LIB notes associated with Rhythms 91 through 93 (Bolero, Ballet, and Nocturne). Here's how to play them:

1. First, select a rhythm. Let's try #91 (BOLERO).
2. Next, make sure that the ONE FINGER AD-LIB function is turned on — and the AUTO function is on.
3. Press **START** button to get the rhythm going. You may want to set the "standard tempo" for BOLERO by pressing either of the TEMPO buttons.
4. Now, hold down the lowest ONE FINGER AD-LIB key (G2) making sure that your initial hit of the G2 key is on the main beat (if you listen to the rhythm for awhile, you'll hear this main beat). Can you hear the first melody notes of BOLERO playing when you hold down G2?
5. The rest of the melody can be played as you move up the ONE FINGER AD-LIB keys in chromatic fashion (G2, G#2, A2, A#2, etc). Each successive key is programmed with three full beats of the BOLERO melody.
6. Now, let's try putting the whole melody together. Make sure the BOLERO rhythm is playing. On the main beat, hold down the G2 key for three beats. Then immediately hold down the G#2 key for the next three beats; then the A2 key for the next three beats; and so on, until the entire melody is played. By the time you reach the end of the ONE FINGER AD-LIB region, you should have played BOLERO!

This same process works for Rhythms #92 and #93 with the following changes in the process:

● **Rhythm #92 (Ballet)**

The "Swan Lake" theme used on these notes is based on four-beat phrases. So hold down each ONE FINGER AD-LIB notes for four beats instead of three. The BALLET rhythm requires that you press the G2 key at the same time that you press the START button. If you press these at different times, the ONE FINGER AD-LIB melody notes will not match the preset chords.

● **Rhythm #93 (Nocturne)**

Start on G2. Hold each ONE FINGER AD-LIB note for six beats, since NOCTURNE is based on six-beat phrases. Press the G2 key at the same time that you press START button.

Using the Pedal

The SuperLab comes with four footpedal jacks. The pedal will let you do different things depending on what jack it's plugged into. The explanations below explain what happens when you connect the pedal in each jack.

- **DAMPER Pedal Jack.**

Plugging the F-1 Pedal into this jack creates a damper pedal. Depressing the F-1 pedal while playing notes on the keyboard will cause the sounds to continue to ring out even after your fingers leave the keys. The sound will naturally decay after you take your foot off the pedal.

- **ACC. HOLD Pedal Jack.**

When playing with the AUTO PLAY Accompaniment feature, depressing the F-1 pedal when it's connected to this jack causes the bass drum and open hihat to sound at the same time. The bass line and chords are not affected and will continue to play. This acts as an accent and lets you add emphasis to a parts in the middle of songs.

- **FILL IN Pedal Jack.**

Depressing the F-1 pedal when it's connected to this jack has the same effect as pressing the **SYNC./FILL-IN** button. Also, depressing the pedal after the rhythm or accompaniment has stopped puts you in SYNC mode. The rhythm or accompaniment will start up again when you press any key on the lower keyboard.

- **ARRANGEMENT EXPANDER Pedal Jack.**

The F-1 Pedal doesn't work with this jack; you need to plug in the optional V-20X Expression Pedal (sold separately). When the V-20X Expression Pedal is plugged into this jack it has the same effect as turning the **ARRANGEMENT EXPANDER** dial on the front panel. The big advantage with a pedal is that it frees up your hands while you are playing the keyboard. Make sure you use the right kind of pedal with the right kind of jack. **DON'T** try to plug something other than the V-20X Expression Pedal into the **ARRANGEMENT EXPANDER** jack.



A Fill-In pattern will not come out even if you depress the Expression Pedal quickly (See page B-24).

The Digital Mixer Section

This section will show you how to use the Digital Mixer.

The volume of each individual part can be adjusted using the **VOLUME** buttons in this section. The **UP ▲** button increases the volume of a part when it is held down. The **▼ DOWN** button decreases volume. The middle button sets a "normal" volume for that part which is in "balance" with the other parts of that accompaniment.

Volumes may be set to any of seventeen levels ranging from 0 to 16 (16 being the loudest). The current volume for a specific part will appear briefly on the display each time a volume button is pressed.

- **SOUND 1 volume buttons**

These control the volume of Sound 1.

- **SOUND 2 volume buttons**

These control the volume of Sound 2.

- **CHORD volume buttons**

These control the volume of the Auto-Accompaniment Chords.

- **BASS volume buttons**

These control the volume of the Auto-Accompaniment Bass part.

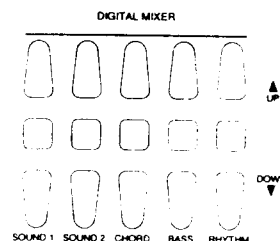
- **RHYTHM volume buttons**

These control the volume of the Rhythm (drum) part.

The Digital Mixer will help you keep the various "parts" of your music in "balance" with each other.

The next page will show you how to use the Digital Mixer to eliminate any of the five parts (Sound 1, Sound 2, Chords, Bass, or Rhythm).

The LED lamps in the Digital Mixer section are divided into five segments to show the volume levels for each part. When musical parts are being played (either by hand or with automatic accompaniment) the volume levels for each part are shown in real-time (that is, as you hear them).



Muting a Part:

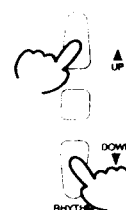
Simultaneously pressing both the **UP ▲** and **▼ DOWN** volume buttons for any part (Sound 1, Sound 2, Chords, Bass or Rhythm) causes the volume of that part to be turned off. This procedure is called "muting". (See illustration A). You can immediately return a muted part to its original volume (the volume just prior to muting) by pressing the **▼ DOWN** button for that part (see Illustration B). Pressing the **UP ▲** button also restores the muted part, but its volume will be near zero. Holding down the **UP ▲** button for that part lets you increase the volume gradually (see Illustration C).



The volume can also be controlled by MIDI input, as shown in the following chart: (See page A-39 for the detail)

- **SOUND 1 volume** 1 ch (N ch)
- **SOUND 2 volume** 2 ch (N+1 ch)
- **CHORD volume** 3 ch (N+2 ch)
- **BASS volume** 4 ch (N+3 ch)
- **RHYTHM volume** 10 ch (D ch)

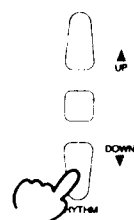
A



Press simultaneously.

B

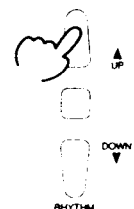
After muting



The Volume goes back as before muting, when the **DOWN** button is pressed.

C

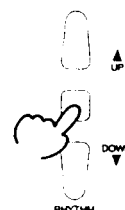
After muting



The Volume goes up from 0, when the **UP** button is pressed.

Using the Middle Button

Pressing the middle button between the **UP ▲** and **▼ DOWN** buttons on the mixer will establish a factory pre-set volume for that part.



This selects the most appropriate volume for the selected rhythm.

Using the Real-Time RECORDER

Recording Your Performances:

This section will show you how to record the songs you perform using the FS2000's RECORDER feature. The RECORDER allows you to record up to three different songs.

Here are the steps:


1. You must first set up the FS2000 for your performance. Begin by selecting the Sound, Rhythm and Lower Keyboard mode settings that you will desire for your song. If you want to make changes in Sounds, Rhythms and Auto-Accompaniment patterns, or Volume during your song you should use the REGISTRATION function.
2. Press the **REC/END** button. You will hear the sound of the metronome. (If the metronome does not start, see step 7 on this page).
3. Start playing! Everything you play including ONE FINGER AD-LIB phrases and changes in Sounds or Rhythms will be recorded exactly as you played it. That's what is meant by "Real-Time". What you play is what you get.
4. When you are done with your song, press the **REC/END** button once more. The recording will end and your song will be recorded as SONG 1.
5. To play the song back press the **PLAY/STOP** button and the song will begin to play. Press the **PLAY/STOP** button once more to stop the performance.
6. To record a different song, press the **SELECT** button to indicate SONG 2. Then record your next song using the same procedure as described for SONG 1. You can record one more song on SONG 3 in the same way.
7. To record over a song which has already been recorded it is necessary to erase that song first. If you try and record over SONG 1 you will find that the metronome will not start and the display will change to read "Data Existing". This prevents you from accidentally recording over a song.


To erase a song use the **SONG SELECT** button and select the song you want to erase. Press the **REC/END** button and the **PLAY/STOP** button simultaneously and the song will be erased.



Tempo information is not recorded when using the RECORDER. This allows you to record songs at a slow tempo and play them back at a fast tempo.


Real-time recorder can store a maximum of 1,000 events. Upon reaching the maximum, it automatically stops recording and displays "Memory Full". Also, in overdub operation you may lose the last data input upon reaching the maximum. (See page A-32)


Press  and the metronome will begin.

Press  to stop recording.

Press  to start playback.

Press  to stop playback.

Press  and the lamp will change.







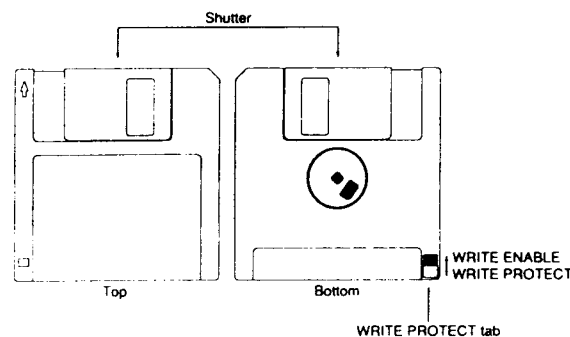
Check to be sure you're erasing the right song before pressing.
(The above illustration shows SONG2.)

Using the DISK

How to handle floppy disks

The FS2000 uses 3.5" 2DD floppy disks. Other types of floppy disks (such as 2HD disks) cannot be used with the FS2000. Disks are very delicate and so precautions must be taken to insure its effectiveness and long life:

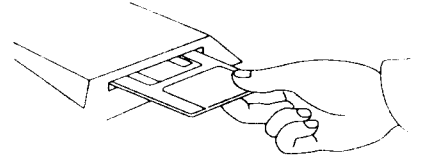
- * Never open the protective shutter. Fingerprints, dirt and other foreign matter entering the case will damage the magnetic coating and lead to irrevocable data loss.
- * To prevent accidental erasures, make it a practice to leave the **WRITE PROTECT** tab in its **PROTECT** position. Shift to the **ENABLE** position only when you specifically want to alter the contents.
- * Don't use or store disks in dusty environments.
- * Keep away from speakers, screwdrivers, televisions and any other sources of strong magnetic fields. These can alter and destroy the data saved on your disks.
- * Avoid temperatures outside a range of 10C - 60C. In particular, don't leave disks in direct sunlight such as on the dashboard of a car.
- * Don't remove a disk or turn off the FS2000 power while the disk drive is in operation (while the indicator light is lit).
- * Disks can wear out with repeated use. Poor storage conditions or improper handling - especially touching the disk surface - only accelerate the process. For maximum security, make multiple copies of your valuable data and store them in separate locations.
- * Another source of read errors is a dirty head in the FS2000's disk drive. You can clean it with a cleaning diskette available from any computer products dealer.
- * Write on your labels before attaching the label to the disk. Writing on the label after it is applied may damage the disk.
- * Insert the drive protector card into the FS2000 drive prior to moving the FS2000. The protector should be in the disk drive when you purchased the FS2000.



How to Insert and Remove Disks

1. Inserting the disks

Insert the disks into the disk drive with the shutter side facing the drive and the top side facing up.

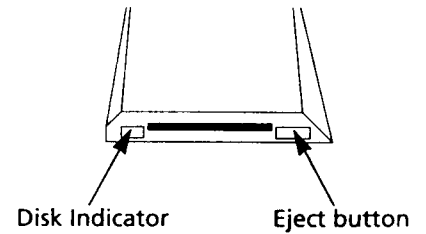


2. Removing the disk

After checking the disk indicator is not lit, press the eject button.

(Press the **START/STOP** button when you want to turn off the disk indicator.)

Don't attempt to remove the disk while the disk drive is in operation (the disk indicator is lit) or you may damage the disk, the disk drive or both.



Using the SONG LIBRARY Disks

What can you do with song library disks?

- You can play the melody part along with the accompaniment part of the song in the Song Library disks.
- You can record and store your own performances.
- You can sing along with the song or accompaniment by using the attached headphone/mic set. The transpose function allows you to set the accompaniment to the key that is easiest for you to sing in.
- You can adjust tempo or volume balance of the each part.

Song Library function

5 SONG LIBRARY disks and 1 USER disk are included with FS2000.

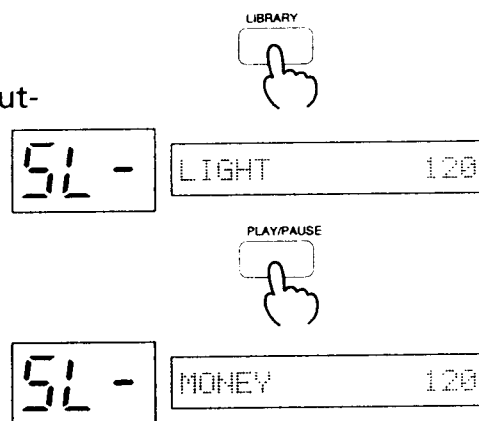
You should set the WRITE PROTECT tab in its PROTECT position to prevent accidental erasures. The one USER disk is for saving your own creations such as songs, rhythms, sounds or registrations.

Playing Songs from the Song Library disks

1. Properly insert Disk No.1 in the disk drive.
2. Press the **LIBRARY** button of the **SONG LIBRARY** but-
ton to turn the LED on. The disk indicator will
light.

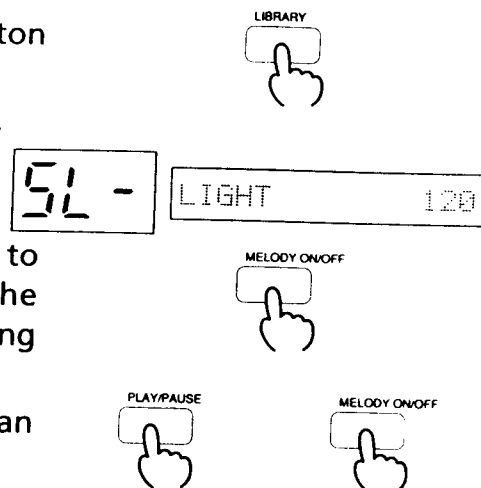
The display will show "SL - " and "LIGHT 120".
SL is an abbreviation for a Song Library.

3. Select a song. For example, press #2 on the
numerical key pads. The display will show the
currently selected song name.
4. Press the **PLAY/PAUSE** button. The song #2 will begin to play. The volume of the
each part can be adjusted by using the volume buttons in the Digital Mixer sec-
tion. The tempo can also be changed by using the TEMPO buttons.
5. To stop playback before the end of the song, press the **PLAY/PAUSE** button again.
6. Press the **PLAY/PAUSE** button one more time and the playback will resume exactly
where it left off.
7. When you want to return to the top of the song, press the **BAR RESET** button and
then **PLAY/PAUSE** button.
8. Playback will automatically stop when the song reaches its end.



Using the Melody Off function

1. Press the **LIBRARY** button until the **LIBRARY** button LED will light.
2. Select a song. Press #1 on the numerical key pads.
3. Press the **MELODY ON/OFF** button and the LED beside the button will go off.
4. Press the **PLAY/PAUSE** button. Song #1 will begin to play without its melody part. You can press the **MELODY ON/OFF** button at any time during a song to turn the melody on and off.
5. Play the melody part with your own hands. You can select a sound or tempo as you want.



Practicing Part of a Song

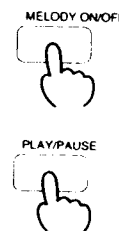
The following describes how to practice just a part of a song:

1. Selecting a song from the **LIBRARY**. Turning the **ARRANGEMENT EXPANDER** dial to the right (clockwise) will fast-forward the song. Fast-forward to the part where you want to practice.
2. Press the **PLAY/PAUSE** button and the play back will begins at that point. Practice playing the melody part along with the playback.
3. Press the **PLAY/PAUSE** button again to stop play-back.
4. To rewind the song, turn the **ARRANGEMENT EXPANDER** dial to the left (counter-clockwise).



Singing Along with the Playback

1. Connect the monoral plug of the headphone/mic set to "MIC IN" jack. Connect the stereo headphone plug to "STEREO PHONES" jack if you want to hear the sound through the headphones.
2. Select a song.
3. Press the **MELODY ON/OFF** button and the LED beside the button will go off.
4. Press the **PLAY/PAUSE** button. The song will begin to play without its melody part.
5. Sing the melody along with the playback. Adjust the mic volume with MIC IN volume slider in the **INPUT MIXER** section.

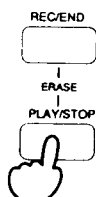


Don't put the mic near the FS2000 speakers otherwise howling (feedback) will occur. Always remember to set the MIC IN volume slider to its minimum setting when not using the microphone.

Shift the switch of your FS2000 Headphone set to TALK position when you want to use the mic. Shift the switch in its MUTE position when not using the mic.

How to record your performance

1. Erase all the three songs in the FS2000's recorder. (See page B-33 "Using the Real-Time RECORDER" section for a detail.)
2. Select a song using the **LIBRARY** button. Also, set up a sound, volume of the each part, and the tempo.
3. Press the **REC/END** button. The metronome will begin to play and the **MELODY ON/OFF LED** will go off automatically.
4. Press the **PLAY/PAUSE** button in the **SONG LIBRARY** section to start playback. Play a melody part along with the playback. If you made a mistake while recording, you can re-record. Stop recording by pressing the **REC/END** button, and then erase the song. (See page B-33 "Using the Real-Time RECORDER" section for a detail.)
5. Press the **REC/END** button again when you are through recording.
6. Press the **BAR RESET** button.
7. Press the **PLAY/STOP** button in the **RECORDER** section to play the song you recorded.
8. Press the **PLAY/PAUSE** button in the **SONG LIBRARY** section to stop the play.



Congratulations!

You've finished learning the FS2000's Basic Operations.

Now have more fun exploring the Advanced Operations section.

Advanced Operations Section.

We trust that the Basic Operations section has given you a good understanding of the FS2000's powerful features. But you've only just begun to explore the full capability of the FS2000! The Advanced Operations section will help you to learn how much more can be done with this powerful instrument.

Using the Registration Memory

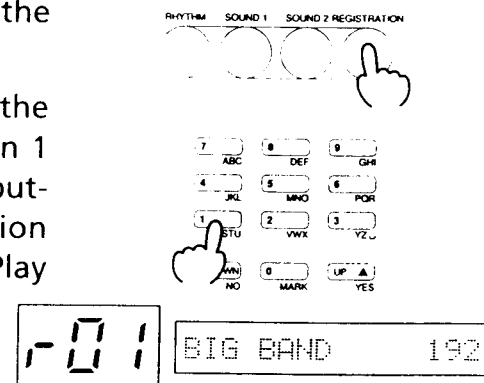
What is REGISTRATION memory?

Registration Memory lets you preset all your settings, such as sounds, rhythm, tempo, etc., for a particular song. You can recall all the information with the touch of a button. Let's say you want to use a quiet sixteen beat pattern for the majority of a song but need to switch to another rhythm for the climax. And you want to raise the volume at that time. Such variations are not uncommon and add a lot to a song but you might find it hard to press all of those buttons! This is where you will find the REGISTRATION memory very useful.

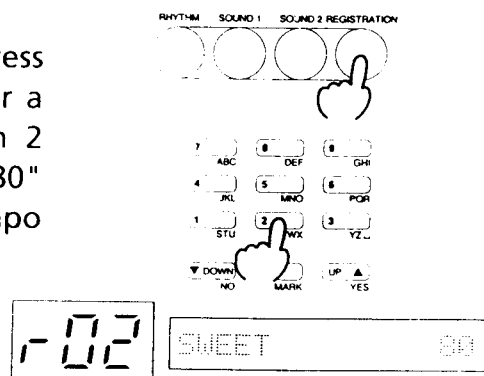
Using the Registration Feature

Twenty Registrations are loaded into the FS2000 at the factory.

- 1 Press the **REGISTRATION** button and then press the "1" on the ten-key pad, which selects registration 1 "BIG BAND". Pressing **AUTO** the **START/STOP** button gets the rhythm to start up. This registration uses "rhythm 54" and "sound tones 26 & 76". Play something on the keyboard to get an idea of registration 1.



- 2 Listen to the next registration
- 3 While the rhythm and auto-play is still going, press the **REGISTRATION** button again. This time enter a "2" from the ten-key pad and registration 2 "SWEET" is selected. registration 2 uses "rhythm 80" and "melody tone 80". You will notice the tempo has also been changed.



Making Your Own Registration.

To learn how to make your own registrations, start with this example and try making a registration called "Ballad." Make all the settings as shown below.

- Set the Rhythm:

Select the rhythm "18: BALLAD." Set the ARRANGEMENT EXPANDER dial to 4. Set the tempo to 120.

- Set the Sounds:

Select SOUND 1 to be "01: Piano" and SOUND 2 to be "15: STRING PAD 2." Simultaneously press SOUND 1 and SOUND 2 to turn the Dual effect on.

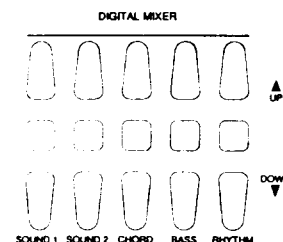
Turn the Chorus and Duet on but leave the Sustain effect off.

Set the Auto Accompaniment

Turn AUTO on but leave ONE FINGER AD-LIB off.

Set the Volume

Use the Digital Mixer to set SOUND 1 to 10, SOUND 2 to 11, Chord to 8, Bass to 12, and Rhythm to 14.



- Other Settings

You can set any of the four Drum Pads to anything you like (refer to page B-13), but for now just leave them the way they are. You can try using the Transpose feature to move the key of the song up or down.

Save Your Registration

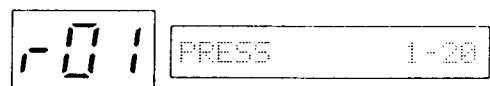
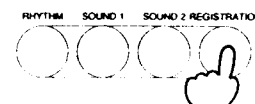
All the sounds and rhythms that we have set will be lost when the power is turned off. The original factory settings will be there the next time the power is turned on again. To recall and use your new registration, you must "store" it to keep this from happening. You can store up to 20 Registrations with SuperLab.



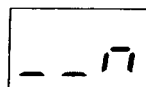
Your new registration will "write over" the factory settings that were there before, i.e. they are now deleted. If you find out some time later that you want one of these old registration settings back, refer to page B-2 "Returning to the Factory Settings" to reactivate the factory settings.

Steps for Saving a Registration:

1. Press **REGISTRATION** button. This gets you in registration mode and ready to start the "save" operation.



2. Give it a name. You will want to give your registration a name which accurately describes it. This will make recall easier at a later time.



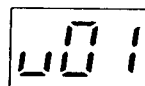
- Press the **NAME/STORE** button in the Program section.
- Follow the instructions on page A-29 for assigning a name.
- Press the **NAME/STORE** button again. This saves the name.



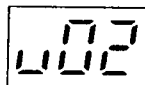
3. Select a Storage Number

You will want to select which registration location number to assign your new registration to.

- After storing the name, Display 2 will show "PRESS 1-20"



- Select the location you save to. Press 02 for this example.



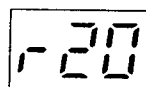
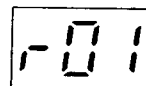
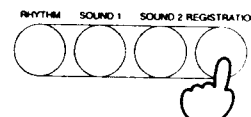
- Press the **NAME/STORE** button again. This time it saves the registration to that location.



*If you change your mind partway through storing a registration and decide you want to stop it, press the **DEMO** button. The registration that you have made up is now stored in registration 02. If you turn off the FS2000 this new registration will still be there for you to use next time.*

Using your REGISTRATION setting in a song.

Once you have stored several "set-ups" in the registration memory, you can access them at any time by simply pressing the **REGISTRATION** button and using the numeric keys to select the registration number that you want to use (r 01 through r 20).



The Synthesizer Function - Creating Your Own Sounds

The Theory Behind Making Up Your Own Tones

The SuperLab comes with 100 different tones. There are a few things you should know before you can start making up your own tones.

(A) Each Tone Is Made Up of Two Sounds

For example, take a listen to 10: VOICE PIANO. When you play a key, the sound that comes out is a mixture of a Piano sound and a Voice sound.

21: OCT.BRASS is a mix of two Brass sounds an octave apart.

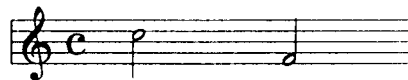
31: MOD.ORGAN is a mix of two Organ sounds slightly detuned with a variable interval so as to fatten the sound.

(B) There Are Three Basic Characteristics of Any Tone: Interval, Waveform, And Volume.

The following should help explain about the basic elements that go into the making of a tone.

1. Interval Parameters

Interval relates to the pitch of the notes. For example, the first note here is an interval of a fifth higher than the following note.



19: OCT.STRINGS are two string sounds that are an interval of one octave apart.

There are five basic parameters that can affect the interval.

KEY TRACK

(When KEY TRACK is turned Off, the FIXED KEY parameter also comes into play.)

COARSE FINE VIBRATO DEPTH VIBRATO SPEED

2. Waveform Parameters

WAVE is the only parameter here that affects the Waveform.



Listen to 63: CLARINET 1 and 64: CLARINET 2 by playing these tones somewhere near the middle of the keyboard range. Doesn't it seem like 63 is a brighter sound than 64, which has kind of a dark, woody sound to it? Or between 36: ACCORDION 1 and 37: ACCORDION 2, 37 seems to have the fatter sound.

These words, "bright," "dark," "fat," "thin," are what we use to describe the difference it makes in a sound when you vary the waveform.

3. Volume, and the Way It Changes Over Time In a Tone

There are five basic parameters that make up Volume.

LEVEL ATTACK DECAY SUSTAIN RELEASE



Volume, is the loudness or softness of a sound. But did you know that the actual volume of a sound at any particular instant changes a lot over time? A percussive sound like a snare drum gets loud very, very fast and just as quickly gets soft again; this is called "fast attack" and "fast decay." The snare drum gets loud for less than a second. If this sound were "sustained" at that loud level for many seconds it would be like standing next to a jet engine! It would no longer sound like a snare drum either. You can see that changing these parameters can change the sound quite a bit.

SuperLab sounds can be divided roughly into two kinds: percussive, short-attack sounds and sustained, long-decay sounds. 01:PIANO is an example of a percussive, short-attack sound that decreases in volume even though you continue to press down on the keys. 32: JAZZ ORGAN on the other hand is an example of a sustained, long-decay sound where the volume remains at about the same level for as long as you hold down the keys.

A Quick Review

- a. Each tone is defined by three groups of parameters.

Interval → Waveform → Volume

- b. Each SuperLab tone is actually a combination of two other sounds.

Sound A: Flow A Interval → Waveform → Volume

Sound B: Flow B Interval → Waveform → Volume

- A SuperLab sound can be named Tone A (or B) or Flow A (or B). (Flow means they "flow together" to make a tone.)
- Each sound has a total of 11 (5+1+5) different parameters in these three groups. So SuperLab uses a total of 22 different parameters to define a tone.

Making a Tone

There's a quick and easy way to make up a new tone.

1. Select a tone that's somewhat similar to what you have in mind from the 100 tones on the SuperLab.
2. Next, decide what it is you want to modify about this tone: Interval, Waveform and/or Volume?
3. Decide what parameters of these you want to change.
4. Start making your modifications ("editing"), listening all the while to the changes by playing a little on the keyboard.
5. Repeat steps 2 through 4 until you get the sound you're looking for!

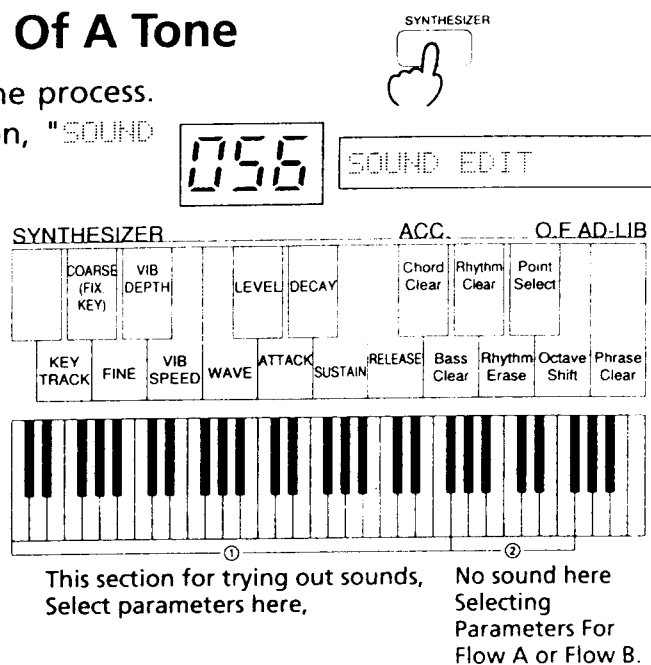
How To Do The Actual Editing Of A Tone

1. Press the **SYNTHESIZER** button to start the process.

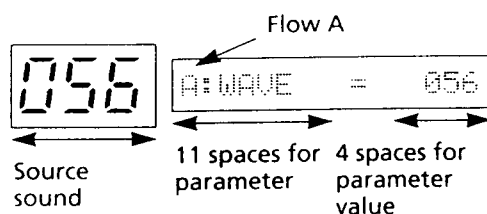
When you press the **SYNTHESIZER** button, "SOUND EDIT" will appear in the display 2.

2. Select a parameter that you want to change.

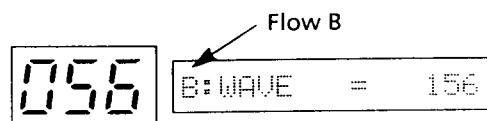
The upper part of the synthesizer keyboard is used for selecting which parameter you want to modify. Each parameter is printed above the keys. After you've given some thought as to how you want to change the sound, press the appropriate key to select that parameter. The left side of the keyboard is still available for you to check out your new sounds as you create them.



SuperLab uses Flow A and Flow B. (See page A-5.) Try pressing the **WAVE** key, and you'll get the following display:



Press the **WAVE** key a second time to get this display:



As you can see, repeated pressing of a parameter key lets you switch between changing that parameter for Flow A or Flow B. Both Flow A & B are on the same key.



The pitch interval, or volume level, etc., is expressed in numerical form using a parameter "value." By changing this number, you can change the pitch interval, select a waveform, or adjust the volume.

3. Change the value of the parameter using the ten-key pad.

Explanation Of The Parameters

Interval Parameters

Interval → Waveform → Volume

1. KEY TRACK

When you play a scale on the keyboard, like the familiar "do-re-mi," you want the sound to come out that way too, with the same "do-re-mi" that your fingers just played. Sometimes though, for special effect you'd like the same, fixed note to play no matter what key you press. You can set this using KEY TRACK.

For instance, 78: MUSIC BOX has KEY TRACK set to off for Flow A, but on for Flow B.

On	Follows along normally with what you play on the keyboard
Off	Plays the same note no matter what key you play

This "same note" is set using the FIXED KEY command (see below).

2. ● COARSE

Sometimes when you play "do-re-mi" on the keyboard you want the sound to play the pitches "fa-so-la" instead. That is, the notes that come out are different from the notes you played by some fixed interval (measured in half-steps).

Minus 1 - 12	Drops the pitch by half-steps, down to a maximum of one octave
0	Plays normally
Plus 1 - 12	Raises the pitch by half-steps, up to a maximum of one octave

● FIXED KEY

When the KEY TRACK is set to Off, when you press the COARSE/FIXED KEY note, FIXED KEY will show for whichever forms were set with KEY TRACK Off. Now you can select the fixed note that will play no matter what key is pressed. In 78: MUSIC BOX, Flow A was set to always play the note A2 using FIXED KEY. The range to select from is C1 to C6. Remember, KEY TRACK must be set to Off to activate FIXED KEY, otherwise only COARSE options will show.

3. FINE

Whereas COARSE allowed you to retune the keys in half-steps, FINE lets you do it in much smaller intervals. FINE is very similar to the "de-tune" function discussed in the Basic Operation Section.

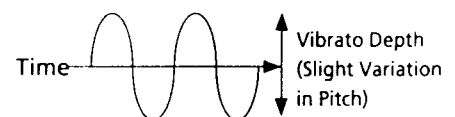
Minus 1 - 16	Drop the pitch by small amounts up to a maximum of a half-tone (about 50 cents)
0	No change in pitch
Plus 1 - 16	Raise the pitch by small amounts up to a maximum of a half-tone (about 50 cents)

4. VIB DEPTH

Vibrato is where the pitch wavers slightly up-and-down around a central pitch in a controlled, even way. Singers often add a little vibrato to their voice to give it a nice quality.

Vibrato Depth is the depth or amount of these up-and-down variations in pitch.

00	No variation in pitch
01-15	Vary the pitch by up to 7 half-tones

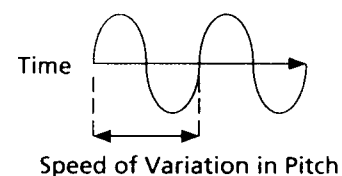


This means the larger the Vibrato Depth parameter, the further away from the central pitch the vibrato will go.

5. VIB SPEED

Vibrato Speed is the rate at which you hear these up-and-down variations in pitch set by VIB DEPTH, i.e., how "fast" the quaver is.

00	A speed of 0 is the slowest vibrato speed
01-15	The speed increases in a range up to a maximum of 13 Hz



Waveform Parameters

Interval → Waveform → Volume

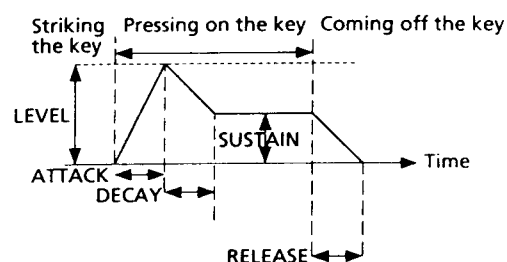
Changing the Waveform has the effect of making the sound "brighter," "darker," "fatter," "thinner," etc., or that is to say, those are the words commonly used to describe the change.

Each Waveform used by the 100 SuperLab tones has a number. So if you look at 01:PIANO when that patch is indicated on the display panel, you'll find that Flow A uses the Waveform numbered 001, and Flow B uses the Waveform numbered 101. This means that Flow A is numbered from 001 to 100 and Flow B from 101 to 200 in the order that the tones show up in the display. If you want a SAX Waveform, you can find it either at 023 or 123.

001 - 100	Flow A Waveforms, in the same order as the tone display
101 - 200	Flow B Waveforms, in the same order as the tone display

Volume Parameters

The following five Parameters deal with Volume of a tone in some fashion. We'll explain each of them in turn.



1. LEVEL

LEVEL adjusts the overall volume of a tone, either Flow A or Flow B.

10: VOICE PIANO as you know is a mixture of a Flow A piano sound and a Flow B voice sound. Changing the value of LEVEL will change the balance of these two sounds, that is, make one louder or softer in the mix as compared to the other.

LEVEL	
00 - 15	00 indicates no sound will come out, and the volume increases from there as you move up to 15.

2. ATTACK

ATTACK adjusts the amount of time it takes for the sound to go from zero volume to the volume set by LEVEL.

14: STRING PAD gradually swells in volume after you strike the key; this is called a slow-attack sound.

On the other hand, the 32: JAZZ ORGAN sound is right at full volume as soon as you strike a key. This is called a fast-attack sound.

24: BRASS PAD is a combination of a fast-attack sound in Flow A, and a slow-attack sound in Flow B.

ATTACK	
00 - 15	A time of 00 is the slowest attack, and as the value increases the attack time gets shorter.

3. DECAY

DECAY adjusts the time in which the sound drops off in volume from its maximum level during the attack to the sustain level. Ordinarily, to make a decaying sound you would set SUSTAIN to 00 (we'll explain about that in a minute). The DECAY setting doesn't have much effect when the SUSTAIN is set at 7 or more.

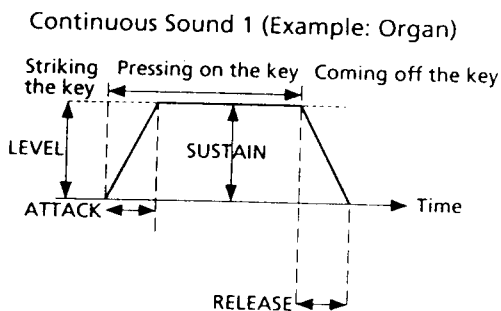
The 01: PIANO sound decays only gradually as your finger stays on the key; this is called a slow-decay sound. But 81: HARD Mallet drops to nothing quickly, even while your finger is still on the key. It is called a fast-decay sound.

DECAY	
00 - 15	A time of 00 is the slowest decay, and as the value increases the decay time gets shorter.

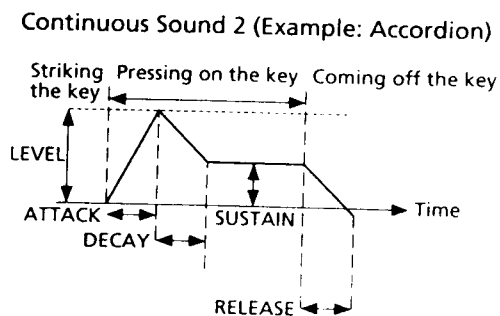
4. SUSTAIN

Unlike ATTACK and DECAY which are times, SUSTAIN is a volume level. After the sound has reached its maximum volume (LEVEL) during the attack time, it decreases during the decay time to the SUSTAIN volume level. It stays at that volume level for as long as you hold your finger on the key.

SUSTAIN can be used effectively in the following two situations.



SUSTAIN is set to maximum for organ sounds like 31 through 35. This kind of a setting ensures that the volume will stay constant at its maximum value (LEVEL) following the attack.



Here, LEVEL and SUSTAIN volumes are different and the transition is made to sound natural by judicious choice of the DECAY time. See what we mean by playing a little bit of tones 36 and 37.

SUSTAIN	
00 - 15	Higher values give a higher SUSTAIN level.

5. RELEASE

RELEASE adjusts the time it takes for the sound to completely die away (tail off) after your finger leaves the key.

Of course, if a decaying sound (like 01: PIANO) has already tailed off to nothing while your finger is still on the key, releasing it will have no additional effect.

Compare a long-release sound like 71: TUBULAR with a short release sound like 05: HARPSI to see the effect.

RELEASE	
00 - 15	Larger values give shorter release times.

Try Creating Some Tones of Your Own

Try creating a tone using the values on the table below.

Parameter	Value	
	Flow A	Flow B
Interval		
1) KEY TRACK	On	On
2) COARSE	00	00
(FIXED KEY)	--	--
3) FINE	00	00
4) VIB DEPTH	07	07
5) VIB SPEED	07	07
Waveform		
6) WAVE	001	101
Volume		
7) LEVEL	07	07
8) ATTACK	07	07
9) DECAY	07	07
10) SUSTAIN	07	07
11) RELEASE	07	07

Saving Your Created Sounds

You can store up to 5 of your created sounds in the FS2000. They can be stored in USER 1 through USER 5 locations which are SOUND 96 through SOUND 100. Additional sounds can be stored onto disks via the disk drive. See SAVE SOUND in the Disk Operations section on page A-27.

1. To save a newly created sound, first get the sound exactly as you want it. Next press the **NAME/STORE** button. The display will show "PRESS 1-5" which refers to the 5 USER spots from SOUND 96 to SOUND 100.

1



PRESS 1-5

2. Press the number on the ten-key pad that you want it assigned to. For example, pressing 2 will assign it to USER 2 which is SOUND 97.

2



002

3. After you've decided which number and selected it, press the **NAME/STORE** button one last time. This permanently stores the new sound even after you turn the power off. The previous sound will have been erased. If you have more than 5 sounds you want to create, be sure and save them to your diskette.

3



Pattern Maker: Creating Rhythm and Auto-Accompaniment Patterns

Have you ever wished you could take your own musical ideas and put together a dynamite Auto-Accompaniment pattern of your own? With the FS2000, you can!

It is possible with the FS2000 programming functions for you to create Intro, Fill-in, Ending, and Basic patterns for each of the FS2000's Auto-Accompaniment parts: rhythm, bass, and chords. You can build these patterns from scratch or you can alter one or more elements (chord, bass, drums) of a preset pattern. This is an extremely powerful feature that offers you tremendous creative freedom! You can create any one of the four different kinds of patterns that are used with ARRANGEMENT EXPANDER. All you have to do is select that pattern using ARRANGEMENT EXPANDER.

We'll explain these in order.

1. Change the Chords and Bass tones.

Press the **RHYTHM** button, and select the number of the Accompaniment you want to alter with the ten-key pad. For example, enter a "1" to select 01: POWER FUNK. Select variation 1 with the ARRANGEMENT EXPANDER.

Press the **PATTERN&O.F.A.** button on the PROGRAM panel area to start the 01: POWER FUNK BASIC pattern.

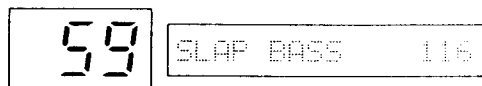
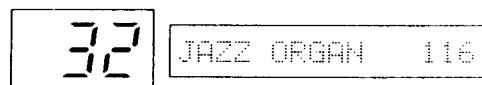
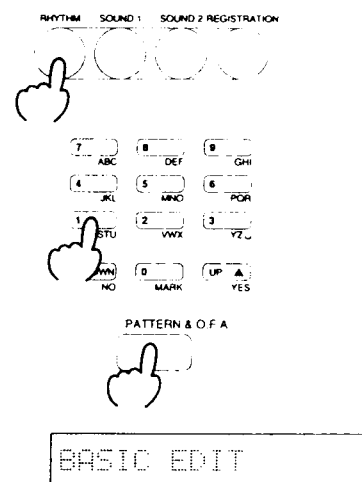
At this point, press CHORD CLEAR (the F#5 key on the keyboard). The number of the Chord tone used in 01: POWER FUNK will show up in the display, i. e., 32: JAZZ ORGAN.

Next, press "05" on the ten-key pad. The 01: POWER FUNK Chord tone will be replaced with a "HARPSICHORD".

Now let's change the Bass tone by pressing BASS CLEAR (G5 key on the keyboard).

The number of the Bass tone used in 01: POWER FUNK will show up in the display (59: SLAP BASS).

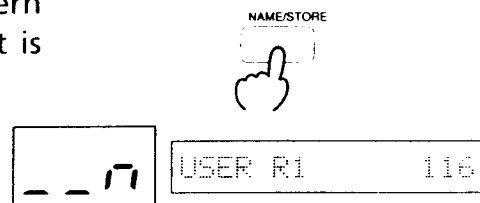
Select sound number 60 on the ten-key pad and the 01: POWER FUNK Bass tone will be replaced by SYN. BASS.



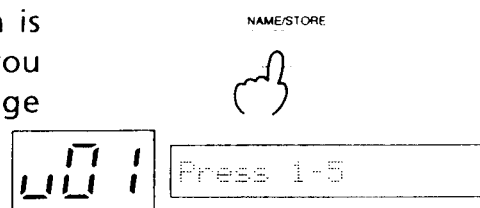
Storing the Changes Made to the Pattern Tones

You have to save the changes you have made to the tones used in this pattern. This must be done while the pattern is still playing. As soon as you move to another mode, all the changes you have made will be lost unless you save these changes now. This is true whether you are just adding a few new patterns to a SuperLab Accompaniment or creating completely new patterns. You should save (store) your patterns as soon as you create them. You can save up to 5 patterns that you have created yourself using SuperLab and name them anything you like (see page A-29).

Press the **NAME/STORE** button once. Give the pattern you have created a name; it doesn't matter what it is as long as it fits.



Press the **NAME/STORE** button again. This screen is asking, which of the 5 user storage locations do you want to save this modified pattern? These storage locations are called USER 1 through USER 5 (numbers 96 to 100 in the 100 RHYTHM LIBRARY). Let's save this one in 96: USER 1, so enter a "1" (for "User 1") with the ten-key pad.



Press the **NAME/STORE** button again. The pattern stops playing and the changes you have made are now stored.



2. Making Changes to a SuperLab Accompaniment Pattern.

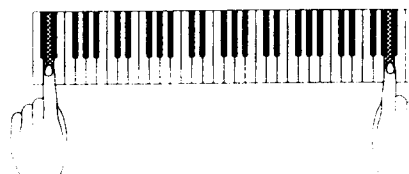
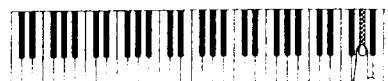
For example, let's change the snare drum tone used in the Rhythm pattern in the 24: RAP BASIC pattern.

After checking to see that 24: RAP is selected in the display, press the **PATTERN&O.F.A.** button located in the PROGRAM panel area. The 24: RAP pattern will start play.

Press the G#5 RHYTHM CLEAR key one time. The pattern will continue to play as before but you are now in a mode where you can make changes to it.

Press the D1 key while holding down the A5 RHYTHM ERASE key. Pressing this key erases the snare drum tone from the BASIC pattern you are listening to.

PATTERN & O.F.A.



Try putting in instead the high-pitched snare sound played by the E1 key.

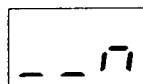
If you make a mistake, just erase it by pressing A5 RHYTHM ERASE and the E1 key.

Now that we've got the pattern the way we want it, we'll store it with the new snare sound into one of the 100 RHYTHM LIBRARY's user locations, 97: USER 1 to 100: USER 5.

Press the **NAME/STORE** button once.

Give the pattern you have created a name; it doesn't matter what it is as long as it fits.

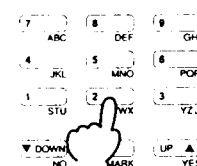
Press the **NAME/STORE** button again and it will ask



NAME/STORE



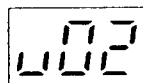
USER R1 116



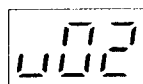
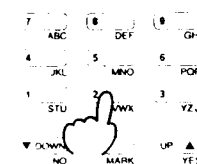
Let's put it in 97: USER 2, so enter a "2" from the ten-key pad.

Press the **NAME/STORE** button again.

The pattern you have been listening to will stop, and the new modified pattern will be stored in the USER 2 location.



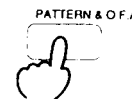
PRESS 1.....5



COMPLETED

3. Finally, let's try creating a whole new pattern.

Press the **PATTERN&O.F.A.** button in the PROGRAM panel area. The Rhythm you have selected will start to play.



Get ready to create a BASIC pattern. BASIC patterns are four bars long.

Press the G#5 RHYTHM CLEAR button twice to erase all the Rhythm. Pressing G5 BASS CLEAR twice deletes the bass line and pressing F#5 CHORD CLEAR twice deletes all the chords. Only the metronome sound now remains.

First, we'll put in a new rhythm.

Press G#5 RHYTHM CLEAR once.

You can hear the rhythm instrument sounds available to you by playing a few keys on the lower keyboard. Use a fairly slow tempo at first to make it easier to play so adjust the tempo using the TEMPO slider. Play a little rhythm on the lower keys. You'll note that the sounds get louder the harder you play the key.

If you make a mistake, press G#5 RHYTHM CLEAR to erase the entire Rhythm that you've played. Or, if it's just a particular rhythm instrument part you want to erase, press A5 PERCUS. ERASE and, while holding it down, press the lower keyboard key corresponding to the instrument you want erased. Do you like the way you've got the Rhythm?

If so, then add a Bass line. Press G5 BASS CLEAR one time.

Select a tone for the Bass using the ten-key pad. You will hear this tone on the keyboard.

Play your Bass line on the keyboard the way you want it. If you make a mistake, G5 BASS CLEAR will delete the entire Bass line for you. Does the Bass line sound OK?

The last thing is to enter the Chords. Press F#5 CHORD CLEAR once.

Using the ten-key pad, select a tone for the Chords. You can hear this tone by playing a key on the keyboard. Now play the chords you want for your accompaniment.

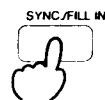
If you make a mistake, F#5 CHORD CLEAR erases all the Chords you have and lets you start over again.

Now try making FILL IN patterns. These are one bar long.

To hear the pattern as you work on it, press the **SYNC./FILL IN** button. You will hear the FILL IN pattern corresponding to the Rhythm you selected earlier and means you are in the right mode to begin creating a FILL IN pattern. Just follow the same procedures as for making a BASIC pattern.

Finally, INTRO and ENDING patterns. INTRO patterns are one bar long, ENDING patterns two bars long.

Press the **INTRO/ENDING** button, and an INTRO pattern will start to play. Pressing the **INTRO/ENDING** button once more plays an ENDING pattern. In either case, follow the same procedure as when making a BASIC pattern to create your own INTRO and ENDING.

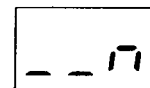


FILL IN EDIT



INTRO EDIT

ENDING EDIT



003

PRESS

1-5



COMPLETED

Saving the Patterns You Have Created

Press the **NAME/STORE** button once.

Give the new pattern a name; it doesn't matter what it is as long as it fits. (See page A-30 for a detail)

Press the **NAME/STORE** button again and it will ask USER 1-5.

You're asked to decide in which of the 100 RHYTHM LIBRARY locations, 96: USER 1 through 100: USER 5, to store the Rhythm. Use 98: USER 3 this time. Enter the number "3" using the ten-key pad.

Press the **NAME/STORE** button again. The pattern that has been playing all this time will stop, indicating that it has been saved. Now check to see that it is really stored in 98: USER 3. Test this by pressing the **RHYTHM** button and selecting 98: USER 3. You should hear the Accompaniment that you created yourself.

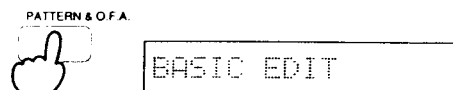
Some things to keep in mind when using Pattern Maker

- 1) The patterns you create are still stored in SuperLab even after the power is turned off.
- 2) Patterns created in Pattern Maker use the C chord forms. Create everything you do in the key of C when making a Chord or Bass pattern.
- 3) After storing, the patterns created with Pattern Maker are automatically given a Rhythm Number (so that 96: USER 1 would be stored as NO 96). Select them later just like you would select any of the other Rhythms.
- 4) You can add pitch bend and modulation effects (only) to Chords and Bass lines while you create them in Pattern Maker.

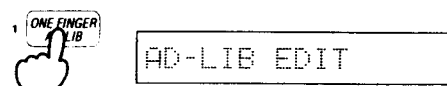
Programmable ONE FINGER AD-LIB: Creating Phrases

You have the power to create up to 85 different ONE FINGER AD-LIB phrases of your own with the FS2000's new programmable ONE FINGER AD-LIB capability. Here's how:

1. Begin by choosing a rhythm using the **RHYTHM** button and the **SELECTOR** buttons.
Then press the **PATTERN & O.F.A.** button.

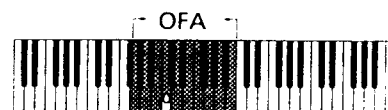


2. Next, press the **ONE FINGER AD-LIB** button. The letters "AD-LIB EDIT" will appear in the display 2.



The AD-LIB phrase for the G2 key should begin to play.

3. Press any key in the AD-LIB section of the keyboard.



Press any key. . .

4. Select the phrase which you want to modify by pressing the key for that phrase in the ONE FINGER AD-LIB section of the keyboard.

The AD-LIB phrase you've selected will begin to play.

The sound number for that phrase will be shown in the display. When you're ready to erase the phrase you've selected, press the PHRASE CLEAR (C6 key) and that phrase will disappear.



5. Inputting the new phrase.

Now use the **SELECTOR** keys to select a voice for the phrase. Use the keys from C1 to B4 to input the new phrase. The length of a ONE FINGER AD-LIB phrase is limited to one measure.

If you find that this range isn't high or low enough to play the AD-LIB phrase, press the B5 (OCTAVE SHIFT) key. This key can be used to shift the range played by the keys from C1 to A#4 up or down an octave.

Pressing the OCTAVE SHIFT key one time causes the keyboard to shift up one octave. Pressing the OCTAVE SHIFT key a second time causes the keyboard to shift down one octave. Pressing a third time restores the keyboard to the normal pitch.

You can also use the **SOUND 1** volume buttons to set the volume of the AD-LIB phrase which will be memorized when you store the phrase.

6. Inputting additional AD-LIB phrases.

To input a second Ad-Lib phrase make sure that your first customized AD-LIB phrase (from Step 3 above) is finished. Now press the POINT SELECT key (A# 5). This tells the FS2000 that you are done with the current phrase.

Now, repeat Steps 4 and 5 above to input a new Ad-Lib phrase. When you are done with this second phrase, press the POINT SELECT key again. You can continue this process until all 17 AD-LIB keys have been programmed with your own customized phrases.

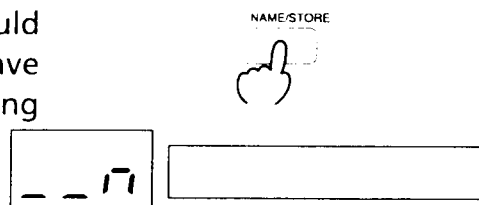
The next section will show you how to store your newly created AD-LIB phrases.

Programmable ONE FINGER AD-LIB: Storing Phrases

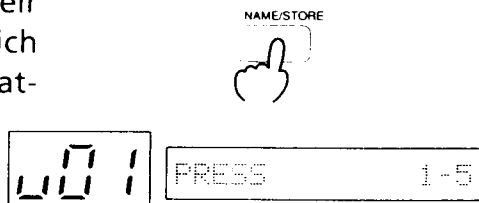
Now use the SELECTOR keys to select a voice for the phrase. The length of a ONE FINGER AD-LIB phrase is limited to one measure. You can change any number of ONE FINGER AD-LIB phrases for a given rhythm — up to seventeen for each Rhythm pattern. When you're finished changing the phrases, you can store them for future use using the procedure below.

Storing ONE FINGER AD-LIB phrases

1. Press the **NAME/STORE** button. The display should change to read " _ _ n ". Give the phrase you have created a name; it doesn't matter what it is as long as it fits. Press the **NAME/STORE** button again and it will ask USER 1-5.

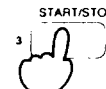


It is possible to store up to five patterns (and their accompanying ONE FINGER AD-LIB phrases) which you create. Those five patterns will be stored as patterns 96 through 100, which are listed as USER 1 through USER 5 in the "100 RHYTHM LIBRARY" on the FS2000's front panel. Therefore, the



number " 1 " in the display indicates that USER 1 has been selected. You can use the numeric keys to change this number to any value between 1 and 5. Let's store our new pattern as number 4.

2. Press the **NAME/STORE** button one more time. The pattern (with the new ONE FINGER AD-LIB phrases you just created) will be stored as pattern number 99 (USER 4). Try using the **RHYTHM** button and the **SELECTOR** keys to select this pattern. Make sure that the **ONE FINGER AD-LIB** button and the **AUTO** button are in the ON position. Press **START/STOP** button. When you press the ONE FINGER AD-LIB key on which you created the new phrase, you should hear your newly created phrase.



The patterns listed as USER 1 through USER 5 in the "100 RHYTHM LIBRARY" section are used for storing both the Auto-Accompaniment patterns and the ONE FINGER AD-LIB phrases that you create. Therefore, if you had saved the Ad-lib phrases created above as USER 1, the modified version of the POWER FUNK rhythm pattern (which you created and stored as USER 1 previously) would be erased, and the Auto-Accompaniment rhythm pattern you selected in order to create the Ad-lib phrases would take its place. If you would like to create ONE FINGER AD-LIB phrases to go with a rhythm of your own invention, then you should edit and store the rhythm in advance on one of the user memories. Then, select this user rhythm when you are ready to create the Ad-lib phrases.



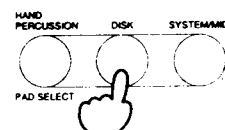
The B3 key is used to make a ONE FINGER AD-LIB come out as an obligato part when you are using ARRANGEMENT EXPANDER (page B-24). So if you save a ONE FINGER AD-LIB to the B3 key, it will come out obbligato when you use the ARRANGEMENT EXPANDER.

Advanced DISK Functions:

The DISK Functions are divided into 11 sections which we will refer to as "DISK pages". The DISK pages include:

P20	LOAD ALL	P30	SAVE ALL
P21	LOAD REGISTRATION	P31	SAVE REGISTRATION
P22	LOAD SOUND	P32	SAVE SOUND
P23	LOAD RHYTHM	P33	SAVE RHYTHM
P24	LOAD SONG <RECORDER>	P34	SAVE SONG <RECORD>
		P40	DISK FORMAT

Press the **DISK** button. This puts you in the DISK mode. The page (in the display) changes every time you press the DISK button and will show a different page with each press. Press one of the Sound Selectable Pads to enter the page. If you want to select a page directly, take the following steps.



1. Press the **DISK** button.
2. Quickly press the page number you desire using the numeric **SELECTOR** buttons.

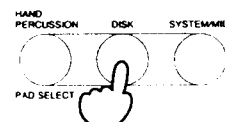
Loading the data into the FS2000

P20 LOAD ALL

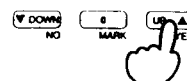
- Five sounds created using the synthesizer function.
- Five Auto-Accompaniment patterns plus corresponding ONE FINGER AD-LIB phrases.
- Twenty sets of REGISTRATION data.
- Song data.

You can load all the above data on the disk into FS2000.

1. Select the DISK page 20 using the **DISK** button. The displays will change to read as illustration below.



- Press the "YES" button in the SELECTOR section to load all data.



Display 2 will change to read as illustration below.

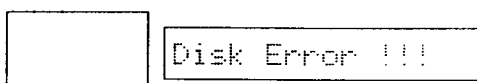
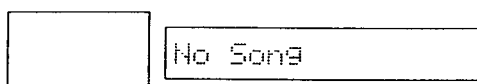
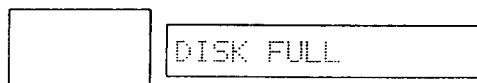
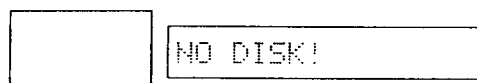
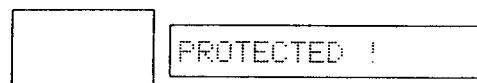
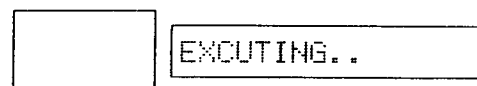


Now the loading is completed.



Display 2 will show the following messages in following situation.

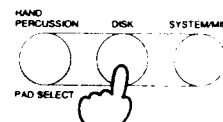
- During saving, loading or formatting.
- If you want to save or format and the WRITE PROTECT tab of the disk is in the disk drive is in PROTECT position. Shift the tab to the ENABLE position to save or format the disk. (See page B-34 for the detail.)
- If you want to use the disk functions and there is no disk in the disk drive of the FS2000.
- When there is not enough room on the disk for the file transfer.
- If there is no data that matches the number you entered in SONG LIBRARY mode.
- In case of other error than the above.



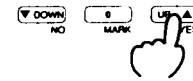
P.21 LOAD REGISTRATION data

You can load the registration data on the disk into the FS2000.

- Select the DISK page 21 using the DISK button. The displays will change to read as illustration below. The "L" in the left side of the display 2 is a short for "Loading".



2. Press the "YES" button in the SELECTOR section to load the registration data. Display 2 will change to read as illustration below.

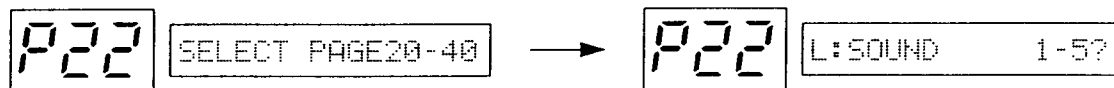
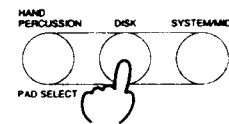


Now the loading is completed.

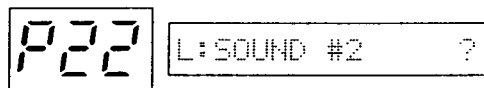
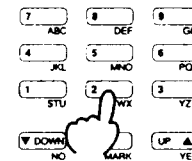
P.22 LOAD SOUND data

You can load the sound data on the disk into the FS2000.

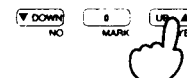
1. Select the DISK page 22 using the DISK button. The displays will change to read as illustration below



2. Press the sound number you desire using the numeric SELECTOR buttons. Display 2 will change as illustration below.



3. Press the "YES" button in the SELECTOR section to load the sound data. Display 2 will change to read as illustration below.

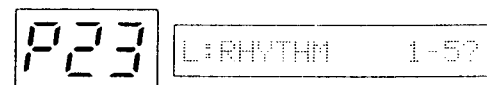


Now the loading is completed.

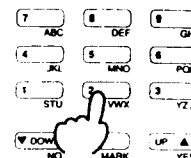
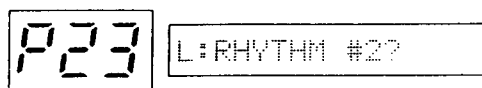
P.23 LOAD RHYTHM data

You can load the rhythm data on the disk into the FS2000.

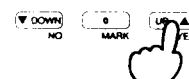
1. Select the DISK page 23 using the DISK button. The displays will change to read as illustration at right.



2. Press the rhythm number you desire using the numeric **SELECTOR** buttons. Display 2 will change to read as illustration below.



3. Press the "YES" button in the **SELECTOR** section to load the rhythm data. Display 2 will change to read as illustration below.

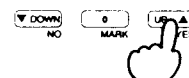
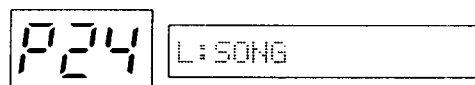


Now the loading is completed.

P.24 LOAD SONG data

You can load the song data on the disk into the FS2000.

1. Select the DISK page 24 using the **DISK** button. The displays will change to read as illustration at right.
2. Press the "YES" button in the **SELECTOR** section to load the song data. Display 2 will change to read as illustration below.



Now the loading as completed.

Saving the data onto a disk

P.40 DISK FORMAT

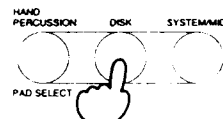
New disks and disks which have been previously used with equipment other than the FS2000, and the USER DISK accompanied your keyboard must be prepared for use before data can be saved to them. This preparation is called formatting. It is accomplished using the procedure described below.



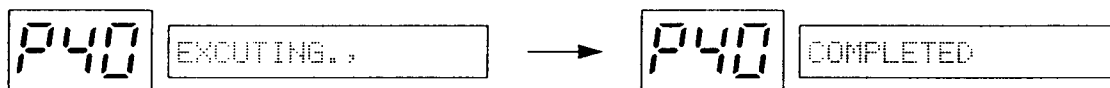
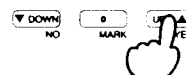
The 5 pcs. of SONG LIBRARY DISKS which accompanied your keyboard and other disks which have already been formatted for the FS2000 do not need to be formatted again.

The format operation will erase any data which has already been saved onto a disk. Be careful not to format disks containing songs or other data that you wish to keep.

1. Insert a new disk — or a disk containing data which you don't mind erasing — into the FS2000's disk slot after setting the WRITE PROTECT tab in its ENABLE position.
2. Select the DISK page 40 using the **DISK** button. The displays will change to read as illustration below asking whether you want to format the disk in the drive of the FS2000.



3. Press the "YES" button in the SELECTOR section and Display 2 will change to read as illustration below. After processing for a few moments, the formatting will be completed.



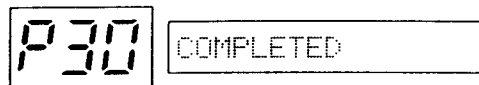
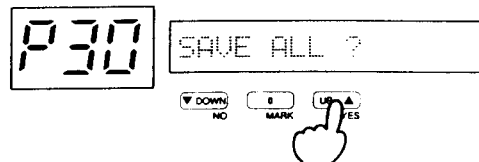
You will get an error message if you try to format or save onto a disk with the write protect tab in the PROTECT position. Take the out of the slot, slide the tab over to ENABLE and try again.

P.30 SAVE ALL

You can save all the data described in the page A-23 onto a disk.

1. Select the DISK page 30 using the **DISK** button. The displays will change as illustrated.
2. Press the **"YES"** button in the SELECTOR section to save all data. Display 2 will change as illustrated.

The saving is completed.



P.31 SAVE REGISTRATION data

You can save the sound data you've created onto the disk.

1. Select DISK page 31 using the **DISK** button. The displays will change as illustrated. The "S" in the left side of the display 2 is a short for "Saving".
2. Press the **"YES"** button in the SELECTOR section to save the registration data. Display 2 will change as illustrated.

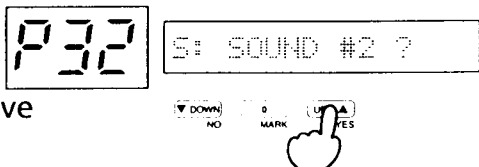
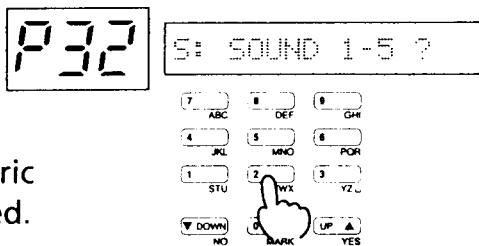
The saving is now completed.



P.32 SAVE SOUND data

You can save the sound data on the disk into the FS2000.

1. Select the DISK page 32 using the **DISK** button. The displays will change as illustrated.
2. Press the sound number you desire using the numeric **SELECTOR** buttons. Display 2 will change as illustrated.



3. Press the **"YES"** button in the SELECTOR section to save the sound data. Display 2 will change as illustrated.

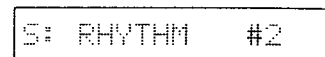
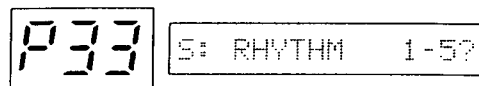
The saving is now completed.



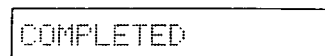
P33 SAVE RHYTHM data

You can save the rhythm data onto the disk.

1. Select DISK page 33 using the **DISK** button. The displays will change as illustrated.
2. Press the rhythm number you desire using the numeric **SELECTOR** buttons. Display 2 will change as illustrated.
3. Press the "YES" button in the **SELECTOR** section to save the rhythm data. Display 2 will change as illustrated.



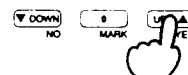
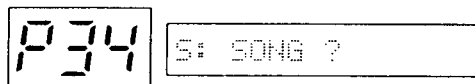
The saving is now completed.



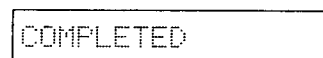
P34 SAVE SONG data

You can save the song data onto the disk.

1. Select the DISK page 34 using the **DISK** button. The displays will change to read as illustration below.
2. Press the "YES" button in the **SELECTOR** section to save the song data. Display 2 will change as illustrated.



Now the saving is completed.



Naming Your Own Data

Assigning Names

You can store all of the following in SuperLab:

20 Registrations

5 Rhythms and ONE FINGER AD-LIB phrases

3 Songs

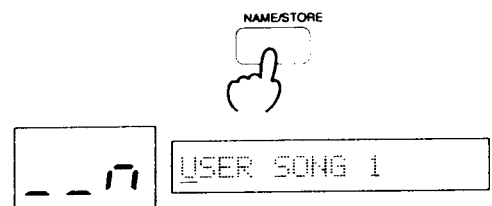
All these things can be assigned names.



In fact, all these things have already been assigned default names. But you can assign a more descriptive one — anything you like that will help you remember what is stored there.

Assign a name to a SONG.

Press the **NAME/STORE** button to assign a name to DISPLAY 2. The display will look like the one to the right.



The cursor will be at the left edge of DISPLAY 2 and the cursor position shows up as an underline beneath the letter that can be changed.

By pressing the numeric **SELECTOR** buttons, alphanumeric characters and symbols can be entered at the cursor.

- (a) The letters that can be entered with the ten-key pad are printed on the lower face of the key. For example, the ABC just below the 7 on the ten-key pad. Every time you press this key you will get a different alphanumeric character under the cursor: 7, A, B or C, in that order. So if you want to enter numbers, you need only press a key once in the ten-key pad. To enter letters, you'll have to press a key as many times as it takes to select the letter you want. You can get a space by pressing the ten key pad #3 four times.
- (b) You can get a variety of symbols using the 0 pad. The available symbols are listed below.

!, #, &, ., /, :, ?, →, ←, ↵

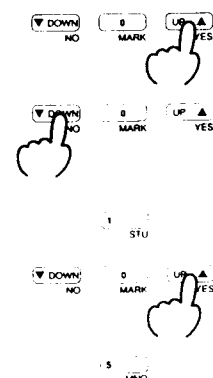
Pressing the **UP** button moves the cursor to the right; pressing the **DOWN** button moves it to the left.

As an example, lets try entering the name "SOFT"

Press "1" twice to enter "S"

Press the **UP** button to move the cursor to the right

Press "5" four times to enter "O"



Press the **UP** button to move the cursor to the right.

Press "8" four times to enter "F"

Press the **UP** button to move the cursor to the right.

Press "1" three times to enter "T"

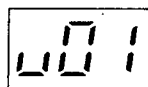
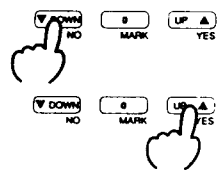
Press the **UP** button to move the cursor to the right.

Press "3" four times to enter a space.

If you make a mistake you can use the **UP ▲** button and **▼ DOWN** button to move the cursor left and right.

Storing the Song Name

Press the **NAME/STORE** button. The display will look like the one to the right, asking which song you want to name (either 1, 2, or 3). Enter the number you want using the ten key pad. Then press the **NAME/STORE** button one more time. The display will look like the one to the right. The song name is now stored.



PRESS 1-3

COMPLETED

Using the SYSTEM/MIDI Functions:

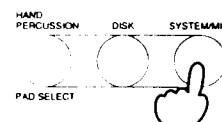
We will outline the SuperLab's SYSTEM/MIDI functions.

SYSTEM/MIDI Functions

The SYSTEM/MIDI Functions are divided into sixteen sections which we will refer to as "pages". "P01" means "Page 1". The pages include:

P01.	SYSTEM TUNE:	P10	MIDI CHANNEL <R>
P02.	AUTO TYPE SELECT:	P11	MIDI CHANNEL <N>
P03.	REVERB TYPE SELECT:	P12	MIDI CHANNEL <D>
P04.	RECORDING TYPE SELECT:	P13	ACCOMPANIMENT MIDI OUT
P05.	TOUCH TYPE SELECT:	P14	LOCAL CONTROL ON/OFF
P06.	MIC TYPE SELECT	P15	PROGRAM CHANGE ON/OFF
		P16	EXTERNAL KEYBOARD ON/OFF
		P17	EXCLUSIVE <REGISTRATION>
		P18	EXCLUSIVE <SOUND>
		P19	EXCLUSIVE <RHYTHM>

In the SYSTEM/MIDI mode, the page (in the display) changes every time you press the **SYSTEM/MIDI** button. The display will show a different page with each press. If you want to select a page directly (without pressing from page to page), just press the page number you desire immediately after pressing the **SYSTEM/MIDI** button.

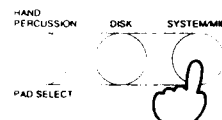
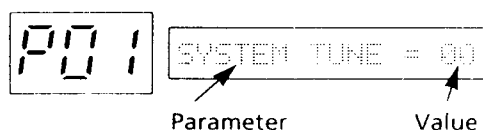


Let's explore the various functions available in SYSTEM mode, first.

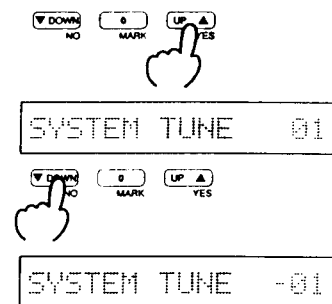
SYSTEM Functions

P01. TUNING CONTROL

Press the **SYSTEM/MIDI** button once to select "Page 1".



If you press the **UP** button in the **SELECTOR** section one time, the value in the display 2 will change to read "01" and the pitch will raise slightly. If you press the **DOWN** button instead, the value will change to "-01" and the pitch will drop slightly. You can use the **TUNE** function to adjust the SuperLab's pitch within a range of -08 to 07.



P02. AUTO TYPE SELECT

Allows you to select among the four styles of Auto-Accompaniments. (Please see the section on "Using Auto-Accompaniment")

P03. REVERB TYPE SELECT

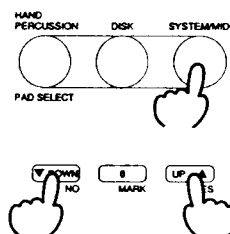
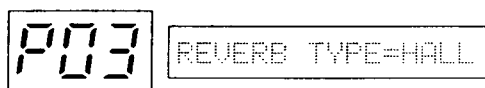
In SuperLab, you can add reverb to sounds from the mic and keyboard. There are two kinds of reverbs:

HALL: Gives the sound a "spaciousness," as if you were playing in a large concert hall.

GATE: The reverb abruptly cuts off after a certain (short) period of time.

HALL reverb is the thing to use with the mic, to give voices and instruments a little extra "glow." You've probably heard **GATE** reverb used on drums in funk and disco music, where the unusual effect of the sudden cut off can make a part sound even more rhythmic.

Press the **SYSTEM/MIDI** button three times to select "Page 3". The displays will change as illustration below. Use the "**UP**" button or "**DOWN**" button to select the value.



P.04. RECORDING TYPE SELECT

There are two types of recordings in the FS2000.

● Real-time recording

Using Real Time recording function, the FS2000 records data as you play it. (See "Using the Real-Time RECORDER" section)

● Over-Dub recording

Over-Dub recording lets you record 5 parts (Rhythm, Bass, Chord, Sound 1, Sound 2) separately.

Using Over Dubbing function

1. Press the **SYSTEM/MIDI** button four times to select "Page 4".

Then select the record type "DUB" using the UP and DOWN buttons.

- 2 Recording a Rhythm part:

- a. Press **REC/END** button to set the FS2000 in Record Stand-By. The metronome will begin to click.

- b. You can use a FS2000 rhythm, hand percussion, or both at the same time. Press the **HAND PERCUSSION** button to select sound number 90 <DRUMSET>.

- c. The FS2000 will begin recording when you either start playing or press **START/STOP** button.

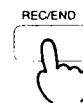
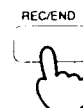
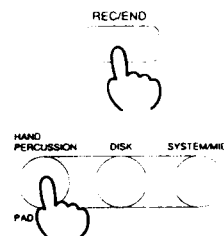
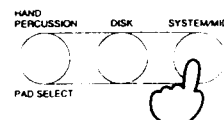
- d. Press **REC/END** button to stop recording.

- 3 Recording a Bass part:

Select a bass sound first. Next, press **REC/END** button to set the FS2000 in Record Stand-By. The metronome begins to click. Start playing or press the **PLAY/STOP** button in the RECORDER section and the FS2000 begins recording. Press **REC/END** button to stop recording.

- 4 Recording other parts.

You can record other parts (Chord, Sound 1, Sound 2) in the same way as you recorded a Bass part. First, select a sound. Then press **REC/END** button to set the FS2000 in Record Stand-by. The metronome begins to click. Start playing or press the **PLAY/STOP** button in the RECORDER section and the FS2000 begins recording. Press **REC/END** button to stop recording.



In case you don't want to record the rhythm part, skip the step 2 above and start from recording the bass part.



You can record a Bass part with Rhythm part simultaneously when you don't select sound number 90 <DRUMSET>.



Three LEDs of the DIGITAL MIXER section for a part lights when you set the FS2000 to Record Stand-By to indicate the data you recorded on the part is still there.



*If you want to record the Rhythm part using Hand Percussion, always press the **REC/END** button prior to pressing the **HAND PERCUSSION** button. If you press the **HAND PERCUSSION** first and then the **REC/END** button, the Hand Percussion will not be on.*



*If you made a mistake while recording, you can re-record. Erase the song by pressing the **REC/END** button and **PLAY/STOP** button simultaneously and start from the step 2 above.*

P05 TOUCH TYPE SELECT

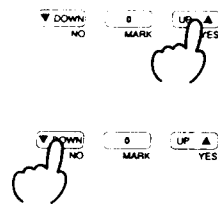
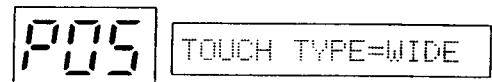
You can select two different TOUCH TYPEs on the FS2000. (The factory setting is WIDE.)

WIDE: The keyboard touch is sensitive to a wide range of dynamics.

NARROW: Used when you want the notes to sound at about the same level regardless of how hard you play the keys. This would be useful for teaching children or others who have not yet developed their finger strength.

To change, press the **SYSTEM/MIDI** button five times to select page 5. The displays will change to read as illustration at right.

Press the **UP** button in the SELECTOR section and the section "WIDE" change to read "NRRW". The "NRRW" stands for NARROW. Now the Touch Type, is set to NARROW. To return the Touch Type to WIDE, press the **DOWN** button in the SELECTOR section so that the value is the display 2 changes to read "WIDE".



P06 MIC TYPE SELECT

There are 2 types of MIC TYPE in the SuperLab as follows.

CND (CONDENSER): Setting for use with condenser mics.

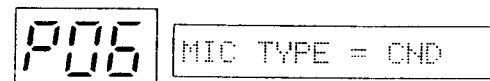
DYNA (DYNAMIC): Setting for use with dynamic mics.
--

* The factory setting is CONDENSER.

The included headset mic is a condenser mic.

Check this to make sure it's appropriately set for any other kind of mics you might use.

Press the **SYSTEM/MIDI** button six times to select "Page 6". The displays will change as illustration below. Use the "UP" or "DOWN" button to select the value.



Using the MIDI Functions: Setting ON/OFF

In this section we will outline the FS2000's MIDI functions (which allow you to connect the FS2000 to other MIDI instruments).

Upon seeing the word "MIDI," many people may think: "This section has nothing to do with me!" or "MIDI is too difficult to bother with!" However, if you try using the FS2000's MIDI functions, you're sure to find that MIDI is a fun and useful tool for making music. The FS2000 is loaded with MIDI functions – if you don't use them, you're missing out on a lot of the fun. However packed the FS2000 may be with exciting MIDI functions, they are not much use if the FS2000 is the only instrument you're using. These MIDI functions are used to connect the FS2000 to other MIDI equipment. In this section we will give you some examples of how this is done.



"MIDI" is an acronym for Musical Instrument Digital Interface.

MIDI provides a method for the FS2000 to communicate with other MIDI-equipped instruments or personal computers. It is not the purpose of this manual to discuss in depth the many uses and techniques of MIDI operation. For complete books on this subject, KAWAI recommends that you consult your local music dealer.

Creating Songs

Before taking your through an example using MIDI, let's discuss the ways your SuperLab transmits and receives MIDI data. The SuperLab can transmit any one of 16 MIDI channels. The process for selecting the MIDI Transmit Channel is described shortly.

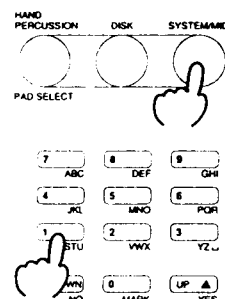
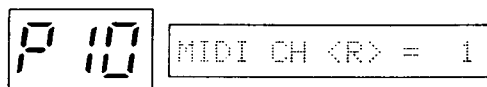
The SuperLab receives MIDI data on 5 fixed channels. Channels 1-4 are used for receiving sounds, and channel 10 is used for receiving drum/rhythm information.

Keeping this in mind, let's create a song using MIDI and an external sequencer:

1. First connect the SuperLab to a sequencer

P.10 To change the MIDI CHANNEL "R"

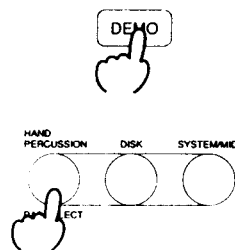
Select page ten using the **SYSTEM/MIDI** button. The displays will change as illustration below. This indicates that the current MIDI CHANNEL "R" is set to channel 1. Use the numeric **SELECTOR** button to change the MIDI CHANNEL "R".



Use the numeric keys to change the "01" to "10". This changes the FS2000's MIDI Transmit Channel to channel 10. Now the drum data that you are about to record will be assigned to channel 10. On playback, the SuperLab will receive that set of data on channel 10 and assign it to the drums.

2. Create a drum part activate

Press the **DEMO** button to leave the MIDI mode. Then activate the Hand Percussion function by pressing the **HAND PERCUSSION** button.



If you start the sequencer, you can record a drum part using the percussion sounds on the FS2000's keys. If you raise or lower the volume while recording using the **RHYTHM volume** buttons of the DIGITAL MIXER, these changes will also be recorded by the sequencer.

3. Creating other parts

If you have left the MIDI mode, select page 10 again.

Use the numeric **SELECTOR** button "1" to change the "10" to "1".

MIDI CH <R> = 10 → MIDI CH <R> = 1

P 10

MIDI CH <R> = 1



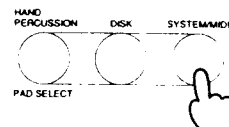
The FS2000's MIDI Transmit Channel is now set to channel 1. (We could have chosen any channel from 1 to 4, since the FS2000 receives sound data on any of these four channels.)

If you press one of the keys on the keyboard, you will hear whatever sound is currently selected. Use the **SOUND** button and the numeric keys to select the sound of your choice.

Now use the sequencer to record the track for that sound. Volume changes made using the **VOLUME** buttons in the DIGITAL MIXER will be recorded by the sequencer as before.

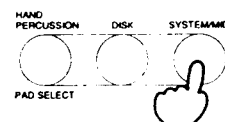
To record other parts, use the **SYSTEM/MIDI** button and the numeric keys to change the MIDI Transmit Channel to any channel from 2 through 4. Then, select the sound you will use for each new track and record it as before. If you change the sound you are using in the middle of the recording, the sound change will also be recorded. Therefore, it is not necessary to assign three solos (for example: a sax solo, a guitar solo, and an organ solo) to three separate channels. You can record them all on one channel by simply changing the sound as you record.

To summarize, drums should be sent to your external sequencer on MIDI Transmit Channel 10. Sounds should be recorded on MIDI Transmit channels 1 through 4. Then your tracks will be sent to the appropriate "Receive" channels on playback. This gives you five multi-timbral channels for recording separate tracks.



ACCOMPANIMENT MIDI OUT

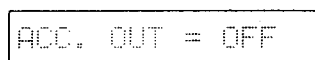
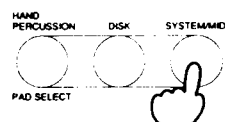
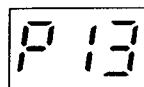
During normal operation, the FS2000 does not send (transmit) automatic information (automatic notes that are not actually played by hand) via MIDI. However, you can instruct the FS2000 to send this information by using the **SYSTEM/MIDI** button.



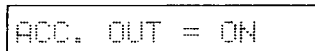
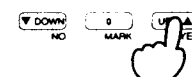
- Using a sequencer to record FS2000's Automatic functions. (Auto-Accompaniment, ONE FINGER AD-LIB).

P.13 Setting the ACCOMPANIMENT MIDI OUT

Select page thirteen using the **SYSTEM/MIDI** button. The displays will change as illustration at right. The "OFF" in the display 2 signifies that the FS2000 is not currently sending "Automatic" information via MIDI.



If you press the **YES** button in the **SELECTOR** section, the "OFF" should change to read "ON". This indicates that the Auto-Accompaniment will be transmitted via the MIDI connection.



You may now start the sequencer recording and begin your performance. Each part will be sent to the sequencer by way of a different MIDI channel, as shown below:

Channel	Part
1	SOUND1 (Your melody, ONE FINGER AD-LIB)
2	SOUND2 (Your melody, ONE FINGER AD-LIB)
3	Chord part
4	Bass part
10	Rhythm part

On playback, your performance should sound exactly the same as it did when you recorded it.

● Changing MIDI Channels

At some point during recording, you may find it necessary to change the MIDI channel for a specific part. Here's how it can be done:

When the ACCOMPANIMENT MIDI OUT is set to "OFF", the FS2000 receives MIDI data on several channels but transmits on only one MIDI channel (referred to as "R"). The MIDI channel assignments are found below:

Transmit Channel = R (see page A-36 to adjust the "R")

Receive Channel of Sound 1 = N (see the following explanation to adjust the "N")

Sound 2 = N+1

Chord = N+2

Bass = N+3

Rhythm = D (see the following explanation to adjust the "D")

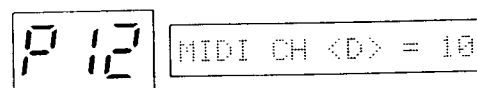
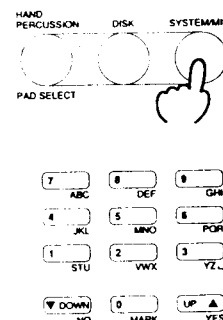
When the ACCOMPANIMENT MIDI OUT is set to "ON", the FS2000 will both transmit and receive MIDI data on the same MIDI channels. The channel assignments are:

Sound 1 = N, Sound 2 = N+1, Chord = N+2, Bass = N+3, Rhythm = D.

● To change the Rhythm part channel

P.12 To change the MIDI CHANNEL "D"

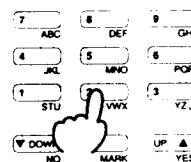
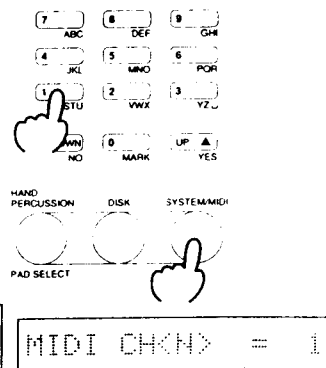
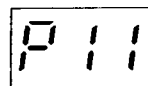
Select page twelve using the **SYSTEM/MIDI** button. The displays will change as illustration below. This indicates that the current MIDI CHANNEL "D" is set to channel 10. Use the numeric **SELECTOR** buttons to change the MIDI CHANNEL "D".



● To change the channels of the other parts

P.11 To change the MIDI CHANNEL "N"

Select page eleven using the **SYSTEM/MIDI** button. The displays will change as illustration at right. This indicates that the current MIDI CHANNEL "N" is set to channel 1. Use the numeric **SELECTOR** buttons to change the MIDI CHANNEL "N". If you use the numeric **SELECTOR** button "2" to change the 01 to 02, then the melody and ONE FINGER AD-LIB phrases you play using **SOUND 1** will be output through channel 2; the melody and ONE FINGER AD-LIB phrases you play using **SOUND 2** will be output through channel 3; the Auto-Accompaniment Chord part will be output through channel 4; and the bass part will be output through channel 5.



You can see that the channel number for melody using **SOUND 1** determines the channels for the other three sounds – which are assigned to the next three successive channels.

In other words, if the channel which outputs the melody and ONE FINGER AD-LIB phrases is channel "N", then **SOUND 2** outputs through channel N+1; the Chord part outputs through channel N+2; and the bass part outputs through channel N+3. The number shown in the display is the channel number N.

Creating Patterns

Suppose you want to create a complete Accompaniment pattern on an external sequencer (such as KAWAI's professional MIDI sequencer, the Q-80) and store it in the FS2000's user memory for use with the Auto-Accompaniment feature. Here's how it can be done:

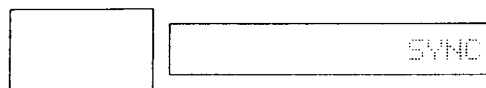
■ Recording Auto-Accompaniment patterns created with an external sequencer for use with the FS2000



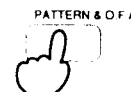
Quantize is set to $\text{J} = 24$.

1. First program the Accompaniment pattern into your external sequencer. Remember that the Intro and Fill-in patterns you create should be one measure long. The Basic patterns should be four measures and Ending patterns should be two measures long.
2. Next make sure that the external sequencer's Playback (Transmit) channels and Rhythm, Chord and Bass channels of the FS2000 are the same.

3. Use the **TEMPO DOWN** button to change the display until it reads SYNC.



4. Prepare the FS2000 to record the pattern into user memory. Record the Rhythm part first. Begin by pressing the **PROGRAM PATTERN & O.F. A.** button, just as you did when you created an Auto-Accompaniment pattern. Then select which of the four pattern types (Basic, Intro, Fill-in, or Ending) you are going to record from the sequencer. Then select the Rhythm part by pressing the G#5 key. Now the FS2000 is set to record your pattern from the external sequencer. When you playback the Rhythm pattern from the external sequencer, the FS2000 will begin recording in SYNC with the sequencer.
5. Record the other parts (chord, bass) once again, making sure that your Playback (Transmit) channels for chords and bass are matched with the appropriate channels on the FS2000. The chords should be set to transmit from the external sequencer on channel N+2. The bass should transmit on channel N+3. (Refer to page A-40 of this manual to review the channel assignment procedure for the FS2000.)
- Repeat Steps 4 and 5 above to prepare the FS2000 for recording. Select the appropriate pattern type. Remember that Intro and Fill-in patterns should be one measure long while Basic patterns are four measures and Ending patterns should be two measures long.
 - Now play back the pattern from your external sequencer. The complete pattern should now be ready to be assigned to a user memory location.
6. Storing your pattern. The final step is to store your new pattern on one of the five user memory locations using the **NAME/STORE** button and the numeric keys.



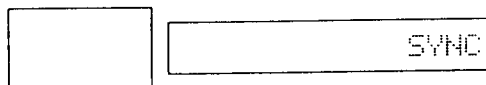
If necessary see Page A-16 of this manual to review this procedure.

Creating ONE FINGER AD-LIB Phrases

You can also use the same procedure described in the preceding pages to create ONE FINGER AD-LIB phrases on an external sequencer and store them in the FS2000's user memory.

■ Recording ONE FINGER AD-LIB phrases created with a sequencer for use with the FS2000

1. First, program your ONE FINGER AD-LIB phrase into the external sequencer. Remember that ONE FINGER AD-LIB phrases can only be one measure in length.
2. Prepare the FS2000 to record.
 - Use the RHYTHM and numeric keys to select the Accompaniment pattern you want as back-ground for your ONE FINGER AD-LIB phrases.
 - Make sure that the Playback (Transmit) channel of your external sequencer matches the FS2000's Receive channel for Sound1 (the default is channel 1).
 - Now press the **PROGRAM PATTERN & O.F.A.** button, and then **ONE FINGER AD-LIB** button, just as you did when you were creating ONE FINGER AD-LIB phrases.
3. Record the phrase. Use the **TEMPO DOWN** button to change the display so that it reads SYNC. Now, when you playback the phrase from the sequencer, it will be recorded as the ONE FINGER AD-LIB phrase for the ONE FINGER AD-LIB key that is currently selected.



4. By selecting different ONE FINGER AD-LIB keys, you can record different phrases from the external sequencer. When you are through recording new phrases, use the "storing" procedure (see page A-20) to store the new AD-LIB phrases in user memory along with the corresponding Accompaniment pattern.



TEMPO

PRESET



Connecting the FS2000 to another MIDI keyboard or tone generator module

First, connect the FS2000 MIDI Out jack to the MIDI In jack of another keyboard or tone generator. Make sure that the FS2000's MIDI transmit channel matches the MIDI receive channel of the tone generator or other keyboard. Then, pressing a key on the FS2000's keyboard will cause both the FS2000 and the other instrument to play a sound simultaneously. Or, if you connect the FS2000 to a keyboard which has a multi-timbral function (which would allow it to receive signals over a number of different MIDI channels at once), you can play the FS2000's Auto-Accompaniment and Rhythm patterns through the other instrument as well. (See page B-14 for Rhythm key numbers.)

P14 Setting the Local Control ON/OFF

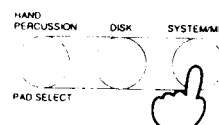
Using Local Control, you can determine whether or not the FS2000 produces sound when the keys are played. Why would you want to turn off the FS2000's sound? When using MIDI, the FS2000 can operate as a "controller"; used to control the sound of another MIDI-equipped keyboard. In this situation, you may want to play the FS2000's keys but hear only the sound of the "slave" keyboard that is being controlled through MIDI.

When Local Control is "ON", you will hear the FS2000's sound when the keys are played. When Local Control is "OFF", MIDI note Information is still sent as you play, but no sound is heard through the FS2000's speakers.

To select Local ON/OFF, use the following procedure:

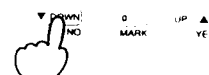
1. LOCAL CONTROL ON

Press the **SYSTEM/MIDI** button until "P 14" appears in the display1. The LOCAL in the display2 stands for Local Control; and the "ON" indicates that Local Control is set to "ON". In this setting, you will hear sound when the FS2000's keys are played.



2. LOCAL CONTROL OFF

Next, try pressing the **"NO"** button. The display2 will change to read "LOCAL = OFF". This indicates that the Local Control is off and no sound will be heard when the FS2000's keys are played



Remember, MIDI data is still sent when you play the FS2000's keys. So, if the FS2000 is connected to another keyboard through MIDI (the FS2000's MIDI Out jack to the other keyboard's MIDI In jack with a MIDI cable), you should hear notes sounding on the other keyboard as you play keys on the FS2000.

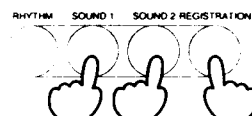
3. RETURNING TO LOCAL CONTROL ON

To turn Local Control "ON" once again, simply press the "YES" button. If your other keyboard is still connected via MIDI, you should hear both keyboards produce sound as you play keys on the FS2000.



4. LEAVING THE LOCAL CONTROL ON/OFF MODE

To leave the Local Control mode, press the **SOUND 1**, **SOUND 2** or **RHYTHM** button. Pressing any one of these buttons will cause you to leave the Local Control mode.



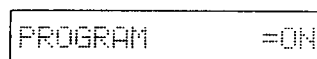
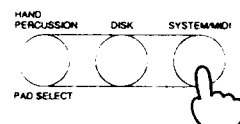
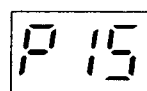
P15 Setting the Program Change ON/OFF

The FS2000 continually transmits Program Change data through MIDI as you play. Additionally, you can set the FS2000 to receive Program Change information from other instruments via MIDI. To accomplish this, use this procedure.

1. PROGRAM CHANGE ON

Press the **MIDI** button until "P 15" appears in the display. The displays will change as illustration at right.

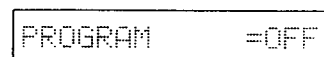
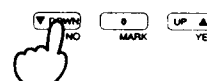
The PROGRAM in the display 2 stands for Program Change; and the "ON" indicates that Program Change is set at the "ON" position. In this setting,



the sound of the FS2000 will change when you send program change data from another keyboard via MIDI. The MIDI Out jack of the other keyboard must be connected to the MIDI In jack of the FS2000 with a standard MIDI cable.

2. PROGRAM CHANGE OFF

Next, try pressing the "NO" button. The display will change to read PROGRAM = OFF. This indicates that the Program Change function is set at the "OFF" position and the FS2000 will not receive program change data.



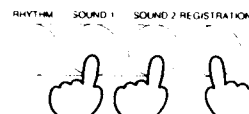
3. RETURNING TO PROGRAM CHANGE "ON"

To allow the FS2000 to receive Program Change information once again, simply press the "YES" button. If you have left the Program Change mode, repeat Step one above before pressing the "YES" button.



4. LEAVING THE PROGRAM CHANGE MODE

To exit the Program Change mode, press the **SOUND 1**, **SOUND 2** or **RHYTHM** button. Pressing any one of these buttons will cause you to leave the Program Change mode.

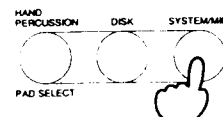


P.16 Setting the EXTERNAL KEYBOARD ON/OFF

When you want to play another MIDI keyboard and enjoy the powerful functions of the SuperLab, such like Auto-Accompaniment or ONE FINGER AD-LIB Functions, take the following steps.

1. Connect the FS2000 MIDI IN jack to the MIDI OUT jack of another MIDI keyboard.
2. Adjust the MIDI transmit channel of the external keyboard to match the FS2000's MIDI CHANNEL "R".
3. EXTERNAL KEYBOARD OFF

Select page sixteen using the **SYSTEM/MIDI** button. The displays will change as illustration at right. The OFF in the display 2 indicates that the current setting of the EXTERNAL KEYBOARD is set to off.



P 16

EXT KEY = OFF

4. EXTERNAL KEYBOARD ON

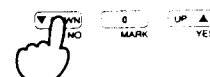
Next, try pressing the **YES** button in the **SELECTOR** buttons to change the OFF to ON. Now, you can use 61 keys (same as the FS2000) of the external keyboard to enjoy the rich functions of the FS2000.



EXT KEY = ON

5. Returning to EXTERNAL KEYBOARD OFF

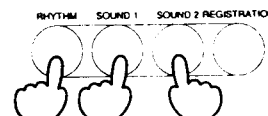
To turn EXTERNAL KEYBOARD "OFF" once again, simply press the **"NO"** button to change the "ON" in the display to "OFF". If you have left the EXTERNAL KEYBOARD mode, repeat step three above before pressing the **"NO"** button.



P 16

EXT KEY = OFF

6. Leaving the EXTERNAL KEYBOARD mode, press the **Sound 1**, **Sound 2** or **RHYTHM** button. Pressing any one of these buttons will cause you to leave this mode.



You can't use the keyboard of the FS2000 when you set the EXTERNAL KEYBOARD "ON".

EXCLUSIVE SEND Function

As you know, it is possible to store the sounds and patterns you create in the FS2000's user memory or in the 3.5" floppy disks. Also you can store them in an external sequencer (such the Q-80, a data filer, or some other external MIDI device). You can store the following data using this function:

P17 EXCLUSIVE <REGISTRATION>

Twenty sets of REGISTRATION data

P18 EXCLUSIVE <SOUND>

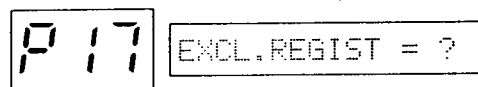
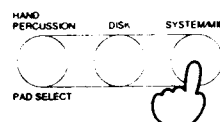
Five sounds created using the synthesizer function

P19 EXCLUSIVE <RHYTHM>

Five Auto-Accompaniment patterns plus corresponding ONE FINGER AD-LIB phrases

P.17 Storing REGISTRATION data you create for the FS2000 in an external sequencer:

1. Set the External sequencer to be ready to receive the "EXCLUSIVE" data.
2. Select page 17 using the **SYSTEM/MIDI** button. The displays will change as illustration below.

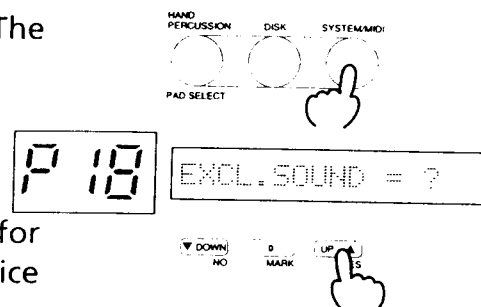


3. Press the **YES** button and the display will read EXCUTING for a few moments, then change to read COMPLETED. Your data transmission is now complete.



P.18 Sending the sound data you create for the FS2000

1. Set the External sequencer to be ready to receive the "EXCLUSIVE" data.
2. Select page 18 using the **SYSTEM/MIDI** button. The displays will change as illustration below.

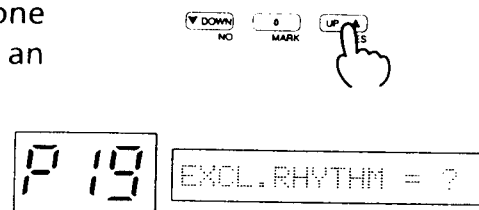


3. By pressing the **YES** button in the same way as for registration, you can send to an external MIDI device the musical data created with the synthesizer function.

P.19 Sending the Auto-Accompaniment data plus corresponding ONE FINGER AD-LIB data you create for the FS2000.

When you select page 19, the displays will change as illustration below.

Pressing the **YES** button lets you send rhythm or one finger ad-lib data made with the pattern maker to an external MIDI device.



Sending stored data back to the FS2000 from an external sequencer:

No special command is necessary to perform a data dump into the FS2000. Simply command your external sequencer to transmit data to the FS2000. The FS2000 will receive this data automatically. When following function of the FS2000 are not in operation.

RHYTHM, Auto-Accompaniment, RECORDER, and SONG LIBRARY functions.



EXCLUSIVE data are sent or received under MIDI CHANNEL "R".

These are a few examples of the ways in which the FS2000's MIDI functions can be used. There are sure to be many more interesting and enjoyable things you can find to do with MIDI.

Its possibilities are limitless!

TROUBLE-SHOOTING ON YOUR FS2000 SUPERLAB

Problem	Check the following
No sound from your FS2000.	<p>(1) Check your power adaptor. We recommend that you use a KAWAI 15-volt adaptor.</p> <p>(2) If using another brand of adaptor:</p> <ul style="list-style-type: none"> - Is the voltage 15 volts? - Is it set to negative (-) polarity? - Is it rated above 2400 mA?
All the FS2000's sounds have a "wavering" quality to them.	Make sure that the modulation wheel is set to "off". The white line should be rotated downward to the lowest position (closest to you).
You notice that the front panel has a "cloudy" finish or has begun to "bubble" or "peel". This is not a defect.	There is a thin plastic film applied to the glossy panel (where the sounds and rhythms are printed) for protection during shipping. You can remove this film at any time. Use a fingernail to carefully lift up one of the edges, then peel off the protective film.
You are using the numeric SELECTOR buttons to select a two-digit number, but a single-digit number appears in the display.	<p>You may be taking too long to enter the second digit. Once you enter one digit, the SuperLab waits for one second to see if a second digit follows. If the second digit is not entered within that time, the SuperLab assumes that you meant to enter a single-digit number.</p> <p>Be sure to enter all two-digit numbers in rapid succession.</p>
The rhythm will not start when you press the yellow START/STOP button.	The display will read "SYNC" if the "SYNC" mode has been inadvertently activated. The START/STOP button will not operate in TEMPO "SYNC" mode. To escape this mode, press the TEMPO UP button until "a number" appears in the display.

TROUBLE-SHOOTING ON YOUR FS2000 SUPERLAB

Problem	Check the following
The RECORDER will not record.	The recorder will not record when there is already a song in memory. Use the ERASE procedure (press both the REC/END and PLAY/STOP buttons simultaneously) for that song to clear a particular song. Then try recording again.
The keyboard only plays drum sounds.	The HAND PERCUSSION button has been activated. Press the button again to deactivate the Hand Percussion feature.
The AUTO function is not working properly.	Check to see if someone has set your SuperLab to operate in AUTO 2, AUTO 3, or AUTO 4 modes. All of these alternative modes are different from the normal AUTO 1 style of accompaniment. (Please refer to the "Auto-Accompaniment" section of this manual.)
The FS2000 is not sending "automatic" note information via MIDI.	See the MIDI section of this manual. The ACCOMPANIMENT MIDI OUT function must be set to "on". Otherwise, the FS2000 will only send "note" information (notes that are actually played) via MIDI.

Model : FS2000 SUPER LAB MIDI IMPLEMENTATION CHART Version : 1.0

Function. . .		Transmitted				Remarks
		SOUND 1/2	CHORD/BASS	RHYTHM	SYSTEM	
Basic Channel	Default Changed	1/2 1 - 16 (N/N+1)*	3/4 1-16 (N+2/N+3)*	10 1 - 16 (D ch)*	1 1 - 16 (R ch)	Memorized
Mode	Default Messages Altered	3 X *****	3 X *****	3 X *****	3 X *****	
Note Number	True Voice	24 - 108 *****	0 - 127 *****	36 - 54 *****	24 - 108 *****	
Velocity	Note ON Note OFF	○ X 9n v = 0	○ X 9n v = 0	○ X 9n v = 0	○ X 9n v = 0	
After Touch	Key's Ch's	X X	X X	X X	X X	
Pitch Bend		○	○	X	○	
Control Changes	1	○ (N/N+1)	X	X	○	Modulation
	7	○ (N/N+1)	○	○	○	Volume
	64	○ (N/N+1)	X	X	○	Hold
	93	○ (NN+1)	X	X	○	(Chorus)
Prog Change	True #	○ 0 - 99	○ 0 - 99	○ 0 - 99	○ 0 - 99	
System Exclusive		*****	*****	*****	○	
Common	: Song Pos	*****	*****	*****	X	
	: Song Sel	*****	*****	*****	X	
	: Tune	*****	*****	*****	X	
System Real Time	: Clock	*****	*****	*****	○ **	
	: Commands	*****	*****	*****	○	
Aux Messages	: Local	*****	*****	*****	X	
	: All Notes OFF	*****	*****	*****	X	
	: Active Sense	*****	*****	*****	○	
	: Reset	*****	*****	*****	X	
Notes		* Enabled when ACC.SEND-ON, sent via R channel when OFF ** When a Rhythm is playing				

Mode 1 : OMNI ON, POLY

Mode 2 : OMNI ON, MONO

○ : Yes

Mode 3 : OMNI OFF, POLY

Mode 4 : OMNI OFF, MONO

X : No

Function. . .		Recognized				Remarks
		SOUND 1/2	CHORD/BASS	RHYTHM	SYSTEM	
Basic Channel	Default Changed	1/2 1 - 16 (N/N+1)	3/4 1 - 16 (N+2/N+3)	10 1 - 16 (D ch)	1 1 - 16 (R ch)	Memorized
Mode	Default Messages Altered	3 X *****	3 X *****	3 X *****	3 X *****	
Note Number	True Voice	0 - 127 12 - 108	0 - 127 12 - 108	36 - 54 12 - 108	***** *****	
Velocity	Note ON Note OFF	○ X	○ X	○ X	***** *****	
After Touch	Key's Ch's	X X	X X	X X	***** *****	
Pitch Bend		○	○	X	*****	
Control Changes	1	(N/N+1)	○	X	*****	Modulation *
	7	○ (N/N+1)	○	○	*****	Volume
	64	○ (N/N+1)	X	X	*****	Hold
	93	○ (N)	X	X	*****	(Chorus)
Prog Change	True #	○ 0 - 99	○ 0 - 99	○ 0 - 99	X *****	
System Exclusive		○	○	○	○	
Common	: Song Pos	*****	*****	*****	○	
	: Song Sel	*****	*****	*****	X	
	: Tune	*****	*****	*****	X	
System Real Time	: Clock	*****	*****	*****	○	**
	: Commands	*****	*****	*****	○	
Aux Messages	: Local	*****	*****	*****	X	
	: All Notes OFF	*****	*****	*****	X	
	: Active Sense	*****	*****	*****	○	
	: Reset	*****	*****	*****	X	
Notes		* Modulation = Vibrato Depth ** Enabled when Tempo=SYNC				

Mode 1 : OMNI ON, POLY

Mode 2 : OMNI ON, MONO

○ : Yes

Mode 3 : OMNI OFF, POLY

Mode 4 : OMNI OFF, MONO

X : No

Chord Progression

– Key In Major –

01	POWER FUNK	C	F				
02	SLAP FUNK	C				F	
03	SYNTY FUNK	C	F				
04	LOUD FUSION	CΔ7	D7	Dm7	Gsus4 G		
05	MID FUSION	Dm9	C9	Am7			
		FΔ7	F#m7-5	G6	Bbm6 A7	Dm9	C9 Am7
06	SOFT FUSION	Dm7	C	F	G7		
07	MOTOWN 1	C	G	Bb6	A7		
		Dm7	G7	Abdim	Am	G	Am G
08	'70 ROCK	C	G	C	G	C	
		F	G	Gsus4 G			
09	A.O.R 1	Dm9	G13				
		C	Baug	Bbb	A7		
10	POP BALLAD	FΔ7	Fm6	Em7 F7	Am G	FΔ7	G13 Csus4
11	HOUSE	C	Bb				
12	EURO BEAT	C	Dm	G	C	C#dim	
		Dm	G	Em	Am	F	G C
13	SYNTH DISCO	C	Bb				
14	DISCO QUEEN	C	Am	Dm	G	Fm	Am Dm G
15	DANCE	FΔ7	F#m7-5	B7	Em7-5 A7	Dm7 G7	CΔ7 Gm7 C8

16	TECHNO POP	C	F	Gm	Am7	Bb	C
17	CALIFORNIA	FΔ7	Bb7	Fm7	A7	Dm7	G7 Csus4 C
18	BALLAD	C	Bm7	E7	Am	G	F G7 C Bm Am D7 F G7
19	HAPPY LOVE	C	CΔ7	Dm7	Dm6	C	CΔ7 Dm7 G7
20	SWEET LOVE	F9	FΔ7	Em7			Dm7 G7
21	A.O.R 2	C	F	G	Em7	F	Am Dm7 G
22	DISCO MAGIC	C		Ebb	Eb		
23	DISCO BEAT	F		Dm7		Gm7	C7
24	RAP	CΔ7	Am7	Bm7	Esus4 E7	Am7	Dsus4 D7 GΔ7 Gsus4 G7
25	POP DISCO	C	BbΔ7	C			
26	POP ROCK	FΔ7	G	Am	FΔ7	G	Am FΔ7 G Am BbΔ7 G
27	POPS 1	Csus4	Bb	C			
28	POPS 2	C		Bb	Am	C	Dm G C
29	TECHNO	C		Am7		F	G7
30	HARD DISCO	FΔ7	Bb7	Em7	A7	Dm7	G7 Csus4 C
31	METAL	Dm7	CΔ7				
32	HEAVY WAVE	FΔ7	Fm7			Em7-5 F	Dm7 G7
		Dm7	G7	Em7	Dm7	G7	
		C		Bb			
		C	Bb6	Gm7			
		F	G				
		C	G	Am	F		
		Fsus4 F	C	G			

33 HARD ROCK C7 F7 Bb7 C7 F7 Bb7 C

34 SOUTH ROCK C Eb F C

35 MERSEY BEAT C G7sus4 C G7sus4 C Dm Aaug
Dm Aaug Dm7 Aaug C C7sus4 C G7sus4

36 TWIST C Am Dm7 G7 C G7

37 LIVER POOL C Am G F G C C7

38 R&R 1 C F C

39 R&R 2 G F C G
C F Fsus4 F C D G Gsus4 G
C F Fsus4 F C G C

40 R&R 3 C7 F7 C7
G7 F7 C7 F7 C7
Csus4 C

41 HIP HOP

42 TRIP ROCK C Em7 Gm A7 Dm Em F G7 C G7sus4

43 SHUFFLE 1 CΔ7 C7 FΔ7 FmΔ7 Em7 Am7 Dm7 G7

44 SHUFFLE 2 C G Em7 Am7 F G C G7 C G Em7 Am7 F G Bb
FΔ7 Em7 Am7 Dm7 G7

45 TRIP POP C C6 CΔ7 C6 C Am7 Dm7 Dm6 Dm7 G7 Em7 Am7 Dm7 G7 G6 C6

46 MOTOWN 2 C G Bb6 A7
Dm7 G7 Abdim Am G Am G

47 MOTOWN 3 C G Dm7 G G7

48 SLOW ROCK CΔ7 Bm7-5 E7 Am7 Gm7 C7
FΔ7 Fm7 Em7 A7 Dm7 D7 Gsus4 G

49 SOUL

F C F C

F D7 G7

50 ROCKABILLY

C F C

G F C G

51 STANDARD

CΔ7 Dm7 G7 CΔ7 Dm7 Em7-5A7 DM7 G7 C6

Gm7 C7 FΔ7 Am7 D7 Dm7 G7

52 LATIN JAZZ

F#m7-5 B7 Em7 A7 F#m7-5 B7 Em7 A7 Gm7 C7 FΔ7 Dm7 Gm7 C7 FΔ7

C F

53 FAZZ FUNK

C9 F9 C9 F9 C9 Em7 A7

Dm7 G7 C9 A7 Dm7 G7

54 BIG BAND

C C7 F Fm C G C G

C C7 F Fm C G C G

55 DIXIE LAND

C C7 F Fm C G C G

C9 F9 C9

56 RAG TIME

Dm7 G7 C9 A7 Dm7 G7

CΔ7 Am7 Dm7 G9 Em7 Am7 Dm7 G9 C7 F6 F#dim C6 Am7 G9 C6

57 BOOGIE

E7 A7 D7 G9 G7

CΔ7 E-13 FΔ7 A-13 Dm9 A-13 Dm9 G7

58 BE BOP

Dm7 G7 Em7 Am7 Dm7 G7 CΔ7 C#din

Am7 Dm7 G9 CΔ7 C9 FΔ7 Bdim E9 Am A7-9

59 JAZZ WAITZ

Dm7 G9 Dm7 G9 Em A9 Dm7 G9 CΔ7 Bm7 E9

C6 D9 Dm7 G7 CΔ7 Db7

60 5/4 BEAT

C CΔ7 Gm7 D7 Dm7

G7 C

61 BOSSANOVA 1

62 BOSSANOVA 2

63 HOT SAMBA

64	POP SAMBA	Em7-5 A7 D7 Dm9 G13 G
65	MAMBO	G C
66	RHUMBA	C C6 CΔ7 C6 Dm9 G
67	TANGO	C G C Dm7 G
68	HABANERA 1	C G C Dm7 G
69	HABANERA 2	C A7 Dm7 G7 C
70	LAMBADA	C C6 CΔ7 C6 Dm9 G
71	BEGUINE 1	CΔ7 C6 A7 Dm7 Dm G7 CΔ7
72	BEGUINE 2	CΔ7 C6 A7 Dm7 Dm G7 CΔ7
73	CHA CHA	Dm7 G7 Dm7 G7 CΔ7 C6 CΔ7 C6
74	SALSA	Dm7 CΔ7 Asus4 A7 Dm7 CΔ7 A7 Dm7 CΔ7 Asus4 A7 Dm7 C6
75	GUARACHA	Gm7 FΔ7 Am7 D7 G7 Dm7 G7 CΔ7 Am7 Dm7 G7 CΔ7 C#dim
76	AFRO	C Caug
77	SKA	C F C G7 C G7 C
78	REGGAE 1	C G F C F C D7 G& C G F C F C A7 D7 G7 C
79	REGGAE 2	C G F C F C D7 G7 C G F C F C A7 D7 G7 C
80	CALYPSO	C G F C7 C
81	BLUE GRASS 1	C C7 F Dm7 G7 C G7
82	BLUE GRASS 2	C G C
83	W. SWING	C G7 C F7 F C G7 C

84 COUNTRY POP

C D7 G7sus4 G7 C

C E7 Am7 C7 F Fm C C A7 D7 Dm7 G7 C

85 FLAMENCO

C G

C F C F C Dm G C

86 ENKA

C A7 Dm7 G7 C G7

87 MODERN HULA

C A7 Dm G7

88 POLKA

D7 G7 C G7 C D7 G7 C G D7 G

89 MARCH 1

C Am7 Dm7 G7 C Dm7 G7 C

90 MARCH 2

C

91 BOLERO

Cm Fm Cm Adim Abm Cm Adim Abm CmΔ7 Adim Abm Cm

92 BALLET

Bb Bb7 Gm Fm D7 G Cm Bb Bb7 Gm Fm Ab7 Db

D7 G Cm Fm Cm Adim Abm Cm Adim Abm CmΔ7 Adim Abm

Cm

93 NOCTURNE

C A7 Dm G E7 Am F#dim Gsus4 G7 C

G D F Fm C G#dim D7 Em Am D7 G

C A7 Dm G E7 Am F#dim Gsus4 G7 C

94 7/8 BEAT

Dm9 Em7

95 WALTZ 1

C G7 Dm7 G C

96 USER 1

C C7 F Fm G7 C G7

97 USER 2

CΔm7 G Cm7 G

C Fm Cm7 G Cm

98 USER 3

C G C Csus4 C Am D G C G C Em Am Dm G C

F Dm G Gsus4 G F Dm A F A A Asus4 A F C#m F#m B E

99 USER 4

100 USER 5

C	G C	Gsus4 C	Am D G C	G C	Em Am	Dm G C
CΔ7	C7	FΔ7	FmΔ7	Em7	A7	Dm7 G7
C	Bb	Ab	G			

Chord Progression

– Key In Minor –

01	POWER FUNK	Cm	Fm7	Cm	Ab7	G7	
02	SLAP FUNK	Cm		Ab7	G7	Cm	Db7
03	SYNTY FUNK	Cm7	Fsus4 F7				
04	LOUD FUSION	Cm9	Bdim7	Dsus4	G-13		
05	MID FUSION	Cm	Eb7	AbΔ7	Fm7	G-13	
06	SOFT FUSION	Cm	Bb6	AbΔ7	Bb		
07	MOTOWN 1	Fm9	Bm7-5	G9			
		Fm7	Bb7				
		Eb	G7				
08	'70 ROCK	Cm	Fb7	F7	Cm	F7	Cm Bb Eb7 Ab7 Bb7
09	A.O.R 1	Cm9	Fm9	Fm7	Bb6	Gm7	Cm7
10	POP BALLAD	Cm9	Fm9	Bb7	EbΔ7	Ab	Adim Bb G7
11	HOUSE	Cm		Ab	Bb	Cm	
12	EURO BEAT	Cm	Ab	Bb	Cm	Ab	Bb G7
13	SYNTH DISCO	Cm	Ab	Bb			
14	DISCO QUEEN	Cm	Ab	Bb	Cm	Ab	Bb G7
15	DANCE	Cm	Ab	Bb	Cm	Bb	AbΔ7 Eb Bb
16	TECHNO POP	Cm	Fm7	Cm	Ab7	G7	
17	CALIFORNIA	Cm	G7	Bb	Am7-5	Ab7	Gm7 Fm7 G7
18	BALLAD	Cm	G7	Bb	Db AbAb	Eb	

		Bb	Fm	Cm	Eb	Ab	Bb	
		Fm7	Bb7	EbΔ7	AbΔ7	Dm7-5	G7	Cm7 Edim
19	HAPPY LOVE							
		Fm7	Bb7	EbΔ7	AbΔ7	Dm7-5	G7	Cm7 Edim
20	SWEET LOVE							
		Cm	Bbm7 Eb7	AbΔ7 Gm7 Fm7 Bb7	Cm	Bbm7 Eb7	AbΔ7 Gm7 Fm7 Cm	
21	A.O.R 2							
		Ab	Gm7	Cm7 Fm7 Bb7	Gm7 Cm7	Ab	Gm7	Cm7 Fm7 Bb7 Gm7 G7
		Cm	Bb	Eb	DbΔ7 F#Δ7	Gsus4 G		
22	DISCO MAGIC							
		Cm7	Cm6					
23	DISCO BEAT							
		Cm7		Cm6				
24	RAP							
		Fm7	Bb7	EbΔ7	AbΔ7	Dm7-5	G7	Gm7-5 C7
25	POP DISCO							
		Cm7	Eb9	AbΔ7	Dm7 G7			
26	POP ROCK							
		Cm7	Bbm7 Eb7	AbΔ7	DbΔ7	Dm7	G7	Cm7 Dm7-5 G7
		Cm	Gm	Fm9		Gm7	Fm9	Am7 Dsus4
27	POPS 1							
		Fm7	Bb7	EbΔ7	AbΔ7	Dm7-5	G7	Gm7-5 C7
28	POPS 2							
		Cm7		Db7				
29	TECHNO							
		Fm7	Bb7					
30	HARD DISCO							
		Eb		G7				
		Cm		Bb				
31	METAL							
		F	Bb	Eb	Ab	Bb	Bdim	Cm C7
		F	Bb	Eb	Ab	Bb	Bdim	Cm
		Cm		Bb	Cm			
32	HEAVY WAVE							
		Cm				Db		
33	HARD ROCK							
		Cm	G7	Bb	Am7-5	Ab7	Gm7	Fm7 G7
34	SOUTH ROCK							
		Cm9		AbΔ7		DbΔ7		Eb
35	MERSEY BEAT							

36 TWIST

Cm G7 Cm G7 Cm
Bb Cm Ab G7

37 LIVER POOL

Cm Bb Cm
Fm Cm Fm G7

38 R&R 1

Cm7 Db7 Cm7 Ab7 G7 Cm7 G7

39 R&R 2

CM Eb7 F7 CM F7 CM BB Eb7 Ab7 BB7

40 R&R 3

CM FM7 CM FM7 CM
Ab7 G7 Cm Fm7 Cm G7

41 HIP HOP

Cm
Cm AbΔ7 Fm G

42 TRIP ROCK

Eb6 Bb Cm

43 SHUFFLE 1

Fm7 Gm7 Fm7 Bb

44 SHUFFLE 2

Eb6 Bb Cm
Fm7 Gm7 Fm7 Bb7

45 TRIP POP

Cm Fm7 Cm Fm7 Cm
Ab7 G7 Cm Fm7 Cm G7

46 MOTOWN 2

Cm AbΔ7 Fm7 Gm7 Cm Bb

47 MOTOWN 3

Cm Fm7 Cm Fm7 Cm
Ab7 G7 Cm Fm7 Cm G7

48 SLOW ROCK

Cm9 Fm7 Bb7 EbΔ7 Ab Adim Bb G7

49 SOUL

Cm9 AbΔ7 Db7 Fb
Fm7 Bb7 Gm7 C7 Fm7 F#dim G7 Bb

50 ROCKABILLY

Cm Ab7 G7 Cm Db7

51	STANDARD	Cm7	CmΔ7	Cm7	F9	AbΔ7	Fm7	F#m7 B9	Fm7 Bb7
		EbΔ7 fm7	Gm7 Fm7	EbΔ9 Fm7	Gm7 Fm7	EbΔ7 G7	Cm7 Bbm9 Eb7 AbΔ7	Dm7-5 G7	
52	LATIN JAZZ	Cm9	Dm7-5 Ddim G7	Cm9					
53	FAZZ FUNK	Cm7	Cm6						
54	BIG BAND	Cm	CmΔ7 Cm7 Cm6	Fm7 FmΔ7 Fm7 Dm7-5	Db9 Cm6	Ca	Fm7 E7	EbΔ7 F#7	
		BΔ7 Abm7 Dbm7 F#Δ7	BΔ7 Ab7 Db7 F#7	BΔ7 Abm7 Dbm7 F#7	Fm7	Bb13 G7+5			
55	DIXIE LAND	Cm	Fm	G7	CmC				
56	RAG TIME	G7	Cm	G7	Cm	Fm	Cm	G7	Cm
57	BOOGIE	Cm	Fm7	Cm	Fm7	Cm			
		Ab7	G7	Cm	Fm7	Cm	G7		
58	BE BOP	Cm6	Fm7 Bb13	Ebm7 Ab13	Dbm7 f#13	Cm6	Db9	Cm6	Db9
59	JAZZ WAITZ	Cm7	C7	Fm7	F#dim	Gm7	C-13 C7	Fm9	G-13 G7
60	5/4 BEAT	Cm							
61	BOSSANOVA 1	Dm7	G7	Cm	F7	Fm7	B7	EbΔ7	AbΔ7
		Dm7	G7	Cm7	Am7-5	D7	Gsus4	G7	
62	BOSSANOVA 2	Cm6	Dm7-5	G7	Cm7 F7	Bbm7 Eb7	Ab6		
		Am7-5	D7	Gm7-5	C7-9	Cm	Dm7-5	G7+9	
63	HOT SAMBA	Cm	Dm7-5 G7-13						
64	POP SAMBA	Cm7	Fm7	Bb7	FbΔ7	Em7-5	A7	Dm7	G7
65	MAMBO	Dm7-5	G7	Cm					
66	RHUMBA	Cm	G7	Cm					
67	TANGO	G7	Cm						
68	HABANERA 1	G7	Cm						

69 HABANERA 2

Cm G Cm

70 LAMBADA

Cm Fm Bb7 Fb Fm Bb7 Cm

71 BEGUINE 1

Cm7 F7 BbΔ7 EbΔ7 Am7-5 D7 Gm9 G7-13

72 BEGUINE 2

Cm7 F7 BbΔ7 EbΔ7 Am7-5 D7 Gm9 G7-13

73 CHA CHA

Dm7-5G7 Dm7-5G7 Cm9

74 SALSA

Cm9 Dm7-5Ddim G7 Cm9

75 GUARACHA

Cm Dm7-5G7-13

76 AFRO

Gsus Cm

77 SKA

Cm Ab Bb

78 REGGAE 1

Cm9 Fm G7 Cm

79 REGGAE 2

Cm Ab Bb

80 CALYPSO

Cm Bb AbΔ7 Bb

81 BLUE GRASS 1

Cm Bb7 Cm

82 BLUE GRASS 2

Cm Bb Ab7 G7

83 W. SWING

Cm Bb7 Cm

84 COUNTRY POP

Cm Bb Ab7 G7

85 FLAMENCO

CmΔ7 Abdim Ddim C#dim C Fm CmΔ7 G-13 CmΔ7 G-13

86 ENKA

Cm Fm G Fm Cm G Cm

87 MODERN HULA

Cm G7 Cm Fm Cm Ab G7

88 POLKA

G7 Cm G7

89 MARCH 1

Cm Gm Cm Gm Ab7 G G7

90 MARCH 2

Cm G7 Cm Fm Cm Ab G7

*91 BOLERO

C

***92 BALLET**

Cm	Fm	Cm		Adim	Abm	Cm		Adim	Abm	CmΔ7		Adim	Abm	CmΔ	
Bb	Bb7	Gm		Fm		D7	G	Cm	Bb	Bb7	Gm		Fm	Ab7	Db
D7	G	Cm	Fm	Cm		Adim	Abm	Cm		Adim	Abm	CmΔ7		Adim	Abm
Cm															

***93 NOCTURNE**

C			A7		Dm		G	E7	Am	F#dim	Gsus4	G7	C
G	D		F	Fm	C		G#dim	D7	Em	Am	D7	G	
C			A7		Dm		G	E7	Am	F#dim	Gsus4	G7	C
Cm	Bb												

94 7/8 BEAT

Cm	Bb
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95 WALTZ 1

Cm7	F7	Bb7	EbΔ7	Am7-5	D7	Gm9	G7-13
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96 USER 1

Fm7	Bb7	EbΔ7	AbΔ7	Dm7-5	G7	Gm
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97 USER 2

CmΔ7	G		CmΔ7	G
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***98 USER 3**

C		Fm		CmΔ7	G	Cm												
C	G	C	Csus4	C	Am	D	G	C		G	C	Em	Am	Dm	G	C		
F	Dm	G	Gsus4	G	F	Dm	A	F	A	A	Asus4	A	F		C#m	F#m	B	E
C		G	C	Gsus4	C	Am	D	G	C		G	C	Em	Am	Dm	G	C	

99 USER 4

Cm7	F7	BbΔ7	FbΔ7	An7-5	D7	Dm9	G7-5
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100 USER 5

Cm

Specifications

FS2000	
Keyboard:	61 keys, standard
Sounds:	100
Rhythms:	100
Effects:	Pitch bend wheel, Modulation wheel, Stereo chorus button, Sustain button, DUET button, Reverb
Rhythm controls:	START/STOP button, INTRO/ENDING button, SYNC./FILL-IN button, TEMPO button
Recorder:	REC/END button, PLAY/STOP button, SONG SELECT button
Auto-Accompaniment:	AUTO button
DISK:	DISK button, SONG SELECT button, PLAY/PAUSE button, BAR RESET button, MELODY button
Program:	SYNTHESIZER button, PATTERN & O. F. A. button, NAME/STORE button, REGISTRATION button
Volume controls:	Master volume slider, LINE IN slider, MIC IN slider
DIGITAL MIXER:	SOUND 1 volume button, SOUND 2 volume button, CHORD volume button, BASS volume button, RHYTHM volume button
Miscellaneous controls:	TRANPOSE buttons, ONE FINGER AD-LIB button, DEMO button, HAND PERCUSSION button, SYSTEM/MIDI button
Speakers:	12 cm x 2
Rated voltage:	15 V DC or power adaptor (PS-152)
Accessory jacks:	MIDI IN/OUT/THRU, DAMPER PEDAL, ACC. HOLD PEDAL, FILL IN PEDAL, ARRANGEMENT EXPANDER PEDAL, PIN STEREO OUT, LINE STEREO OUT (PIN), DC (15 V) IN, HEADPHONE, MIC IN
Accessories:	Music Rack, Footswitch (F-1), Dust Cover, Headset MIC, 5 SONG LIBRARY DISKS, 1 USER DISK (blank), AC Adaptor (PS-152)

KAWAI

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