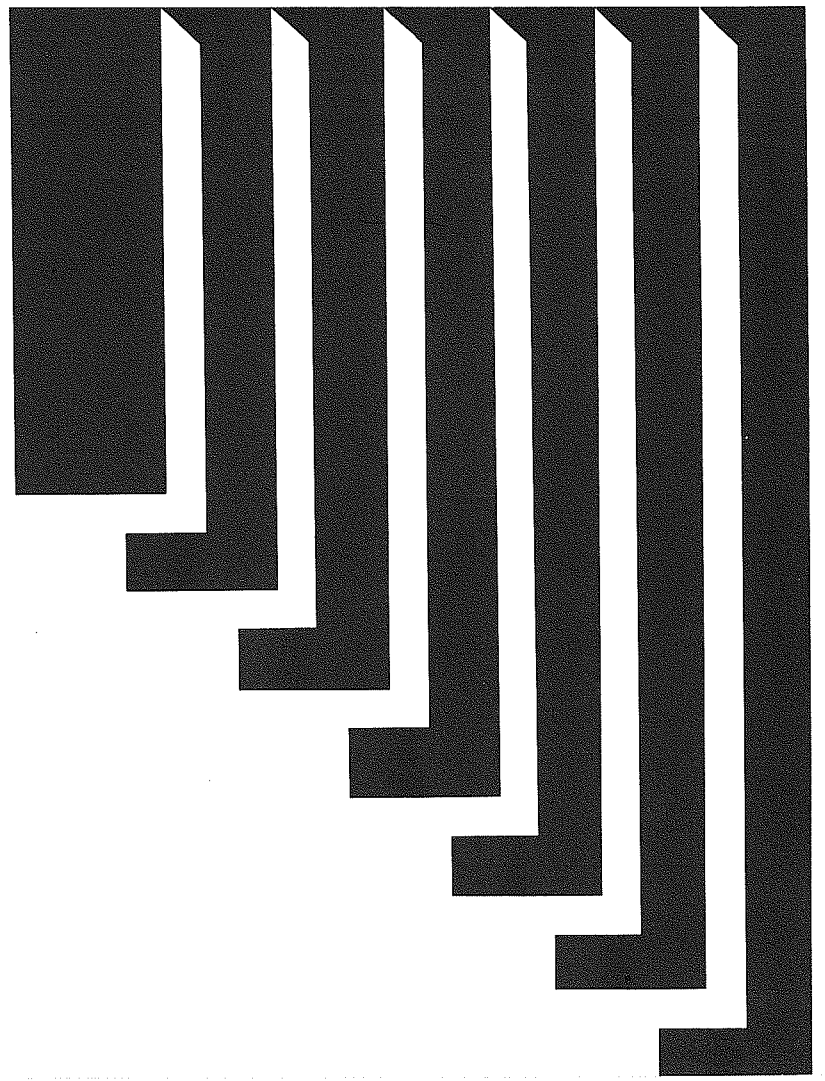


KAWAI

Digital Electronic Organs

SR50 · SR70

Owner's Manual



WARNING: This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instruction manual, it can cause interface to radio communications. The rules with which it must comply afford reasonable protection against interface when used in most locations. However, there can be no guarantee that, such interface will not occur in a particular installation. If this equipment does cause interference to radio or the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

- reorient the receiving antenna.
- move the receiver away from the organ.
- plug the instrument into a different outlet so that it and receiver are on different branch circuits.
- consult the dealer or experienced radio television technician.

This instrument has been certified to comply with the limits for a class B digital apparatus, pursuant to the Radio Interference Regulations, C.R.C., c. 1374.

IMPORTANT SAFETY INSTRUCTIONS

WARNING — When using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
3. This product should be used only with a cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.

8. This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.

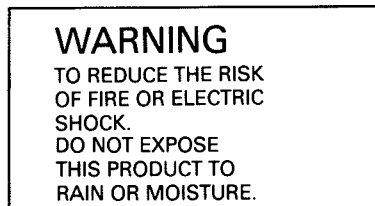
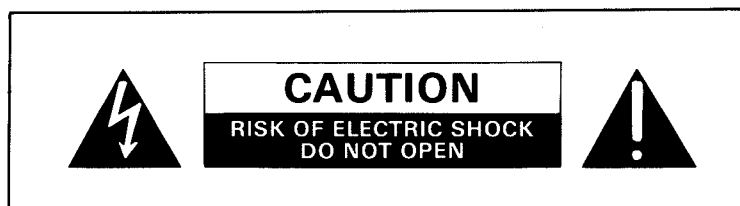
9. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.

10. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

11. The product should be serviced by qualified service personnel when:

- A. The power-supply cord or the plug has been damaged; or
- B. Objects have fallen, or liquid has been spilled into the product; or
- C. The product has been exposed to rain; or
- D. The product does not appear to operate normally or exhibits a marked change in performance; or
- E. The product has been dropped, or the enclosure damaged.

12. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.



AVIS: RISQUE DE CHOC ELECTRIQUE -NE PAS OUVRIR.

**TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

KAWAI SR SERIES OF ELECTRONIC ORGANS

Thank you for purchasing a member of the Kawai SR series of electronic organs. The latest advances in electronics and computer technology help make them the best Kawai organs yet!

We're proud that you recognize the distinctive quality and fine craftsmanship that makes Kawai the choice of beginners and professionals alike.

Your Kawai SR Series organ has so many exciting easy to use features that will help everyone in your family sound more like a professional player.

Standard features include Kawai's Additive Digital Dynamic (ADD) system, a third keyboard especially for solos (SR70), full touch response, and external mass storage in the form of floppy disks. These combine to provide you, the musician, with realistic sound, complete flexibility and a full range of artistic expression. Read and learn about these exclusive Kawai features, and many others. Then play one of your favorite songs utilizing some of these features. You'll be amazed at how good you sound!

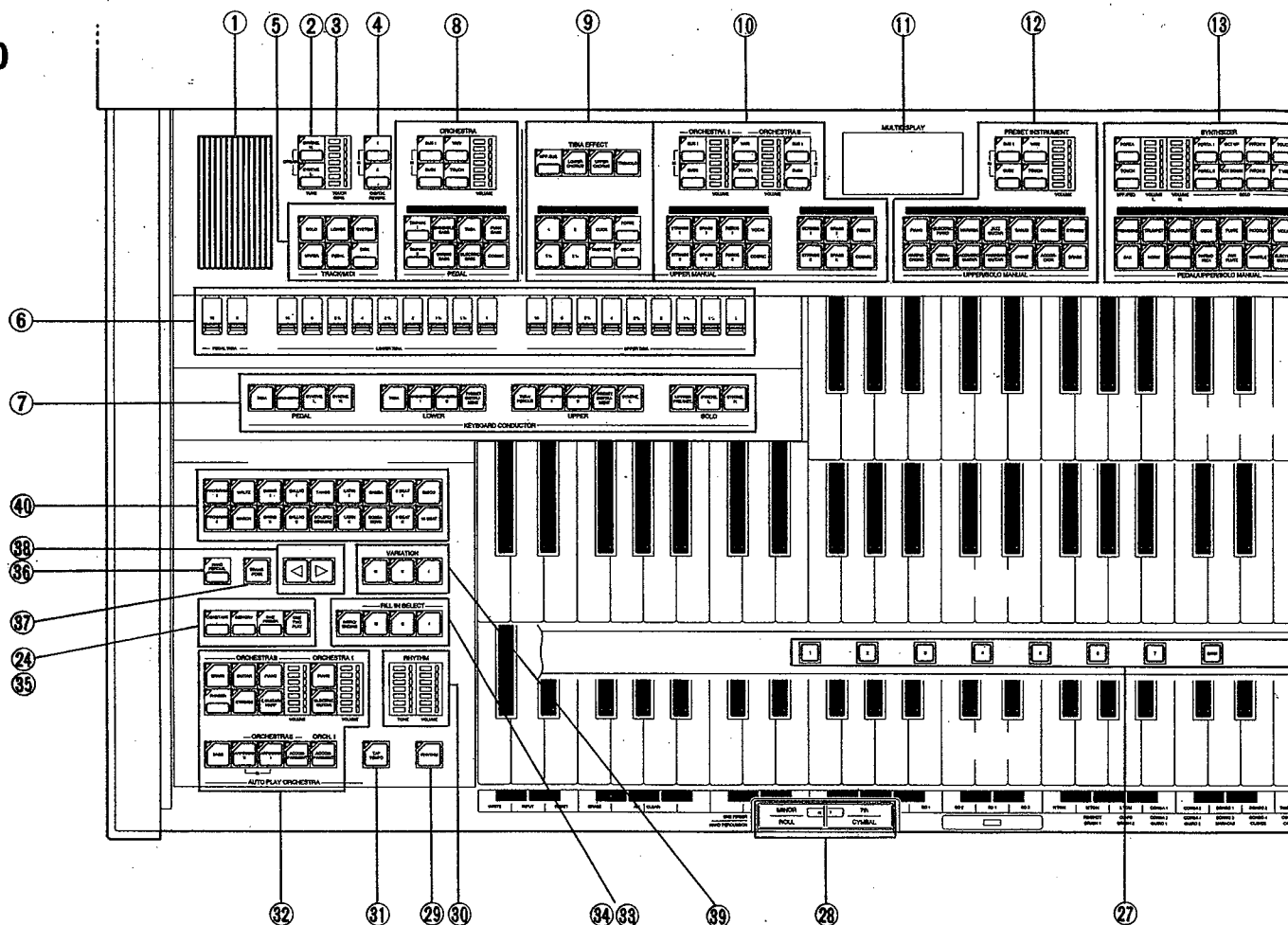
To get the most out of your new organ, we recommend that you read the manual while seated at the organ. Always keep this manual handy for future reference.

CONTENTS

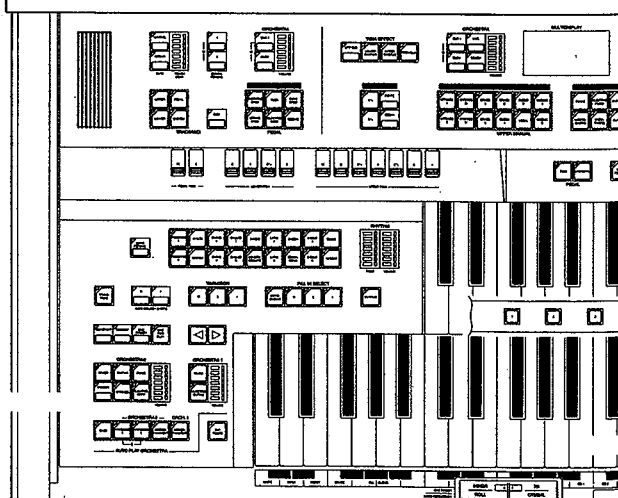
1. Product Features and Controls	3
1.1 Control Panel Location Guide	5
2. Getting Ready to Play	8
2.1 Volume Adjustment	8
2.2 KEYBOARD CONDUCTOR	9
3. Tones and Effects	11
3.1 TIBIA	11
3.2 ORCHESTRA	13
3.3 PRESET INSTRUMENT	18
3.4 SYNTHESIZER	21
4. Rhythm Accompaniment	24
4.1 Procedure	24
4.2 Additional Functions	25
4.3 Hand Percussion	27
4.4 Program Rhythms	29
5. Auto Accompaniment System	36
5.1 AUTO PLAY ORCHESTRA	36
5.2 AUTO MELODY CHORD	37
5.3 ONE FINGER, MEMORY, and CONSTANT Functionous	38
5.4 ONE TWO PLAY	38
6. Registration Memory	39
7. Disk Player System	41
7.1 Function of the Disk Player System	41
7.2 Disk Sequencer	43
7.3 Saving and Loading Program Rhythms	50
7.4 Saving and Loading Program Registrations	53
7.5 Function Mode	57
8. MIDI	65
8.1 Introduction	65
8.2 Operation	67
9. Other Functions	70
9.1 TUNE Function	70
9.2 TRANSPOSE Function	70
9.3 TOUCH SENS Control	71
9.4 DIGITAL REVERB Switch	71
9.5 MULTIPHONIC Switch	71
9.6 LIGHT Switch	71
10. Front and Rear Panel Connectors	72
10.1 Front Panel Connectors	72
10.2 Rear Panel Connectors	72
11. Specifications	73

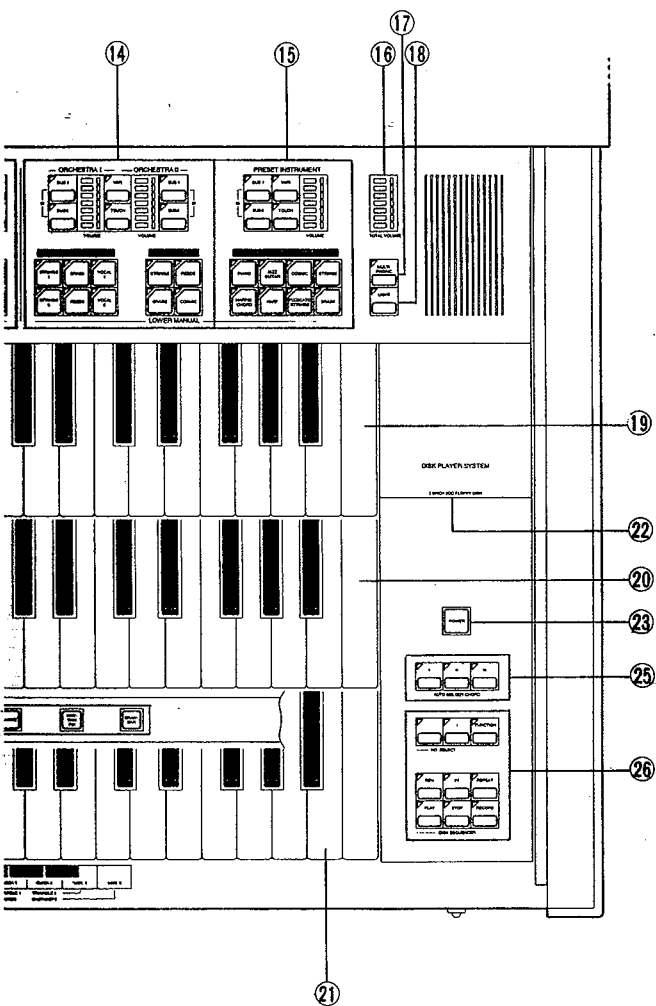
1. Product Features and Controls

■ SR70

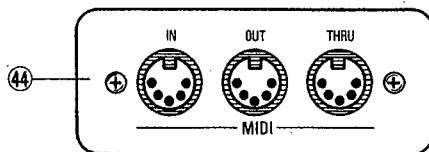


■ SR50

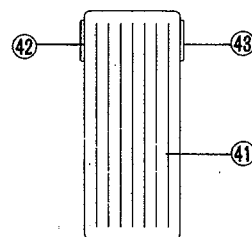




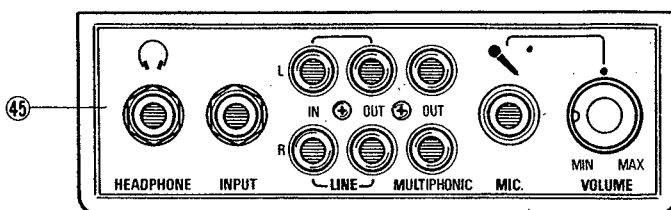
MIDI Terminals



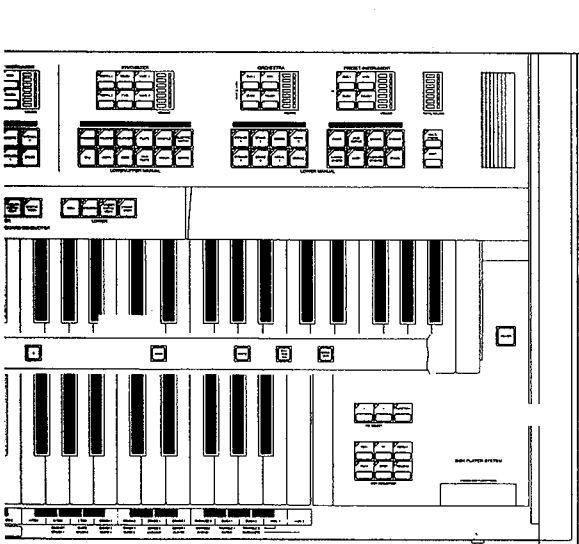
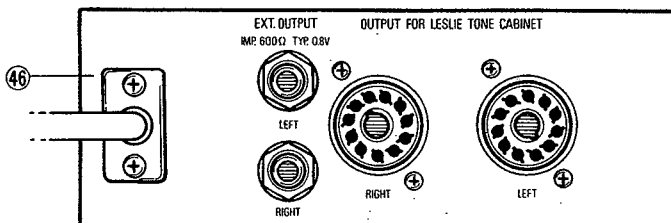
■ Expression Pedal



Front Panel Jacks



Rear Panel Jacks



How to Care for Your Kawai Organ

Here are some general rules to follow.

- 1) Always plug your KAWAI into a standard voltage AC line for your area. Plugging into a DC outlet will cause damage.
- 2) To remove any greasiness from the cabinetry, keys, or pedals, use a damp cloth and a little mild soap. Be sure to wipe dry with a soft cloth.
- 3) Do not expose your KAWAI to direct sunlight, cold drafts or radiator heat.
- 4) The battery protecting the sequencer/registration memory contents should last for five years. When it is exhausted, the WRITE button will flash three times. Replacement is not a job for an amateur. Have an authorized repairman replace the battery.

1.1 Control Panel Location Guide

① Panel Speakers

② Tune Switch

This enables you to change the tuning on your organ (example: To match the pitch of an out of tune piano). To change the tuning, press the tune switch and at the same time press the arrow switches in the rhythm section.

Tuning the organ page 70

Tuning the synthesizer page 22, 23

③ Touch Sensitive Switch page 71

This controls the sensitivity of the keyboard to your touch. The lighter touch you have on the keyboard, the softer the sound. If you strike the keyboard harder, it will sound louder.

④ Digital Reverb page 71

The use of this control will give you instant concert hall type of sound. It adds varying degrees of reverberation (echo) to the organ sound. This is used to overcome a room with poor acoustics. Since the reverb is digitally generated, you will not experience the unpleasant howling that arises when vibrations hit a spring reverb unit during a performance.

⑤ TRACK/MIDI switch page 65

This switch is used to choose between the track where the sound is recorded and played back by the sequencer and the MIDI through which a sound signal is sent to, and received from, the keyboard.

⑥ Drawbars page 11

The use of drawbars enables you to create millions of sound variations. Each individual drawbar is a volume control. Pulling the drawbar toward you increases the volume. When used in combination, the tone & volume are controlled by moving the drawbars in or out.

⑦ Keyboard conductor page 9

This section contains the various tone groups (Tibia — Orchestra — Preset Instrument — Synthesizer) for the upper, lower pedal and solo keyboards (SR70). Having all of the tone groups in one handy location enables you to change the sound quickly and easily.

⑧ Pedal Orchestra Control Block page 13

These switches control the tone, volume and effect combinations.

⑨ Percus./Tibia Effect Control Block page 12

These switches control the effect settings for the tibia/percus section of the upper keyboard and the tibia section of the lower keyboard.

⑩ Upper Orchestra Control Block page 14

These switches control the tone, volume and effects setting combinations for the upper keyboard orchestra section.

⑪ Multifunction Display page 25

This normally displays the speed of the rhythm unit but changes to other functions during programming and adjustment.

⑫ Upper/Solo Preset Instrument Control Block page 18

The switches control the tone, volume and effect settings for the upper or solo keyboard preset instrument section.

⑬ Pedal/Upper/Solo Synthesizer Control Block page 21

These switches control the synthesizer tone, volume and effect settings for the pedal, upper and solo keyboards.

⑭ Lower Orchestra Control Block page 15

These switches determine the tone, volume and effect setting combinations for the lower keyboard orchestra section.

⑮ Lower Preset Instrument Control Block page 20

These switches control the tone, volume and effect setting for the lower keyboard preset instrument section.

⑯ Total Volume Control page 8

This controls the total organ volume.

⑰ Multiphonic Switch page 71

⑱ Light Switch page 71

⑲ Solo Keyboard

⑳ Upper Keyboard

㉑ Lower Keyboard

㉒ DISK System page 41

㉓ Power Switch

㉔ ONE FINGER/ Memory/Constant Switches page 38

㉕ Auto Melody Chord Section page 37

These switches enable player to play 1-finger chords on the upper keyboard.

㉖ DISK Sequencer page 43

These switches provide separate storage facilities for registration and chord data. These may be combined for automated playing.

㉗ Registration Memory Section page 39

The switches control the storage and retrieval of tone, rhythm, volume and other settings.

㉘ Touch Bars page 28, 38

These bars will produce the chords, minor chords and minor 7th chord when you are in 1-finger chord play. When you are not in 1-finger chord play, the bars will produce a drum roll and crash cymbal effect. They will also produce other hand percussion sounds if you program them to do so.

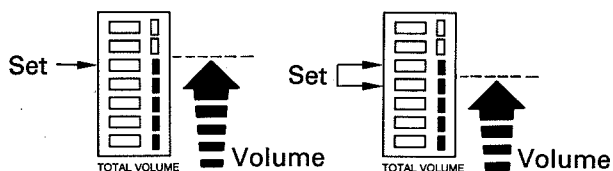
2. Getting Ready to Play

2.1 Volume Adjustment

■ Adjust the total volume control

● Procedure

Set the total volume switch at mid range volume (half way between highest and lowest volume or the middle switch of the control)



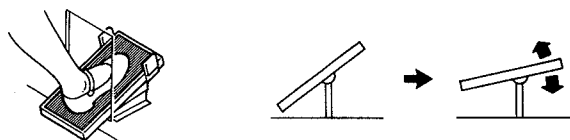
When one button is pressed.

When two buttons are pressed at the same time.

Note:

All volume controls on your SR Series electronic organ feature a convenient set of tiny instantaneously acting electronic switches, placed vertically on each volume control. The switch at the bottom of the control will produce the softest volume. As you press the switches higher up on the control the volume will increase. When two adjacent buttons are pressed at the same time, the volume is set to the midpoint between the levels by the two buttons. This also applies to other buttons.

■ Depress the expression pedal halfway

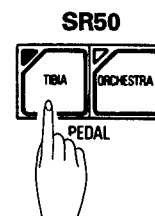
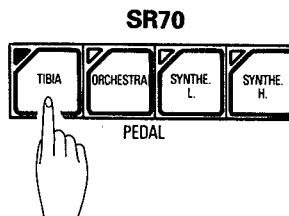


This pedal controls the volume of the electronic organ's overall volume. During a performance, using the pedal gives music strong and weak expressions.

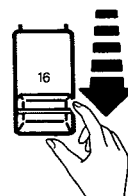
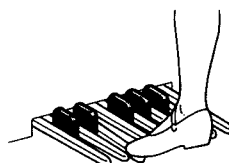
■ Adjust the TIBIA tone and Volume

● Procedure

- (1) Press the TIBIA switch in the KEYBOARD CONDUCTOR PEDAL section



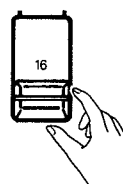
- (2) Press a pedal
- (3) Adjust the tone and volume with the PEDAL TIBIA drawbars



Note:

Pulling the drawbar towards you increased the volume.

■ Repeat step 2 for the lower and upper sections of the KEYBOARD CONDUCTOR.



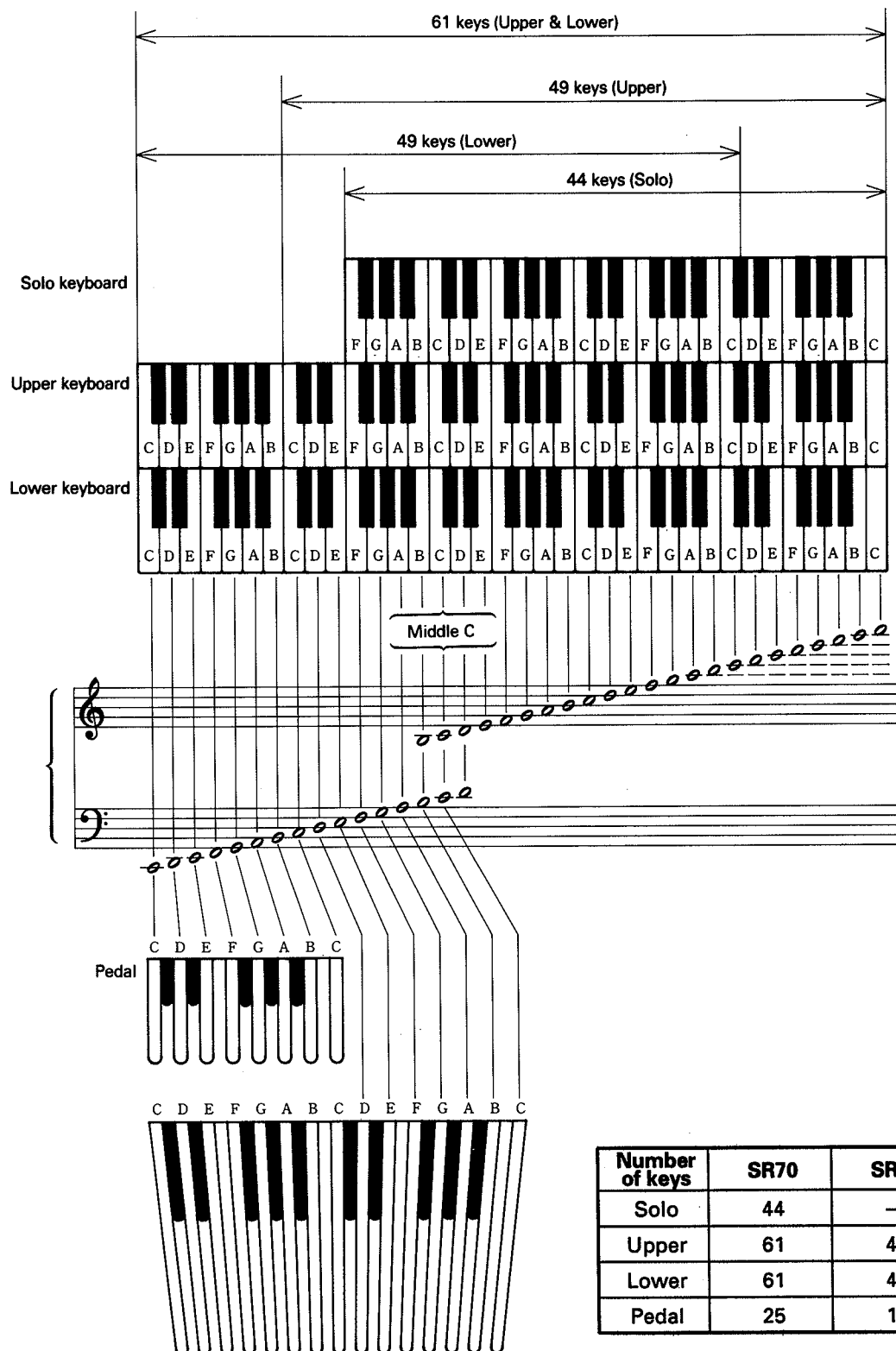
■ Readjust the TOTAL VOLUME and the expression pedal

Notes:

- This step changes the TIBIA volumes, but not the tone.
- The TIBIA drawbars provide adjustment of both the tone and the volume. Each drawbar controls the volume for a particular pitch. Together, they provide a limitless range of possible combinations. Although it is possible to control output volume with just the drawbars, the standard procedure is to adjust their balance and then use the TOTAL VOLUME switches.

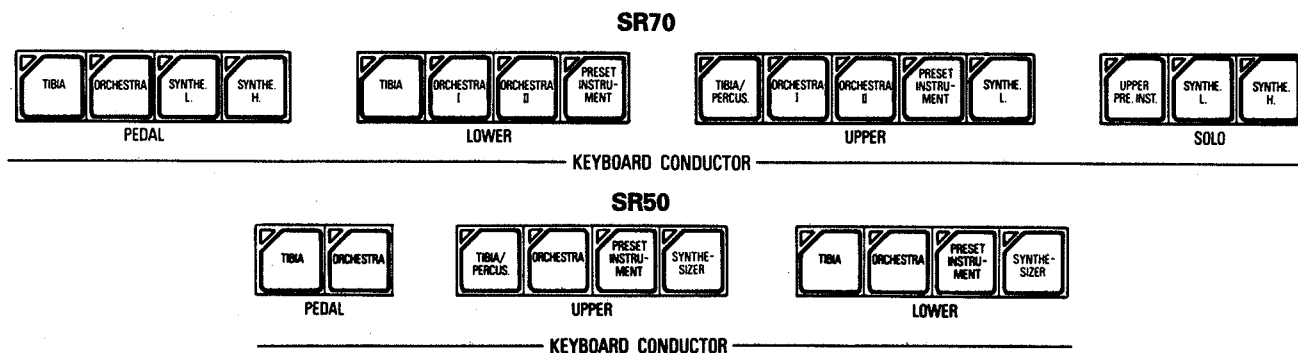
■ Repeat Steps 2-4 for the other voices available in the KEYBOARD CONDUCTOR section.

- ②⑨ **Rhythm Switch** page 24
Automatic rhythm accompaniment on and off.
- ③⑩ **Rhythm Volume/Tone Section** page 24
These switches control the rhythm sections output volume and tone.
Note:
Using a higher tone setting produces a more metallic tone.
- ③① **Tap Tempo Switch** page 26
Alternate method of setting the tempo of the rhythm accompaniment. Just tap the switch at the speed you would like and the tempo is automatically set.
- ③② **Auto Play Orchestra Section** page 36
These switches control the tone, volume and features of the organs auto accompaniment.
- ③③ **Fill In Select Switches** page 26
This feature offers 3 different rhythm fill-in patterns.
- ③④ **Intro-Ending Switch** page 26
This feature offers a selection of rhythm patterns to use for an introduction or as an end to a song.
- ③⑤ **One Two Play Switch** page 38
This feature automatically puts the organ in 1-finger chord play. It automatically sets up the appropriate registrations and orchestral accompaniment for the rhythm pattern selected. Each of the 64 rhythms has a different registration and accompaniment.
- ③⑥ **Hand Percussion Switch** page 27
Pressing this turns the lower keyboard into a percussion section. Each key then controls the instrument appearing on the keyboard template.
- ③⑦ **Transpose Switch** page 70
This allows you to transpose into another key. The transpose feature has a range of 1 octave.
- ③⑧ **Arrow Switches** page 25
Pressing these increases and decreases the numbers appearing on the multifunction display. Usually the display is showing the rhythm tempo, so pressing the right arrow will increase the tempo, left arrow will decrease the tempo. The arrow function also plays a key role in such functions as tuning, transposing.
- ③⑨ **Variation Switches** page 24
Pressing these introduces a variation into the rhythm pattern that is playing.
- ④① **Rhythm Selection Switches** page 24
Since each rhythm pattern has 3 additional variations, these 16 switches provide instant access to 64 pre-recorded rhythm patterns.
- ④② **Expression Pedal** page 8
- ④③ **Foot Switches (Rhythm stop)** page 24
- ④④ **Foot Switches (Fill-in, Ending, Timpani, Grade)** page 26
- ④⑤ **MIDI Terminals** page 65
These provide standardized connections to other MIDI instrument.
- ④⑥ **Front Panel Jacks** page 72
These allow you to connect headphones, a microphone, home stereo and other audio equipment to organ.
- ④⑦ **Rear Panel Jacks** page 72
These provide connections to optional equipment and system enhancements.



Number of keys	SR70	SR50
Solo	44	—
Upper	61	49
Lower	61	49
Pedal	25	13

2.2 KEYBOARD CONDUCTOR

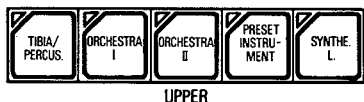


Sometimes a particular piece requires several changes of tone and volume during the course of a performance. Frequently, these changes come in groups of three or more. The KEYBOARD CONDUCTOR section provides, in one handy location, the controls necessary to make these changes with the minimum of fuss. The SR70, for example, offer a choice of three registrations for the SOLO keyboard (This keyboard is not available on the SR50).

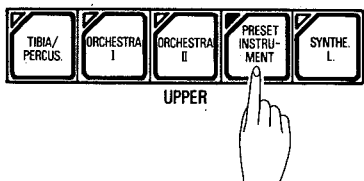
Similarly, there is a choice of five for the UPPER keyboard on the SR70 (four on the SR50), four for the LOWER keyboard on both models, and four for the PEDAL keyboards (two on the SR50). In all cases, pressing a single switch is all that is required to change the registration for a keyboard.

● Procedure

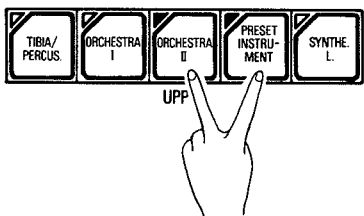
- (1) Press the appropriate switch in the KEYBOARD CONDUCTOR section.



To change from ORCHESTRA I to PRESET INSTRUMENT, for example, simply press the PRESET INSTRUMENT switch. The organ then automatically changes to the registration (tone, volume, and effects) specified in the PRESET INSTRUMENT (UPPER/SOLO) control block at the top of the keyboard.



It is also possible to mix two registrations by holding down the switch for the current one and pressing a second switch. The only exceptions are the SYNTHESIZER registrations. (See Note below.)



Notes:

- The synthesizer control blocks can be only used for one keyboard at a time. On the SR70 SYNTHESIZER H offers a choice of SOLO or PEDAL; SYNTHESIZER L, SOLO, UPPER, or PEDAL. On the SR50, there is only one synthesizer and a choice between the UPPER or LOWER keyboards.
- The SR Series stores registration and other settings in non-volatile memory. This has its own battery power supply that keeps them from disappearing when you turn off the organ. The same RHYTHM, KEYBOARD CONDUCTOR, individual tone, and other settings are therefore always available when you next turn on the organ. However, the organ tuning automatically returns to 0 (see page 70), and the clock to internal.

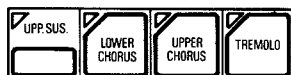
3. Tones and Effects

3.1 TIBIA

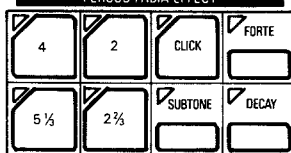
The UPPER keyboard has a TIBIA/PERCUS control block; the LOWER and PEDAL keyboards, separate TIBIA control blocks. Together, they provide a wide range of possible combinations.

SR70

TIBIA EFFECT

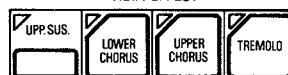


PERCUS / TIBIA EFFECT

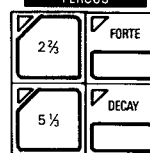


SR50

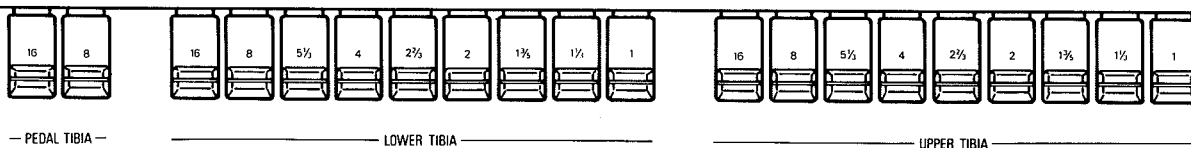
TIBIA EFFECT



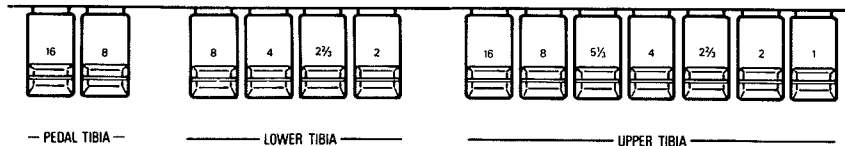
PERCUS



SR70



SR50

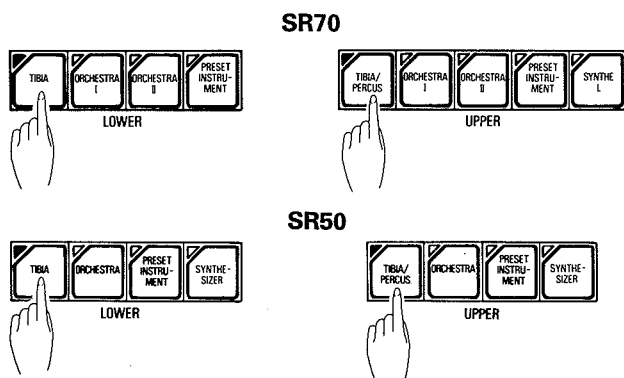


■ UPPER TIBIA/PERCUS and LOWER TIBIA

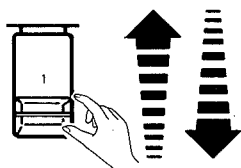
- (1) Changing registrations is as easy as pressing the appropriate TIBIA switch in the KEYBOARD CONDUCTOR section.

Note:

At this point, you may wish to double-check by sounding a note on the corresponding keyboard. If not, this entire step becomes optional.



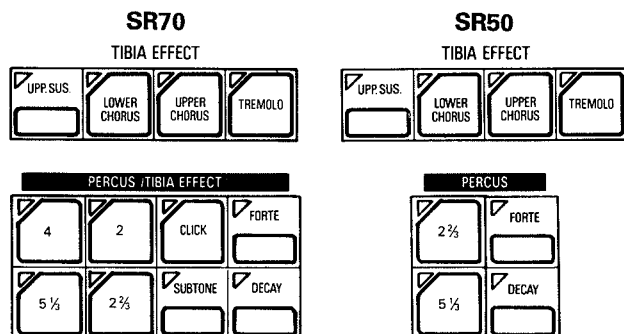
- (2) Use the UPPER and LOWER drawbars to adjust the balance between the output from the two sets of tibia.



- (3) Use the TIBIA EFFECT and PERCUS/TIBIA EFFECT switches (TIBIA EFFECT and PERCUS on the SR50) in the UPPER MANUAL control block to add or subtract effects. (See accompanying chart.)

Note:

These effect switches are toggles: Pressing the switch turns on the effect; pressing it a second time turns it off.



■ Effect Switches

UPP. SUS — This adds a lingering SUSTAIN effect to the UPPER keyboard tibia. It does not affect percussion output.

LOWER CHORUS — This adds a slow swelling to the LOWER keyboard tibia.

UPPER CHORUS — This adds a slow swelling to the UPPER keyboard tibia, percussion and click.

TREMOLO — This switches the UPPER and LOWER keyboard CHORUS effects, if present, to TREMOLO. This effect applies to percussion as well. The sound swells much more quickly than CHORUS.

Note:

It is impossible to use CHORUS and TREMOLO simultaneously. (See chart.)

UPPER CHORUS	LOWER CHORUS	TREMOLO	UPPER keyboard effect	LOWER keyboard effect
ON	OFF	OFF	CHORUS	—
ON	OFF	ON	TREMOLO	—
OFF	ON	OFF	—	CHORUS
OFF	ON	ON	—	TREMOLO
ON	ON	OFF	CHORUS	CHORUS
ON	ON	ON	TREMOLO	TREMOLO
OFF	OFF	OFF	—	—

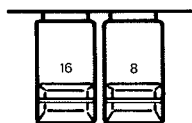
CLICK (SR70 only) — This adds clicks to the UPPER keyboard TIBIA output. It does not affect the LOWER TIBIA. When the click is added to the TIBIA sound, it creates a nice jazz effect.

FORTE — This accentuates the UPPER keyboard percussion effect. It does not affect the LOWER TIBIA.

DECAY — This increase the time that it takes the UPPER keyboard percussion effect to die out. It does not affect the UPPER and LOWER TIBIA or CLICK effect.

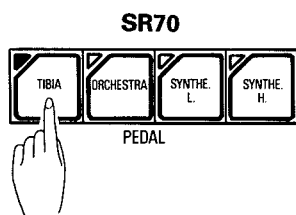
SUBTONE (SR70 only) — This adds note one octave below the highest note on the UPPER keyboard.

■ PEDAL TIBIA

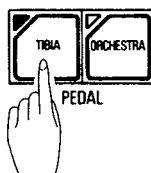


— PEDAL TIBIA —

- (1) Changing registrations is as easy as pressing the appropriate TIBIA switch in the PEDAL KEYBOARD CONDUCTOR section.



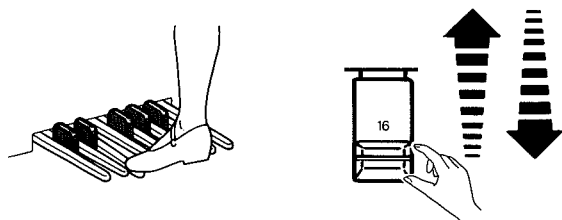
SR70



- (2) Use the PEDAL drawbars to adjust the tibia output.

Note:

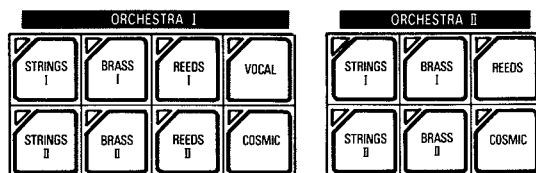
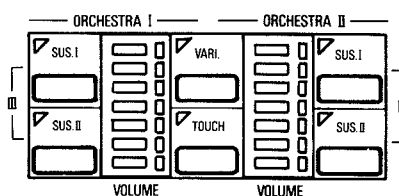
The only effect available for the PEDAL keyboard tibia is the SUSTAIN in the PEDAL ORCHESTRA control block.



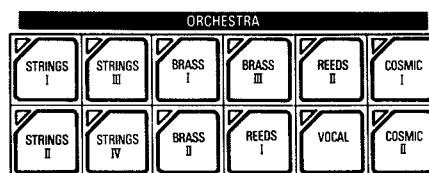
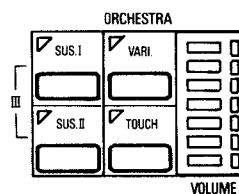
3.2 ORCHESTRA

The SR70 offers a choice of two sections, ORCHESTRA I and ORCHESTRA II, for the UPPER and LOWER keyboards; the SR50 has only one (ORCHESTRA) each. Both models have a PEDAL ORCHESTRA section.

SR70

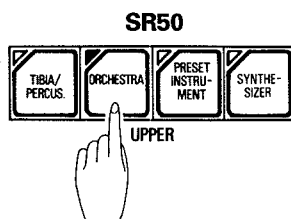
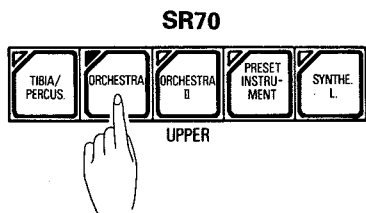


SR50



■ UPPER ORCHESTRA

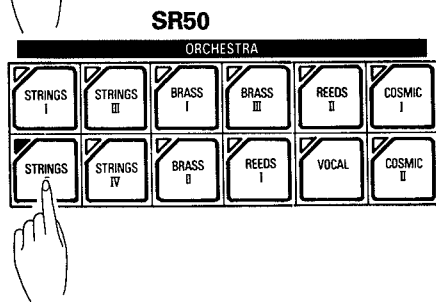
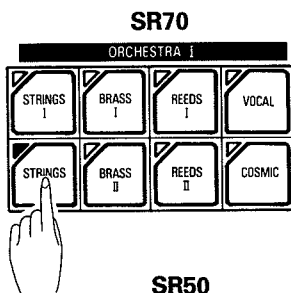
- (1) Changing registrations is as easy as pressing the ORCHESTRA I (ORCHESTRA on the SR50) switch in the KEYBOARD CONDUCTOR section.



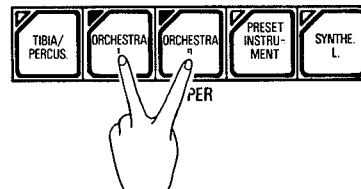
Note:

At this point, you may wish to double-check by sounding a note on the corresponding keyboard. If not, this entire step becomes optional.

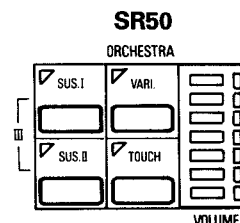
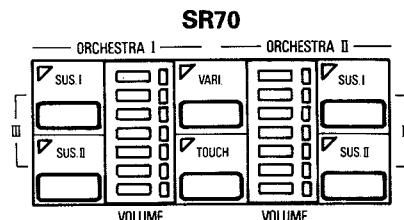
- (2) Select a tone from the ORCHESTRA I (ORCHESTRA on the SR50) section of the UPPER MANUAL control block. Only the last one pressed takes effect.



- (3) (OPTIONAL) If you wish to mix in an ORCHESTRA II tone (SR70), simultaneously press the ORCHESTRA I and ORCHESTRA II switches in the KEYBOARD CONDUCTOR section.



- (4) (OPTIONAL) Add effects from the ORCHESTRA effect control block.



SUSTAIN (ORCHESTRA I) — This adds extra resonance (prolongs sound) to the ORCHESTRA I output. Pressing SUS I, SUS II, or both simultaneously (SUS III) provides three successively longer resonances.

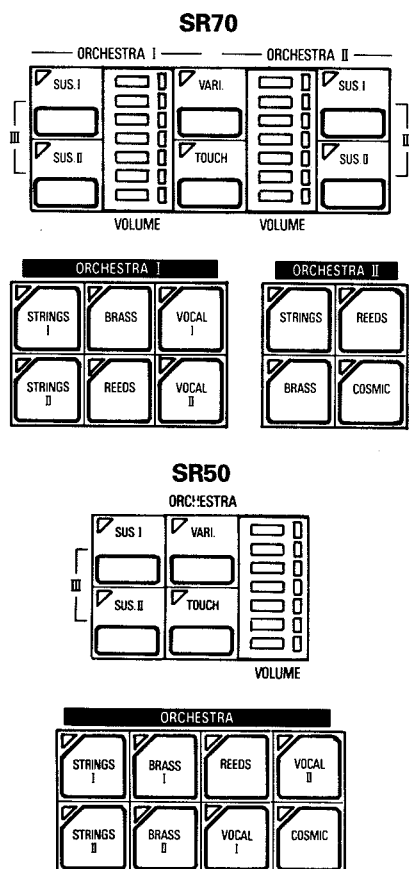
VARI — This adds variations to the output of both ORCHESTRA sections.

TOUCH — This allows you to control tone, volume and effect by varying the key force, speed, and pressure. You cannot, however, provide separate effects for the two sections.

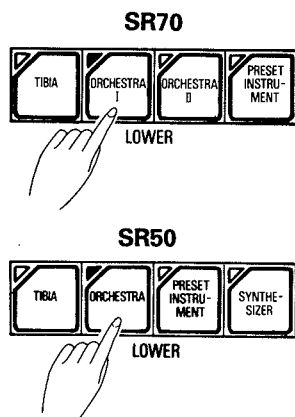
SUSTAIN (ORCHESTRA II) — This adds extra resonance (prolongs sound) to the ORCHESTRA II output. Pressing SUS I, SUS II, or both simultaneously (SUS III) provides three successively longer resonances.

- (5) Adjust the volume as necessary. There are separate volume controls for ORCHESTRA I and ORCHESTRA II.

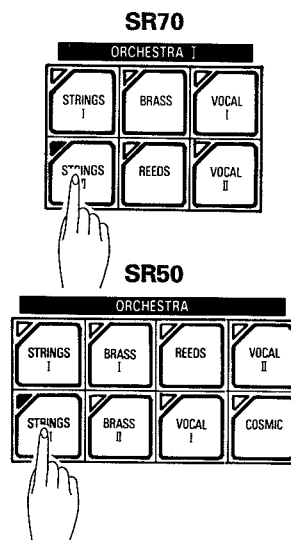
■ LOWER ORCHESTRA



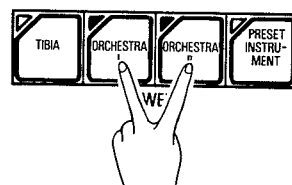
- (1) Changing registrations is as easy as pressing the LOWER ORCHESTRA I (ORCHESTRA on the SR50) switch in the KEYBOARD CONDUCTOR section.



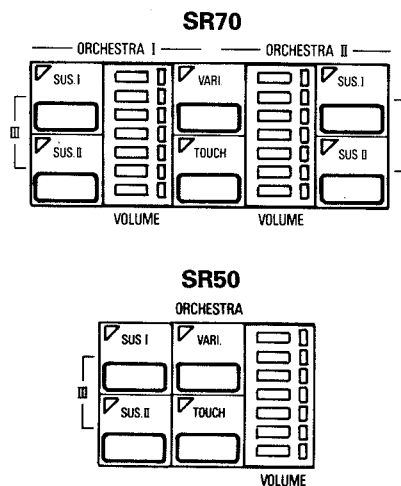
- (2) Select a tone from the switches in the ORCHESTRA I (ORCHESTRA on the SR50) section of the LOWER MANUAL control block. Only the last one pressed takes effect.



- (3) (OPTIONAL) If you wish to mix in an ORCHESTRA II tone (available only on the SR70), simultaneously press the ORCHESTRA I and ORCHESTRA II switches in the KEYBOARD CONDUCTOR section.



- (4) (OPTIONAL) Add effects from the ORCHESTRA effect control block.



SUSTAIN — This adds extra resonance (prolongs sound) to the ORCHESTRA I output. Pressing SUS I, SUS II, or both simultaneously (SUS III) provides three successively longer resonances.

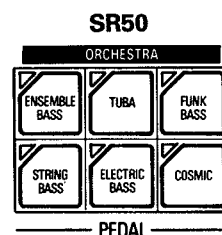
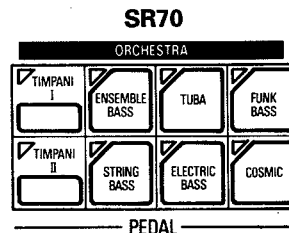
VARI — This adds variations to the output of both ORCHESTRA sections.

TOUCH — This allows you to control tone, volume and effect by varying the key force, speed, and pressure you apply to the keyboard.

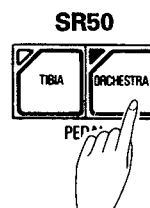
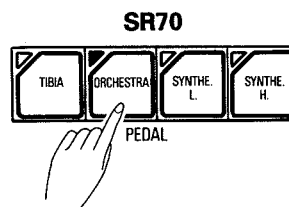
SUSTAIN (ORCHESTRA II) — This adds extra resonance (prolongs sound) to the ORCHESTRA II output. Pressing SUS I, SUS II, or both simultaneously (SUS III) provides three successively longer resonances.

- (5) Adjust the volume as necessary. There are separate volume controls for ORCHESTRA I and ORCHESTRA II.

■ PEDAL ORCHESTRA



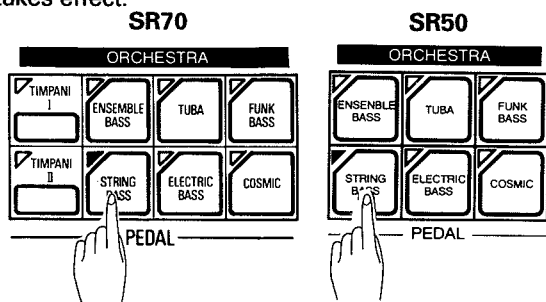
- (1) Changing registrations is as easy as pressing the PEDAL ORCHESTRA switch in the KEYBOARD CONDUCTOR section.



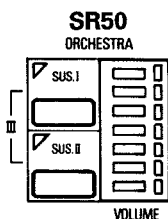
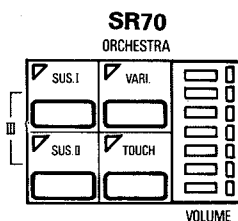
Note:

For the procedure for TIMPANI I and II, see p.17.

- (2) Select a tone from the ORCHESTRA section of the PEDAL control block. Only the last one pressed takes effect.



- (3) (OPTIONAL) Add effects from the ORCHESTRA effect control block.



SUSTAIN — This adds extra resonance (prolongs sound) to the PEDAL ORCHESTRA output. Pressing SUS I, SUS II, or both simultaneously (SUS III) provides three successively longer resonances. It does not affect TIMPANI I and II.

VARI (SR70 only) — This adds variations to the ORCHESTRA output. However, it does not effect the TIMPANI.

TOUCH (SR70 only) — This allows you to control tone and volume by varying the key force you apply on the keyboard.

- (4) Adjust the volume as necessary.

■ TIMPANI

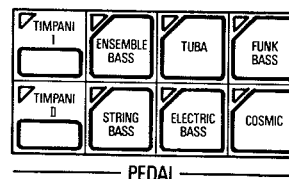
● Procedure

- (1) Press either the TIMPANI I or TIMPANI II switch so that the LED in the upper right hand corner starts flashing.

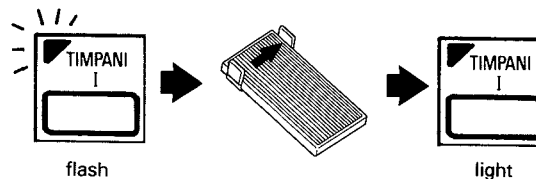
Notes:

- Pressing one TIMPANI switch automatically cancels the other.
- Unlike other tone switches, it is also possible to turn both off without using the PEDAL ORCHESTRA switches in the KEYBOARD CONDUCTOR section.

* When the LED is flashing, FILL INs and ENDING (p.26) are not available.



- (2) Press the right foot switch to light the LED and add the timpani to the PEDAL keyboard output.



- (3) Press the foot switch a second time to return the TIMPANI function to the standby mode.
- (4) To change from TIMPANI I to TIMPANI II or back again, simply press the corresponding switch. The change takes effect immediately no matter whether the TIMPANI function is active or just on standby.
- (5) To cancel the TIMPANI function, press the switch with the flashing or lit LED. The right foot switch then reverts to its normal FILL IN function. These changes take effect immediately no matter whether the TIMPANI function is active or just on standby.

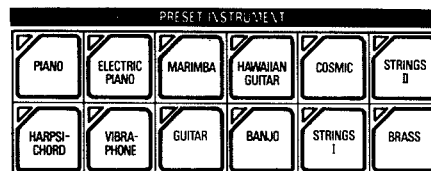
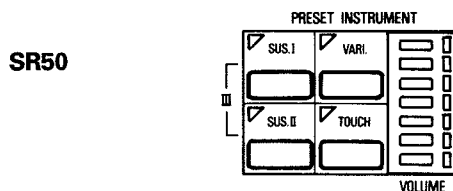
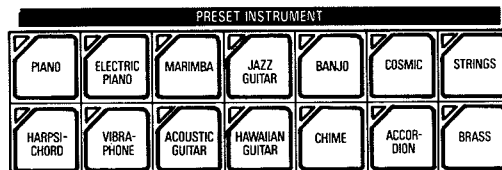
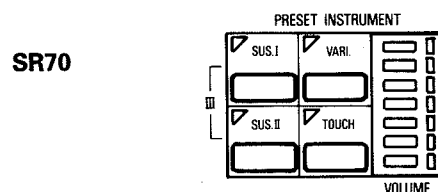
Notes:

- Timpani can be extremely effective at climaxes and other points in a musical piece, but overdone if the organist adds them to each stroke on the PEDAL keyboard. That is why Kawai engineers have provided a standby mode that allows you to turn them on and off with a single touch on the foot switch.
- The timpani automatically include a fixed amount of sustain. This sustain is different from that in the ORCHESTRA sections: The length is not adjustable, and it cannot be turned off.
- If the AUTO PLAY ORCHESTRA is on, playing a note on the PEDAL keyboard automatically activates the TOUCH function. The sensitivity of the Touch function cannot be altered because the AUTO PLAY ORCHESTRA presets it.

3.3 PRESET INSTRUMENT

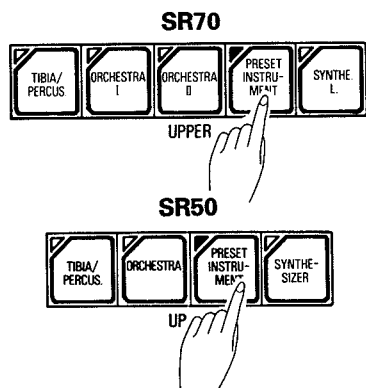
The SR Series of organs provides separate PRESET INSTRUMENT control sections for the LOWER and UPPER/SOLO (LOWER and UPPER on the SR50) keyboards.

■ UPPER/SOLO PRESET INSTRUMENT

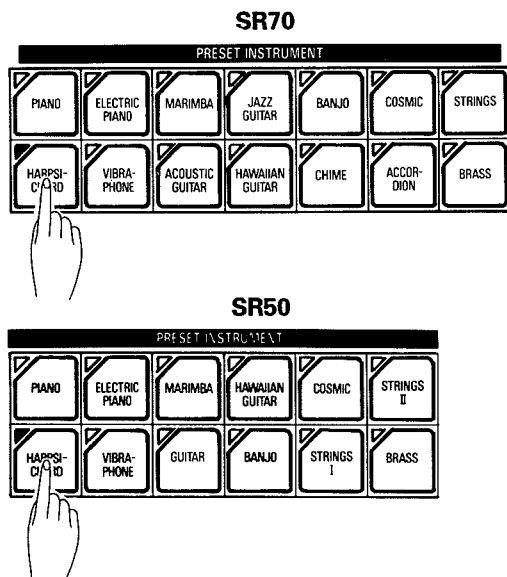


● Procedure

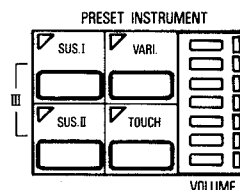
- (1) Changing registrations is as easy as pressing the appropriate PRESET INSTRUMENT switch in the KEYBOARD CONDUCTOR section. There are two: UPPER PRE. INST for the SOLO keyboard (SR70 only) and PRESET INSTRUMENT for the UPPER.



- (2) Select a tone (instrument) from the ones offered in the UPPER/SOLO MANUAL section. Pressing a switch automatically cancels the preceding instrument.



- (3) (OPTIONAL) Add effects.



SUSTAIN — This adds extra resonance (prolongs sound) to the PRESET INSTRUMENT output. Pressing SUS I, SUS II, or both simultaneously (SUS III) provides three successively longer resonances.

VARI — This adds a variation of sound to the PRESET INSTRUMENT output.

TOUCH — This allows you to control tone, volume and effect by varying the key force, speed, and pressure.

- (4) Adjust the volume as necessary.

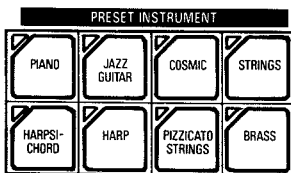
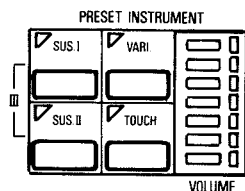
■ PRESET INSTRUMENTS

Certain instruments offer additional effects.

HAWAIIAN GUITAR — This automatically converts the right foot switch to the Glide function. Pressing this switch changes the Hawaiian guitar tone to a flat. In this case fill-in or ending performance or timpani ON/OFF are not available.

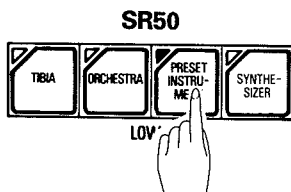
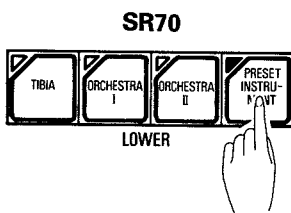
MARIMBA/BANJO — The organ continuously repeats notes. If the Touch function is on, the force applied on the keyboard determines the speed of this repetition.

■ LOWER PRESET INSTRUMENTS

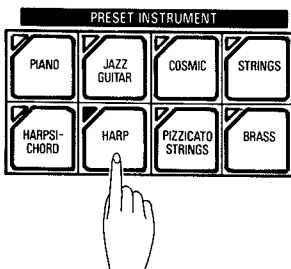


● Procedure

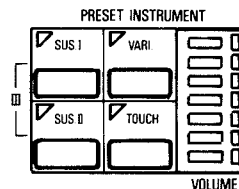
- (1) Changing registrations is as easy as pressing the LOWER PRESET INSTRUMENT switch in the KEYBOARD CONDUCTOR section.



- (2) Select a tone (instrument) from the ones offered in the LOWER MANUAL PRESET INSTRUMENT section. Pressing a switch automatically cancels the preceding instrument.



- (3) (OPTIONAL) Add effects.



SUSTAIN — This adds extra resonance (prolongs sound) to the PRESET INSTRUMENT output. Pressing SUS I, SUS II, or both simultaneously (SUS III) provides three successively longer resonances.

VARI — This adds a variation of sound to the PRESET INSTRUMENT output.

TOUCH — This allows you to control tone, volume and effect by varying the key force, speed, and pressure you apply to the keyboard.

- (4) Adjust the volume as necessary.

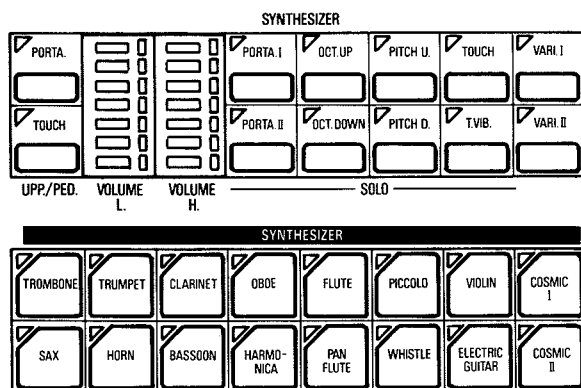
3.4 SYNTHESIZER

The SR70 provides two synthesizers (SYNTHE. H and SYNTHE. L); the SR50, only one (SYNTHE.). Switches in the KEYBOARD CONDUCTOR section determine the synthesizer-keyboard connections.

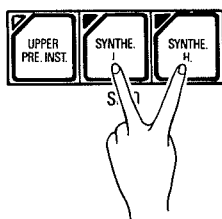
■ Restrictions

- * A synthesizer can only be used for one keyboard at a time.
- * SYNTHE. H (SR70) can only be used with the SOLO or PEDAL keyboards; SYNTHE. L, with SOLO, UPPER or PEDAL. The SR50 synthesizer is for the UPPER or LOWER keyboards.

■ SR70



- (1) Press the SYNTHE. H and SYNTHE. L switches in the KEYBOARD CONDUCTOR SOLO section.

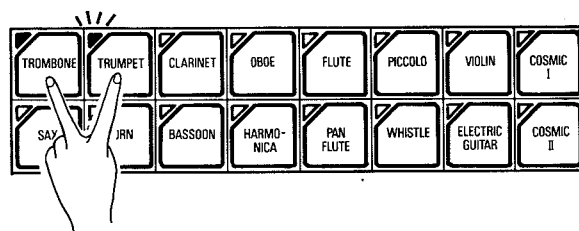


- (2) Select the tones (instruments) for both synthesizers from the SYNTHESIZER control block.

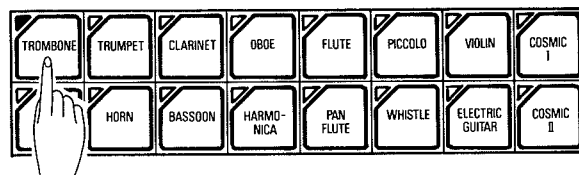
If you wish the synthesizers to use different tones, hold down the switch for the SYNTHE. H tone and then press the one for SYNTHE. L. The LED in the SYNTHE. H switch will shine continuously; the one in the SYNTHE. L will flash.

To return to the same tone for both, press a single switch so that its LED shines continuously.

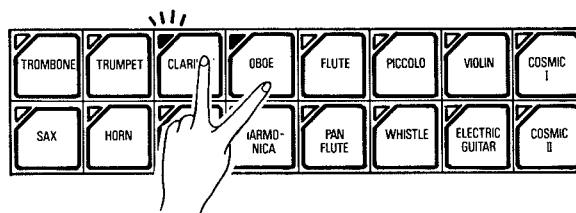
< Different tones >



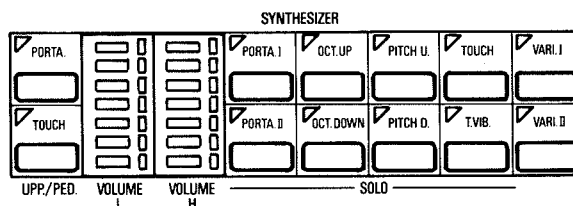
< Same tone >



- (3) To change to another pair not containing the currently lit or flashing LED, repeat the preceding step. The LEDs for the first pair will go out, and the ones in the new pair will come on.



- (4) Use the selector switches in the two EFFECT blocks on either side of the VOLUME controls to add any desired effects.



• **Left ... Effects for the UPPER and PEDAL keyboards**

PORTA — This smooths the transitions (continuous Glide) between notes for legato playing, volume and effect.

TOUCH — This allows you to control tone and volume by varying the key force, speed, and pressure you apply to the keyboard. When the foot pedal is used, the tone and volume change, depending on the pressure applied (speed) to the pedal (only for SR70). This added effect varies from tone to tone.

• **Right ... Effects for the SYNTHESIZER on the SOLO keyboard**

PORTA — These smooth the transitions (continuous Glide) between notes for legato playing. Pressing PORTA I, PORTA II, or both simultaneously (PORTA III) provides three successively slower transitions.

OCT. UP and OCT. DOWN — These respectively raise and lower the synthesizer pitch one octave.

PITCH U and PITCH D — These respectively raise and lower the key pitch by up to a full tone. The pitch changes depends on the pressure applied to the key. Some pressure must be applied to the keyboard to achieve any pitch change.

TOUCH — This allows you to control tone, volume and effect by varying the key force, speed, and pressure you apply to the keyboard.

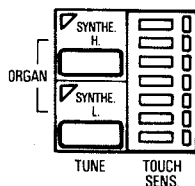
T. VIB. (Touch Vibrato) — This adds vibrato to the keyboard output. The amount and speed depend on the pressure applied to the key

VARI. I and VARI. II — These add variations of sound to the synthesizer output. They are also available for the UPPER and PEDAL keyboards and may be used in combination.

(5) Adjust the volume as necessary. The synthesizers are separately adjustable for all keyboards.

• **Synthesizer Tuning (SR70)**

The SR Series allows you to adjust the pitch of the synthesizer relative to the other tones in increments of 1.5 cents up to a maximum of 45 cents on either side.



Note:

The idea behind this function is to use subtle pitch differences to add depth to the sound. It can, for example, simulate a duet by 2 individual instruments. Since no 2 musicians play perfectly in tune together, the change in pitch that you can achieve with the SR organ will give you a very authentic sound at 2 individual musicians playing a duet.

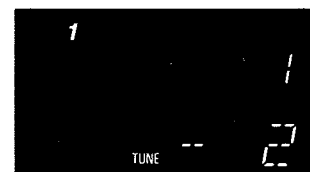
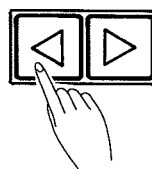
- (1) Press the SYNTH. H switch in the TUNE section to change the multifunction display to the one shown below.



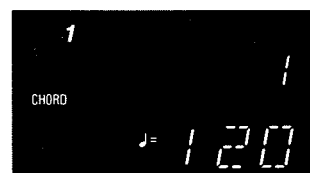
- (2) Use the arrow switches in the RHYTHM section to adjust the relative pitch.

Note:

The display gives the relative pitch in units of 1.5 cents over the range 0—30 on either side.



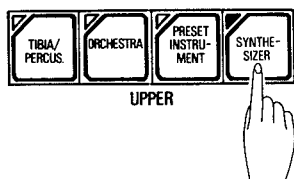
- (3) Press the SYNTH. H switch in the TUNE section a second time to return the multifunction display to the original contents.



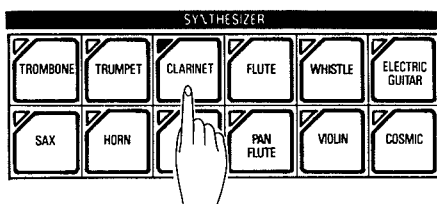
- (4) Repeat the above procedure for the SYNTH. L switch.

■ SR50

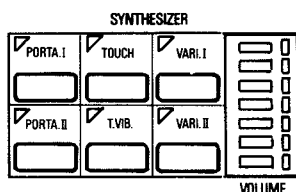
- (1) Press the SYNTHESIZER switch in the KEYBOARD CONDUCTOR section.



- (2) Select a tone from the SYNTHESIZER control block. Pressing a tone switch automatically cancels the current one.



- (3) (OPTIONAL) Add effects.



PORTA — These smooth the transitions (continuous Glide) between notes for legato playing. Pressing PORTA I, PORTA II, or both simultaneously (PORTA III) provides three successively faster transitions.

TOUCH — This allows you to control tone, volume and effect by varying the key force, speed, and pressure you apply to the keyboard.

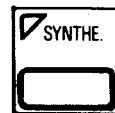
T. VIB. (Touch Vibrato) — This adds vibrato to the keyboard output. The amount and speed depend on the pressure applied to the key.

VARI. I and VARI. II — These add variations of sound to the synthesizer output. They may also be used in combination.

- (4) Adjust the volume as necessary.

● Synthesizer Tuning (SR50)

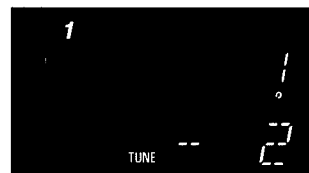
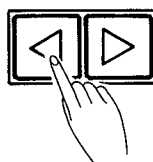
The SR Series allows you to adjust the pitch of the synthesizer relative to the other tones in increments of 1.5 cents up to a maximum of 45 cents on either side.



- (1) Press the SYNTHESIZER switch in the TUNE section to change the multifunction display to the one shown below.



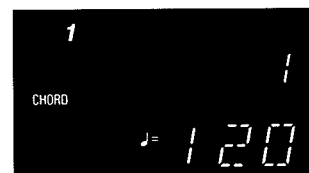
- (2) Use the arrow switches in the RHYTHM section to adjust the relative pitch.



Note:

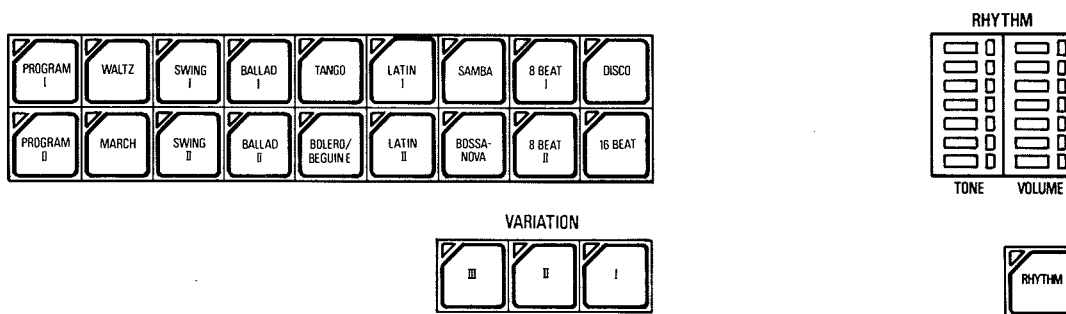
The display gives the relative pitch in units of 1.5 cents over the range 0—30 on either side.

- (3) Press the SYNTHESIZER switch in the TUNE section a second time to return the multifunction display to the original contents.



4. Rhythm Accompaniment

The rhythm section of your SR Series organ provides automatic rhythm accompaniment with a choice of 64 prerecorded rhythm patterns and eight programmable ones. Features include tempo control, special variations (intros, endings, and fill ins), hand percussion, and a multifunction display that gives the current tempo and other parameters. There are also advanced editing facilities which allow musicians to alter the standard patterns to suit their individual needs.



4.1 Procedure

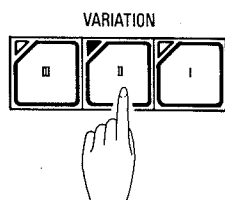
- (1) Select a rhythm pattern. Pressing one of the 18 selector switches automatically cancels the current one.



Note:

The organ ignores PROGRAM I or PROGRAM II if the corresponding programmed patterns (See p.29.) do not exist.

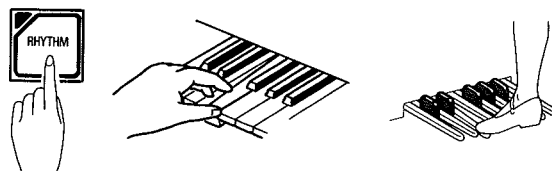
- (2) (OPTIONAL) Select a variation. The switches I, II, and III in the VARIATION section quadruple the number of patterns available to 72.



Note:

The LEDs in the selected switches light to remind you that the rhythm section is standing by.

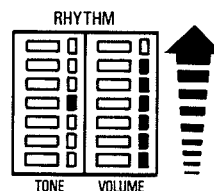
- (3) Activate the RHYTHM switch and play a note on the LOWER or PEDAL keyboards to start the rhythm accompaniment.



- (4) Adjust the volume and tone.

Note:

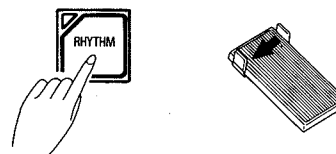
The upper end of the RHYTHM TONE control emphasizes the percussion sounds of higher pitch; while the lower end emphasizes the percussion sounds of lower pitch.



Note:

Only one or two LEDs are available in the TONE scale.

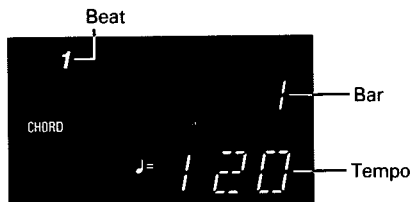
- (5) To stop the rhythm accompaniment, press either the RHYTHM switch or the left foot switch.



4.2 Additional Functions

■ Multifunction display

The display's most important function is to give the current tempo for the rhythm section, but serves other purposes as well:



- (1) **Tempo** — The lower right hand corner gives the tempo.
- (2) **Beat** — The numbers across the top light in sequence to keep pace with the beats.
1 — 2 — 3 — 4 or 1 — 2 — 3 (Waltz)
- (3) **Bar** — The two digits in the upper right hand corner indicate the bar (1 or 2) in the rhythm pattern. If the rhythm accompaniment is on, they indicate the number of the bar you are playing. Otherwise, the number "1" will always appear. (For a single-bar pattern, the number will also be just "1".)

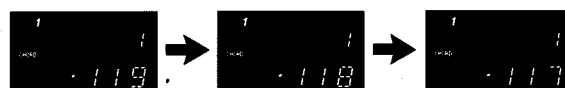
■ Tempo Control

The two arrow switches are for raising and lowering the tempo, respectively. (Left arrow — slower, Right arrow — faster)

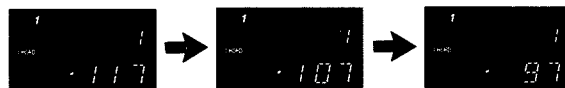
Note:

The organ's range is 50—300 beats per minute.

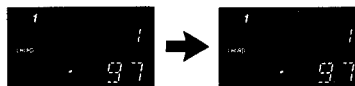
- (1) Tapping an arrow switch lightly changes the tempo by 1.



- (2) A heavy tap changes it by 5.
- (3) Continuous pressure changes it in steps of 10.



- (4) Applying greater pressure increases the rate at which the display changes.
- (5) Simultaneously pressing both keys doubles the current tempo. Pressing them a second time restores the original tempo.



Notes:

- If the tempo is above 150, the tempo after this doubling operation will be 300, the fastest available.
- If the rhythm accompaniment or the AUTO PLAY ORCHESTRA is activated, the quarter note next to the tempo display digits flashes only on the first beat of the bar. Otherwise, it flashes on every beat.

■ TAP TEMPO

The TAP TEMPO switch provides an alternate, more direct method for changing the tempo.



● Procedure

- (1) If the rhythm accompaniment is on, press the RHYTHM switch to deactivate it.
- (2) Press the TAP TEMPO switch three times at the desired tempo. The organ will measure the intervals and automatically change the value on the display. The rhythm will automatically change to the speed you tap in.



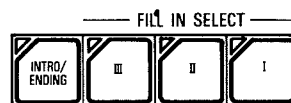
Note:

Tapping the switch while the rhythm accompaniment is on — changes the tempo from the next bar. This facility makes it much easier to change tempos during a performance.

When the tempo is quicker than ♩ =300, it is set to ♩ =300 and when the tempo is slower than ♩ =50, it is set to ♩ =50.

■ FILL INs, INTRO, and ENDING

The four switches in this section offer the musician five prerecorded variations on the current rhythm pattern — a pattern which normally just repeats. The first two, INTRO and ENDING, provide an introduction and wrap-up ending, respectively. The other three produce variations of rhythm breaks or fill-ins for use during the performance.

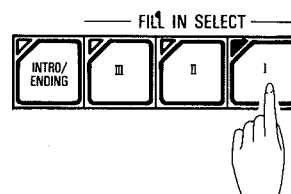


■ Procedure (FILL IN)

- (1) Make sure that the rhythm accompaniment is on standby — that is, that the LED in the RHYTHM switch is on. If the LED is off, fill-ins are not available.



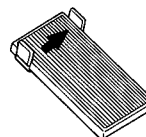
- (2) Press one of the FILL IN SELECT switches. (FILL IN III provides a break pattern.)



Note:

You may also do this while the rhythm accompaniment is on.

- (3) Activate the rhythm accompaniment and play. When you need a fill-in, press the right foot switch. The rhythm pattern first switches to the fill-in pattern and then back to the regular pattern when the fill-in is over.



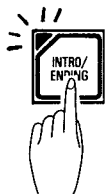
- (4) Alternatively, if the rhythm accompaniment is on standby, press the right foot switch to play the fill-in followed by the regular pattern.

■ Procedure (INTRO)

- (1) Make sure that the rhythm accompaniment is on standby — that is, that the LED in the RHYTHM switch is on. If the LED is off, intros are not available.



- (2) Press the INTRO/ENDING switch.

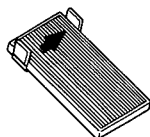


Note:

After a one-bar introduction, the rhythm accompaniment starts. The LED in the INTRO/ENDING switch flashes during the introduction and then goes out.

■ Procedure (ENDING)

- (1) Start the rhythm accompaniment by striking a key of the LOWER keyboard. The organ cannot supply an ending to a pattern that is not active.
- (2) Press the INTRO/ENDING switch.
- (3) When you near the point where you want the ending, press the right foot switch.



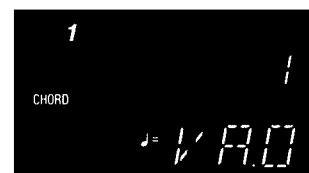
After the ending, the rhythm accompaniment stops. The LED in the INTRO/ENDING switch flashes during the ending and then goes out.

4.3 Hand Percussion

The SR Series provides not only prerecorded rhythm patterns, but also solo percussion instruments. These are accessible through two means: the LOWER keyboard and touch bars located just below that keyboard.

■ Procedure (LOWER keyboard)

- (1) Press the HAND PERCUS switch so that the LED lights and the message VA.0 (VARIATION 0) appears on the screen.



Note:

Switching over to hand percussion disables the automatic accompaniment, and most other functions which use the LOWER keyboard.

- (2) Press the keys for the desired percussion instruments.

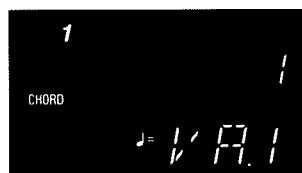
Notes:

- The volume depends on the force of the keystroke.
- There are four sets of labels under the keys. The top row is for the black keys. The other three are for the white keys and cover the percussion instrument and two variations (VARI. 1 and VARI. 2).

- (3) Press the special white key, labelled VARI. 1, at the right end of the keyboard to change the instrument assignments for the white keys from the second row to the third.

Note:

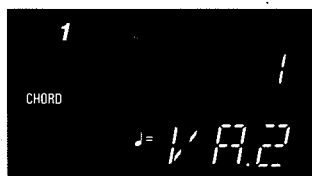
The message VA.1 should appear on the display.



- (4) Press the VARI. 2 next to it for those in the fourth row.

Note:

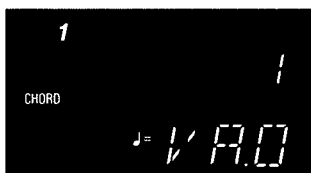
The message VA.2 should appear on the display.



- (5) To return to the original assignments, press the most recent VARI key a second time.

Note:

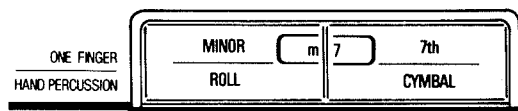
The message VA.0 should appear on the display.



Notes:

- Pressing either of the arrow switches in the RHYTHM section displays the tempo for a few seconds.
- Activating the hand percussion function does not turn off the automatic rhythm accompaniment. You must use either the right foot switch or turn off the RHYTHM switch. To restart the accompaniment, activate the RHYTHM switch and press either the INTRO/ENDING switch or a FILL IN switch and the right foot switch.
- The SR Series also allows you to modify the key assignments. (See p.35.)

■ **Touch bars**



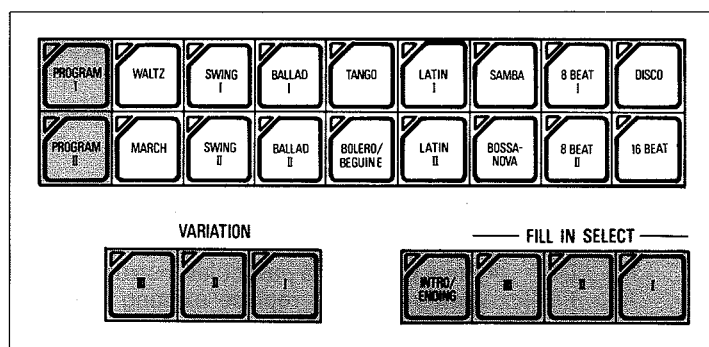
The touch bars located just below the LOWER keyboard provide instant access to a snare drum roll and cymbal crash, usually the two most popular percussion effects. The roll continues as long as the touch bar is pressed; the cymbal crash sounds only for the initial stroke. The volume of the output depends on the force of the keystroke.

Notes:

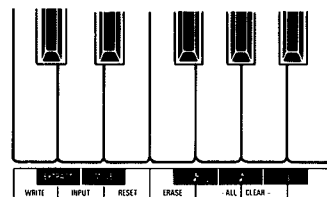
- This type of hand percussion cannot be used at the same time as the ONE-FINGER chord function. (See p.38.)
- The SR Series also allows you to change the touch bar assignments to percussion instruments other than the snare drum and cymbals. (See p.35.)

4.4 Program Rhythms

The SR Series rhythm section provides two locations, PROGRAM I and PROGRAM II, for storing edited versions of its standard, prerecorded rhythm patterns. Since there are 16 prerecorded patterns and two programmable ones, each with a standard version and three variations, you have a choice of 72 starting points. Similarly, you can also edit and store variations, FILL INs, INTROs, and ENDINGs for the new rhythm patterns in PROGRAM I and PROGRAM II.



Starting points
Storage locations



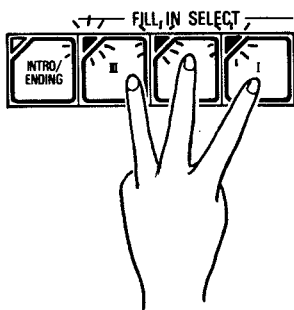
I. Basic Procedure

■ Preliminaries

- (1) Simultaneously press all three FILL-IN SELECT switches so that their LEDs all flash and those in the other selector switches go out.

Note:

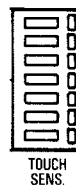
The message VA.0 should appear on the display.



- (2) Try the keys on the LOWER keyboard. Note how the volume depends on the force and speed of the keystroke.

Note:

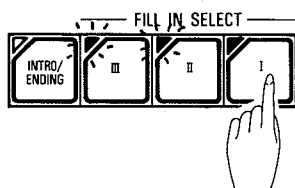
The TOUCH SENS control allows the musician to adjust the keyboard's touch response. The higher the setting, the higher the sensitivity.



- (3) Select the rhythm pattern that will serve as the starting point. (See illustration above.)

Note:

If you wish to edit the VARIATION or FILL-IN data for a particular rhythm pattern, press the base pattern switch first and then the VARIATION or FILL-IN switch. In the latter case, the LED in the selected FILL-IN switch will burn steadily, and the other two will continue flashing. (For the editing procedures for INTROs and ENDINGS, see "II. Advanced Procedures" on p.32.)



Note:

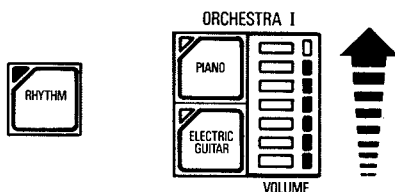
At this point, the bar length (1 or 2) appears on the top half of the multifunction display.



Note:

An F appears in the lower left hand corner of the display to remind you that you are editing a FILL-IN pattern.

- (4) Press the RHYTHM switch to start the rhythm pattern and the metronome.

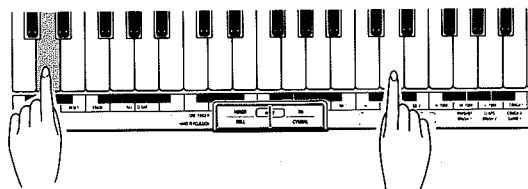


Note:

Adjust the metronome volume with the ORCHESTRA I VOLUME control in the AUTO PLAY ORCHESTRA section. The tempo appears in the lower right hand corner of the screen only if you change the tempo—and then only for a few seconds.

■ Adding Notes

- (5) To add to the pattern, hold down the key labelled INPUT (the first D on the lower keyboard) and use the hand percussion keyboard to record the instruments, their patterns, and relative volumes.

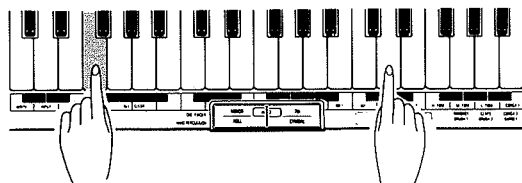


Notes:

- Any changes made to the rhythm pattern take effect immediately.
- New notes for a particular instrument already in the pattern do not replace existing ones. Rather, they are added in.
- The rhythm section supports up to six instruments for any given beat. It ignores any attempts to add a seventh instrument.
- The rhythm section does not accept touch bar input.

■ Deleting Notes

- (6) To eliminate notes for a particular instrument from the pattern, hold down the key labelled ERASE (the first F on the lower keyboard) and press the corresponding instrument key for the stretches that you wish to delete.

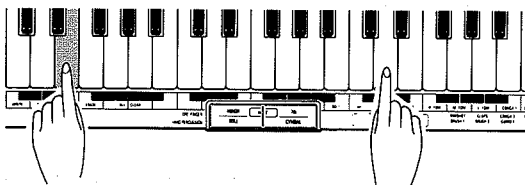


Note:

Any changes made to the rhythm pattern take effect immediately.

■ Starting Over

- (7) To restore a particular instrument to its starting pattern, hold down the key labelled RESET (the first E on the lower keyboard) and press the instrument key.

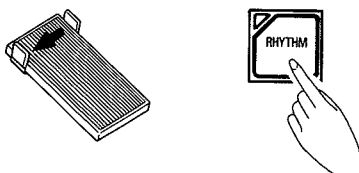


Notes:

- This function is for those situations in which errors in insertions or deletions have produced an unacceptable pattern. Unlike the ERASE key, the timing does not matter.
- Any changes made to the rhythm pattern take effect immediately.
- If this instrument was a new one that was not originally in the pattern, the RESET function will erase your entire pattern.

■ Stopping

- (8) Press the left foot switch or the RHYTHM switch to stop the rhythm accompaniment. You then have a choice:
- * Press the RHYTHM switch a second time to restart the rhythm accompaniment for more editing.
 - * Return to step 2, select another rhythm pattern or variation, and thereby abandon the results of the current editing session.

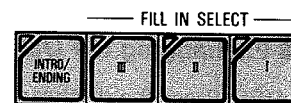
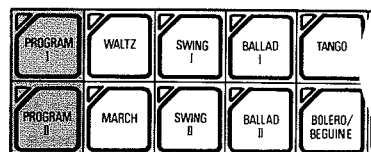
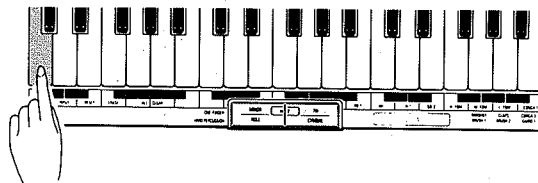


Note:

Pressing the foot switch turns off the LED in the RHYTHM switch.

■ Writing

- (9) Holding down the key labelled WRITE (the first C on the lower keyboard), press the switches for the desired storage location: PROGRAM I or PROGRAM II switch with possibly the FILL IN switch or the INTRO/ENDING switch.



Notes:

- Pressing the WRITE key turns off the LEDs in the rhythm and variation selector switches and sets those in the three FILL IN switches flashing.
- If you press a FILL IN switch before pressing the PROGRAM I or PROGRAM II switch, its LED will not light. If you press the wrong switch, you may, if you are still holding the WRITE key down, recover from the error by pressing the correct switch.
- Cancelling the WRITE command, returning to step 3, and selecting another rhythm pattern or variation erases the results of the current editing session. You may, however, change the FILL IN, INTRO, or ENDING specification without losing your work.

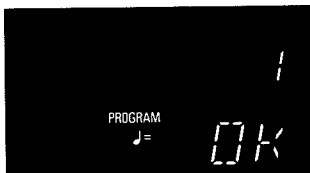
● WARNING

The above WRITE procedure automatically overwrites the current memory contents with the new pattern. If you plan to make extensive use of this programming capability, we recommend that you maintain careful records of what you have saved and where.

- (10) Release the WRITE key to start the WRITE operation. The process takes only a few seconds.

Note:

The message OK appears on the display when the operation is complete.



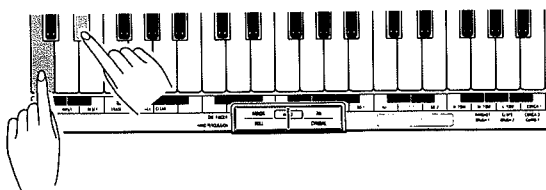
- (11) If the message OK does not appear, go back to step 9.

Note:

The organ will not allow you to store a FILL-IN, INTRO, or ENDING pattern as PROGRAM I or PROGRAM II. Neither will it let you store patterns for these two areas in the areas designated for these rhythm variants.

■ Exchanging the Data of PROGRAM I and II

- (12) Press the rhythm selector and VARIATION, FILL-IN and/or INTRO/ENDING switches which LEDs are lighting so that they all will go out.
- (13) Simultaneously press the MOVE and WRITE keys on the lower keyboard.

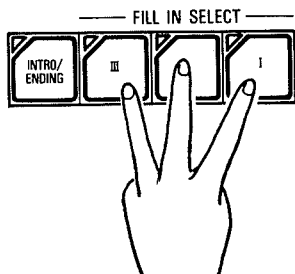


■ Quitting

- (14) Simultaneously press all three FILL IN SELECT switches so that their LEDs stop flashing and go out.

Note:

This command is available at all times during the editing session.



II. Advanced Procedures

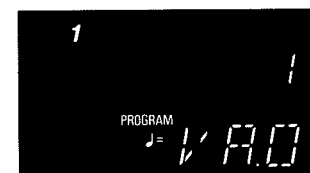
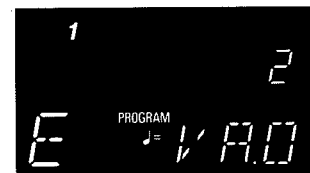
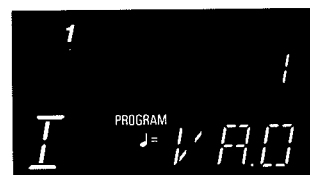
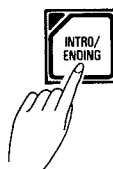
■ Editing INTROs and ENDINGS

Repeat steps 1-3 of the basic pattern (p.29).

- (1) Specify INTRO or ENDING: Press the INTRO/ENDING switch once for INTRO, twice for ENDING, or a total of three times to cancel.

Note:

The lower left hand corner of the display indicates the three possible states with an I, E, and blank, respectively.



- (2) Press the RHYTHM switch and edit with the basic procedure.



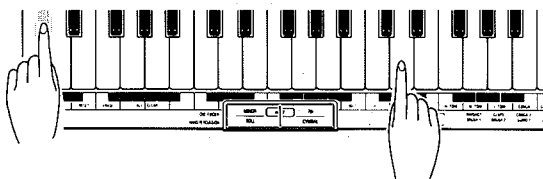
- (3) To store the results, hold down the key labelled WRITE (the first C on the lower keyboard), press the switches for the appropriate storage area, and then release the WRITE key.

Note:

The WRITE operation automatically clears the INTRO/ENDING switch setting.

■ Listening to a Particular Instrument

- (1) To limit the rhythm pattern to a particular instrument, hold down the key labelled **EXTRACT** (the first C# on the lower keyboard) and press the key corresponding to that instrument.



- (2) To add other instruments, keep the **EXTRACT** key switch pressed and press the appropriate keys corresponding to the instruments you would like to add.
- (3) Release the **EXTRACT** key to return to the complete pattern.

■ Correcting Timing Errors

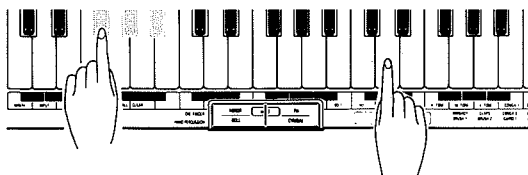
It is often difficult to ensure precise timing when the pattern contains a number of instruments. The SR Series therefore provides facilities for automatically adjusting note positions so that they line up at regular intervals within the bar.

<During Input>

- (1) Specify the timing interval by holding down the appropriate key combination — ♪ (the first F# on the lower keyboard) or ♪ (the first G#) plus the optional triplet (the first A#) — as you add notes to the pattern. The organ will then automatically shift notes that are not at the exact positions. (See chart on the next page for examples.)

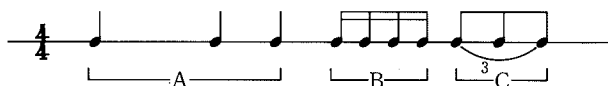
Note:

This function does not affect the position of any existing notes for the same instrument.



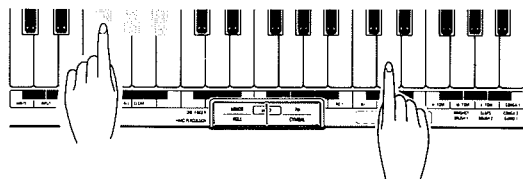
● Compound Example

This pattern requires the use of three different timing intervals: ♪ for the part labelled A, ♪ for B, and ♪ and triplets for C.



<After Input>

- (1) Stop the rhythm.
- (2) Specify the timing interval by holding down the appropriate key combination — ♪ (F#) or ♪ (G#) plus the optional triplets (A#).

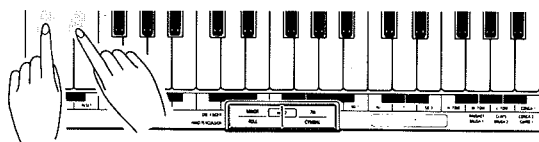


- (3) Without releasing this combination, press the key for an instrument to automatically align the entire pattern for that instrument.

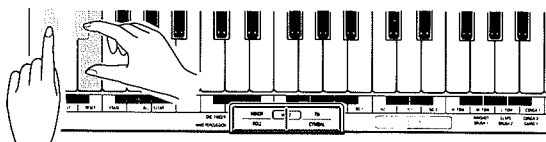
■ Delays

A built-in function allows you to introduce a slight delay between an instrument and the others.



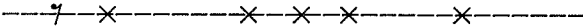
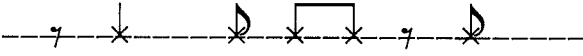


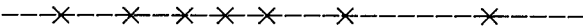
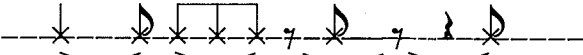


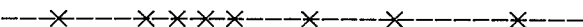
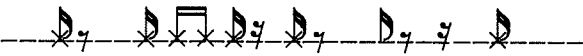

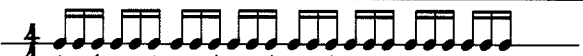
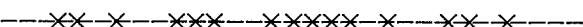

- (1) Use the **EXTRACT** key to select the desired instruments.
- (2) Hold down the **EXTRACT** key and press the **MOVE** key to introduce slight delays for particular segments. The delay time depends on the tempo.



- (3) To shift the instrument back to the original position for a particular segment, hold down the **EXTRACT** key and press both the **MOVE** and **RESET** keys.



<Examples>

	<p>Desired Timing </p> <p>Input </p> <p>Corrected Version </p>
	<p>Desired Timing </p> <p>Input </p> <p>Corrected Version </p>
	<p>Desired Timing </p> <p>Input </p> <p>Corrected Version </p>
	<p>Desired Timing </p> <p>Input </p> <p>Corrected Version </p>

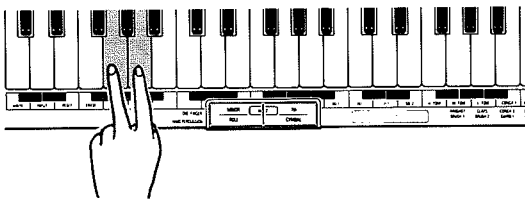
■ Starting from Scratch — ALL CLEAR

- (1) For the first two steps of the general procedure, choose a prerecorded pattern with the same time signature and length in bars.

Note:

These parameters automatically appear on the multi-function display whenever you select a rhythm pattern.

- (2) Simultaneously press the two keys labelled ALL CLEAR (the first G and A on the lower keyboard).



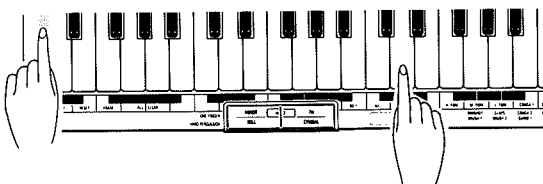
- (3) Press the RHYTHM switch to start the metronome.
- (4) Record and edit the new pattern with the same techniques as the basic procedure.

■ Changing Hand Percussion Assignments

The RHYTHM section's programming capabilities can extend as far as allowing you to change the hand percussion keyboard assignments.

<LOWER keyboard>

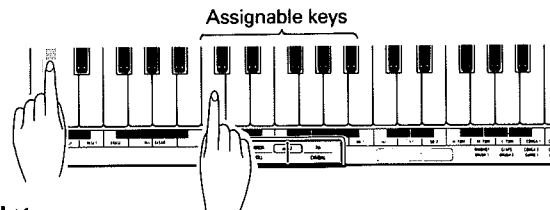
- (1) Repeat step 1 of the basic procedure.
- (2) Hold down the EXTRACT (C#) key and press the key for the instrument that you wish to reassign.



Note:

If you press more than one, the organ chooses the last key pressed.

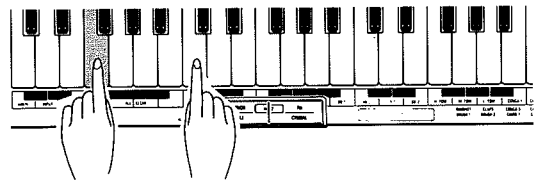
- (3) Without releasing the EXTRACT key, press the key to receive this new assignment.



Note:

If you press more than one, the organ assigns the instrument to them all.

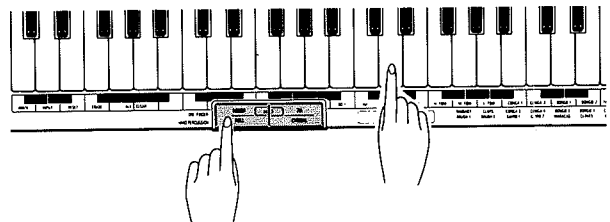
- (4) To cancel the assignment, hold down the ERASE (F) key and press the key to be cleared.



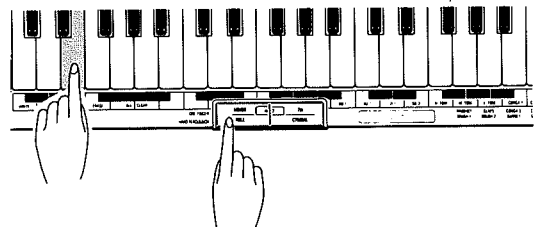
- (5) Quit the programming mode with step 14 of the basic procedure.

<Touch bars>

- (1) Repeat step 1 of the basic procedure.
- (2) Hold down the key for the desired instrument and press the touch bar to which you wish to assign it.



- (3) To return a touch bar to its standard setting (snare drum roll or cymbal crash), hold down the RESET key and press the touch bar.



- (4) Quit the programming mode with step 14 of the basic procedure.

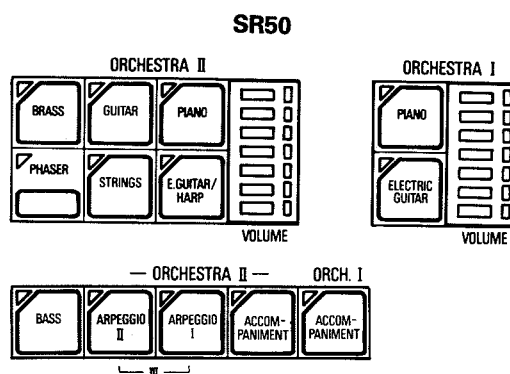
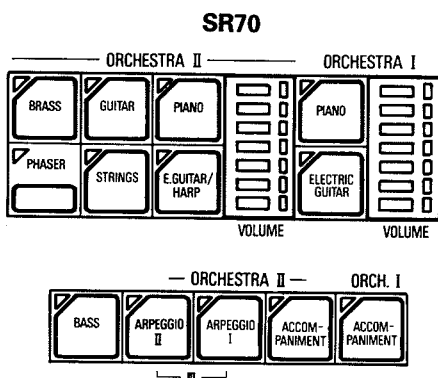
5. Auto Accompaniment System

5.1 AUTO PLAY ORCHESTRA

This section offers automatic bass accompaniment as well as automatic accompaniment by piano, guitar, harp, brass and other instruments. It also contains the ORCHESTRA I and ORCHESTRA II, two automatic chord accompaniment systems which may be used separately or together.

Note:

This function is not available, if program rhythm I or II is selected.



■ Tone/Effect Blocks

ORCHESTRA I section — These switches control the tone and volume for ORCHESTRA I.

ORCHESTRA II section — These switches control the tone and volume for ORCHESTRA II.

PHASER — This switch adds a phaser effect to the ORCHESTRA II output. It doesn't take effect for the STRINGS.

■ Pattern Selection Switches

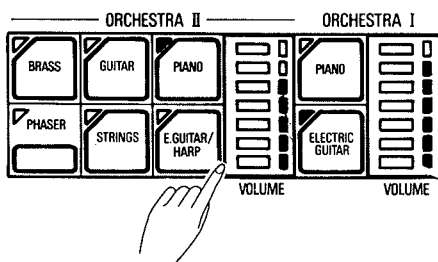
BASS — This switch adds an automatic bass accompaniment based on the KEYBOARD CONDUCTOR and tone settings for the PEDAL TIBIA and PEDAL ORCHESTRA.

ARP I and ARP II — These switches, singly or together as ARP III, add ORCHESTRA II arpeggios.

ACCOMPANIMENT — These switches add ORCHESTRA I and ORCHESTRA II chord accompaniments that match the chosen rhythm.

● Procedure

- (1) Select the tones for the ORCHESTRA I and ORCHESTRA II sections and adjust the volumes.



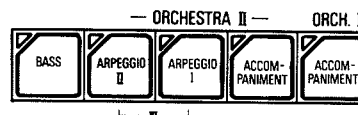
Notes:

- Although each section normally uses only a single tone — selecting a new one automatically cancels the old — you may add the PHASER effect to the ORCHESTRA II tone.
- The E. GUITAR/HARP switch in the ORCHESTRA II section produces an electric guitar tone when the ACCOMPANIMENT II switch is on and a harp voice when the arpeggios function (I, II, or III) is on.

Note:

The ORCHESTRA II BRASS tone is not one tone, but five. The organ automatically selects the one best matching the rhythm pattern.

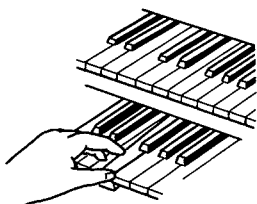
- (2) Select patterns to place them on standby. (The LEDs light to indicate this status.)



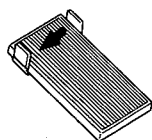
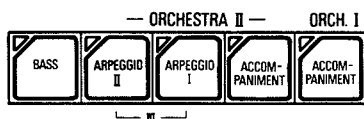
Note:

It is not possible to mix ORCHESTRA II patterns.

- (3) Play a chord on the LOWER keyboard to start the automatic accompaniment.



- (4) To turn off the automatic accompaniment, press either the pattern switch or the left foot switch.

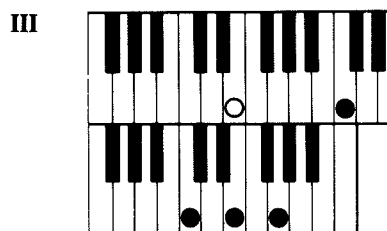
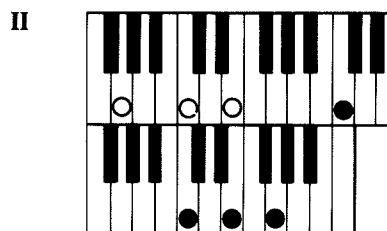
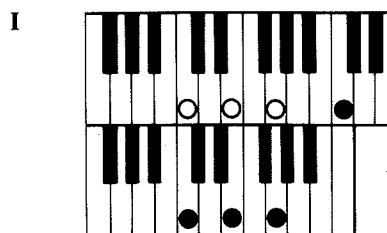


5.2 AUTO MELODY CHORD

These three functions add harmony to the UPPER keyboard melody line in the form of a note or notes from the LOWER keyboard chord. The first adds the complete chord to the octave immediately below the lowest note on the UPPER keyboard. The second spreads the chord over a wider area (open harmony). The third is a duet effect which adds just a single note.

Note:

This duet effect is not available on the SR50.



Note:

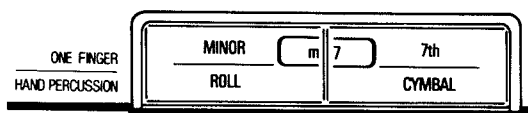
The black circles indicate the notes actually played; the white, notes added by the AUTO MELODY CHORD function.

5.3 ONE FINGER, MEMORY, and CONSTANT Functions

These three functions respectively tell the organ to fill in the rest of a chord from a single note (ONE FINGER), continue playing chords even after you have removed your hand from the lower keyboard (MEMORY), and change the chord accompaniment to solid (continuous sound — no strumming effect) chords (CONSTANT).



ONE FINGER — This function, which applies to the AUTO PLAY ORCHESTRA and AUTO MELODY CHORD allows you to play a complete major chord with only one finger and others with at most two fingers: one on the base note and the other on the touch bars located under the LOWER keyboard. The touch bars change the major chord into a minor one; a seventh chord, or the combination, minor seventh.



Note:

Activating the ONE FINGER function disables the touch bars' hand percussion function.

MEMORY — This function, which applies to the AUTO PLAY ORCHESTRA and AUTO MELODY CHORD functions, repeats the current chord pattern even after you remove your hand from the LOWER keyboard. It is therefore only necessary to give the organ the chord changes.

CONSTANT — This function changes the automatic accompaniment to solid chords which sound continuously. It automatically sets ORCHESTRA I to BRASS and ORCHESTRA II to STRINGS. The bass part offers a choice of all tones available for the PEDAL TIBIA and PEDAL ORCHESTRA, but only TIBIA, ENSEMBLE BASS, and TUBA provide continuous chords. For the others, the chord stops when you release the keys.

Note:

Pressing this switch disables the tone/effect switches for the ORCHESTRA I and II.

5.4 ONE TWO PLAY

The ONE TWO PLAY function automatically selects an appropriate registration for the current rhythm pattern.



Note:

This function is not available for programmed rhythms. Pressing the ONE TWO PLAY switch for the PROGRAM I and PROGRAM II patterns produces no changes.

● Procedure

- (1) Press the ONE TWO PLAY switch to automatically change the panel settings to ones appropriate for the current rhythm pattern.



Note:

The function automatically changes the drawbar settings as well, lighting the LED in the DRAWBAR switch in the REGISTRATION MEMORY section, but treats them somewhat differently. (See next note.)

- (2) Adjust the registration as necessary.

Note:

At this point, the drawbar settings are not adjustable. The only way to change them is to press the DRAWBAR switch (lamp goes out) to return them to the actual manual settings and then adjust the drawbars.



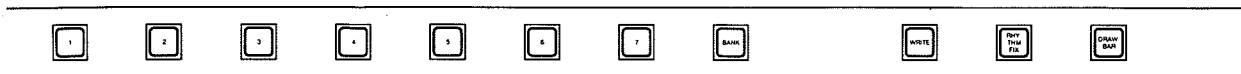
Note:

Registration memory lamps 1 to 7 (1 to 5 for the SR50) turn off when the ONE TWO PLAY button is pressed.

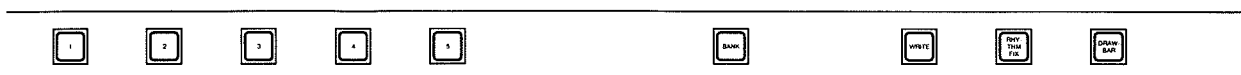
6. Registration Memory

The registration memory section, which is located between the upper and lower keyboards, allows you to store up to 14 (10 on the SR50) of your own registration combinations for instant recall. These combinations consist of not just the organ registration, but also rhythm, volume, automatic accompaniment, and other parameters.

SR70



SR50



Numbered switches — These indicate the memory areas available.

BANK — Switches between the A bank and B bank of the registration button.

When the light is off, the A bank is selected; and when the light is on, the B bank is selected. A total of 14 items (10 items for the SR50) of registration memory can be used.

WRITE — This copies the current combination to your choice of memory area.

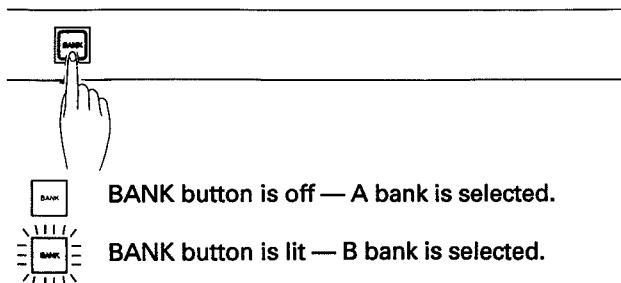
RHYTHM FIX — Activating this switch tells the organ to leave the rhythm and automatic accompaniment at the current settings so that pressing a numbered switch changes only the tone settings.

DRAWBAR — This copies the drawbar settings from the registration section to the organ. This switch is automatically activated, when one of the numbered switch is pressed.

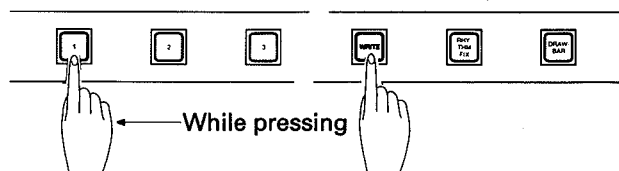
■ Storing a Registration

● Procedure

- (1) Set the registration to be stored.
- (2) Select the bank.



- (3) Press the registration button to be used for storage while pressing the WRITE button.



Note:

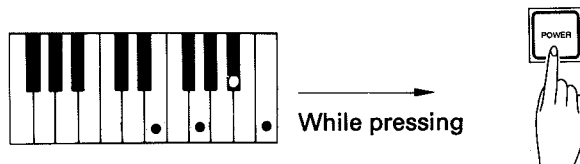
Drawbar Setting

When drawbar settings are to be stored when the DRAWBAR button is on (lit), previously stored drawbar settings are also stored.

This is used to store the settings when changing tones other than drawbar related ones.

Notes:

- **Resetting of Panel and Wooden Clappers**
The states of the panel and the wooden clappers (lamp button, transpose and chain) are reset by tuning on the power while holding down the E, G, Bb and C keys (the figure shown below) with in the highest octave of the upper keyboard. This reset is helpful when the registration is to be initiated. The contents of the registration memory, program, rhythm, hand percussion and synthesizer are protected.



- **ONE TWO PLAY** turns off when any of the registration memory keys (bank) 1 to 7 (1 to 5 for SR50) is as pressed with ONE TWO PLAY on.

● Memory contents

User-programmed — Each area holds the followings set of data:

- * All panel settings except TOTAL VOLUME, MULTIPHONIC, LIGHT, TUNE, TRACK/MIDI, DISK SEQUENCER
- * SYNTH TUNE setting(s)
- * KEYBOARD CONDUCTOR settings
- * ALL RHYTHM, automatic accompaniment, TEMPO, and AUTO MELODY CHORD settings except ONE TWO PLAY
- * Drawbar settings
- * Hand percussion by the touch bar

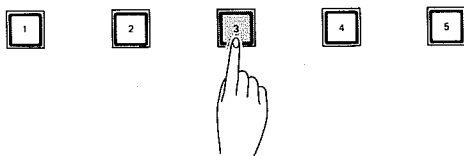
Note:

It is not possible to store user-programmed rhythms themselves and transpose settings.

■ Recalling a Registration

● Procedure

- (1) Press the appropriate number switch so that it lights.

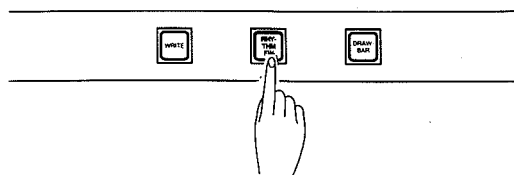


- (2) Adjust the registration settings as desired. To change the loaded drawbar settings, press the DRAWBAR switch so that the lamp goes off, and adjust the drawbars.

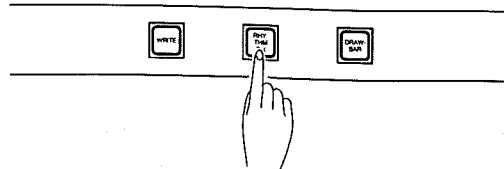
Note:

Once loaded, these drawbar settings cannot be altered.

- (3) (OPTIONAL) Press the RHYTHM FIX switch to lock the rhythm and automatic accompaniment sections at the current settings so that subsequent recalls change only the tones.

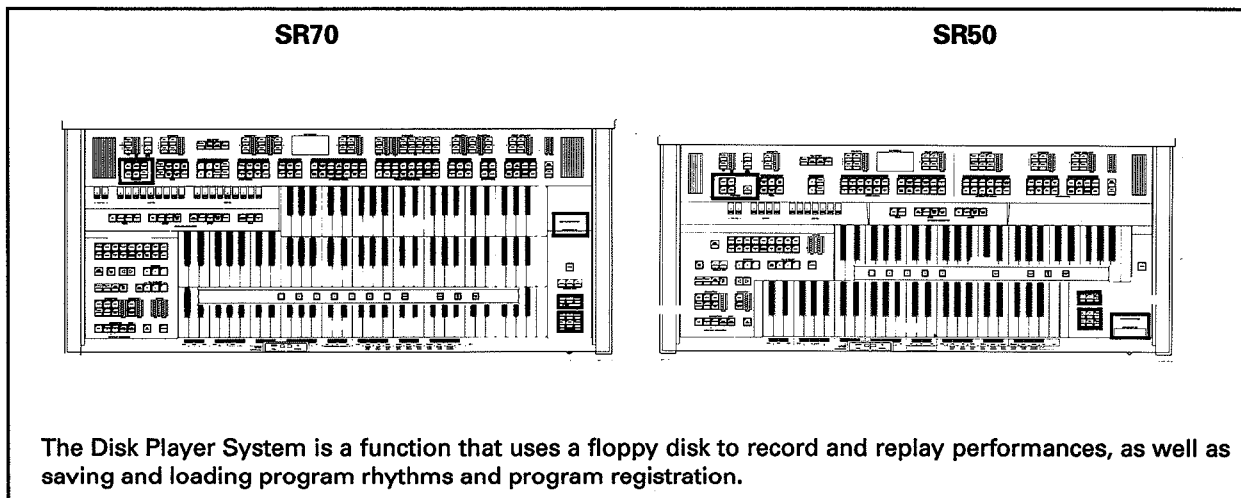


- (4) (OPTIONAL) Press the RHYTHM FIX switch a second time and then the appropriate number switch to recall rhythm and automatic accompaniment settings.



- (5) To return to the settings in effect before recalling the stored data, press the number switch to turn it off.

7. Disk Player System



7.1 Functions of the Disk Player System

The disk player system has the following three functions.

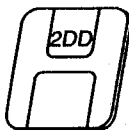
- **Disk sequencer:**
Records and replays set rhythms, songs, and tones.
..... Uses a sequencer disk
- **Program rhythm save/load:**
Saves and loads the contents of the program rhythm memory to and from a floppy disk.
..... Uses a rhythm disk
- **Registration save/load:**
Saves and loads the contents of the program registration memory to and from a floppy disk.
..... Uses a registration disk

The format of each of these floppy disks is exclusive and separates the different functions.

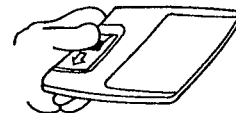
■ Care of the Floppy Disk

A floppy disk is one of the media for storing data in computers and word processors. When using a floppy disk, observe the following precautions.

- **Types of Floppy Disks to be Used**
This model utilizes 3.5 inch 2DD floppy disks. Other types of disks cannot be used.



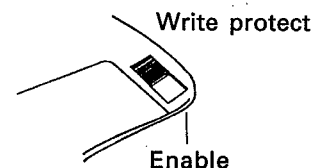
- **DO NOT open the floppy disk's shutter.**
If the shutter is opened by hand, the interior of the disk may be damaged or foreign matter may enter, causing incorrect storage of data.



- **DO NOT place near a magnetic source.**
The floppy disk uses magnetism to store data. If the disk is placed near a speaker or other magnetic source, the stored data may not be read back correctly.



- **Write Protect**
The purpose of the square window on the lower left edge of the floppy disk is to prevent data from being written over. When the window is closed, data may be written to the disk; when it is open, data writing is impossible. Leave the window open on disks whose contents are not to be written over or deleted.



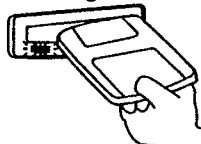
● Inserting and Removing the Floppy Disk

With the label facing up, insert the floppy disk into the slot from the shutter end until it clicks into place. Slowly press the Eject button to remove the disk.



● DO NOT remove the floppy disk while it is being used.

The floppy disk is being used when the lamp of the floppy disk slot is on. Do not, under any circumstances, remove the floppy disk when the lamp is on. If it is removed, not only may the data be lost, but there is a chance that the disk itself may be damaged and unable to be used again.



■ Formatting a New Floppy Disk

Formatting must be carried out when using a new disk or a disk other than one for the SR, or when changing from a sequencer disk to a rhythm disk. When formatting, one of the following types of disks must be designated for use in the SR.

- Floppy disk for the disk sequencer
- Floppy disk for registration save/load
- Floppy disk for rhythm save/load

Notes:

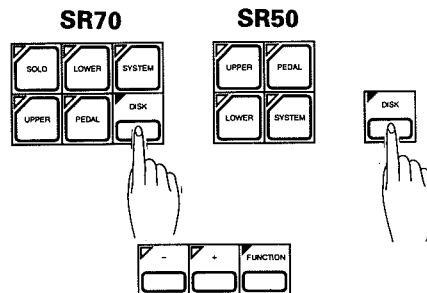
- The disk's write protect should be off (window closed) during formatting.
- The disks supplied with the SR do not need to be formatted.
- If a disk with data stored on it is formatted, the contents will be deleted.
- When formatting a disk that has already been formatted once, carry out reformatting while in the function mode. (Refer to page 000 for the function mode.)
- Other functions cannot be used after formatting.
Example: Recording a song to an rhythm formatted disk.

(1) Insert a new floppy disk.

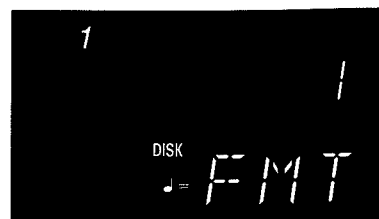


(2) Press the DISK button.

The DISK button lamp and FUNCTION button lamp light.

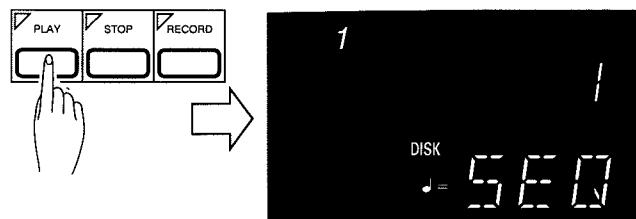


DISK on the multifunction display lights and the display indicates the following.



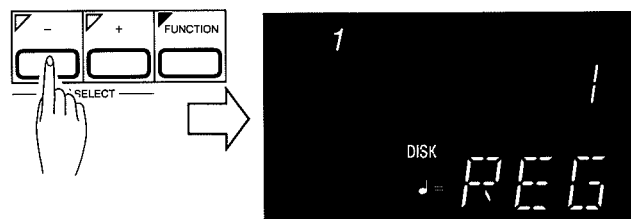
(3) Press the PLAY button.

The multifunction display changes as follows.



(4) Select the type of format using the plus (+) and minus (-) buttons.

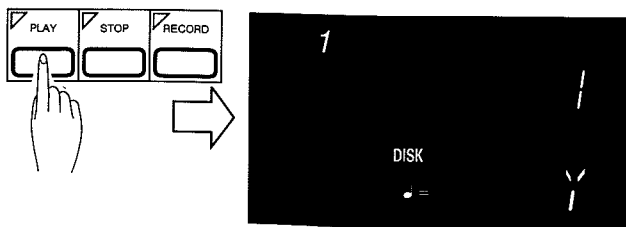
SEQ: Formats the disk as a sequencer disk.
REG: Formats the disk as a registration disk.
RHY: Formats the disk as a rhythm disk.



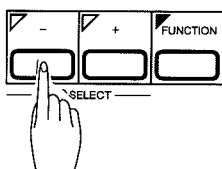
Note:

Press the DISK button to stop formatting.

- (5) Press the PLAY button.



- (6) Select "Y" with the plus (+) and minus (-) buttons.

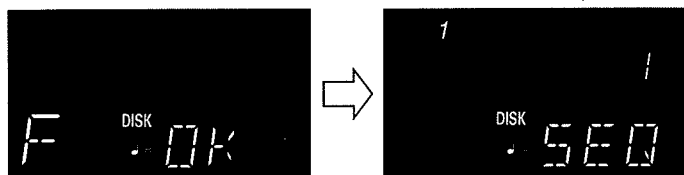


Y: To perform formatting.
N: Not to perform formatting.

- (7) Press the PLAY button.
Numbers are displayed on the multifunction display.
The numbers gradually count down from 80.



- (8) Formatting is finished.
When the numbers reach "0", a beep is sounded, and "OK" is displayed on the multifunction display. The FUNCTION button lamp turns off when formatting is finished. The type of formatting that occurred is displayed on the multifunction display.



SEQ: Sequence disk
REG: Registration disk
RHY: Rhythm disk

Note:

If the write protect is on, a long beep is sounded, and the format mode is canceled.

7.2 Disk Sequencer

The disk sequencer is a function that records and replays songs. It also records and replays a registered program or programmed rhythm used in a song at the same time.

Recording and replaying songs on each of the keyboards, or only switching to a tone or rhythm other than that of a keyboard song can also be accomplished.

The SR can record and replay up to a maximum of 32 songs per disk, using 5 tracks per song (4 tracks for the SR50).

Role of the Tracks

Each track records and replays each of the following performances or conditions.

SOLO: Solo keyboard performance (SR70 only)

UPPER: Upper keyboard performance (right hand)

LOWER: Lower keyboard performance (left hand)

PEDAL: Pedal performance

SYSTEM: Tone settings

Condition of the tempo, rhythm, and panel
Hand percussion performances

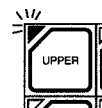
Track Lamps

The status of the lamps for each track change each time a track button is pressed. Lamp status is separated into the following.

Lit: Lights during both recording and replaying. If nothing has been recorded, this cannot be selected.



Flashing: Flashes during record standby and during recording. If the RECORD button's lamp is not lit, this cannot be selected.



Off: Off when neither recording nor replaying is taking place. This is also a track for when nothing has been recorded or selected.



Note:

Recording and replaying cannot be done with the following buttons and functions.

- Power switch, TOTAL VOLUME, ORGAN TUNE
- DISK SEQUENCER, TRACK/MIDI, TAP TEMPO, SYNTH TUNE
- LIGHT, MULTI PHONIC (only recording)

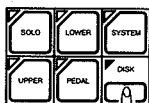
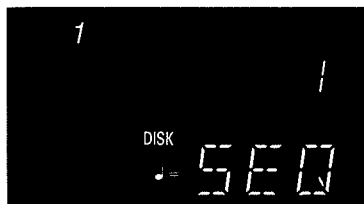
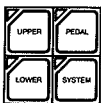
■ Replay

- (1) Insert the supplied disk or a sequencer disk.



- (2) Press the DISK button.

The DISK button lamp lights and the multifunction display indicates the following. The first song is selected at this time.

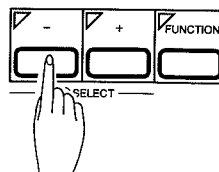
SR70**SR50****Notes:**

- Recording and replaying of a song cannot be done with a disk other than a sequencer disk.
- If "REG" or "RHY" is displayed on the multifunction display, the inserted disk is not a sequencer disk. Insert a sequencer disk.

- (3) Select the song number to be replayed with the plus (+) and minus (-) buttons.

The song number is displayed on the multifunction display.

The track button lamp on which the selected song is recorded lights.

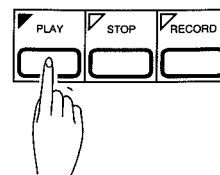


Song number

Notes:

- Press the track button whose lamp is lit; turning off the lamp will result in the inability to replay songs in that track.
- Track buttons will not light when pressed if nothing has been recorded on that track.

- (4) Press the PLAY button.



When the SYSTEM button

is lit: The previously recorded settings (tone selection, tempo, etc.) are reproduced and the song is replayed.

When the SYSTEM button

is not lit: The song is replayed under the current settings.

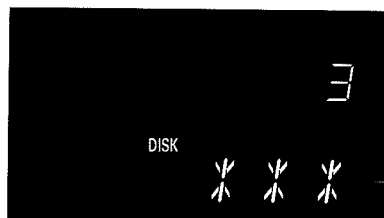
Note:

When the SYSTEM button is lit, the song can be replayed after the following data is transferred from the disk.

<Data transferred from the disk>

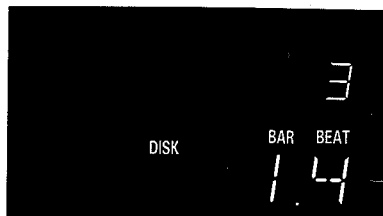
- Contents of the program rhythm
- Contents of the program registration
- Tempo during recording and panel status

The multifunction display is as follows during data transfer.



While setting data is being read from the disk, three asterisks, "***", flash on the display.

The PLAY button lamp lights, the first two measures of the introduction are played, and replaying begins. The multifunction display changes as follows.

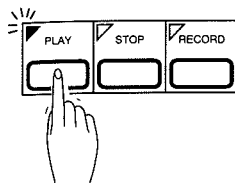


The number of measures and beats are displayed.

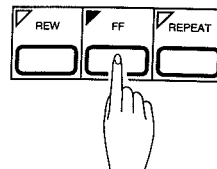
Notes:

- The tone and tempo settings can be changed during replay.
- When the tempo is changed during replay, it is displayed momentarily on the multifunction display which then returns to indicating the melody.
- When the tune is replayed all the way through, the PLAY button lamp automatically turns off, and the multifunction display returns to its original display.

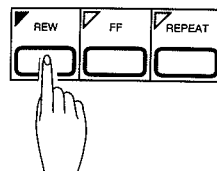
Pause function: Pressing the PLAY button during replay changes the lamp from continuously lit to flashing and replay is paused. Pressing the button again lights the lamp continuously and the song is resumed from the point at which it was paused.



FF (fast forward) function: Pressing the FF button turns on the FF button lamp, and fast forwarding occurs while the button is held down. When the FF button is pressed during replay, the song is played at high speed. When the button is released, the song returns to its original tempo.



REW (rewind) function: Pressing the REW button turns on the REW button lamp. While this button is pressed, the song rewinds in measure units. When the REW button is pressed during replay, the measure where the button was released is replayed at regular tempo from the beginning. No sound is heard during rewind. If the song is rewound all the way to the beginning, the disk is paused.

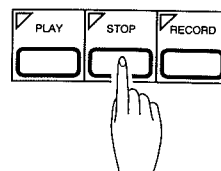


Note:

When the song is rewound during replay, the rhythm when returning to regular replay returns to that which was being used when the REW button was pressed.

(5) Press the STOP button.

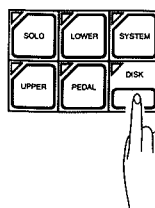
Replay is stopped, the PLAY button lamp turns off, and the lamp of the track that was turned off turns on. The multifunction display returns to song number selection.



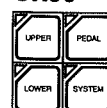
(6) Press the DISK button.

The DISK button lamp turns off and the multifunction display returns to its original display.

SR70



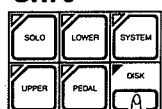
SR50



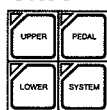
■ Repeat

- (1) Insert either the supplied floppy disk or a sequencer disk.
- (2) Press the DISK button.
The DISK button lamp turns on and the multifunction display is as follows. The first song is selected at this time.

SR70



SR50



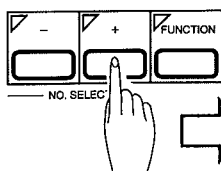
Notes:

- Recording and replaying of a song cannot be done with a disk other than a sequencer disk.
- If "REG" or "RHY" is displayed on the multifunction display, the inserted disk is not a sequencer disk. Insert a sequencer disk.

- (3) Select the song number to be replayed with the plus (+) and minus (-) buttons.

The song number is displayed on the multifunction display.

The track button lamp on which the selected song is recorded lights.



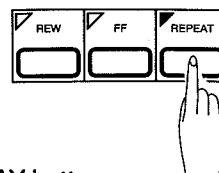
Song number



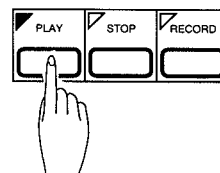
Notes:

- Press the track button whose lamp is lit; turning off the lamp will result in the inability to replay songs in that track.
- Track buttons will not light when pressed if nothing has been recorded on that track.

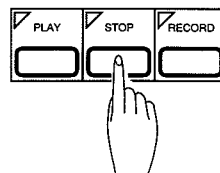
- (4) Press the REPEAT button.



- (5) Press the PLAY button.
The selected song is repeated.



- (6) Press the STOP button.
Replay is stopped and the PLAY button lamp is turned off. The multifunction display returns to the song number selection display.



- (7) Press the DISK button.

■ Recording

Notes:

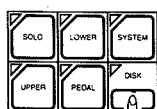
- Turn the disk write protect off (close the window) during recording.
- Songs recorded by the SR70 (SR50) cannot be added onto the SR50 (SR70). Cancel the song first, then begin recording.

- (1) Insert the supplied disk or a sequencer disk.

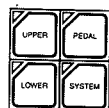


- (2) Set the registration.
- (3) Press the DISK button.
The DISK button lamp lights and the multifunction display indicates the following. The first song is selected at this time.

SR70



SR50



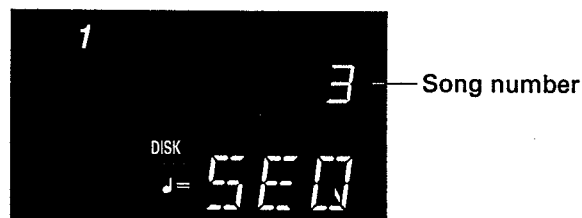
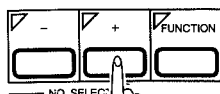
Notes:

- Recording and replaying of a song cannot be done with a disk other than a sequencer disk.
- If "REG" or "RHY" is displayed on the multifunction display, the inserted disk is not a sequencer disk. Either insert a sequencer disk, or reformat the inserted disk as a sequencer disk. (Refer to page 63 for the formatting procedure.)

- (4) Select the song number to be recorded with the plus (+) and minus (-) buttons.

The song number is displayed on the multifunction display.

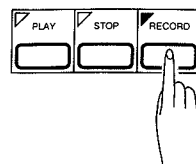
The track button lamp on which the selected song is recorded lights.



Notes:

- Press the track button whose lamp is lit; turning off the lamp will result in the inability to record and replay songs in that track.
- Track buttons will not light when pressed if nothing has been recorded on that track.

- (5) Press the RECORD button.
The amount of remaining space on the floppy disk is displayed in kilobytes on the multifunction display.

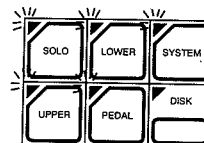


Note:

Each floppy disk has a maximum capacity of 620 kilobytes.



The lamps of all tracks that have not been recorded start flashing.



The disk lamp stays lit continuously, but the other lamps flash.

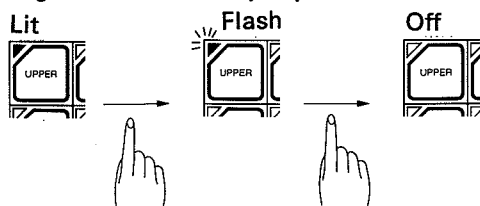
Note:

If the write protect is on, a long beep is sounded, and "ERR" is displayed on the multifunction display. The DISK button lamp turns off and the disk mode is canceled.

- (6) Select the track to be recorded.
Track that has not yet been recorded:
Pressing the track button changes the lamp back and forth from flashing to off.

Track that has been recorded:
Pressing the track button changes the lamp from lit to flashing to off to lit and repeats this cycle.

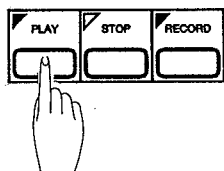
Set the track to contain the record so that its lamp starts flashing on and off. If all the track lamps are flashing, it is not necessary to press a track button.



Notes:

- Tracks whose lamps are lit or off cannot be recorded on. The lamp must be flashing.
- If a re-recording is carried out on a recorded track, the previous record will be lost.

- (7) Press the PLAY button.



When the SYSTEM button is lit:
The previously recorded settings (tone selection, tempo, etc.) are reproduced and the song is replayed.

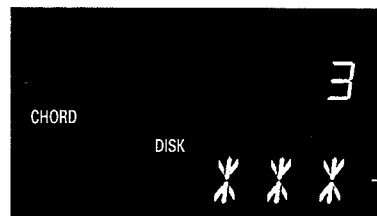
When the SYSTEM button is not lit:
Settings can be neither recorded nor reproduced.

When the SYSTEM button is flashing:
The song can be recorded after the following data is transferred to the disk.

<Data transferred to the disk>

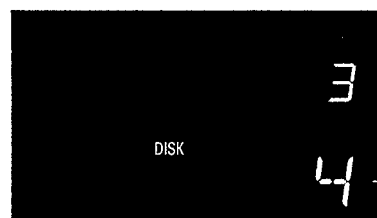
- Contents of the program rhythm
- Contents of the program registration
- Tempo and panel status

The multifunction display is as follows during data transfer.



While setting data is being transmitted, three asterisks, " * * * ", flash on the display.

The PLAY button lamp lights and recording begins. The multifunction display changes as follows, the first two measures of the introduction are played, and the number of beats is displayed.



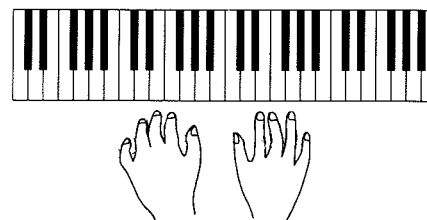
The first two measures are displayed.

- (8) Begin the performance.

The performance may be begun after the introduction is finished or while it is being played.

When the introduction is finished, the multifunction display changes as follows, and the current measure and number of beats are displayed.

When the tempo is changed during the performance, the new tempo is displayed momentarily on the multifunction display, and the display returns to its original display.



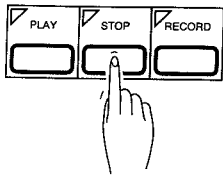
The number of measures and beats are displayed.

Notes:

- Set the rhythm so that it is on standby to start. By playing the lower pedals, the rhythm will start after the introduction pattern.
- When the number of bars reaches 100, its indication number turns to "0", and the 101st bar will be indicated as "1".

- (9) Press the STOP button when the performance is finished.

Recording is stopped, and the lamps in the RECORD and PLAY buttons turn off. The lamp of the track that was being recorded on changes from flashing to continuously lit, and the multifunction display returns to the song number selection display.



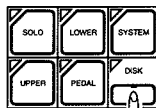
Note:

If the recording capacity is exceeded, a long beep is sounded, "ERR" is displayed on the multifunction display, and recording is stopped. The song cannot be recorded in this case.

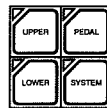
- (10) Press the DISK button.

The DISK button lamp turns off and the multifunction display returns to its original display.

SR70



SR50



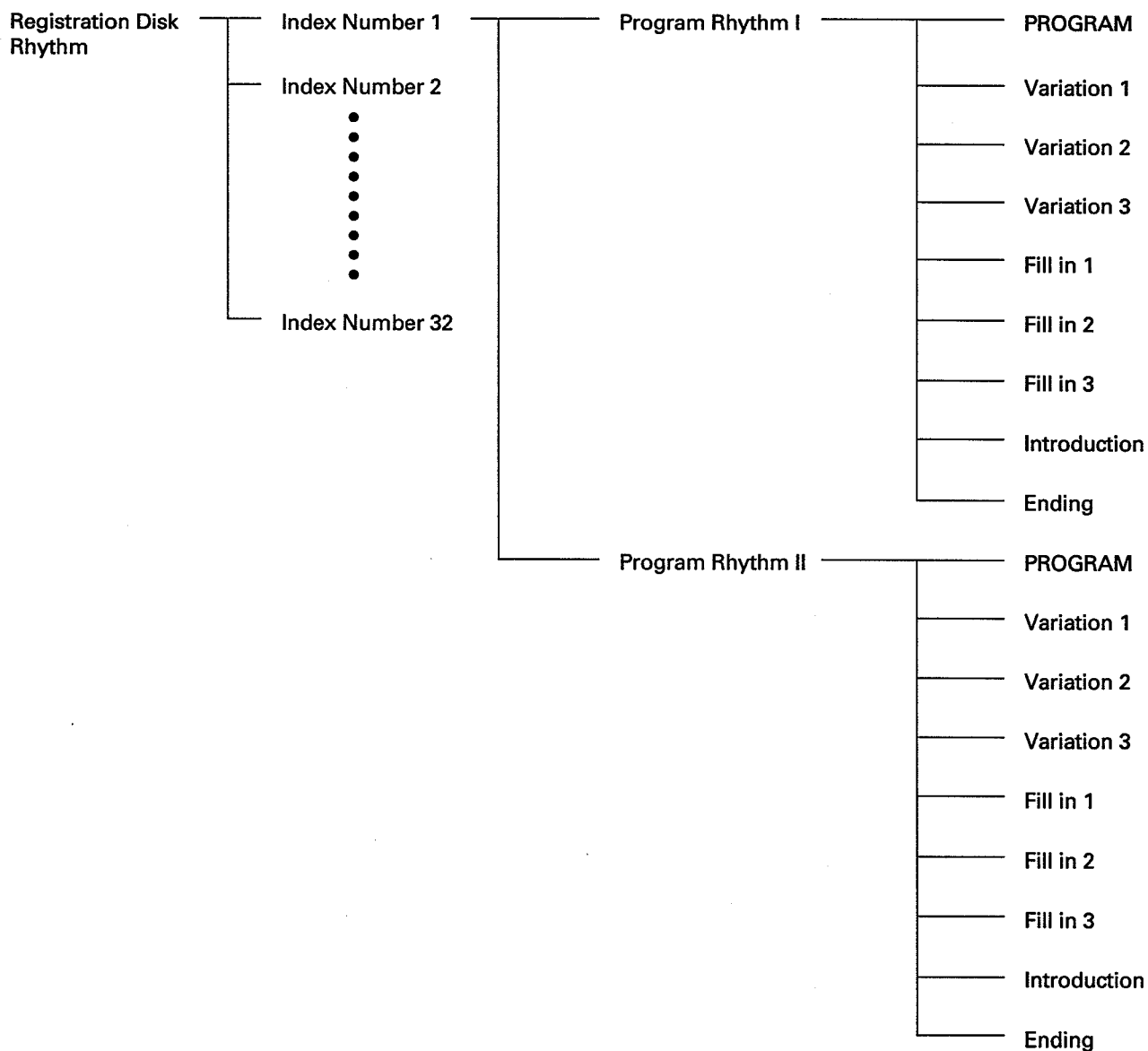
7.3 Saving and Loading Program Rhythms

This is a function whereby the contents stored in memory, a total of 18 items including variations 1 to 3, fill ins 1 to 3, introduction, ending, and each program of program rhythms I and II, can be stored on a floppy disk. Saving to and loading from a disk takes place in index number units (collectively 18 items). For the SR70/50, 32 groups of index numbers can be stored on each floppy disk.

Note:

Index Numbers

When storing program rhythms on one floppy disk, each data item is assigned a number (index number) that controls it.



■ Saving to a Floppy Disk

18 items, including each program of program rhythms I and II, variations 1 to 3, fill ins 1 to 3, introduction and ending, are grouped together and saved to a floppy disk.

Note:

Turn the disk write protect off (close the window) during saving.

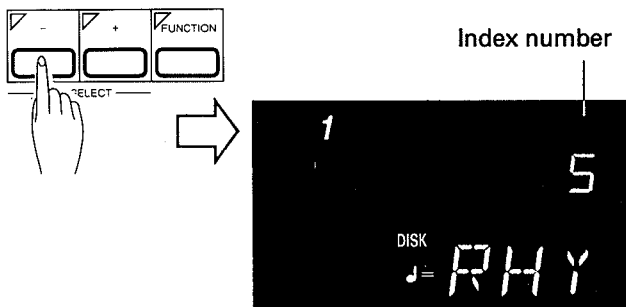
- (1) Insert a rhythm disk.
- (2) Press the DISK button.
The DISK button lamp lights and the multifunction display indicates the following. Index number 1 is selected at this time.



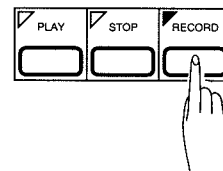
Note:

If "SEQ" or "REG" is displayed on the multifunction display, the inserted disk is not a rhythm disk. Either insert a rhythm disk, or reformat the inserted disk as a rhythm disk. (Refer to page 63 for the formatting procedure.)

- (3) Select the index number to be saved with the plus (+) and minus (-) buttons.
The index number is displayed on the multifunction display.
If the index number selected has already been saved, the point lights.



- (4) Press the RECORD button.



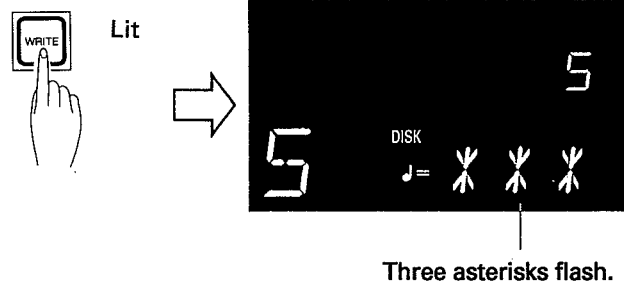
The RECORD button lamp lights and the multifunction display changes as follows.



Note:

If the write protect is on, a long beep is sounded and the disk mode is canceled.

- (5) Press the WRITE button.
The WRITE button lamp lights and data is saved.
The multifunction display is as follows during saving.



Three asterisks flash.

When saving is completed, a beep is sounded, and "OK" is displayed on the multifunction display. The lamps in the WRITE, RECORD and DISK buttons turn off and the multifunction display returns to its original display.

■ Loading From a Floppy Disk

Data from the floppy disk is loaded in index units.

(1) Insert a rhythm disk.

(2) Press the DISK button.

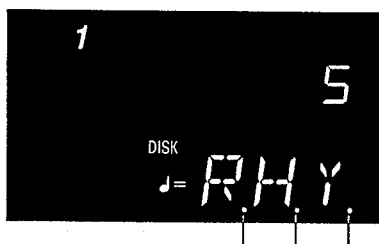
The DISK button lamp lights and the multifunction display indicates the following. Index number 1 is selected at this time.



(3) Select the index number to be loaded with the plus (+) and minus (-) buttons.

The index number is displayed on the multifunction display.

If the index number selected has already been saved, the point lights.



The point lights if the index number's data has already been saved.

(4) Press the PLAY button.

The multifunction display changes as follows.

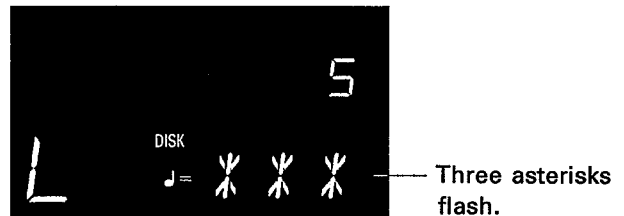


Note:

Index numbers which do not contain any data cannot be loaded.

(5) Press the WRITE button.

Loading begins and the 18 rhythm items are loaded. The multifunction display is as follows during loading.



When loading is completed, a beep is sounded, and "OK" is displayed on the multifunction display. The lamps in the WRITE and DISK buttons turn off.

7.4 Saving and Loading Program Registration

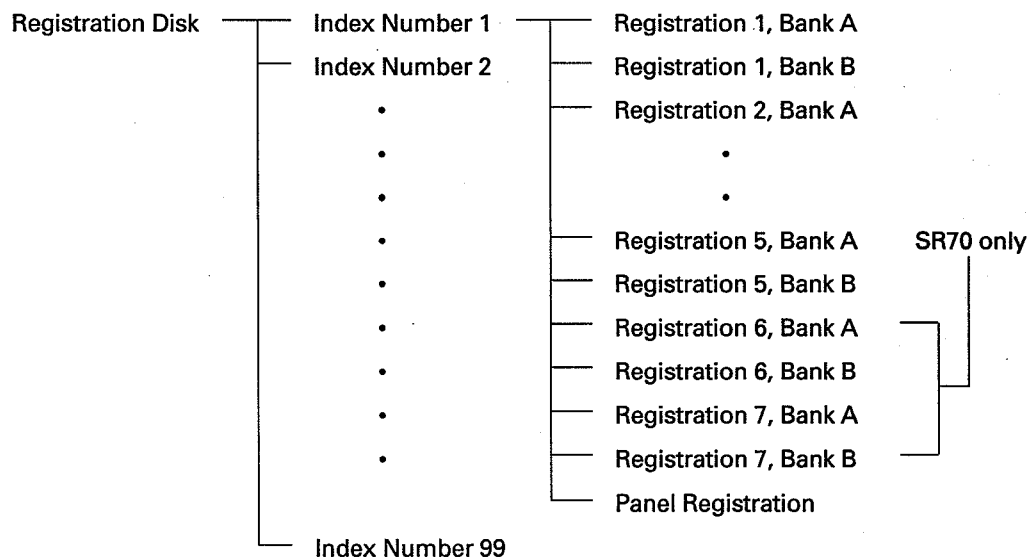
This is a function whereby the contents stored in the memory of program registrations 1 to 7 (1 to 5 for the SR50) and the bank button, and the panel settings at the time of saving, that is, a total of 15 registration items (11 for the SR50), are saved to a floppy disk.

Saving to a disk takes place in index number units. Loading takes place either in index number units or freely item by item. 99 groups of index numbers can be saved per floppy disk.

Note:

Index Numbers

When storing program registrations on one floppy disk, each data item is assigned a number (index number) that controls it.



■ Saving to a Floppy Disk

Note:

Turn the disk write protect off (close the window) during saving.

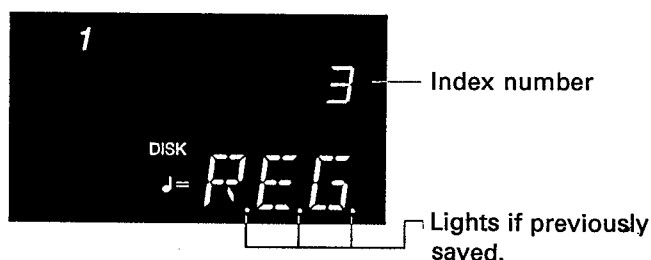
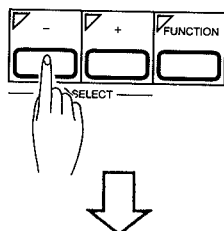
- (1) Insert a registration disk.
- (2) Press the DISK button.
The DISK button lamp lights and the multifunction display indicates the following. Index number 1 is selected at this time.



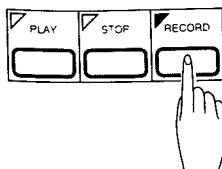
Note:

If "SEQ" or "RHY" is displayed on the multifunction display, the inserted disk is not a registration disk. Either insert a registration disk, or reformat the inserted disk as a registration disk. (Refer to page 63 for the formatting procedure.)

- (3) Select the index number to be saved with the plus (+) and minus (-) buttons.
The index number is displayed on the multifunction display.
If the index number selected has already been saved, the point lights.



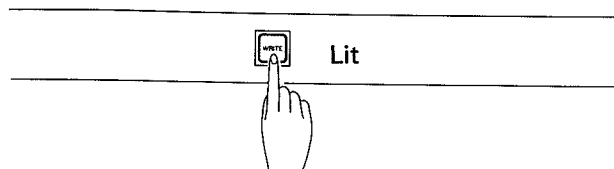
- (4) Press the RECORD button.
The RECORD button lamp lights and the multifunction display changes as follows.



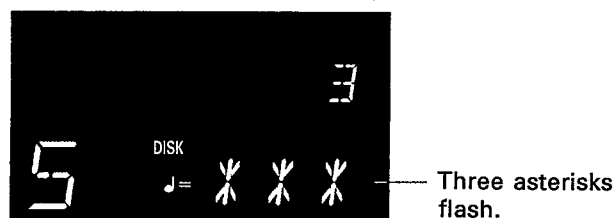
Note:

If the write protect is on, a long beep is sounded, "ERR" is displayed, and the disk mode is canceled.

- (5) Press the WRITE button.
The WRITE button lamp lights and data is saved.



The multifunction display is as follows during saving.



When saving is completed, a beep is sounded, and "OK" is displayed on the multifunction display. The DISK button lamp turns off and the multifunction display returns to its original display.

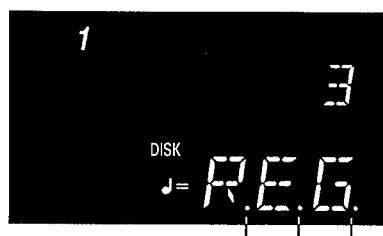
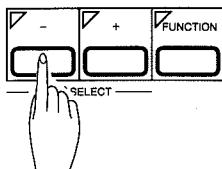
■ **Loading From A Floppy Disk 1**

This procedure loads 14 (10 for SR50) registration items collectively from the disk.

- (1) Insert a registration disk.
- (2) Press the DISK button.
The DISK button lamp lights and the multifunction display indicates the following. Index number 1 is selected at this time.

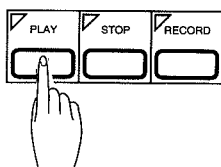


- (3) Select the index number to be loaded with the plus (+) and minus (-) buttons.
The index number is displayed on the multifunction display.
If the index number selected has already been saved, the point lights.



The points light if the index number's data has already been saved.

- (4) Press the PLAY button.



The multifunction display changes as follows.

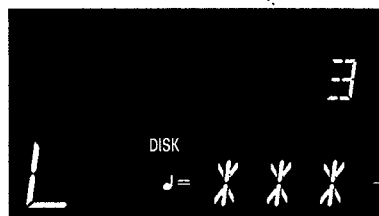
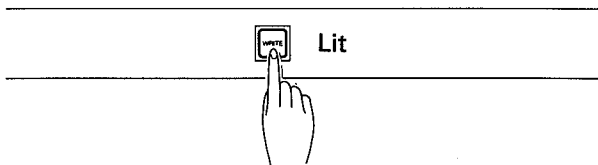


Note:

Index numbers which do not contain any data cannot be loaded.

- (5) Press the WRITE button.
Loading begins and the 14 registration items except for a panel registration (10 items for the SR50) are loaded.

The multifunction display is as follows during loading.



Three asterisks flash.

When loading is completed, a beep is sounded, and "OK" is displayed on the multifunction display. The lamps in the WRITE and DISK buttons turn off, and the multifunction display returns to its original display.

■ Loading From A Floppy Disk 2

This procedure loads registration data one by one from the floppy disk.

- (1) Insert a registration disk.
- (2) Press the DISK button.
The DISK button lamp lights and the multifunction display indicates the following. Index number 1 is selected at this time.



- (3) Select the index number to be loaded with the plus (+) and minus (-) buttons.
The index number is displayed on the multifunction display.
If the index number selected has already been saved, the point lights.



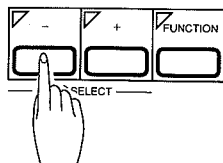
- (4) Press the PLAY button.
The multifunction display changes as follows.



Note:

Index numbers which do not contain any data cannot be loaded.

- (5) Select the registration number to be loaded with the plus (+) and minus (-) buttons.
Pressing these buttons changes the display as follows.

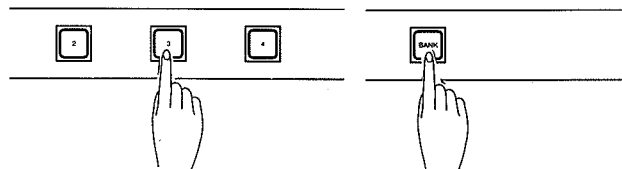


(SR50 is up to RG. 5. and RPG)

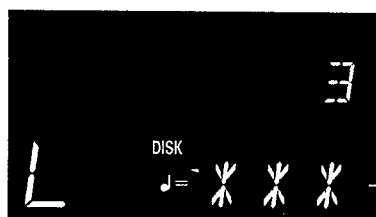
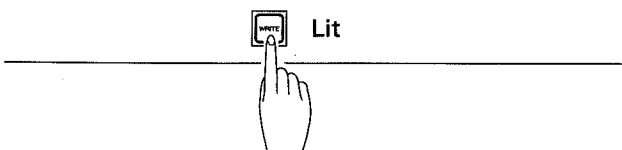
- RG 1 (Data in Bank A of registration memory button 1)
- ↓
- RG. 1.(Data in Bank B of registration memory button 1)
- ↓
- RG 2 (Data in Bank A of registration memory button 2)
- ↓
- RG 7 (Data in Bank A of registration memory button 7)
- ↓
- RG. 7.(Data in Bank B of registration memory button 7)
- ↓
- RG P (Panel registration)



- (6) Select the location where the loaded registration data is to be inserted. If the location is not specified, it is called up on the panel.



- (7) Press the WRITE button.
The WRITE button lamp lights and the selected registration data is loaded. The multifunction display is as follows during loading.



Three asterisks flash.

When loading is completed, a beep is sounded, and "OK" is displayed on the multifunction display. The lamps in the WRITE and DISK buttons turn off, and the multifunction display returns to its original display.

7.5 Function Mode

The function mode has the following functions.

- For the sequencer disk
 1. Continuous replay of a recorded song
 2. Copying of a recorded song onto the same floppy disk
 3. Copying of a recorded song onto a separate floppy disk
 4. Deletion of a recorded song
 5. Selection of an expression pedal during replay
 6. Hand percussion recording
- Reformatting of all types of floppy disks

Note:

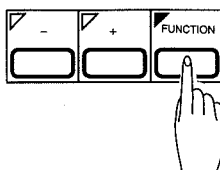
Press the DISK button to stop copying or deletion half-way through.

■ Continuous Replay of a Song

To continuously replay all the songs recorded on a floppy disk, conduct the following.

- (1) Insert either the supplied floppy disk, or the sequencer disk containing the recorded songs.
- (2) Press the DISK button.
The DISK button lamp lights.
- (3) Press the FUNCTION button.
The FUNCTION button lamp lights and the function mode is entered.

The multifunction display changes as follows.

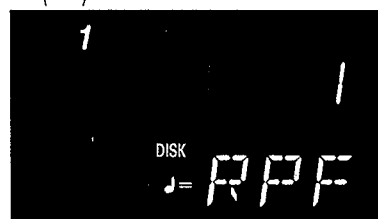
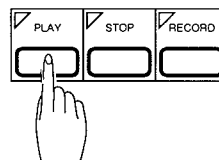


Notes:

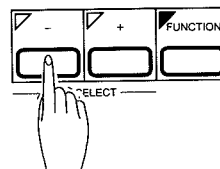
- Continuous replay cannot be performed with any disk other than a sequencer disk.
- If "REG" or "RHY" is displayed on the multifunction display, the inserted disk is not a sequencer disk.

- (4) Press the PLAY button.

The multifunction display changes as follows.



- (5) Select "RPN" with the plus (+) and minus (-) buttons.



RPN: The inserted floppy disk is replayed continuously (repeat on).

RPF: Continuous replay of the inserted floppy disk is canceled (repeat off).

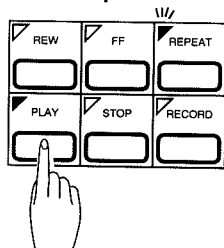


Note:

To stop the continuous replay setting halfway through, press the DISK button.

- (6) Press the PLAY button.
Continuous replay will be set.
The FUNCTION button lamp will turn off.
- (7) Press the SELECT button to select the song to start the performance.

- (8) Press the PLAY button.
The PLAY button lamp turns on.
Songs recorded on the floppy disk will be continuously replayed.
The REPEAT button lamp flashes.



- (9) Press the STOP button to stop the song.

Notes:

- Pressing the PLAY button will begin playing the song again.
- Either of the following will cancel continuous replay.
 - Press the DISK button to turn off the lamp.
 - After selecting "RPF" in step 4, press the PLAY button.

■ Copying a Song onto the Same Floppy Disk

The following procedure will copy a song to a different song number on the same floppy disk.

Note:

Turn the disk write protect off (close the window) during copying.

- (1) Insert a sequencer disk.
(2) Press the DISK button.
The DISK button lamp lights.

Note:

If "REG" or "RHY" is displayed on the multifunction display, the inserted disk is not a sequencer disk.

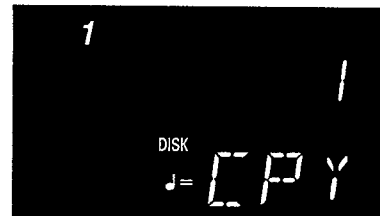
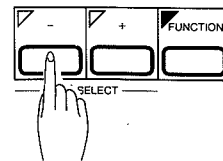
- (3) Press the FUNCTION button.
The FUNCTION button lamp lights and the function mode is entered.
The multifunction display changes as follows.



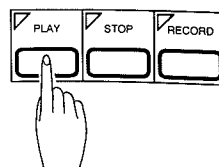
Note:

Copying cannot be performed if the disk is not a sequencer disk.

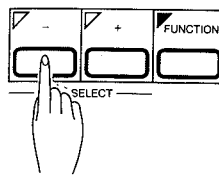
- (4) Select "CPY" with the plus (+) and minus (-) buttons.



- (5) Press the PLAY button.

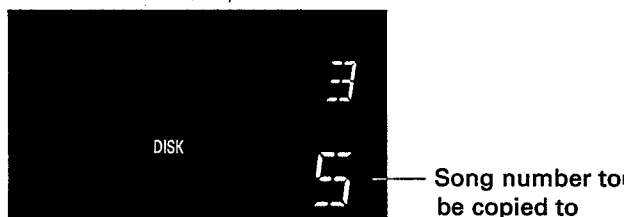
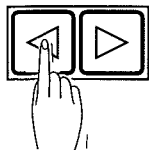


- (6) Select the original song number to be copied with the plus (+) and minus (-) buttons.
The multifunction display changes as follows.



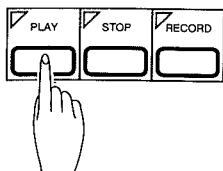
Original song number to be copied

- (7) Select the song number to be copied to with the up and down buttons.

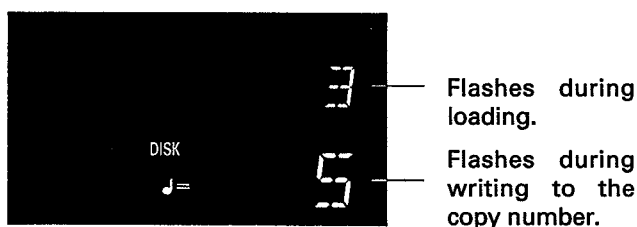


Notes:

- To stop copying halfway through, press the DISK button.
 - The song's original number and the song number to be copied to cannot be the same.
- (8) Press the PLAY button.



Copying is started. The multifunction display appears as follows during copying.



When copying is completed, the DISK button lamp lights continuously, the function mode is automatically canceled, and the display returns to song number selection.

Notes:

- If the original song number and the song number to be copied to are the same, or if the song selected to be copied is not a recorded song, a long beep is sounded, and "ERR" is displayed on the multifunction display. (Copying is not possible.)
- If the disk capacity is not sufficient, a long beep is sounded, and "ERR" is displayed on the multifunction display. Copying cannot be performed at this time.

■ Copying a Song to a Separate Floppy Disk

The following procedure is for copying a song to a separate sequencer disk.

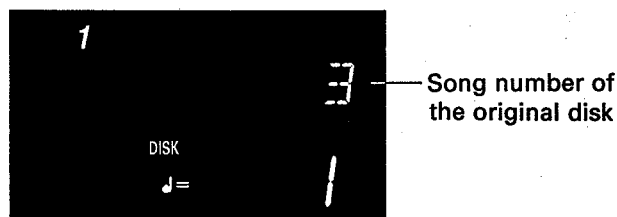
Notes:

- The write protect for the disk to be copied to must be off (window closed) during copying.
- The disk that the original song is on, and the disk it is to be copied to, must both be sequencer disks.
- When copying a long song, the floppy disks will be exchanged many times during the copying process. Be careful not to mix up the original disk with the copy disk.
- If the song number being copied to has already been recorded, the previous recording will be deleted.

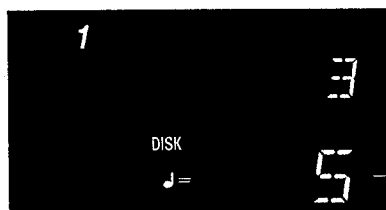
- (1) Insert the sequencer disk with the original song.
- (2) Press the DISK button.
The DISK button lamp lights.
- (3) Press the FUNCTION button.
The FUNCTION button lamp lights and the function mode is entered.
- (4) Select "CPY" with the plus (+) and minus (-) buttons.



- (5) Press the PLAY button.
- (6) Select the song number of the original disk with the plus (+) and minus (-) buttons.



- (7) Select the song number of the disk to be copied to with the up and down buttons.

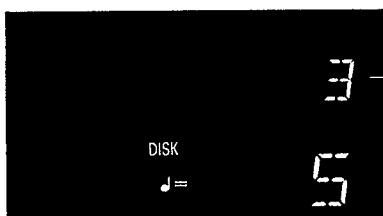


Song number of the disk to be copied to

Note:

To stop copying halfway through, press the DISK button.

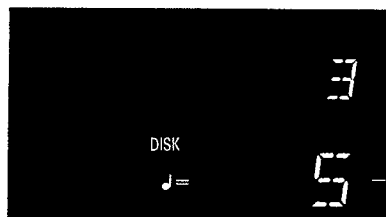
- (8) Press the RECORD button.
The song to be copied is loaded.
The multifunction display appears as follows during loading.



Flashes during loading

A beep sounds when loading is finished.

- (9) Insert the sequencer disk to be copied to.
(10) Press the RECORD button.
The loaded song will be copied to the disk.
The multifunction display appears as follows during copying.



Flashes during writing

A beep sounds when copying of the loaded data is finished.

- (11) Insert the original sequencer disk.
(12) Press the RECORD button.
Data is loaded a second time.
A beep sounds when loading is completed.

- (13) Repeat steps from 8 to 11. When copying is completely finished, "OK" will be displayed on the multifunction display. The FUNCTION button lamp will turn off, the function mode will be canceled, and the display will return to the song number selection display.

Note:

The number of times the disks must be exchanged depends on the length of the song, but even short songs must repeat this process at least two times.

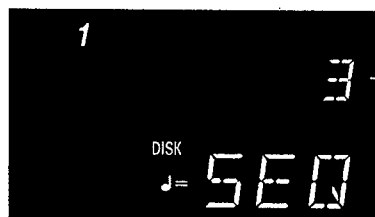
■ Song Deletion

This is to delete unnecessary songs from the floppy disk.

Note:

Turn the disk write protect off (close the window) during deletion.

- (1) Insert a sequencer disk.
- (2) Press the DISK button.
The DISK button lamp lights.
- (3) Select the song number to be deleted with the plus (+) and minus (-) buttons.



Song number to be deleted

Note:

To stop deletion halfway through, press the DISK button.

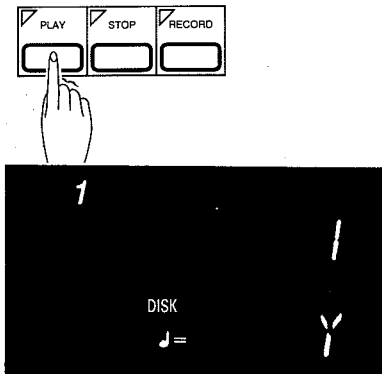
- (4) Press the FUNCTION button.
The function mode is entered and the FUNCTION button lamp lights.
- (5) Select "DEL" with the plus (+) and minus (-) buttons.



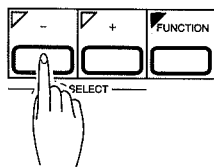
Note:

To stop deletion halfway through, press the DISK button.

- (6) Press the PLAY button.



- (7) Select "Y" with the plus (+) and minus (-) buttons.



Y: To perform deletion.
N: Not to perform deletion.

- (8) Press the PLAY button.
Deletion is performed.

When deletion is completed, a beep is sounded, and "OK" is displayed on the multifunction display.

The FUNCTION button lamp turns off, the function mode is automatically canceled, and the display returns to the song number selection display.

Note:

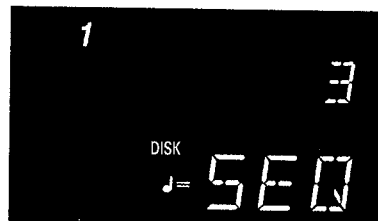
If the write protect is on, a long beep is sounded, and the function mode is canceled. (Deletion cannot be performed.)

■ **Selection of Expression During Replay**

This selects whether replay will be according to expression data recorded on the system tracks, or by performance.

- (1) Insert a sequencer disk.
- (2) Press the DISK button.
The DISK button lamp lights.

- (3) Select the song number with the plus (+) and minus (-) buttons.

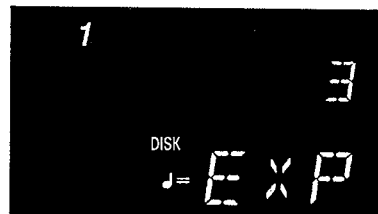


Note:

To stop setting halfway through, press the DISK button.

- (4) Press the FUNCTION button.
The function mode is entered and the FUNCTION button lamp lights.

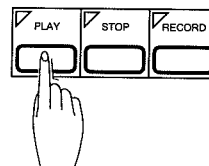
- (5) Select "EXP" with the plus (+) and minus (-) buttons.



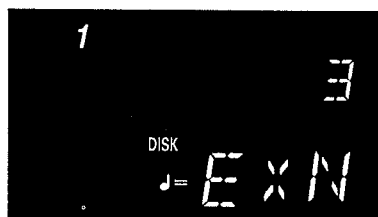
Note:

To stop setting halfway through, press the DISK button.

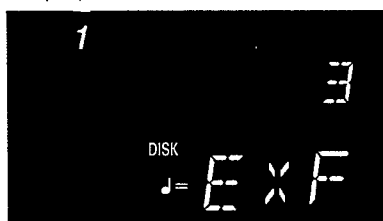
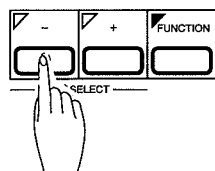
- (6) Press the PLAY button.



The multifunction display changes as follows.



- (7) Select "EXF" with the plus (+) and minus (-) buttons.

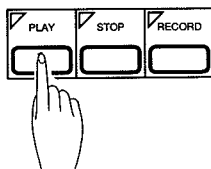


EXN: Replay on the system track expression.

EXF: Control the volume with the expression pedal.

- (8) Press the PLAY button.

The system track expression is set to cancel and the display returns to its original display.



■ Hand Percussion Recording

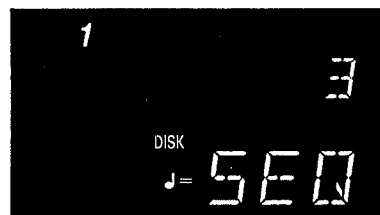
In order to replay lower keyboard code songs and hand percussion songs at the same time, hand percussion performance has been recorded on the system track.

Note:

Recorded hand percussion performance will be replayed regardless of whether the hand percussion button is on or off.

- (1) Insert a sequencer disk.
- (2) Press the DISK button.
The DISK button lamp lights.

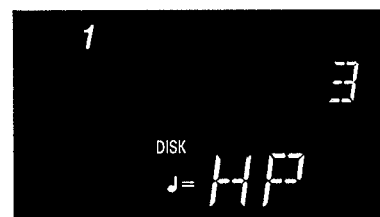
- (3) Select the song number with the plus (+) and minus (-) buttons.



Note:

To stop setting halfway through, press the DISK button.

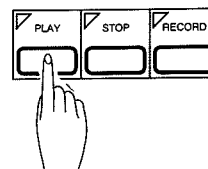
- (4) Press the FUNCTION button.
The function mode is entered and the FUNCTION button lamp lights.
- (5) Select "HP" with the plus (+) and minus (-) buttons.



Note:

To stop setting halfway through, press the DISK button.

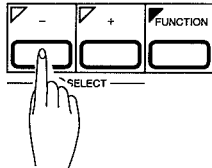
- (6) Press the PLAY button.



The multifunction display changes as follows.

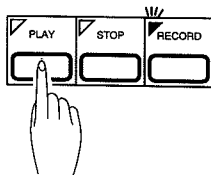


- (7) Select "HPN" with the plus (+) and minus (-) buttons.

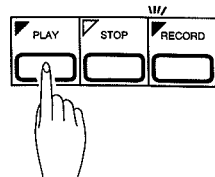


HPN: Hand percussion performance is recorded.
HPF: Hand percussion performance is not recorded.

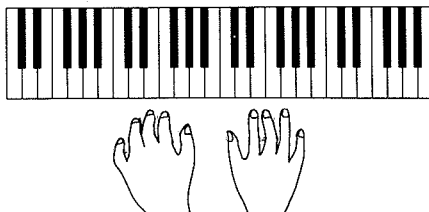
- (8) Press the PLAY button.
The RECORD button lamp flashes and the hand percussion button lights.



- (9) Press the PLAY button.
The PLAY button lamp lights, and after the setting data is transmitted, the first two measures of the introduction begins along with the normal recording.



- (10) Perform on the lower keyboard.
The hand percussion performance will be recorded.



- (11) When the performance is finished, press the STOP button.
The lamps in the PLAY and RECORD buttons will turn off and recording will stop.

■ Reformatting a Floppy Disk

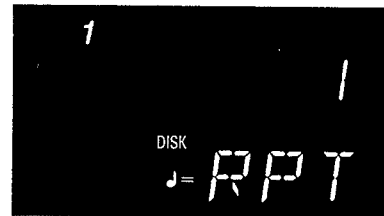
This reformats a floppy disk that has already been formatted once.

This is performed when changing between a sequencer disk and a registration disk, etc.

Notes:

- Turn the disk write protect off (close the window) during formatting.
- When formatting a disk that has data, the existing data will be deleted.

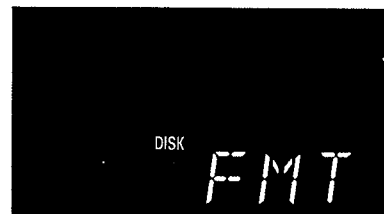
- (1) Insert a floppy disk whose contents may be deleted.
- (2) Press the DISK button.
The DISK button lamp lights.
- (3) Press the FUNCTION button.
The function button lamp lights and the FUNCTION mode is entered.
The multifunction display changes as follows.



Notes:

- "FMT" will be displayed if the inserted floppy disk is formatted as either a registration disk or a rhythm disk.
- If a disk other than one for the SR is used, the function mode is automatically entered, and formatting may be selected. (Refer to page 42.)

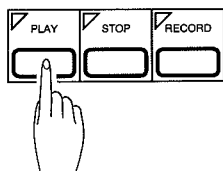
- (4) Select "FMT" with the plus (+) and minus (-) buttons.



Note:

Only "FMT" can be selected if the inserted floppy disk is formatted as either a registration disk or a rhythm disk.

- (5) Press the PLAY button.

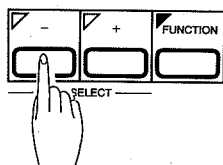


The multifunction display changes as follows.



- (6) Select the type of format with the plus (+) and minus (-) buttons.

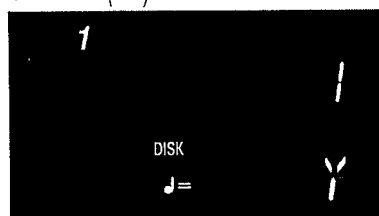
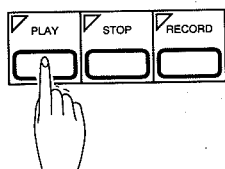
SEQ: Formats a sequencer disk.
REG: Formats a registration disk.
RHY: Formats a rhythm disk.



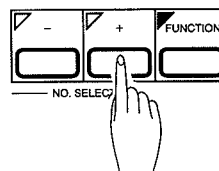
Note:

Press the DISK button to stop formatting.

- (7) Press the PLAY button.

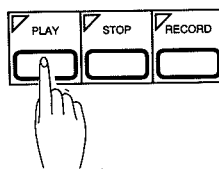


- (8) Select "Y" with the plus (+) and minus (-) buttons.



Y: Formatting will be performed.
N: Formatting will not be performed.

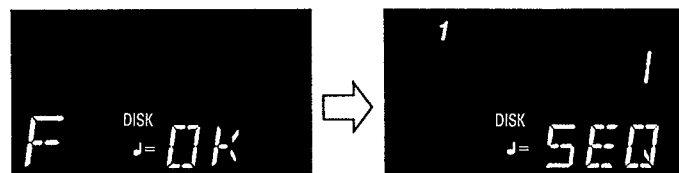
- (9) Press the PLAY button.
Numbers are displayed on the multifunction display.
The numbers gradually count down from 80.



- (10) Formatting is finished.

When the numbers reach "0", a beep is sounded and "OK" is displayed on the multifunction display. The FUNCTION button lamp turns off when formatting is finished.

The type of formatting that occurred is displayed on the multifunction display.



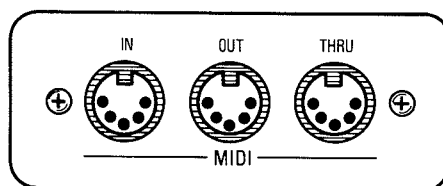
SEQ: Sequence disk
REG: Registration disk
RHY: Rhythm disk

Note:

If the write protect is on, a long beep is sounded, and the format mode is canceled.

8. MIDI

The letters MIDI stand for the Musical Instrument Digital Interface, an international standard for connecting synthesizers, drum machines, and other electric/electronic musical instruments so that they can exchange keyboard and program data. Through this interface, the organist can play a variety of instruments from a single instrument. (The exact types of data that may be exchanged and the functions that may be controlled vary with the instruments connected through this interface.)



8.1 Introduction

■ Connectors

Instruments with the MIDI interface feature the following three receptacles which accept the DIN plugs on MIDI cables.

- IN** Accepts the incoming keyboard, program, and other types of data.
- OUT** Transmits keyboard, program, and other types of data.
- THRU** Passes the data received on to another instrument.

■ Connections

The MIDI interface allows electric/electronic musical instruments to exchange keyboard, program, and other types of data. The instruments can be connected so that the data flows only one way — with only one instrument transmitting and the other(s) receiving — or so that data flows both ways. The organist specifies the data pathways by connecting the MIDI OUT terminal of the transmitting instrument to the MIDI IN terminal of the receiving one.



The data received may also be retransmitted to other instruments through the MIDI THRU terminal.

■ Channels

Since the MIDI interface can connect several instruments at once, the organist needs a way to specify which instrument is to play. This is done by assigning channel numbers, numbers between 1 and 16, to the instruments.

■ Features

The MIDI interface on the SR Series of organs transmits the following types of data.

(a) Keyboard data

By connecting the organ to a synthesizer, the organist can play the organ from the synthesizer keyboard and vice versa.

(b) Channel specifications

The organ always assigns the following MIDI channels to the keyboard.

Channel	Each keyboard.
Ch. 4.	SOLO (Not available on the SR50)
Ch. 1.	UPPER
Ch. 2.	LOWER
Ch. 3.	PEDAL
Ch. 16.	SYSTEM
Ch. 10.	Hand Percussion

The registration memory section can receive on any MIDI channel between 1 and 16.

(c) Program change

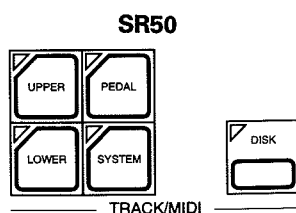
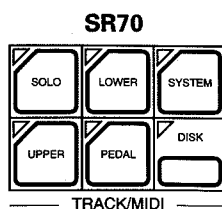
The organist can send a command from the organ to a synthesizer to change the program number.

(d) Volume control

The organist can control the synthesizer volume from the organ and vice versa.

(e) Clock signals

Signals from the organ can synchronize the drum machine tempo and rhythm with those of the organ. Other signals start and stop the drum accompaniment. (For the procedure, see p.55.)



When the Electronic Organ is the Transmission Side

When each of the TRACK/MIDI buttons are on (lit), MIDI is turned on.

Output occurs even when each track button is on in the disk sequencer.

When the Electronic Organ is the Reception Side

When each of the TRACK/MIDI buttons are on (lit), MIDI is turned on.

When the disk sequencer is used, MIDI cannot perform reception even when each track button is on.

SOLO: Solo keyboard information is transmitted and received.

UPPER: Upper keyboard information is transmitted and received.

LOWER: Lower keyboard information is transmitted and received.

PEDAL: Foot keyboard information is transmitted and received.

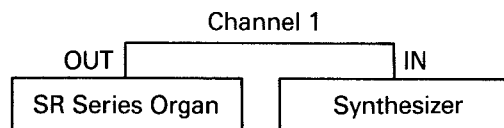
SYSTEM: Information is transmitted and received on the panel's buttons and volume, and hand percussion.

■ Example: Connecting the Organ to a Synthesizer

● Procedure

- (1) Using a MIDI cable, connect the MIDI OUT terminal on the organ to the MIDI IN terminal on the synthesizer so that the organ can control the synthesizer. (This example has the organist playing the synthesizer from the upper keyboard on the organ.)
- (2) set up the synthesizer to receive on channel 1. (Refer to the synthesizer's Instruction Manual for the procedure.)

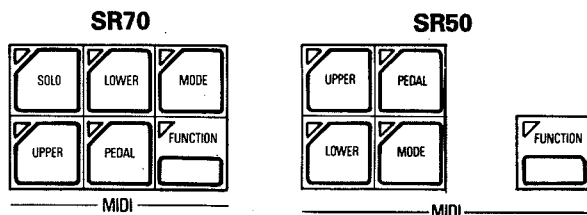
When the LED in the UPPER switch is on, all notes played on the upper keyboard will sound on the synthesizer.



8.2 Operation

■ Switching the interface on and off

When the LED in the DISK switch is off, the SOLO, UPPER, LOWER, and PEDAL switches (UPPER, LOWER, and PEDAL) serve to connect and disconnect the keyboards from their assigned channels.



Note:

Some notes may be lost if the organ and the other instrument have a different number of keys on their keyboards.

● WARNING

Turning off the power or disconnecting the interface cable while a key is pressed and the interface is operative may cause the receiving instruments to sound continuously. Cut the power to silence the instrument.

In certain situations (described below), deactivating the MIDI interface while a key is pressed may also produce the same undesired effect. This only happens when (a) the receiving instrument is in the OMNI ON mode and (b) the two instruments have been assigned different channels. The best way to prevent this is to ignore the OMNI ON mode and assign both instruments to the same channel. If it does occur, however, either turn off the receiving instrument or turn the MIDI interface back on and play something on the keyboard.

■ Volume Adjustment

In the SR Series, the SR volume can be adjusted depending on the MIDI instruments and sequencers it is connected to, as well as adjusting the volume of the MIDI instruments.

The SR can transmit and receive expression information of MIDI channel 16.

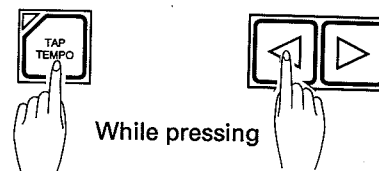
(It cannot transmit and receive expression information of other channels.)

■ Synchronous Performances with Connected Instruments

By using MIDI, electronic organ rhythms can be played synchronously with drum machines or other instruments, and the electronic organ itself may be played together with other instruments.

Electronic Organ As Transmission Side

- (1) INT is set when the power is turned on or after using the disk sequencer.
When the tempo is displayed on the multifunction display, the electronic organ's clock (tempo information) is already set to INT (internal). As a result, all instruments connected to the electronic organ play along at the tempo set by the organ. When EXT is displayed on the multifunction display, carry out the following operation.
- (2) Press either the up or the down button while holding down the TAP TEMPO button.



The indication on the multifunction display changes from EXT to INT.

Note:

When the DISK button is on (lit), the setting is usually INT and EXT cannot be set.

- Start/Stop -

When the clock (tempo information) indicates INT, a start signal/stop signal is output during the following times.

- ① Starting or stopping disk sequencer recording, and replay
- ② Starting or stopping a rhythm or automatic accompaniment
- ③ A stop signal is transmitted when the rhythm selection button that is lit is pressed, and soon afterwards a start signal is transmitted
- ④ When rhythm stop for the left foot switch is pressed

However, when the disk sequencer is recording or re-playing, a start or stop signal will not be transmitted even when items ②, ③, and ④ occur.

Electronic Organ As Reception Side

- (1) When EXT is displayed on the multifunction display
The clock (tempo information) is already set to EXT (External). The rhythm of the electronic organ plays along with the rhythm of the drum machine or other rhythm instruments. When the tempo is displayed on the multifunction display (set to INT), carry out the following operation.

Note:

EXT cannot be set when the DISK button is on (lit).

- (2) Press either the up or the down button while holding down the TAP TEMPO button.



The indication on the multifunction display changes from INT to EXT .

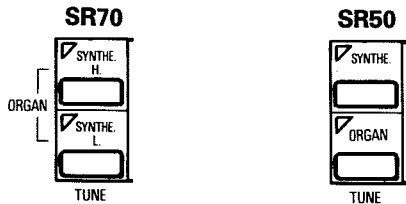
9. Other Functions

9.1 TUNE Function

The TUNE switches allow you to adjust the organ's pitch to match recordings or other instruments in an ensemble.

Note:

When the power is first applied, the value is always 0.



• **Procedure**

- (1) On the SR70, simultaneously press the SYNTH. H and SYNTH. L switches. On the SR50, press the ORGAN switch.

Note:

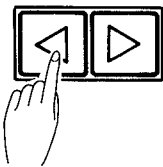
The word TUNE should appear on the multifunction display.



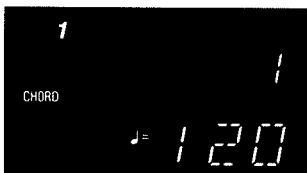
- (2) Use the arrow keys to raise or lower the pitch.

Note:

The display gives the relative pitch in units of 1.5 cents over the range 0-30 on either side.



- (3) Press twice either SYNTH. H or SYNTH. L. (on the SR50, ORGAN) to set the desired pitch and return to the normal tempo display.



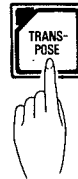
9.2 TRANSPOSE Function

The TRANSPOSE switches allow you to adjust the keyboard key you are playing in up half an octave or down half an octave in semitone increments. It therefore eliminates the need to transpose from one key to another to match a vocalist or other instrument.



• **Procedure**

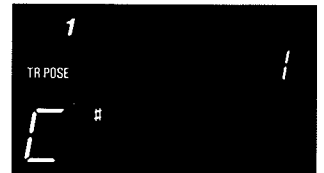
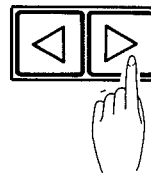
- (1) Press the TRANSPOSE switch.



Note:

The word TRANSPOSE should appear on the multifunction display.

- (2) Use the arrow keys to raise or lower the key.



Note:

The range is half an octave on either side (G-F#).

- (3) Press the TRANSPOSE key to return to the normal tempo display.



Note:

The LED in the TRANSPOSE switch flashes whenever the key is other than the standard, C.

- (4) To return to the standard key, use the procedure in steps 1-3 above.

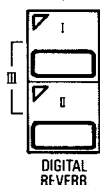
9.3 TOUCH SENS Control

This set of switches controls the sensitivity of the organ's key touch (speed). The higher the setting, the greater the sensitivity.



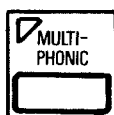
9.4 DIGITAL REVERB Switch

These two switches, singly or both together as DIGITAL REVERB III, add reverberation of three different lengths to the organ output.



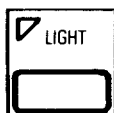
9.5 MULTIPHONIC Switch

Pressing the MULTIPHONIC switch connects the extra speakers inside the organ and feeds the same output to the MULTIPHONIC OUT jack on the rear panel.



9.6 LIGHT Switch

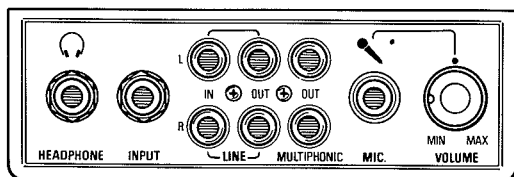
This switch controls the keyboard illumination.



10. Front and Rear Panel Connectors

10.1 Front Panel Connectors

Your KAWAI is equipped with the following features located under the right side of the lower keyboard.



■ HEADPHONE JACK

With a headphone plugged in this jack, you can enjoy playing your organ without disturbing others.

■ INPUT JACK

You can play an additional instrument such as a synthesizer through your organ by plugging it into this jack. The volume is controllable by the TOTAL VOLUME and the EXPRESSION PEDAL.

■ LINE IN & LINE OUT

Connect your cassette tape decks, for example, into those jacks. You can control the signal level of the LINE IN by the TOTAL VOLUME and that of the LINE OUT by the EXPRESSION PEDAL.

Do not connect both jacks at the same time, however —there will be howling.

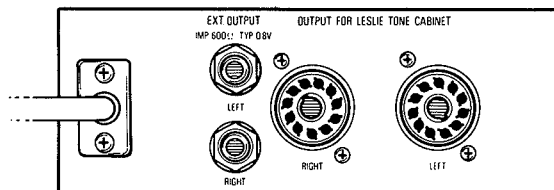
■ MULTIPHONIC OUT

It provides the same signal output as Multiphonic speakers inside the organ.

■ MIC

While you are playing the organ, you or your family can sing to your playing and enjoy the vocals together. To control the volume, regulate the dial control VOLUME.

10.2 Rear Panel Connectors



■ EXT. OUTPUT

These three jacks provide 600Ω, 0.8V (typical) outputs on channels for amplification by an external tone cabinet.

■ OUTPUT FOR LESLIE TONE CABINET

These two connectors provide LEFT and RIGHT channel outputs for Leslie tone cabinets.

11. Specifications

		SR70	SR50
KEYBOARDS (Solo/Upper/Lower/Pedal)		44/61/61/25	—/49/49/13
KEYBOARD CONDUCTOR	Solo	Synthe. H, L, Upper Pre. Inst.	—
	Upper	Tibia/Percus, Orchestra I, II, Preset Instrument, Synthe.L	Tibia/Percus, Orchestra, Preset Instrument, Synthesizer
	Lower	Tibia, Orchestra I, II, Preset Instrument	Tibia, Orchestra, Preset Instrument, Synthesizer
	Pedal	Tibia, Orchestra, Synthe. H, L	Tibia, Orchestra
TIBIA DRAWBAR/PERCUS	Upper	16', 8', 5 1/3', 4', 2 2/3', 2', 1 3/5', 1 1/3', 1' Percus 5 1/3', 4', 2 2/3', 2', Click	16', 8', 5 1/3', 4', 2 2/3', 2', 1' Percus 5 1/3', 2 2/3'
		Sus., Subtone (Tibia), Forte, Decay (Percus)	Sus. (Tibia), Forte, Decay (Percus)
	Lower	16', 8', 5 1/3', 4', 2 2/3', 2', 1 3/5', 1 1/3', 1'	8', 4', 2 2/3', 2'
	Pedal	16', 18'	
ORCHESTRA	Upper	<I> Strings I, II, Brass I, II, Reeds I, II, Vocal, Cosmic <II> Strings I, II, Brass I, II, Reeds, Cosmic	Strings I, II, III IV, Brass I, II, III, Reeds I, II, Vocal, Cosmic I, II,
		Sus. I, II, III, (Orch. I), Sus. I, II, III (Orch. II), Vari., Touch, Volume I, II	Sus. I, II, III, Vari., Touch, Volume
	Lower	<I> Strings I, II, Brass, Reeds, Vocal I, II <II> Strings, Brass, Reeds, Cosmic	Strings I, II, Brass I, II, Reeds, Vocal I, II, Cosmic
		Sus. I, II, III, (Orch. I), Sus. I, II, III (Orch. II), Vari., Touch, Volume I, II	Sus. I, II, III, Vari., Touch, Volume
PRESET INSTRUMENT	Upper	Ensemble Bass, String Bass, Tuba, Electric Bass, Funk Bass, Cosmic <2nd Tone> Timpani I, II	Ensemble Bass, String Bass, Tuba, Electric Bass, Funk Bass, Cosmic
		Sus. I, II, III, Vari., Touch, Volume	Sus. I, II, III, Volume
	Lower	Piano, Harpsichord, Electric Piano, Vibraphone, Marimba, Acoustic Guitar, Jazz Guitar, Hawaiian Guitar, Banjo, Chime, Cosmic, Accordion, Strings, Brass Sus. I, II, III, Vari., Touch, Volume	Piano, Harpsichord, Electric Piano, Vibraphone, Marimba, Guitar, Hawaiian Guitar, Banjo, Cosmic, Strings I, II, Brass Sus. I, II, III, Vari., Touch, Volume
SYNTHESIZER		<H&L> Trombone, Sax, Trumpet, Horn, Clarinet, Bassoon, Oboe, Harmonica, Flute, Pan Flute, Piccolo, Whistle, Violin, Electric Guitar, Cosmic I, II Porta. I, II, III, Oct. Up, Down, Pitch U., D., Touch, Touch Vib (Solo), Porta, Touch (Upper & Pedal), Vari I, II, III, Volume H., L.	Trombone, Sax, Trumpet, Horn, Clarinet, Oboe, Flute, Pan Flute, Whistle, Violin, Electric Guitar, Cosmic Porta. I, II, III, Touch, Touch Vib, Vari. I, II, III, Volume
EFFECT		Upper Tibia Chorus (Leslie), Lower Tibia Chorus (Leslie), Tibia Tremolo (Leslie), Digital Reverb I, II, III	Upper Tibia Chorus, Lower Tibia Chorus, Tibia Tremolo, Digital Reverb I, II, III
RHYTHM SECTION	Preset	Waltz, March, Swing I, II, Ballad I, II, Tango, Bolero/Beguine, Latin I, II, Samba, Bossanova, 8 beat I, II, Disco, 16 Beat, Variation I, II, III Fill In I, II, III, Intro/Ending	
	Program	Program I, II, Write, Input, Reset, Erase, All Clear, Extract, Move, , , , ,	
	Hand Percussion	BD1, 2, SD1, 2, H. Tom, M. Tom, L. Tom, Ride Cym., Crash Cym., H. Hat 1, 2, 3, Brush 1, 2, Rim Shot, Claps, Conga, 1, 2, 3, 4, Bongo 1, 2, 3, 4, Timbales 1, 2, 3, Agogo 1, 2, Cuica 1, 2, Guiro 1, 2, Triangle 1, 2, Tambourine, Cowbell, Maracas, Claves, Cabasa, Surdo, Castanets, Roll (Touch Bar), Cymbal (Touch Bar)	
	Controls	Rhythm, Tone, Volume	
AUTOMATICS	Auto Play Orchestra	Accompaniment (Orch. I), Accompaniment, Arpeggio I, II, III (Orch. II), Bass <Orchestra I> Piano, Electric Guitar, Volume <Orchestra II> Piano, E. Guitar/Harp, Guitar, Strings, Brass, Phaser, Volume	
	Auto Melody Chord	I, II, III	I, II
	Others	One Finger, Memory, Constant, minor (Touch Bar), 7th (Touch Bar)	
ONE TWO PLAY		64 Preset Registrations	
REGISTRATION MEMORY		[1] ~ [7], Bank, Drawbar, Rhythm Fix, Write	[1] ~ [6], Bank, Drawbar, Rhythm Fix, Write
DISK SEQUENCER		Play, Record, Stop, FF, REW, Repeat, -/+, Function	
MULTI DISPLAY		Rhythm, Chord, Program Sequencer, Program Card, MIDI, Tune, Transpose	
MIDI		Solo, Upper, Lower, Pedal, System, Disk	Upper, Lower, Pedal, System, Disk
TUNE		Synthe. H, L, Organ	Synthe., Organ
OTHER CONTROLS		Transpose, Touch Sens., Multiphonic (SR70 only), ▼ (Down), ▲ (Up), Tap Tempo, Right Foot Switch, Left Foot Switch, Sustain Knee Lever, Light, Total Volume, Expression Pedal, Power Switch	
OTHER FITTINGS		Headphone Jack (Stereo), Input Jack, Line In (L, R), Line Out (L, R), Multiphonic Out (L, R), Microphone Jack, Microphone Volume, Ext. Output (L, R), Leslie Output (L, R), MIDI In, Out, Thru	
SOUND SYSTEM	Power	60W x 3, 10W x 2	55W x 2, 10W x 2
	Speakers	6.5cm x 2, 8cm x 2, 12cm x 2, 30cm x 2, 20cm Leslie x 1	6.5cm x 2, 8cm x 2, 12cm x 2, 30cm x 2
DIMENSIONS (W/D/H)		1338 x 744 x 1159mm (52 5/8" x 29 1/4" x 45 5/8")	1228 x 710 x 1052mm (42 3/8" x 28" x 41 3/8")
WEIGHT [Pedal] <Bench>		143kg [30kg] <15kg> (315lbs [66lbs] <33lbs>)	125kg <6.5kg> (275lbs <15lbs>)

Specifications are subject to change with or without notice.

Function. . .		Transmitted					
		Solo	Upper	Lower	Pedal	System	Remark
Basic Channel	Default Changed	4 X	1 X	2 X	3 X	16 X	
Mode	Default Messages Altered	— X —	— X —	— X —	— X —	— X —	
Note Number	True Voice	48-102*, —** —	31-102*, 43-102** —	31-102*, 31-90** —	31-66*, 31-54** —	X X	
Velocity	Note ON Note OFF	○ v=1-127 X	○ v=1-127 X	○ v=1-127 X	○* X** X	X X	* v=1-127 ** v=64
After Touch	Key's Ch's	X ●	X ●	X ●	X X	X X	
Pitch Bend		X	X	X	X	X	
Control Changes	11					●	Expression
Prog Change	True #						
System Exclusive		●	●	●	●	●	
Common	: Song Pos : Song Sel : Tune	X X X	X X X	X X X	X X X	X X X	
System Real Time	: Clock : Commands	○ ○	○ ○	○ ○	○ ○	○ ○	(FA, FC)
Aux Messages	: Local ON/OFF : All Notes OFF : Active Sense : Reset	X ○ ○ X	X ○ ○ X	X ○ ○ X	X ○ ○ X	X ○ ○ X	(123)
Notes	* SR70 ** SR50 Each key has a MIDI on/off switch. Solo keyboard is not available on SR50.						

Mode 1 : OMNI ON, POLY

Mode 2 : OMNI ON, MONO

Mode 3 : OMNI OFF, POLY

Mode 4 : OMNI OFF, MONO

○ : Yes

X : No

● : Changeable to ○ or X

Function. . .		Recognized					
		Solo	Upper	Lower	Pedal	System	Remark
Basic Channel	Default Changed	4* X	1 X	2 X	3 X	16 X	
Mode	Default Messages Altered	3 X X	3 X X	3 X X	3 X X	3 X X	
Note Number	True Voice	0-127 36-96	0-127 36-96	0-127 36-96	0-127 36-96	X X	
Velocity	Note ON Note OFF	○ X	○ X	○ X	○* X** X	X X	
After Touch	Key's Ch's	X ●	X ●	X ●	X ●	X X	
Pitch Bend		X	X	X	X		
Control Changes	11					●	Expression
Prog Change	True #						
System Exclusive		○	○	○	○	○	
Common	: Song Pos : Song Sel : Tune	X X X	X X X	X X X	X X X	X X X	
System Real Time	: Clock : Commands	● ●	● ●	● ●	● ●	● ●	(FA, FC)
Aux Messages	: Local ON/OFF : All Notes OFF : Active Sense : Reset	X ○ ○ X	X ○ ○ X	X ○ ○ X	X ○ ○ X	X ○ ○ X	(123)
Notes	* SR70 ** SR50 Each key has a MIDI on/off switch. Solo keyboard is not available on SR50.						

Mode 1 : OMNI ON, POLY

Mode 2 : OMNI ON, MONO

Mode 3 : OMNI OFF, POLY

Mode 4 : OMNI OFF, MONO

○ : Yes

X : No

● : Changeable to ○ or X

KAWAI

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