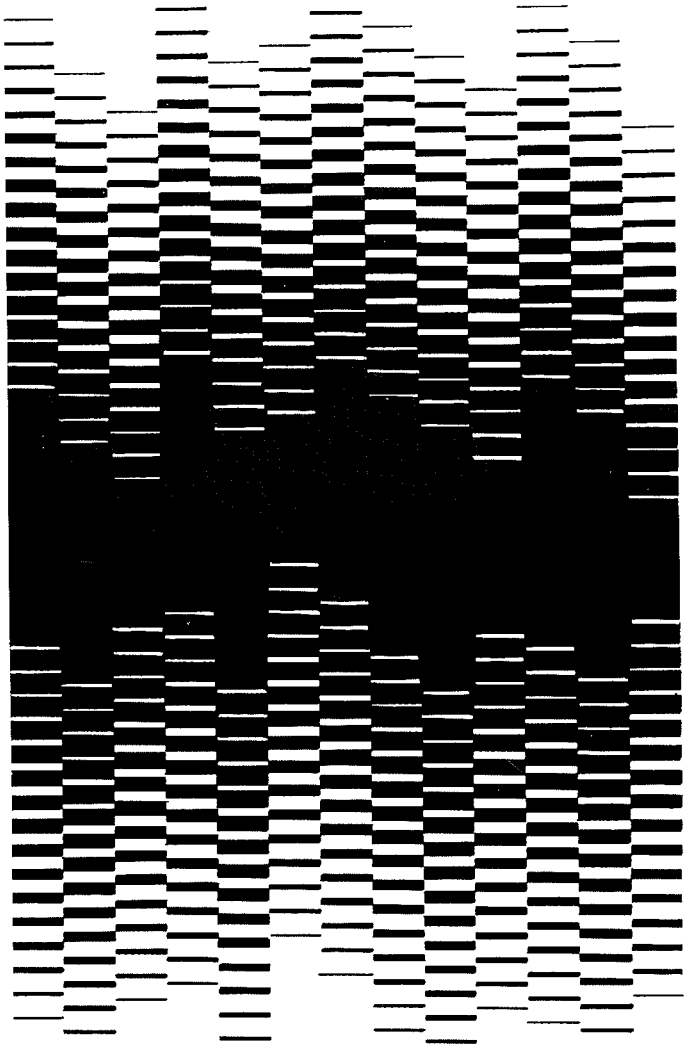
KAWAI

Digital Electronic Organs

SR3·SR4

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 interference to radio communications. The rules with which it must comply afford reasonable protection against interference when used in most locations. However, there can be no guarantee that such interference will not occur in a particular installation. If this equipment does cause interference to radio or the related 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 instrument.
—plug the instrument into a different outlet so that it and receiver are on different branch circuits.
—consult the dealer or a qualified service personnel.

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, 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.
4. The product should be located so that its location or position does not interfere with its proper ventilation.
5. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
6. Keep the instrument away from electrical motors, neon signs, fluorescent light fixtures, and other sources.
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. Always turn the power off when the instrument is not in use. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
10. During an electrical storm, turn off the power and unplug.
11. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
12. 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.
13. 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.

WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK. DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

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 lighting 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.

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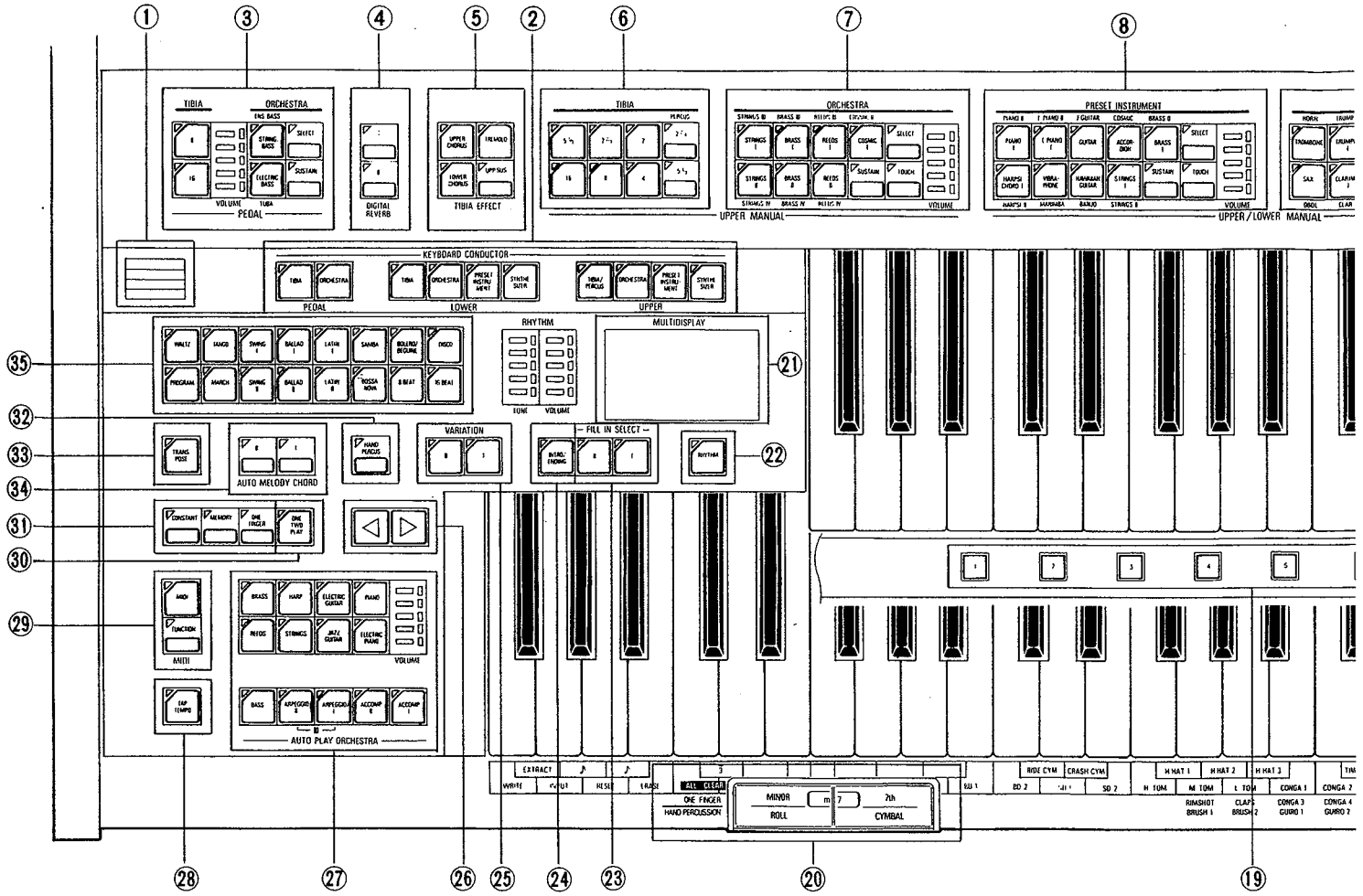
How to care for your Kawai Organ

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 switch will flash three times. Battery must be replaced only by a qualified service personnel.

This organ is not designed for commercial use but for household use only.


TIBIA
ORCHESTRA
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PRESET INSTRUMENT
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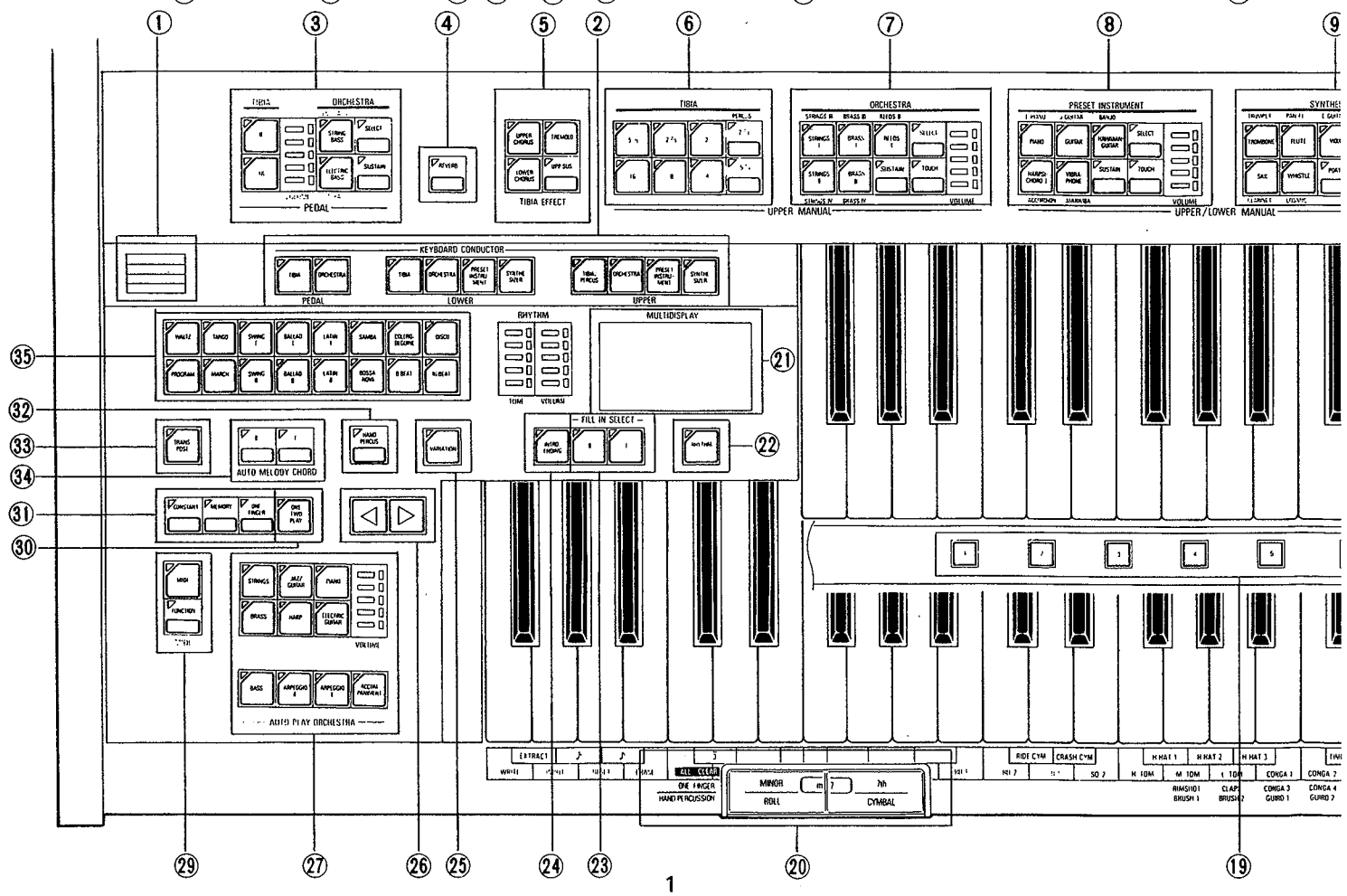
TIBIA
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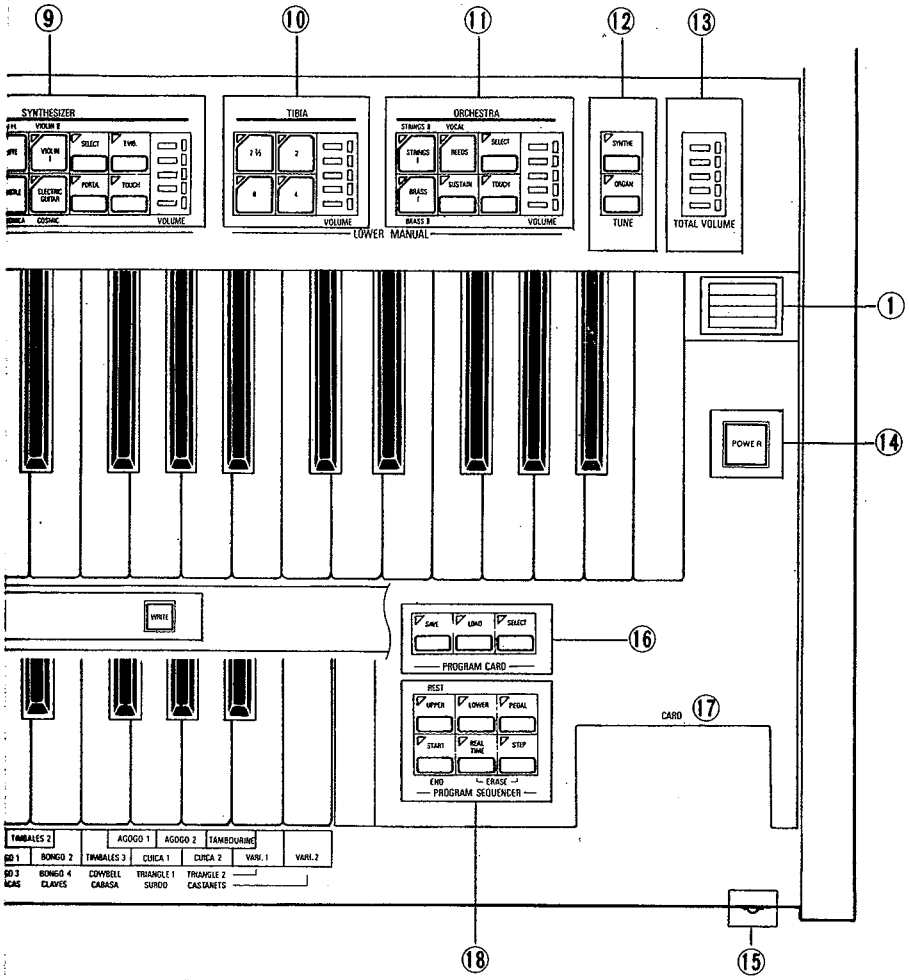
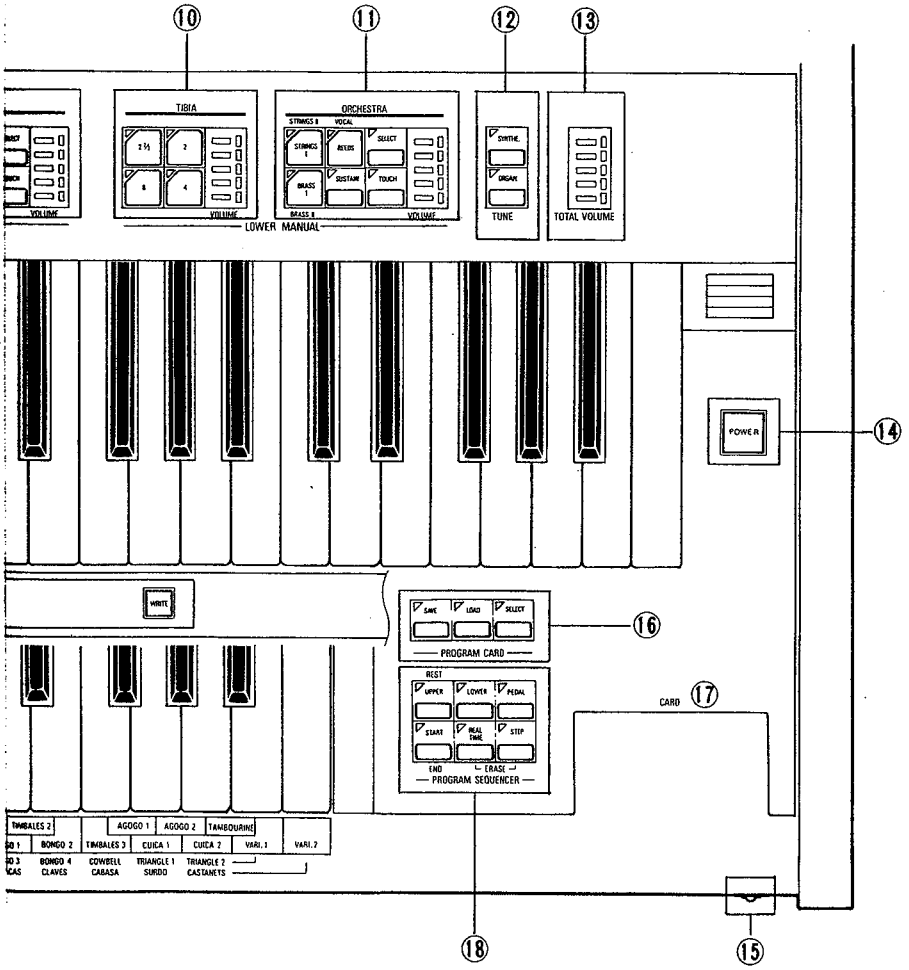
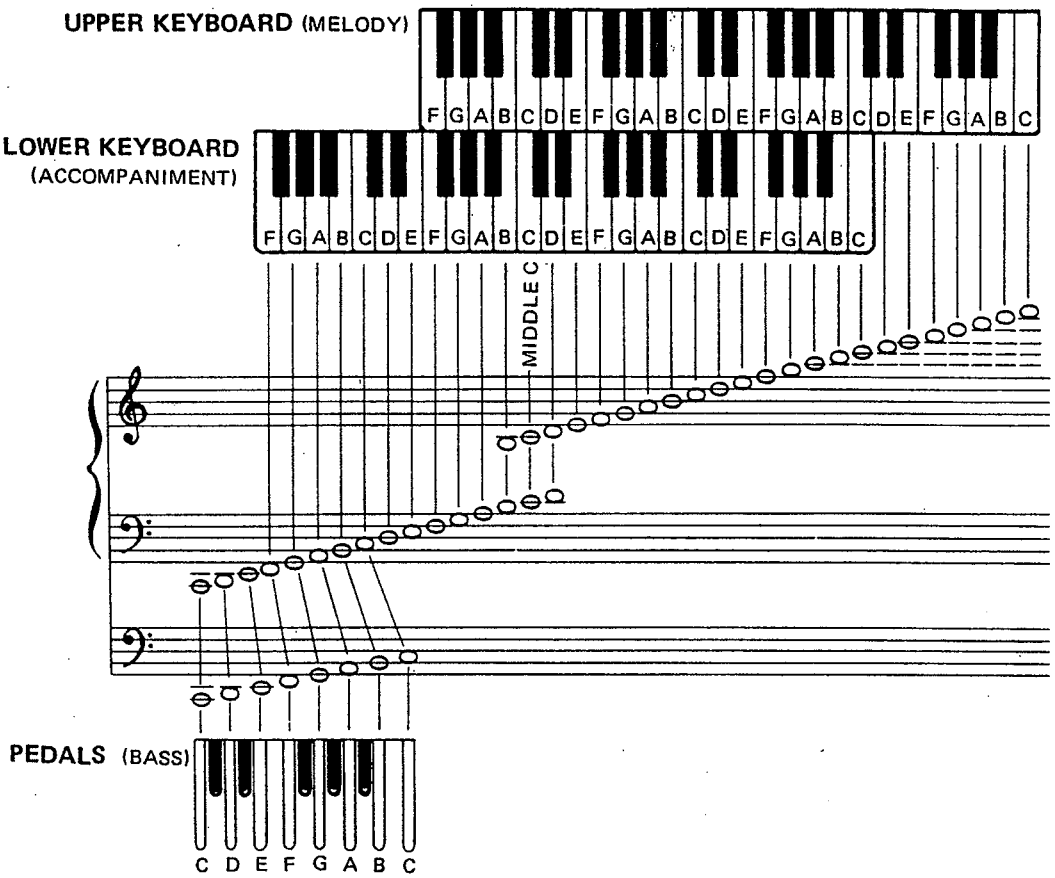




1. Before Playing

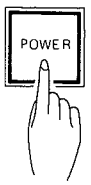
1.1 Control Panel Location Guide

① Panel Speaker
② Keyboard Conductor
③ Tone, Effect, and Volume Control Block fo Pedal
④ Digital Reverb (SR4), Reverb (SR3)
⑤ Tibia Tone Effect Control Block
⑥ Tibia/Percus (upper keyboard) Tone Block
⑦ Orchestra (upper keyboard) Tone, Effect, an Volume Control Block
⑧ Preset Instruments (upper and lower key boards) Tone, Effect, and Volume Block
⑨ Synthesizer (upper and lower keyboards Tone, Effect, and Volume Block
⑩ Tibia (lower keyboard) Tone and Volum Control Block
⑪ Orchestra (lower keyboard) Tone, Effect, an Volume Control Block
⑫ Tune
⑬ Total Volume Control
⑭ Power Switch
⑮ Pilot Lamp
⑯ Program Card Section
⑰ Card Slot
⑱ Program Sequencer
⑲ Registration Memory Section
⑳ Touch Bars
㉑ Multifunction Display
㉒ Rhythm Switch
㉓ Fill In Select Switches
㉔ Intro-Ending Switch
㉕ Variation Switches
㉖ Arrow Switches
㉗ Auto Play Orchestra Block
㉘ Tap Tempo Switch (SR4 only)
㉙ MIDI Switches
㉚ One Two Play Switch
㉛ One Finger, Memory, Constant
㉜ Hand Percussion
㉝ Transpose Switch
㉞ Auto Melody Chord Section
㉟ Rhythm Selection Switches


UPPER KEYBOARD (MELODY)
F G A B C D E F G A B C D E F G A B C D E F G A B C
LOWER KEYBOARD
(ACCOMPANIMENT)
F G A B C D E F G A B C D E F G A B C D E F G A B C
MIDDLE C
PEDALS (BASS)
C D E F G A B C

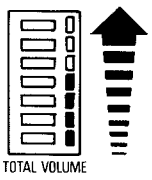
1.2 Getting Ready to Play

(1) Turn power on.

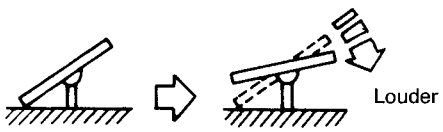


(2) Set the Total Volume control at mid range volume.

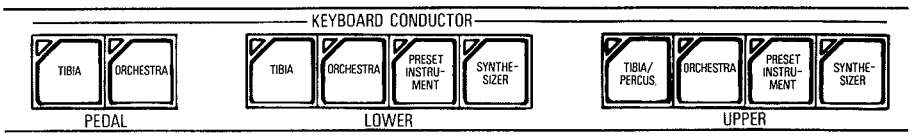
Note:
Volume is fixed at the level of button depressed at random. If any two neighboring buttons are depressed simultaneously, the volume will be fixed at the middle of the two levels. This applies to other volume controls as well.



(3) Step on the expression pedal half way.
This pedal too controls the total output volume of the organ. Use this pedal during playing to give softer or louder expression to your music performance.



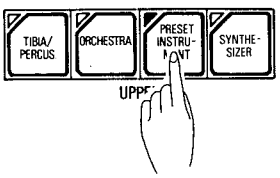
2. Keyboard Conductor



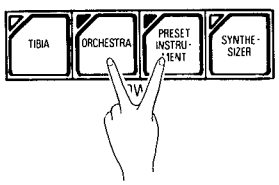
Sometimes a particular piece requires several changes of tone and volume during the course of a performance. Frequently, these changes come in groups of three or more. The KEYBOARD CONDUCTOR section provides, in one handy location, the controls necessary to make these changes with the minimum of fuss.
Similarly, there is a choice of four for the UPPER keyboard, four for the LOWER keyboard, and two for the PEDAL keyboards. 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.



(2) To change from TIBIA/PERCUS 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/LOWER) control block.



It is also possible to mix two registrations by holding down the switch for the current one and pressing a second switch. The exceptions are the PRESET INSTRUMENT and the SYNTHESIZER registrations. The preset instrument control blocks and the synthesizer control blocks can only the used for one keyboard at a time.

Note:
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 setting (except program registration, PROGRAM SEQUENCER and INTRO/ENDING) are therefore always available when you next turn on the organ. However, the organ tuning automatically returns to 0 (see page 42), and the clock to internal.

3. Tones and Effects

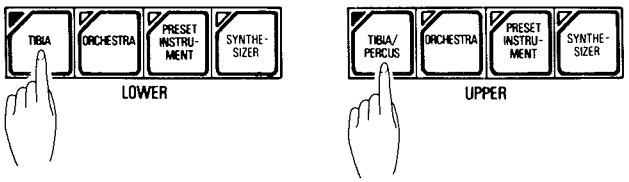
3.1 TIBIA

The UPPER, LOWER and PEDAL keyboards have a TIBIA control block. Together, the three provide a wide range of possible combinations.

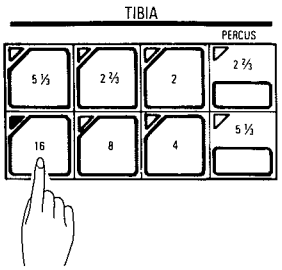
■ UPPER and LOWER TIBIA

(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) Select a tone.

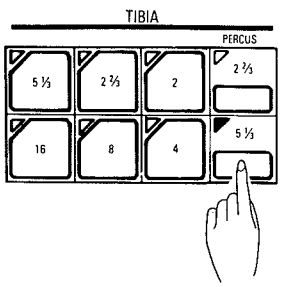


Note:
These switches are toggles: Pressing the switch turns on the effect: pressing it a second time turns it off.

• Upper and lower keyboard tibia tone volume control

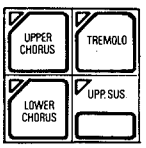
This organ does not have independent volume control on the tibia group tones of upper keyboards. The volume should be adjusted by the total volume control. Adjust other tones by individual volume controls on the basis of tibia group volume.

(3) (OPTIONAL) Press the PERCUS switch in the UPPER MANUAL control to add an accent to each pitch of TIBIA tone.



(4) Use the TIBIA EFFECT switches to add or subtract effects.

• Effect Switches



TIBIA EFFECT

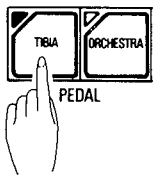
UPP.SUS — This adds a lingering SUSTAIN effect to the UPPER keyboard tibia. It does not affect percussion output.
LOWER CHORUS — This adds a slow swelling to the LOWER keyboard tibia.
UPPER CHORUS — This adds a slow swelling to the UPPER KEYBOARD tibia and percussion.
TREMOLO — This switches the UPPER 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.)

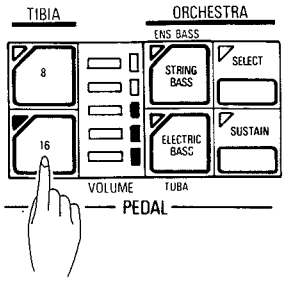
UPPER CHORUS	LOWER CHORUS	TREMOLO	UPPER keyboard effect	LOWER keyboard effect
ON	OFF	OFF	CHORUS	—
ON	OFF	ON	TREMOLO	—
OFF	ON	OFF	—	CHORUS
OFF	ON	ON	—	TREMOLO
ON	ON	OFF	CHORUS	CHORUS
ON	ON	ON	TREMOLO	TREMOLO
OFF	OFF	OFF	—	—

■ PEDAL TIBIA

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



(2) Select a tone.
PEDAL TIBIA and ORCHESTRA produce only one note at a time. If you simultaneously play several notes, only the last one played will sound.



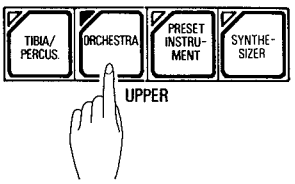
Note:
The only effect available for the PEDAL keyboard tibia is the SUSTAIN in the PEDAL ORCHESTRA control block.

3.2 ORCHESTRA

The UPPER, LOWER and PEDAL keyboards have a ORCHESTRA section.

■ UPPER ORCHESTRA

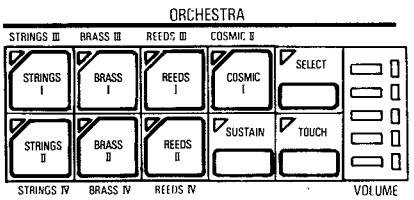
(1) Changing registrations is as easy as pressing the ORCHESTRA switch in the KEYBOARD CONDUCTOR section.



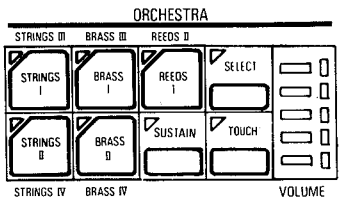
Note:
At this point, you may wish to double-check by sounding a note on the corresponding keyboard. If not, this entire step becomes optional.

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

SR4



SR3



When the SELECT switch is activated, you can select the alternate tone indicated outside of the selector switches.

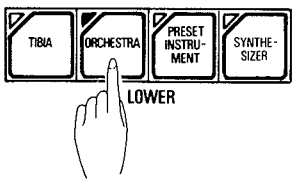
Example: With SELECT switch on, STRINGS I becomes STRINGS III.

(3) (OPTIONAL) Add effects.
SUSTAIN — This adds extra resonance (prolongs sound) to the ORCHESTRA output.
TOUCH — This allows you to control tone, volume and effect by varying the key force, speed (SR4 and SR3), and pressure (SR4).

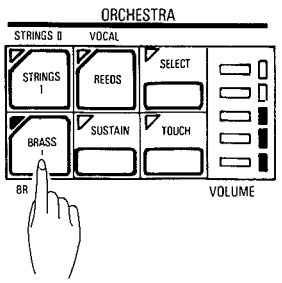
(4) Adjust the volume as necessary.

■ LOWER ORCHESTRA

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



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



When the SELECT switch is activated, you can select the alternate tone indicated outside of the selector switches.

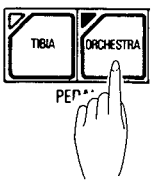
Example: With SELECT switch on, REEDS becomes VOCAL.

(3) (OPTIONAL) Add effects from the ORCHESTRA effect control block.
SUSTAIN — This adds extra resonance (prolongs sound) to the ORCHESTRA output.
TOUCH — This allows you to control tone, volume and effect by varying the key force, speed (SR4 and SR3), and pressure (SR4) you apply to the keyboard.

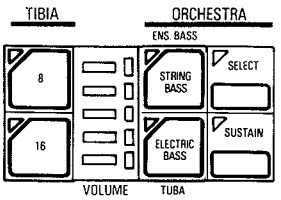
(4) Adjust the volume as necessary.

■ PEDAL ORCHESTRA

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



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



When the SELECT switch is activated, you can select the alternate tone indicated outside of the selector switches.

Example: With the SELECT switch on, ELECTRIC BASS becomes TUBA.

(3) (OPTIONAL) Add effects from the ORCHESTRA effect control block.
SUSTAIN — This adds extra resonance (prolongs sound) to the PEDAL ORCHESTRA output.

(4) Adjust the volumes as necessary.
Pedal volume is effective to the tones of both tibia and orchestra groups.

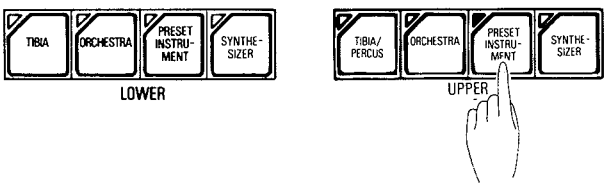
3.3 PRESET INSTRUMENT

The SR Series of organs provides separate PRESET INSTRUMENT control sections for the LOWER and UPPER keyboards.

■ UPPER/LOWER PRESET INSTRUMENT

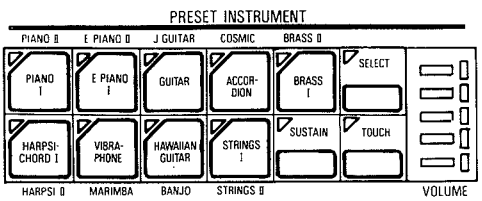
- **Procedure**

(1) Changing registrations is as easy as pressing the appropriate PRESET INSTRUMENT switch in the KEYBOARD CONDUCTOR section. A preset instrument can only be used for one keyboard at a time.

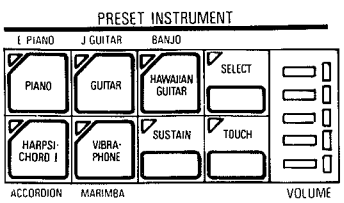


(2) Select a tone from the ones offered in the UPPER/LOWER MANUAL section. Pressing a switch automatically cancels the preceding instrument.

SR4



SR3



When the SELECT switch is activated, you can select the alternate tone indicated outside of the selector switches.

Example: With the SELECT switch on, VIBRA-PHONE becomes MARIMBA.

(3) (OPTIONAL) Add effects.
SUSTAIN — This adds extra resonance (prolongs sound) to the PRESET INSTRUMENT output.
TOUCH — This allows you to control tone, volume and effect by varying the key force, speed (SR3 and SR4), and pressure (SR3).

(4) Adjust the volumes as necessary.

Note:
Certain instruments offer additional effects.
HAWAIIAN GUITAR — If this tone is selected, the right foot switch converts itself automatically to glide effect switch. This switch lowers the tone of Hawaiian guitar by one semitone in pitch. In this case, the foot switch cannot be used as fill-in and ending switch.
MARIMBA/BANJO (SR4 only) — The organ continuously repeats notes. If the Touch function is on, the force applied on the keyboard determines the speed of this repetition. As you increase the pressure on a key, the repeat gradually gets faster.

3.4 SYNTHESIZER

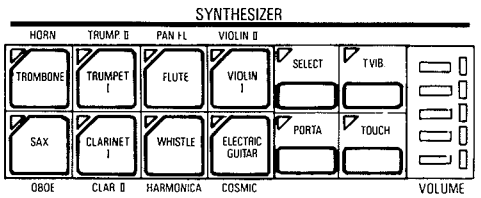
The SYNTHESIZER is for the UPPER or LOWER keyboard.

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

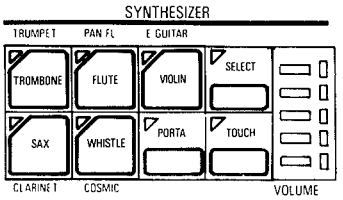
*A synthesizer can only be used for one keyboard at a time.

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

SR4



SR3



When the SELECT switch is activated, you can select the alternate tone indicated outside of the selector switches.

Example: With the SELECT switch on, TROMBONE becomes HORN. (TRUMPET on the SR3)

Note:
SYNTHESIZER produces only one note a time. If you simultaneously play several notes, only the last one played will sound. If you lay a tone over other tone groups, the highest note will sound.

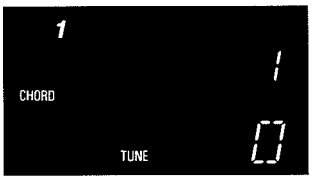
(3) (OPTIONAL) Add effects.
PORTA — These smooth the transitions (continuous Glide) between notes for legato playing.
TOUCH — This allows you to control tone, volume and effect by varying the key force, speed (SR4 and SR3), and pressure (SR4) you apply to the keyboard.
T. VIB. (Touch Vibrato) (SR4 only) — This adds vibrato to the keyboard output. The amount and speed depend on the pressure applied to the key.

(4) Adjust the volume as necessary.

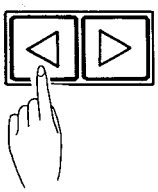
• Synthesizer Tuning

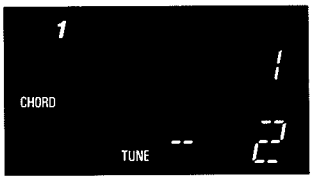
The SR Series allow you to adjust the pitch of the synthesizer relative to the other tones in increments of 1.5 cents up to a maximum of 45 cents on either side.

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



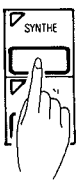
(2) Use the arrow switches in the RHYTHM section to adjust the relative pitch.

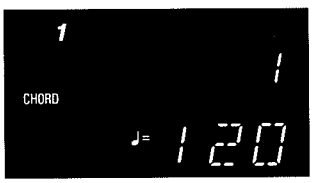




Note:
The display gives the relative pitch in units of 1.5 cents over the range 0-30 on either side.

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





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.

• Cents:

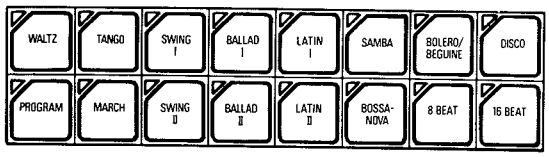
Term used by Piano Tuners to determine different degrees of pitch to tune a piano.

4. Rhythm Accompaniment

The rhythm section of your SR4 organ provides authentic rhythm accompaniment with a choice of 45 prerecorded rhythm patterns (30 patterns on the SR3). 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 facility which allows musicians to alter the standard pattern to suit their individual need.

4.1 Procedure

(1) Select a rhythm pattern. Pressing one of the 16 selector switches automatically cancels the current one.



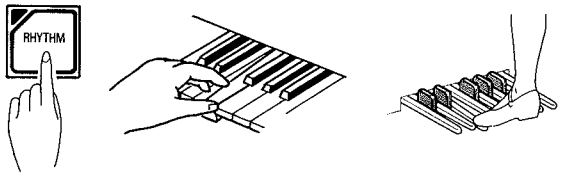
Note:
The organ ignores PROGRAM if the corresponding programmed pattern (See p.16) do not exist.

(2) (OPTIONAL) Select a variation.

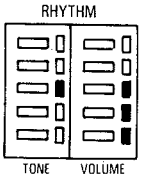
SR4 **SR3**

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.

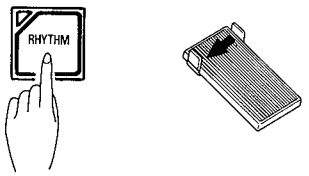


(4) Adjust the volume and tone.



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

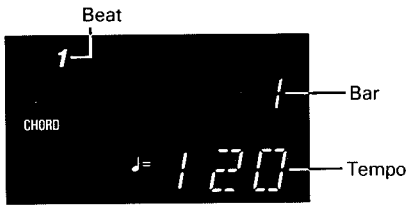
(5) To stop the rhythm accompaniment, press either the RHYTHM switch or the left foot switch.



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)

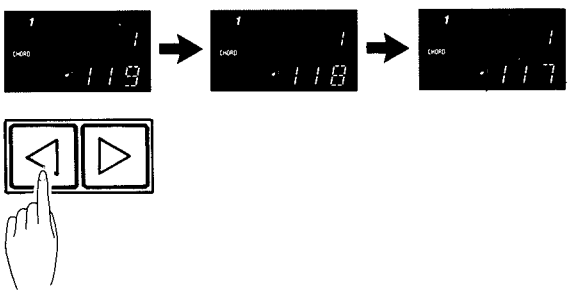
(3) **Bar** — The two digits in the upper right hand corner indicate the bar (1 or 2) in the rhythm pattern. If the rhythm accompaniment is on, they indicate the number of the bar you are playing. Otherwise, the number "1" will always appear. (For a single-bar pattern, the number will also be just "1".)

■ Tempo Control

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

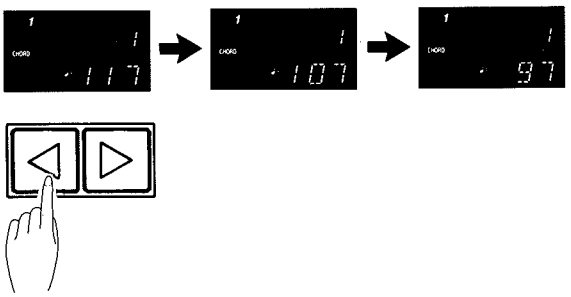
Note:
The organ's range is 50 - 300 beats per minute.

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



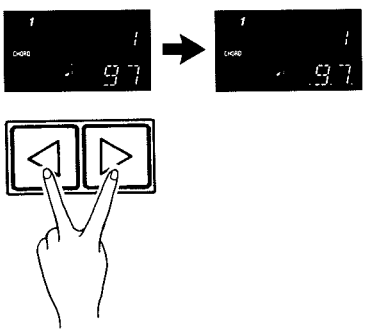
(2) A heavy tap changes it by 5.

(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.



Note:
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 (SR4 only)

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

• Procedure

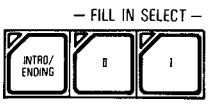
Press the TAP TEMPO switch three times at the desired tempo. The organ will measure the intervals and automatically change the value on the display. The rhythm will automatically change to the speed you tap in.

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.

■ FILL INs, INTRO, and ENDING

The three switches in this section offer the musician four 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 two produce variations of rhythm breaks or fill-ins for use during the performance.



• Procedure (FILL IN)

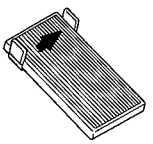
(1) Make sure that the rhythm accompaniment is on standby — that is, that the LED in the RHYTHM switch is on. If the LED is off, fill-ins are not available.

(2) Press either of the FILL IN SELECT switches.

Notes:

- You may also do this while the rhythm accompaniment is on.
- FILL IN II inserts a break.

(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.

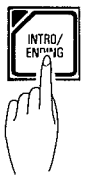


(4) Alternatively, if the rhythm accompaniment is on standby, press the right foot switch to play the fill-in followed by the regular pattern.

- **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.



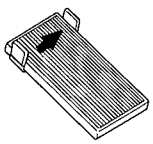
Note:
After a one-bar introduction, the rhythm accompaniment starts. The LED in the INTRO/ENDING switch flashes during the introduction and then goes out.

- **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.

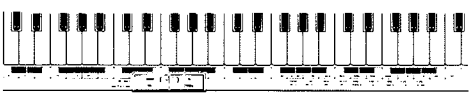
Note:
Switching over to hand percussion disables the automatic accompaniment, and most other function which use the LOWER keyboard.

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

Note:
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).

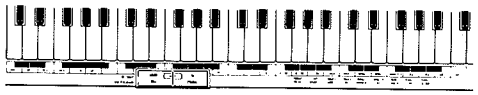
(3) Press the special white key, labelled VARI.1, to change the instrument assignments for the white keys from the second row to the third.

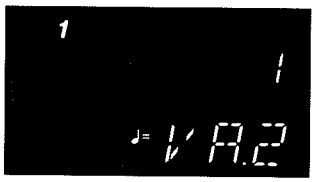
Note:
The message VA.1 should appear on the display.



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

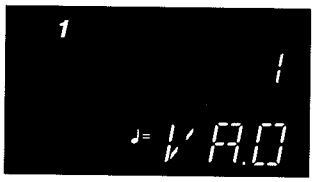
Note:
The message VA.2 should appear on the display.





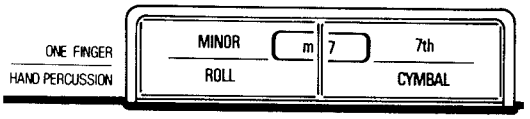
(5) To return to the original assignments, press the most recent VARI key a second time.

Notes:
- The message VA.0 should appear on the display.



- 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 left 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 then press the right foot switch or the pedal keyboard.
- The SR Series also allows you to modify the key assignments. (See p. 21.)

■ 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. 23.)
- The SR Series also allows you to change the touch bar assignments to percussion instruments other than the snare drum and cymbals. (See p. 21.)

4.4 Program Rhythms

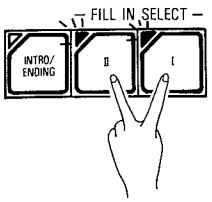
The SR Series rhythm section provides, PROGRAM, for storing edited versions of its standard, pre-recorded rhythm patterns. Since there are 15 prerecorded patterns, each with a standard version and variations, you have a choice of 45 starting points (30 on the SR3).
Similarly, you can also edit and store variations, FILL INs, INTROs, and ENDINGs for the new rhythm patterns in PROGRAM.

I. Basic Procedure

■ Preliminaries

(1) Simultaneously press two 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.



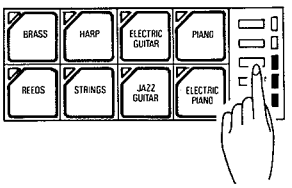
(2) Try the keys on the LOWER keyboard. Note how the volume depends on the force and speed of the keystroke.

(3) Select the rhythm pattern that will serves as the starting point.

Notes:
- 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 FILL-IN switches will continue flashing. (For the editing procedures for INTROs and ENDINGs, see "II. Advanced Procedures" on p. 18.)
- 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 are editing a FILL-IN pattern.

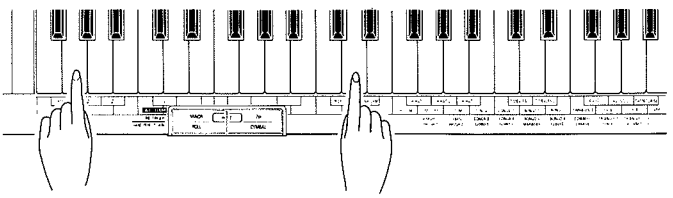
(4) Press the RHYTHM switch to start the rhythm pattern and the metronome.



Note:
Adjust the metronome volume with the 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

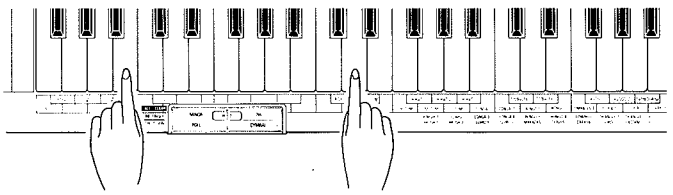
(5) To add to the pattern, hold down the key labelled INPUT (the first G on the lower keyboard) and use the hand percussion keyboard to record the instruments, their patterns, and relative volumes.



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.
- Programming at slower tempo improves your accuracy. You may adjust the tempo any time before you start recording. Later, when you recall the pre-programmed pattern, you may use a faster tempo, if you wish.

■ Deleting Notes

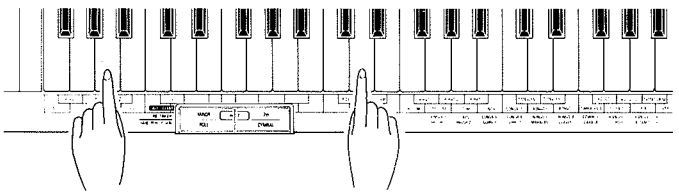
(6) To eliminate notes for a particular instrument from the pattern, hold down the key labelled ERASE (the first B on the lower keyboard) and press the corresponding instrument key for the stretches that you wish to delete.



Note:
Any changes made to the rhythm pattern take effect immediately.

■ Starting Over

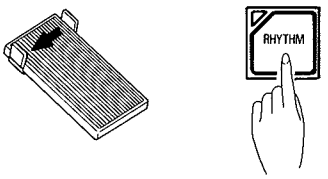
(7) To restore a particular instrument to its starting pattern, hold down the key labelled RESET (the first A on the lower keyboard) and press the instrument key.



Note:
- 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

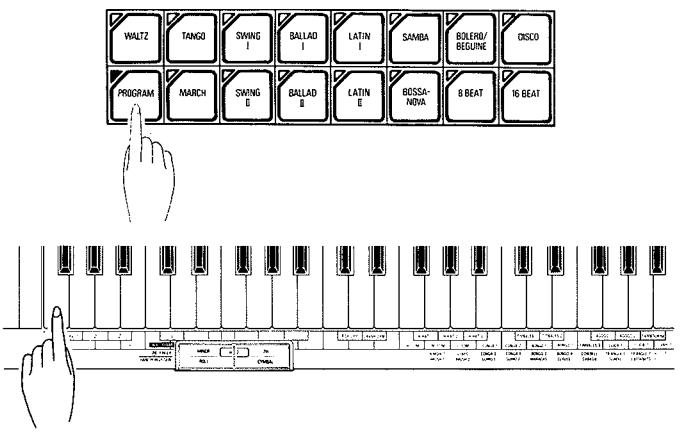
(8) Press the left foot switch or the RHYTHM switch to stop the rhythm accompaniment. You then have a choice:
*Press the RHYTHM switch a second time to restart the rhythm accompaniment for more editing.
*Return to step 2, select another rhythm pattern or variation, and thereby abandon the results of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



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

■ Writing (Storing your new programmed rhythm pattern)

(9) Holding down the key labelled WRITE (the first F on the lower keyboard), press the PROGRAM switch with possibly the FILL IN switch.



Notes:

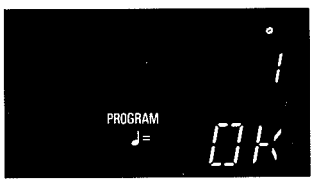
- Pressing the WRITE key turns off the LEDs in the rhythm and variation selector switches and sets those in the pressed switches lighting.
- If you press a FILL IN switch before pressing the PROGRAM switch, its LED will not light. If you press the wrong switch, you may, if you are still holding the WRITE 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.



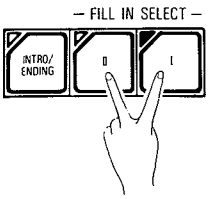
(11) If the message OK does not appear, go back to step 9.

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

■ Quitting:

(12) Simultaneously press two 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.

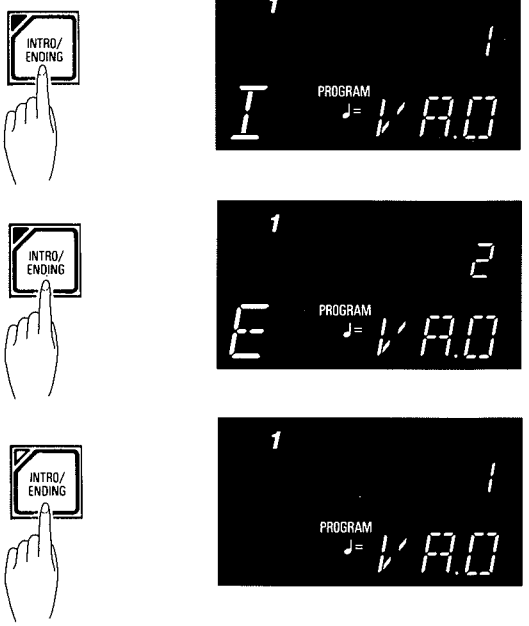


II. Advanced Procedures

■ Editing INTROs and ENDINGs

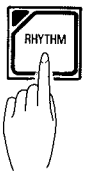
Repeat steps 1 - 3 of the basic pattern (p. 16).

(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.

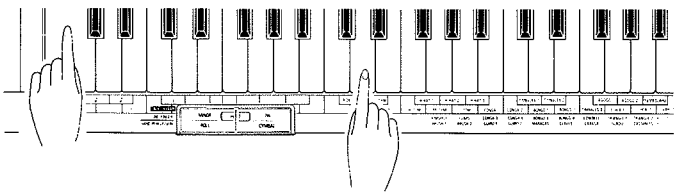


(3) To store the results, hold down the key labelled WRITE (the first F on the lower keyboard), press the switches for the appropriate storage area, and then release the WRITE key.

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 F# 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.

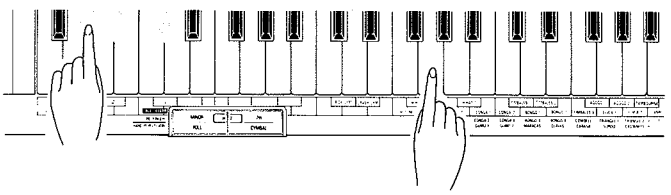
■ Correcting Timing Errors

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>

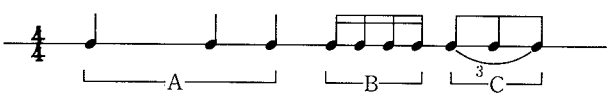
Specify the timing interval by holding down the appropriate key combination — ♪ (the first G# on the lower keyboard) or ♪ (the first A#) plus the optional triplet (the first C#) — as you add notes to the pattern. The organ will then automatically shift notes that are not at the exact positions. (See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



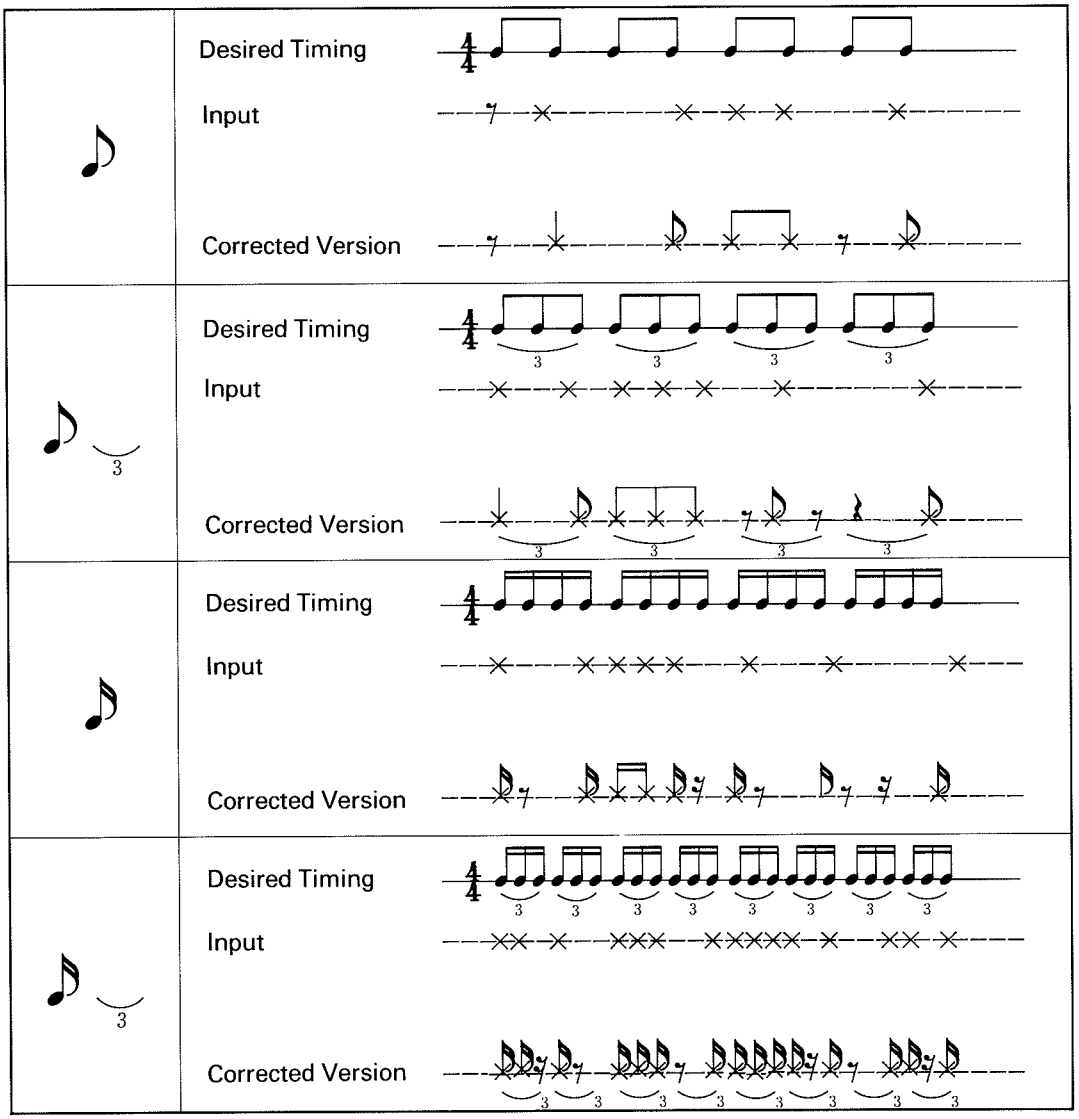
<After Input>

(1) Stop the rhythm.

(2) Specify the timing interval by holding down the appropriate key combination — ♪ (G#) or ♪ (A#) plus the optional triplets (C#).

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

<Examples>

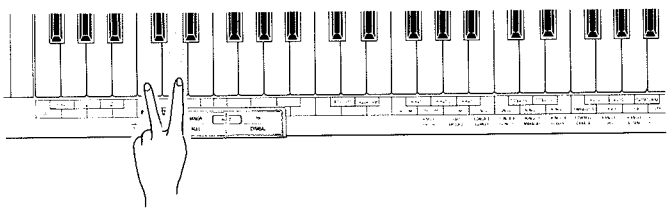

Desired Timing
Input
Corrected Version
Desired Timing
Input
Corrected Version
Desired Timing
Input
Corrected Version
Desired Timing
Input
Corrected Version

■ 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 C and D 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.

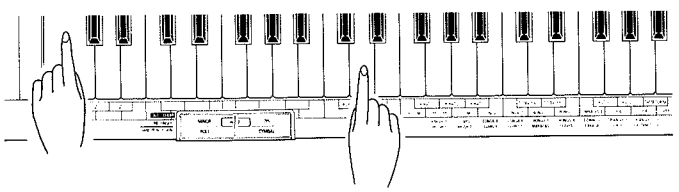
■ Changing Hand Percussion Assignments

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

<LOWER keyboard>

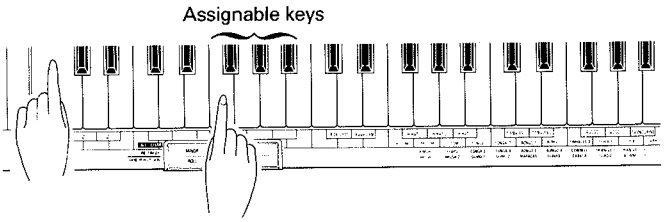
(1) Repeat step 1 of the basic procedure.

(2) Hold down the EXTRACT (F#) key and press the key for the instrument that you wish to reassign.



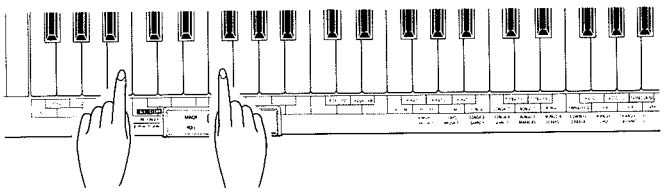
Note:
If you press more than one, the organ chooses the last key pressed.

(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 (B) key and press the key to be cleared.

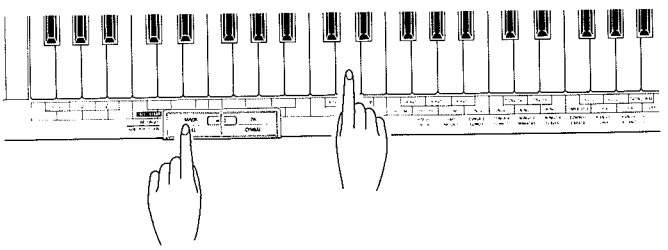


(5) Quit the programming mode with step 12 of the basic procedure.

<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. By varying key force and speed, you can control the volume of the touch bar assignment.



(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 12 of the basic procedure.

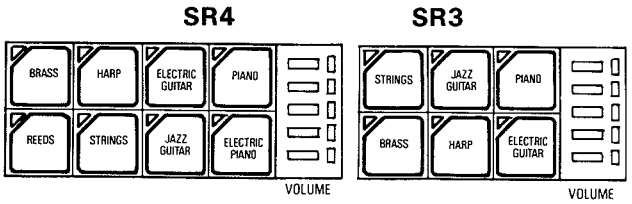
5. Auto Accompaniment System

5.1 AUTO PLAY ORCHESTRA

This section offers automatic bass accompaniment as well as automatic accompaniment by piano, jazz guitar, harp, brass and other instruments.

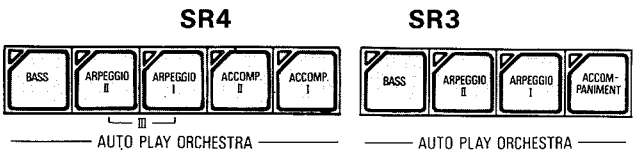
Note:
This function is not available, if program rhythm is selected.

■ Tone Block



These switches control the tone and volume.

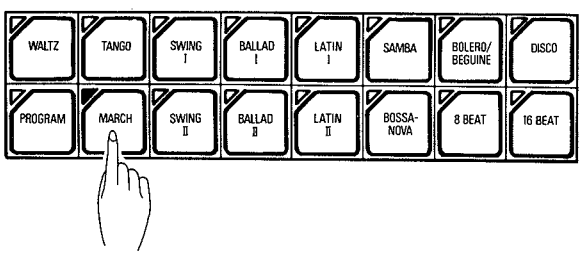
■ Pattern Selecting Switches



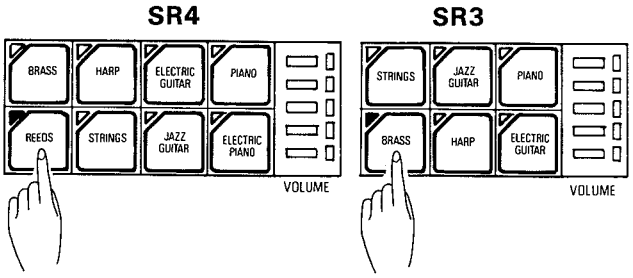
BASS — This switch adds an automatic bass accompaniment based on the KEYBOARD CONDUCTOR and tone settings for the PEDAL TIBIA and PEDAL ORCHESTRA.
ARP I and ARP II — These switches, singly (SR4 and SR3) or together as ARP III (SR4 only), add ORCHESTRA arpeggios.
ACCOM. I and II (ACCOMPANIMENT on the SR3) — These switches add ORCHESTRA chord accompaniments that match the chosen rhythm.

- **Procedure**

(1) Select a rhythm pattern.

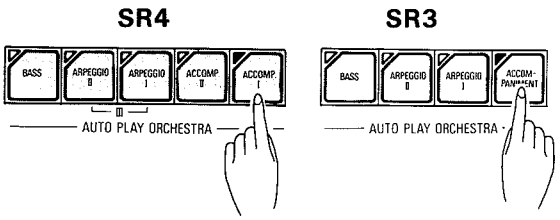


(2) Select the tones for the Tone block and adjust the volumes.

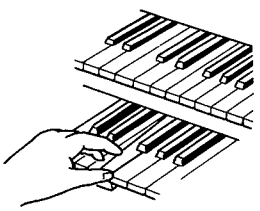


Notes:
- Although this block normally uses only a single tone —selecting a new one automatically cancels the old.
- The ORCHESTRA BRASS tone is not one tone, but the organ automatically selects the one best matching the rhythm pattern.

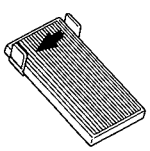
(3) Select patterns to place them on standby. (The LEDs light to indicate this status.)



(4) Play a chord on the LOWER keyboard to play the automatic accompaniment.

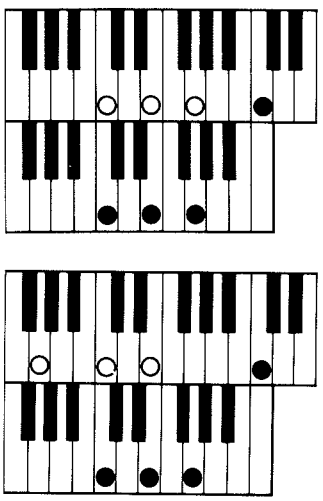


(5) To turn off the automatic accompaniment, press either the pattern switch or the left foot switch.



5.2 AUTO MELODY CHORD

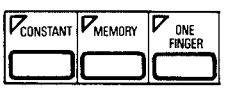
These two functions add harmony to the UPPER keyboard melody line in the form of notes from the LOWER keyboard chord. The first adds the complete chord to the octave immediately below the lowest note on the UPPER keyboard. The second spreads the chord over a wider area (open harmony).



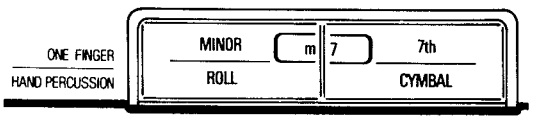
Note:
The black circles indicate the notes actually played: the white notes added by the AUTO MELODY CHORD function.

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 without rhythm. You can select STRINGS, BRASS (SR4 and SR3) and REEDS (SR4) tone for CONSTANT. If you select any other tone, the tone is automatically set to BRASS. The chords sound continuously while the lower keys are being depressed. The bass tone is selected by tone selection switch for the PEDAL TIBIA and PEDAL ORCHESTRA. (If ELECTRIC BASS and STRING BASS tones are selected, the sound attenuates instead of holding.)

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 pattern produces no changes.

- **Procedure**

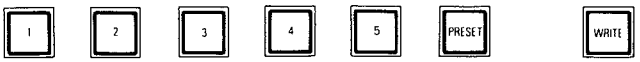
(1) Press the ONE TWO PLAY switch to automatically change the panel settings to ones appropriate for the current rhythm pattern.

Note:
If the ONE TWO PLAY switch is depressed while one of the registration memory switch 1 ~ 5 is lighting, the registration memory lamp turns off.

(2) Adjust the registration as necessary.

6. Registration Memory

The registration memory section, which is located between the upper and lower keyboards, allows you to store up to 5 of your own registration combinations for instant recall. These combinations consist of not just the organ registrations, but also type of rhythm, tempo, volume balance between sections (this includes all volume controls except total volume), auto accompaniment and other parameters. This section also provides 5 permanent built in preset combination (these are available when the switch marked "PRESET" is lit.).



1. Number switches
These switches show the memory areas for five types of registration. Preset registrations are also stored in the same areas.

2. PRESET
This switches the use of memory areas between user programmed combinations and preset ones.

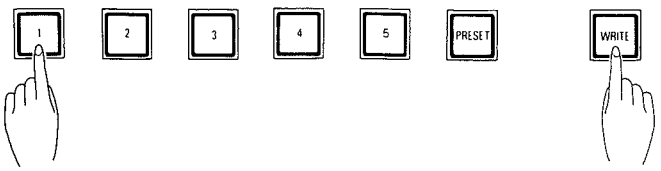
3. WRITE
This switch stores user's own registration.

6.1 Program Registration

■ Storing a Registration

(1) Set the desired registration for storing.

(2) Hold down the WRITE switch and press a number switch (1-5).

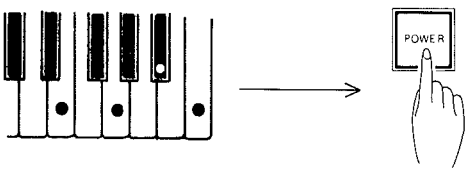


The pressed switches light up and the set registration is stored to the number specified. If the number stores other data, the previously stored data is erased. If the PRESET switch of registration memory is lighting, the selector switches 1-5 are in the state for calling the preset registration. However, the above mentioned operation stores the set registration to the number specified.

Notes:
- If one of the registration memory switches 1-5 is depressed while ONE TWO PLAY switch is lighting, the ONE TWO PLAY lamp turns off.
- The pressed switches light up and the set registration is stored to the number specified. If the number stores other data, the previously stored data is erased.

■ Panel and cheek block reset

Hold down the E, G, B♭, and C keys in the highest octave of the upper keyboard and turn the power on to reset the state of panel and cheek block (switch lamps), the contents of transpose and tune. This function is effective for creating the registration from the scratch. The contents of the registration memory, program rhythm, hand percussion, and sequencer are protected, however.



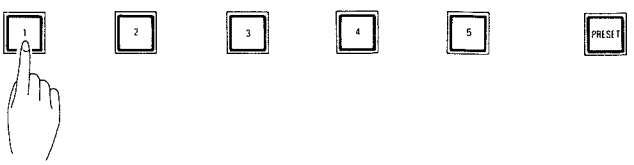
■ Memory contents

User programmed registrations (1 through 5) can store the following information.:
*All panel settings except TOTAL VOLUME, TUNE and MIDI.
*SYNTHE TUNE settings.
*KEYBOARD CONDUCTOR settings.
*All rhythm and auto accompaniment settings, TEMPO and AUTO MELODY CHORD settings (except ONE TWO PLAY and TAP TEMPO).
*Hand Percussion Key assignment

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

■ Calling Method

(1) Depress the desired number switch for calling.



Depressed switch lights up and the preset registration is called. If the PRESET switch is lighting, the factory preset registration is called. To call the user-programmed registration, depress the lit PRESET switch. (Turn off light.)

The called registration can be freely changed.

(2) If the number switch is turned off . . .
The registration returns to the state it was in before the switch was turned on.

6.2 Preset Registration

■ The contents of preset registration

The preset registration has the following contents already in storage.

*The state of panel settings other than TOTAL VOLUME, TUNE, and MIDI switches.

*The state of KEYBOARD CONDUCTOR setting.

■ The contents of preset registration switches

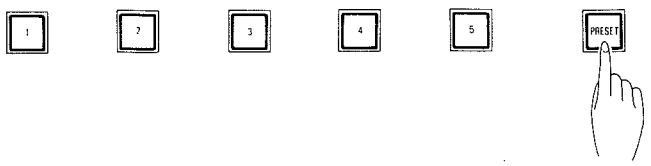
Individual parmanent factory preset number switches have the following registration setting.

1. JAZZ ORGAN 2. THEATER ORGAN
3. STRING ENSEMBLE 4. ORCHESTRA
5. BIG BAND

■ Calling method

(1) Turn the PRESET switch on.

(2) Depress the desired number switch for calling.



(3) If the number switch is turned off . . .
The registration returns to the state it was in before the switch was turned on.

7. Program Sequencer

The program sequencer is the function that allows you to save the contents of real time performance and the progress of the lower keyboard chords by step for later playback.
This function also enables you to save the playing while listening to the performance in memory or to edit recording by step.
The recorded contents can be stored in IC cards (refer to page 32.).

7.1 Record

The sequencers of SR3 and SR4 are equipped with the three independent tracks of UPPER, LOWER and PEDAL. The contents recorded by the individual tracks are as follows.

(1) UPPER track

- ON/OFF switch and volume setting in each of the following blocks:
  UPPER SYNTHESIZER, UPPER PRESET INSTRUMENT, UPPER ORCHESTRA, UPPER TIBIA, EFFECT and UPPER KEYBOARD CONDUCTOR (PRESET INSTRUMENT and SYNTHESIZER can be recorded only when the UPPER KEYBOARD CONDUCTOR is on.)
- TIBIA EFFECT (UPPER CHORUS, TREMOLO, UPP.SUS)
- Upper keyboard ON/OFF
- ON/OFF of right foot switch in EXPRESSION PEDAL (during the use of glide effect)
- REVERB

(2) LOWER track

- ON/OFF switch and volume setting in each of the following blocks:
  LOWER SYNTHESIZER, LOWER PRESET INSTRUMENT, LOWER ORCHESTRA, LOWER TIBIA, and EFFECT (PRESET INSTRUMENT and SYNTHESIZER can be recorded only when the LOWER KEYBOARD CONDUCTOR is on.)
- TIBIA EFFECT (LOWER CHORUS)
- ON/OFF switch and volume setting in the left hand cheek block including RHYTHM, and AUTO PLAY ORCHESTRA (except UPPER, PEDAL KEYBOARD CONDUCTOR, Arrow switches, TRANSPOSE, MIDI, FUNCTION, TAP TEMPO and ONE TWO PLAY, INTRO/ENDING to be recorded only in realtime recording.)
- ON/OFF of TOUCH BAR
- ON/OFF of left foot switch (Realtime recording only)
- ON/OFF of right foot switch (when HAWAIIAN GUITAR is not selected for the UPPER keyboard. (Realtime recording only.))
- Lower keyboard ON/OFF

(3) PEDAL track

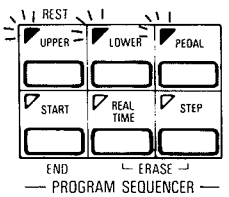
- ON/OFF switch and volume setting in each of PEDAL ORCHESTRA and PEDAL TIBIA block.
- ON/OFF switch of PEDAL KEYBOARD CONDUCTOR
- Pedal keyboard ON/OFF

Note:
It is impossible to store TOTAL VOLUME, Expression Pedal setting, TEMPO, TRANSPOSE, registration memory, TUNE (SR4 and SR3), TOUCH effect by varying the pressure (SR4 only), ONE TWO PLAY and MIDI.

■ Realtime Record

This function allows you to record the playing of upper and lower keyboards and pedal in real time on the three independent tracks.

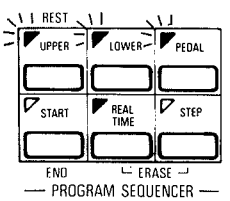
(1) Select the track for recording
(Step 2 operation may be taken ahead of this step.)



Turn one or plural number of switches of UPPER, LOWER, and PEDAL on.

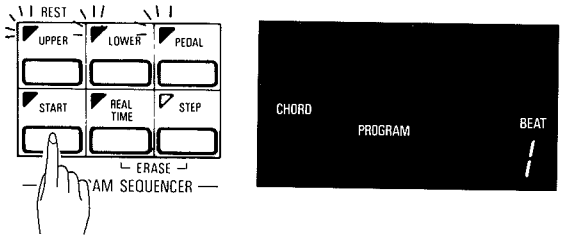
Note:
If the lamp blinks, the track is blank. If the lamp lights up continuously, the track is already recorded. If you want to record on this track, erase the contents prior to the recording. (Refer to page 31.)

(2) Turn the REAL TIME switch on.



(3) Set the registration for the track for recording.

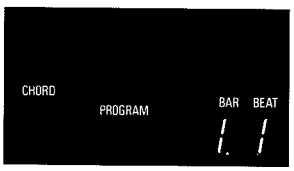
(4) Depress START/END switch.



The multifunction display indication changes as shown by the figure. The Intro Pattern starts sounding for two bars.

Note:
When the rhythm pattern does not sound, the metronome sounds.
Adjust the volume of the metronome and tempo.

(5) Start playing.
You can start playing either after the Intro Pattern is over or in the middle of it.
Recording starts simultaneously with the start of playing. Recording starts without you touching the keyboard by depressing switches and volume that can be recorded on the track. In this case, the track records rests. The preset numbers of bar and beat appear on the multifunction display.



If you change tempo in the middle of playing, the display indicates the new tempo. The bar and beat numbers reappear on the display after several seconds.
If the bar counting reaches 100th, the bar indication becomes zero, and restarts from 1 for 101st bar onward.

Note:
The Intro Pattern repeats sounding unless you start playing within the following bar after the Pattern is over.

(6) If you made mistake in playing
Turn the REAL TIME switch off. This turns START/END switch off and the performance up to that time will be not recorded. Turn the REAL TIME and START/END switches on and you are ready to record your playing from the beginning.

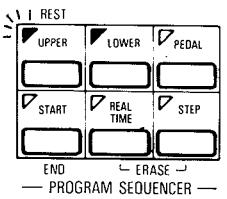
(7) Depress the START/END switch when your performance is over.
The lamp turns off and the multifunction display returns to the original tempo indication.
The blinking lamp on the track that finished recording changes to continuous lighting.
(Recording stops at one bar before the one where the START/END switch is depressed. Care should be taken since the bar on which the START/END switch is depressed is not recorded.)

Note:
If you hear a beep sound with the flashing indication of U (UPPER), L (LOWER), and P (PEDAL) on the multifunction display, it means that the unused balance of memory of the indicated track is nearing the end of capacity. Note that if the recording on the individual tracks should exceed the storage capacity, the multifunction display stops indication and the performance thereafter is not recorded.

■ Multirecord

You can record your playing in real time on a track while listening to the playback of prerecorded performance on another track.

(1) Select the tracks for playback and recording. (You can take step 2 ahead of this one.)

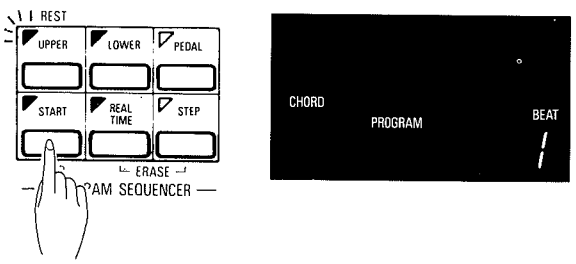


You can play back to the track with light on and record real time playing on the track with blinking light. If the lamp of a track is on, the track is already recorded. To use this track for a new recording, first erase the old data. (refer to page 31.)

(2) Turn the REAL TIME switch on.

(3) Set the registration for the track for recording.

(4) Depress the START/END switch.



The multifunction display indication changes as shown for two bars.

(5) Start playing.
You can start playing either after the Intro Pattern is over or in the middle of it. Note that after the Intro Pattern is over, the playback and recording will proceed forward.

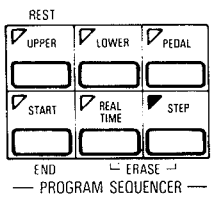
(6) If you made mistake in playing.
Turn the REAL TIME switch off. This turns START/END switch off and the performance up to that time will be not recorded. Turn the REAL TIME switch on and you are ready to record your playing from the beginning.

(7) Depress the START/END switch when your performance is over.
The lamp turns off and the multifunction display returns to the original tempo indication.
(Recording stops at one bar before the one where the START/END switch is depressed.)

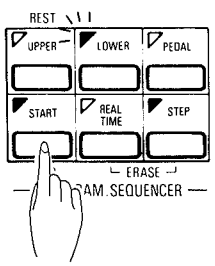
■ Step Record

This function enables you to record the chords and other switch setting which can be recorded to the lower track by beat.

(1) Turn the STEP switch on. (You may take the second procedure below before this.)



(2) Depress the START/END switch.



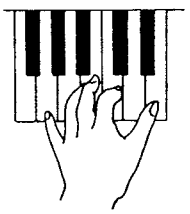
The LOWER track lamp turns on automatically. (UPPER and PEDAL tracks turn off and are not recorded.) The multifunction display screen changes as shown in the figure.

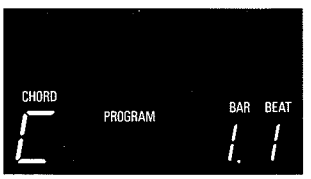
If the lamp does not light up and the multifunction display keeps on showing tempo if the START/END switch is depressed, it means that the LOWER track has already data recorded in real time. If you want to record on the recorded LOWER track, first erase the contents. (refer to page 31.)

If the LOWER track already has the data on it recorded by Step, erase the contents to record on the recorded LOWER track. (refer to page 31.)

(3) Set the registration for rhythm and automatic accompaniment.

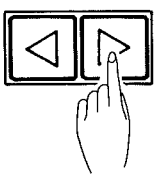
(4) Play the chords you want to record on the lower keyboard.
The multifunction display indicates the chord names when you play AUTO PLAY ORCHESTRA or AUTO MELODY CHORD. Either normal finger or one finger will do. (In the case of one finger, turn the ONE FINGER switch on.)

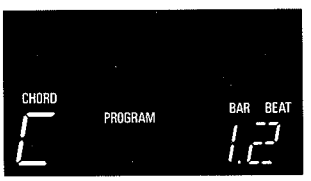




(5) While pressing the keys for a chord, save it using the arrow switch.
There are two ways as follows for storing chords by the way the switch are pressed.

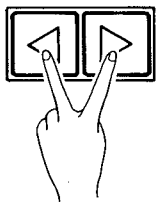
• Storing chord by beat





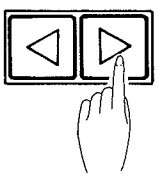
Press the right arrow switch while pressing the keys for a chord.
The chord is stored with a beep sound to the numbers of beat and bar which is indicated by the multifunction display. (As soon as the chord is stored, the multifunction display indicates the next beat number.)

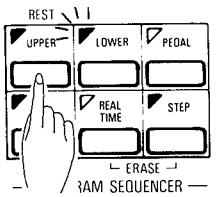
- **Storing chords by bar**



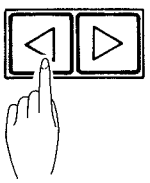
Simultaneously press the arrow switches while pressing the keys for a chord. The chord is stored until the end of the bar which is indicated by the multifunction display. (As soon as the chord is stored, the multifunction display indicate the first beat of the next bar.)

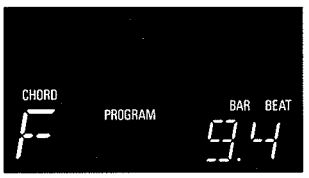
(6) Storing a rest
Store a rest with arrow switches while pressing the REST switch.
In the Step Record, the UPPER switch functions as the REST switch.
Repeat the procedures 5 and 6 and store the rests until the end of a music.

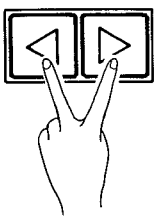




(7) If you made a mistake . . .
If you made a mistake, return to the beat of the bar you want to make correction using the arrow switches.
If you press the left arrow switch, you can return one beat. If you simultaneously press two arrow switches, you can return to the first beat of the preceding bar.







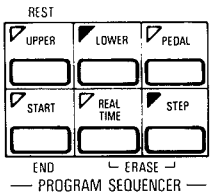
Notes:
- If you want to cancel the data so far stored and again store the data from the scratch, turn off the STEP switch and execute the storage procedure from the start.
- If you changed tone, volume and other state of switches in the middle of playing, the state before the change will not be recorded but only the state thereafter will be recorded.

(8) Depress the START/END switch if the storing is completed. The START/END switch lamp turns off and the multifunction display returns to the tempo indication.

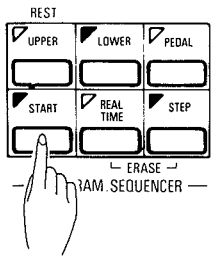
7.2 Editing

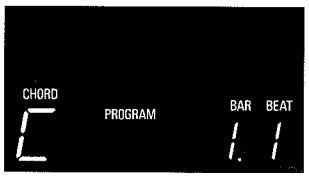
The contents stored by the Step Record can be corrected later.

(1) Turn the STEP switch on.



(2) Depress the START/END switch.





The lower track registration at the end of the previous recording is set. The chord stored for the first beat of the first bar is indicated and the sound is reproduced.

Note:
If the chord is stored by ONE FINGER, the sound is not reproduced.

(3) Indicate the bar and beat numbers for correction in the multifunction display using the arrow switches. Use the arrow switches the same way as for the Step Record.

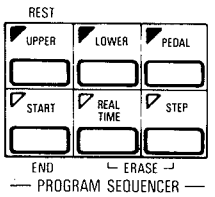
(4) Make correction and store.
Apply the same correction and storage methods as for the Step Record.

(5) If the correction is over, depress the STEP switch. The STEP switch lamp turns off and the multifunction display returns to the tempo indication.

Notes:
- If editing is over, depress the STEP switch. If you depress the START/END switch, all the record contents thereafter is erased.
- During the Step Record, MEMORY switch becomes off and it cannot be turned on.
- If a "Beep" warning sounds during the Step Record, it means that the memory capacity of the LOWER track has been almost used up.

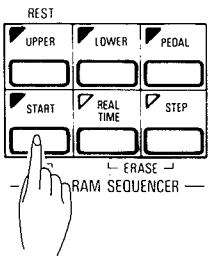
7.3 Playback

(1) Select the track for playback.



Turn either one of the UPPER, LOWER, or PEDAL, or plural number of switches on. Tracks having no recorded data (lamp blinking) will be not reproduced.

(2) Depress the START/END switch.



The START/END switch lamps light up and the playback starts. The multifunction display indicates the bar and beat numbers under being played back.

Notes:
- If the START switch is depressed while the ONE TWO PLAY switch is lighting, the ONE TWO PLAY lamp turns off.
- Press the INTRO/ENDING switch of the rhythm section simultaneously pressing the START/END switch to start the playback in succession to the Intro Pattern of the sequencer. (If a music is recorded from the middle of the Intro Pattern, the playback also starts from the middle of the Intro Pattern.)

(3) If the playback reaches the end of a music, it automatically returns to the beginning and repeats the reproduction.

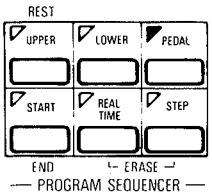
(4) Depress the START/END switch.
The START/END switch lamps turn off and the playback stops.

Note:
If you change registration while playing the sequencer, the music will be played with changed registration until the end. The registration will return to the state before the change as the music returns to the beginning after repeating.

for.

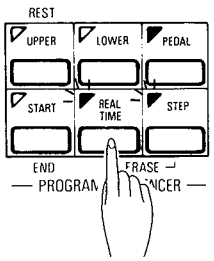
7.4 Erase

(1) Select the track to erase.



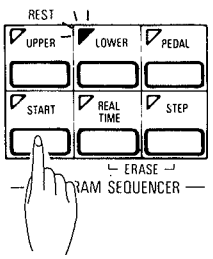
Turn either one of UPPER, LOWER, or PEDAL, or plural number of switches on.

(2) Simultaneously press the REAL TIME and STEP switches.



The REAL TIME and STEP switch lamps start blinking. If you want to execute the erase procedure under this condition, follow the procedure 3. If not, press either the REAL TIME or STEP switch to cancel the erase procedure.

(3) Depress the START/END switch.
All the contents of track selected by the procedure 1 is erased.
After erasure, the lamp of the track changes from continuous lighting to blinking.



■ MIDI External Mode

If the MIDI clock is set to the External Mode (See page 40.), be careful for the following points concerning the START/END of the sequencer.

• Real Time Recording

Recording does not start if the START/END switch is depressed.
Upon receiving a start signal from the external MIDI equipment connected to the system, two bars of Intro Pattern start sounding. Start your performance after the introduction.
Recording stops if the START/END switch of the sequencer is pressed in the middle of the recording or if the system receives a stop signal from the external MIDI equipment.

• Playback

Playback does not start if the START/END switch is depressed (the state of registration is set, however). Playback starts simultaneously with the reception of a start signal from the external MIDI equipment connected to the system. (If the INTRO/ENDING switch is depressed when the external starting signal is received, playback can be started in the Intro Pattern.) Playback stops if the START/END switch of the sequencer is pressed in the middle of the playback or if the system receives a stop signal from the external MIDI equipment.

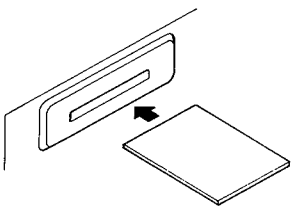
8. Program Card

The SR Series has adopted the IC card as the medium for storing programmable rhythm, program sequencer, and program registration data. This exciting new storage medium allows you to expand your library of sounds far beyond the immediate capacity of the organ yet still have rapid access to this data.
You may order additional IC cards from your Kawai dealer.

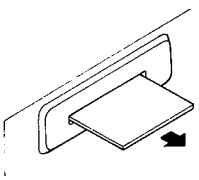
8.1 Inserting the Card

- **Procedure**

(1) Gently insert the card into the slot with the arrow label facing upward.



(2) Always remove the card from the organ after use. Pull it out straight without bending or twisting it.



(3) Always use genuine Kawai cards. Other cards may present compatibility problems.

■ TAKE CARE OF YOUR DATA CARDS!!

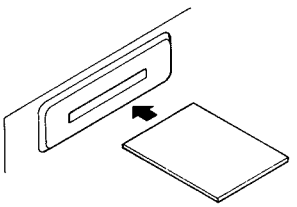
*When not using a card, keep it in its protective case and store away from dust, heat, moisture, and direct sunlight.
*Never touch the card contacts. They may corrode and produce errors.
*Never use force to insert or remove the card from the organ.
Such force can damage both the card and the connectors inside the organ.
*Wipe only with a clean cloth. Never use water, detergent, alcohol, or any other liquid cleaning agents.

8.2 Saving to the Card

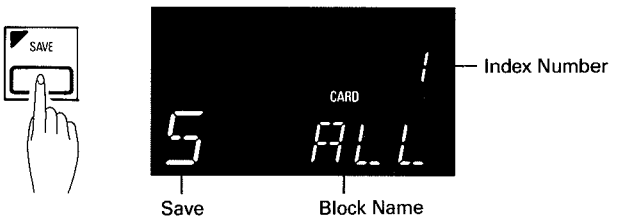
The card has room for the following data:
- PROGRAM, FILL IN, INTRO, and ENDING data from the programmable rhythm section
- Programmed registrations 1-5, hand percussion key assignments, and all panel settings
- Program sequencer and registrations

- **Procedure**

(1) Gently insert the card into the slot.

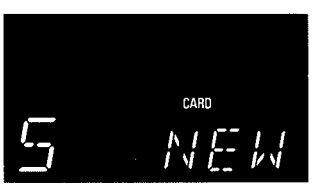


(2) Press the SAVE switch. If the card is properly inserted, the LED in the switch lights and the word "CARD" appears on the multifunction display. If the card contains data, the lower right hand corner of the display gives the block name.
If the organ detects something wrong with the card contents, the word "ERR" appears for a few seconds.

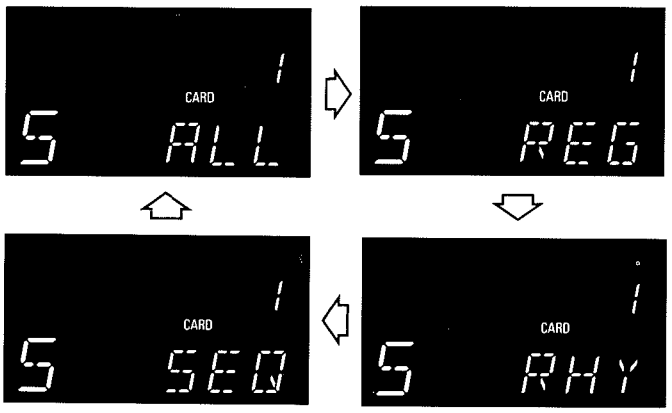


REG = Registrations
SEQ = Program Sequencer
RHY = Program rhythm
ALL = All the above

If the card is unformatted or otherwise not usable by the organ, the message "NEW" appears on the screen. If you do not wish to continue, press a save switch a second time extract the card, and start again with another.



(3) Press the SELECT switch until the appropriate block name appears in the lower right hand corner of the display. (If the name is already on the display, simply proceed to the next step.)



■ WARNING

If the block name on the card differs from the one you have selected, the save operation will erase all previous data.

(4) Use the arrow switches to specify the index number, the number in the upper right hand corner of the display. (See accompanying chart for ranges available.)

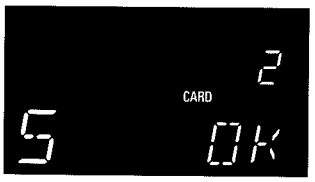
Block name	32k card	16k card
ALL	1	1*
REG	1~84	1~41
RHY	1~6	1~3
SEQ	1	1*

Note: Saving All Data

If you are using a 16-kilobyte card, you may hear a beep sound if you select ALL or SEQ block. This means that the memory capacity of the card is too small to accommodate the sequencer data. Therefore, if you continue to execute save operation, the sequencer block will not be stored, which must be noted. Incidentally, "OK" will appear in the display if you select ALL block and "ERR" if you select SEQ.

(5) Press the WRITE switch in the registration memory section to start the save operation.

(6) Wait for the organ to give a short beep, for the message "OK" to appear on the display and for the LED in the SAVE switch to go out, signaling the successful completion of the operation.



Note:

If the card's write protect switch is on, the save operation will fail and the word "ERR" appears for a few seconds. Change the switch setting (p.36) and start again.

• Index Numbers

Since an IC card can hold multiple sets of data, each one needs a reference number so that the organ can find the data for reloading. Storing a second block of data over a block with the same type and index number automatically destroys the original version. We recommend that you keep careful records of card contents so as to avoid the loss of your valuable data.

Note:

If you are likely to erase the content of a card by executing the save operations as follows, indication in the display will start flashing.

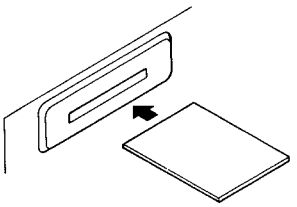
1) If a block of the card presently in use is different from a block of the card you wish to save, the block indication on the multifunction display starts flashing.
   Either use a card that matches the block to save or change the block to match the card with SELECT switch.

2) If a block of the card in use is the same as one for saving, and if you select an index number already in memory, the block and index number start flashing on the display. If REG and RHY are flashing, change index number using arrow switches.

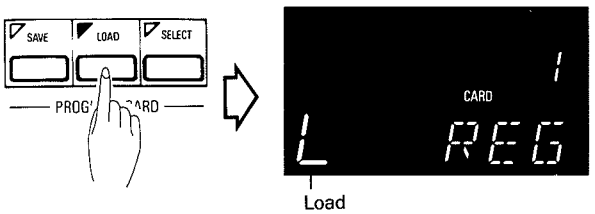
Note:
REG card has a memory for three types of registration of index number 1, 2, and 3.

8.3 Loading All Data from a Card

(1) Gently insert the card into the slot.

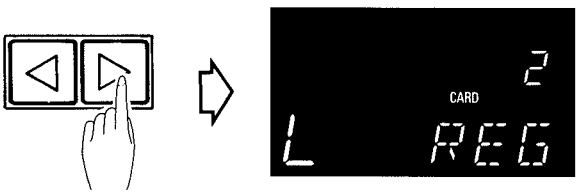


(2) Press the LOAD switch.
If the card is properly inserted, the LED in the switch lights and the word CARD appears on the multifunction display. If the LED does not light, pull out the card and start again.



If the card contains data, the lower right hand corner of the display gives the block name. If the card is unformatted, the message "NEW" appears on the screen. Press the LOAD switch a second time, extract the card, and start again with another.

(3) Use the arrow switches to select the index number in the upper right hand corner of the display.

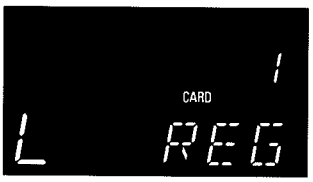


(4) Press the WRITE switch in the registration memory section to start the load operation.

(5) Wait for the organ to give a short beep, for the message "OK" to appear on the display, and for the LED in the LOAD switch to go out, signaling the successful completion of the operation.

8.4 Loading a Single Program Registration by Itself

(1) Repeat steps 1-3 of the preceding procedure.



(2) Press the SELECT switch to select a program registration number (1-5, P(Panel))

Note:
There are five number switches.

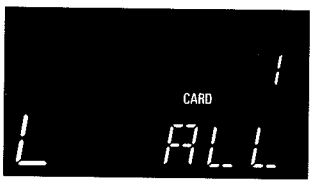
(3) Press the WRITE switch in the registration memory section to start the load operation.

Note:
The select registration is always loaded as programmable registration No. 1.

(4) Wait for the organ to give a short beep, for the message "OK" to appear on the display, and for the LED in the LOAD switch to go out, signaling the successful completion of the operation.

8.5 Loading Only Part of a Set Saved with ALL

(1) Repeat steps 1-3 of the preceding procedure.



(2) Use the SELECT switch and the multifunction display to specify the portion to be loaded.

Notes:

- Pressing the SELECT switch cycles the display through the following options.

→ALL →REG →RHY →SEQ →

- Panel settings are not loaded by this method. (See 8.4 Loading a Program Registration by itself.)

(3) Press the WRITE switch in the registration memory section to start the load operation.

(4) Wait for the organ to give a short beep, for the message "OK" to appear on the display, and for the LED in the LOAD switch to go out, signaling the successful completion of operation.

8.6 Cancelling a Load or Save Operation

In the above procedures, you may cancel the operation at any point before pressing the WRITE switch simply by deactivating the SAVE or LOAD switch of removing the card from the organ.

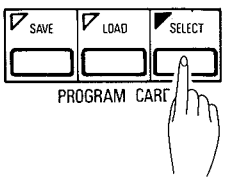
8.7 Memory Protect Switch

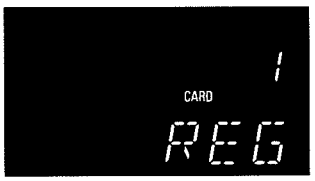
This switch is a safety device that protects the contents of an IC card from accidental erasures. Attempting to save data to the card while this switch is on produces the error message (ERR) on the display. Nevertheless, there is an easy way to alter the switch setting.

- **Procedure**

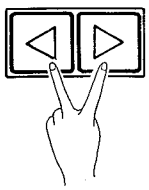
(1) Gently insert the card into the slot.

(2) Press the SELECT switch to light the LED and display the name of the block stored on the card.





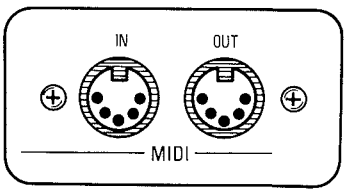
(3) To change the memory protect switch setting, simultaneously press the left and right arrow switches.



(4) Press the SELECT switch to turn off the LED inside.

9. 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 extract types of data that may be exchanged and the functions that may be controlled vary with the instruments connected through this interface.)



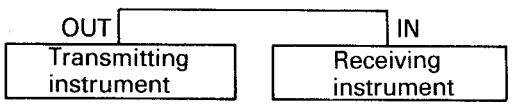
9.1 Introduction

■ Connectors

SR Organ with the MIDI interface feature the following 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.

■ 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.



■ 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.
Ch. 1. UPPER
Ch. 2. LOWER
Ch. 3. PEDAL
The registration memory section can transmit and receive on any MIDI channel between 1 and 16.

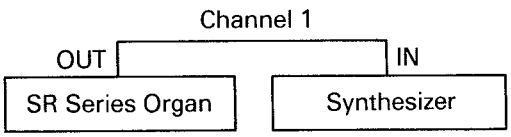
(c) Program change
The organist can send a command from the organ to a synthesizer to change the program number. (For the procedure, see p. 38.)

(d) 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. 40.)

■ 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 keyboard on the organ.)



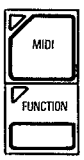
(2) Set up the synthesizer to receive on channel 1. (Refer to the synthesizer's Instruction Manual for the procedure.)

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

9.2 Operation

■ Switching the interface on and off

When the LED in the FUNCTION switch is off, the MIDI switches serve to connect and disconnect the keyboards from their assigned channels. When the LED is lit, the organist can use that keyboard to play another instrument or, in the reverse direction, play that keyboard from another instrument.



MIDI

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.

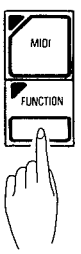
In certain situations (described below), deactivating the MIDI interface while a key is pressed may also produce the same undesired effect. This only happens when (a) the receiving instrument is in the OMNI ON mode and (b) the two instruments have been assigned different channels. The best way to prevent 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.

■ Setting Program

- **If the electronic organ is on the transmitting side:**
There are following two methods for setting programs.

★ **Setting Method 1**: Transmission by the arrow switches

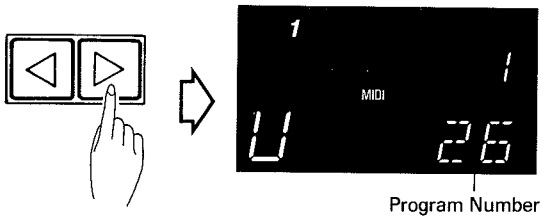
(1) Turn the MIDI switch on.
(2) Depress the FUNCTION switch.



The keyboard name and the program number appear on the multifunction display. Each time the FUNCTION switch is depressed, the display indicates the keyboard name in the following order:

→U (UPPER)→L (LOWER)→P (PEDAL)→

(3) Set the program number using the arrow switches.



The above display indicates the setting of the program No.26 tone to the musical instruments connected to the upper keyboard (that is, the instruments receiving the signal transmitted from the upper keyboard channel on the same channel).

Note:

Program number refers to the tone number of musical instrument on receiving side. It can be set by a three-digit numeral from 1 to 128.

Program number is set cyclically; for example, 1 comes after 128 or 128 precedes 1.

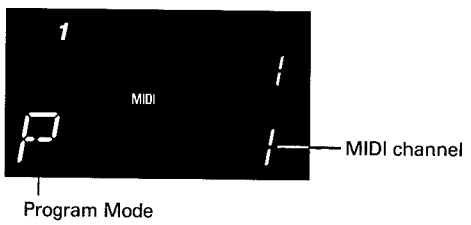
★ Setting Method 2:

Transmission by Registration Memory (Channel Setting)

(1) Turn the MIDI switch off.

(2) Depress the FUNCTION switch two times.

The multifunction display indicates the MIDI transmission-reception channel of the present registration memory.



(3) Match the transmission channel of the registration memory to the channel of the receiving side using the arrow switch. (Channel setting can be made within the range of 1-16).

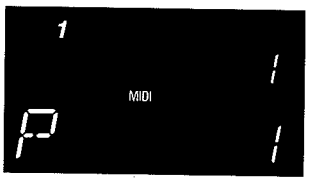
(4) Depress the FUNCTION switch again to turn it off. Turn the MIDI switch on and change the registration memory. The tone of the musical instruments on the reception side changes accordingly.

• If the electronic organ is on the receiving side:

The Registration Memory changes upon receiving the program number. (Channel setting)

(1) Turn the MIDI switch off.

(2) Depress the FUNCTION switch two times. The multifunction display indicates the MIDI transmission-reception channel of the present registration memory.



(3) Match the reception channel of the registration memory to the channel of transmitting side using the arrow switch. (Channel setting can be made within the range of 1-16).

(4) Depress the FUNCTION switch again to turn it off. Turn the MIDI switch on and change tone (program number) on the transmitting side. The registration memory of the electronic organ changes accordingly.

The following table indicates the corresponding relations between the registration memory and program number.

PROGRAM NO.	REGISTRATION SWITCH
1	PROGRAM 1
2	2
3	3
4	4
5	5
6	PRESET 1
7	2
8	3
9	4
10	5
11	OFF

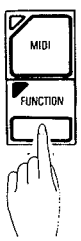
■ Synchronized performance with instruments connected to the system.

Using the MIDI, performance of drum machines and other musical instruments can be synchronized with the rhythm of the electronic organ or vice versa.

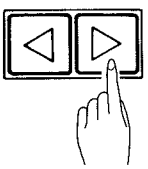
• If the electronic organ is on the transmitting side:

(1) The system is set to INT (Internal) when the power is turned on.
If the multifunction display indicates the tempo, the clock (tempo information) of the electronic organ is already set to INT. Therefore, all the musical instruments connected to the electronic organ are played in the tempo of the organ. If the multifunction display indicates EXT, carry on the following procedures.

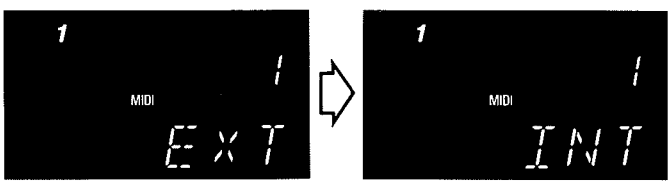
(2) Turn the MIDI switch off, and depress the FUNCTION switch.



(3) Depress one of the arrow switches.



The multifunction display indication changes from EXT to INT.



(4) Depress the FUNCTION switch two times to turn it off.

Using the MIDI function of the electronic organ, drum machines and other rhythm instruments connected to the organ can be started or stopped. These instruments follow the tempo of the electronic organ. Start or stop signal is transmitted by operating either one of the followings:

(1) If you start or stop the realtime record or play of the program sequencer, start or stop signal is transmitted.
(2) If you start or stop the rhythm or automatic accompaniment, start or stop signal is transmitted.
(3) If you depress a lighted rhythm selection button, stop signal is transmitted followed immediately by start signal.
(4) If you depress the foot (rhythm stop) switch, stop signal is transmitted.

Note that neither start signal nor stop signal will be transmitted while you are recording or playing with the program sequencer if one of the above (2), (3), and (4) operation is made.

• If the electronic organ is on the receiving side:

(1) If the display indicates EXT
The clock (tempo information) is already set to EXT (External).
The rhythm of organ is played in the tempo of drum machines and other rhythm instruments. If the multifunction display indicates the tempo (meaning that it is set to INT), carry on the following procedures.

(2) Turn the MIDI switch off, and depress the FUNCTION switch.

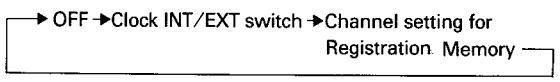
(3) Depress one of the arrow switches.
The multifunction display indication changes from EXT to INT.

(4) Depress the FUNCTION switch two times to turn it off.

Note:

- If the clock (tempo information) is set to EXT . . .
  1) When the other rhythm instruments starts,
     - If the PLAY and REAL TIME recording of the SEQUENCER is standing by (START switch is activated), the sequencer starts.
     - If the RHYTHM is standing by (RHYTHM switch is activated), the rhythm starts.
     - If both of the sequencer and the rhythm are standing by, only the sequencer starts.
  2) When the other instruments stops, the sequencer and the rhythm also stop.
  3) When the RHYTHM is standing by,
     If the organ receives the keyboard information by Ch 2 (LOWER) or Ch 3 (PEDAL), the rhythm starts.
- Drum machines and some other rhythm instruments may transmit the clock (tempo information) irrespective of the start of the rhythm. In such a case, the electronic organ can start or stop the rhythm and automatic accompaniment by itself if the clock is set to EXT.

- If the MIDI switch is off, the FUNCTION switch functions in the following three stages:



- If the clock is set to EXT, the multifunction display indicates EXT instead of the tempo. And the tempo remains unchanged even if the arrow switches are depressed.
- If the POWER switch is off, the clock automatically set to INT.
- If you change the clock setting from INT to EXT while playing the AUTO PLAY ORCHESTRA or if you pull out the MIDI cable while playing the AUTO PLAY ORCHESTRA with EXT setting, the accompaniment may stop. In such a case, return the clock setting to INT.

■ Transmission and reception of program sequencer

When recording the MIDI musical instruments to the program channel of the MIDI instruments to the receiving channel of the recording track. Carry on the rest of recording procedures according to the explanation on the operation of program sequencer (on page 26).
Furthermore, when playing the MIDI instruments by transmitting the contents of the program sequencer, turn the MIDI ON after matching the receiving channel of the MIDI instruments to the transmitting channel of the track to play back. Play back the music according to the explanation on the operation of program sequencer (on page 26).

10. Other Functions

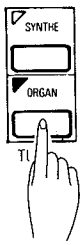
10.1 TUNE Function (Organ Tuning)

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

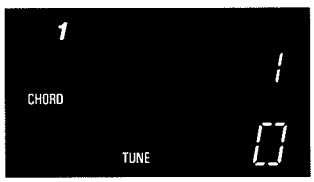
Note:
When the power is first applied, the value is always 0.

- **Procedure**

(1) Press the ORGAN switch in the TUNE section.

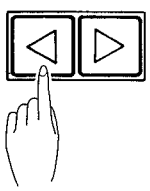


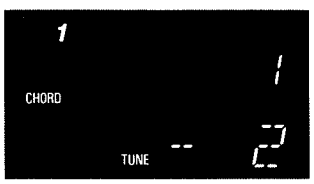
Note:
The word TUNE should appear on the multifunction display.



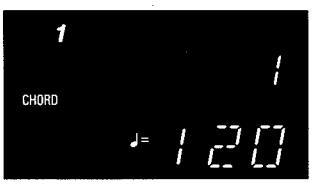
(2) Use the arrow keys to raise or lower the pitch.

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





(3) Repeat step 1 to return to the manual tempo display.

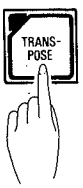


10.2 TRANSPOSE Function

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.

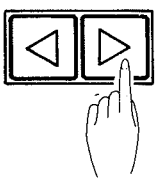
- **Procedure**

(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.

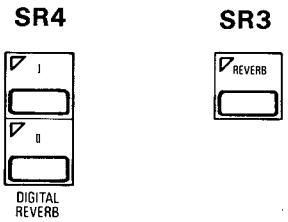
Note:
The LED in the TRANSPOSE switch flashes whenever the key is other than the standard, C.

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

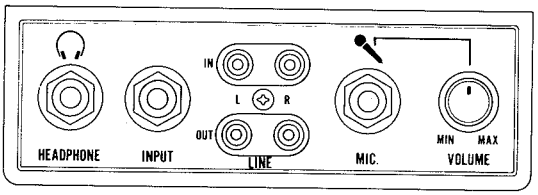
11. Front Panel Connectors

10.3 DIGITAL REVERB Switches (REVERB on the SR3)

These switches add reverberation to the organ output. On the SR4, two switches add reverberation of different length



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.

■ 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.

12. Specifications

SPECIFICATIONS

		SR4	SR3
KEYBOARDS (U/L/P)		44/44/13	
KEYBOARD CONDUCTOR	Upper	Tibia/Percus., Orchestra, Preset Instrument, Synthesizer	
	Lower	Tibia, Orchestra, Preset Instrument, Synthesizer	
	Pedal	Tibia, Orchestra	
TIBIA/PERCUS.	Upper	16', 8', 5 1/3', 4', 2 2/3', 2' Percus. 2 2/3', 5 1/3'	
	Lower	8', 4', 2 2/3', 2'	
	Effect	Upp. Sus., Upper Chorus, Lower Chorus, Tremolo	
	Pedal	16', 8'	
	Effect	Sustain	
ORCHESTRA	Upper	Strings I, II, III, IV, Cosmic I, II Brass I, II, III, IV, Reeds I, II, III, IV	Strings I, II, III, IV Brass I, II, III, IV, Reeds I, II
	Lower	Strings I, II, Brass I, II, Reeds, Vocal	
	Effect	Sustain, Touch	
	Pedal	String Bass, Electric Bass, Ens. Bass, Tuba	
	Effect	Sustain	
PRESET INSTRUMENT	Upper/Lower	Piano I, II, Harpsichord I, II E. Piano I, II, Vibraphone, Marimba Guitar, J. Guitar, Hawaiian Guitar Banjo, Accordion, Cosmic Strings I, II, Brass I, II	Piano, E. Piano, Harpsichord, Accordion, Guitar, J. Guitar, Hawaiian Guitar, Banjo, Vibraphone, Marimba (SR2 ... Upper only)
	Effect	Sustain, Touch	
SYNTHESIZER	Upper/Lower	Trombone, Horn, Sax, Oboe, Trumpet I, II, Clarinet I, II, Flute, Pan Flute, Whistle, Harmonica, Violin I, II, Electric Guitar, Cosmic	Trombone, Trumpet, Sax, Clarinet, Flute, Pan Flute, Whistle, Cosmic, Violin, E. Guitar,
	Effect	T. Vib., Touch, Porta	Touch, Porta
EFFECT		Digital Reverb I, II	Reverb
RHYTHM SECTION	Preset	Waltz, Tango, March, Swing I, II, Ballad I, II, Latin I, II, Samba, Bossanova, Bolero/Beguine, 8 Beat, Disco, 16 Beat	
		Variation I, II	Variation
		Fill in I, II, Intro/Ending	
	Program	Program, Write, Input, Reset, Erase, All Clear, Extract, ♪, ♪ ,𝅘𝅥𝅯	
	Hand Percussion	BD 1, 2, SD 1, 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 I, II, Arpeggio I, II, III, Bass	Accompaniment, Arpeggio I, II, Bass
	Tone	Piano, Electric Piano, Electric Guitar Jazz Guitar, Harp, Strings, Brass	Piano, Electric Guitar, Jazz Guitar, Harp, Strings
	Auto Melody Chord	A. M. C. I, II	
	Others	One Finger, Memory, Constant, Minor (Touch Bar), 7th (Touch Bar)	
ONE TWO PLAY		45 Preset Registrations	30 Preset Registrations
REGISTRATION MEMORY		Preset 1~5, Program 1~5, Write	
PROGRAM SEQUENCER		Upper/Rest, Lower, Pedal, Start/End, Real Time, Step, Erase	
PROGRAM CARD		Save, Load, Select	
DISPLAY		Tempo, Chord, Program Rhythm, Program Sequencer, Program Card, MIDI, Tune, Transpose	
MIDI		MIDI, Function	
TUNE		Synthe, Organ	
OTHER CONTROLS		Transpose, (Down), (Up), Right Foot Switch (SR3, 4 only), Left Foot Switch, Total Volume, Expression Pedal, Power Switch, Tap Tempo (SR4 only)	
OTHER FITTINGS		Headphone Jack (Stereo), Input Jack, Line In (L, R), Line Out (L, R), Microphone Jack, Microphone Volume, Card Slot (SR3 and 4), MIDI IN, OUT	
SOUND SYSTEM	Power	50W × 2	30W × 2
	Speakers	25cm × 2, 6.5cm × 2	25cm × 2, 6.5cm × 2
OUTPUT POWER		50W × 2	30W × 2
DIMENSIONS (W/D/H)		112 × 58 × 97 cm 44 1/8" × 22 7/8" × 38 3/16"	112 × 58 × 97 cm 44 1/8" × 22 7/8" × 38 3/16"
WEIGHT (Bench)		64 kg (6.5 kg) 141 lbs (15 lbs)	62.5 kg (6.5 kg) 138 lbs (15 lbs)

Specifications are subject to change with or without notice.

< ELECTRONIC ORGAN >
MODEL SR3, SR4

MIDI Implementation Chart

Date: June 1988
Version: 1.0

Function ...		Transmitted				Remarks
		Upper	Lower	Pedal	Program	
Basic Channel	Default	1	2	3	1 — 16*	* Memorized
	Changed	×	×	×	1 — 16	
Mode	Default	—	—	—	—	
	Messages	×	×	×	×	
	Altered	—	—	—	—	
Note Number	: True voice	◎ 48—102	◎ 36—90	◎ 31—54		
		—	—	—		
Velocity	Note ON	○ V=1—127	○ V=1—127	× V=64		
	Note OFF	×	×	×		
After Touch	Key's	×	×	×		
	Ch's	◎*	◎*	×		* SR4 only
Pitch Bender		×	×	×		
Control Change						
Prog Change	: True #	0 — 127	0 — 127	0 — 127	0 — 9	
		*******	*******	*******	*******	
System Exclusive		×				
System Common	: Song Pos	×				
	: Song Sel	×				
	: Tune	×				
System Real Time	: Clock	○				
	: Commands	○				(FA, FC)
Aux Messages	: Local ON/OFF	×				
	: All Notes OFF	○				(123)
	: Active Sense	○				
	: Reset	×				
Notes		◎ is changeable to ○ or ×.				

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO ○ : Y
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO × : N

Function ...		Recognized				Remarks
		Upper	Lower	Pedal	Program	
Basic Channel	Default	1	2	3	1 — 16*	* Memorized
	Changed	×	×	×	1 — 16	
Mode	Default	3	3	3	3	
	Messages	×	×	×	×	
	Altered	×	×	×	×	
Note Number	: True voice	0 — 127 33 — 96	0 — 127 33 — 96	0 — 127 33 — 96		
Velocity	Note ON	○	○	○		
	Note OFF	×	×	×		
After Touch	Key's	×	×	×		
	Ch's	○*	○*	×		* SR4 only
Pitch Bender		×	×	×		
Control Change						
Prog Change	: True #				0 — 10	Registration Memory
System Exclusive		×				
System Common	: Song Pos	×				
	: Song Sel	×				
	: Tune	×				
System Real Time	: Clock	◎				
	: Commands	◎				(FA, FC)
Aux Messages	: Local ON/OFF	×				
	: All Notes OFF	○				(123)
	: Active Sense	○				
	: Reset	×				
Notes		◎ is changeable to ○ or ×.				

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO ○ : Y
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO × : N