# SH-2000 OWNER'S MANUAL



# WHAT IS A SYNTHESIZER?

# Basic differences between synthesizers and electronic organs

The first really successful synthesizer wasn't developed until about 20 years ago. Its history, however, can be traced back 60 years to when electronic organs were first making their appearance.

Actually, an electronic organ is a type of synthesizer. It differs from modern synthesizers, though in the sense that an electronic organ can only reproduce one type of sound, while a synthesizer can reproduce many different sounds. Today's synthesizers can sound like anything from a siren to a cello. Each sound can be modified in several ways.

While electronic organs can produce sounds somewhat similar to other instruments, a synthesizer produces sounds which sound exactly like the originals. And with a synthesizer, you play melodies instead of just single chords.

Electronic organs were developed with the limited technology of the time along the patterns of conventional pipe organs. Synthesizers are the product of much more modern electronic knowledge, and as a result are as different from organs as guided missiles are from bi-planes.

The first synthesizers were huge. Some even filled entire rooms. As the science of miniturization developed, the same capacity synthesizers were reduced in size. Today, they are completely portable and many can be easily carried by a single person.

One of the most important features of synthesizers is their ability to alter timbre, tone and performance effects without changing the base tone. On advanced models, like Roland's SH-2000, you can even vary volume, tone and special effects by finger pressure on the playing keys.

No other musical instrument today has the depth and range of sound that synthesizers do. Modern music depends on the synthesizer for much of its effectiveness. In fact, without the synthesizer, much of today's experimental and modern musical forms would not be possible.

#### Types of synthesizers

At present, there are several different types of synthesizers. Some are only for studio use, others are ultra-portable. Among the portable types, there are three basic classifications:

- 1) Variable synthesizers (Roland SH-3)
- 2) Preset synthesizers (Roland SH-2000)
- 3) Variable/preset synthesizers (Roland SH-1000)

The first type is most often used for jazz and combo performances or recording. The second type is most often used in combination with an electronic organ. The third type is designed to combine the features of both.

How to get the most effective use from a synthesizer Like all electronic instruments, the synthesizer is connected to an auxiliary amplifier. The SH-2000 can be connected directly to an electronic organ, however, and use the organ's amplifier for operation. With different devices, different effects can be created with a synthesizer for even more unusual or special sounds.

The most common accessory devices used with synthesizers is the echo chamber. The Roland RE-201 is one of the most popular units of its type on the market and is designed to complement the performance of all Roland synthesizers.

With their unique ability to recreate and modify virtually any sound, synthesizers have opened up a new world of musical excitement, and are playing an increasingly important role in the creation of new music. Roland is proud to be part of this dynamic experience by being able to provide musicians with the most advanced units on the market today.

30 different kinds of preset sounds for full variety . . . There are 21 preset instrumental sounds and 9 special sounds, totaling 30 preset setting tablets. Any preset sound can be produced by pressing just one tablet. This rich variety of preset sounds will extend your musical repertoire and enhance the quality of even the simplest melodies.

#### Touch effect for pinpoint variety . . .

TOUCH EFFECT CONTROL on the panel automatically gives 6 different kinds of performance effect. VOLUME, WOW, GROWL, VIBRATO and PITCH BEND UP-DOWN are temporarily available throughout a performance by merely applying slightly more pressure when pressing the keys. This special effect is not possible with conventional electronic organs and allows endless inspirational variations of preset sounds.

#### Free sound variations based on preset sounds . . .

FILTER CONTROL for modifying or completely changing the preset sound itself, PORTAMENTO for drifting a tone to a following tone without any break in sound, TRANSPOSE SWITCH for raising or lowering the tone by one octave with a single touch, RANDOM NOTE for producing random sounds having no relation to the pressed key. HOLD for maintaining sounds after key is released, LONG SUSTAIN for sustaining and slowly extinguishing sounds after key is released, and REPEAT for repeating sounds consecutively at regular intervals are conveniently arranged for use at one touch of a tablet. With these functions, free variations of an infinite variety can be created using the 30 preset sounds as a base.

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# **30 PRESET SOUNDS**



WIND
GROWL WOW
FUNNY CAT
FROG MAN
PLANET
SPACE REED
POPCORN
SONG WHISTLE
SINGING VOICE

XYLOPHONE VIBRAPHONE ACCORDION HARPSICHORD PIANO

FUZZ GUITAR 2
FUZZ GUITAR 1
BANJO
HAWAIIAN GUITAR
BASS GUITAR
VIOLIN
CELLO

CLARINET
FLUTE
OBOE
BASSOON
SAXOPHONE
TRUMPET
FRENCH HORN
TROMBONE
TUBA

FILTER MANUAL

HOLD LONG SUSTAIN REPEAT PARTICULAR SOUNDS

PERCUSSION & KEYBOARD INSTRUMENTS

STRINGS

WIND INSTRUMENTS

ENVELOPE TABLETS NORMAL INSTRUMENTAL SOUNDS



# SETTING AND CONNECTION

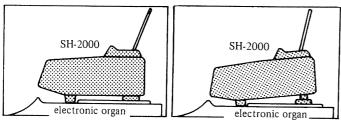
#### **SETTING**

#### When played with electronic organ:

Bring down the music stand of the electronic organ and place the SH-2000 on the organ for most functional playing. In this case, only the music stand of SH-2000 shall be used.

The placement height of the SH-2000 setting can be adjusted freely using legs attached to the bottom.

Note: The right and left legs should be level. The front and back legs may be adjusted for convenient playing as shown below.

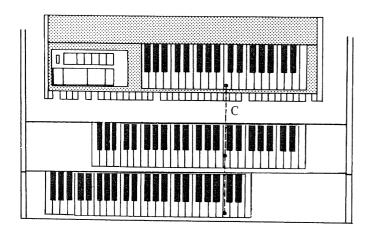


#### When a synthesizer stand (optional) is used:

Fixed to the synthesizer stand, the SH-2000 may be placed beside the electronic organ or other instruments to be played with them or independently as well.



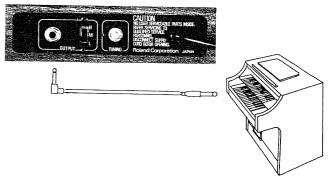
Arrange the keyboards of organ and the SH-2000 as shown in below illustration so that the middle C keys of organ and the SH-2000 are properly aligned.



#### METHOD OF CONNECTION

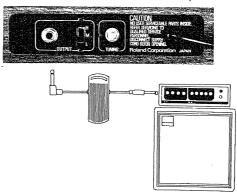
#### When connected to electronic organ:

Connect the SH-2000 to the expression effect EXT-IN terminal of the organ. Out-Level Changeover Switch is set at one of L/M/H levels to adjust Total Volume of SH-2000 to volume of organ.



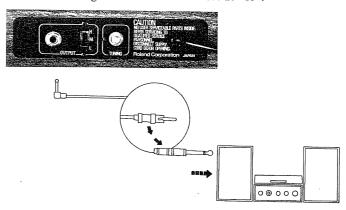
#### When connected to amplifier:

Connect to the input of the amplifier. Connecting FOOT VOLUME FV-1 (optional) between the instruments makes expression effect possible. In this case it is appropriate if Out-Level Changeover Switch is positioned at "M" or "L".



#### When connected to stereo amplifier:

Connect to AUX terminal of stereo amplifier. In this case Out-Level Changeover Switch will be set at "H".





# MANUAL GUIDE

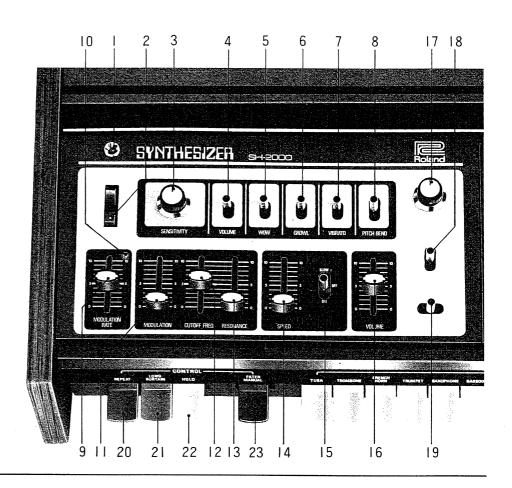
#### STANDARD POSITION

Set the controls on the SH-2000 panel as shown in the illustration at right. All control tablets should be set to the level position. This is the basic standard setting from which the following desired effects can be obtained by simple control operation:

- 1. For obtaining selected preset sounds.
- 2. For control operations explained on pages 5-9.
- 3. For each operation in "PERFORM-ANCE GUIDE" from pages 10 13.
- 4. For performing "SH-2000" Sample Sounds on pages 14 15.

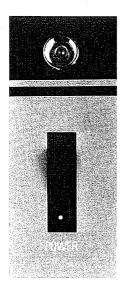
In the illustration, the total volume VOLUME slide knob <16> is set at "5". However, it may be set freely as desired while actually playing.

Numbers <1> - <23> of the controls in the illustration correspond accordingly to numbers <1> - <23> in the instructions.



#### POWER < 2>

Putting this switch ON illuminates the pilot lamp <1> and activates the SH-2000.



#### PRESET SOUNDS

1. Set the controls on the panel at the standard position with all tablets at the OFF position.

Note: If tablets and controls are not in the standard position, normal preset sounds may be modified.

- 2. After putting the POWER switch <2> ON, adjust the volume freely by VOLUME slide knob <16>.
- 3. Press a preset tablet selected from among the 30, and then play the keys. Note: On the SH-2000, the right side PRESET tablet takes precedence in case two tablets are pressed simultaneously. Also, a high note key takes priority over a lower one if two keys are pressed simultaneously.

Note: Preset sounds may differ depending on the amplifier, speaker, or the electronic organ connected.

- If the selected preset sound is not obtained, check the following points.
- 1. The POWER switch is ON and Pilot Lamp lights.
- 2. Confirm that the power for electronic organ or amplifier is ON.
- 3. Check that the VOLUME <16> of the SH-2000 is raised.
- 4. Check that the volume of electronic organ or amplifier connected to the SH-2000 is raised. If expression pedal of the electronic organ is used with the SH-2000, check that the pedal is properly pressed.
- 5. Check for appropriate connection. (Refer to the Connection Method on page 4.)
- 6. Check condition of connection cord.
- 7. Confirm that other controls and tablets are set at the standard position.

#### TOTAL VOLUME < 16>

The VOLUME slide knob controls the total volume of the SH-2000. If this slide knob is not raised, sound cannot be obtained even if other tablets and controls are correctly set.



#### PITCH < 17>

This enables the raising or lowering of whole tones, indispensable for tuning with other instruments, like an electronic organ. Turning the knob counter-clockwise (\$\psi\$) lowers the tone, and clockwise (\$\psi\$) rotation raises the tone.

There is also another tuning control on the back panel for fine tuning to other instruments, while the PITCH <17> is positioned at "0". In this case, it is rather convenient because the knob of the PITCH <17> can be used for slight tone control.





#### TRANSPOSE < 19>

One octave transposition of tone can be obtained with just a touch of this switch. Normally positioned at "M", setting it at "L" lowers the tone by one octave and at "H" raises the tone one octave.



#### RANDOM NOTE < 18>

Preset sounds having no relation to the pressed key are automatically produced using this switch, having three steps, AUTO, OFF, KEY.

AUTO: When set to the AUTO position, RANDOM NOTE preset sounds are automatically and continuously produced.

OFF: When at OFF position, no random effect can be produced.

KEY: When the switch is at this position, random notes of preset sounds are produced which have no relation to the tone of the pressed key.

The time interval between random notes is adjusted by the MODULATION RATE slide knob <9>. As the MODULATION RATE knob is raised, the random note intervals are shortened.

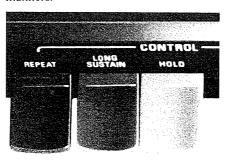
When PORTAMENTO switch <15> is ON and PORTAMENTO SPEED slide knob <14> is raised, the random note effect is decreased. When the PORTAMENTO switch <15> is at SLOW, random note effect is decreased even more.



#### **ENVELOPE TABLETS**

<20> - < 22>

The tablets can modify or alter sound performance in the following three manners.



#### REPEAT <20>

When this tablet is at ON position, the effect is to repeat a sound as if the key is being pressed intermittently at a constant interval, while the key is actually being pressed continuously.

The speed of this repeat is adjusted by the MODULATION RATE knob <9>. As the slide knob of MODULATION RATE is raised, the repeat interval of this effect is shortened.

#### LONG SUSTAIN <21>

When this tablet is at ON position, a sound is sustained and slowly extinguished after the key is released. This effect cannot be produced on individual preset sounds characterized by natural long sustain effect. (Refer to Table 1.)

#### HOLD <22>

Setting this tablet to ON maintains a sound at a constant volume even though the key is released.

### EFFECT OF ENVELOPE TABLETS ON SH-2000

	PRESET TAB.	REPEAT TAB.	LONG SUSTAIN TAB.
	1 TUBA	0	0
2	2 TROMBONE	0	0
EN	3 FRENCHHORN	0	0
M S	4 TRUMPET	0	0
STR	5 SAXOPHONE	0	0000
Z	6 BASSOON	0	0
WIND INSTRUMENTS	· 7 OBOE	0	0
	8 FLUTE	0	0
	9 CLARINET	0 0 0 0	0 0 0
	10 CELLO	0	0
	II VIOLIN	0 0	0
જ	12 BASS GUITAR		-
STRINGS	13 HAWAIIAN GUITAR	Δ	-
ST	14 BANJO	0	- O
	15 FUZZ GUITAR 1	Δ	-
	16 FUZZ GUITAR 2	0	- 0 0
8 Z	17 PIANO	0	0
ION & ORD IENTS	18 HARPSICHORD	0	-
RCUSSION KEYBORD STRUMEN	19 ACCORDION	0	
PERCUSSION & KEYBORD INSTRUMENTS	20 VIBRAPHONE	0	-
<u>a</u> ≤	21 XYLOPHONE	0	0
	22 SINGING VOICE	0	0
DS	23 SONG WHISTLE	0	0
N	24 POP CORN	0	0 0 0 0
s SC	25 SPACE REED	0	0
PARTICULAR SOUNDS	26 PLANET	Δ	-
ICO	27 FROG MAN	0 0 0	- 0 0
IRT	28 FUNNY CAT	0	0
P.A	29 GROWL WOW		
	30 WIND	0	0

#### PORTAMENTO < 14>, < 15>

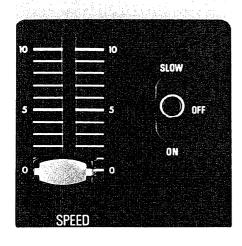
This effect provides that one note drifts to a subsequent note without a break in sound.

PORTAMENTO switch <15> can be set to one of three positions.

ON: When this switch is at ON position, the slide knob of PORTA-MENTO SPEED <14> controls the speed of portamento. As the slide knob is raised, the change from one note to the following note is slowed.

OFF: Portamento effect will not be obtained when this switch at OFF.

SLOW: Setting the switch to SLOW causes the note to change slowly regardless of PORTAMENTO SPEED <14> setting.



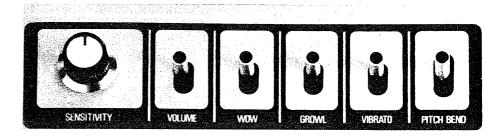
### TOUCH EFFECT CONTROLS

<3> - <8>

Instantaneous results are obtained for individual notes by varying the pressure on pressed keys. There are six effects, each controlled by an ON/OFF switch.

As shown in the drawing, normal pressure (a) produces no special effect except for WOW <5>. Applying greater pressure (b), however, produces the desired musical effects.

There are some preset sounds which are not modified by Touch Effect because of their particular nature. (Refer to Table 2.)



#### SENSITIVITY <3>

This adjusts the degree of effect set on TOUCH EFFECT CONTROLS. As this knob is turned to clockwise, the degree of effect is increased.

When this knob is set at 0, no effect shall be created even if TOUCH EFFECT switches <4>-<8> are set to ON.

The SENSITIVITY knob is normally positioned at 5.

Adjust the depth of effect accordingly as desired.

#### VOLUME <4>

Expression effect can be produced by increased finger pressure on individual keys. If this switch is put ON, normal volume shall be decreased, while increased volume is produced by pressing keys harder.

Volume can be adjusted further by SENSITIVITY knob <3>.

#### WOW <5>

When this switch is put ON, WOW effect is selectively produced for keys which are pressed harder. And the harder the keys are pressed, the greater the wow effect created.

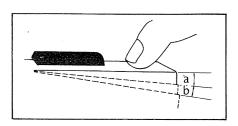
Note: Among 30 preset sounds, there are several sounds which do not express this effect because of their particular nature. (Refer to the Table 2.)

#### GROWL <6>

Putting this switch ON creates a growl effect by pressing keys strongly.

The degree of this effect is also adjustable by the SENSITIVITY knob <3>.

Note: Putting this switch ON cancels preset GROWL WOW sound in normal performance touch. According to the pressure of the touch, growl effect can be created in varying degrees.



#### VIBRATO <7>

Putting this switch ON provides Touch Effect vibrato effect. According to the depressed touch depth, vibrato effect can be created to varying degrees.

The speed of vibrato is adjustable by the MODULATION RATE knob <9>, while the degree of vibrato can be controlled by the SENSITIVITY knob <3>. Note: Putting this switch ON cancels vibrato effect of preset sounds under normal performance touch.

#### PITCH BEND UP/DOWN <8>

Putting this switch UP raises the tone of the key as the key is pressed strongly.

Putting the switch DOWN lowers the tone of the key as the key is pressed strongly.

The greater the SENSITIVITY knob <3> setting, the more a tone varies up or down.

#### EFFECT OF TOUCH SENSE AND CHARACTERIZED MODULATION ON SH-2000

Note: The speed of preset CHORUS and FAST GROWL shall not be modified by MODULATION RATE on the Table 2 O Large effect O Effect △ Slight effect

Table 2	○ Large effect ○ Effe  ——————————————————————————————————	_	it effect	- No	effect	control p	anel.		
PRESET TAB.		T.C. VOLUME	T. C. WOW	T.C. GROWL	T.C. VIBRATO	T.C. PITCH BEND	VIBRATO	DELAY MODULATION	CHORUS FAST GROWL
ENTS	1 TUBA	0	0	0	0	0	_	_	. –
	2 TROMBONE	0	Δ	0	0	0	0	0	_
	3 FRENCH HORN	0	Δ	0	0	0	_	-	_
Mn	4 TRUMPET	0	Δ	0	0	0	0	0	_
STR	5 SAXOPHONE	0		0	0	0	0	0	_
WIND INSTRUMENTS	6 BASSOON	0	0	0	0	0	0	0	_
	7 OBOE	0	_	0	0	0	0	0	_
≥	8 FLUTE	0	0	0	0	0	0	_	_
	9 CLARINET	0	Δ	0	0	0	0	. 0	_
	10 CELLO	0	-	0	0	0	0	0	
	11 VIOLIN	0	~	0	0	0	0	0	_
SS	12 BASS GUITAR	0	0	0	0	0	-	_	_
STRINGS	13 HAWAIIAN GUITAR	0	-	0	0	0	0		_
ST	14 BANJO	0	0	0	0	0	-	-	_
	15 FUZZ GUITAR 1	0	-	0	0	0	-	_	
	16 FUZZ GUITAR 2	0	Δ.	0	0	0	0	0	_
PERCUSSION & KEYBORD INSTRUMENTS	17 PIANO	0	Δ	0	0	0	_	-	-
END N	18 HARPSICHORD	0	-	0	0	0	_	_	-
USS YBC	19 ACCORDION	0	_	0	0	0	_	_	0
SRC KE	20 VIBRAPHONE	0	0	0	0	0	0	_	-
E 4	21 XYLOPHONE	0	-	0	0	0	-	-	-
	22 SINGING VOICE	0	0	0	. 0	0	0	-	0
DS	23 SONG WHISTLE	0	0	0	0	0	0	-	_
	24 POP CORN	0	0	0	0	0	-	-	_
\ SC	25 SPACE REED	0	0	0	0	0	-	<b>-</b> _	_
	26 PLANET	0		0	0	0	-	-	0
PARTICULAR SOUNDS	27 FROG MAN	0	0	0	0	0	_	-	_
	28 FUNNY CAT	0	0	0	0	0	-	_	· <u> </u>
P.A	29 GROWL WOW	0	0	0	0	0	-	_	0
	30 WIND	0	0	Δ	0	-	-	_	-

#### MODULATION RATE < 9>

Normally this is set at "5" - "7". Changing this varies speed of vibrato preset sounds. (Refer to the Table 2.)

Controls the speed of the RANDOM NOTE < 18 > effect. (Refer to RANDOM NOTE on page 6.)

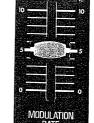
Adjusts the interval of REPEAT <20> ENVELOPE. (Refer to ENVE-LOPE TABLETS on page 6.)

Adjusts the speed of VIBRATO <7>

of TOUCH EFFECT control. (Refer to TOUCH EFFECT CONTROLS, VIBRA-TO on page 7.)

Adjusts the speed of MODULATION <11> of FILTER CONTROLS. (Refer to FILTER CONTROLS, MODULA-TION on page 9.)

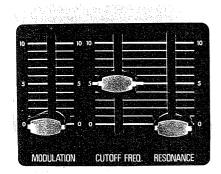
As the slide knob of MODULATION RATE < 9 > is raised, the speed increases. This speed is indicated by the flashing of the MODULATION RATE INDICATOR < 10 >.





# FILTER CONTROLS < 11> - < 13>

These allow wide variations of preset sounds, and work in connection with FILTER MANUAL <23 > tablet.



#### CUTOFF FREQUENCY <12>

When the tablet of FILTER MANUAL <23> is not set to ON, this control subtly alters preset sounds.

Normally this is set at "5".

Note: There are some preset sounds which do not express this effect because of their particular nature.

When tablet of FILTER MANUAL is ON, this control produces special effects on preset sounds by modifying them considerably. The CUTOFF FRE-QUENCY slide knob <12> controls the musical harmonics. As this knob is raised, the sound becomes stronger, and when lowered, the sound becomes softer. Note: When FILTER MANUAL <23> is at ON, too much lowering of CUTOFF FREQ. control may completely extinguish the following preset sounds.

(Wind instrumental sounds) TUBA, OBOE, CLARINET (Percussion & keyboard sounds) VIBRAPHONE (Particular sounds) SINGING VOICE, SPACE REED.

#### RESONANCE <13>

This control extends the peak of frequencies of the preset sound overtone to distort preset sounds, and modifies them to some particular tone only when FILTER MANUAL <23> tablet is ON. This knob is normally set at 0, and as the slide knob is raised, the distortion effect is emphasized.

Resonance effected tone is controlled by CUTOFF FREQ. <12>. When slide knob is positioned between 9 – 10, RESONANCE begins to oscillate to produce sounds from FILTER CONTROL which do not have any relation to the keys pressed. These new sounds from FILTER CONTROL are performed singly or with other preset sounds. Tone of the sound from FILTER CONTROL is controlled by CUTOFF FREQ. <12>.

#### MODULATION < 11>

Only when FILTER MANUAL <23> tablet is ON, this control gives sound variations according to the speed shown by the slide knob of MODULATION RATE <9>. The more this slide knob <11> is raised, the greater the variation of sound.

#### FILTER MANUAL < 23>

This tablet is interlocked with FILTER CONTROL <11>, <12>, <13> on the panel.

Each slide knob <11>, <12>, <13> is activated when this tablet is ON.

RESONANCE <13> and MODULATION <11>, except for CUTOFF FREQ. <12>, will not work until this tablet is at ON position.

# PERFORMANCE GUIDE

Preset sounds of the SH-2000 vary widely according to the combination of controls set on the panel and the position of the control tablets. Here,

we will introduce some unique examples of how preset sounds may be used. In all cases, please note the functions of FILTER CONTROLS <11> <12>

<13> which play a very important part in modifying the preset sounds and try to duplicate these sounds by actually playing the SH-2000.

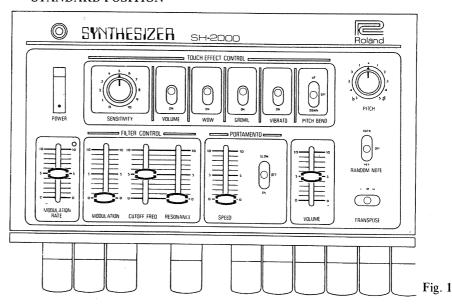
#### Preparation for Performance

- 1. Set all tablets to the OFF position (level) and controls as shown in the illustration at the right.
- 2. Switch POWER <2> to ON and slide total VOLUME <16> to the desired level.

With controls set at the standard positions shown at the right, pure preset sounds are obtained. Try playing the accompanying music with the controls set as shown.

In performing sounds according to the instructions in this Performance Guide, it is important to keep all unmentioned controls at their standard positions.

#### STANDARD POSITION



T.C. . . . TOUCH EFFECT CONTROL

#### WIND INSTRUMENTS

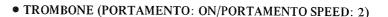
The settings of PORTAMENTO SPEED <14> and MODULATION RATE <9> as noted here should be originally set in their standard position and during playing can be adjusted for desired effect.

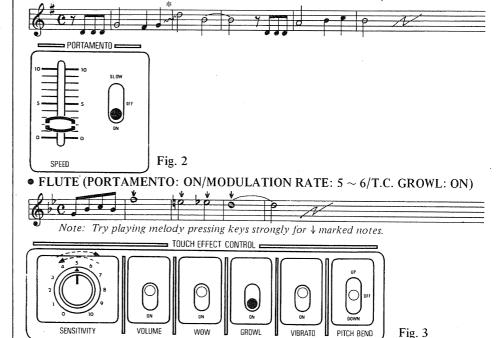
#### TROMBONE

Set PORTAMENTO controls as shown in Fig. 2. All other controls are at their standard setting. According to melody, a rich variation of expression can be obtained by changing the PORTAMENTO SPEED <14> setting while playing as indicated by \* in music note.

#### **FLUTE**

Flute sounds can be obtained by turning GROWL <6> of TOUCH EFFECT CONTROL to its ON position. SENSITIVITY <3> setting outlined here is offered only as an example and may be altered to create desired effect.







#### **STRINGS**

PORTAMENTO SPEED <14> and MODULATION RATE <9> play important roles in creating dynamic string effects.

#### **CELLO**

Set VOLUME <4> of TOUCH EFFECT CONTROL to produce desired effect by varying key pressure.

#### **HAWAIIAN GUITAR**

Set PITCH BEND <8> of TOUCH EFFECT CONTROL at its down position as shown in the illustration.

#### **BANJO**

Set REPEAT <20> tablet to ON and MODULATION RATE <9> to '6'. Play by making clear distinction between staccato and tenuto.

#### **FUZZ GUITAR 1 & 2**

Set PITCH BEND <8> of TOUCH EFFECT CONTROL at its UP positions as shown in fig. 6 to produce the choke effect of the guitar.

# PERCUSSION & KEYBOARD INSTRUMENTS

For these sounds PORTAMENTO switch <15> must be OFF.

#### **ACCORDION**

Set VOLUME <4> of TOUCH EFFECT CONTROL to desired level and create sound by varying keyboard pressure.

#### **XYLOPHONE**

Set REPEAT tablet <20> to ON and MODULATION RATE <9> at '6' to '7'.

## OTHER SOUNDS SINGING VOICE

Play while sliding control of CUTOFF FREQ. <12> of FILTER CONTROL according to melody as shown in Fig. 7.



#### SONG WHISTLE

For a high whistle, TRANSPOSE <19> should be set at HIGH. Effect can be changed by turning PORTAMENTO switch <15> to ON and positioning PORTAMENTO SPEED <14> at '2' to '3'. MODULATION RATE <9> should be set at around '5.5'.

#### **PLANET**

Try this effect by setting PORTA-MENTO switch <15> to ON/SLOW. An echo chamber can be used to make this sound even more dynamic.

#### FROG MAN

Set VIBRATO <7> of TOUCH EFFECT CONTROL to ON. Then strongly press the desired key. For a more comical effect, set PORTAMENTO switch <15> to SLOW.

#### WIND

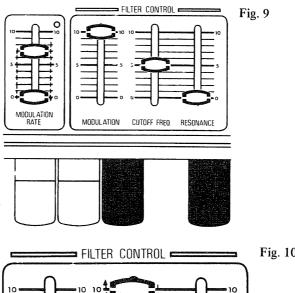
This can be used for various special effects. Slide MODULATION RATE <9> up and down slowly as shown in fig. 9. This effect can also be used to imitate a train.

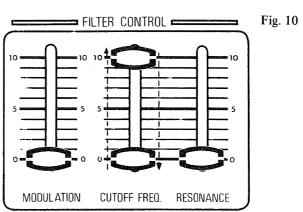
#### FILTER CONTROLS

<11>, <12>, <13>

Filter controls play an important role in modifying preset sounds or altering them to produce completely different sounds. Play FILTER CONTROL effects by using the FLUTE preset tab.

 SONG WHISTLE (TRANSPOSE: H/PORTAMENTO: ON/PORTAMENT SPEED:  $2 \sim 3/MODULATION RATE: 5.5)$ • PLANET (PORTAMENTO: PORTAMENTO SPEED:  $1 \sim 2$ ) PORTAMENTO: SLOW **↓PORTAMENTO: ON** • FROG MAN (PORTAMENTO: ON/PORTAMENTO SPEED: 2/T.C. VIBRATO: ON) Note: Try playing melody pressing keys strongly for ↓ marked notes. ■ TOUCH EFFECT CONTROL SENSITIVITY GROWL WOW **VIBRATO** PITCH BEND Fig. 8 = FILTER CONTROL == Fig. 9





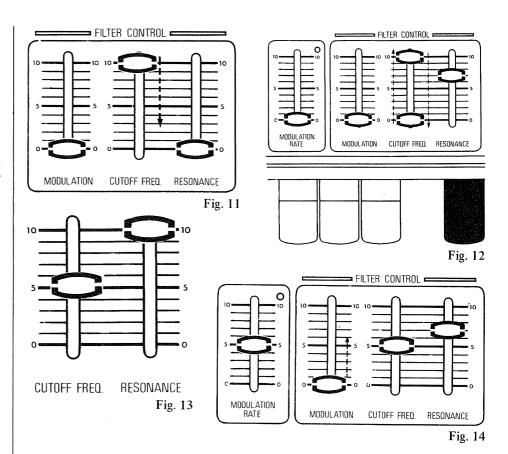
- 1. Set all controls to their standard positions.
- 2. Slide CUTOFF FREQ. <12> up and down while pressing keys as shown in fig. 10. This will slightly alter tone. When FILTER MANUAL <23> is OFF, CUTOFF FREQ. controls tone of preset sounds.
- 3. Set FILTER MANUAL <23> to ON, and lower CUTOFF FREQ. <12> slightly from '10' (fig. 11). When the knob is lowered, timbre will increase and volume will be reduced.
- 4. RESONANCE <13> adds special effect to the tone. Set RESONANCE around '7' as shown in fig. 12, and move CUTOFF FREQ. <12> up and down. The combined operation of these two controls modifies tone in various ways.
- 5. When RESONANCE is at '10' as shown in fig. 13, oscillation will be produced by FILTER CONTROL which has no relation to pressure on keys. This oscillation can be produced either alone or in combination with other preset sounds.

This tone may also be adjusted with CUTOFF FREQ. <12>.

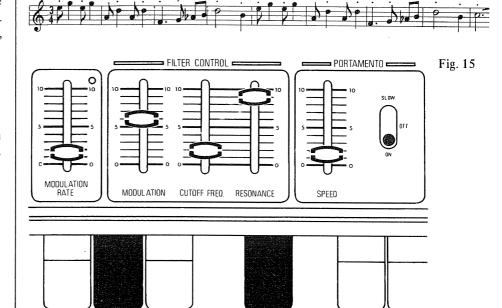
6. MODULATION <11> modulates sounds created by CUTOFF FREQ and RESONANCE <13>. The more the knob is raised the greater the effect. If MODULATION RATE <9> is raised, growl rate will also increase (fig. 14).

## PERFORMANCE USING OSCILLATIONS

Play melodies with controls set as shown in fig. 15. Use TROMBONE preset tab.



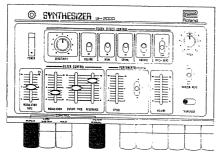
PERFORMANCE USING OSCILLATION (PRESET: TROMBONE)



# NEW EXCITING SOUNDS

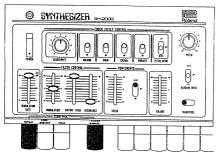
#### Exciting new sounds:

- Many unique sounds are possible with the ROLAND SH-2000 by just varying standard control settings.
- Amplifiers, speakers, and electronic organs connected to the SH-2000 can cause tones to vary. Adjust the desired tone on the amplifier side, or each control of SH-2000.



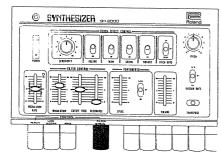
# STEAM PASSENGER LAUNCH Preset Tablet ..... FROG MAN

Depress the lowest F<sub>1</sub> key or any key near it.



# 350cc CLASS MOTORCYCLE Preset Tablet . . . . FROG MAN

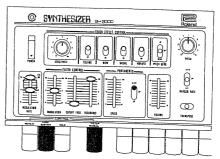
Depress the lowest  $F_1$  key. To obtain a feeling of speed, depress the high keys.



#### TWITTERING BIRDS

Preset Tablet . . . . All preset tablets OFF

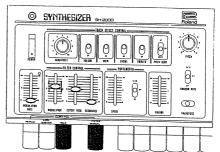
- Each illustration indicates in heavy black the knobs, switches and tablets necessary to create particular sounds. All other knobs can be set at any position.
- Set volume by TOTAL VOLUME, as desired.



#### **UFO SOUND**

Preset Tablet . . . . POPCORN

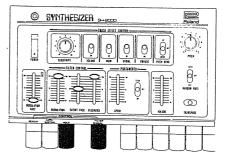
Use the PORTAMENTO effect. By slowly sliding the MOD-ULATION RATE control up or down interesting UFO SOUND may be produced.



#### **WAVE**

Preset Tablet . . . . WIND

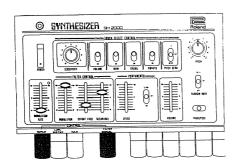
By sliding the MODULATION of FILTER CONTROL up or down a sound effect like the waves beating upon the seashore can be obtained.



#### **SWEEPER**

Preset Tablet . . . . All preset tablets OFF

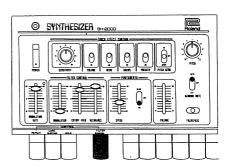




#### SHOOTING RIFLE

Preset Tablet ..... WIND

Shooting sound is produced by depressing a key.



#### STEAM LOCOMOTIVE

Preset Tablet . . . . WIND

The speed of running SL is varied via the MODULATION RATE control.

#### **SPECIFICATIONS**

37 Keys (F scale)
Transpose Changeover Switch $(L/M/H)$
Preset Tablets30
TUBA, TROMBONE, FRENCH HORN, TRUMPET,
SAXOPHONE, BASSOON, OBOE, FLUTE, CLARINET;
CELLO, VIOLIN, BASS GUITAR, HAWAIIAN GUITAR,
BANJO, FUZZ GUITAR 1, FUZZ GUITAR 2, PIANO,
HARPSICHORD, ACCORDION, VIBRAPHONE,
XYLOPHONE; SINGING VOICE, SONG WHISTLE,
POPCORN, SPACE REED, PLANET, FROG MAN,
FUNNY CAT, GROWL WOW, WIND
Envelope Tablets
HOLD, LONG SUSTAIN, REPEAT
Filter Manual Tablet 1
Filter Controls
CUTOFF FREQUENCY, RESONANCE, MODULATION
Touch Effect Controls 6
PITCH BEND (UP/OFF/DOWN), VIBRATO
(ON/OFF), GROWL (ON/OFF), WOW (ON/OFF),
VOLUME (ON/OFF), SENSITIVITY

	Switch (ON/OFF/SLOW),
Other Controls	
	TE, PITCH, RANDOM NOTE
	, VOLUME, TUNING, POWER
Output Jack	
Output Voltage Change	eover Switch (L/M/H)
Power Source:	AC 100/117V or 220/250V 50/60Hz
Power Consumption:	10W
Dimensions:	W: 865mm (34")
	D: 266mm (10.5")
	H: 133mm (5.2")
Weight (Net):	11Kg (24.2 lbs.)
Accessories:	Music Rack
#• 	Connection Cord (2.5m with Pin-Plug
	Adaptor)
* Specifications subject to	change without notice.

- \* Electricity is factory wired to the voltage specified on the unit.

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10249

UPC 10249

# Roland