Roland

DIGITAL REVERB SRV-2000 Owner's Manual

"**Warning** — This equipment has been verified to comply with the limits for a Class B computing device, pursuant to Subpart J, of Part 15, of FCC rules. Operation with non-certified or non-verified equipment is likely to result in interference to radio and TV reception."

The equipment described in this manual generates and uses radio-frequency energy. If it is not installed and used properly, that is, in strict accordance with our instructions, it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J, of Part 15, of FCC Rules. These rules are designed to provide reasonable protection against such an interference in a residential installation.

However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by the following measure:
● Disconnect other devices and their input/output cables one at time. If the interference stops, it is caused by either the other device or its I/O cable.

These devices usually require Roland designated shielded I/O cables. For Roland devices, you can obtain the proper shielded cable from your dealer. For non Roland devices, contact the manufacturer or dealer for assistance.

If your equipment does cause interference to radio or television reception, you can try to correct the interference by using one or more of the following measures:
● Turn the TV or radio antenna until the interference stops.
● Move the equipment to one side or the other of the TV or radio.
● Move the equipment father away from the TV or radio.
● Plug the equipment into an outlet that is on a different circuit than the TV or radio. (That is, make certain the equipment and the radio or television set are on circuits controlled by different circuit breakers or fuses.)
● Consider installing a rooftop television antenna with coaxial cable lead-in between the antenna and TV.

If necessary, you should consult your dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet prepared by the Federal Communications Commission:
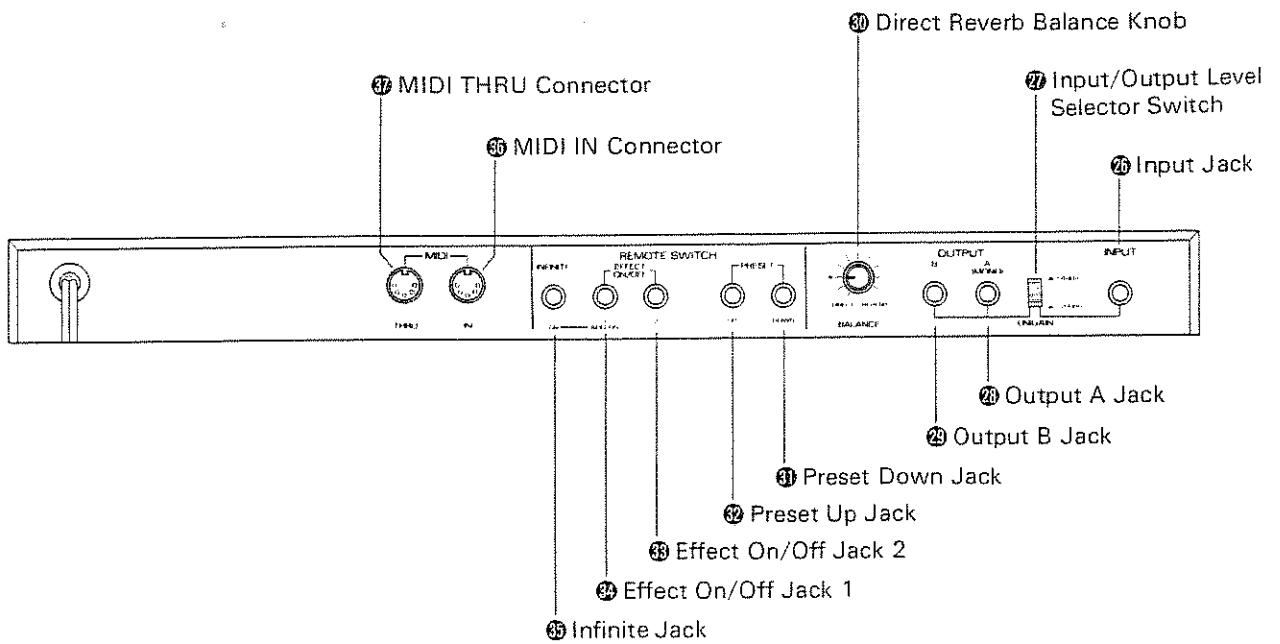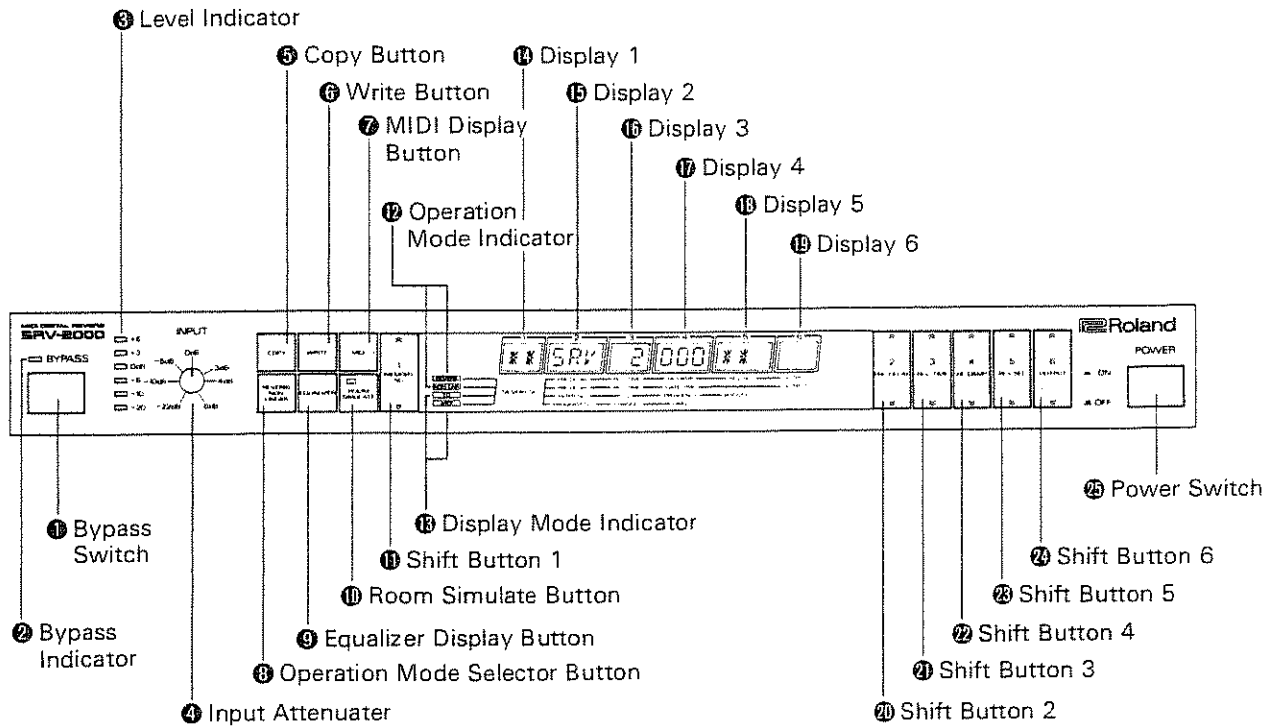
"How to Identify and Resolve Radio-TV Interference Problems"

This booklet is avilable from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

CONTENTS

Please read the separate volume "MIDI" before this owner's manual.

1 Panel Descriptions

③ Level Indicator
⑤ Copy Button
⑥ Write Button
⑦ MIDI Display Button
⑫ Operation Mode Indicator

⑭ Display 1
⑮ Display 2
⑯ Display 3
⑰ Display 4
⑱ Display 5
⑲ Display 6

① Bypass Switch
② Bypass Indicator

⑬ Display Mode Indicator
⑪ Shift Button 1
⑩ Room Simulate Button
⑨ Equalizer Display Button
⑧ Operation Mode Selector Button
④ Input Attenuater

㉕ Power Switch
㉔ Shift Button 6
㉓ Shift Button 5
㉒ Shift Button 4
㉑ Shift Button 3
⑳ Shift Button 2

㉚ Direct Reverb Balance Knob
㉗ Input/Output Level Selector Switch
㊲ MIDI THRU Connector
㊱ MIDI IN Connector
㉖ Input Jack

㉘ Output A Jack
㉙ Output B Jack
㉛ Preset Down Jack
㉜ Preset Up Jack
㉝ Effect On/Off Jack 2
㉞ Effect On/Off Jack 1
㉟ Infinite Jack

FEATURES OF THE SRV-2000

The SRV-2000 adopts the 16 bit linear A/D/A convertion system and 28 bit parallel arithmatic, allowing dynamic range of 90dB and total harmonic distortion of under 0.03%.

This can present various reverb effects such as a natural and a non-linear reverb.

The 3 band digital parametric equalizer is built in, changing the frequency characteristic of the reverberation.

The Room Simulate Button allows natural reverberations.

The memory capacity that can retain up to 32 different reverb settings.

MIDI Program Change message sent from an external device can recall the reverb settings of the SRV-2000's memory.

On the rear panel, there are various useful jacks provided, such as the Effect On/Off Jack, the Preset Up/Down Jack, and the Infinite Jack that can make infinitely long reverberation time, etc.

IMPORTANT NOTES

- Please use the appropriate line voltage which is shown on the name plate.

- This unit may get hot while operating, but there is nothing to worry about.

- Avoid using the unit in extreme heat, humidity or where it may be affected by dust.

- Use mild detergent for cleaning. Do not use solvents such as thinner.

- Please avoid placing or dropping anything heavy on the power cable.

- Operating the unit near a neon or fluorescent lamp may cause noise interference. If so, change the angle of the SRV-2000.

- If the unit is not to be used for a long period of time, unplug the cord from the socket.

* Please do not pull the cord but hold the plug when unplugging.

- The unit may not operate properly if turned on immediately after turned off. If this happens, simply turn it off, then turn it on again in after about five seconds.

- Please do not disassemble the unit even if it breaks down.

OUTLINE OF THE SRV-2000

The Roland digital reverberation unit SRV-2000 converts the input signal to the digital, making reverb effect digitally.
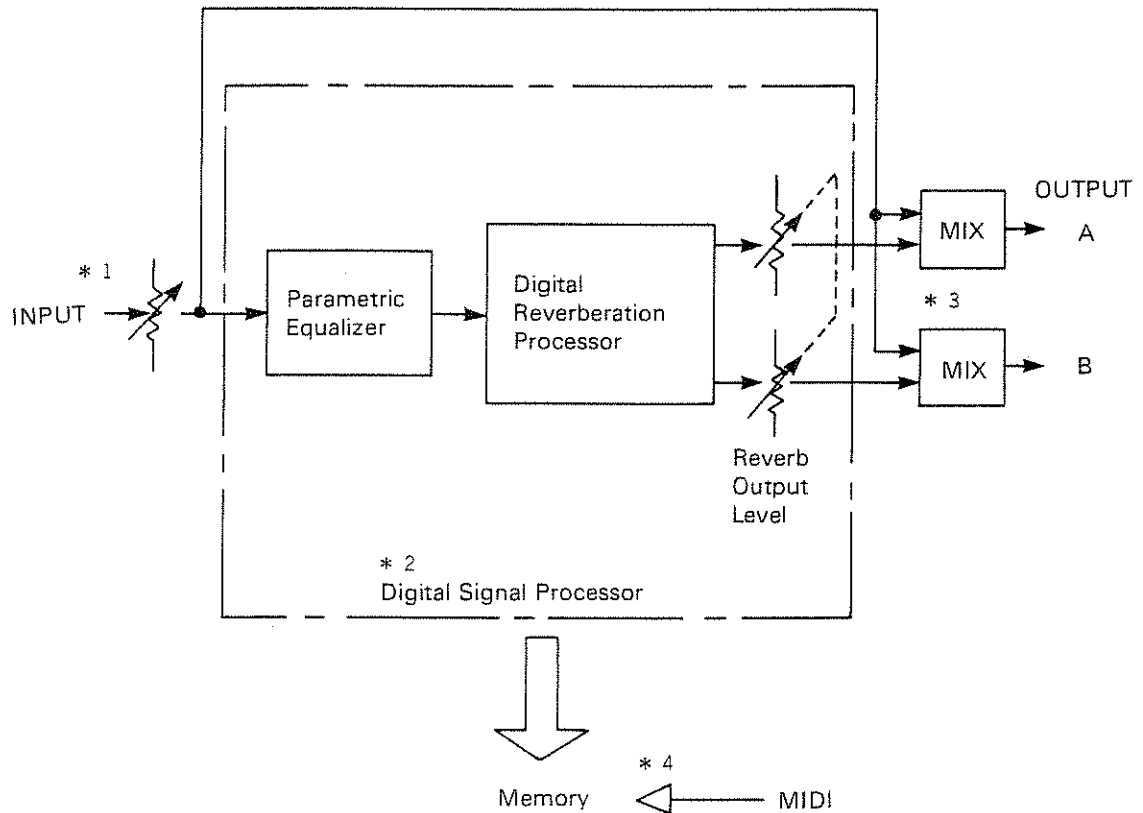
*1: The signal fed through the Input Jack will be sent to the Input Attenuator, then to the Digital Signal Processor. The Input Attenuator serves to adjust the level of the signal before it is sent to the Digital Signal Processor.

*2: The Digital Signal Processor consists of two parts; the Parametric Equalizer where the frequency characteristic is altered, and the Reverberation Processor where the reverb effect is made as each parameter is set on the front panel by digitally processing the signal in 28 bit parallel arithmatic system.

*3: Finally the reverb sound is mixed with the direct sound then sent out.

*4: Up to 32 different reverb settings can be written in the SRV-2000's memory. Each reverb setting is determined by the parameters such as the depth and the time of the early reflections and later reverberation, etc. Each reverb setting can be easily recalled by pressing the button on the front panel or by sending the MIDI Program Change message from the device connected to the SRV-2000.

ABOUT REVERBERATION

Reverberation, different from the direct sound that reaches you directly from the sound source, reaches your ears after reflecting here and there. For example, when a musical instrument is played in a hall, even after the instrument stops giving sound, there is remaining sound in the hall for a while. This is the reverberation.

* The picture below will help understand what reverberation is.

LEVEL

Time

a. Direct Sound   b. Early Reflections   c. Later Reverberation
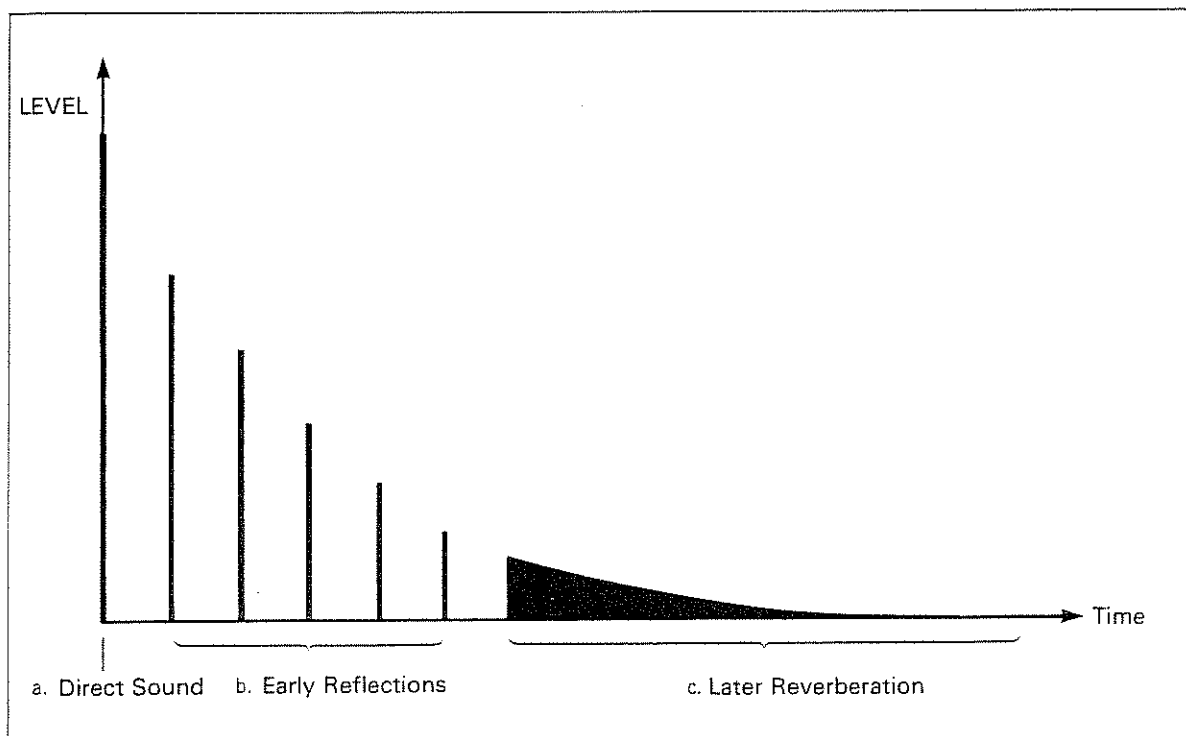
a. Direct Sound

The sound reaches your ears directly from the sound source. Naturally, this is heard first.
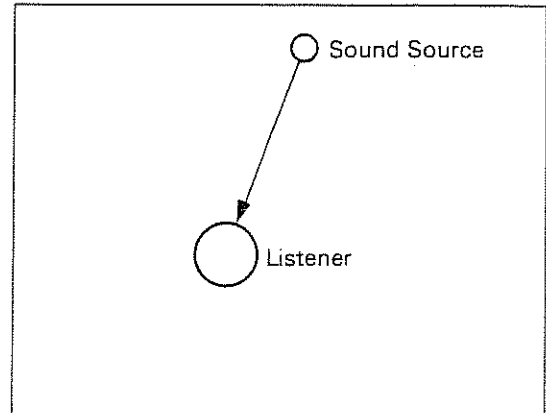
b. Early Reflections

The sound reaches your ears after reflected by the wall once or several times.
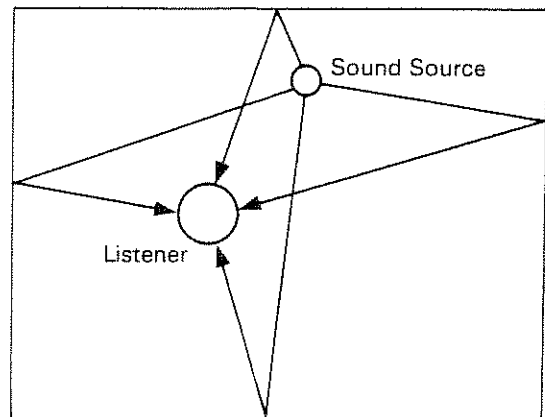
c. Later Reverberation

The sound comes after reflected many times in various phases and from various directions.
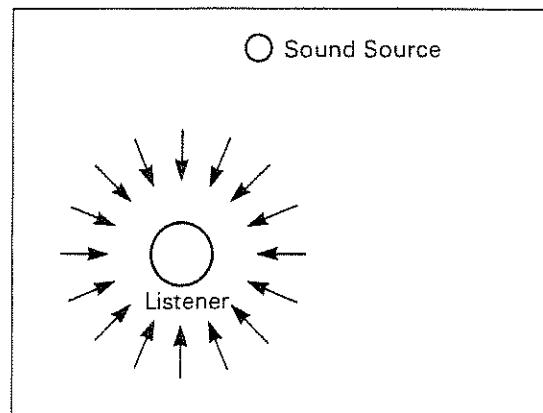
2 Basic Operation

Using the SRV-2000 for vocal

Using your SRV-2000, you can spontaneously make your own reverb settings. For vocal, however, the preprogrammed reverbs will be sufficient. Recalling a reverb is a very simple procedure.

1. CONNECTION

Change the position depending on the type of equipment used.

* Do not connect a microphone directly to the SRV-2000. Use a microphone amplifier, mixer or vocal amplifier.

2. OPERATION

❷ Bypass Indicator
(No reverb when this is lighted)

❸ Level Indicator

❻ Write Button

❿ Display 1

❸ Bypass Switch

❹ Input Attenuator

❽ Operation Mode Selector Button

⓫ Shift Button 1

㉑ Power Switch

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① Make all the necessary connections, and set the volume of the device connected to the Output Jack to zero. Then turn all the devices on.

② Make sure that Bypass Switch ❶ is off (the indicator is dark).

③ As you sing using the microphone, adjust the volume with the Input Attenuator ❹.

* Appropriate position of the Input Attenuator is where the Level Indicator "+6 dB" ❸ lights up when you sing the loudest.
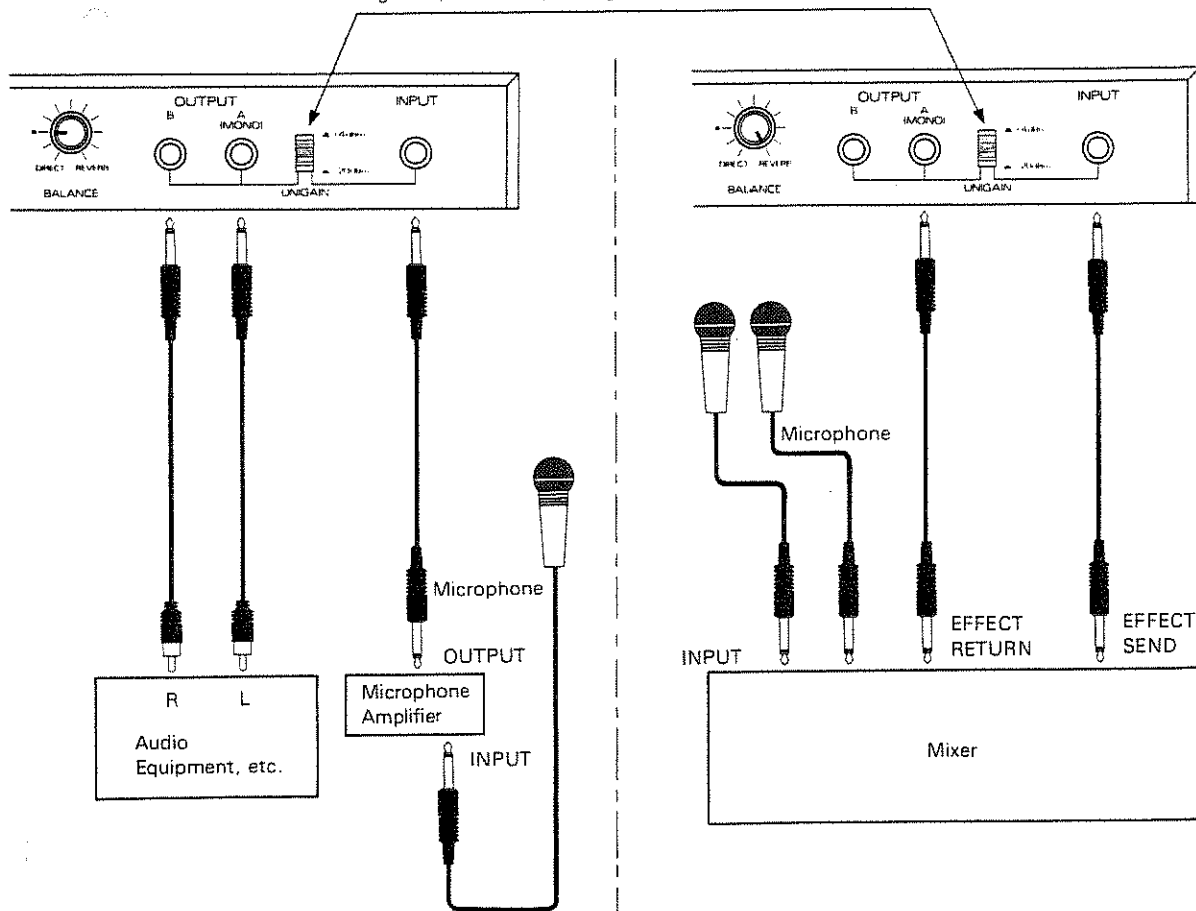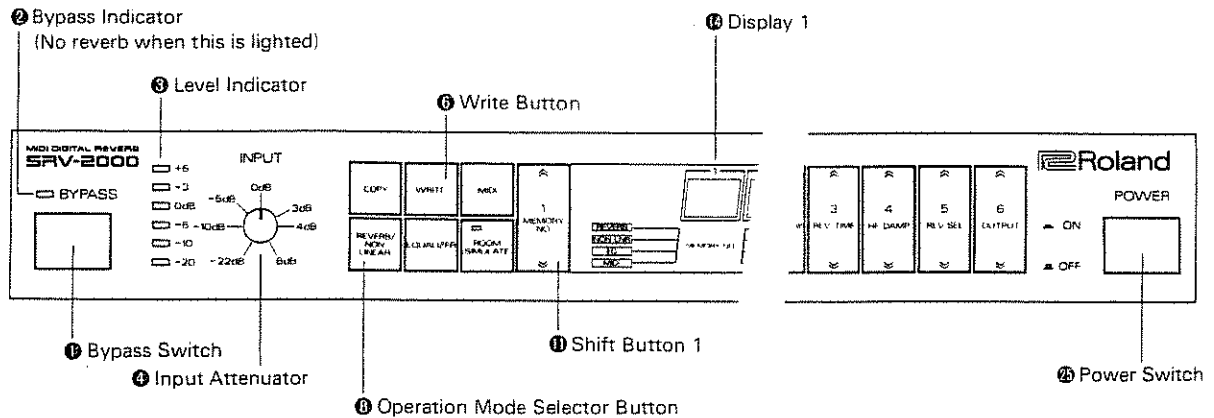
④ Adjust the volume of the device (such as mixer, audio equipment, etc) connected to the Output Jack.

⑤ Select any of the preprogrammed reverb settings 1 to 6 by pushing the Shift Button 1 ⓫.

* The number of the selected reverb (we call it Memory Number in this manual) will be shown in the Display Window 1 ⓮.

* The reverb settings other than 1 to 6 will not be suitable for vocal.

The next time the SRV-2000 is switched on, previous setting will return intact.

⓫ Shift Button 1

⓮ Display 1
(Memory Number)
The patches 1 to 6 may be suitable for vocal.

Pressing " ∧ " side will advance a number.

Pressing this button changes memory numbers.

Pressing " ∨ " side will back up a number.
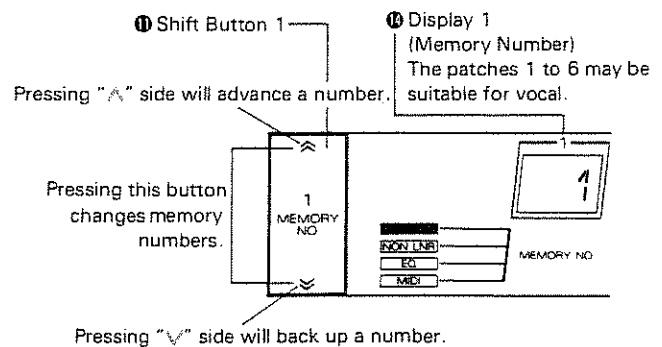
NOTE

* For about 6 seconds after the SRV-2000 is switched on, it does not give any sound.

* If you cannot obtain a proper reverb effect while using the Memory Number 1 to 6, take the following operation, then repeat the procedures ① to ⑤.

Turn the SRV-2000 off once, then turn it on again while holding down the Write Button ❻ and the Operation Mode Selector Button ❽.

* Please be sure that you are not touching any other button or switch during the above operation. If you happen to do that by mistake, simply turn off the SRV-2000, then turn it on in a proper way.

* Approximately once five years, battery replacement is required. Refer to page 33 for the details.

9

③ Advanced Operation

1. CONNECTION

- Pre-stage Device
- ㉚ Direct Reverb Balance Knob
- Device with MIDI IN — MIDI IN
- MIDI OUT — Device with MIDI OUT
- ㉗ Input/Output Level Selector Switch
- (R) (L)
- Post-stage Device
- DP-2 (Refer to page 29)
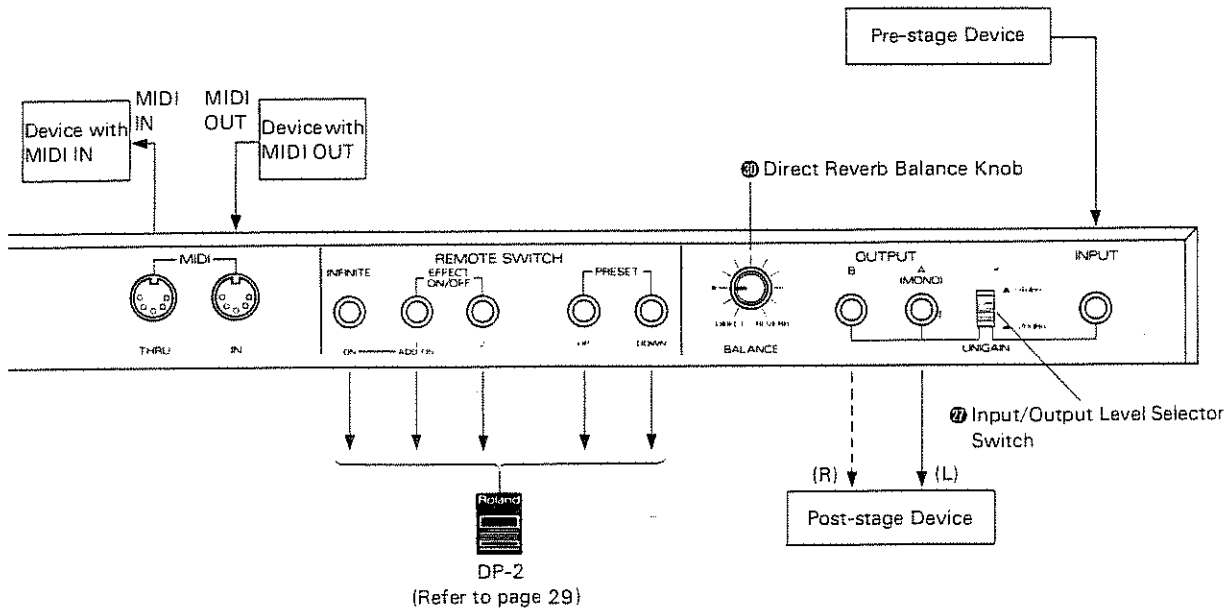
㉗ Input/Output Level Selector Switch

Select either position depending on the input/output level of the connected unit.

■ + 4dBm : Roland Rack System
Professional Audio Equipment

■ −20dBm : Electronic Musical Instrument such as synthesizer.
Consumer-type Audio Equipment, etc.

* Both input and output levels are changed with this switch. Therefore even if you change the position of this switch, there is no volume difference, but it is important to select the appropriate position for delay effect with the least noise and distortion.

㉚ Direct Reverb Balance Knob

This can change the proportion of the direct and reverb sounds. Rotating this counterclockwise will increase the proportion of the direct sound, and clockwise will increase the reverb sound. Usually, set it to "." position.

[Setting Examples]

Keyboard, etc.

−20dBm

(R) (L)

Keyboard Amplifier
PA Mixer
Audio Equipment

Pre amplifier

Guitar Amplifier   Guitar Amplifier
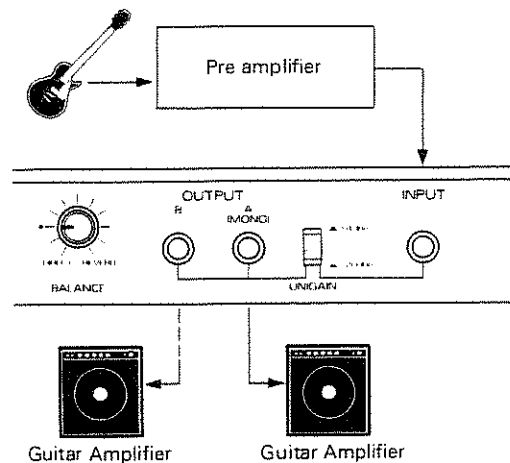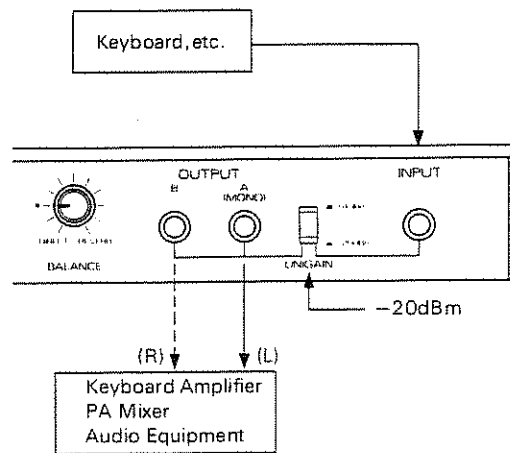
* Connecting a guitar directly to the SRV-2000 will be no good, as its input impedance is not high enough.

❷ Bypass Indicator

❸ Level Indicator

MIDI DIGITAL REVERB
SRV-2000
BYPASS
INPUT

❹ Input Attenuator
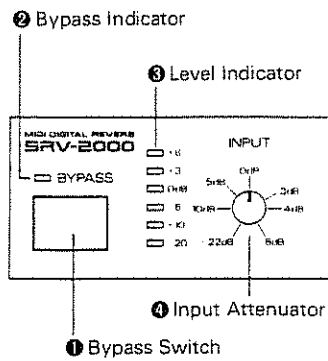
❶ Bypass Switch

❶ Bypass Switch

When this switch is turned on (when the Bypass Indicator glows), the signal fed into the Input Jack ㉖ will be perfectly passed through and sent out from the Output Jack ㉘ or ㉙.

* If the Bypass switch is turned on or off during performance (while the signal is passing through), noise will be noticed, but there is nothing to worry about.

❷ Bypass Indicator

* When the SRV-2000 is turned off, this indicator does not light up.

❸ Level Indicator

Here, the glowing indicator shows either the attenuated signal level or the reverb output signal level. The signal higher than the other is detected and the corresponding indicator lights up.

❹ Input Attenuator

Set this knob to the appropriate position where the Input Level Indicator "+6dB" lights up at its peak. When you cannot manage to do it with this knob, change the position of the Input/Output Level Selector Switch ㉕. (See page 10.)

* When the Input Attenuator is set to "0dB", the output level is equal to the input level (= Gain is UNITY). Even if it is turned fully counterclockwise, the level will not be zero.

About Shift Buttons

Display 1 to 6

Shift Buttons 1 to 6

Number increases

Number decreases
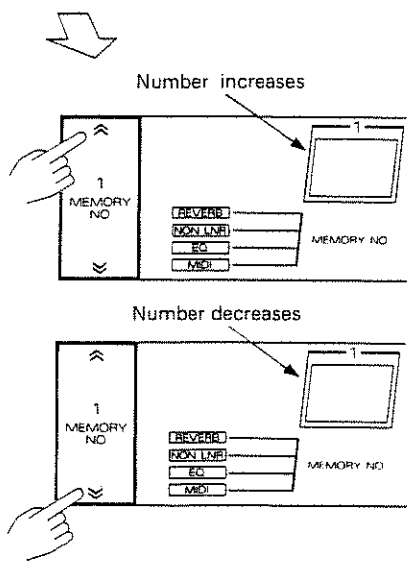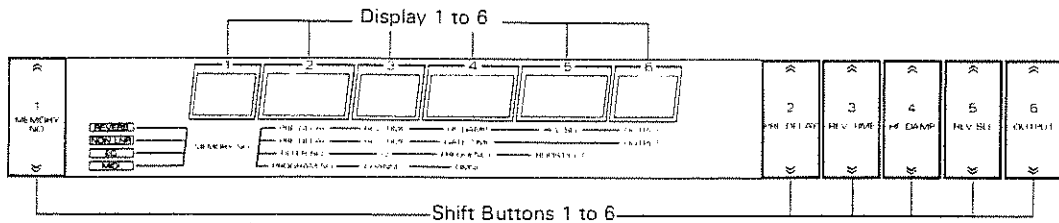
The Shift Buttons 1 to 6 (❶ and ㉑ to ㉔) serve to change the numbers (parameter values) in the Display Windows 1 to 6 (⑭ to ⑲). Pressing the upper side of the button " ⩘ " will advance a number and " ⩗ " side will back up a number. Also, pressing one side while holding the other side down will quicken the change.

11

2. CONTROL PANEL

The SRV-2000 has two basic operation modes; the Reverb mode and Non-linear mode. When in the Reverb mode, the SRV-2000 operates as a usual reverb machine, and in the Non-linear mode, the reverb sound is cut according to the set gate time. Also, each operation mode allows separate setting of the parametric equalizer. (See page 19.)

❺ Copy Button (Refer to Page 27)

❻ Write Button (Refer to page 25)

❼ MIDI Display Button

⑫ Operation Mode Indicator

This lights when in the Reverb mode.

This lights when in the Non-Linear mode.

This flashes when in the Equalizer Display mode.

This flashes when in the MIDI Display mode.

⑬ Equalizer Display Indicator

⑩ Room Simulate Button (Refer to page 16)

❾ Equalizer Display Button

❽ Operation Mode Selector Button

| COPY | WRITE | MIDI |
| REVERB/ NON LINEAR | EQUALIZER | ROOM SIMULATE |

⑫ Operation Mode Indicator
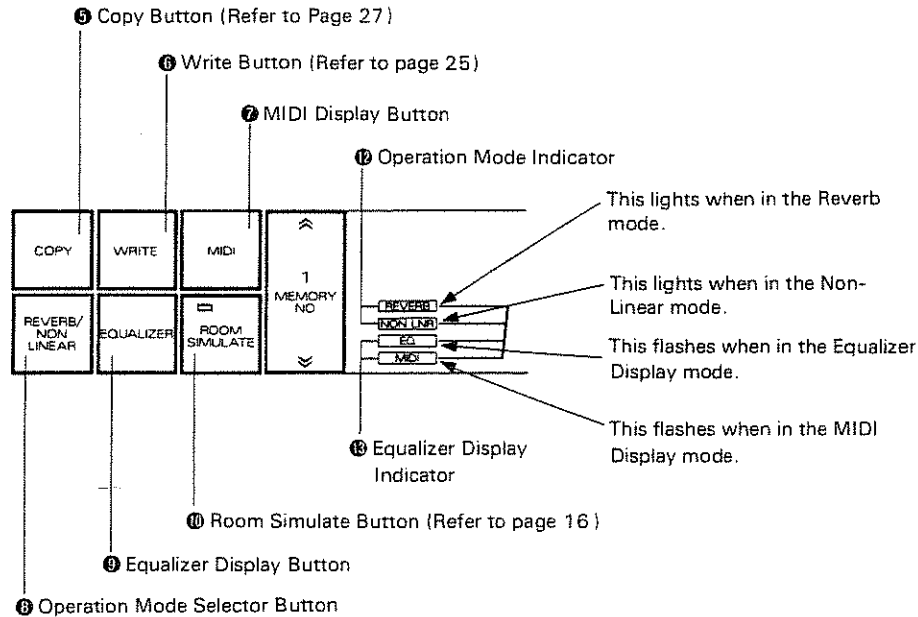This indicates which operation mode is currently selected. In the Reverb mode, glowing [REVERB] is shown, and in the Non-linear mode, [NON LNR].

⑬ Display Mode Indicator
When [EQ] is flashing here (= Equalizer Display mode), the Display Windows show the values of equalizer's parameters. When [MIDI] is flashing, the Windows show the settings of MIDI such as MIDI Channel number, Program Change number, etc.
When both [EQ] and [MIDI] are dark (= usual Display mode), the parameter values of the Reverb or Non-linear will be shown in the Windows depending on the Operation mode currenly in use.

❽ Operation Mode Selector Button
This button selects either of the Operation mode, Reverb or Non-linear. Each time the button is pushed, the mode changes from one to the other.

❾ Equalizer Display Button
Pushing this button will turn the SRV-2000 from the usual Display mode to the Equalizer Display mode. And pushing it again will return to the usual Display mode.

❼ MIDI Display Button
Pushing this button will turn the SRV-2000 from the usual Display mode to the MIDI Display mode. And pushing it again will return to the usual Display mode.

a. Reverb Mode

When the SRV-2000 is set to the Reverb mode, it works as a usaul reverb machine.

* When editing the parameters of the reverb effect, make sure that the usual Display mode is selected. If the Equalizer or MIDI Display mode is selected, the Displays will not show the parameter values, which is extremely inconvenient for taking editing procedure.

● **Reverb Selection (Display 5)**

The SRV-2000 provides three basic types of reverberations (Reverb Selections) as follows.

Room
Hall
Plate

The letter (R, H or P) in the left end of the Display 5 shows the reverb currently selected.

ROOM is a sharp, expansive and rich reverberation with high reverb density.

HALL is a deeper reverberation with low reverb density.
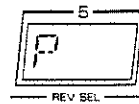
PLATE is bright and metalic reverb which is ideal for percussive sound.

When PLATE is selected, two Plate type reverberations A and B are provided. The Display 5 reacts like "P-A" and "P-B". P-B is a stronger effect than P-A.

㉔ Shift Button 5
Using this button, any of the Reverb Selection of ROOM, HALL or PLATE can be selected. Simply press it until the desired one is shown in the Display 5.

When ROOM or HALL is selected, the number shown in the right side of the Window means the size of the room. The room here, however, is considered to be a cube, therefore the number represents the side of a cube (meter).

When the room is considered to be a cube, this number means the side of a cube.
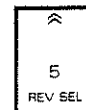
P-A
P-B
H37
H32
H26
H22
H15
R37
R32
R26
R22
R15
R7.0
R1.0
R0.3
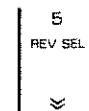
● **Pre-Delay (Display 2)**
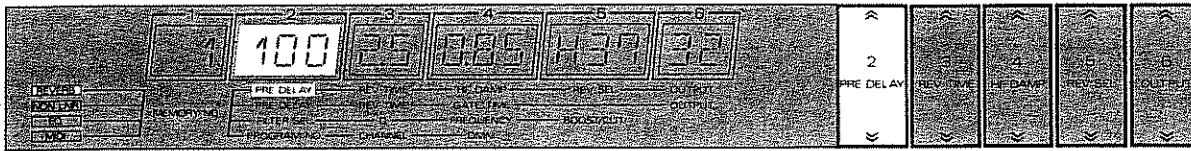
The number shown here is the time elapsed between the direct sound and the later reverberation(ms). That is, this shows the depth of the room (or hall). Increasing the pre-delay time will make a deeper room.

⑳ **Shift Button 2**
This changes the pre-delay time in 1ms steps from 0 to 160ms.

* You may hear click sound when changing the pre-delay time, but there is nothing to worry about.
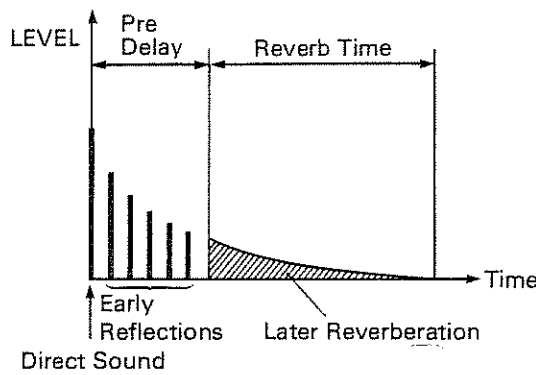
● **Reverb Time (Display 3)**
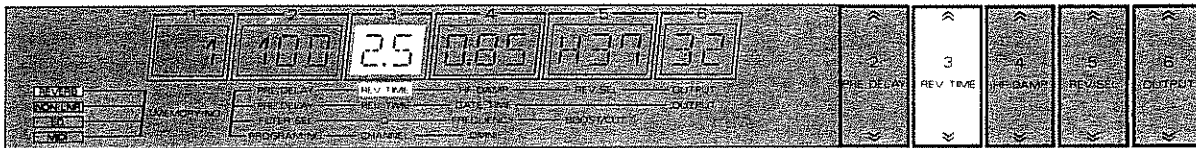
This is the length of the later reverberation. In other words, it is the time needed for later reverberation to reduce by 60dB. That is, this shows the wall reflection ratio of an actural room (or hall).

㉑ **Shift Button 3**
This button sets the reverb time in 0.1s steps from 0.1 to 9.9s and in 1s step from 10 to 99s.
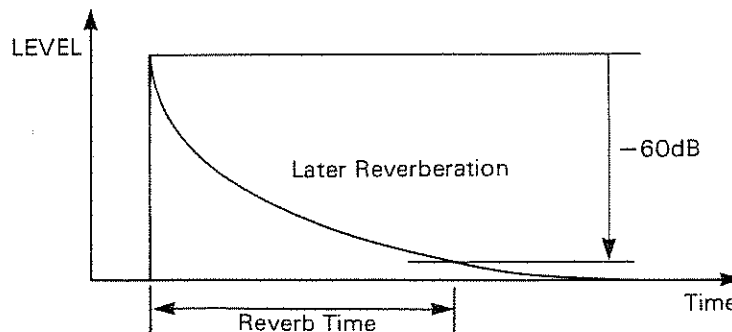
The reverb time is greately related to the Reverb Selection (Display 5). Depending on which Reverb Selection is currently in use (Room, Hall or Plate), the highest and lowest limits of the reverb time vary. (See the table right.) This means that changing the Reverb Selections can automatically fall the reverb time within the range of the limit.

Reverb Selection	Reverb Time [s]	
	Lower Limit	Upper Limit
P-A		
P-B	0.5	99
H37		
R37		
H32	0.4	90
R32		
H26	0.3	70
R26		
H22	0.2	50
R22		
H15	0.1	30
R15		
R7.0	0.1	6.0
R1.0	0.1	1.0
R0.3	0.1	0.5

● **HF Damp (Display 4)**

The parameter value shown here means the ratio of the higher frequency's reducing. This, in the actural room (or hall), means the material which the wall is made of.

*Reverb time (Display 3) × HF Damp value = Reverb time of 8kHz.

e.g.)

When the reverb time is 6s and HF damp value is 0.50, the reverb time of the 8kHz is:

6(s) × 0.50 = 3(s)

㉒ Shift Button 4
This button can change the value of the HF Damp in 0.01 steps from 0.05 to 1.00.

HF Damp

Higher frequencies will fade out quicker.
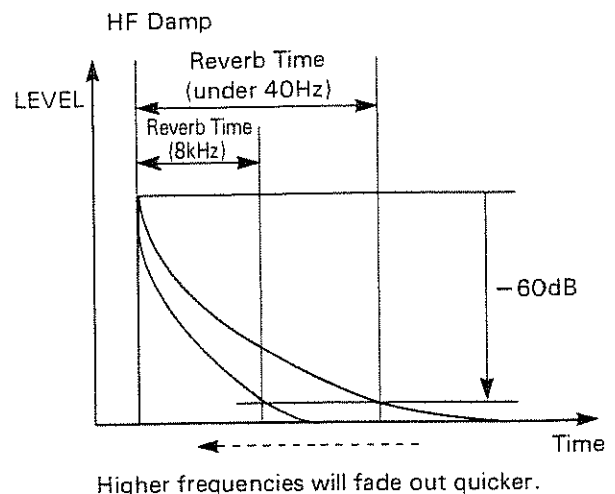
● Output Level (Display 6)
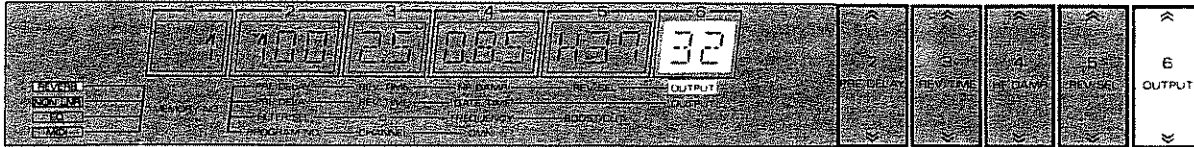
This shows the output level of the reverb sound.
Higher number means higher output level.

㉔ Shift Button 6 ·
This button changes the output level of the reverb
sound from 0 to 99. This actually means adjusting
the balance of direct and reverb sounds.

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⑩ Room Simulate Button

This button can be effectively used to create
natural reverberation. When this button is turned
on (the indicator is lighted), depending on the
Reverb Selection currently selected, all the
parameters (except the output level) are auto-
matically changed to the values which have been
worked out to make the natural reverberation.
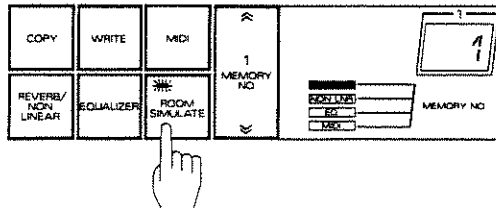
* The Room Simulate function described here is
  not cancelled by turning the Room Simulate
  Button off. That is, the parameters set before the
  Room Simulate Button is turned on, are erased
  for good. This means that you need to set each
  parameter once again to return to the previous
  settings.

* The above Room Simulate function cannot be
  obtained in the Non-linear or MIDI Display mode.

* When the Room Simulate Button is on, no
  parameter except for Reverb Selection and
  Output Level can be edited. (This means that
  the Equalizer parameters and Further Level
  parameters cannot be edited either.)

b. Non-linear Mode

Non-linear reverb (= gate reverb) is the reverb which is cut at the set gate time, therefore ideal for percussive sound such as snare drum. In the past, to obtain the same kind of effect, compressor or noise gate has been used. But now, SRV-2000 makes it much easier.

* When editing the parameters of Non-linear reverb effect, make sure that the usual Display mode is selected. If the Equalizer or MIDI Display mode is selected, the Windows will not show the relevant parameter values.

* In the Non-linear mode, there is no early reflections.

● **Pre-delay (Display 2)**
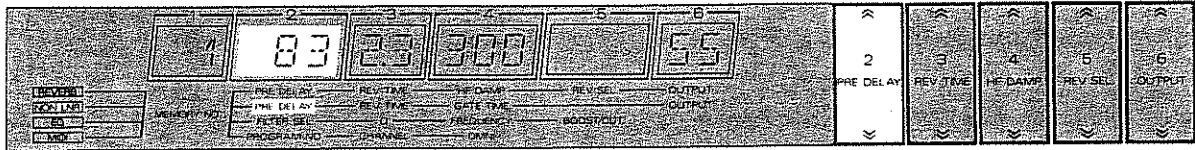
This is the time elapsed between the direct sound and reverberation. (ms)

⑳ **Shift Button 2**
This button can set the pre-delay time in 1ms step from 0 to 120ms.

* When changing the pre-delay time, you may hear click noise. But there is nothing to worry about.

● **Reverb Time (Display 3)**
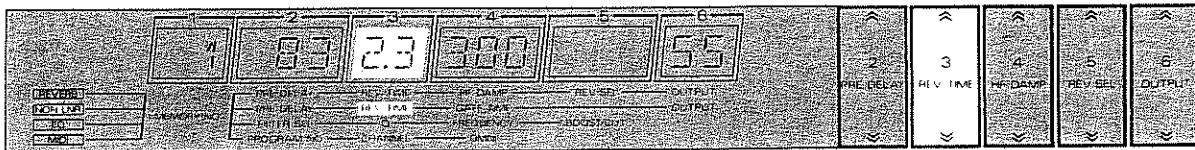
This is the time spent for reverberation to complete(ms). A negative number (−) means the reverberation getting louder. (The display indication is like $-.9$.)

㉑ **Shift Button 3**
This button sets the reverb time in 0.1s steps from −0.9 to 9.9 and in 1s step from 10 to 99s.
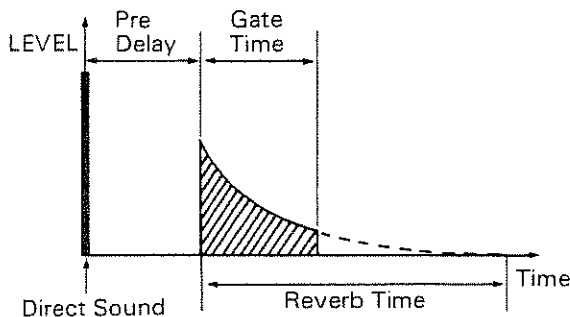
When the reverb time is positive (+).
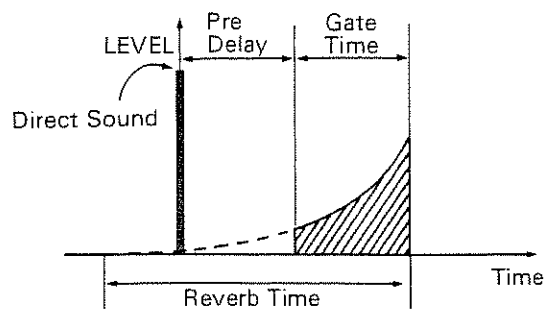
When the reverb time is negative (−).

● **Gate Time (Display 4)**
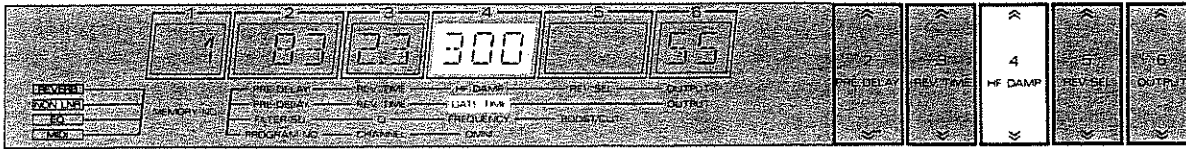
After the pre-delay time is elapsed, the gate time you set here will decide the time needed for the reverberation to end. (ms)

㉒ Shift Button 4

This button sets the gate time in 1ms step from 10 to 450ms.

* You may hear a click noise when changing the gate time, but there is nothing to worry about.

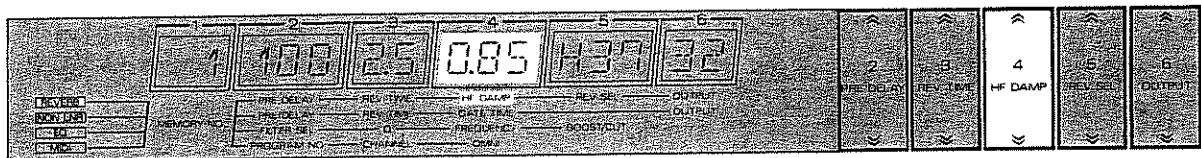● **Output Level (Display 6)**
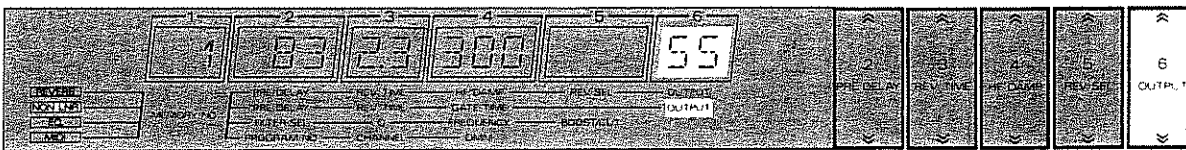
This is the output level of reverb sound in the Non-linear mode. A higher number means higher volume.

㉔ Shift Button 6

This button sets the output level of the Non-linear reverb from 0 to 99. This actually means adjusting the balance of direct and reverb sounds.

* The Room Simulate Button ⑩ does not work in the Non-linear mode.

18

c. Equalizer

The SRV-2000 features 3 band Digital Parametric Equalizer where the signal is filtered before going to the Digital Reverberation Processor section. This equalizer section filters the reverb and Non-linear reverbs changing their frequency characteristics separately. (The Display Windows show the relevant parameters.)

* The Equalizer section has no effect on the direct sound.

—Flashes

—The indicator of the selected Mode lights.
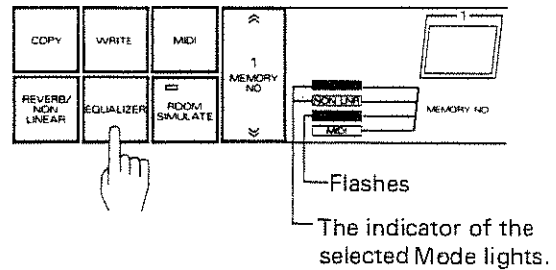
Push the Equalizer Display Button **⑨**, and the SRV-2000 is turned to the Equalizer Display mode that displays the equalizer parameters in the Windows.

* When in the MIDI Display mode, pushing the Equalizer Display Button **⑨** does not cause the Display Windows to show the equalizer parameters.
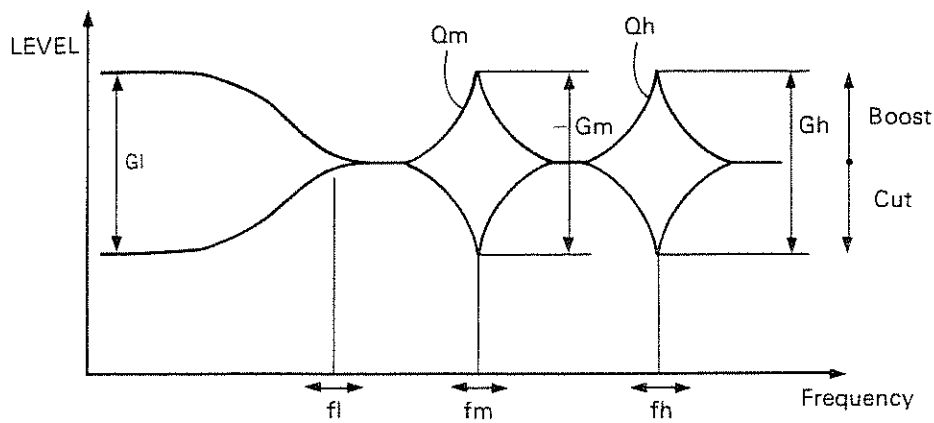
Qm, Qh: Q
fl: Cutoff Frequency
fm, fh: Center Frequency
Gl, Gm, Gh: Value of Boost/Cut

(l···LOW, m···MID, h···HI)

● **Filter (Display 2)**
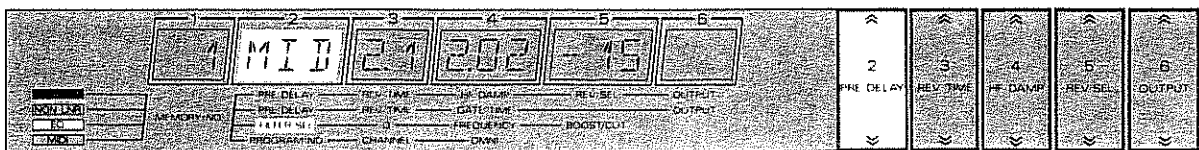
This window shows one of the Filters, HI, MID or LOW. And the windows 3, 4 and 5 show the parameter values of that filter.

⑳ Shift Button 2
Press this button to select the filter, HI, MID or LOW.

● Q (Display 3)
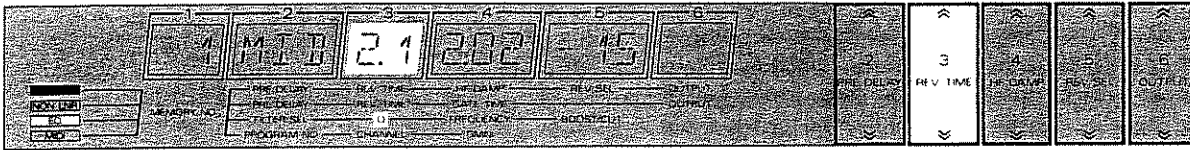
The higher the value of the Q is, the narrower the frequency band of the boost/cut becomes, making sharper slope of the curve.

* When the LOW filter is in use, Q value is not shown in the Display.

㉑ Shift Button 3
This changes the Q value in 0.1 steps from 0.2 to 9.0.

Center Frequency Frequency
Sharp Q

Center Frequency Frequency
Mild Q
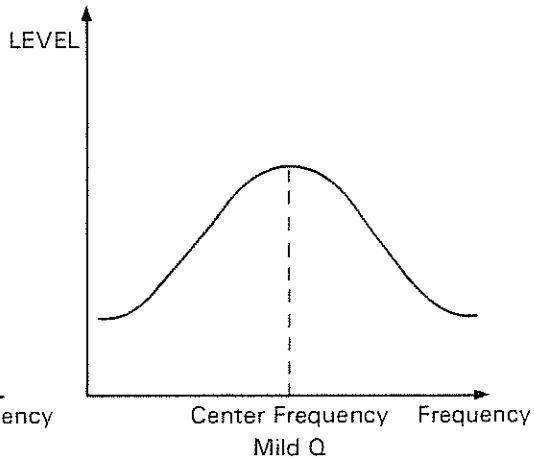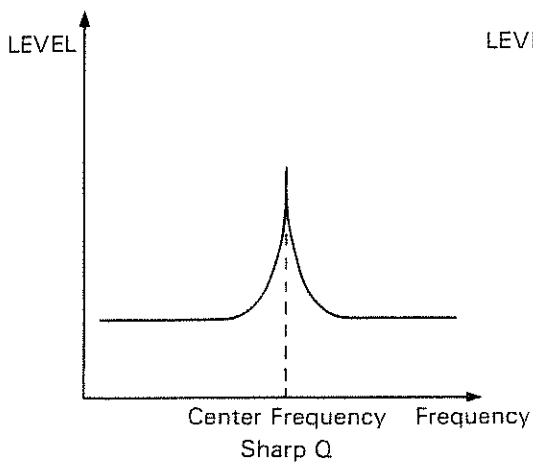
● Centre Frequency or Cutoff Frequency (Display 4)
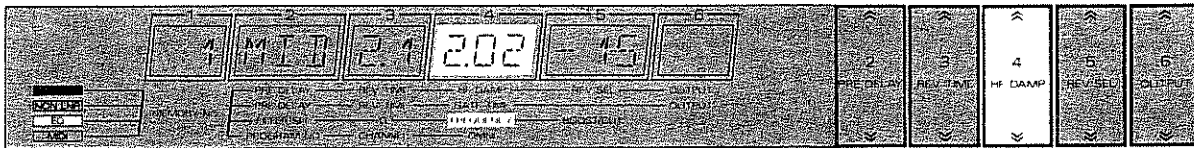
This window shows the center frequency of the HI or MID filter, or cutoff frequency of the LOW filter.(kHz)

㉒ Shift Button 4
This sets the center frequency of the HI or MID filter, and the cutoff frequency of the LOW filter as shown below.

HI	0.80 to 9.99 kHz	88 steps
MID	0.25 to 9.99 kHz	128 steps
LOW	0.04 to 1.00 kHz	30 steps

● **Boost/Cut (Display 5)**
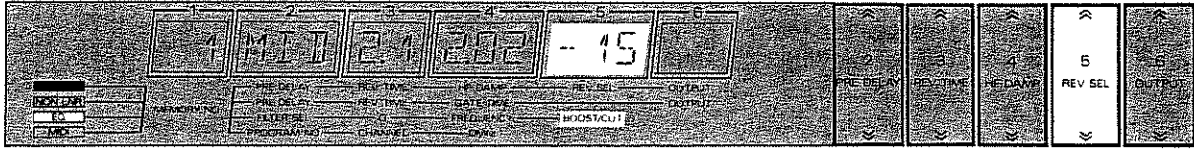
This window shows the amount of the boost/cut of the filter. Positive number (+) means boost and the negative(−) cut. (dB)

㉘ **Shift Button 5**
This changes the amount of the boost/cut in 1dB step from +12 to −24 dB.

● HI & MID
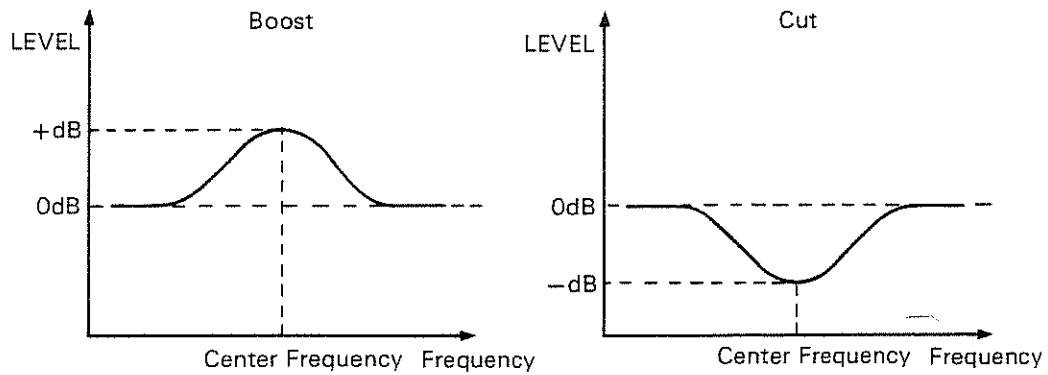
● LOW
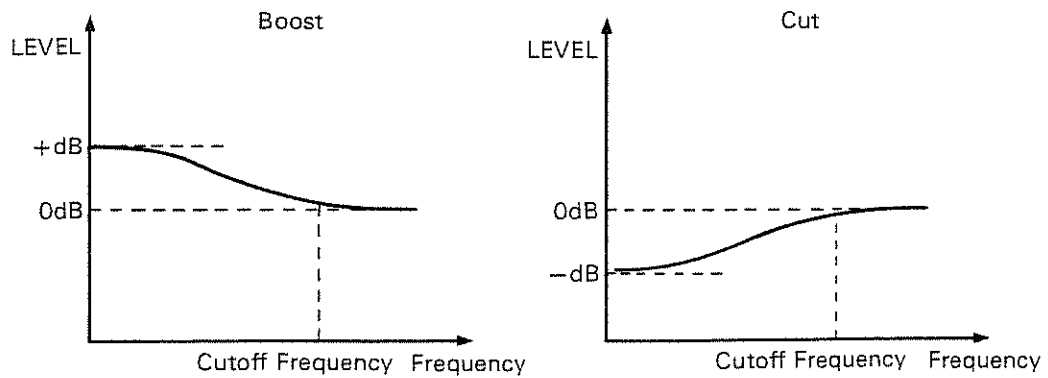
d. Further Level

The SRV-2000 features two ways of adjusting the reverb parameters. One is Standard Level which is basic adjusting, and the other is Further Level which is further adjusting of the parameters set with the Standard Level.

The Further Level is available for the following parameters.

```
Reverberation Density
Attack Gain  ─┐
Attack Time  ─┤
Density      ─┼── Early Reflections
Level        ─┘
```
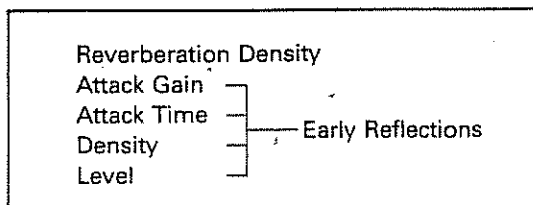
* The Further Level function is available only in the Reverb mode.

● **Changing the Standard Level to Further Level**

To change to the Further Level, turn on the SRV-2000 while holding the Write Button ❻ and Equalizer Display Button ❾ down. To return to the Standard Level mode, repeat the same procedure.
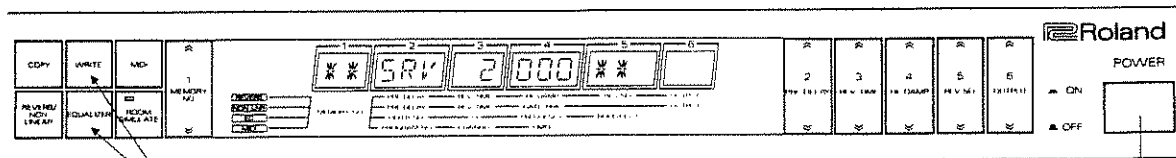
While holding these buttons down.

* When the SRV-2000 is turned on, the Displays will remain as shown above for about 2 seconds.

Switch On.

* The above Level mode (Standard or Further) remains even after the SRV-2000 is switched off. When in the Further Level mode, the windows' display will change to as shown below, then after about 2 seconds, return to the previous display.
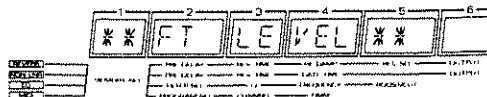
● **Operation for Further Level**

Press the Equalizer Button ❾ while holding the Write Button ❻ down, and the Display Windows will show the parameters of the Further Level settings. (At this time, the Display Mode Indicator ⓭ EQ and MIDI will alternately flash.)

Push

While holding this button down.

Alternately flash
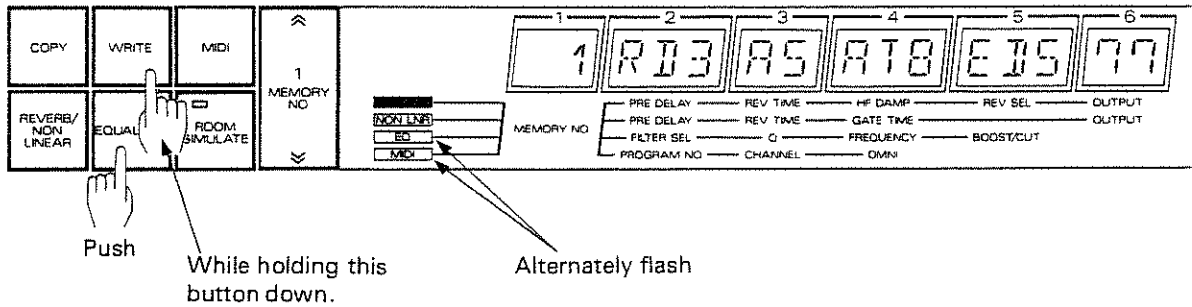
● **Parameters for Further Level**

Attack Time (AT)

LEVEL

Early Reflections Level

Attack Gain (A)

Reverberation Density (RD)

Density (ED)

Time

* While in the Non-linear mode or MIDI Display mode, the above procedure will not cause the windows to show the parameters of the Further Level.

LEVEL

Time

High Density

LEVEL

Time

Low Density

23

─REVERBERATION DENSITY (RD0 to RD9) | LATER REVERBERATION

ATTACK GAIN (A0 to A9)

Early
Reflections { ATTACK TIME (AT0 to AT9)

DENSITY (ED0 to ED9)

LEVEL (0 to 99)

● **Reverberation Density (RD:0 to 9)**

Increasing this value will make fatter sound, and decreasing, bright and sharp sound.

● **Early Reflections Density (ED:0 to 9)**
● **Early Reflections Level (0 to 99)**
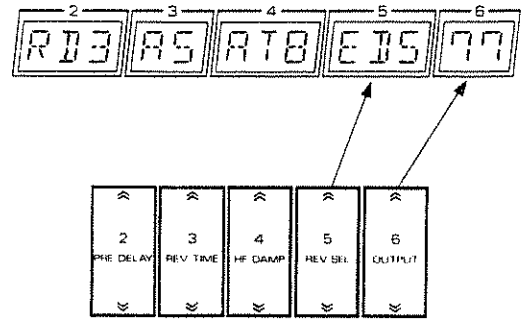
To return to the usual Display mode, simply push the Equalizer Button ⑨.

● **Attack Gain (A:0 to 9)**
● **Attack Time (AT:0 to 9)**
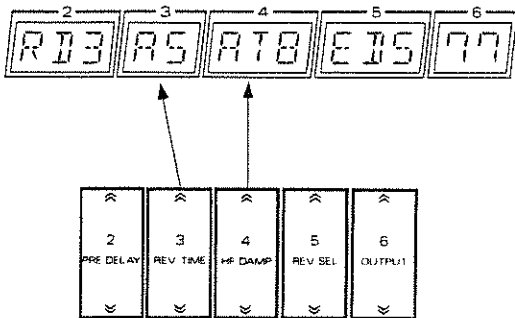
These parameters decide the intensity of attack for early reflections.

3. MEMORY FUNCTION

a. Write

The memory function of the SRV-2000 allows you to write the reverb setting you have made into memory. All the parameters used in the Reverb, Non-linear mode and for equalizing are all remembered.

* Writing a new reverb setting will automatically erase the old one.

* When in the MIDI Display mode, writing is not possible.

Operation

① Make sure that the SRV-2000 is not in the MIDI Display mode, then by using the Shift Button 1 select the memory number which is the location where the reverb setting is to be written.

The selected memory number is shown in the Display 1.

② Make the reverb you like by setting each parameter.

Now, a dot is shown at the lower right of the Display 1.

③ While holding the Write Button ⓖ down, press either side of the Shift Button 1, upper side " ≈ " or lower side " ≈ ".

All the Display Windows will flash for a moment then the dot in the Display 1 will go out. This shows that the reverb setting is now written in memory.

Writing Operation

① Select a memory number you like.

↓

② Make a reverb setting to your taste.

↓

  A Dot is lighted.

↓

While holding the button down.

③ { Press either side.

↓

The dot goes out. (Writing is completed.)
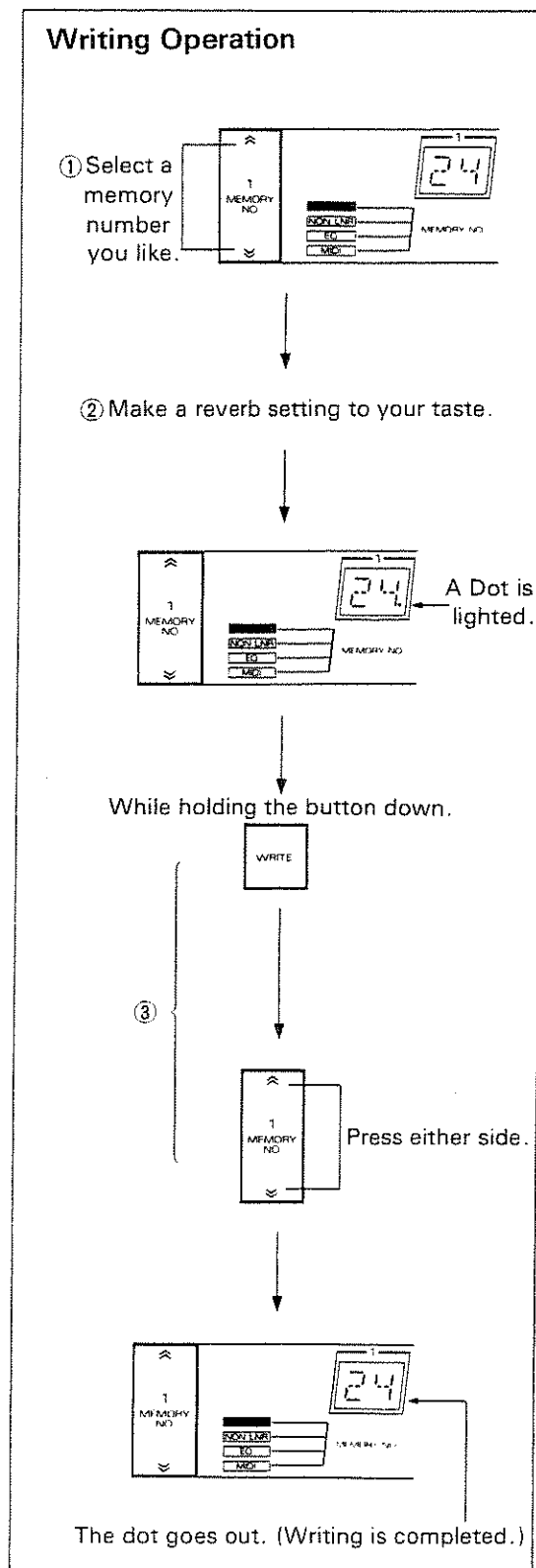
b. Recall

Any of the reverb settings written in memory can be recalled by using the Shift Button 1. The Display 1 shows the number of the reverb setting which is currently called.

⑧ Display 1

⑪ Shift Button 1
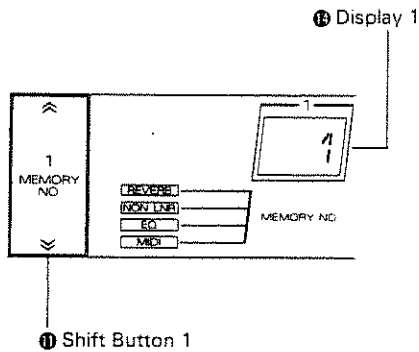
* 16 different reverb settings are preprogrammed in the memory number 1 to 16. These reverbs, however, can be replaced with new reverb settings you make by an easy writing procedure. To return the initial preprogrammed reverbs, switch the SRV-2000 on while holding the Write Button ⑥ and the Operation Mode Selector Button ⑧ down. This, however, erases all the reverb settings you have previously written.

About Edit

You can easily edit any reverb setting written in memory. Simply call a delay setting and edit it using relevant buttons. During editing, the Display 1 shows a dot at its lower right.
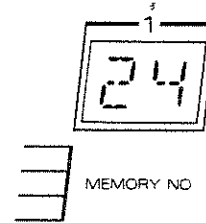
MEMORY NO

Now, the memory number 24 is called.

Edit the reverb setting by using relevant buttons.

←A dot lights up.
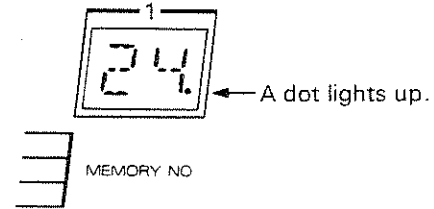
MEMORY NO

< Factory Preprogrammed Reverbs >

The numbers on the left shows the Memory numbers.

1.	Vocal I	9.	Clear Plate
2.	Vocal II	10.	Tunnel
3.	Large Hall	11.	Concrete Pipe
4.	Medium Hall	12.	Large Chapel
5.	Small Hall	13.	Outdoor Theater
6.	Large Room	14.	Basin
7.	Medium Room	15.	Non Linear
8.	Small Room	16.	Non Linear Inverse

c. Copy

Operation

① Call the reverb setting (= a memory number) that you wish to copy.

② If you wish to edit the called reverb, do it here.

③ Push the Copy Button ❺.
The Display Windows start flashing.

④ Select the new location (= a memory number) using the Shift Button 1.

Now, the flashing of the Display 1 stops and glows steadily.

⑤ While holding the Write Button ❻ down, press either side of the Shift Button 1 " ≈ " or " ≈ ".

Now, the copy is done and all the Displays stop flashing and glow steadily.

* Pushing the Copy Button instead of taking step ⑤ will cancel the Copy mode, that is, copying is not done.

Now, the Displays stop flashing and glow steadily.

* While in the Copy mode, no parameters relevant to editing will function. Therefore, it is no use trying to do any more editing after pressing the Copy Button in step ③.

* While in the MIDI Display mode, copy function is not available.

Example) Copying Reverb Setting 24 to Memory Number 16

① Call a reverb setting you wish to copy
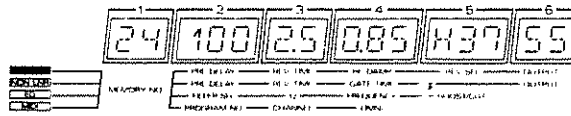
② Edit it if you wish.

③ [COPY]

Flashing
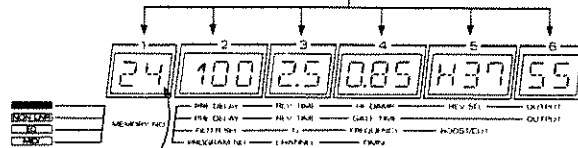
The dot flashes while in editing

④ Select a Memory Number (a new location)

Glowing   Flashing
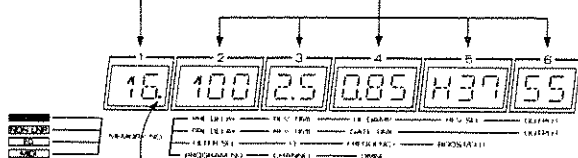
A dot is lighted

⑤ Write into the Memory   Cancell Copy Mode

[WRITE]

While holding down the button

[MEMORY NO] Press either side

[COPY]
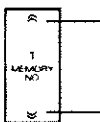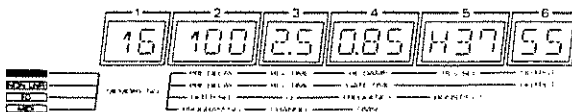
The flashing of Display stops, and the unit is returned to the normal condition.
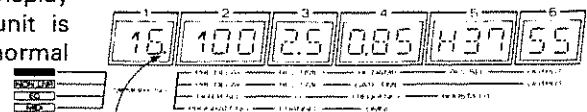
This dot indicates that the reverb setting other than 16 is currently called.

28

4. Other Useful Functions

REMOTE SWITCH

INFINITE   EFFECT ON/OFF   PRESET

ON ——— ADD ON   2   UP   DOWN

㉛ Preset Down Jack

㉜ Preset Up Jack

㉝ Effect On/Off Jack 2

㉞ Effect On/Off Jack 1

㉟ Infinite Jack
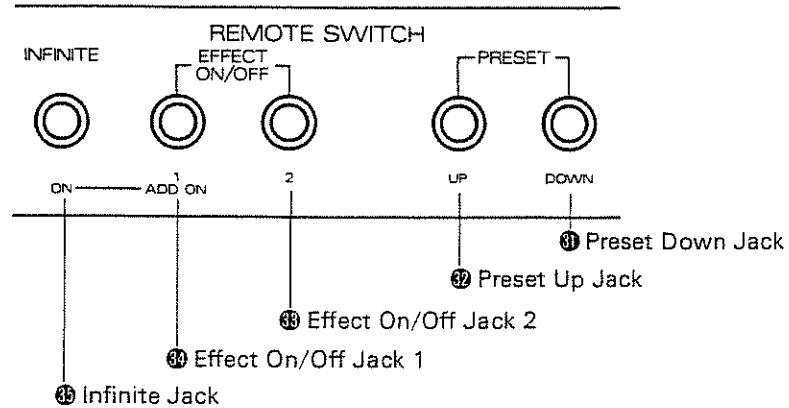
a. Preset Shift

Connect the Pedal Switch DP-2 to the Preset Shift Up Jack ㉜ or to the Down Jack ㉛, or connect two DP-2's to both jacks, and the reverb settings of memory numbers 1 to 8 can be sequencially called just by pressing the pedal(s). Pressing the pedal will advance or back up one number.

When the reverb setting other than memory number 1 to 8 (9 to 32) is currently in use, pressing the pedal connected to the Up Jack or the Down Jack will call number 1.

* When the Infinite function is being used, the Preset Shift function is not available.

b. Effect On/Off

Connect the Foot Switch FS-1 or Pedal Switch DP-2 to the Effect On/Off Jack 1 and/or 2, and the reverb sound can be on or off by pressing the pedal.

* When the DP-2 is used, pressing the pedal turns the effect off (= no reverb sound).

When the Jack 1 is used, the reverb will fade out gradually. And when the Jack 2 is used, it stops immediately.

EFFECT ON/OFF

ADD ON   2

FS-1	Effect is turned On and Off alternately.

DP-2		
Effect Off		Effect On
REVERB		REVERB
NON LNR		NON LNR
The selected operation mode flashes.		The selected operation mode glows.

29
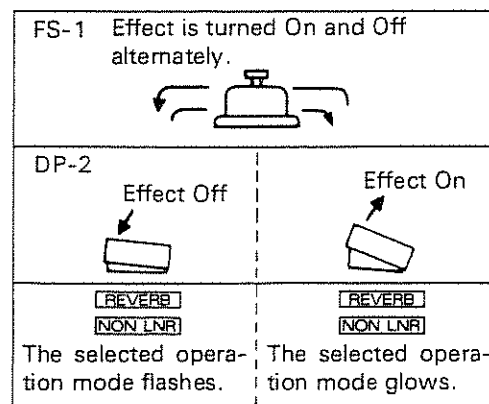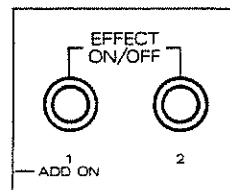
c. Infinite

By using the Foot Switch FS-1 or the Pedal Switch DP-2, you can make a reverb lasting infinitely long. Connect the FS-1 or DP-2 to the Infinite Jack ⑮, then just depress the pedal. When using the DP-2, the Infinite reverb is obtained while the pedal is held down. The FS-1, however, is a latch type pedal, so depress the pedal once and release it, then press it again to cancel the Infinite Reverb mode.

* The above Infinite Reverb function is obtained only while in the Reverb mode. In the Non-linear mode, this is not available.

* When the Infinite function is on, the Display Windows 1 to 6 will react as shown below.

"※ ※ ※ ※ ※ 𝘐 𝘕 𝘍 𝘕 𝘛 ※ ※ ※ ※ ※"

ADD ON

The Infinite Reverb mode stops the input signal to be added on the reverb sound. The Effect On/Off Jack 1 ⑳, however, can serve as Add On Jack. Connect the FS-1 or DP-2 to the Effect On/Off Jack 1 ⑳, then turn the INFINITE REVERB then EFFECT on by using the pedal. The coming signal will be continuously added on the reverb sound.

INFINITE (◯) ON		

FS-1	Infinite is turned on and off alternately.	
DP-2	INFINITE ON	INFINITE OFF
	Reverb lasts infinitely long: Operation Mode Indicator [REVERB] Flashes	Usual Reverb Operation

ADD ON (◯)		

FS-1	Alternately ADD ON and OFF.	
DP-2	ADD ON	ADD OFF
	The input signal is added on the reverb sound continuously. Operation Mode Indicator [REVERB] Glows	The input signal is not added on the reberb sound. Operation Mode Indicator [REVERB] Flashes

Usual Effect On/Off operation.

5. Recalling a Reverb Setting with MIDI

 MIDI THRU Connector

 MIDI IN Connector

* Do not connect a non-MIDI device to the SRV-2000. MIDI Connectors look exactly like DIN SYNC connectors, but they are totally different things.

MIDI IN

MIDI Device

(JX-8P
 JUNO-106 etc.)

MIDI OUT

MIDI Device

(JX-8P
 JUNO-106 etc.)
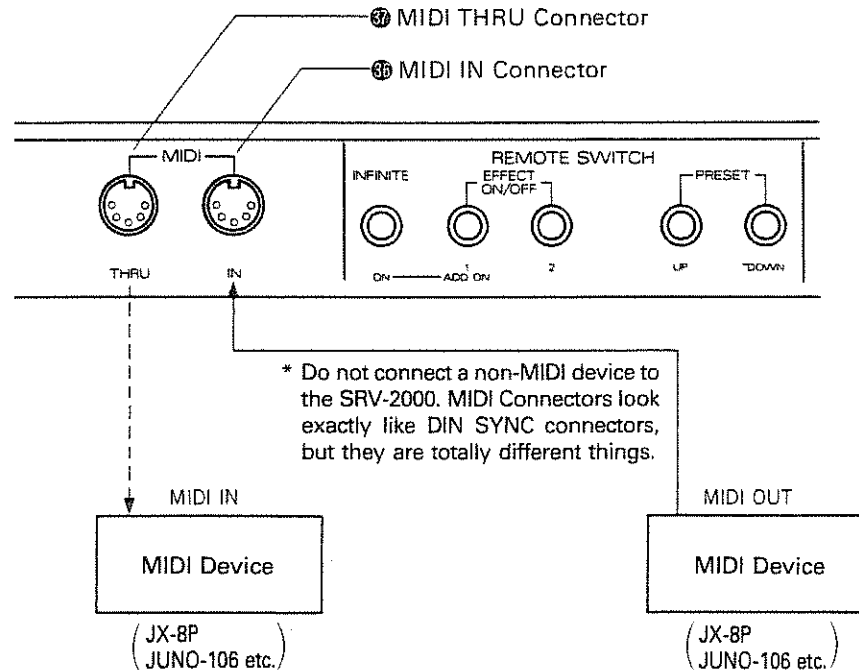
Any reverb setting in the SRV-2000's memory (Memory number 1 to 32) can be recalled by an appropriate program change message (0 to 127) sent from the MIDI device. For this, however, it is necessary to properly set the MIDI Channel number and OMNI On/Off, then make combination of the program change number on the external MIDI device and the memory on the SRV-2000. (Refer to the separate book "MIDI" for the details of MIDI Channel, OMNI On/Off and Program Change message.)

* While in the Copy mode or the Infinite function is on, the program change message sent from the external MIDI device has no effect.

Operation

Memory Number (1 to 32) ← --- MIDI Program Change Number (0 to 127)

MIDI Channel (1 to 16)

OMNI (On/Off)

OMNI On/Off

MIDI Channel Up/Down

Flashes

Memory Number Up/Down ← -------------------- MIDI Program Number Up/Down
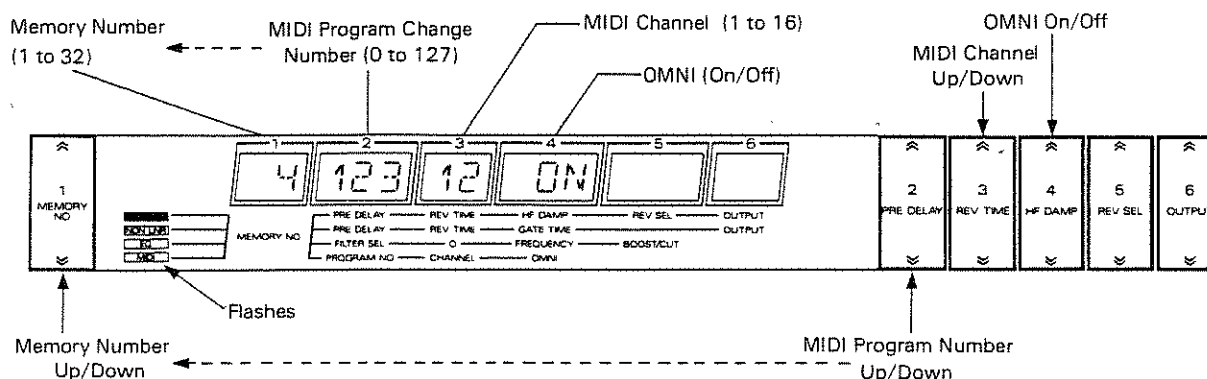
① Push the MIDI Display Button **⑦**.

Now, the SRV-2000 is turned to the MIDI Display mode and the Displays react as shown below.

Display 1: Memory number of the SRV-2000
Display 2: MIDI Program Change number
Display 3: MIDI Channel
Display 4: OMNI On/Off

② Set an appropriate MIDI Channel number using the Shift Button 3.

③ Set either OMNI ON or OMNI OFF using the Shift Button 4.

Each time the Shift Button is pushed on either side " ⌃ " or " ⌄ ", OMNI ON and OFF are alternately selected.

④ Using the Shift Button 2, change to the Program change number you like (0 to 127).

* The Display 2 shows the program change number you have just set, and the Display 1 shows the Memory number that corresponds to that.

⑤ Using the Shift Button 1, recall the Memory number (1 to 32) that should make a pair with the Program Change number currently called.

⑥ To make other pairs, repeat steps ④ and ⑤.

⑦ Push the MIDI Display Button **⑦**.

Now, the usual Display mode is returned.

Cautions

1) In the following conditions, reverb sound is completely muted for an instant, therefore, only the direct sound is heard.

When you have changed to a different Reverb Selection like from Room to Hall.

When you have called a new reverb setting which belongs to a different Reverb Selection.

2) For about 6 seconds after the units is turned on, the muting circuit functions, therefore, neither direct or reverb sound is heard.

Battery Backup

The SRV-2000 features battery backup system that retains the data in memory even when turned off. This is fully supported by battery which is to last more than 5 years, but it depends on how many months had been passed before it was purchased. So the batteries should be replaced within five years. Also, please have your local Roland dealer do the job.

Frequency Characteristic
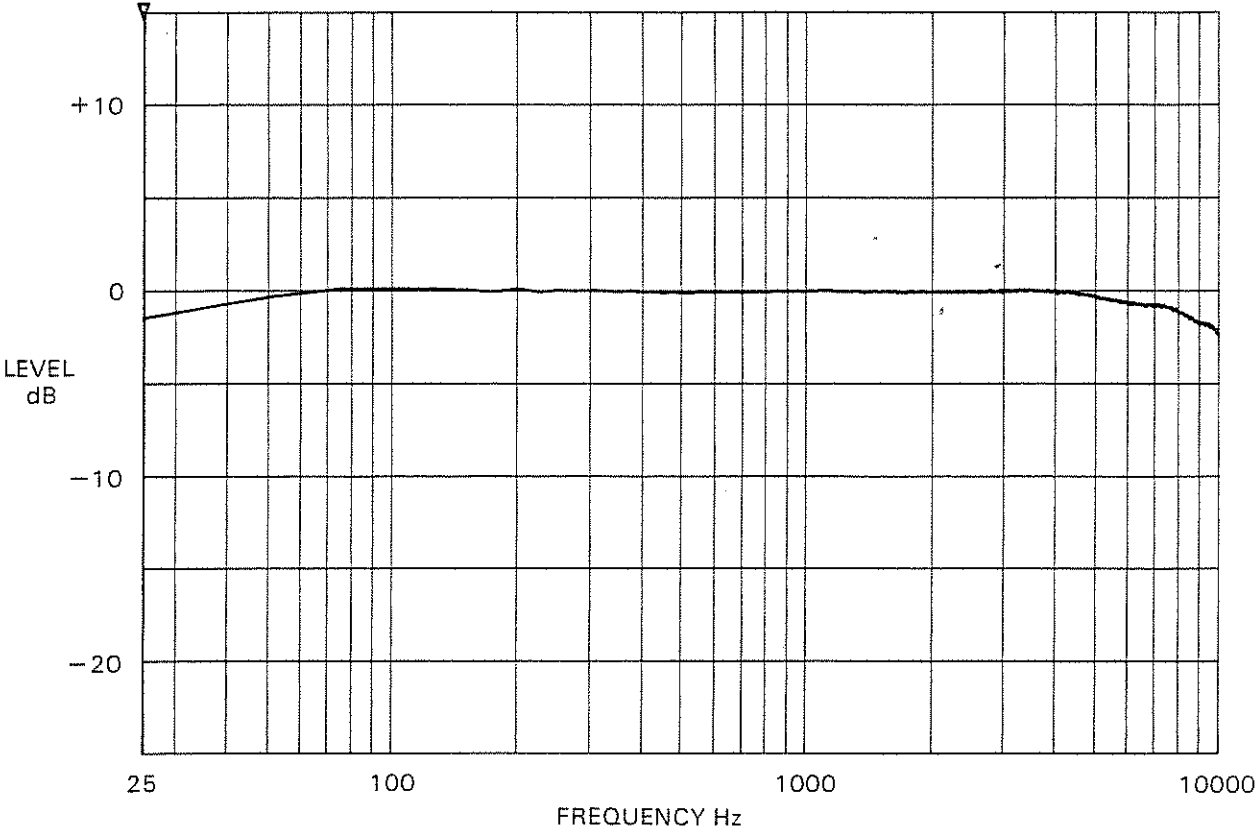
Parametric Equalizer Characteristic

FILTER: MID, HIGH

	BOOST/ CUT	CENTER FREQUENCY	Q		BOOST/ CUT	CENTER FREQUENCY	Q		BOOST/ CUT	CENTER FREQUENCY	Q		BOOST/ CUT	CENTER FREQUENCY	Q
①	+12dB	0.25kHz	0.6	②	+12dB	1.01kHz	1.4	③	+12dB	3.03kHz	4.0	④	+12dB	6.08kHz	9.0
①	−24dB			②	−24dB			③	−24dB			④	−24dB		

FILTER: LOW

	BOOST/ CUT	CUTOFF FREQUENCY		BOOST/ CUT	CUTOFF FREQUENCY		BOOST/ CUT	CUTOFF FREQUENCY
①	+12dB	0.10kHz	②	+12dB	0.35kHz	③	+12dB	1.00kHz
①	−24dB		②	−24dB		③	−24dB	

35

Block Diagram

SRV-2000 BLOCK DIAGRAM

Fixing to the 19" Rack.

Use 5mm screws.

M-5 (Washer)

M-5 (Screw)   19" Rack Stay
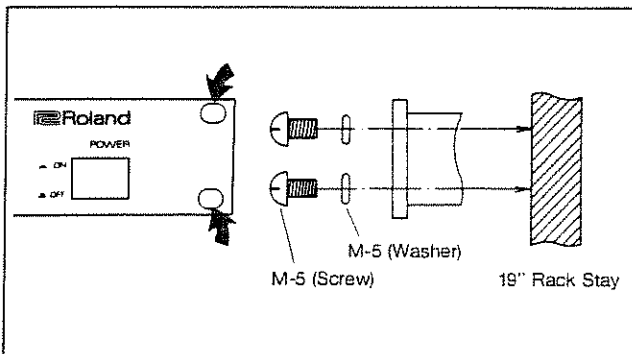
Options
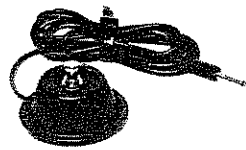
Foot Switch FS-1   Pedal Switch DP-2

④ Memo

Parameter Data

MEMORY No. _____   REMARK _____

REVERB MODE

ROOM SIMULATE		Pre Delay [ms]	Reverb Time [s]	HF Damp	Reverb Selection	Output

	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				

FURTHER LEVEL	REVERBERATION		EARLY REFLECTIONS			
	Density	Attack Gain	Attack Time	Density	Level
	RD	A	AT	ED	

NON LNR MODE

		Pre Delay [ms]	Reverb Time [s]	Gate Time [ms]		Output

	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				

MEMORY No. _____   REMARK _____

REVERB MODE

ROOM SIMULATE		Pre Delay [ms]	Reverb Time [s]	HF Damp	Reverb Selection	Output

	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				

FURTHER LEVEL	REVERBERATION		EARLY REFLECTIONS			
	Density	Attack Gain	Attack Time	Density	Level
	RD	A	AT	ED	

NON LNR MODE

		Pre Delay [ms]	Reverb Time [s]	Gate Time [ms]		Output

	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				

Parameter Data

REVERB MODE	ROOM SIMULATE	Pre Delay [ms]	Reverb Time [s]	HF Damp	Reverb Selection	Output
	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				
	FURTHER LEVEL	REVERBERATION		EARLY REFLECTIONS		
		Density	Attack Gain	Attack Time	Density	Level
		RD	A	AT	ED	

NON LNR MODE		Pre Delay [ms]	Reverb Time [s]	Gate Time [ms]		Output
	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				

REVERB MODE	ROOM SIMULATE	Pre Delay [ms]	Reverb Time [s]	HF Damp	Reverb Selection	Output
	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				
	FURTHER LEVEL	REVERBERATION		EARLY REFLECTIONS		
		Density	Attack Gain	Attack Time	Density	Level
		RD	A	AT	ED	

NON LNR MODE		Pre Delay [ms]	Reverb Time [s]	Gate Time [ms]		Output
	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				

Parameter Data

REVERB MODE

		Pre Delay [ms]	Reverb Time [s]	HF Damp	Reverb Selection	Output
	ROOM SIMULATE					
	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				
	FURTHER LEVEL	REVERBERATION		EARLY REFLECTIONS		
		Density	Attack Gain	Attack Time	Density	Level
		RD	A	AT	ED	

NON LNR MODE

		Pre Delay [ms]	Reverb Time [s]	Gate Time [ms]		Output
	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				

REVERB MODE

		Pre Delay [ms]	Reverb Time [s]	HF Damp	Reverb Selection	Output
	ROOM SIMULATE					
	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				
	FURTHER LEVEL	REVERBERATION		EARLY REFLECTIONS		
		Density	Attack Gain	Attack Time	Density	Level
		RD	A	AT	ED	

NON LNR MODE

		Pre Delay [ms]	Reverb Time [s]	Gate Time [ms]		Output
	PARAMETRIC EQUALIZER	Filter	Q	Frequency [kHz]	Boost/Cut [dB]	
		HI				
		MID				
		LOW				

39

5 SPECIFICATIONS

<INPUT>
- Input Level   +4dBm
                    −20dBm
- Input Impedance   56kΩ

<OUTPUT>
- Output Level   +4dBm (max. +18dBm)
                    −20 dBm (max. −5dBm)
- Output Impedance   100Ω (+4dBm)
                        650Ω (−20dBm)

<GENERAL PERFORMANCE>
- AD-DA System   16 bit linear
- Frequency   10Hz to 50kHz $^{+0dB}_{-1dB}$ (Direct)
  Characteristic   30Hz to 10kHz $^{+1dB}_{-2.5dB}$ (Reverb)
- SN Ratio (IHF A) at   95dB (Direct)
  Rated Input/Output   80dB (Reverb)
- Dynamic Range   105dB (Direct)
                        90dB (Reverb)
- Total Harmonic Distortion
  (1kHz at Rated Input/Output)
                        Under 0.01% (Direct)
                        Under 0.03% (Reverb)
- Pre-Delay Time   Reverb Mode: 0 to 160ms
                        Non-linear Mode: 0 to 120ms
- Reverb Time   Reverb Mode: 0.1 to 99s
                        Non-linear Mode:
                          −0.9 to 99s
- HF Damp Control   × 0.05 to × 1.00
- Gate Time   10 to 450ms
- Reverb Selection   Plate A, B (2 stages)
                        Hall 15 to 37 (5 stages)
                        Room 0.3 to 37 (8 stages)
- Equalizer Characteristic
  - Low: Frequency   40Hz to 1kHz
              Boost/Cut   +12dB to −24dB
  - Middle: Frequency   250Hz to 9.99kHz
              Boost/Cut   +12dB to −24dB
              Q   0.2 to 9
  - High: Frequency   800Hz to 9.99kHz
              Boost/Cut   +12dB to −24dB
              Q   0.2 to 9

<CONTROLS>

- Reverb   Pre-delay Time
                    Reverb Time
                    Hi Frequency Damping
                    Reverb Selection
                    Reverb Output Level
- Non-linear   Pre-delay Time
                    Reverb Time
                    Gate Time
                    Reverb Output Level
- EQ   Filter Selection
                    Q
                    Frequency
                    Boost/Cut

- MIDI   Program Change Number
                    Channel Number
                    OMNI On/Off
- Further Level   Reverberation Density
                    Attack Gain
                    Attack Time
                    Early Reflections Density
                    Early Reflections Level
- Memory Number
- Input Attenuator
- Direct/Reverb Balance
- Switches and Buttons
  Bypass Switch
  Copy Button
  Write Button
  MIDI Display Button
  Operation Mode Selector Button
  Equalizer Display Button
  Room Simulate Button
  Input/Output Level Selector Switch
  Power Switch
  Shift Buttons 1 to 6

- Indicators
  Bypass Indicator
  Level Indicator(s)
  Room Simulate Indicator
  Operation Mode Indicator (Reverb, Non-linear)
  Display Mode Indicator (Equalizer, MIDI)

- Connectors
  Input
  Output A (MONO), B
  Preset (UP/DOWN)
  Effect ON/OFF (1, 2)
  Infinite
  MIDI IN
  MIDI THRU

- Consumption   37W
- Dimensions   482(W)×47(H)×362(D)mm/
                    19″ × 1⅞″ × 14¼″
                    19″ Rack Mount (EIA-1U)
- Weight   5.2kg/11lb. 8oz
- Accessories   Connection Cord ×2

*Specifications are subject to change without notice.

Digital Reverb

MODEL SRV-2000 MIDI Implementation

1. RECOGNIZED RECEIVE DATA

Status	Second	Third	Description
1100 nnnn	0ppp pppp		Program Change ppppppp = 0 - 127
1011 nnnn	0111 1100	0000 0000	OMNI OFF
1011 nnnn	0111 1101	0000 0000	OMNI ON

2. RECOGNIZED EXCLUSIVE MESSAGES

When the following exclusive message is recognized, any other message will be ignored for 10 milli seconds.

2.1 Recognized receive exclusive messages for Reverberation Parameters

A. PGR which indicates the 'MEMORY NUMBER' for reading data (parameters).

Byte	Description
a 1111 0000	Exclusive status
b 0100 0001	Roland ID #
c 0011 0100	Operation Code = PGR (program number)
d 0000 nnnn	Unit # = MIDI basic channel, nnnn = 0 - 15 where nnnn + 1 = channel #
e 0101 0001	Format type
f 0010 0000	Level # = 1
g 0000 0000	Group # = 0
h 0000 0000	Extension = 0
i 0ppp pppp	'MEMORY NUMBER', ppppppp = 0 - 31 where ppppppp + 1 = 'MEMORY NUMBER'
j 0000 0001	Reading data from memory
k 1111 0111	End of System Exclusive

B. PGR which indicates the 'MEMORY NUMBER' for writing data (parameters).

Byte	Description
a 1111 0000	Exclusive status
b 0100 0001	Roland ID #
c 0011 0100	Operation Code = PGR (program number)
d 0000 nnnn	Unit # = MIDI basic channel, nnnn = 0 - 15 where nnnn + 1 = channel #
e 0101 0001	Format type
f 0010 0000	Level # = 1
g 0000 0000	Group # = 0
h 0000 0000	Extension = 0
i 0ppp pppp	'MEMORY NUMBER', ppppppp = 0 - 31 where ppppppp + 1 = 'MEMORY NUMBER'
j 0000 0010	Writing data to memory
k 1111 0111	End of System Exclusive

C. APR (All parameters) which indicates the Parameters for 'REVERB' Mode

Byte	Description
a 1111 0000	Exclusive status
b 0100 0001	Roland ID #
c 0011 0101	Operation Code = APR (all parameters)
d 0000 nnnn	Unit # = MIDI basic channel, nnnn = 0 - 15 where nnnn + 1 = channel #
e 0101 0001	Format type
f 0010 0000	Level # = 1
g 0000 0001	Group # = 1
h 0vvv vvvv	
:	parameters of 'REVERB' mode (17 or 22 bytes total) *
0vvv vvvv	
i 1111 0111	End of System Exclusive

Note :
* Data (values) format

a. Bit data (1 byte) bits 2-6 are not used

bit 1 ROOM SIMULATION	bit 0 REVERB/NON LINEAR
0 = OFF	0 = REVERB
1 = ON	1 = NON LINEAR

b. Continuous values

2 PRE-DELAY   0 - 120 (00H - 78H) : 0 - 120 ms

3 0ZH
4 0YH
5 0XH
6 0WH
  Where   WXYZH = 1 - 990 (0001H-03DEH)
  This value indicates the REVERB TIME : 0.1 - 99 s

7 HF DAMP   5 - 100 (05H - 64H) : 0.05 - 1.00
8 REVERB TYPE   1 - 15 (01H - 0FH) : R0.3 - R37
                                        : H15 - H37
                                        : P-B - P-A
9 OUTPUT LEVEL   0 - 99 (00H - 63H) : 0 - 99
10 Q OF HIGH FILTER 2 - 90 (02H - 5AH) : 0.2 - 9.0
11 FREQUENCY OF HIGH FILTER
                     40 - 127 (28H - 7FH) : 0.88 - 9.99 kHz
12 BOOST/CUT OF HIGH FILTER
                     -24 - -1 (68H - 7FH) : -24 - -1 dB
                     0 - 12 (00H - 0CH) : 0 - +12 dB
13 Q OF MIDDLE FILTER
                     2 - 90 (02H - 5AH) : 0.2 - 9.0

14 FREQUENCY OF MIDDLE FILTER
                     0 - 127 (00H - 7FH) : 0.25 - 9.99 kHz
15 BOOST/CUT OF MIDDLE FILTER
                     -24 - -1 (68H - 7FH) : -24 - -1 dB
                     0 - 12 (00H - 0CH) : 0 - +12 dB
16 FREQUENCY OF LOW FILTER
                     0 - 29 (00H - 1DH) : 0.04 - 1.00 kHz
17 BOOST/CUT OF LOW FILTER
                     -24 - -1 (68H - 7FH) : -24 - -1 dB
                     0 - 12 (00H - 0CH) : 0 - +12 dB

c. Continuous values of 'FURTHER LEVEL'

18 REVERBERATION DENSITY   0 - 9 :   0 - 9
19 ATTACK LEVEL OF EARLY REFLECTIONS
                                0 - 9 :   0 - 9
20 ATTACK TIME OF EARLY REFLECTIONS 0 - 9 :   0 - 9
21 DENSITY OF EARLY REFLECTIONS   0 - 9 :   0 - 9
22 LEVEL OF EARLY REFLECTIONS
                     0 - 99 (00H - 63H) :   0 - 99

D. APR (All parameters) which indicates the Parameters for 'NON LINEAR' Mode

Byte	Description
a 1111 0000	Exclusive status
b 0100 0001	Roland ID #
c 0011 0101	Operation Code = APR (all parameters)
d 0000 nnnn	Unit # = MIDI basic channel, nnnn = 0 - 15 where nnnn + 1 = channel #
e 0101 0001	Format type
f 0010 0000	Level # = 1
g 0000 0010	Group # = 2
h 0vvv vvvv	
:	parameters of 'NON LINEAR' mode (19 bytes total) *
0vvv vvvv	
i 1111 0111	End of System Exclusive

Note :
* Data (values) format

a. Bit data (1 byte) bits 2-6 are not used

bit 1 ROOM SIMULATION	bit 0 REVERB/NON LINEAR
0 = OFF	0 = REVERB
1 = ON	1 = NON LINEAR

b. Continuous values

2 PRE-DELAY   0 - 120 (00H - 78H) : 0 - 120 ms

3 0ZH
4 0YH
5 0XH
6 0WH
  Where   WXYZH = -9 - -1 (FFF7H~FFFFH)
                    1 - 990 (0001H-03DEH)
  This value indicates the REVERB TIME : -0.9 - -0.1 s
                                        : 0.1 - 99 s

7 0ZH
8 0YH
9 0XH
10 0WH
  Where   WXYZH = 10 - 450 (000AH-01C2H)
  This value indicates the GATE TIME : 10 - 450 ms
11 OUTPUT LEVEL   0 - 99 (00H - 63H) : 0 - 99
12 Q OF HIGH FILTER 2 - 90 (02H - 5AH) : 0.2 - 9.0
13 FREQUENCY OF HIGH FILTER
                     40 - 127 (28H - 7FH) : 0.88 - 9.99 kHz
14 BOOST/CUT OF HIGH FILTER
                     -24 - -1 (68H - 7FH) : -24 - -1 dB
                     0 - 12 (00H - 0CH) : 0 - +12 dB
15 Q OF MIDDLE FILTER
                     2 - 90 (02H - 5AH) : 0.2 - 9.0
16 FREQUENCY OF MIDDLE FILTER
                     0 - 127 (00H - 7FH) : 0.25 - 9.99 kHz
17 BOOST/CUT OF MIDDLE FILTER
                     -24 - -1 (68H - 7FH) : -24 - -1 dB
                     0 - 12 (00H - 0CH) : 0 - +12 dB
18 FREQUENCY OF LOW FILTER
                     0 - 29 (00H - 1DH) : 0.04 - 1.00 kHz
19 BOOST/CUT OF LOW FILTER
                     -24 - -1 (68H - 7FH) : -24 - -1 dB
                     0 - 12 (00H - 0CH) : 0 - +12 dB

2.2 Recognized receive exclusive message for the 'MEMORY NUMBER' Table

A. BLD (Bulk dump) for Memory Number Table contents.

Byte	Description
a 1111 0000	Exclusive status
b 0100 0001	Roland ID #
c 0011 0111	Operation Code = BLD (bulk dump)
d 0000 nnnn	Unit # = MIDI basic channel, 0 - 15 where nnnn + 1 = channel #
e 0101 0001	Format Type
f 0011 0000	Level # = 2
g 0000 0001	Group # = 1
h 0000 0000	Extention = 0
i 0000 0000	This number (=0) addresses the first value of 'j' to be stored in the table
j 000v vvvv	
:	the 'MEMORY NUMBERS' to be stored into the Table in sequence
:	vvvvv = 0 - 31
:	where vvvvv + 1 = MEMORY NUMBER (1 - 32)
:	(128 bytes total for program # 0 - 127)
000v vvvv	
k 1111 0111	End of System Exclusive

Digital Reverb

MODEL SRV-2000 MIDI Implementation Chart

	Function··········	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	× ×	1 – 16 1 – 16	memorized
Mode	Default Messages Altered	× × **************	1, 3 OMNI ON/OFF	memorized
Note Number	True voice	× **************	× ×	
Velocity	Note ON Note OFF	× ×	× ×	
After Touch	Key's Ch's	× ×	× ×	
Pitch Bender		×	×	
Control Change	(0–121)	×	×	
Prog Change	True #	× **************	○ (0–127) 0–127	
System Exclusive		×	○	parameters
System Common	Song Pos Song Sel Tune	× × ×	× × ×	
System Real Time	Clock Commands	× ×	× ×	
Aux Mes- sages	Local ON/OFF All Notes OFF Active Sense Reset	× × × ×	× × × ×	
Notes				

Mode 1 : OMNI ON, POLY   Mode 2 : OMNI ON, MONO   ○ : Yes

Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF, MONO   × : No

DIGITAL REVERB SRV-2000

サンプル・セッティング/Example Settings
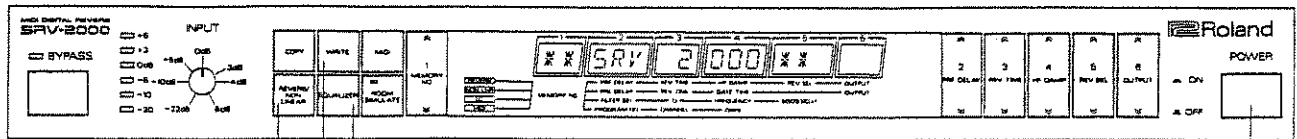
動作モード切換ボタン/Operation Mode Selector Button

ライト・ボタン/Write Button

イコライザー・ディスプレイ・ボタン/Equalizer Display Button

電源スイッチ/Power Switch

■ The following are the reverb settings preprogrammed in the Memory Numbers of 1 to 32.

● The reverb settings preprogrammed in the Memory Numbers 1 to 16 can be recalled at once by turning the unit on while holding the Write and the Reverb/Non Linear Buttons down.

   * The above operation, however, erases all the reverb settings you have written in the corresponding Memory Numbers (1 to 16).
   * The reverb settings preprogrammed in the Memory Numbers 17 to 32 cannot be recalled once you have written other reverbs there.

● The Further Level of each Memory Number 1 to 14 is set to the Standard Level which is the value automatically called depending on what kind of Reverb Selection is selected.

● In the reverb settings of the Memory Numbers 17 to 30, the Further Level of each parameter is set to the different value from the Standard Level. If you wish to use these reverb settings of Memory Number 17 to 30, turn the unit on while holding the Write and the Equalizer Buttons down.

MEMORY NO. 1   VOCAL I

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		40	3.0	0.53	H37	60
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.7	7.68	− 6	
		MID	0.8	0.72	+ 2	
		LOW		0.32	+ 3	
	FURTHER LEVEL	RD 5	A 1	AT 8	ED 3	30

MEMORY NO. 2   VOCAL II

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		20	2.0	0.66	P-A	60
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.5	7.04	− 3	
		MID	0.8	1.01	0	
		LOW		0.10	− 3	
	FURTHER LEVEL	RD 7	A 3	AT 5	ED 6	30

MEMORY NO. 3   LARGE HALL

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		32	2.7	0.51	H37	50
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.5	9.99	−6	
		MID	0.8	0.80	+3	
		LOW		0.35	−6	
	FURTHER LEVEL	RD 5	A 1	AT 8	ED 3	30

MEMORY NO. 4   MEDIUM HALL (I)

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		23	2.0	0.54	H26	55
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.5	9.99	−5	
		MID	0.8	0.80	+3	
		LOW		0.35	−4	
	FURTHER LEVEL	RD 5	A 1	AT 8	ED 3	30

MEMORY NO. 5   SMALL HALL

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		13	1.4	0.53	H15	60
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.3	9.99	−2	
		MID	1.0	1.01	0	
		LOW		0.35	−2	
	FURTHER LEVEL	RD 5	A 1	AT 8	ED 3	30

MEMORY NO. 6   LARGE ROOM (I)

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		35	2.0	0.66	R37	50
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	1.6	9.99	−6	
		MID	0.8	0.80	0	
		LOW		0.35	−6	
	FURTHER LEVEL	RD 7	A 6	AT 2	ED 6	40

MEMORY NO. 7   MEDIUM ROOM (I)

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		19	1.7	0.59	R22	56
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.5	9.99	−5	
		MID	0.9	1.01	0	
		LOW		0.48	−4	
	FURTHER LEVEL	RD 7	A 6	AT 2	ED 6	40

MEMORY NO. 8   SMALL ROOM (I)

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		7	1.3	0.54	R7.0	60
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.4	9.99	−4	
		MID	1.0	1.01	0	
		LOW		0.48	−4	
	FURTHER LEVEL	RD 7	A 7	AT 2	ED 7	40

MEMORY NO. 9 CLEAR PLATE

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		27	2.0	0.61	P-A	60
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	6.0	9.99	+ 5	
		MID	1.1	6.26	− 6	
		LOW		0.39	− 2	
	FURTHER LEVEL	RD 7	A 3	AT 5	ED 6	30

MEMORY NO. 10 TUNNEL

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		120	3.0	0.30	P-A	60
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.7	9.99	− 8	
		MID	0.8	1.39	+ 2	
		LOW		0.35	− 6	
	FURTHER LEVEL	RD 7	A 3	AT 5	ED 6	30

MEMORY NO. 11 CONCRETE PIPE

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		120	3.0	0.28	R7.0	60
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.7	9.99	− 8	
		MID	0.6	1.39	+ 2	
		LOW		0.35	− 4	
	FURTHER LEVEL	RD 7	A 7	AT 2	ED 7	40

MEMORY NO. 12 LARGE CHAPEL

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		72	3.0	0.38	R37	60
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	1.0	9.99	− 8	
		MID	0.6	1.39	+ 2	
		LOW		0.35	− 4	
	FURTHER LEVEL	RD 7	A 6	AT 2	ED 6	40

MEMORY NO. 13 BASIN

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		0	0.3	0.33	R0.3	34
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.7	4.55	+ 6	
		MID	1.0	1.16	+ 5	
		LOW		1.00	+ 12	
	FURTHER LEVEL	RD 7	A 9	AT 0	ED 9	40

MEMORY NO. 14 OUTDOOR THEATER

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		80	0.8	0.75	H37	60
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	1.0	9.99	− 12	
		MID	0.2	3.71	− 4	
		LOW		0.26	− 4	
	FURTHER LEVEL	RD 5	A 1	AT 8	ED 3	30

MEMORY NO. 15 — NON LINEAR

NON LNR		PRE DELAY	REV TIME	GATE TIME		OUTPUT
		63	2.5	223		83
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.9	7.04	+ 5	
		MID	0.3	1.01	− 7	
		LOW		0.29	+ 7	

MEMORY NO. 16 — NON LINEAR (INVERSE)

NON LNR		PRE DELAY	REV TIME	GATE TIME		OUTPUT
		10	− 0.9	223		83
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.9	7.04	+ 5	
		MID	0.3	1.01	− 7	
		LOW		0.29	+ 7	

MEMORY NO. 17 — SMALL ROOM (II)

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		16	0.6	0.65	R7.0	75
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.7	7.68	− 6	
		MID	0.8	1.01	0	
		LOW		0.10	− 3	
	FURTHER LEVEL	RD 5	A 9	AT 9	ED 9	48

MEMORY NO. 18 — MEDIUM HALL (II)

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		21	1.4	0.54	H22	75
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.5	9.99	− 2	
		MID	0.8	0.80	+ 3	
		LOW		0.35	− 4	
	FURTHER LEVEL	RD 5	A 1	AT 8	ED 3	20

MEMORY NO. 19 — SLAP BACK

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		95	0.5	1.00	R22	55
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.7	9.99	− 8	
		MID	0.6	1.39	+ 2	
		LOW		0.35	− 4	
	FURTHER LEVEL	RD 5	A 9	AT 9	ED 9	58

MEMORY NO. 20 — MEDIUM BRIGHT ROOM

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		0	1.2	0.50	R22	65
MODE	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.4	9.99	0	
		MID	4.4	0.80	− 2	
		LOW		0.35	− 2	
	FURTHER LEVEL	RD 6	A 9	AT 9	ED 7	66

MEMORY NO. 21   CONCERT HALL

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		27	3.4	0.47	H37	90
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.7	7.68	− 6	
		MID	0.8	0.72	+ 3	
		LOW		0.32	+ 3	
	FURTHER LEVEL	RD 8	A 7	AT 1	ED 0	66

MEMORY NO. 22   LIVE ROOM

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		16	1.1	0.43	R7.0	65
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.5	7.04	+ 2	
		MID	0.8	1.01	− 1	
		LOW		0.10	− 4	
	FURTHER LEVEL	RD 0	A 9	AT 9	ED 2	66

MEMORY NO. 23   SMALL BRIGHT HALL

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		0	0.6	0.83	H26	60
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.5	9.99	+ 2	
		MID	0.8	0.80	+ 3	
		LOW		0.35	− 4	
	FURTHER LEVEL	RD 8	A 9	AT 9	ED 0	66

MEMORY NO. 24   LARGE ROOM (II)

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		19	1.7	0.59	R22	99
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	0.5	9.99	− 4	
		MID	0.9	1.01	0	
		LOW		0.35	− 4	
	FURTHER LEVEL	RD 7	A 6	AT 2	ED 6	27

MEMORY NO. 25   REFLECTIONS

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		32	1.5	0.91	R37	99
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	1.6	9.99	− 6	
		MID	0.8	0.80	0	
		LOW		0.35	− 6	
	FURTHER LEVEL	RD 1	A 9	AT 9	ED 2	66

MEMORY NO. 26   DIGITAL CHAMBER

REVERB		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		0	0.9	0.57	P-B	99
MODE		FILTER	Q	FREQUENCY	BOOST/CUT	
	EQ	HI	1.6	9.99	0	
		MID	0.8	0.26	+ 1	
		LOW		0.35	0	
	FURTHER LEVEL	RD 4	A 6	AT 2	ED 9	30

MEMORY NO. 27   REVERB #1

REVERB MODE		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		72	30	0.38	R37	85
	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	1.0	9.99	− 8	
		MID	0.6	0.39	+ 2	
		LOW		0.35	− 4	
	FURTHER LEVEL	RD 7	A 6	AT 2	ED 6	27

MEMORY NO. 28   MEDIUM ROOM (II)

REVERB MODE		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		15	0.6	0.88	R7.0	99
	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	1.6	9.99	+ 2	
		MID	0.8	0.26	+ 1	
		LOW		0.35	0	
	FURTHER LEVEL	RD 7	A 6	AT 2	ED 6	26

MEMORY NO. 29   DELAY SMALL HALL

REVERB MODE		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		70	0.8	0.75	H37	99
	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	1.0	9.99	− 12	
		MID	0.2	3.71	− 4	
		LOW		0.26	− 4	
	FURTHER LEVEL	RD 5	A 1	AT 8	ED 1	59

MEMORY NO. 30   DIGITAL TAJ MAHAL

REVERB MODE		PRE DELAY	REV TIME	HF DAMP	REV SEL	OUTPUT
		160	4.0	0.86	H37	99
	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.5	7.25	+ 1	
		MID	0.8	1.01	0	
		LOW		0.10	− 7	
	FURTHER LEVEL	RD 9	A 7	AT 9	ED 1	53

MEMORY NO. 31   DRUM GATE

NON LNR MODE		PRE DELAY	REV TIME	GATE TIME		OUTPUT
		0	2.0	217		80
	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.9	7.25	+ 1	
		MID	0.3	0.78	+ 6	
		LOW		0.29	+ 3	

MEMORY NO. 32   BACKWARDS REVERB

NON LNR MODE		PRE DELAY	REV TIME	GATE TIME		OUTPUT
		0	− 0.9	404		99
	EQ	FILTER	Q	FREQUENCY	BOOST/CUT	
		HI	0.9	7.25	+ 1	
		MID	0.3	0.78	+ 6	
		LOW		0.32	+ 5	

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