

VS8F-3

Owner's Manual

Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (Owner's Manual p. 2, p. 3).

These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, the owner's manual should be read in its entirety. The owner's manual should be saved and kept on hand as a convenient reference.

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Roland Web site <http://www.roland.com/>







USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About  **WARNING** and  **CAUTION** Notices


 WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
 CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.


About the Symbols




	The  symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
	The  symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
	The  symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.


ALWAYS OBSERVE THE FOLLOWING


WARNING


- Before using this unit, make sure to read the instructions below, and the Owner's Manual. 


- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page. 

- Never use or store the unit in places that are:   
 - Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
 - Damp (e.g., baths, washrooms, on wet floors); or are
 - Humid; or are
 - Exposed to rain; or are
 - Dusty; or are
 - Subject to high levels of vibration.


- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit. 

- Protect the unit from strong impact. (Do not drop it!) 

- Before installing the VS8F-3, you must first always turn off the VS series device and unplug its power cord. 

- DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result. 

CAUTION

- Install the circuit board only into the specified unit (VS series device). Remove only the specified screws during the installation. 

IMPORTANT NOTES


Placement

- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.

Additional Precautions

- Before you open the included CD-ROM, you must read the “license agreement.” Opening the CD-ROM will be taken to mean your acceptance of the license agreement.

Handling CD-ROMs and SETUP DISC

- DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result. 
- Avoid touching or scratching the shiny underside (encoded surface) of the disc. Damaged or dirty CD-ROM discs may not be read properly. Keep your discs clean using a commercially available CD cleaner.
- To prevent warping or accidental damage to the disc and recorded data, do not leave the disc in direct sunlight or in a hot, humid location.
- Should the disc become dirty, use a soft, dry cloth to clean it. Commercially available CD cleaning liquids or ethyl alcohol can also be used. Do not use gasoline, kerosene, benzene, lacquer thinner, anti-static agents, or LP record cleaners as they may damage the recording surface.
- To protect recording surface and label side of the disc from scratches, finger-prints, dust and smears, never touch the recording side.
- When writing titles and other information on the label side of the disc, these should be written in the printed area using an oil-based felt-tipped pen. Please do not use a ball-point pen or other writing instruments having a hard tip.
- Do not attach stickers or protective sheets, nor apply any coating fluids to both sides of the disc.

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Introduction

Features of the VS8F-3

The VS8F-3 is an optional board that can be installed in an effect expansion slot of a supported VS series unit to add or expand its effect-processing capabilities.

- Switching between various effect programs written specifically for the VS8F-3 allows the VS8F-3 to produce different effects.
- 56-bit internal processing and up to 96kHz sound quality.
- Runs up to two plug-ins per card.
- Runs 2-stereo/4-mono plug-ins (at less than 48kHz) or 1-stereo/2-mono plug-in(s) (at 64kHz or over).
- Includes 5 Roland plug-ins.

■ What is a VS plug-in?

VS plug-in is the brand new concept that provides a standardized open-platform development environment for plug-in effects.

Products (plug-in packages) that conform to this standard bear the logo shown at the right (above).

Plug-ins that conform to this standard and are manufactured by software developers other than Roland bear the logo shown at the right (below), indicating that the plug-in has been certified by Roland as a compatible VS plug-in.

Products bearing either of these logos are guaranteed to work correctly on the VS8F-3.



Checking the included items

The VS8F-3 carton contains the following items.

- VS8F-3 (Effect Expansion Board)
- VS8F-3 SETUP DISC
- Owner's Manual (the document you are reading)
- SOFTWARE LICENSE AGREEMENT (Leaflet)
- Patch List
- Key Card sticker and VS plug-in sticker

MEMO

Only the VS-2480HD/2480CD/2400 CD support projects with 64kHz or higher sampling rates.

?

What are plug-ins? Switching between various effect programs written specifically for the VS8F-3 allows the VS8F-3 to produce different effects. These programs are called "plug-ins" since you use them just as though you were "plugging-in" the particular effect you want to use.

HINT

Please place the Key Card sticker on the VS8F-3 that is designated as the Key Card (To learn about the Key Card, please refer p. 9). When you've installed a VS8F-3 and verified the V Studio's operating system software, affix the plug-in sticker to the V Studio to signify that the unit is now plug-in ready.

Before you use the VS8F-3

To use VS8F-3 in a VS series recorder, the system program version of the V Studio must be compatible with the VS8F-3. Please check the system program version of your VS series recorder before installing the VS8F-3. If you find the version is not compatible with the VS8F-3, please update the software using the SETUP DISC contained in this package. The update should be executed once prior to the installation of the VS8F-3. If you find the system program version is compatible with the VS8F-3, the update is not necessary.

On this chapter, the notes and cautions regarding installation of VS8F-3 are stated. Please read carefully and install the board correctly.

Checking the system version of your VS series

1. On the VS-2480/2480CD/2400CD, power up your VS series device while holding down [CH EDIT 1] + [TRACK STATUS 1]. On the VS-2000, power up your VS-2000 while holding down [HARMONY] + [TRACK/STATUS 1]. Continue holding down these buttons until "Version Information" appears in the display.
2. Checking the system version of your VS series device. If the version is lower than the version numbers given below, you must update the system of your VS series device. Update the system as described below.

- VS-2480/2480CD: Version 2.50 or later
- VS-2400CD: Version 1.50 or later
- VS-2000: Version 1.50 or later

```
Version Information
Boot Version : 1.002
Create Date : 12/04/2003
Create Time : 11:56:20
System
Version      : 1.002
Create Date  : 12/04/2003
Create Time  : 14:00:00
Sub System Version : 1.001
Check Sum
Total       : D9ACh
Boot        : D703h
System      : A133h
Parameter   : 6271h
Sub System  : 6C88h

[ENTER]
```

Version number of the current system appears here.

■ Backing up your projects

To ensure the safety of your data, we recommend that you back up the projects saved on your hard disk to other media, and then initialize your hard disk before updating the system program. You can restore the backed-up projects to your internal hard disk using the project RECOVER command.

1. Back up projects (performance data) saved on the hard disk to CD-R/RW discs. As described in the owner's manual, back up all projects that you want to keep. When doing so, back up not only the projects in the current drive (partition), but also any projects that are saved in other partitions.
2. Initialize the hard disk (Format Drive). Projects saved on the hard disk will be completely erased, and the disk will be free of data. Initialize the hard disk as described in the owner's manual of your VS series device.

NOTE

When you execute the Format Drive (Make Partition) command, all projects saved on the hard disk will be erased. It will not be possible to use the Undo function to recover the erased projects. If you accidentally erase a project you wanted to keep, there is no way to recover the project. Roland Corporation can assume no responsibility whatsoever concerning the recovery of any lost content. Before you execute the Format Drive (Make Partition) command, you must back up (Project Backup) any project you want to keep.

3. Perform the Shutdown procedure (Owner's Manual of V Studio "Turning Off the Power") and turn off the power of all equipment connected to the V Studio device.

MEMO

When starting up in Step 1, you must continue holding down the buttons until the lowest line of the screen shows "Boot Condition: System Information."

MEMO

The explanations in this manual include illustrations that depict what should typically be shown by the display. Note, however, that your unit may use a newer, enhanced version of the system (e.g., including newer features), so what you actually see in the display may not always match what appears in the manual.

MEMO

"Format Drive" may be described as "Make Partition" in the owner's manual if you purchased version 1.xx of VS-2480/2480CD. The name of a function may vary according to changes in specifications, but this will make no difference in its operation.

Using the SETUP DISC to update the system version

Here's how to update the system program of your VS series device so that it will support the VS8F-3. You'll need to perform this step just once for VS series devices whose system does not yet support the VS8F-3. To update the system program of your VS series device, use the "SETUP DISC" included in the package.

MEMO

If you're using the VS-2480CD/2400CD/2000, you can update your system using the internal CD-R/RW drive. If you're using the VS-2480HD (the model without an internal CD-R/RW drive), you will need an external SCSI CD-RW drive for the update, such as the VS-CDR-II/-III or a compatible Plextor CD drive. The VS-CDR-I can not be used for this update.

■ Updating the system program of your VS series

1. Read **Backing up your projects** (p. 6).
We recommend that you back up the projects saved on your hard disk, and then initialize the hard disk.
2. Turn on the power of the VS series device, and eject the disc tray.
3. Place the SETUP DISC on the disc tray.
4. Close the disc tray.
5. Perform the Shutdown procedure (Owner's Manual of V Studio "Turning Off the Power").
6. Turn on the power of the VS series device.
The opening title screen and the "Setup Drive" message will appear. The CD-R/RW drive will be checked. Please wait. When the checking process is complete, the system will ask "Update Main System Program?"
7. If you want to update the system to the displayed version, press [ENTER/YES].
A message will ask "Keep User Setting?"
8. Specify whether you want to preserve your user routing, system setting and user effect patch settings when the update is performed, or whether all of these settings are to be initialized. Press [ENTER/YES] or [EXIT/NO] to make your selection.
 - [ENTER/YES] → settings will be preserved
 - [EXIT/NO] → settings will be initialized

The display will indicate "Main Update," and the system update will begin.

MEMO

If you pressed [EXIT/NO] in Step 8, the display will ask "Init User Setting Sure?" If you are sure you want to initialize the settings, press [ENTER/YES].
If you decide you don't want to proceed with the initialization, press [EXIT/NO]. In this case, you are returned to Step 8.

NOTE

If you press [ENTER/YES] in response to "Init User Setting Sure?," all settings will be initialized to their factory defaults.

9. When the system update is completed, the disc tray of the CD-R/RW drive will open. Remove the SETUP DISC.
10. Confirm that the "Please Reboot OK" message is displayed, then turn off the power of the VS series device.
11. Turn on the power of the V Studio once again.
12. Check the version number that is displayed at start-up.

MEMO

If you have already downloaded the most recent system program from the Roland website, or already performed the update using the SETUP DISC (so that your unit supports the VS8F-3), you don't need to update again.

MEMO

Check the Roland website <http://www.roland.com/> for the latest system upgrade for your product.

MEMO

Projects and backup data you created before updating the system will still be usable in their existing form. (Data compatibility is preserved.)

MEMO

If you decide not to update, press [EXIT/NO]. The update process will be halted, and the V Studio will start up as usual.

NOTE

Never turn off the power while the update is in progress. Doing so will destroy the operating program of the VS series device itself, and it will no longer be possible to start it up.

■ Recovering your projects

Restore the data that you had backed up in **Backing up your projects** (p. 6) back onto the hard disk (Project Recovery).

Refer to the owner's manual of your VS series device, and restore your projects back onto the hard disk.



Projects and backup data you created before updating the system will still be usable in their existing form. (Data compatibility is preserved.)

Installing the VS8F-3

Installation of the VS8F-3 is exactly the same as installing the VS8F-2. Refer to the Quick Start manual for your VS series device and to **Rules for installing effect expansion boards** (p. 9), and install the VS8F-3 as directed.



Before you continue, you must read **Using the SETUP DISC to update the system version** (p. 7) and complete the system program update for your VS series device.

■ Cautions When Installing an Effect Expansion Board

- Before installing the effect expansion board, turn off the power of the VS series device and all connected devices, and disconnect all cables from the VS series device.
- When installing effect expansion boards, remove only the specified screws.
- Should you remove screws, make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.
- When turning the unit upside-down, get a bunch of newspapers or magazines, and place them under the four corners or at both ends to prevent damage to the buttons and controls. Also, you should try to orient the unit so no buttons or controls get damaged.
- To avoid the risk of damage to internal components that can be caused by static electricity, please carefully observe the following whenever you handle the board.
 - Before you touch the board, always first grasp a metal object (such as a water pipe), so you are sure that any static electricity you might have been carrying has been discharged.
 - When handling the board, grasp it only by its edges. Avoid touching any of the electronic components or connectors.
 - Save the bag in which the board was originally shipped, and put the board back into it whenever you need to store or transport it.
- Use a Phillips screwdriver that is suitable for the size of the screw (a number 2 screwdriver). If an unsuitable screwdriver is used, the head of the screw may be stripped.
- To remove a screw, rotate the screwdriver counter-clockwise. To tighten a screw, rotate the screwdriver clockwise.
- Be careful that the screws you remove do not drop into the interior of the VS series.
- Do not leave the bottom cover in a detached state. Be sure to reattach it after the effect expansion boards have been installed.
- Do not touch any of the printed circuit pathways or connection terminals.
- Be careful not to cut your hand on the edge of the installation bay.
- Never use excessive force when installing a circuit board. If it doesn't fit properly on the first attempt, remove the board and try again.
- When circuit board installation is complete, double-check your work.



Rules for installing effect expansion boards

■ What is the Key Card?

It is necessary to authorize the effect programs with individual ID of your VS8F-3 prior to installing and using the effect programs on the VS series device. The VS8F-3 used for the authorization is called the "Key Card." The VS plug-in programs can function when a Key Card is present. To authorize the effects programs with the Key Card correctly, the Key Card must be installed according to the rules stated below.

■ Rule 1

On the VS-2480/2480CD/2400CD, effect expansion boards must be installed in order starting from EFFECT A (the first one).

On the VS-2000, effect expansion boards must be installed in order starting from EFFECT B (the first one).

You must not leave the first effect slot vacant, or skip any slots when you install boards.

■ Rule 2

When installing the VS8F-3, you must install it as follows in conformity with Rule 1. When the VS8F-3 in the first slot (the Key Card, shown here in bold type) is authorized, Key Card data is written to the hard disk together with the VS plug-in program.

VS-2480/2480CD	A	B	C	D
VS8F-3: x1 VS8F-2: not installed	VS8F-3			
VS8F-3: x1 VS8F-2: x1	VS8F-3	VS8F-2		
VS8F-3: x2 VS8F-2: not installed	VS8F-3	VS8F-3		
VS8F-3: x2 VS8F-2: x1	VS8F-3	VS8F-3	VS8F-2	
VS8F-3: x1 VS8F-2: x2	VS8F-3	VS8F-2	VS8F-2	
VS8F-3: x1 VS8F-2: x3	VS8F-3	VS8F-2	VS8F-2	VS8F-2
VS8F-3: x3 VS8F-2: not installed	VS8F-3	VS8F-3	VS8F-3	
VS8F-3: x3 VS8F-2: x1	VS8F-3	VS8F-3	VS8F-3	VS8F-2
	VS8F-3	VS8F-3	VS8F-2	VS8F-3
	VS8F-3	VS8F-2	VS8F-3	VS8F-3
VS8F-3: x2 VS8F-2: x2	VS8F-3	VS8F-3	VS8F-2	VS8F-2
	VS8F-3	VS8F-2	VS8F-3	VS8F-2
	VS8F-3	VS8F-2	VS8F-2	VS8F-3
VS8F-3: x4 VS8F-2: not installed	VS8F-3	VS8F-3	VS8F-3	VS8F-3

VS-2400CD	A	B
VS8F-3: x1 VS8F-2: not installed	VS8F-3	
VS8F-3: x1 VS8F-2: x1	VS8F-3	VS8F-2
VS8F-3: x2 VS8F-2: not installed	VS8F-3	VS8F-3

VS-2000	A (internal)	B	C
VS8F-3: x1 VS8F-2: not installed	equivalent to VS8F-2	VS8F-3	
VS8F-3: x1 VS8F-2: x1		VS8F-3	VS8F-2
VS8F-3: x2 VS8F-2: not installed		VS8F-3	VS8F-3



For details, refer to **Where to install the VS8F-3 (Checking the first slot)** (p. 10)



If you affix the included Key Card sticker to the authorized VS8F-3 installed in the first slot, you'll be able to distinguish it from other VS8F-3 boards.



The VS8F-3 cannot use effects created for the VS8F-2. Nor can the VS8F-2 use plug-in effects created for the VS8F-3.



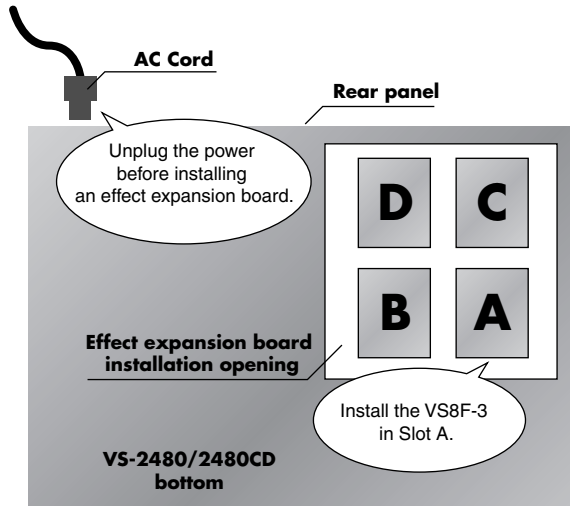
When the VS-2400CD is shipped from the factory, a VS8F-2 is installed in slot A. If you want to use a VS8F-3, you must move the VS8F-2 to slot B or remove it.



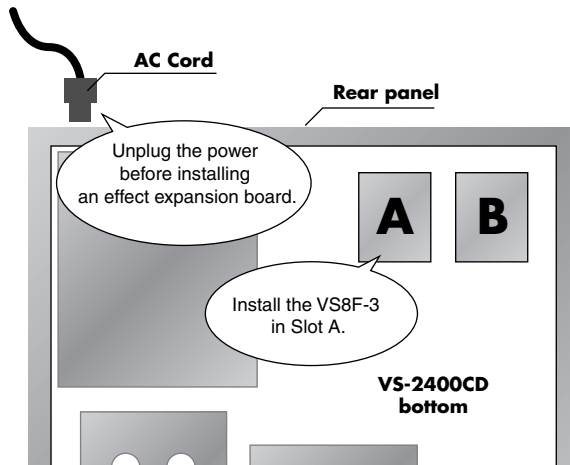
VS8F-3=Key Card
VS8F-3≠not Key Card

Where to install the VS8F-3 (Checking the first slot)

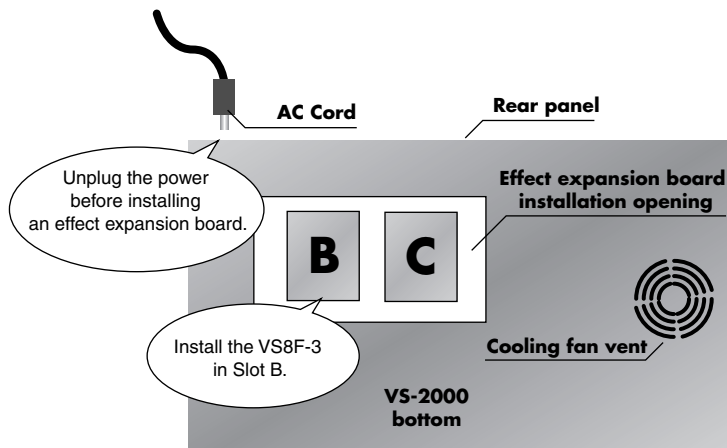
■ VS-2480/2480CD



■ VS-2400CD



■ VS-2000



Installing plug-in effects in the V Studio

VS plug-in programs for the VS8F-3 are provided on a SETUP DISC, and thus cannot be used by the VS8F-3 without installation to the hard disk.

Before you can use a VS plug-in program, you must write it into the internal hard disk of your VS series unit. This process is referred to as "installing a VS plug-in program."

■ Authorized and Trial versions

The installed VS plug-in programs come in two forms: an Authorized version and a Trial version.

The version that is installed depends on what you select during installation, or on the state of the SETUP DISC you use.

An authorized version lets you use the full functionality of the VS plug-in program, while a trial version imposes several limitations on use.

Authorized version

A VS plug-in program installed as an authorized version lets you use the full functionality of the program.

To install the authorized version, use a SETUP DISC that has not yet been used for authorization, and select "AUTHORIZE" during the installation.

When the authorized version is installed, data describing the combination of the VS8F-3 (Key Card) installed in the first effect slot (p. 10) and the VS plug-in program is stored to the hard disk of V Studio along with the installed program. This means that in order to use an authorized VS plug-in program, you must use it in conjunction with the Key Card VS8F-3. If the Key Card is not installed, the functions of effects programs will be limited as with the trial version, described below.

Trial version

A VS plug-in program installed as a trial version can be used with several limitations.

The program will be installed as a trial version in the following cases.

- When you are using a SETUP DISC that has not yet been used for authorization and you select "TRIAL" during the installation.
- In case you are installing effect programs on a V Studio without a Key Card from a SETUP DISC after authorization or from a backup of a SETUP DISC.

Trial versions have the following limitations.

- Plug-in effect parameters are not saved when you execute Store Current Project on your VS series unit.
- User patches cannot be saved.
- The audio output from VS series will be muted at regular intervals.
- The popup message of "You are using trial version" is displayed at regular intervals.



Using the following methods, you can avoid the muting and popup message.

- Uninstall the VS plug-in program trial version
- Reload the current project
- Press [F4 (UnSel)] in PLUG-IN SELECT screen

In both of the above cases, the VS8F-3 will be set to NO PLUG-IN status (no plug in program is loaded).



If you're using the VS-2480CD/2400CD/2000, you can install your system using the internal CD-R/RW drive. If you're using the VS-2480HD (the model without an installed CD-R/RW drive), you will need an external SCSI CD-RW drive for the installation, such as the VS-CDR-II/-III or a compatible Plextor CD drive. The VS-CDR-I can not be used for this installation.



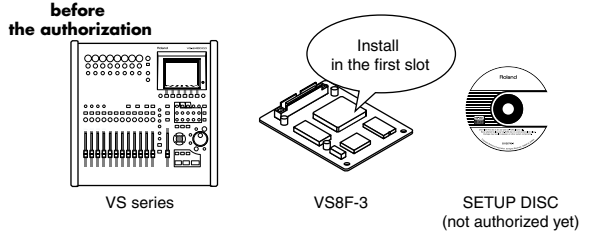
An already-authorized SETUP DISC cannot be used to install an authorized version for a different VS8F-3 board.

■ Installation examples

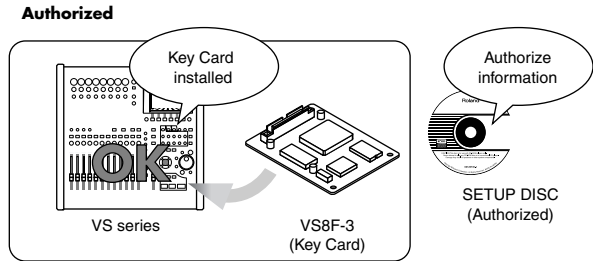
If you own one VS series unit and one VS8F-3 board

When authorizing, the VS8F-3 must be installed in the first slot (p. 10).

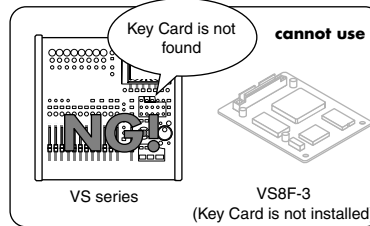
This VS8F-3 will become the "Key Card" when authorization is completed.



When authorization is performed, data describing the combination of VS plug-in programs and Key Card (VS8F-3) is written to the hard disk during installation.



However, if you use the system without the Key Card VS8F-3 installed, the VS plug-in programs installed on the hard disk cannot be used as authorized plug-ins.

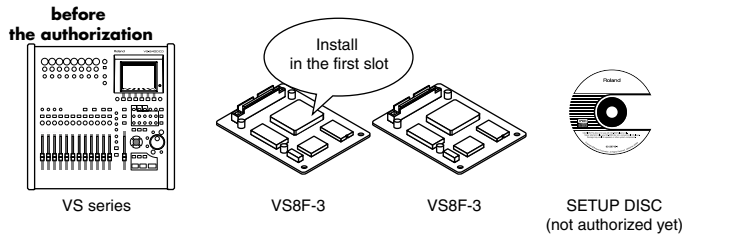


If you own one VS series unit and two (or more) VS8F-3 boards

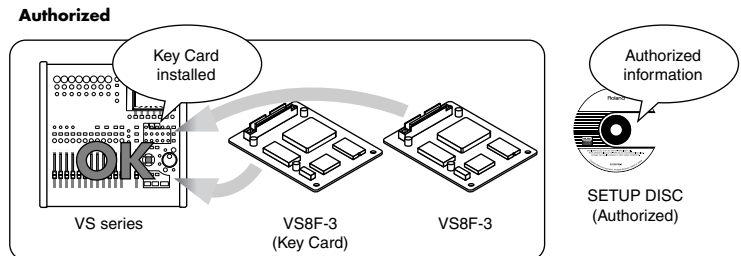
When authorizing, a VS8F-3 must be installed in the first slot (p. 10).

This VS8F-3 will become the "Key Card" when authorization is completed.

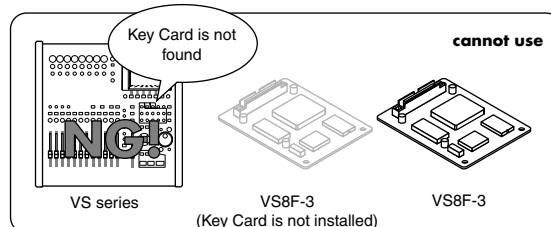
Install any remaining VS8F-3 boards in vacant slots in conformity with Rule 1 (p. 9).



After authorization, the VS plug-in programs will work with any installed VS8F-3 board as long as the Key Card is present.

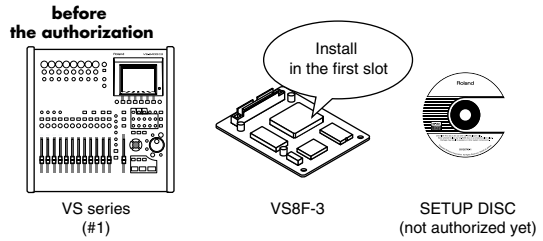


If the Key Card VS8F-3 is not installed, the VS plug-in programs installed on the hard disk will not be available for use as authorized plug-ins.

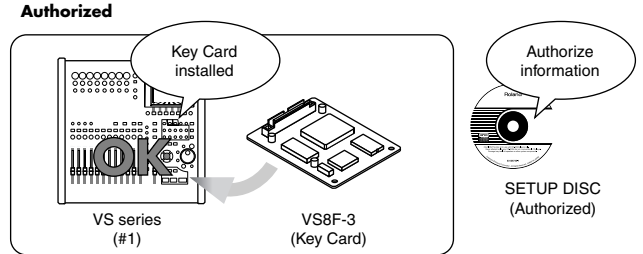


If you own two (or more) VS series units and one VS8F-3 board

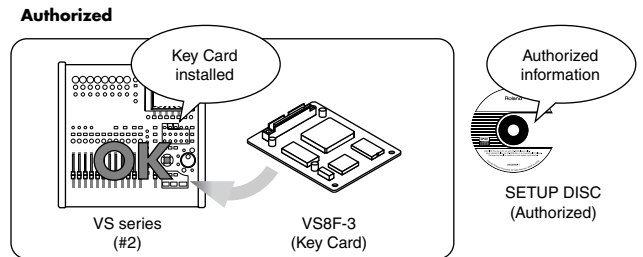
For the first VS series unit, you must install the VS8F-3 in the first slot (p. 10) when authorizing. This VS8F-3 will become the "Key Card" when authorization is completed.



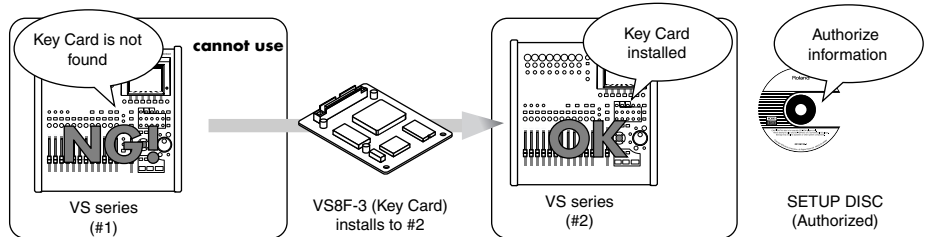
When authorization is performed, data describing the combination of VS plug-in programs and Key Card (VS8F-3) is written to the hard disk during installation.



If you move the Key Card from the first VS series unit to another VS series unit, the same VS plug-in programs used on the first unit can then be installed using the already-authorized SETUP DISC. In other words, as long as the Key Card is installed, you can install its VS plug-in programs from the SETUP DISC and use them.



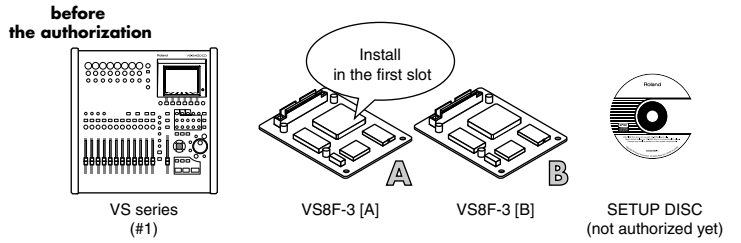
However, since there is only one Key Card, you will not be able to use these VS plug-in programs as authorized plug-ins on two or more VS series units at the same time.



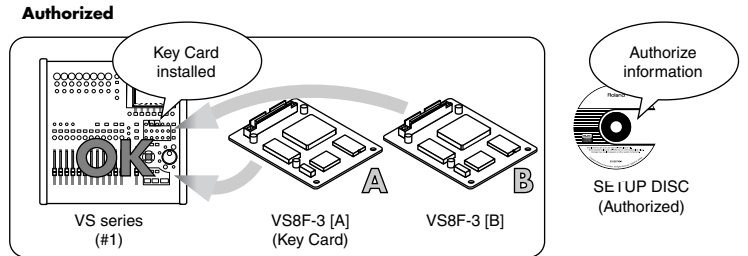
Please place the Key Card sticker on the VS8F-3 that is designated as the Key Card (To learn about the Key Card, please refer p. 9).

If you own two (or more) VS series units and two (or more) VS8F-3 boards

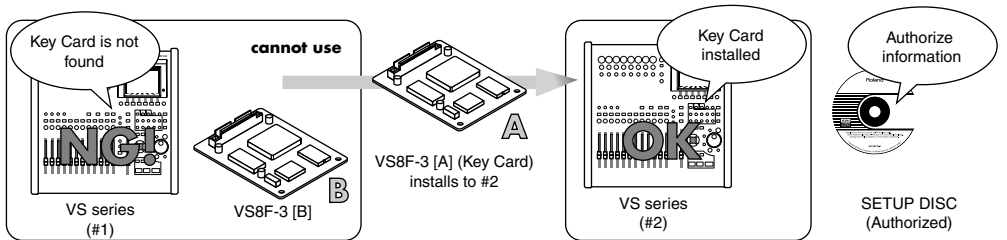
For the first VS series unit, you must install the VS8F-3 in the first slot (p. 10) when authorizing.
 This VS8F-3 will become the “Key Card” when authorization is completed.
 Install the remaining VS8F-3 boards in conformity with Rule 1 (p. 9).



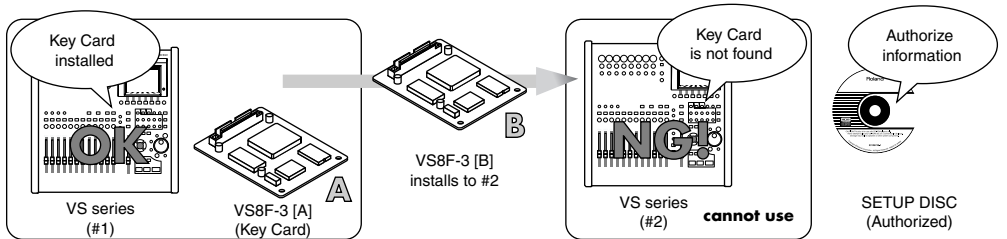
When authorization is performed, data describing the combination of VS plug-in programs and Key Card (VS8F-3) is written to the hard disk during installation. After authorization, the VS plug-in programs will work with any installed VS8F-3 board as long as the Key Card is present.



If you move the Key Card from the first VS series unit to another VS series unit, the same VS plug-in programs used on the first unit can then be installed using the already-authorized SETUP DISC. In other words, as long as the Key Card is installed, you can install its VS plug-in programs from the SETUP DISC and use them. However, since there is only one Key Card, you will not be able to use these VS plug-in programs as authorized plug-ins on two or more VS series units at the same time.



If you leave the Key Card in the first VS series unit and install the other (i.e., non-Key Card) VS8F-3 boards in the second VS series unit, the VS plug-in programs installed in the second VS series unit will not be usable. Nor can you use an already-authorized SETUP DISC to install an authorized version of the same VS plug-in programs to any VS without the original Key Card installed.



MEMO

By using a second SETUP DISC to authorize the as-yet-unauthorized VS8F-3 [B], you will be able to use both VS8F-3 boards.

HINT

Please place the Key Card sticker on the VS8F-3 that is designated as the Key Card (To learn about the Key Card, please refer p. 9).

Installation procedure

1. Carefully read the included leaflet "License agreement for Roland software" and verify that you accept the conditions.
2. Insert the SETUP DISC into the CD-R/RW drive.
3. Press [CD-RW].
The CD-RW menu screen will appear.
4. Select Page 2 "PLUG-IN Inst," and press [ENTER/YES].
The PLUG-IN INSTALL screen will appear. This shows product information about the VS plug-in program (manufacturer, product name, plug-in version, and size).

MEMO

The drive (partition) in which the plug-in program is to be installed will be decided by the VS series device. The drive information is shown at "DESTINATION" on "PLUG-IN INSTALL" screen. Check that the remaining capacity of the disk is bigger than the size of VS plug-in program to be installed. For installation, a remaining capacity of twice or more than the VS plug-in program size is required.

5. Press [F5 (Instal)].
The "Install?" popup will appear.
6. To begin the installation, press [ENTER/YES].
The "AUTHORIZE?" popup will appear.
7. If you want to install the authorized version, press [ENTER/YES]. If you want to install the trial version, press [EXIT/NO].
If you press [ENTER/YES], authorization data will be written to the SETUP DISC and the hard disk, and the program will be installed. If you press [ENTER/NO], a trial version will be installed but authorization data will not be written.
The "Really, Sure?" popup will appear.
8. To confirm the installation, press [ENTER/YES].
9. When installation is completed, remove the SETUP DISC.
The CD-RW menu screen will appear.

Backing up your VS plug-in programs

If the SETUP DISC becomes lost or damaged after you have used it to install the authorized version of a plug-in program, you will be unable to re-install (p. 16) the plug-in. As a safeguard against such problems, we strongly recommend that you back up your VS plug-in programs on a commercially available CD-R/RW disc after authorization. Backing up also lets you save the user patches of the plug-in effect to the CD-R/RW disc.

1. Insert a blank CD-R/RW disc into the CD-R/RW drive.
2. Press [CD-RW].
The CD-RW menu screen will appear.
3. Select Page 2 "PLUG-IN Back," and press [ENTER/YES].
The PLUG-IN BACKUP screen will appear. This lists the VS plug-in programs that are installed on the hard disk.
4. Use the cursor to select the plug-in that you want to back up, and press [F4 (BACKUP)].
The "Backup?" popup will appear.
5. To begin the backing up, press [ENTER/YES].
The "Really, Sure?" popup will appear.
6. To confirm the backing up, press [ENTER/YES].
If you press [ENTER/YES], VS plug-in programs will be backed up to CD-R/RW disc. The PLUG-IN BACKUP screen will appear.

MEMO

The contents of the SETUP DISC are recorded in VS format (the dedicated data format of the VS series). Therefore, it is impossible to make a backup disc on a PC.

MEMO

If you are unable to install successfully even when using a not-yet-authorized SETUP DISC, please contact your dealer or a Roland service center listed in the "Information" section of the manual.

MEMO

If the SETUP DISC is not yet inserted after Step 6, a message of "Please Insert Plug-in CD" will appear, and the CD-RW drive tray will open.

MEMO

The plug-in programs will be installed in the drive (partition) that precedes the last drive. For example if you have drives IDE0~IDE3, the programs will be installed in the IDE2 drive.

MEMO

If you lose or damage the SETUP DISC after authorization, a fee will be charged for a correctly functioning replacement disc. Be sure to back up your VS plug-in programs in order to avoid such an inconvenience.

MEMO

It is able to use the backed up plug-in program as authorized version if installed to VS series with Key Card.

Re-installing your plug-ins

If you initialize (format) the hard disk of your VS series unit, the VS plug-in programs on the hard disk will be lost, leaving you unable to use the VS plug-in programs even if the VS8F-3 is installed. By re-installing the VS plug-in programs you will again be able to use them.

1. Perform Steps 1~5 of **Installation procedure** (p. 15).
The “Re-Install?” popup will appear.
2. To begin the re-installation process, press [ENTER/YES].
The “Really, Sure?” popup will appear.
3. To confirm the re-installation process, press [ENTER/YES].
If you press [ENTER/YES], VS plug-in programs will be installed to the hard disk.
4. When installation is completed, remove the CD.
The CD-RW menu screen will appear.

Uninstalling a plug-in

Here's how to delete an installed VS plug-in program. This lets you delete a trial version of a VS plug-in program, or obtain more free space on your hard disk if it becomes full.

1. Press [CD-RW].
The CD-RW menu screen will appear.
2. Select Page 2 “PLUG-IN UnIns,” and press [ENTER/YES].
The PLUG-IN UNINSTALL screen will appear. This lists the VS plug-in programs that are installed on the hard disk.
3. Use the cursor to select the plug-in that you want to delete, and press [F5 (UNINST)].
The “Uninstall?” popup will appear.
4. To start the uninstall process, press [ENTER/YES].
The “Really, Sure?” popup will appear.
5. To confirm the uninstallation process, press [ENTER/YES].
If you press [ENTER/YES], the selected VS plug-in program(s) will be deleted.



If you uninstall an authorized version of a VS plug-in program, the user patches will also be deleted. The deleted data cannot be recovered.

Using the effects

Now that you've installed the VS8F-3 in your VS series unit, let's try out the effects.

A VS8F-3 effect can be used as an insert effect or loop effect in the same way as an effect on the VS8F-2. For details, refer to the owner's manual of your VS series unit.

Selecting and editing a plug-in

■ Selecting a plug-in

Before using an effect for the VS8F-3, you'll need to load a VS plug-in program into the VS8F-3.

1. On the VS-2480/2480CD, press [EFFECT]. On the VS-2400CD or VS-2000, press [SHIFT] + [F3 (EFFECT)].
The EFFECT VIEW screen will appear.
2. Use the cursor to select the effect number that you want to use, and press [ENTER/YES].
The PLUG-IN INFORMATION screen will appear.
3. Press [F1 (PlugIn)].
The PLUG-IN LIST screen will appear. This lists the VS plug-in programs that are installed on the hard disk.
4. Use the cursor to select the plug-in that you want to use, and press [F5 (SELECT)].
The PLUG-IN INFORMATION screen will appear. Information about the selected plug-in will appear. The plug-in is now loaded.

■ Selecting a plug-in's patch

Here's how to load a patch (a set of effect settings) for the selected VS plug-in program.

1. Load a plug-in as described in **Selecting a plug-in**.
2. Press [F3 (Patch)].
The PLUG-IN PATCH SELECT screen will appear. This lists the patches for the selected VS plug-in program.
3. If you wish to use a preset patch, press [F1 (PRESET)], and if you wish to use a user patch, press [F2 (USER)].
The PATCH LIST will change to show preset patches or user patches.
4. Use the cursor to select a patch that you want to use, and press [F5 (SELECT)].
The PLUG-IN INFORMATION screen will appear. Information about the selected plug-in will appear. The patch is now loaded.

MEMO

You can't use a "Single" type effect as an even-numbered effect. Its patch name will be grayed-out for such effects.

MEMO

Depending on the plug-in patch, it may take some time after you press [F5 (SELECT)] until the screen appears.







MEMO

While recording or playback on VS series products, you cannot switch a plug-in's program or patch.

■ Editing the effect parameters

Here's how to edit the effect parameters of the selected patch.

1. Select a patch as described in **Selecting a plug-in's patch** (p. 17).
2. Press [F4 (Edit)].
The PLUG-IN screen will appear. The controllers operate as follows.

Controller	How to use (Top panel)	How to use (Mouse)
	Move the cursor to the value, and edit it using one of the following methods. <ul style="list-style-type: none"> • Turn the TIME/VALUE dial The index markings around the knob will change to reflect the current value.	Move the mouse cursor to the knob, and drag upward or downward.
 (Off)  (On)	Move the cursor to the switch, and edit it using one of the following methods. <ul style="list-style-type: none"> • Turn the TIME/VALUE dial • Press the [ENTER/YES] button 	Click the switch. Depending on the status of the switch, it will change between On and Off. In the VGA screen, the switch will display orange (On) and gray (Off).
	Use [F1 (←)] [F2 (→)] to move between pages. If additional screens are available, a triangle symbol is displayed at both sides.	Click the page tab for the page you want to see. By clicking the triangle shaped button on both sides, you can display the next or previous pages of effect settings.
 (value 1)  (value 2)	Move the cursor to the slide-switch, and edit it using one of the following methods. <ul style="list-style-type: none"> • Turn the TIME/VALUE dial • Press the [ENTER/YES] button 	Click the slide-switch. The switch knob will move to the left or right.

■ Saving an edited patch

Here's how to save your user patches so that you'll be able to reuse your edited effect settings when desired.

1. Edit a patch as described in **Editing the effect parameters**.
2. Press [F4 (Save)].
The PLUG-IN PATCH SAVE screen will appear.
3. Use the cursor to select the location in which you want to save the patch, and press [F5 (SAVE)].
You can save up to one hundred patches; U000--U099.

MEMO

In Step 3, move the cursor to the saved user patch in the PATCH LIST, and then press [F1 (NAME)] –the PLUG-IN NAME EDIT screen will appear. After changing the patch name on this screen, you can press [F5 (SAVE)] to store the patch with its new name on your hard disk. For details on inputting names, refer to owner's manual of VS series devices "Naming."

MEMO

Depending on the VS plug-in program, it may take some time after you press [F4 (EDIT)] until the screen appears.

MEMO

While recording on VS series products, the PLUG-IN screen cannot be displayed.

MEMO

When displaying the PLUG-IN screen, the metronome may sound unstable. This is not a malfunction or problem of the system.



For details on all of the parameters and values of the Plug-In effects, refer to the **Effect Algorithm** (p. 19).

MEMO

When a project with Plug-In effect is loaded, P000 patch (the first one of preset patches) will be highlighted on the PLUG-IN EFFECT SELECT Screen. However, the system re-produces the parameters of Plug-In effect when the project is stored.

Effect Algorithm

■ What are VS plug-in Programs?

VS plug-in programs are programs created specifically for the VS8F-3.

Each of these programs consists of

- Algorithms that produce the effect
- Programs for communication between the VS series unit and the VS8F-3
- Preset patch data that contains settings for each of the plug-in effect's parameters


■ About the effect algorithms

“Effect algorithm” refers to each effect like Reverb or Chorus. It also includes effect packages that contain multiple algorithms. Two effect algorithms (multi-type and single-type) can be simultaneously produced by a VS8F-3.

The “Multi-Type” effect algorithm

Two different multi-type effect algorithms can coexist on a VS8F-3.

You can operate and change these effect algorithms independently.

In this manual, explanations that apply to multi-type effect algorithms are indicated by an  icon.

The “Single-Type” effect algorithm


Effect Algorithms of single-type effects require all the processing power of one VS8F-3 board. You can use one single-type plug-in effect on each VS8F-3.

In other words, you can't use two single-type VS plug-in programs on one VS8F-3, nor can a multi-type and a single-type program coexist.

In this manual, explanations that apply to single-type effect algorithms are indicated by an  icon.

About the spec of VS plug-in programs for input and output

In this manual, explanations that apply to 1stereo in-1stereo out-type programs are indicated by an  icon.

In this manual, explanations that apply to 2mono in-2mono out-type programs are indicated by an  icon.

■ About the included Roland VS plug-ins

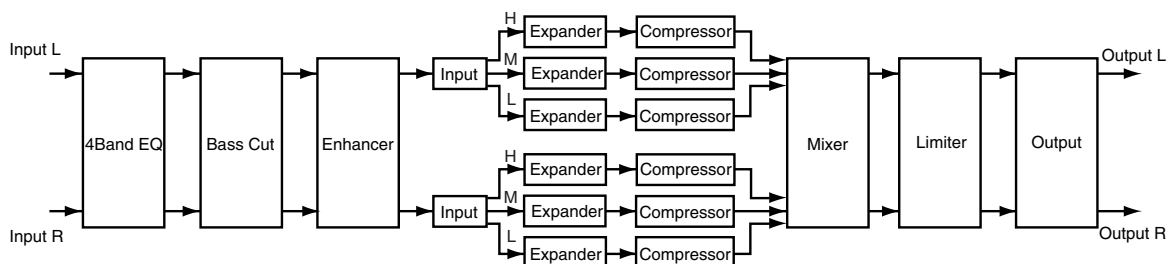
Each VS8F-3 includes five Roland plug-ins that can be installed from a SETUP DISC included in the box. The VS8F-3 recalls the following VS plug-in programs from the hard disk and changes its effect algorithm accordingly.

- Mastering Tool Kit   → p. 20
- Tempo Mapping Effect   → p. 23
- Stereo Reverb   → p. 26
- Vocal Channel Strip   → p. 28
- Pre-Amp Modeling   → p. 29

Mastering Tool Kit



This is a compressor that divides the input signal into frequency bands (High, Middle, and Low) and regulates the volume of each band. When mixing down to MD or DAT, or when using a CD-R disc to produce an original audio CD, you can apply this effect to master your song at the optimal level.



4band EQ (4band Equalizer)

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the equalizer on or off.
FREQ./TYPE ASSIGN	FREQ, TYPE	Switches between FREQ and TYPE as the assignment of the upper row of knobs
GAIN/Q ASSIGN	GAIN, Q	Switches between GAIN and Q as the assignment of the lower row of knobs
Band 1 FREQ (Band 1 Frequency)	20~20000 Hz	Sets the center frequency in the Band 1 frequency. (*1)
Band 1 GAIN	-15.0~15.0 dB	Sets the boost/cut amount in the Band 1 frequency. (*1)
Band 1 TYPE	PEAK, LSV, HSV, LPF1, HPF1, LPF2, HPF2, BPF, BEF, THRU	Sets the type of the Band 1 frequency equalizer. (*1)
Band 1 Q	0.36~16.00	Sets the width of the area around the Band 1 frequency that will be affected by the gain settings. (*1)
Band 2 FREQ (Band 2 Frequency)	20~20000 Hz	Sets the center frequency in the Band 2 frequency. (*1)
Band 2 GAIN	-15.0~15.0 dB	Sets the boost/cut amount in the Band 2 frequency. (*1)
Band 2 TYPE	PEAK, LSV, HSV, LPF1, HPF1, LPF2, HPF2, BPF, BEF, THRU	Sets the type of the Band 2 frequency equalizer. (*1)
Band 2 Q	0.36~16.00	Sets the width of the area around the Band 2 frequency that will be affected by the gain settings. (*1)
Band 3 FREQ (Band 3 Frequency)	20~20000 Hz	Sets the center frequency in the Band 3 frequency. (*1)
Band 3 GAIN	-15.0~15.0 dB	Sets the boost/cut amount in the Band 3 frequency. (*1)
Band 3 TYPE	PEAK, LSV, HSV, LPF1, HPF1, LPF2, HPF2, BPF, BEF, THRU	Sets the type of the Band 3 frequency equalizer. (*1)
Band 3 Q	0.36~16.00	Sets the width of the area around the Band 3 frequency that will be affected by the gain settings. (*1)
Band 4 FREQ (Band 4 Frequency)	20~20000 Hz	Sets the center frequency in the Band 4 frequency. (*1)
Band 4 GAIN	-15.0~15.0 dB	Sets the boost/cut amount in the Band 4 frequency. (*1)
Band 4 TYPE	PEAK, LSV, HSV, LPF1, HPF1, LPF2, HPF2, BPF, BEF, THRU	Sets the type of the Band 4 frequency equalizer. (*1)
Band 4 Q	0.36~16.00	Sets the width of the area around the Band 4 frequency that will be affected by the gain settings. (*1)
INPUT GAIN	-42.0~6.0 dB	Sets the overall volume before passing through the equalizer.
LEVEL	-42.0~6.0 dB	Sets the overall volume after passing through the equalizer.

(*1) Depending on the TYPE setting for each band, some combinations of FREQ/GAIN/Q values will be invalid, as shown below.

TYPE	Function	FREQ	GAIN	Q
PEAK (Peaking)	Creates a peak or valley in the region of FREQ	OK	OK	OK
LSV (Low shelving)	Boosts/cuts the region below FREQ	OK	OK	---
HSV (High shelving)	Boosts/cuts the region over FREQ	OK	OK	---
LPF1 (First low pass filter)	Passes only the sound below FREQ	OK	---	---
HPF1 (First high pass filter)	Passes only the sound over FREQ	OK	---	---
LPF2 (Second low pass filter)	Steeper response curve than LPF1	OK	---	OK
HPF2 (Second high pass filter)	Steeper response curve than HPF1	OK	---	OK
BPF (Band pass filter)	Passes only the sound in the region of FREQ	OK	---	OK
BEF (Band eliminate filter)	Eliminates only the sound in the region of FREQ	OK	---	OK
THRU	Passes the sound of all bands.	---	---	---

BASS CUT (Bass Cut Filter)

Cuts off undesired Low frequency band sounds such as vocal pop or “plosive” noises.

Parameter (full name)	Setting	Function
Sw (Bass Cut Switch)	OFF, ON	Turns the bass cut filter on or off.
FREQ (Frequency)	20~2000 Hz	Sets the frequency for cutting off undesired Low frequency band sounds such as pop noise.

ENHANCER

Accentuates the sound and pushes the sound forward.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the enhancer on or off.
FREQ (Frequency)	200~20000 Hz	Sets the frequency at which the enhancer effect starts working.
SENS (Sensitivity)	0~100	Sets the degree of the enhancer effect desired.
MIX LEVEL	0~12.0 dB	Sets the amount of the enhancer sound to be added to the direct sound.

INPUT

Splits the direct sound into three frequency bands, that is, Low, Middle and High frequency bands.

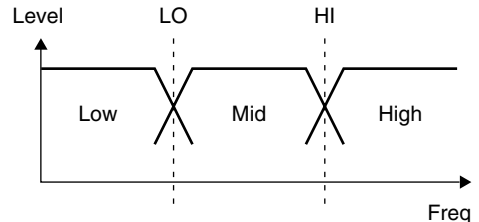
Parameter (full name)	Setting	Function
IN GAIN (Input Gain)	-24.0~12.0dB	Sets the overall volume before entering the expander/compressor.
D-TIME (Detect Time)	0~10 ms	Sets the length of delay to add to the direct sound input.
LO (Low Split Point)	20~800 Hz	Sets the frequency at which the direct sound is split into three bands (on the Low frequency band side).
HI (High Split Point)	1600~16000 Hz	Sets the frequency at which the direct sound is split into three bands (on the High frequency band side).

Effect of “Detect Time” under Input

With ordinary compressors, a moment of delay occurs to suppress a “level over” instance after it has been detected. With this algorithm, this problem is bypassed by using the input sound only for level detection and adding a specified length of delay to the sound for processing and output. “Detect Time” under Input is the setting of the delay time for this purpose. Note that supplying Detect Time causes a time difference between input and output of the audio signals, requiring due considerations if used for purposes other than mastering (ex. channel insertion).

Splitting into frequency bands

To split into High, Middle and Low frequency bands, Low Split Point (LO) and High Split Point (HI) under Input are used to specify frequencies.



EXP (Expander)

Expands the entire output signals when the input volume drops below a specified value.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the expander on or off.
HIGH THRE (High Threshold)	-80.0~0.0 dB	Sets the volume at which the expander for the High frequency band starts working.
HIGH RATIO	1:1.00~1:16.0, 1:∞	Sets the ratio at which the output in the High frequency band is increased when the input level has dropped below the High threshold level.
HIGH ATK (High Attack)	0~800.0 ms	Sets the time until when the High frequency band expander starts working after the input level drops below the High threshold level.
HIGH REL (High Release)	50~8000 ms	Sets the time until when the High frequency band expander stops working after the input level exceeds the High threshold level.
MID THRE (Middle Threshold)	-80.0~0.0 dB	Sets the volume at which the expander for the Middle frequency band starts working.
MID RATIO (Middle Ratio)	1:1.00~1:16.0, 1:∞	Sets the ratio at which the output in the Middle frequency band is increased when the input level has dropped below the Middle threshold level.
MID ATK (Middle Attack)	0~800.0 ms	Sets the time until when the Middle frequency band expander starts working after the input level drops below the Middle threshold level.
MID REL (Middle Release)	50~8000 ms	Sets the time until when the Middle frequency band expander stops working after the input level exceeds the Middle threshold level.
LOW THRE (Low Threshold)	-80.0~0.0 dB	Sets the volume at which the expander for the Low frequency band starts working.
LOW RATIO	1:1.00~1:16.0, 1:∞	Sets the ratio at which the output in the Low frequency band is increased when the input level has dropped below the Low threshold level.
LOW ATK (Low Attack)	0~800.0 ms	Sets the time until when the Low frequency band expander starts working after the input level drops below the Low threshold level.
LOW REL (Low Release)	50~8000 ms	Sets the time until when the Low frequency band expander stops working after the input level exceeds the Low threshold level.

COMP (Compressor)

Compresses the entire output signals when the input volume exceeds a specified value.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the compressor on or off.
HIGH THRE (High Threshold)	-24.0~0.0 dB	Sets the volume at which the compressor for the High frequency band starts working.
HIGH RATIO	1:1.00~1:16.0, 1:∞	Sets the ratio at which the output in the High frequency band is suppressed when the input level has exceeded the High threshold level.
HIGH ATK (High Attack)	0~800.0 ms	Sets the time until when the High frequency band compressor starts working after the input level has exceeded the High threshold level.
HIGH REL (High Release)	50~8000 ms	Sets the time until when the High frequency band compressor stops working after the input level has dropped below the High threshold level.
MID THRE (Middle Threshold)	-24.0~0.0 dB	Sets the volume at which the compressor in the Middle frequency band starts working.
MID RATIO (Middle Ratio)	1:1.00~1:16.0, 1:∞	Sets the ratio at which the output in the Middle frequency band is suppressed when the input level has exceeded the Middle threshold level.
MID ATK (Middle Attack)	0~800.0 ms	Sets the time until when the Middle frequency band compressor starts working after the input level has exceeded the Middle threshold level.
MID REL (Middle Release)	50~8000 ms	Sets the time until when the Middle frequency band compressor stops working after the input level has dropped below the Middle threshold level.
LOW THRE (Low Threshold)	-24.0~0.0 dB	Sets the volume at which the compressor for the Low frequency band starts working.
LOW RATIO	1:1.00~1:16.0, 1:∞	Sets the ratio at which the output in the Low frequency band is suppressed when the input level has exceeded the Low threshold level.
LOW ATK (Low Attack)	0~800.0 ms	Sets the time until when the Low frequency band compressor starts working after the input level has exceeded the Low threshold level.
LOW REL (Low Release)	50~8000 ms	Sets the time until when the Low frequency band compressor stops working after the input level has dropped below the Low threshold level.

MIXER

Adjusts the volume for each frequency band. (*2)

Parameter (full name)	Setting	Function
HIGH (High Level)	-∞, -80.0~6.0 dB	Sets the volume in the High frequency band after passing through the expander and compressor.
MID (Middle Level)	-∞, -80.0~6.0 dB	Sets the volume in the Middle frequency band after passing through the expander and compressor.
LOW (Low Level)	-∞, -80.0~6.0 dB	Sets the volume in the Low frequency band after passing through the expander and compressor.

(*2) With Compressor, the level is automatically adjusted to the optimal value according to the settings for Threshold (THRE) and Ratio (RATIO). Setting Attack (ATK) to a relatively long time may cause distortion. For this reason, a margin of -6 dB is provided. Adjust the Mixer level as required.

LIMITER

Prevents distortion by suppressing signals at High levels.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the limiter on or off.
THRE (Threshold)	-24.0~0.0 dB	Sets the volume at which the limiter starts working.
ATK (Attack)	0.0~800.0 ms	Sets the time until when the limiter starts working after the input level has exceeded threshold level.
REL (Release)	50~8000 ms	Sets the time until when the limiter stops working after the input level drops below the threshold level.

SOFT CLIP

Suppresses conspicuous distortion that may occur when the effect of compressor/limiter has been applied excessively.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the soft clip on or off.

OUTPUT

Provides settings concerning overall output.

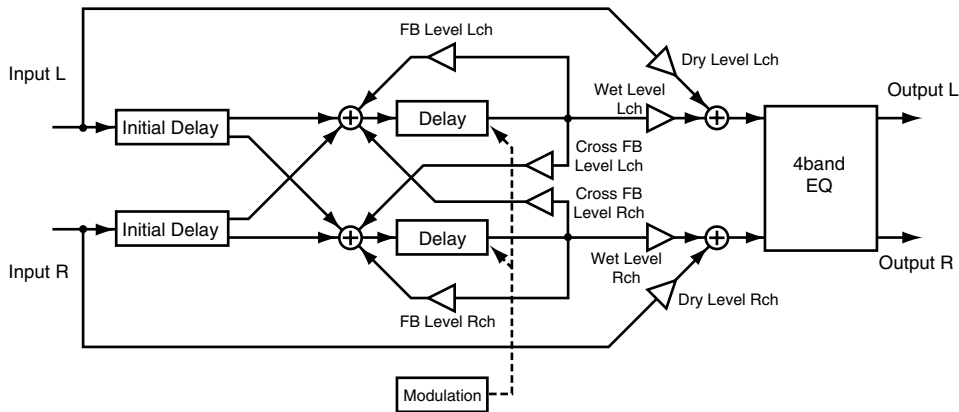
Parameter (full name)	Setting	Function
LEVEL (Output Level)	-∞, -80.0~6.0 dB	Sets the output level of the Mastering Tool Kit.

Tempo Mapping Effect



This is a stereo delay that lets you specify the delay time relative to the tempo. Since you can set the delay time as a note value length, you don't have to perform annoying manual calculations to determine the time based on the tempo.

Because this can be synchronized to the MIDI clock from the VS series unit, it will automatically follow any tempo changes during the song.



■ Synchronizing with the MIDI clock

Here's how you can make the Tempo Mapping Effect synchronize with the MIDI Clock transmitted by the VS series unit.

1. On VS-2480/2480CD, press [UTILITY]. On VS-2400CD/2000, press [SHIFT]+[F4 (UTILITY)].
The UTILITY Screen will appear.
2. Press [F6 (SYNC)] on Page 1.
The SYNC PARAMETER Screen will appear.
3. Set the following parameters.

Parameter (full name)	Setting
SYNC MODE	INT
MIDI OUT SYNC Gen.	MIDIclk or Sync Tr (*1)

(*1) If you choose the SyncTr, you must prepare a sync track in advance. When you set the MIDI OUT SYNC Gen. parameter to MIDIclk or SyncTr, the MIDI clock signal will output from the MIDI OUT connector.

TEMPO

Specifies the base tempo for operation.

Parameter (full name)	Setting	Function
TEMPO	25~250	Specifies the base tempo
SYNC (Sync Switch)	OFF, ON	On/off switch for synchronization with the MIDI clock of the VS (*2)

(*2) If SYNC is On, the base tempo (TEMPO) is ignored.

MEMO

The pitch of the delay sound may vary according to tempo changes. In particular, noise may occur if there are sudden changes in tempo. To avoid this, you'll need to ensure that the effect is not receiving input until the tempo changes have stabilized.

MEMO

It may take some time for Tempo Mapping Effect to synchronize with the project's tempo if Tempo Map in project is immediately changed.

Effect Algorithm

L-ch DELAY

Parameter (full name)	Setting	Function
INI.DLY (Initial delay time)	1/1, 1/1t, 1/2, 1/2t, 1/4, 1/4t, 1/8, 1/8t, 1/16, 1/16t, 1/32, 1/32t, 1/64, 1/64t, 0.0~1000 ms	Specifies the initial delay time of the L-channel in terms of a note length (*3, *4) With the 0.0 setting, there will be no initial delay. Settings of 0.0~1000 produce a fixed delay of the specified time that is not affected by the tempo.
INI.D.PAN (Initial delay pan)	L63~C~R63	Specifies the volume balance at which the L-channel initial delay sound will be sent to the L/R stereo delays.
D.TIME (Delay time)	1/1, 1/1t, 1/2, 1/2t, 1/4, 1/4t, 1/8, 1/8t, 1/16, 1/16t, 1/32, 1/32t, 1/64, 1/64t, 0~1000 ms	Specifies the delay time for left-side delay in terms of a note value (*3, *4) Settings of 0~1000 produce a fixed delay of the specified time that is not affected by the tempo.
MOD DEPTH (Modulation depth)	0~100	Specifies the amount by which MODULATION will vary the delay time of left-side delay.
FB (Feedback level)	-100~0~100	Sets the amount of the left-side delay that will be returned to the left delay input.
X-FB (Cross feedback level)	-100~0~100	Sets the amount of the left-side delay that will be returned to the right delay input.
LF DAMP GAIN	-36.0~0.0 dB	Sets the amount of the left-side attenuation in the Low frequency band for the delay sound fed back.
LF DAMP FREQ	20~2000 Hz	Sets the frequency at which the left-side attenuation in the Low frequency band starts to the fed back delay sound.
HF DAMP GAIN	-36.0~0.0 dB	Sets the amount of the left-side attenuation in the High frequency band for the delay sound fed back.
HF DAMP FREQ	200~20000 Hz	Sets the frequency at which the left-side attenuation in the High frequency band starts to the fed back delay sound.

R-ch DELAY

Parameter (full name)	Setting	Function
INI.DLY (Initial delay time)	1/1, 1/1t, 1/2, 1/2t, 1/4, 1/4t, 1/8, 1/8t, 1/16, 1/16t, 1/32, 1/32t, 1/64, 1/64t, 0.0~1000 ms	Specifies the initial delay time of the R-channel in terms of a note length (*3, *4) With the THRU setting, there will be no initial delay. Settings of 0~1000 produce a fixed delay of the specified time that is not affected by the tempo.
INI.D.PAN (Initial delay pan)	L63~C~R63	Specifies the volume balance at which the R-channel initial delay sound will be sent to the L/R stereo delays.
D.TIME (Delay time)	1/1, 1/1t, 1/2, 1/2t, 1/4, 1/4t, 1/8, 1/8t, 1/16, 1/16t, 1/32, 1/32t, 1/64, 1/64t, 0.0~1000 ms	Specifies the delay time for right-side delay in terms of a note value (*3, *4) Settings of 0~1000 produce a fixed delay of the specified time that is not affected by the tempo.
MOD DEPTH (Modulation depth)	0~100	Specifies the amount by which MODULATION will vary the delay time of right-side delay.
FB (Feedback level)	-100~0~100	Sets the amount of the right-side delay should be returned to the right delay input.
X-FB (Cross feedback level)	-100~0~100	Sets the amount of the right-side delay should be returned to the left delay input.
LF DAMP GAIN	-36.0~0.0 dB	Sets the amount of the right-side attenuation in the Low frequency band for the delay sound fed back.
LF DAMP FREQ	20~2000 Hz	Sets the frequency at which the right-side attenuation in the Low frequency band starts to the fed back delay sound.
HF DAMP GAIN	-36.0~0.0 dB	Sets the amount of the right-side attenuation in the High frequency band for the delay sound fed back.
HF DAMP FREQ	200~20000 Hz	Sets the frequency at which the right-side attenuation in the High frequency band starts to the fed back delay sound.
LINK (Channel link switch)	OFF, ON (*1)	Specifies if channel R follows or does not follow the settings for channel L.

(*3) Initial Delay Time (INI.DLY) and Initial Delay Panpot (INI.D.PAN) are not linked.

MODULATION

Parameter (full name)	Setting	Function
W.F (Wave form)	SINE, SQUIRE, +EXP, -EXP	Specifies the waveform that will modulate the delay time of the stereo delays
CYCLE	1/1, 1/1t, 1/2, 1/2t, 1/4, 1/4t, 1/8, 1/8t, 1/16, 1/16t, 1/32, 1/32t, 1/64, 1/64t, 0.0~10.0 Hz (*4)	Specifies the frequency (cycle) at which the delay time of the stereo delays will be modulated, in terms of a note value (*4)
PHASE L-R	-180 degree ~180 degree	Specifies the L/R phase difference for the waveform that will modulate the stereo delays

OUTPUT

Parameter (full name)	Setting	Function
L/R BAL (L/R balance)	L63~C~R63	Sets the volume balance between the left-side sound and the right-side sound.
WET LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the delay sound.
DRY LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the direct sound.

(*4) The note value lengths have the following significance.

Display	Explanation
0.0	no delay sound.
1/1	a whole note
1/1t	a whole note triplets
1/2	a half note
1/2t	half note triplets
1/4	a quarter note
1/4t	quarter note triplets
1/8	an eighth note
1/8t	eighth note triplets
1/16	a sixteenth note
1/16t	sixteenth note triplets

MEMO

If the specified note value length exceeds the allowable range of delay time, the delay time will be limited to the allowable range (In this case, in the LCD, a * symbol will appear; in the VGA, the value will display in red).

4band EQ (4band Equalizer) →p. 20

HINT

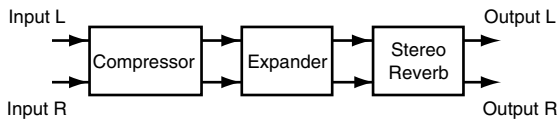
When using the Tempo Mapping Effect (TME) and a new tempo has been entered into a Tempo Map, please reduce the input signal to the TME by manually switching off the appropriate Aux Send(s) on the source channel(s), prior to the tempo map change. (i.e. On the affected snare drum's channel, set Aux Send 1 Sw to OFF if the TME is in the FX1 position, before the tempo change.)

This will avoid possible pitch changes of the delay effect while changing tempos. Switch on the Aux Send after the new tempo has stabilized to hear the Tempo Mapping Effect again....synchronized with the new tempo. Alternatively, Automix snapshots can be used to automatically perform this function, as well as change Aux Send and FX Return values as needed.

Stereo Reverb

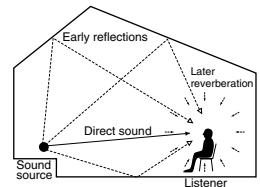


This models the reflections and reverberation of a hall or room, as well as its spatial character. Since both input and output are stereo, you can add reverberation without impairing the stereo image created by panning the input source.



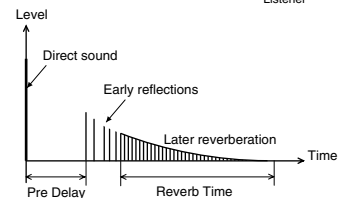
Sound types

Sounds around us can be analyzed and categorized into three types: direct sounds, early reflections and reverberation. A direct sound is the sound that reaches the listener directly from the source. An early reflection is the sound that has rebounded from the wall once, twice or several times. A reverberation is the sound we hear after sound reflections are repeated many times.



Relationship between sound and time

Reflected sounds reach the listener in the following sequence. The pre-delay is the time from when the direct sound is heard until the reverb is heard. The reverb time is the time over which the reverb decays to silence.



Reverb sound quality

The sound quality of a reverb is affected by materials of the walls and other members from which the sound is reflected. This is because the degree of attenuation in the High and Low frequency bands varies. HF-Damp Gain and LF-Damp Gain are provided so that you can adjust such attenuation degrees. The smaller the value becomes, the steeper the degree of attenuation of the reverberation becomes in the High and Low frequency bands. In addition, in order to obtain softer reverberation, make the frequency lower by using HF-Damp Frequency. In order to obtain harder reverberation, make the frequency higher by using the LF-Damp Frequency parameter.

COMP (Compressor)

If the input volume exceeds the specified threshold, this will compress the dynamic range of the output signal.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the compressor on or off.
TYPE	SOLID, TUBE1 ~TUBE4 (*2)	SOLID: A compressor using solid-state circuitry, with linear response TUBE 1: A compressor using vacuum tube circuitry. Generates light, even-order harmonics TUBE 2: A compressor using vacuum tube circuitry. Generates deep, even-order harmonics TUBE 3: A compressor using vacuum tube circuitry. Generates light, odd-order harmonics TUBE 4: A compressor using vacuum tube circuitry. Generates deep, odd-order harmonics
THRE (Threshold)	-24.0~0.0 dB	Sets the level at which the compressor starts taking effect.
RATIO	1:1.00~1:16.0, 1:∞	Sets the compression ratio applied when threshold level (THRE) is exceeded.
ATK (Attack)	0.0~800.0 ms (*2)	Sets the time from when the input level exceeds the threshold level to when the effect begins to be applied.
REL (Release)	50~8000 ms	Sets the time from when the input level drops below the threshold level (THRE) to when the effect ceases to apply to be applied.
SOFT KNEE	OFF, ON (*2)	Softens the change in output level at the region of the input threshold (THRE) level Off: Level will change immediately before and after the threshold (THRE) On: Level will change over a curve in the region of the threshold (THRE)
A-GAIN (Auto Gain)	OFF, ON	Automatically compensates for the decrease in output volume caused by compression (*1)
LEVEL	-24.0~24.0 dB	Sets the volume of the compressor sound.

(*1) Auto Gain automatically adjusts the output level according to the settings of the Threshold (THRE) and Ratio (RATIO) parameters. However, if the parameter of Attack Time (ATK) is set long, this cannot compress a peaky input and may cause distortion. For this reason, a margin of -6 dB is provided. Adjust the LEVEL as required.

(*2) If you've set the TYPE parameter to TUBE1~TUBE4, the only setting available for the ATK parameter will be 1.0~800.0 ms, and the SOFT KNEE parameter is set to ON.

EXP (Expander)

If the input volume drops below the specified threshold, this will expand the dynamic range of the output signal.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the expander on or off.
THRE (Threshold)	-80.0~0.0 dB	Sets the volume at which the expander starts working.
RATIO	1:1.00~1:16.0, 1:∞	Sets the ratio at which the output is increased when the input level has dropped below the threshold level (THRE).
ATK (Attack)	0.0~800.0 ms	Sets the time until when the expander starts working after the input level drops below the threshold level (THRE).
REL (Release)	50~8000 ms	Sets the time until when the expander stops working after the input level exceeds the threshold level (THRE).

REVERB

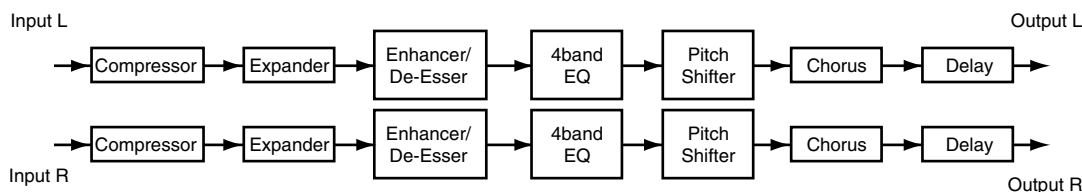
Adds reverberation.

Parameter (full name)	Setting	Function
TYPE	ROOM1, ROOM2, HALL1, HALL2, PLATE	Type of reverb ROOM1: Typical room reverb ROOM 2: Room reverb with a softer tone than ROOM1 HALL1: Typical hall reverb HALL2: Hall reverb with a softer tone than HALL 1 PLATE: Plate reverb
SIZE (Room Size)	5~40 m	Sets the size of the room.
PRE-DLY (Pre-Delay)	0~200 ms	Sets the time until the reverb sound appears.
TIME (Reverb Time)	0.1~32.0 sec.	Sets the time length of the reverb sound.
ER LEVEL (Early Reflection Level)	0~100	Sets the volume of the early reflection.
DIFFUSE (Diffusion)	0~100	Sets the extent of diffusion of the early reflection sound.
DENSITY	0~100	Sets the density of the reverb sound.
LF DAMP GAIN	-36.0~0.0 dB	Sets the degree of attenuation of the reverb in the Low frequency band.
LF DAMP FREQ	20~2000 Hz	Sets the frequency on which the reverb starts attenuating in the Low frequency band.
HF DAMP GAIN	-36.0~0.0 dB	Sets the degree of attenuation of the reverb in the High frequency band.
HF DAMP FREQ	200~20000 kHz	Sets the frequency on which the reverb starts attenuating in the High frequency band.
HCF (High Cut Frequency)	200~20000 kHz	Sets the frequency for which the High frequency band elements of the reverb are cut.
L/R BAL (L/R Balance)	L63~C~R63	Sets the volume balance between the left-side sound and the right-side reverb sound.
WET LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the reverb sound.
DRY LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the direct sound.

Vocal Channel Strip



This is a multi-effect suitable for use when recording or processing a vocal. This one algorithm can be used on up to two monaural channels simultaneously with independent controls.



TARGET (Edit target)

Parameter (full name)	Setting	Function
TARGET	L-ch, R-ch	Selects the object that will be shown in the screen and edited. If you want to switch the TARGET, press [F3 (L↔R)].

COMP (Compressor) → p. 26

EXP (Expander) → p. 27

ENHANCER/DE-ESSER

Boosts the harmonics in the human voice for improved clarity and realism / Suppresses the annoying “s” consonants.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the enhancer/de-esser on or off.
TYPE	ENH, DES	Switches the type between enhancer or de-esser.
SENS (Sensitivity)	0~100	Sets the degree of the enhancer effect desired.
FREQ (Frequency)	200~20000 Hz	Sets the frequency at which the enhancer effect starts working.
ENH (Enhancer Level)	0~12.0 dB	Sets the volume of the enhancer sound. (*2)
DES (De-esser Rejection Level)	-24.0~0dB	Sets the volume of the de-esser sound. (*2)

(*2) You cannot use enhancer and de-esser simultaneously.

Type	Function
ENH	Enhances the harmonic content of the human voice, giving it greater clarity. If the high-frequency region is weak, this will strengthen it. The De-Esser Rejection Level (DES-LVL) has no effect.
DES	Suppresses unpleasant sibilance, making the sound smoother. If the high-frequency region is excessive, this will attenuate it. The Enhancer Level (ENH-LVL) has no effect.

4band EQ (4band Equalizer) → p. 20

P-SHIFT (Pitch Shifter)

Shifts the pitch.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the pitch shifter on or off.
C-PITCH (Chromatic Pitch)	-12~0~12	Pitch variation (by semitone)
F-PITCH (Fine Pitch)	-100~0~100	Pitch variation (by cent)
WET LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the pitch shift sound.
DRY LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the direct sound.

CHORUS

Adds spaciousness and thickness to the sound.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the chorus on or off.
RATE	0.1~10.0 Hz	Sets the rate of modulation.
DEPTH	0~100	Sets the depth of modulation.
PRE-DLY (Pre-Delay)	0~50 ms	Sets the time delay from when the direct sound begins until the processed sound is heard.
WET LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the chorus sound.
DRY LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the direct sound.

DELAY

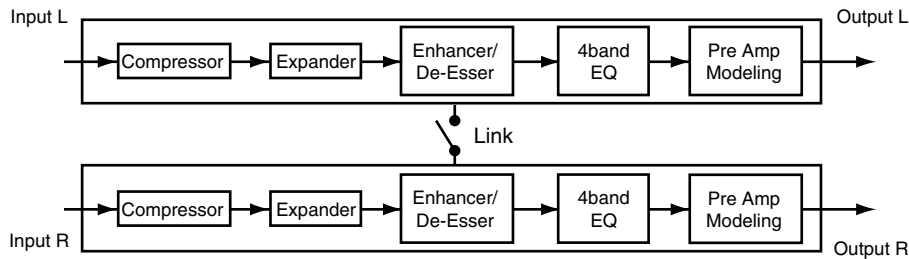
Adds a delayed sound to the direct sound, adding depth to the sound or creating special effects.

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the delay on or off.
TIME	0~1000 ms	Sets the time from direct sound until when the delay sound is heard.
FB (Feed Back Level)	0~100	Sets the amount of the delay sound should be returned to the delay input.
WET LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the chorus sound.
DRY LEVEL	-∞, -80.0~6.0 dB	Sets the volume of the direct sound.

Pre-Amp Modeling



This effect simulates the variations in response between different types of preamp, and models the subtle differences in frequency response and distortion.



TARGET (Edit target)

Selects the object of editing in the screen.

Parameter (full name)	Setting	Function
TARGET	L-ch, R-ch	Selects the object that will be shown in the screen and edited. If you want to switch the TARGET, press [F3 (L↔R)].
LINK R to L-ch	OFF, ON (*)	Specifies if Input R follows or does not follow the settings for Input L.

(*) If this is On, the settings for R will not be used.

COMP (Compressor) →p. 26

EXP (Expander) →p. 27

ENHANCER/DE-ESSER →p. 28

4band EQ (4band Equalizer) →p. 20

PRE-AMP (Pre-Amp Modeling)

Parameter (full name)	Setting	Function
Sw (Switch)	OFF, ON	Turns the Pre-Amp modeling on or off.
TYPE	RED7, N1073, MANSS, AVTB, AVSS, HHTB, MILHV, SATB, CSLSS	Selects the type of pre-amp (*4)
INPUT (Input Gain)	-42.0~6.0 dB	Sets the overall volume before passing through the pre-amp.
WARM FREQ (Warm Frequency)	20~2000 Hz	Frequency at which the lower range will be adjusted to control the warmth (WARM)
WARM GAIN	-15.0~15.0 dB	Amount of change in warmth (WARM)
BRIGHT FREQ (Brightness Frequency)	200~20000 kHz	Frequency at which the high range will be adjusted to control the brightness (BRIGHTNESS)
BRIGHT GAIN (Brightness Gain)	-15.0~15.0 dB	Amount of change in brightness (BRIGHT)
HRM-THRE (Harmonic Threshold)	-24.0~0.0 dB	Volume threshold at which the harmonics (HRM) will start being regulated to control the tone
HRM-LEVEL (Harmonic Level)	-∞, -80.0~6.0 dB	Amount of change in harmonics (HRM)
HRM-COLOR (Harmonic Color)	-24.0~0dB	Adjusts the tonal color of the distortion

(*4) Company names and product names appearing in patch names and other places are the trademarks or registered trademarks of their respective owners, and have no connection with Roland Corporation. These names are used in order to convey the character of the sound being simulated by the preamp model.

Preset Patch List

Mastering Tool Kit

Number	Name	Comment
P000	Mixdown	Mix down for CD.
P001	PreMastering	Pre-master for video editing.
P002	Live Mixing	Final mix of live recording.
P003	Pop Mixing	for Pop music.
P004	Dance Mixing	for Dance music.
P005	Jingle Mixing	Jingle for FM radio.
P006	Hard Comp	Heavy compression.
P007	Soft Comp	Light compression.
P008	Clean Comp	Eliminating the background noise and clean up the sound.
P009	Dance Comp	Compression for dance music.
P010	Orchestra Comp	Compression for orchestra
P011	Vocal Comp	Compression for vocal
P012	Acoustic Guitar	for Acoustic guitar.
P013	Rock Band	for Rock band.
P014	Orchestra	for Orchestra.
P015	Low Boost	Enhancing the low frequency range.
P016	Brighten	Enhancing the high frequency range.
P017	DJ's Voice	DJ Microphone.
P018	Phone Vox	Telephone voice modeling.

Tempo Mapping Effect

Number	Name	Comment
P019	Short Delay	An ambience effect that adds depth to the sound by doubling.
P020	Medium Delay	Natural echo optimized for vocals.
P021	Long Delay	Long delay suited for brass and analog synth solos.
P022	Analog Delay	Analog sound with gradually diminishing feedbacking highs.
P023	Tape Echo	Modeled tape echo with distinctive wow flutter.
P024	Karaoke	Intense reverberation that effectively enhances karaoke vocals.
P025	OneShot Delay <1/4 note>	One Shot Delay in 1/4th note.
P026	OneShot Delay <1/4t note>	One Shot Delay in 1/4th triplets note.
P027	OneShot Delay <1/8 note>	One Shot Delay in 1/8th note.
P028	OneShot Delay <1/8t note>	One Shot Delay in 1/8th triplets note.
P029	OneShot Delay <1/16 note>	One Shot Delay in 1/16th note.
P030	HiHat Double	Double time echo effect for repetitive hi-hat and percussion parts.
P031	Vocal Double	Creates a stereo, double tracked character for mono vocal tracks.
P032	Reflections	Warm natural echo found in older studio vocal or drum rooms.
P033	Warm Chorus	Rich chorus effect for keyboards and guitars.
P034	Outdoor Stage	Natural acoustics of an outdoor concert stage.
P035	1/8 Note Echo	One Shot Delay in 1/8 note with warm room ambience.
P036	1/4 Note Echo	One Shot Delay in 1/4 note with warm room ambience.
P037	Triplet Echo	Provides a syncopated feel for keyboard or instrument parts.
P038	Clean Delay	Bright, subtle echo to enhance pop, rock or dance vocals.
P039	Synth Lead	Warm, stereo echo and chorus effect for synth lines.
P040	Comp Delay	Warm, stereo echo and chorus effect for keyboard chord patterns.
P041	Pop Voice	Room reflection, with natural doubling effect to enhance vocals.
P042	Infinite Echo	Sound on sound echo effect.

Stereo Reverb

Number	Name	Comment
P043	Large Hall	Large concert hall reverberation.
P044	Small Hall	Small hall reverberation.
P045	Strings	Reverberation optimized for delicate highs of strings.
P046	Piano Hall	Rich and warm reverberation optimized for pianos.
P047	Orchestra Room	Reverberation of large-capacity rooms such as big banquet halls.
P048	Vocal Room	Room reverb suitable for vocals and chorus.
P049	Medium Room	Warm and naturally spacious room reverb.
P050	Large Room	Modeled acoustics of wide rooms with lots of reverberation.
P051	Cool Plate	Distinctive bright plate reverb.
P052	Short Plate	Shorter plate reverb.
P053	Vocal Plate	Crystal-clear reverb optimized for vocals.
P054	Soft Ambience	Modeled reverberation of a room with minimal wall reflections.
P055	Room Ambience	Natural reverberation of rooms with good acoustics, suitable for drums and guitars.
P056	Cathedral	Acoustics of a very large, high-ceilinged church.

Number	Name	Comment
P057	Long Cave	Modeled reverberation of deep caves.
P058	Garage Drums	Natural reverb that enhances unique drum sounds.
P059	Rock Kick	Reverb with many low-frequency components, suitable for rock kicks.
P060	Rock Snare	Rich and thick sounding reverb suitable for rock snares.

Vocal Channel Strip

Number	Name	Comment
P061	VO:Vocal Fx	Basic setup for recording/mixdown of vocals.
P062	VO:Jazz Vocal	A natural sounding jazz club-like ambience for warm reverb well-suited for vocals.
P063	VO:Rock Vocal	Sound featuring limiter/enhancer processing as well as a unison effect.
P064	VO:Big Chorus	A spacious-sounding stereo effect similar to increasing the number of vocalists.
P065	VO:Male Vocal	Improves the tone quality of a male vocal.
P066	VO:Rock Male Vocal	Equalizer that adds energy to a male vocal.
P067	VO:Jazz Male Vocal	Equalizer that boosts the Low Resonance of a mellow jazz vocal.
P068	VO:Female Vocal	Equalizer that smooths out HiMid and adds sparkle to upper frequencies of female vocal.
P069	VO:Rock Female Vocal	Equalizer that adds energy to a female vocal.
P070	VO:Jazz Female Vocal	Equalizer that accentuates huskiness of intimate female vocal.
P071	VO:Background Vocal	Equalizer that enhances BG Vocals in overall mix.
P072	VO:Telephone Vox	Simulates the frequency response of an old telephone.
P073	VO:Narration(1)	An effect with heavy compression, used for narration.
P074	VO:Narration(2)	Standard equalizer for male narration. Brings out the character of the voice.
P075	VO:Smooth DJ	For a smooth radio announcer's voice. Warm muted lows and attenuated mids.
P076	VO:Club DJ	A club DJ-tailored effect that uses a pitch shifter to make voices lower.
P077	VO:AM-Radio	Sound featuring hard compression and narrower frequency range.
P078	PS:4th Voice	Adds sound down a fourth to the direct sound.
P079	GT:Dl'ed Clean	Superclean sound like line recording directly into the console.
P080	GT:Acoustic	Optimized for electroacoustic guitars.
P081	GT:Electric Guitar	Settings that keep the lead guitar from being buried in the mix.
P082	GT:Nylon Guitar	Emphasize the tone of nylon strings. Adjust fret sound with HiG.
P083	GT:Blues Guitar	Adds a delicate nuance suitable when playing blues on an acoustic guitar.
P084	GT:Slide Guitar	Adds a rich feel to acoustic slide guitar.
P085	BS:Dl'ed Bass	Slight limiting and equalization optimized, ideal for line recording applications.
P086	BS:Jazz Bass	For stand-up bass in an intimate jazz setting. Accentuates finger attack.
P087	BS:Wood Bass	Warms up Lo and LoMid setting to bring out "woodiness" of acoustic bass.
P088	DR:Kick Drum	For Kick drum. Adjust LowQ and HiG.
P089	DR:Snare Drum	For Snare drum. Drops the Mid-Lows and emphasizes the attack and snares.
P090	DR:Kick&Snare Drum	L-ch for Kick Drum, R-ch for Snare Drum.
P091	DR:Tom Drums	For toms. Adjust LowF and LowMidF.
P092	DR:Hi-Hat	For crisper hi-hat. Adjust bell sound with HiMidG.
P093	DR:Cymbal	For cymbals. Emphasizes the difference in tone between cymbals and adds clarity.
P094	DR:Drum Kit	For drum kit. Use when miking the sound of the entire kit.
P095	ID:Grand Piano	Cleans up muddiness in lower registers and emphasizes harmonics in upper register.
P096	ID:Upright Piano	Smooths out frequency response between Lo and Mid registers.
P097	ID:Trumpet	Evens out the trumpet by attenuating resonant frequencies. Adjust the LoMid frequency and Q.
P098	ID:Saxophone	For alto/soprano sax. Lower HiG for mellow sound.
P099	ID:Clarinet	Emphasizes the fundamental tone of the clarinet.
P100	ID:Flute	Rolls off the lows that can cause "plosives" from breath.
P101	ID:Oboe	Equalizer that smooths out the nasalness of the oboe.
P102	ID:Violin	Slightly enhances the rosin tone of the bow, while attenuating the shrillness of the higher register.
P103	ID:Viola	Brings out the sonority of the lower Midrange.
P104	ID:Cello	Adds roundness to the lower range of the cello.

Pre Amp Modeling

Number	Name	Comment
P105	Amp Red7	For vocal. Post production and voicing processor.
P106	Amp N1073	Old console sound.
P107	Amp ManSS	Intended for use with modern capacitor microphones.
P108	Amp AvTube	For acoustic instrument and vocal. High fidelity and natural.
P109	Amp AvSolS	Deep, musical sound-stage, transparent amplification.
P110	Amp HHTube	Vintage tube tone.
P111	Amp MillHV	For acoustic recording. Delicate nuance and ambience.
P112	Amp SATube	Clean microphone signal, tube guitar distortion and warm bass tone.
P113	Amp CSSlSt	Musically transparent amplifier.

Troubleshooting

If the VS8F-3 does not operate correctly even when you've installed it as directed by the owner's manual, or does not operate as you expect, please check the following points.

■ Installation

Can't install

- The VS8F-3 is not inserted.
- The VS8F-3 is inserted incorrectly.
- The system program of the VS series unit you are using does not support the VS8F-3.
- There is not enough free space in the installation destination for the plug-in programs (p. 15).

Can't install the authorized version

- The Key Card VS8F-3 is not the same as the one used during installation and authorization

■ Operation

Can't select a single-type algorithm effect

- An odd-numbered or even-numbered effect is already being used in the VS8F-3.
- You can't use two single-type effects on a single VS8F-3.
- You can't use a single-type effect on an even-numbered effect.

The Tempo Mapping Effect does not produce an accurate delay

- The allowable delay time has been exceeded.

The pitch changes or noise occurs in the Tempo Mapping Effect

- The tempo is changing rapidly during the song.

Can't use RSS Pan or Analyzer

- RSS Pan and Analyzer will not run on the VS8F-3.

Can't display the PLUG-IN screen

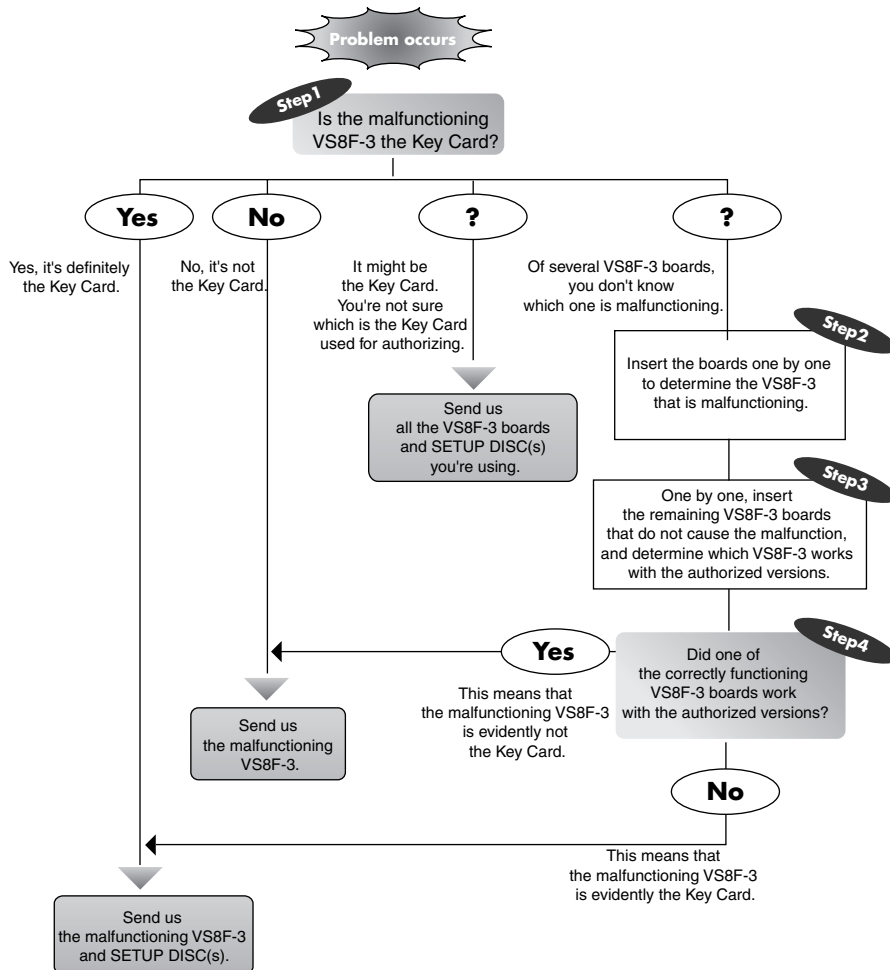
- While recording on VS series products, the PLUG-IN screen cannot be displayed.

Can't select a plug-in's program or patch

- While recording or playback on VS series products, you cannot switch a plug-in's program or patch.

Precautions when requesting service for the VS8F-3

If for some reason the VS8F-3 fails to operate properly, and repair or replacement is necessary, there are some cases in which you will also need to send us the other VS8F-3 unit(s) that you were using at that time, and/or the SETUP DISC.



HINT

If you affix the included Key Card sticker to the authorized VS8F-3 installed in the first slot, you'll be able to distinguish it from other VS8F-3 boards.

Memo



This product complies with the requirements of European Directive 89/336/EEC.

For EU Countries

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

For the USA

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

For Canada

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

* In the interest of product improvement, the specifications and/or contents of this package are subject to change without prior notice.