Roland®

VS-840/VS-840S SCSI BOARD
VS4S-1

OWNER'S MANUAL

Introduction

When the SCSI connector of the VS-840/VS-840S is used, songs created on the VS-840/VS-840S can be saved on an external Zip drive.
This manual explains the functions which are added when a SCSI connector is installed. Please read it carefully before using an external Zip drive.

To assure proper handling of the unit, please carefully read the information contained in the sections entitled "IMPORTANT SAFETY INSTRUCTIONS" (Owner's manual page 2), "USING THE UNIT SAFELY" (Owner's manual page 3) and "IMPORTANT NOTES" (Owner's manual page 10) in the VS-840/VS-840S Owner's Manual before you begin using this unit.

* It is not possible to use an external Zip drive to record.

* In the VS4S-1 OWNER'S MANUAL, the "VS-840" and the "VS-840S" are collectively referred to as the "VS-840."

* Iomega is a registered trademark of Iomega Corporation.

* Zip is a trademark of Iomega Corporation.

<Added functions>

The following icons are added to Utility.

SCSI icon

SCSI Restart icon

SCSI Shut Down icon

SCSI Initialize icon

840 to SCSI Copy icon

SCSI to 840 Copy icon

SCSI Song Erase icon

SCSI Disk Copy icon

SCSI Song Convert icon

SCSI Drive Select icon

Contents

The SCSI connector of the VS-840 allows you to connect Zip drive. This section explains the procedure required for using an external Zip drive.

* *A Zip drive is precision devices. If they are connected or used incorrectly, not only may they fail to operate correctly, but the data on the disk can be lost or even the disk drive itself may be damaged. In addition to the explanation in this section, please be sure to read and observe the explanations in the manual for your Zip drive.*

* *A Zip disk being used for the first time with the VS-840 must be initialized by the VS-840. When a Zip disk is initialized, all data on that disk will be lost. Before using a disk that has been used by another device, make sure that it is OK to erase the data.*

* *Disks used by the VS-840 cannot be used by any other device.*

* *The VS-840 can use Zip drives which are compatible with the SCSI-2 specification. As a Zip drive for use with the VS-840, we recommend the Roland ZIP-EXT-2S Zip drive (sold separately).*
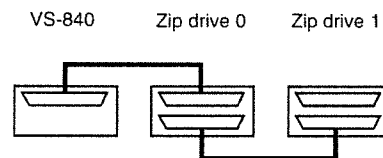
< About SCSI >
"SCSI" stands for "Small Computer System Interface." This is a data transmission method that can transmit large amounts of data. A Zip drive can be connected to the SCSI connector of the VS-840.

Connecting all external Zip drive

Up to 2 Zip drives can be connected to the SCSI connector of the VS-840. This section will explain how to make the external Zip drive connections, and how to make the necessary settings. Whenever you connect an external Zip drive, be sure to check the following points.

Connectors and cables
SCSI cables are used to connect the external Zip drive as shown below. Since there is no difference between a SCSI input and output, it does not matter which connector you use. This type of connections is referred to as a "SCSI chain" or a "daisy chain."

VS-840   Zip drive 0   Zip drive 1

To connect a Zip drive, use the SCSI cable included with the ZIP-EXT-2S Zip drive (sold separately).

When making connections, observe the following points.

• The SCSI connector of the VS-840 is a 25 pin D-sub type connector.

• Keep SCSI cables as short as possible, and use only cables which have an impedance (110 Ω +/-10%) that is compatible with the SCSI standard, and are completely shield.

• Do not allow the total length of all SCSI cables connecting the chain of disk drives to exceed 6.5 meters.

• Do not connect or disconnect SCSI cables when the power of any device is turned on.

Terminators
The device at each end of a SCSI chain must have a terminator (a terminating resistance). Since the VS-840 is one end of the SCSI chain, it contains an internal terminator. This means that you will need to use a terminator only for the external Zip drive which will be the other end of the chain. For details on terminator settings, refer to the owner's manual for your Zip drive.

SCSI ID numbers
Each Zip drive is distinguished by its SCSI ID number (0–7). This means that when two drives are connected, you must make settings so that the SCSI ID numbers of the drives do not conflict (coincide). If the SCSI ID numbers conflict, the VS-840 will not be able to correctly recognize the drives.
The VS-840 is set to SCSI ID number 7 (fixed). Set the drives you are connected to ID numbers other than 7.

* *Set the SCSI ID number of the external Zip drive to either 5 or 6.*

Restarting the external Zip drive

Check the disk that was inserted in the disk drive, and make the disk ready for use.

> * *When turning on the power, be sure to first turn on the power of the external Zip drive, and then turn on the power of the VS-840.*

1 If there is a drive that you wish to use, insert a disk into that drive.

If a disk is not inserted, that drive will not be recognized by the VS-840.

2 Press [UTILITY].

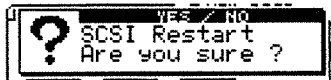## 3 Use [CURSOR] to select the SCSI icon, and press [ENTER(TAP)].

4 Use [CURSOR] to select the SCSI Restart icon, and press [ENTER(TAP)].

5 A confirmation message of "Are you sure?" will appear, so press [YES] to execute the operation.

> * *The drive (disk) will be prepared for use, and this will require a certain length of time.*

Shutting down the external Zip drive

When you wish to eject the disk of a Zip drive connected to the SCSI connector or to change disks, you must Shut Down the external drive.

* *Unless you perform the Shut Down, it will not be possible to eject the disk from the Zip drive.*

1 Press [UTILITY].

2 Use [CURSOR] to select the SCSI icon, and press [ENTER(TAP)].

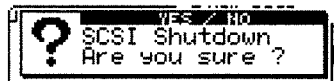## 3 Use [CURSOR] to select the SCSI Shut Down icon, and press [ENTER(TAP)].

4 A confirmation message of "Are you sure?" will appear, so press [YES] to execute the operation.

The external drive will be shut down, and the disk will be ejected from the Zip drive. If you wish to change disks, insert the desired disk and then execute the "Restarting the external Zip drive" operation described in the before section.

Initializing the Zip disk

A Zip drive that is being used for the first time by the VS-840 must be initialized before it can be used. When a disk is initialized, all data that was on that disk will be lost. If you are using a disk which had been used by another device, make sure that it does not contain important data that you wish to keep.

1 **Press [UTILITY].**

2 **Use [CURSOR] to select the SCSI icon, and press [ENTER(TAP)].**
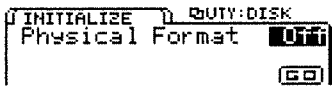
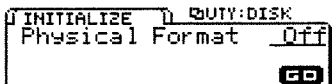**3** **Use [CURSOR] to select the SCSI Initialize icon, and press [ENTER(TAP)].**

4 **This display will indicate "STORE Current ?" If you wish to save the currently selected song (the Current Song), press [YES]. If you do not wish to save it, press [NO].**
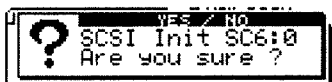
5 **Use [CURSOR] to move the cursor to "Physical Format," and use the TIME/ VALUE dial to specify whether or not you wish to physically format the disk.**

6 **Use [CURSOR] to move the cursor to the "GO" icon, and press [ENTER(TAP)].**

7 **A confirmation message will ask "Are you sure ?," so press [YES] to execute the operation. When initialization ends successfully, you will return to Play mode. If you press [NO], the initialize operation will be halted.**

> * If you initialize the disk with "Physical Format" turned "On," a certain length of time will be required for initialization to be completed. This is not a malfunction. The progress of the initialization operation will be shown in the display. Do not turn off the power before initialization has ended.

Copying songs from the VS-840 to the external Zip disk

Here's how songs that were created and saved on the VS-840 can be copied to the external Zip disk.
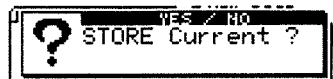
1 **Press [UTILITY].**

2 **Use [CURSOR] to select the SCSI icon, and press [ENTER(TAP)].**

3 **Use [CURSOR] to select the 840 to SCSI Copy icon, and press [ENTER(TAP)].**

4 **This display will indicate "STORE Current ?" If you wish to save the currently selected song (the Current Song), press [YES]. If you do not wish to save it, press [NO].**
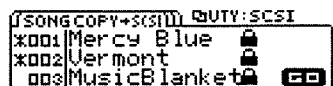

5 **Use [CURSOR] to select the song(s) that you wish to copy, and press [ENTER(TAP)], and a symbol will be added at the left of the song. Mark each song that you wish to copy.**

To remove a mark, use [CURSOR] to select the song from which you wish to remove the mark, and press [ENTER(TAP)].

6 **Use [CURSOR] to select the "GO" icon, and press [ENTER(TAP)] to begin the Copy operation.**

Copying songs from the external Zip disk to the VS-840

Here's how a song that was saved on an external Zip disk can be copied to the Zip disk of the VS-840.
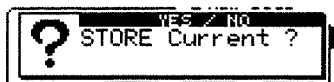
1 Press [UTILITY].

2 Use [CURSOR] to select the SCSI icon, and press [ENTER(TAP)].

3 Use [CURSOR] to select the SCSI to 840 Copy icon, and press [ENTER(TAP)].

4 This display will indicate "STORE Current ?" If you wish to save the currently selected song (the Current Song), press [YES]. If you do not wish to save it, press [NO].

5 Use [CURSOR] to select the song that you wish to copy, and press [ENTER(TAP)] to add a mark to the left of the song. Mark each song that you wish to copy.

To remove a mark, use [CURSOR] to select the song from which you wish to remove a mark, and press [ENTER(TAP)].

6 Use [CURSOR] to move the cursor to the "GO" icon, and press [ENTER(TAP)] to begin the Copy operation.

Deleting a song that was saved on an external Zip disk

1 Press [UTILITY].

2 Use [CURSOR] to select the SCSI icon, and press [ENTER(TAP)].

3 Use [CURSOR] to select the SCSI Song Erase icon, and press [ENTER(TAP)].

4 This display will indicate "STORE Current ?" If you wish to save the currently selected song (the Current Song), press [YES]. If you do not wish to save it, press [NO].
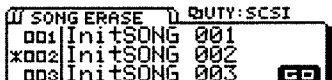
5 Use [CURSOR] to select the song(s) that you wish to delete, and press [ENTER(TAP)] to add a mark at the left of the song. Add a mark to each song that you wish to delete.
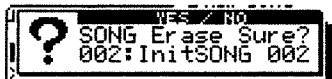
To remove a mark from a song, use [CURSOR] to select the song from which the mark will be removed, and press [ENTER(TAP)].

6 Use [CURSOR] to move the cursor to the "GO" icon, and press [ENTER(TAP)].

7 The display will ask "SONG Erase Sure ?," so press [YES] to execute the delete operation.

All marked songs will be deleted.

Using an external Zip drive to perform a disk copy

All data on the internal disk of the VS-840 will be copied to the external Zip disk.
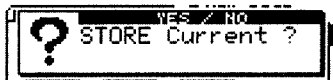
1 **Press [UTILITY].**

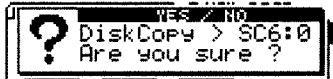**2** **Use [CURSOR] to select the SCSI icon, and press [ENTER (TAP)].**

3 **Use [CURSOR] to select the SCSI Disk Copy icon, and press [ENTER (TAP)].**

4 **This display will indicate "STORE Current ?" If you wish to save the currently selected song (the Current Song), press [YES]. If you do not wish to save it, press [NO].**

5 **A message of "Are you Sure?" will ask you to confirm the operation. Press [YES] to execute the disk copy.**

If you press [NO], the disk copy will be halted.

6 **When the data has been copied, the display will indicate "Complete!," and you will return to Play mode.**

Using an external Zip drive to convert data between VS-840/VS-880 formats (Song Convert)

This operation converts data so that it can be exchanged between the VS-840 and VS-880. Here we will give an example procedure showing how song data created on the VS-880 can be converted for use by the VS-840.

* *If you select the SCSI->840 icon, VS-880 song data on the external Zip disk will be converted, and saved on the disk of the VS-840. If you select the 840->SCSI icon, VS-840 data on the VS-840 disk will be converted, and saved on the external Zip disk.*

* *The only data which can be exchanged between the VS-840 and VS-880 is song data which was recorded with a Recording Mode and Sample Rate that are supported by both devices. (The VS-840's recording mode "LV1" corresponds to the VS-880's "LIV.") Only two types of information are converted: the audio data itself, and information which indicates the V-track of that audio data. Other data (system-related settings, mixer-related settings, locate points in the song, etc.) is not compatible.*

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1 Press [UTILITY].

---

2 Use [CURSOR] to select the SCSI icon, and press [ENTER (TAP)].
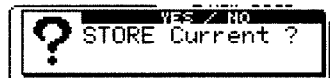

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3 Use [CURSOR] to select the SCSI Song Convert icon, and press [ENTER (TAP)].

---

4 The display will indicate "Select Convert Type," so use [CURSOR] to select the Convert Type. For this example, select the SCSI->840 icon, and press [ENTER (TAP)].

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5 This display will indicate "STORE Current ?" If you wish to save the currently selected song (the Current Song), press [YES]. If you do not wish to save it, press [NO].
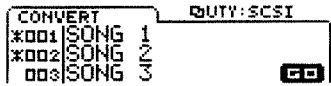

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6 A list of songs created on the VS-880 will be displayed. Use [CURSOR] to select a song that you wish to convert and press [ENTER (TAP)] to add a mark at the left of the song. In this way, mark each song that you wish to convert.

To erase a mark, use [CURSOR] to select the song from which you wish to erase the mark, and press [ENTER (TAP)].
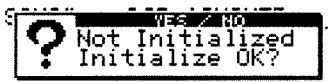
7 Use [CURSOR] to move the cursor to the "GO" icon, and press [ENTER (TAP)] to begin the convert operation.

```
┌─CONVERT───┐  QUTY:SCSI
│*001│SONG 1│
│*002│SONG 2│
│ 003│SONG 3│    ┌──┐
                 │GO│
                 └──┘
```
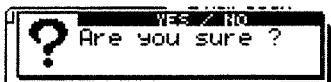
> * In order to convert song data created on the VS-840 into a form that can be used by the VS-880, you will need a disk that has been initialized on the VS-880.

If you do not have a disk that has been initialized on the VS-880, you can use the following procedure to initialize a disk. If an uninitialized disk is inserted, the following display will appear.

```
┌─────────────────────┐
│    ┌──────YES╱NO───┐ │
│  ? │Not Initialized│ │
│  • │Initialize OK? │ │
│    └───────────────┘ │
└─────────────────────┘
```

You will be asked whether or not you wish to initialize the disk for use on the VS-880, so execute the following procedure.

1 **If you wish to initialize the disk, press [YES]. If you do not wish to initialize the disk, press [NO].**

2 **If you press [YES] in step 1, you will be asked again "Are you sure ?" If you wish to initialize, press [YES].**

```
┌─────────────────────┐
│    ┌──────YES╱NO───┐ │
│  ? │Are you sure ? │ │
│  • └───────────────┘ │
└─────────────────────┘
```

> * If initialization is halted, you will return to the condition of step 3. Execute the Shut-down operation to remove the disk, insert the desired disk, and execute the Restart operation.

> * When a disk is initialized, all data on that disk will be lost. Before initializing a disk, make sure that it does not contain any data you wish to keep.

> * The VS-840 and the VS-880 use different disk formats.

Select the SCSI drive

Select the SCSI drive (SCSI ID number) with which the VS-840 will exchange data.

Only one SCSI drive can be selected on the VS-840.

1 Press [UTILITY].

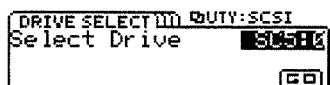**2** Use [CURSOR] to select the SCSI icon, and press [ENTER (TAP)].

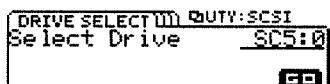**3** Use [CURSOR] to select the SCSI Drive Select icon, and press [ENTER (TAP)].

4 Select the drive (SCSI ID number). Use [CURSOR] to move the cursor to "Select Drive," and use the TIME/VALUE dial to select the drive (SCSI ID number).

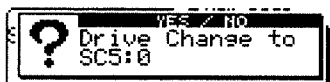**5** Use [CURSOR] to move the cursor to the "GO" icon, and press [ENTER (TAP)].

6 A message of "Drive Change to" will ask you to confirm the operation. Press [YES] to execute the drive change. If you decide not to change the drive, press [NO].

Error messages

If an error occurs in operation, or if an operation could not be processed correctly, and error message will appear. Refer to the displayed error message and take the appropriate action.

Aborted Command
Illegal Request
Situation: This disk drive cannot be used by the VS-840.

Already Selected
Situation: The currently selected disk drive was selected.
Action: If you wish to switch to another disk drive, re-select the disk drive.

Arbitration Fail
Busy Status
Check Condition
Status Error
Wait For BUSS Free
Situation: Normal communication with the disk drive could not be accomplished.
Action: Make sure that the disk drive is connected correctly.

Can't Communicate
Drive Time Out
Message Error
Phase Mismatch
Undefined Sense
Unit Attention
? Unknown Error
Situation: There is a problem with the connections to the disk drive.
Action: Make sure that the disk drive is connected correctly.

Disk Memory Full
Situation: There is insufficient free area on the disk.
Action: Erase unneeded data. Or, select a different disk drive.

Situation: The maximum number of songs that can be saved on a disk (200) has been exceeded.
Action: Delete unneeded songs. Or, select a different disk drive.

Hardware Error
Situation: There is a problem with the disk drive.
Action: Contact the manufacturer or dealer of the disk drive.

Medium Error
Situation: There is a problem with the disk.
Action: This disk cannot be used by the VS-840.

Not 512byte/sector
Situation: The disk that you are using is not 512 bytes/sector.
Action: This disk cannot be used by the VS-840.

Not Formatted
Situation: The disk has not been initialized by the VS-840.
Action: Initialize the disk.

Situation: If this appears for a disk that has been initialized by the VS-840, there is a problem with the connections to the disk drive.
Action: Make sure that the disk drive is connected correctly.

Not Ready
Situation: The disk drive is not ready.
Action: Wait a short time.

No Drive Ready
Situation : No disk drive is connected.
Action : Make sure that the disk drive is connected correctly.

Situation : The disk drive has been shut down.
Action : Execute the SCSI Restart icon.

Situation: No disk is inserted.
Action: Insert a disk, and execute the SCSI Restart icon.

SCSI ID Error
Situation: The SCSI ID numbers of two or more disk drives are conflicting.
Action: Make settings so that the SCSI ID numbers do not conflict (page 3).

SPC Not Available
Situation: The SCSI components of the VS-840 have malfunctioned.
Action: Contact servicing by your dealer or qualified Roland service personnel.

Specifications

VS4S-1: VS-840 / VS-840S SCSI Board

Power Supply
Supplied from the VS-840 / VS-840S

Connector
SCSI Connector (25-pin D-sub type connector)

Dimensions
74.0 (W) x 85.0 (D) x 19.0 (H) mm
2-15/16 (W) x 3-3/8 (H) x 3/4 (D) inches

Weight
200g / 8 oz

Accessory
VS4S-1 Owner's Manual

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

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VS4S-1

Roland Corporation