

# VS-2480 Q&A

## BASIC FUNCTIONS

### Q: What are the main differences between VS-2480 and VS-1880/1680?

A: Main differences from VS-1880/1680 are as follows.

- Accommodates 96kHz sampling rate
- 24-bit linear recording
- 2x R-BUS ports
- Newly developed pre-amp circuit on analog input
- Increased number of analog input jacks
- 17 motorized faders
- Mouse operation
- Information display function via VGA OUT
- SMPTE input
- Word clock input
- 3.5" hard disk drive installable with expanded partition size to 10GB
- Dynamics processor (Compressor/Expander) equipped on every mixer channel
- 4-band EQ
- Surround panning function

### Q: About the Recording Mode

A:

- M24 (Mastering 24bit)  
Audio from the analog inputs that passes through the VS-2480's 24-bit A/D converter, and audio data from the 24-bit digital inputs will be recorded and played as linear data.  
When this mode is selected, the VS-2480 will function as a 16-track recorder (tracks 1–16). When sampling frequency is more than 64kHz, the VS-2480 will function as a 8-track recorder.
- MTP (Multi Track Pro)  
Audio from the analog inputs that passes through the VS-2480's 24-bit A/D converter, and audio data from the 24-bit digital inputs will be recorded and played using proprietary Roland coding technology (R-DAC). Normally you should select this mode.
- CDR (CD-R Writing):  
This mode allows you to directly create a CD image file on your hard disk – this file can later be burned onto a CD-R. Recording and playback will occur using 16-bit linear data similar to that of a CD player or DAT recorder. In CDR mode, Tracks 1–8 are linked in odd/even fader pairs, with their levels controlled by the

odd-numbered fader. Track 17–24 cannot be used.

- M16 (Mastering 16bit):  
Recording and playback will occur using 16-bit linear data similar to that of a CD player or DAT recorder. When this mode is selected, the VS-2480 will function as a 16-track recorder (tracks 1–16). When sampling frequency is more than 64kHz, the VS-2480 will function as a 8-track recorder.
- MT1 (Multi Track 1):  
This recording mode provides approximately twice the recording time of M16 mode.
- MT2 (Multi Track 2):  
This recording mode provides even longer record times than MT1.
- LIV (Live 1):  
This mode is appropriate when your hard disk lacks free space or when recording live performances where the total recording time is unknown.
- LV2 (Live 2):  
This mode provides the longest recording time. This mode is appropriate for live recordings of speeches, and recordings made for reference purposes. Use this mode if you have very little drive space left or you aren't sure how long the recording will be.

### Q: Are the audio data compressed?

A: On VS-2480, you can select compressed or linear recording mode.

For instance, on our most recommendable "Multitrack Pro (MTP)" mode, you can get three times longer recording time with 24-bit quality, utilizing Roland's proprietary data coding technology, R-DAC.

You can also select 24-bit linear "Mastering 24-bit (M24)" or 16-bit linear "Mastering 16-bit (M16)." With these modes, maximum recording/playback tracks are limited to 16 tracks with 48/44.1/32kHz sampling rate, or 8 tracks with 96/88.2/64kHz sampling rate.

### Q: Is it possible to mix down even when all the 24 tracks are occupied?

A: Yes. In the Mastering Room, you can mix down to the empty V-tracks on tracks 23/24 while playing back 24 tracks.

**Q: How long is the recording time?**

A: Recording time in each recording mode and sampling rate is as shown in the following table. (unit: minute)

	<b>96kHz</b>	<b>88.2kHz</b>	<b>64kHz</b>
M24	662	721	993
MTP	1,989	2,165	2,983
CDR	994	1,082	1,491
M16	994	1,082	1,491
MT1	1,989	2,165	2,983
MT2	2,651	2,885	3,976
LIV	3,181	3,462	4,772
LV2	3,977	4,329	5,966

	<b>48kHz</b>	<b>44.1kHz</b>	<b>32kHz</b>
M24	1,324	1,442	1,987
MTP	3,977	4,329	5,966
CDR	1,989	2,165	2,983
M16	1,989	2,165	2,983
MT1	3,977	4,329	5,966
MT2	5,302	5,771	7,953
LIV	6,362	6,925	9,543
LV2	7,955	8,658	11,932

**Q: How many tracks can I record/play back simultaneously?**

A: Maximum simultaneous recording/playback tracks in each recording mode and sampling rate are as shown in the following table.

**Q: Is "Track Copy" possible between the different projects?**

A: Yes. You can import the tracks from a Project which is in the same recording mode and sampling rate.

**Q: Is it possible to record the fader location? Is it possible to record the INPUT SENS knob value?**

A: You can memorize the fader location in the scene memory up to 100 patterns per Project.

.But you cannot memorize the values for INPUT SENS, HEADPHONE 1/2 and MONITOR knobs.

**Q: Is it possible to monitor any one of the bus sources via headphones?**

A: Yes. You can assign any different bus signal to each of two headphone jacks.

**Q: How many locators can I recall at once?**

A: One at once, but you can memorize 100 locators (10 points

x 10 banks) per Project.

**Q: Is it possible to undo/redo automix?**

A: Yes. One level undo/redo is possible for automix writing/editing on VS-2480.

**Q: Is it possible to record the effect parameters in the automix?**

A: No. It is impossible.

**Q: Is it possible to use VS-2480 simply as an audio mixer?**

A: Yes. But 3.5" hard disk should be installed.

**Q: Is there any limitation on the length of the phrase assigned to the phrase pad?**

A: On VS-2480, maximum length of every phrase is limited within 24 hours. These phrases recorded and edited are assigned to the phrase pads, so the maximum length of the phrases on the phrase pads are accordingly within 24 hours.

**EFFECTS**

**Q: Are the effects pre-installed? Is it possible to use the effect board from the previous VS-series?**

A: VS-2480 is shipped with one VS8F-2 effect expansion board installed, and you can start working with two stereo effects. Plus you can add three more optional VS8F-2 for eight stereo effects in total.

VSS8F-1 is exclusively for VS-880 and cannot be used with any other VS models.

**Q: Which microphones can be used for mic modeling?**

A: Roland dynamic microphone DR-20, and AKG C3000B condenser microphones can be used.

**Q: Are 31-band graphic equalizer and realtime spectrum analyzer available as I see on VM-7000 digital mixer?**

A: When the sampling rate is 48/44.1/32kHz, spectrum analyzer can be used. Also generator for white noise, pink noise and sine wave can be used simultaneously.

31-band graphic equalizer is not equipped on VS-2480.

**Q: Is it possible to assign different mic modeling settings to each signal from INPUT 1-16?**

A: Mic modeling algorithm is 2 in/2 out configuration, and you can set each channel differently. If you install four VS8F-2, you can have eight effects running simultaneously for 16 channels of different mic modeling settings.

**Q: Is there any pitch correction effect for vocals, etc?**

A: Pitch shifter algorithm is available but there is no function to correct pitch on any particular syllable.

**Q: Is it possible to insert the external effect processor to the channel?**

A: Insert connector is not equipped on VS-2480 but it is possible to use the external effect processors. Please refer to the this manual “**How to Record with External Effects Devices Connected** (p. 6)” for the setting details.

From the point of view of sound quality, noise and operational ease, using the internal effects on VS-2480 is most recommendable.

## **CD-R/RW DRIVE**

**Q: Is it possible to use the CD-R/RW drive which were used with the previous VS models?**

A: Any CD-R/RW drive for the previous VS can be used with VS-2480. Please contact your nearest authorized Roland distributors for the updated information on the compatible drives.

**Q: Which type of disc can be used with the CD-R/RW drive?**

A: There is no particular restriction but sometime trouble may happen because of the bad quality of the media or bad affinity between the drive and disc. Before you purchase many discs of a kind, please check if it can be used with your drive.

80-minute disc is not recommendable because of its thinner groove for recording.

8cm CD-R disc (18-minute) can be used.

For your important project, we recommend you to backup in multiple discs. Also, CD-R/RW disc is a delicate medium and please handle and store with care according to the precaution notes which come with the disc.

**Q: If I write an additional project to the CD-R disc which is not finalized, will there be a silent gap between the songs?**

A: If you write in “Track at Once” mode, approximate 2 seconds of silence will be inserted in between automatically.

**Q: Is it possible to do “CD Write/CD Backup” in eight times speed?**

A: No matter how fast the drive is, writing speed to CD-R/RW is limited to four times.

**Q: When creating audio CD with “CD Write,” is it possible to write the copyright bit?**

A: No. Copyright bit is off when writing to CD-R.

**Q: Is it possible to use the audio CD which is written on VS-2480 as a master disc for mass duplication?**

A: There are “Disc at Once” and “Track at Once” methods for audio CD burning. Disc created with “Disc at Once” method can be a press master.

**Q: Is it possible to backup additional Project on the disc which already contains the Project?**

A: Upon Project data backup on CD-R, it is always done in “Disc at Once” and finalizes the disc at the end of backup. So additional writing of the data is impossible even if the disc has room.

If you try to write another Project on CD-RW disc, it should erase entire data existing on the disc.

**Q: How long does it take backup the Project on CD-R/RW?**

A: A 600MB Project is equivalent to a CD-R/RW disc. To backup this with four times speed, it will take about 15 minutes and another 15 minutes to verify the result, 30 minutes in total. This may vary by the Project data configuration and performance of the hard disk.

**Q: What type of PQ signals can I record?**

A: P and Q sub channel information is not generated on VS-2480, and CD-R/RW drive automatically generates in accordance with CUE sheet. In other words, usual signals on audio CD such as TNO (track number), INDEX (index

number), P-Time (program time) and A-Time (absolute time) are recorded.

**Q: Is it possible to backup a 1GB Project on the CD-R/RW disc?**

A: Yes. You can backup using multiple discs.

**Q: Is it possible to capture the audio signal in the audio CD in the CD-R/RW drive which is connected to VS-2480 via SCSI?**

A: No. Please use an audio CD player with digital audio connection.

**Q: Is it possible to directly playback the Project data in the CD-R/RW disc?**

A: No, such function is not supported.

## **SCSI DEVICES**

**Q: Can the SCSI devices such as MO (230MB/640MB/1.3GB), 250MB Zip, and HD be used for the backup? What about DVD-RAM?**

A: If they accommodate with SCSI-2, they may work, but Roland does not officially support them. DVD-RAM is not supported at this moment.

**Q: Is it possible to create the "image data" of CD audio in the external hard disk connected via SCSI?**

A: No. Image data is always created in the internal 3.5" hard disk.

**Q: Is it possible to connect VS-2480 with computer via SCSI to transfer the data?**

A: No, such function is not supported.

## **DIGITAL I/O**

**Q: Is it possible to connect two VS-2480's in cascade via R-BUS to transfer audio data, various control messages and synchronization?**

A: Yes. VS-2480 can transfer eight channel audio data, MIDI Time Code (MTC) for synchronization and MIDI Machine Control (MMC) via R-BUS.

At this moment, control messages which came in via R-BUS cannot be sent out through R-BUS. To synchronize three VS-2480's (or more), MIDI or SMPTE should be used simultaneously. VS-2480 only has SMPTE input connector, so you will need SMPTE distributor.

**Q: Is R-BUS connector equipped? Is R-BUS cable sold separately?**

A: VS-2480 is equipped with two R-BUS connectors.

R-BUS cable does not come with VS-2480. Please use the cable which is attached to the other R-BUS devices, or order the following cables.

- RBC-1 (1m)
- RBC-5 (5m)

**NOTE**

At this moment, DIF-AT cannot be used with VS-2480. It will be supported with the near future upgrade.

**Q: Is it possible to output the multi-channel audio via S/P-DIF just like DTS and Dolby Digital?**

A: VS-2480 does not have any multi-channel digital audio encoding function such as dts format. Or if you input dts signals to the digital input on VS-2480, they cannot be decoded into multi-channel signals. Please use the external encode/decode device.

**Q: What digital devices can be used when sampling rate is set to 96kHz?**

A: Under checking and to be informed.

**Q: Is it possible to use two digital in connectors simultaneously?**

A: When master clock of VS-2480 is set to word clock, and two sources are completely synchronized with the same word clock, they can be input simultaneously.

**Q: Is it possible to output two different signals from each of two digital out connectors?**

A: Yes.

## MIDI DEVICES

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**Q: Is it possible to connect digitally when VS-2480 is MTC slave?**

A: Yes. But if discrepancy between MTC and digital master clock gets larger, VS-2480 may stop playback.

**Q: Is it possible to assign any MIDI parameters to faders and pan knobs to control the external device?**

A: With "V-fader" function, you can transmit MIDI control change message from MIDI OUT by using 16 faders.

**Q: Is it possible to do 5.1 surround mixing with VE-7000 or J.L. Cooper MCS Panner?**

A: By connecting VE-7000 via MIDI, you can remote control each channel parameter. Joystick controls the surround panning.

Other control devices will be supported with the future update.

**Q: Is it possible to control the VS-2480 mixer from the external software on the computer via MIDI?**

A: At this moment, it is not supported. Mixer control with external MIDI information will be supported with the future upgrade.

**Q: Is it possible to control the phrase pad function with external MIDI keyboard?**

A: No.

## DATA COMPATIBILITY WITH OTHER VS MODELS

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**Q: Is there any compatibility of VS-2480 data with the other VS models?**

A: Yes. You can import the project from the VS-1880 and VS-1680 (VS-2480 system version 1.10 later).

**Q: Data import from VS-880/880EX/890/840/840EX/840GX/VSR-880, Data export to VS-880/880EX/890/1680/1880/VSR-880.**

It will be supported with the future upgrade.



Data export to VS-840 is not planned to support.

**Q: Is it possible to use the hard disk which is used with the other VS model?**

A: Only 3.5" hard disk can be installed in VS-2480.

**Q: Is it possible to recover a DAT backup song on other VS model?**

A: No. VS-2480 does not have DAT backup/recover function.

**Q: Is it possible to recover VS-2480's CD-R backup data onto the other VS models?**

A: No. It is impossible.

## OTHERS

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**Q: Is it possible to display the information on the LCD to the external VGA and operate?**

A: Separate information such as playlist and channel settings can be displayed in the external VGA. VGA display can show more information at once with 256 colors and four times more dots than the LCD. Operation is only available in the LCD at this moment, but will be supported with the future upgrade.

**Q: What type of VGA monitor can be used?**

A: There is no limitation of the size of display. On VS-2480, you can select the refresh frequency from 60/66/70/75Hz, and can set the position.

Prepare a CRT or LCD typed monitor with VGA (640x480 dot) capability, and above refresh frequency.

**Q: Is it possible to use a pen tablet or track ball instead of the attached mouse?**

A: Mouse port conforms to PS/2 but Roland does not officially support other devices than the attached mouse.

**Q: Is it possible to write the Project in Wave format for Windows or AIFF format for Macintosh?**

A: No.

**Q: Is it possible to handle the VS-2480 Project on the computer?**

A: No. It is impossible to use VS-2480-formatted hard disk, Zip disk or CD-R/RW disc on the computer.

**Q: Is there DAT backup/recover function?**

A: No.

**Q: Is there a data compatibility with ProTools?**

A: No.

**Q: How much can I magnify the waveform display? Is it possible to edit the waveform as minute as on VP-9000?**

A. You can magnify the waveform display of the recorded audio data to a sample level and set the edit point. But minimum unit of the time designation is 16 samples.

**Q: Is it possible to import/export the samples on the phrase pad via CD-R/RW drive?**

A: This will be supported with the future upgrade.

**Q: Is it possible to synchronize with the video equipment?**

A: VS-2480 is equipped with SMPTE input. Synchronization with the equipment with SMPTE output is possible.

**Q: Is it possible to convert the sample rate on digital input/output?**

A: No.

**Q: Do the faders have touch sensors to recognize the current position?**

A: No. To record the automix, you should set AUTOMIX STATUS to WRITE.

**Q: Is there Vari-phrase function?**

A: No.

**Q: One of the stereo-linked faders does not move as fast as another one.**

A: This is just the movement of the fader and the internal value follows exactly as is.

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## **How to Record with External Effects Devices Connected**

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There are two possible ways to carry out recording when you have external effects devices connected; you can use the track direct outs, or you can use the DIR path.

Using the track direct outs allows up to twelve tracks to be output simultaneously in parallel, while with the DIR path you can simultaneously output up to eight tracks in parallel (including the R-BUS output).

### **Using Track Direct Outs**

Sounds recorded to Tracks 9-16 are output from ANALOG MULTI OUTPUT 1-8, external effects are added, and the sounds are recorded to Tracks 1-8.

### **Externally Outputting Tracks 9-16**

1. Press [TR1-16 (MASTER EDIT)].
2. Press [CH EDIT] on Track Mixer Channel 9. The display switches to the Channel View screen.
3. Press [▲] [▼] [◀] [▶] to move the cursor to "MIX."

4. Rotate the TIME/VALUE dial to switch the setting to "OFF." The sounds on Track 9 are now not sent to the MIX bus.
  5. Hold down **[SHIFT]** and press **[MASTER EDIT (TR1-16)]**. The display switches to the Master Edit screen.
  6. Press **[F3 (OUTPUT)]**. The display switches to the Output Assign screen.
  7. Press **[▲] [▼] [◀] [▶]** to move the cursor to "TRACK DIRECT OUT."
  8. Rotate the TIME/VALUE dial to switch the setting to "ON." The VS-2480 switches to Track Direct Out mode.
  9. Press **[▲] [▼] [◀] [▶]** to move the cursor to "A.MULTI 1/2."
  10. Rotate the TIME/VALUE dial to connect "A.MULTI 1/2" and "TR 9/10."
- The sounds on Tracks 9 and 10 are output from ANALOG OUTPUT 1 and 2.
11. Use the same process to assign "TR 11/12" to A.MULTI 3/4, "TR 13/14" to A.MULTI 5/6, and "TR 15/16" to A.MULTI 7/8. The sounds on Tracks 11, 12, 13, 14, 15, and 16 are output from ANALOG MULTI OUTPUT 3, 4, 5, 6, 7, and 8, respectively.

### MEMO

You can also make the Output Assign settings in the EZ ROUTING Output Assign screen (**[EZ ROUTING]**→**[F3 (OUTPUT)]**).

12. Connect each output to the external effects.

## Using the DIR path

The sounds recorded to Tracks 9–12 are output using AUX A/B OUTPUT, external effects are added, and then the sounds are recorded to Tracks 1–4.

### Externally Outputting Tracks 9–12

1. Press **[TR1-16 (MASTER EDIT)]**.
2. Press **[CH EDIT]** on Track Mixer Channel 9. The display switches to the Channel View screen.
3. Press **[▲] [▼] [◀] [▶]** to move the cursor to "DIR 1."
4. Rotate the TIME/VALUE dial to switch "DIR 1" to "ON" (highlighted).

5. Press **[▲] [▼] [◀] [▶]** to move the cursor to "MIX."
6. Rotate the TIME/VALUE dial to switch the setting to "OFF." The sounds on Track 9 are now not sent to the MIX bus.
7. In the same way, turn on DIR 2 for Track 10, and DIR 3 for Track 11.

### MEMO

You can press **[ENTER]** with "DIR" at this point to show the DIR usage status.

8. Hold down **[SHIFT]** and press **[MASTER EDIT (TR1-16)]**. The display switches to the Master Edit screen.
  9. Set DIR 1–4. You can set the level and the point from which the signals are sent from the channel (Pre/Pst).
  10. Press **[F3 (OUTPUT)]**. The display switches to the Output Assign screen.
  11. Press **[▲] [▼] [◀] [▶]** to move the cursor to "AUX A L/R."
  12. Rotate the TIME/VALUE dial to connect "AUX A L/R" and "DIR 1/2."
- The sounds on Tracks 9 and 10 are output from AUX A.
13. Use the same process to assign "DIR 3/4" to "AUX B L/R." The sounds on Tracks 11 and 12 are output from AUX B.

### MEMO

You can also make the Output Assign settings in the EZ ROUTING Output Assign screen (**[EZ ROUTING]**→**[F3 (OUTPUT)]**).

14. Connect each output to the external effects.

## Recording the Sounds Output from the External Effects to the Tracks

1. Connect the outputs of the external effects to ANALOG INPUT 1–8 (if using track direct outs as mentioned above).
2. Hold down **[SHIFT]** and press **[PATCH BAY (EZ ROUTING)]**. The display switches to the Patch Bay screen.
3. Press **[▲] [▼] [◀] [▶]** to move the cursor to "INPUT MIXER 1 2."

4. Rotate the TIME/VALUE dial to connect ANALOG INPUT 1 2. ANALOG INPUT 1 and 2 are input to the Input Mixer Channels 1 and 2.
5. In the same way, connect "ANALOG INPUT 3 4" to "INPUT MIXER 3 4," "ANALOG INPUT 5 6" to "INPUT MIXER 5 6," and "ANALOG INPUT 7 8" to "INPUT MIXER 7 8." ANALOG INPUT 3, 4, 5, 6, 7, and 8 are input to the Input Mixer Channels 3, 4, 5, 6, 7, and 8, respectively.
6. Press **[IN 1–16 (SOLO)]**.
7. Hold down **[CLEAR]** and press **[CH EDIT]** for Input Mixer Channel 1. The level for Input Mixer Channel 1 is set to 0 dB.
8. In the same way, set the levels for Inputs 2–8 to 0 dB.
9. Press **[PLAY]** to play back the project, and confirm that sound from Inputs 1–8 is being output.
10. Press **[MASTER EDIT (TR1-16)]**.
11. Hold down **[REC]** and press **[STATUS]** for Input Mixer Channel 1. Track 1 enters recording standby mode (light flashing in red).
12. In the same way, put Tracks 2–8 into recording standby mode (light flashing in red).
13. Hold down **[STATUS]** for Input Mixer Channel 1. The display switches to the Quick Routing screen.
14. Press **[F4 (AIIClr)]**. All track assignments are cleared.
15. Press **[IN 1–16 (SOLO)]**.
16. Press **[SELECT]** for Input Mixer Channel 1. Input 1 is assigned to Track 1.
17. Press **[STATUS]** for Channel 2.
18. Press **[SELECT]** for Channel 2. Input 2 is assigned to Track 2.
19. In the same way, assign Inputs 3, 4, 5, 6, 7, and 8 to Tracks 3, 4, 5, 6, 7, and 8, respectively.
20. Press **[HOME (DISPLAY)]**. The VS-2480 switches to Home condition.
21. Press **[REC]**. The VS-2480 enters recording standby mode.
22. Press **[PLAY]**. Recording begins.
23. Press **[STOP]**. Recording stops.