IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Refer all servicing to qualified service personnel.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Never use with a cart, stand, tripod, bracket, or table except as specified by the manufacturer.
15. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
16. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

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 product complies with the requirements of European Directives EMI 89/336/EEC and LVD 73/23/EEC.

For the USA

NOTICE

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

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel bruitieux du Canada.
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 open or perform any internal modifications on the unit.

- 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.

- Make sure you always have the unit placed so it is level and sure to remain stable. Never place it on stands that could wobble, or on inclined surfaces.

- The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit.

- Use only the attached power-supply cord.

⚠️ WARNING

- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!

- This unit, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit, and consult an audiologist.

- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.

- 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!)

- Do not force the unit’s power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord’s outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.
• Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the “Information” page.

---

**WARNING**

- The unit should be located so that its location or position does not interfere with its proper ventilation.

- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit.

- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.

- Never climb on top of, nor place heavy objects on the unit.

- Never handle the power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.

- Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.

- Before cleaning the unit, turn off the power and unplug the power cord from the outlet (p. 11).

- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.

---

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The Process That Led to the Birth of the V-Guitar System

The acoustic piano has enjoyed a history of hundreds of years, culminating in the shape that it has today. The piano craftsmen of the past must have longed for piano wires that could be stretched just as tightly as they pleased. Unfortunately, though, the wooden frames of those times imposed practical limits on wire tension. Their dream finally became reality with the advent of frames made of cast iron. Piano craftsmen were no doubt delighted with this new ability to build pianos just as they wanted.

Guitars have had a similar history. Through a continuing process of trial, error, and improvement made in a variety of ways, including the structure and materials for the wood, strings, and paint, guitars have reached the shape they have today. Now we have electric guitars equipped with pickups and amplifiers that can produce sound at high volumes.

Does this mean that guitars have reached a state of perfection?

Not necessarily. Throughout the ages, instruments have constantly evolved through the effective use of new materials as they became available. And as the twenty-first century approaches, Roland has incorporated new materials — silicon DSP chips — into guitars to create a new instrument — the V-Guitar System.

Sound Modeling

Roland believes that the final evaluation of an electric guitar’s sound should not be based only on sound output from the guitar itself, but should also include the sound that passes through the guitar amps, speakers, and other equipment.

To achieve this, it’s necessary to simulate all the steps along the way — from the moment a guitar string is plucked, until the time the sound reaches the ears — thereby re-creating the sound. Roland has made it possible to re-create these steps with this latest sound modeling technology — in other words, other means are used to make a virtual model of the physical structures and materials that actually exist.

Composite Object Sound Modeling: COSM

The new Composite Object Sound Modeling (COSM) advanced by Roland combines a number of sound modeling technologies to create even newer sounds. COSM creates new string vibrations while retaining all the expressiveness, response, and tension that are inherent in the sounds of a guitar.

Roland believes that the ability to produce sounds based on entirely new concepts while making full use of conventional methods of play, and the fact that these sounds have full musical value, are of the greatest importance for a guitar player.

COSM GUITAR/COSM AMP

COSM guitar/COSM amp are modeling technologies that can reproduce the sounds of any existing guitar. This includes the following.

- Electronic Modeling, which simulates all characteristics which can be attributed to the use of vacuum tubes, transistors, and all other electronic circuitry.
- Magnetic Modeling, which simulates all the characteristics which can be produced as a result of using pickups, transformers, speakers, and other electromagnetic parts.
- Physical Modeling, which simulates all the characteristics that are produced as a result of the use of certain types of materials to make a guitar, including the kind of wood, metal parts, or finish that are used.

In addition, COSM guitar is able to produce completely new sounds that never existed before. The numerous harmonics contained in the sound from the vibrating strings (the sound source) can be radically emphasized, added to, or removed, in order to create totally new guitar sounds.

A guitarist conveys musical expression through string vibration. Vibrating strings carry a great deal of information about the dynamics of a performance, including that which expresses the way in which strings have been pressed, the location at which they’ve been picked, the position of the pick, and the kind of vibrato that’s been used. The V-Guitar system uses the string vibration itself (which contains all of this performance information) as the sound source, and can create not only previously existing guitar sounds, but also completely new sounds. One great advantage of this system is that it preserves the playing dynamics of the guitarist, as they are conveyed by the vibration of the string.
Main features

■ A new dimension of sound-creation made possible by three core sections: COSM Guitar, COSM Amp, and multi-effects

The COSM GUITAR section allows you to change the guitar’s pickup and body. The COSM AMP section permits the accurate simulation of distortion, amp head, speakers, and mic placement. Finally, the versatile multi-effect section lets you put the finishing touches on your sound.

Simply by pressing a single pedal, you can switch to a different guitar, change the tuning, re-connect your amp, or change to a different effects setup.

COSM guitar technology has been further developed to allow the production of sounds that could not be made on any previously existing instrument.

The vibrations from the guitar captured by the divided pickups are analyzed to detect pitch and envelope, and are used to create sounds that are totally new, yet have a natural playing feel.

Your playing can take full advantage of the characteristic nuances provided by guitar performance techniques such as picking position, dynamics, and vibrato.

In addition, you can also use performance techniques from which pitch cannot be detected, such as muting, harmonics and brushing.

The COSM guitar section contains a mixer section that lets you freely control the inputs of the normal pickup and the divided pickup, so that you can create sounds that combine both pickups.

■ Rich expressive potential

COSM guitar, COSM amp, and multi-effect parameters are saved in each patch. When shipped from the factory, the VG-88 contains 160 PRESET patches. In addition, 100 new USER patches of your own creation can be stored in internal memory.

The VG-88 contains a high-quality multi-effect unit. Parameter settings for each effect can be modified and stored individually in a patch.

The COSM guitar section provides a polyphonic pitch shifter that allows you to specify a different amount of pitch shift for each string. You can play VG sounds at a different octave than the guitar sounds, or use open tunings without physically changing the actual tuning of your guitar.

A four-band equalizer allows you to make detailed adjustments to your tone.

■ Global parameters

The patch parameters of the VG-88 can be adjusted to compensate for the environment in which you are playing.

Reverb depth, low-frequency and high-frequency tone, and noise suppressor sensitivity can be adjusted globally without changing the settings of each individual patch.

■ Easy operation

The VG-88 features the same all-in-one pedal effector-type design that was so popular on the VG-8 and GR-30. There are no complicated connections to make, and setup is quick and easy.

The display consists of a two-digit LED and a full-graphic LCD. The two-digit LED and the LED’s for each number pedal make it easy to distinguish patch numbers, even on a dimly lit stage or when changing sounds from a standing position. The 160 x 64 pixel LCD allows easy and visually intuitive parameter-editing.

Operation is consistent and logical, so that you can experience the power of the V-Guitar system immediately.

EZ Edit function (p. 26)

Starting with preset sounds, you can easily create new sounds by adjusting four parameters.

■ Broad range of expandability

MIDI connectors (IN, OUT)

You can control the VG-88 from an external MIDI device. The VG-88’s parameter settings can also be transmitted to an external MIDI device and saved.

GUITAR INPUT jack

A normal pickup can be plugged directly into the VG-88.

GUITAR OUTPUT jack

If desired, you can output just the normal pickup sound of the guitar.

SUB EXP PEDAL/SUB CTL 1, 2 jacks

An expression pedal or a control pedal can be connected to these jacks. A connected pedal can be used for controlling parameters.

Built-in EXP pedal and CTL pedal

The function of the built-in EXP pedal and CTL pedal can be specified for each patch. For example, the EXP pedal can function as a wah pedal in one patch, and a volume pedal in another patch.
This manual is broadly divided into eight chapters that explain operations and functions you will use during normal playing, as well as how to make various settings. You’ll get the most from this manual by reading its chapters in order.

An alphabetical index is provided at the end of the manual. Refer to it if you encounter an unfamiliar term as you operate the VG-88.

**Chapter 1. Preparations for playing**

This chapter explains how to install the GK-2A/GK-3 divided pickup on your guitar, connect it to the VG-88, and play sounds. The VG-88 has a rich array of amazing functionality. However, if connections and settings are not made correctly, this potential will not be fully realized. Please be sure to read this chapter before you turn on the VG-88’s power.

It is very easy to operate the VG-88. If you master the contents of this chapter, you will be able to select the internal patches and enjoy all of the basic features of the VG-88.

**Chapter 2. Overview of the VG-88 — basic knowledge**

This chapter provides an overview of the VG-88. It explains how the VG-88 produces sound, and describes its signal flow – the way in which sound travels through the VG-88’s sections.

**Chapter 3. Creating sounds — basic section**

Once you are able to play the internal patches, you can try creating your own patches to suit any song you are playing. This chapter explains the meaning of each patch parameter, the basic editing procedure, and how to save a patch that you create.

**Chapter 4. Creating sounds — advanced section**

In addition to the functions explained in Chapter 3, the VG-88 has many other advanced capabilities that are worth learning to use. This chapter explains using these various functions – you will find them to be convenient when editing patches.

**Chapter 5. Parameter guide**

This chapter provides details about the VG-88’s patch parameters and system parameters, organized by screen. This information will be useful when you wish to set up the VG-88 system for use with external devices, or when constructing a new patch. You can read the appropriate section when the need arises.

**Chapter 6. Changing the system settings**

This chapter explains how to make global settings for the entire VG-88.

**Chapter 7. Using MIDI**

The VG-88 provides MIDI connectors: IN and OUT. Using MIDI, you can control the VG-88 from an external MIDI device. You can also transmit VG-88 patch parameters or system parameters to save them in an external MIDI storage device.

This chapter explains how to use the VG-88 with external devices using MIDI.

**Chapter 8. Appendices**

This chapter provides an assortment of information not already covered in the previous chapters.
Power Supply
- Do not use this unit on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement
- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.
- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.

Maintenance
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Repairs and Data
- Please be aware that all data contained in the unit’s memory may be lost when the unit is sent for repairs. Important data should always be backed up in another MIDI device (e.g., a sequencer), or written down on paper (when possible). During repairs, due care is taken to avoid the loss of data. However, in certain cases (such as when circuitry related to memory itself is out of order), we regret that it may not be possible to restore the data, and Roland assumes no liability concerning such loss of data.

Memory Backup
- This unit contains a battery which powers the unit’s memory circuits while the main power is off. When this battery becomes weak, the message shown below will appear in the display. Once you see this message, have the battery replaced with a fresh one as soon as possible to avoid the loss of all data in memory. To have the battery replaced, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the “Information” page. “BATTERY LOW”

Additional Precautions
- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of losing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit’s memory in another MIDI device (e.g., a sequencer).
- Unfortunately, it may be impossible to restore the contents of data that was stored in the unit’s memory or another MIDI device (e.g., a sequencer) once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- Use a reasonable amount of care when using the unit’s buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- Never strike or apply strong pressure to the display.
- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable’s internal elements.
- A small amount of heat will radiate from the unit during normal operation.
- To avoid disturbing your neighbors, try to keep the unit’s volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.
- Use only the specified expression pedal (EV-5; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.
- Use a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions.
  - Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.
Front and Rear Panels

Front Panel

1. LED Display
2. LCD Display
3. VALUE Dial
4. OUTPUT LEVEL Knob
5. OUTPUT SELECT Button
6. Function Buttons
7. PAGE Buttons
8. EXIT Button
9. WRITE Button
10. CURSOR Buttons
11. COSM GUITAR Button
12. COSM AMP Button
13. EFFECTS Button
14. LEVEL/BPM/KEY Button
15. PEDAL/ASSIGN Button
16. NAME/CHAIN Button
17. EZ EDIT Button
18. TUNER Button
19. BANK Pedals
20. Number Pedals
21. CTL (control) Pedal
22. EXP (expression) Pedal

When you operate the expression pedal, please be careful not to get your fingers pinched between the movable part and the panel.

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.
23. GK IN Jack
24. GUITAR Jacks
25. OUTPUT Jacks
26. PHONES Jack
27. SUB EXP PEDAL/SUB CTL 1,2 (sub expression pedal/sub control pedal) Jack
28. MIDI Connectors
29. POWER Switch
30. AC Inlet
Attaching the GK-2A/GK-3 to your guitar

First, you will need to attach the GK-2A/GK-3 divided pickup to your guitar. To learn how, refer to the owner’s manual for the GK-2A/GK-3.

The GK-2A/GK-3 cannot be used with the following types of guitar. (When attached to one of these guitars, the GK-2A/GK-3 will not function correctly.)

- Guitars with unconventional string structures, such as twelve-string guitars or pedal steel guitars
- Guitars that use nylon or gut strings
- Bass guitars
- Other guitars that, for structural reasons, have no location where the GK-2A/GK-3 divided pickup can be attached correctly

About the GK-2A/GK-3 select switch

When using the VG-88, you can control the balance between the divided pickup and the normal pickup for each patch. We recommend that you normally leave the select switch in the “MIX” position.

About the SYNTH VOL knob of the GK-2A

When using the VG-88, various functions can be assigned to the SYNTH VOL knob of the GK-2A.

If the SYNTH VOL knob is programmed to control a parameter other than the volume of the VG-88, the SYNTH VOL knob will no longer control the volume of the VG-88.

If using a guitar equipped with a GK-3, substitute “GK Volume knob” (of the GK-3) wherever “SYNTH VOL knob” (of the GK-2A) appears in this document.

Connecting an amp etc.

Before you make connections

In order to play the VG-88, you will need the following equipment.

- A guitar on which the GK-2A/GK-3 has been installed
- Amp/speaker or headphones

The following equipment will add additional functionality to your VG-88 system.

- External expression pedal (sold separately: Roland EV-5, BOSS FV-300L)
- External pedal switch (sold separately: Roland DP-2, BOSS FS-5U)

After you have prepared your guitar — by installing the GK-2A/GK-3 — connect your equipment as shown in the following diagram.
To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

Use only the specified expression pedal (EV-5 or BOSS FV-300L; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.

When connecting a FS-5U, set the polarity switch as described below.

**About the GUITAR INPUT jack**

When connecting a guitar to the VG-88 without C-13A/B cable, use the GUITAR INPUT jack.

**About the OUTPUT jack**

When connecting a guitar amp to the OUTPUT jacks, use the guitar amp’s MAIN IN jack or RETURN jack.

If your guitar amp does not have a MAIN IN jack or RETURN jack, connect it to the guitar input jack (INPUT).

**About the GUITAR OUT jack**

As desired, connect your amp or mixer to the GUITAR OUT jack.

* Since you can output only the original guitar sound from the GUITAR OUT jack, use the jack when you wish to process just the guitar sound through an external effects device.

* If you are using the normal guitar input jack of the GK-2A/GK-3, set the GK-2A/GK-3 select switch to “MIX.” If the select switch is set to “SYNTH (GK),” the signal from GUITAR OUT will be muted (silenced).

* Even when headphones are connected to the PHONES jack, sound will still be output from the OUTPUT jack and the GUITAR OUT jack.
Chapter 1. Preparations for playing

About the screen display (Basic operation)

Depending on the screen, the parameters may occupy two or more screen pages. The page icon is shown in the upper right of the screen.

1. Use PAGE [◄] [►] to switch pages.
2. Use [F1]–[F6] to select parameters.
   * You can also use [CURSOR] to select parameters.
3. Turn [VALUE] to select the desired value.
   * If you wish to save a newly created or modified patch, refer to “Saving a sound (patch) you created” (p. 25).

**Edit Multiple Parameters Simultaneously**

For parameters which can be set independently for each string, you can simultaneously increase/decrease the settings for each string.

For example if you wish to set the shift amount of Polyphonic Pitch Shift to the same setting for all strings, this function means that you don’t have to repeat the procedure for each string.

This function is available for the following parameters.

**SYSTEM:**
- PICKUP<->BRIDGE
- SENSITIVITY

**COSM GUITAR:**
- PT SHIFT SHIFT#1–6
- PT SHIFT FINE#1–6
- PT SHIFT HARMO#1–6
- PT SHIFT E.LEVEL#1–6
- PT SHIFT D.LEVEL#1–6
- TUNE SHIFT#1–6
- PAN STRING#1–6
- PD SHIFT STRING#1–6
- OCT -1OCT#1–6
- OCT -2OCT#1–6
- OCT DIR#1–6

1. Access the page that contains the parameter you wish to modify.
2. Move the cursor to the parameter that you wish to modify.
3. At this time, [F1] – [F6] will correspond to strings numbers 1 – 6. While holding down the function button for the desired string, press [F1] – [F6] that you wish to modify simultaneously.
4. Press any button to cancel setting.
Chapter 1. Preparations for playing

Turning on the power and tuning your guitar

■ Turning on the power of the VG-88

Once the connections have been completed (p. 14,15), turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

1. Turn the VG-88’s POWER switch to the “ON” position to turn on its power.

The display will light, and the following screen will appear. This display is referred to as the “Play page.”

![Play page](image)

* When the power is turned on, the last-selected patch number will be selected.

**MEMO**

The procedures described in the owner’s manual are performed from the Play page, which you can access by pressing [EXIT] several times.

**NOTE**

This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

2. Turn on the power of your connected audio devices, such as your guitar amp or mixer.

■ Tuning your guitar

Here’s how to use the VG-88’s tuner function to tune your guitar.

![Tuner function](image)

1. Press [TUNER]. This turns on the Tuner function.

2. Use the function buttons to make the following settings.

   - Press the button ([F4] [F6]) for the function that you wish to set, and then turn [VALUE] to select the desired value.
   - If you do not need to make these settings — perhaps the values you want are already selected — this procedure is not necessary. Proceed to Step 3.

   **[F4]** (PITCH: 435Hz – 445Hz)

   Specify the standard pitch.
   - With the factory settings, this is set to “440 Hz.”
   - Effects controlled with the KEY parameter make reference to this standard pitch.

   **[F6]** (MUTE OFF, MUTE ON)

   Select whether or not sound will be output to the connected device (e.g., amp) as you tune.
   - MUTE OFF: Sound will be output.
   - MUTE ON: Sound will not be output.
   - With the factory settings, this is set to “MUTE OFF.”

*What is Standard pitch?*

“Standard pitch” refers to the frequency of the A4 note — middle A on a piano — of the instrument serving as the reference pitch for tuning.
Chapter 1. Preparations for playing

3. Play a single unfretted note on the string you wish to tune.
   The note name closest to the string you played will appear in the LED display.
   * Cleanly play a single note only on the string that you wish to tune.

4. Adjust the tuning until the note name of the string you played appears in the display.

5. While watching the display, adjust the tuning until only the middle indicator (tuned) is lit.

6. Repeat steps 3 – 5 to tune all the strings.
   * When tuning a guitar that has a tremolo arm, tuning one string may cause the other strings to go out of tune. In such cases, first tune the strings to the approximate pitch (so that the note name is displayed), and then keep tuning each string until they are all in tune.

7. When you have finished tuning, press [TUNER] or [EXIT].

Specify the driver settings

The sound quality of the VG-88 is dramatically affected by how the divided pickup is installed. To ensure that the VG-88 always plays with the best possible sound quality, you must adjust the pickup driver settings. These settings provide the VG-88 with information that allows it to compensate for, and minimize, any unevenness in sound due to the nature of the divided pickup’s installation.

If you have two or more guitars that you wish to use with the VG-88, you must enter driver settings for the divided pickup of each guitar. For each guitar, use the following procedure. Settings for up to five guitars can be made and stored.

When playing the VG-88, driver settings are extremely important to the final sound quality. You must be sure to set these parameters correctly.


3. Specify the driver settings.
   Move the cursor to “SETTING.” Use [VALUE] to select the driver settings for your guitar. There are five setting memories (A–E), allowing you to save five setups comprised of the values you select in the following Steps 4–7.

When playing the VG-88, driver settings are extremely important to the final sound quality. You must be sure to set these parameters correctly.

4. Select the driver type.
   Move the cursor to “TYPE.” Use [VALUE] to select the type of divided pickup that is installed on your guitar.
Chapter 1. Preparations for playing

GK-2A:
Make this setting if you are using a GK-2A/GK-3 divided pickup.

GK-2:
Make this setting if you are using a GK-2 divided pickup.

PIEZO:
Make this setting if you are using a piezo divided pickup.

* Select the Piezo setting if you are using a piezo-type pickup. A piezo-type pickup uses a piezo-electric sensor attached to the bridge of the guitar to detect the vibrations of the strings.

5. Specify the direction in which the pickup is attached.
Move the cursor to “DIRECTION.” Use [VALUE] to specify the direction in which the pickup is attached on your guitar.

NORMAL:
In this direction, the cable exits on the side of string 6.

REVERSE:
In this direction, the cable exits on the side of string 1.

6. Specify the scale length.
Move the cursor to “SCALE.” Use [VALUE] to specify the scale length of your guitar (the length from the bridge to the nut). Select the closest value in the range of 620–660 mm (ST=648mm, LP=628mm).

7. Specify whether or not the functions of the GK-2A/GK-3 switches S1 and S2 will be exchanged.
Move the cursor to “S1/S2 POSITION,” and use [VALUE] to select the setting.

NORMAL: The switch functions will be left as they are.
REVERSE: The S1 switch and S2 switch will be exchanged.

8. Specify the distance from the pickup to the bridge.
Press [PAGE ▶] to move to Page 2.
Move the cursor to “PU<->BRIDGE <1>–<6>.” Use a ruler or tape measure to actually measure along each string from the center of the divided pickup to the bridge. Specify the result as the length in millimeters for each string.

* When TYPE is set to PIEZO, this setting is ignored.
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9. If you will be using two or more guitars to play the VG-88, repeat Steps 4–7 to enter the driver settings for each guitar.

10. When you have finished making all of your settings, press [EXIT]. You will return to Play page.

* These settings are required when you newly install a divided pickup on your guitar, or after you have adjusted the height of a divided pickup. Once you have made the correct settings, they will be saved even when the power is turned off. You do not need to redo these settings each time you play.

* If you are using the VG-88 with a guitar other than the one you used previously, go to Step 4 and select the appropriate driver setting A–E for the guitar you are currently using. Then press [EXIT] to return to Play page.

■ Adjusting the pickup sensitivity for each string

Adjust the pickup sensitivity for each string according to how the GK-2A/GK-3 divided pickup was installed.

If you will be using two or more guitars to play the VG-88, you must adjust the sensitivity for the divided pickup of each guitar. For each guitar, turn off the power of the VG-88, connect the guitar, and perform the following procedure. Settings for up to five guitars can be entered and stored.

1. Make sure that you are in Play page. If you are not in Play page, press [EXIT] several times.


4. Press [PAGE ] several times to access Page 3.


6. Play String 6 on your guitar. Level indicators will appear beginning from the left, corresponding to how strongly you play the string.

7. Turn [VALUE] to adjust the sensitivity. Set the sensitivity as high as possible without allowing the large level indicator at the far right to appear when you play the loudest/hardest note that you will play in actual performance.

* If the large level indicator at the far right appears, the maximum level has been exceeded and you must lower the sensitivity.

* Depending on the guitar that you use, the level indicator may reach the maximum even if you set sensitivity to the minimum setting. If this occurs, increase the distance between the GK-2A/GK-3 divided pickup and the string so that it is greater than specified.

8. In the same way, adjust the sensitivity of Strings 5–1.

9. Next, play Strings 6–1 as softly as possible. If any string produces a particularly loud sound, lower the sensitivity for that string in order to minimize volume differences between strings.

10. When you have finished setting the sensitivity of all of the strings, press [EXIT]. You will return to Play page.

* These settings are required when you newly install a divided pickup on your guitar, or after you have adjusted the height of a divided pickup. Once you have made the correct settings,
they will be saved even when the power is turned off. You do not need to redo these settings each time you play.

* If you are using the VG-88 with a guitar other than the one you used previously, go to Step 3 and select the appropriate driver setting A–E for the guitar you are currently using. Then press [PLAY] to return to Play page.

**Chapter 1. Preparations for playing**

### Matching the phase of the GK pickup and the guitar pickup

Unless the phase of the GK pickup and the pickup of the guitar are matched, they will partially cancel each other out when they are mixed, adversely affecting the tone or volume.

1. Make sure you’re in Play page.
   - If you’re not in Play page, press [EXIT] several times.


5. While playing String 6, turn [VALUE] and select the position that does not cause the volume of the low-frequency range to diminish significantly.
   - NORMAL: The phase will remain unchanged.
   - INVERSE: The phase will be inverted.

### Name the GK pickup settings

1. Make sure you’re in Play page.
   - If you’re not in Play page, press [EXIT] several times.


4. Press [F1] (SETTING). Select the SETTING item that you wish to set.

5. Use [CURSOR ▶] to move the cursor to the name of the settings.

   ![System Driver Setting](image)

   - [F1] ( ◄ ): Return the cursor to the left.
   - [F2] ( ► ): Advance the cursor to the right.
   - [F3] ( ◄ ): Advance the cursor to the end.
   - [F4] (SPACE): A space will be inserted at the cursor location, and the cursor will move one space to the right.
   - [F5] (DELETE): Delete a character and move the subsequent text forward.

* Press [CURSOR ◄ ] several times to return to the previous page.

### Playing the VG-88 (adjusting the output level)

#### Selecting the connected equipment

Select the type of equipment that is connected to the VG-88.

* If you have connected a guitar amp, refer to “About the OUTPUT jack” (p. 15).

1. Press [OUTPUT SELECT] to select the output device.

   * While the OUTPUT SELECT screen is displayed, you can also rotate [VALUE] to select this.

   ![Output Select](image)

   - **GUITAR AMP:**
     - If you have connected the VG-88 to the guitar input jack (INPUT) of a guitar amp
   - **COMBO:**
     - Combo type (single unit containing amp and speaker)
   - **STACK:**
     - Stack type (amp and speaker are separate)
   - **POWER AMP+SP/RETURN:**
     - If you have connected the VG-88 to the RETURN jack or MAIN IN jack of a guitar amp
   - **COMBO:**
     - Combo type (single unit containing amp and speaker)
   - **STACK:**
     - Stack type (amp and speaker are separate)
   - **LINE/PHONES:**
     - If you have connected the VG-88 to a mixer or MTR (multitrack recorder), or are using headphones
Chapter 1. Preparations for playing

Playing the VG-88

Now let’s actually play the VG-88.

1. Make sure that you are in Play page.
   If you are not in Play page, press [EXIT] several times.

2. Set the select switch of the GK-2A/GK-3 to “MIX.”

3. Turn the VG-88’s [OUTPUT LEVEL].

* The VG-88’s EXP pedal, or the GK-2A’s SYNTH VOL knob are set to “MASTER LEVEL,” operate the EXP pedal or SYNTH VOL knob.

4. Play your guitar.
The VG-88 will sound using the currently selected patch.

Changing sounds (patches)

What is Patches?
The VG-88 contains 260 different sounds. Each of these is called a patch.

How patch numbers are organized

In Play page, patch numbers (bank, number) and patch names are displayed as follows.

User patches
When the VG-88 is shipped from the factory, it contains 100 user patches. You are free to modify, delete, or create these anew:

1-1  2-1  ...  25-1
1-2  2-2  ...  25-2
1-3  2-3  ...  25-3
1-4  2-4  ...  25-4

Preset patches
The VG-88 contains 160 preset patches.

26-1  27-1  ...  65-1
26-2  27-2  ...  65-2
26-3  27-3  ...  65-3
26-4  27-4  ...  65-4

Preset patches can be edited — i.e., you can modify their settings — but cannot be saved again as presets. If you wish to save a modified preset patch, you must store it as a new user patch.
Using the VALUE dial to change patches

Here's how you can change from one patch to the next one.

**NOTE**

If the System parameter “DIAL” is set to “VALUE ONLY,” [VALUE] cannot be used to select patches.

1. Make sure that you are in Play page.
   If you are not in Play page, press [EXIT] several times.

2. Turn [VALUE] to change patches.
   Turning [VALUE] toward the right will select the next-numbered patch; turning it toward the left will select the previous-numbered patch.

Using pedals to change patches

This method is convenient during a live performance or in the studio. You can press pedals to specify the bank and number.

**NOTE**

If you set the System parameter “BANK AREA,” patches will change within the specified bank area.

1. Make sure that you are in Play page.
   If you are not in Play page, press [EXIT] several times.

2. Select the patch bank.
   Use [BANK ▼] [BANK ▲] to select the desired bank.
   * If you do not need to leave the currently selected bank, this step is not necessary. Proceed to Step 3.

3. Select the patch number.
   Use number pedals [1]–[4] to select the desired patch.
How the VG-88 produces sound

The most basic setup for playing sounds on the VG-88 consists of the VG-88 itself and a guitar on which the GK-2A/GK-3 has been installed. Here we will provide a simple explanation of how the VG-88 produces sound.

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**COSM GUITAR**

This analyzes the principal components of an electric guitar, and precisely simulates the function of each of the components. The number and type of pickups, the number of strings, the tuning, and each element that plays a part in creating the tone of a guitar is digitally added to the vibration produced by the strings of your guitar.

In addition, the VG-88 detects each string’s pitch and enveloping — the “shape” of the sound. These characteristics are then digitally applied to the current patch’s waveform, causing it to sound with all of the nuances of your guitar performance.

---

**COSM AMP**

This allows the conditions surrounding the guitar to be simulated as well, including the type of amp head, and the positioning of the speakers and mic.

As a result, you can select from a wide variety of combinations of pickups, guitars, amps, and speakers.

Using just your own guitar, you can produce the sounds of dozens of other very different guitars.

You can also closely imitate the guitar sounds used on famous hit songs played by famous musicians. And you can take advantage of expressive possibilities that go far beyond the limits of conventional guitars.

The sounds produced by the COSM guitar and COSM amp can be mixed with the original guitar sound, and then processed using the VG-88’s multi-effect unit to put the finishing touches on your sound.
Chapter 3. Creating sounds — basic section

Saving a sound (patch) you created (the Write operation)

The sound settings you modify are initially only temporary. When you select another patch, the modified settings will return to their original, unmodified values.

If you wish to preserve your new settings, you must perform a Write operation to save the newly created patch.


2. Turn [VALUE] to select the desired number location for the new patch.

MEMO

By pressing [F6] (EXCHANGE) you can move to the Exchange screen (p. 25).

3. If you wish to proceed with the saving of the new patch, press [WRITE].

   * If you prefer not to save the patch, press [EXIT]. You will return to Play page.

4. After you press [WRITE], the display will indicate “NOW WRITING,” the patch will be saved, and you will return to Play page.

Rearranging the order of patches (the Exchange function)

Use this when you wish to swap, or “exchange,” the memory location of two user patches.

NOTE

It is not possible to change the order of preset patches.

1. Make sure that you are in Play page.

   If you are not in Play page, press [EXIT] several times.


5. Turn [VALUE] to select one of the patches that you wish to exchange.
Chapter 3. Creating sounds — basic section


7. Turn [VALUE] to select the other patch that you wish to exchange.

8. Press [F6] (EXCHANGE) to exchange the patches. The display will indicate “NOW EXCHANGING.”

9. When you have finished exchange, press [EXIT] two times. You will return to Play page.

Very simple sound editing (EZ Edit function)

This method lets you create a sound by selecting one of the preset sounds and adjusting only four parameters (DRIVE, TONE, MOD, DELAY). Since you can also start with a patch and modify it, it’s easy to create the desired sound even if you are not sure of the effect or settings of each effect unit. The preset sounds are classified into several Types, and each type has several Colors.

1. Press [EZ EDIT]. The EZ Edit screen will appear.

2. Press [F1] (TYPE), and turn [VALUE] to select the desired TYPE.
   * If you set type to “PATCH DATA,” you can create a sound using the sound obtained by changing to the EZ Edit function.

3. Press [F4] (COLOR), and turn [VALUE] to select a sound.
   * If you have set TYPE to “PATCH DATA,” it will not be possible to change the COLOR.

4. Press [F2] (DRIVE), and turn [VALUE] to adjust the amount of distortion or sustain.
   * If you have TYPE set to “PATCH DATA,” then when DRIVE is set to “PATCH DATA,” distortion and sustain are set to the same amount set in the original Patch data.

5. Press [F3] (TONE), and turn [VALUE] to adjust the tone.
   * If you have TYPE set to “PATCH DATA,” then when TONE is set to “PATCH DATA,” distortion and sustain are set to the same amount set in the original Patch data.

6. Press [F5] (MOD), and turn [VALUE] to adjust the depth or modulation of the sound.
   * If you have TYPE set to “PATCH DATA,” then when MOD is set to “PATCH DATA,” distortion and sustain are set to the same amount set in the original Patch data.

7. Press [F6] (DELAY), and turn [VALUE] to adjust the reverberation of the sound.
   * If you have TYPE set to “PATCH DATA,” then when DELAY is set to “PATCH DATA,” distortion and sustain are set to the same amount set in the original Patch data.

8. When you are finished creating the sound, perform the Write operation (p. 25) if you wish to save your newly created sound.
   * If you do not want to save the sound, press [EXIT] to return to Play page.
Chapter 4. Creating sounds — advanced section

COSM GUITAR settings

Here’s how to make COSM Guitar settings. You can adjust any of these settings to achieve the desired sound.

1. Press [COSM GUITAR].

2. Press [F1] (ON/OFF) to switch COSM GUITAR on or off.
   * You can also turn [VALUE] to switch this on or off.

3. Press [F4] (TYPE), and use [VALUE] to select the COSM GUITAR type.

   "COSM GUITAR — TYPE" (p. 36)
   • VARI GT
   • OPEN TUNE
   • POLY DIST
   • POLY SG
   • FILTER-BASS
   • PWM
   • BRASS
   • ACOUSTIC
   • 12STRINGS
   • POLY COMP
   • BOWED
   • PIPE
   • CRystal
   • NYLON STRINGS
   • PD SHIFT
   • POLY OCT
   • DUAL
   • SOLO
   • ORGAN

4. Press [PAGE ►].
   * Pages 2 and following are the sections that determine the tone of the [COSM GUITAR]. Each time you press [PAGE ►], you will move to the screen containing the next group of parameters. You can also move to the next group of parameters by pressing [COSM GUITAR].

5. Turn [VALUE] to select either “ON/OFF” or “PRESET” in each group.

6. If you wish to edit the parameters within a group in further detail, press “EDIT” to move to their edit screen.

7. Press [F1]–[F6] for the parameter that you wish to adjust, and use [VALUE] to select the desired value for the parameter.

8. Adjust parameters until you achieve the sound you want.

9. When you have finished making settings, perform the Write operation (p. 25) if you wish to save the newly created sound.
   * If you do not wish to save the sound, press [EXIT] to return to Play page.
Chapter 4. Creating sounds — advanced section

COSM AMP settings

Here’s how to make COSM Amp settings. Adjust these settings until you get the sound you want.

1. Press [COSM AMP].

2. Press [F1] (ON/OFF) to switch COSM AMP on or off.
   * You can also switch this on or off by turning [VALUE].

3. Press [F4] (TYPE), and use [VALUE] to select the COSM AMP type.
   “COSM AMP — TYPE” (p. 46)
   • JC-120 • CLEAN TWIN • CRUNCH
   • MATCH DRIVE • VO DRIVE • BLUES
   • BG LEAD • MS1959(I) • MS1959(II)
   • MS1959(I+II) • SLDN LEAD • METAL 5150
   • METAL DRIVE • ACOUSTIC

4. Press [PAGE ▶].
   * Each time you press [PAGE ▶], you will proceed to the screen containing the next group of parameters. You can also move to the next group of parameters by pressing [COSM AMP].

5. Press [F1]–[F6] for the parameter that you wish to adjust, and use [VALUE] to select the desired value for the parameter.

6. Adjust the parameter settings until you achieve the sound you desire.

7. When you are finished making settings, perform the Write operation (p. 25) if you wish to save your newly created sound.
   * If you do not wish to save your sound, press [EXIT] to return to Play page.

EFFECTS settings

Here’s how to make effect settings. You can adjust these settings as necessary to get the sound you want.

1. Press [EFFECTS].

2. Use [F1]–[F3] to turn each effect on or off.
   * Each time you press [PAGE ▶], you will proceed to the screen containing the next group of parameters. You can also press [EFFECT] to proceed to the next group of parameters.

3. Turn [VALUE] to select either “ON/OFF” or “PRESET.”

4. Use [F4]–[F6] to select the effect that you wish to adjust.

5. Press [F1]–[F6] for the parameter that you wish to adjust, and turn [VALUE] to select the desired value for the parameter.

6. Adjust the parameter settings until you achieve the sound you want.

7. When you are finished making settings, perform the Write operation (p. 25) if you wish to save your newly created sound.
   * If you do not wish to save your sound, press [EXIT] to return to Play page.
Setting the tempo and key of the song you will perform

You can specify the tempo and key of the song that you will be performing.

1. Press [LEVEL/BPM/KEY].

2. Press [F2] (BPM), and turn [VALUE] to set the tempo.
   * If you wish to use BPM to control a patch parameter, set the effect parameter to “BPM /sxnoteup –/wholenote.”
   * If you are using MIDI SYNC, increase the BPM value until “MIDI” appears in the display.

3. At quarter-note beats, press [F5] (BPM TAP) three or more times at the desired tempo.
   The tempo will be calculated automatically, and set to the interval at which you pressed the button.

4. Press [F3] (KEY), and use [VALUE] to specify the KEY of the COSM guitar and the Harmonist effect.

5. When you have finished making settings, perform the Write operation (p. 25) if you wish to save them.
   * If you do not wish to save the settings, press [EXIT] to return to Play page.

Setting the pedal functions (EXP/CTL/GK VOL/GK SW)

Adjust these settings if you would like to use the VG-88’s EXP pedal or CTL pedal, a pedal connected to the VG-88, or an external MIDI device to control parameters as you play.

**Setting the function of the VG-88’s built-in EXP pedal**

1. Press [PEDAL/ASSIGN].

2. Press [F1] (ON/OFF) to turn the EXP pedal function on or off.
   * You can also switch this by turning [VALUE].


4. Press [F1] (TARGET), and turn [VALUE] to select the target.

5. Press [F4] (MIN), and turn [VALUE] to specify the minimum value.

6. Press [F5] (MAX), and turn [VALUE] to specify the maximum value.

7. When you have finished making settings, perform the Write operation (p. 25) if you wish to save them.
   * If you do not wish to save the settings, press [EXIT] to return to Play page.
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■ Setting the function of the VG-88’s built-in CTL pedal

1. Press [PEDAL/ASSIGN].

2. Press [F1] (ON/OFF) to switch the CTL pedal function on or off.
   * You can also switch this by turning [VALUE].


4. Press [F1] (TARGET), and turn [VALUE] to select the target.
5. Press [F4] (MIN), and turn [VALUE] to specify the minimum value.
6. Press [F5] (MAX), and turn [VALUE] to specify the maximum value.
7. Press [F6] (MODE), and turn [VALUE] to select the desired mode.
8. When you have finished making settings, perform the Write operation (p. 25) if you wish to save them.
   * If you do not wish to save the settings, press [EXIT] to return to Play page.

■ Setting the GK VOL function

* Set SYNTH VOL in GK FUNK to “ASSIGNABLE.”

1. Press [PEDAL/ASSIGN].

2. Press [F3] (ON/OFF) to switch the GK VOL function on or off.
   * You can also switch this on or off by turning [VALUE].


4. Press [F1] (TARGET), and turn [VALUE] to select the target.
5. Press [F4] (MIN), and turn [VALUE] to specify the minimum value.
6. Press [F5] (MAX), and turn [VALUE] to specify the maximum value.
7. When you have finished making settings, perform the Write operation (p. 25) if you wish to save them.
   * If you do not wish to save the settings, press [EXIT] to return to Play page.
### Setting the GK SW function

1. Press [PEDAL/ASSIGN].

![GK SW function illustration](image1.png)

2. Press [PAGE ➡] to move to Page 2.

![Page 2 illustration](image2.png)

3. Press [F1] (ON/OFF) to switch the GK SW function on or off.
   * You can also switch this by turning [VALUE].


5. Press [F1] (TARGET), and turn [VALUE] to select the target.

6. Press [F4] (MIN), and turn [VALUE] to specify the minimum value.

7. Press [F5] (MAX), and turn [VALUE] to specify the maximum value.

8. Press [F6] (MODE), and turn [VALUE] to select the desired mode.
   * If MODE is set to “TOGGLE,” the S1 switch and S2 switch will have the same function.

9. When you have finished making settings, perform the Write operation (p. 25) if you wish to save them.
   * If you do not wish to save the settings, press [EXIT] to return to Play page.

### Setting the Assign functions

Control assign settings are needed for controlling the parameters by using the EXP pedal or CTL pedal on the VG-88 or an external pedal or MIDI device. You can set up to 8 different functions (assign numbers 1 – 8) to each patch number to determine which controller should control which parameter.

Here’s how to make Assign 1 settings. Adjust these settings as needed for your application.

1. Press [PEDAL/ASSIGN].

![Assign function illustration](image3.png)

2. Press [PAGE ➡] to move to Page 2.

![Page 2 illustration](image4.png)

3. Press [F2] (ON/OFF) to switch the Assign function on or off.
   * You can also switch this by turning [VALUE].

4. Press [F5].

![Assign setup illustration](image5.png)

5. Press [F1] (TARGET), and turn [VALUE] to select the target.

6. Press [F4] (MIN), and turn [VALUE] to specify the minimum value.

7. Press [F5] (MAX), and turn [VALUE] to specify the maximum value.

8. Press [F6] (MODE), and turn [VALUE] to select the desired mode.
   * If MODE is set to “TOGGLE,” the S1 switch and S2 switch will have the same function.

9. When you have finished making settings, perform the Write operation (p. 25) if you wish to save them.
   * If you do not wish to save the settings, press [EXIT] to return to Play page.
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7. Press [F5] (MAX), and turn [VALUE] to specify the maximum value.

8. Press [F3] (SOURCE), and turn [VALUE] to select the desired source.

9. Press [F6] (MODE), and turn [VALUE] to select the mode.


11. Press [F1], and turn [VALUE] to specify the ACTIVE RANGE LO value.
   * If you press [F4] (LO SET), the source current value will be set.

12. Press [F2], and turn [VALUE] to specify the ACTIVE RANGE HI value.
    * If you press [F5] (HI SET), the source current value will be set.

13. When you have finished making settings, perform the Write operation (p. 25) if you wish to save them.
    * If you do not wish to save the settings, press [EXIT] to return to Play page.
    * Perform the same procedure to make settings for Assign 2–8.

Active Range: Control value range
If a continuously variable controller such as an Expression pedal has been selected as the control source, you can specify the range of values which will affect the target parameter. The value of the target parameter will not be affected by controller movements outside this specified range, but will remain at the “Maximum” or “Minimum” value.

Example:  
ACTIVE RANGE LO: 100
ACTIVE RANGE HI: 127

Exchanging the connection order of the internal multi-effect and the COSM GUITAR/COSM AMP

1. Press [NAME/CHAIN].


3. Use [CURSOR] to select the effect that you wish to move.

4. Turn [VALUE] to move the effect.

5. When you are finished making settings, perform the Write operation (p. 25) if you wish to save them.
    * If you do not wish to save the settings, press [EXIT] to return to Play page.
Combining the normal input and GK input to create a sound

The COSM GUITAR lets you create sounds by combining the GK pickup with the normal pickup.

### Setting the balance between the GK pickup and the normal pickup

1. Press [COSM GUITAR].

   ![COSM GUITAR screen]

2. Press [PAGE ▶] twice to move to Page 3.


5. Turn [VALUE] to set the balance between the sounds of the normal pickup and the cosm guitar.

   | CG:  | Cosm guitar |
   | NP:  | Normal pickup |

6. When you are finished making settings, perform the Write operation (p. 25) if you wish to save them.

   * If you do not wish to save the settings, press [EXIT] to return to Play page.

### Connecting the sound of the GK pickup at the desired location in the effects

1. Press [NAME/CHAIN].

   ![NAME/CHAIN screen]


3. Use [CURSOR] to move to the mixer point.

4. Turn [VALUE] to move the mixer point.

5. When you are finished making settings, perform the Write operation (p. 25) if you wish to save them.

   * If you do not wish to save the settings, press [EXIT] to return to Play page.
### Normal pickup sound

If you use the CHAIN function to place the COSM guitar at a location other than the beginning, the normal pickup sound that is processed from the beginning of the effect chain is made available for output along with the normal pickup sound that is added by the mixer of the COSM guitar.

By using this function, you can:

1. Route only the normal pickup sound through the amp simulator to create sounds with a greater sense of “drive.”
2. Use the COSM guitar section to create sounds that combine the divided pickup with the normal pickup (for example, 12-string guitar sounds).

* If you wish have independent control of the volume with “1” in the examples above, assign the SYNTH VOL knob of the GK-2A to the effect level ahead of the COSM guitar. (p. 67)

### Assigning a name to the patch

You can assign a name to a patch you create.

1. Press [NAME/CHAIN].
3. Use [CURSOR] to move the cursor to the location at which you want to select a character.
4. Turn [VALUE] to select the desired character. As you continue turning [VALUE], the character guide will automatically change between uppercase letters, lowercase letters, numerals, and symbols.

   - [F1]–[F6] have the following convenient functions.
     - [F1] ( ◄ ) : Return the cursor to the left.
     - [F2] ( ► ) : Advance the cursor to the right.
     - [F3] ( ■ ) : Advance the cursor to the end.
     - [F4] (SPACE) : A space will be inserted at the cursor location, and the cursor will move one space to the right.
     - [F5] (DELETE) : Delete a character and move the subsequent text forward.
     - [F6] (A, a, 1, ■) : Switch between inputting “uppercase characters,” “lowercase characters,” “numerals,” and “symbols.”
5. Repeat Steps 3–4 to create the patch name.
6. When you have finished entering the patch name, perform the Write operation (p. 25) if you wish to save them.

* If you do not wish to save the settings, press [EXIT] to return to Play page.
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Adjust the volume level of the patch

If the currently selected patch is louder or softer than other patches, you can adjust its level.

1. Press [LEVEL/BPM/KEY].

2. Press [F1] (LEVEL), and turn [VALUE] to select the desired value.

3. When you are finished making settings, perform the Write operation (p. 25) if you wish to save them.
   * If you do not wish to save the settings, press [EXIT] to return to Play page.

As an alternative to the above method, you can also use a function button in the Play page to adjust the volume level.

1. Make sure that you are in Play page.
   If you are not in Play page, press [EXIT] several times.

2. Press [F1] (MST LEV) and adjust the value.

3. When you are finished making settings, perform the Write operation (p. 25) if you wish to save them.
   * If you do not wish to save the settings, press [EXIT] to return to Play page.

Adjusting the sound of all patches collectively

You can make adjustments to the sound of all patches at the same time.

**MEMO**

If, for example, the venue at which you are playing — e.g. a live concert — is more reverberant than the location in which you created the patches, you can use this function to globally lower the VG-88’s reverb levels instead of individually editing the reverb levels for each patch.

1. Make sure that you are in Play page.
   If you are not in Play page, press [EXIT] several times.


3. Press the parameter [F1]–[F5] that you wish to adjust, and turn [VALUE] to select the desired value for the parameter.

4. Adjust the parameters until you get the sound you want.
By making settings for the various elements that make up the tone of a guitar, you can create a wide variety of sounds. In addition to setting actual guitar parameters, such as pickup, body, and the pitch of each string, you can also emphasize the overtone structure, or create sounds using polyphonic effects that process each string individually.

ON/OFF
Switches the COSM guitar on/off.

**TYPE**

Selects the COSM guitar type.

**VARI GT (variable guitar)**
This algorithm lets you make settings for the pickup, body, and the pitch of each string to specify the sound of the guitar.

(PAGE2)
- PICK UP (p. 37)
- PITCH SHIFT (p. 39)
- BODY (p. 39)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**ACOUSTIC (acoustic guitar)**
This simulates the sound of an acoustic guitar.

(PAGE2)
- PICK UP (p. 37)
- BODY (p. 39)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**NYLON STRINGS (nylon string guitar)**
This is the sound of nylon strings.

(PAGE2)
- BODY (p. 39)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**OPEN TUNE (open tune guitar)**
This allows you to create open tunings by modifying the pitch of each string.

(PAGE2)
- PICK UP (p. 37)
- TUNE (p. 40)
- BODY (p. 39)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**12STRINGS (12-string guitar)**
This shifts the pitch of each string and adds it to the original sound to simulate a 12-string guitar.

(PAGE2)
- PICK UP (p. 37)
- DETUNE (p. 41)
- BODY (p. 39)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**PD SHIFT (pedal pitch shift guitar)**
This lets you use a pedal to change the pitch.

(PAGE2)
- PICK UP (p. 37)
- PD SHIFT (p. 41)
- BODY (p. 39)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**POLY DIST (polyphonic distortion guitar)**
This independently distorts the sound of each string to create a sound that can be used for chordal playing.

(PAGE2)
- PICK UP (p. 37)
- POLY DISTORTION (p. 41)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**POLY COMP (polyphonic compressor guitar)**
This applies a compressor to each string, providing sustain for single-note playing and preventing the volume from diminishing when chords are played.

(PAGE2)
- PICK UP (p. 37)
- POLY COMPRESSOR (p. 42)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**POLY OCT (polyphonic octaver guitar)**
This instrument simulates an octave playing technique.

(PAGE2)
- PICK UP (p. 37)
- POLY OCTAVE (p. 42)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**POLY SG (polyphonic slow gear guitar)**
This simulates a “violin-style” playing technique by fading-in the volume.

(PAGE2)
- PICK UP (p. 37)
- POLY SLOW GEAR (p. 42)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**BOWED**
This Instrument represents stringed musical instruments played with a bow.

(PAGE2)
- FILTER (p. 43)
- P-BEND (p. 43)
- SUSTAIN (p. 43)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)

**DUAL**
This Instrument takes the string vibration that is input and adds both distortion and portions which have the pitch glided.

(PAGE2)
- FILTER (p. 43)
- GLIDE (p. 43)
- SUSTAIN (p. 43)
(PAGE3)
- EQ (p. 45)
- PAN (p. 45)
- MIXER (p. 45)
COSM GUITAR

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FILTER-BASS
This Instrument is like a bass whose sound is passed through a filter.
(PAGE2)
FILTER (p. 43) COLOR (p. 43)
(PAGE3)
EQ (p. 45) PAN (p. 45) MIXER (p. 45)

PIPE
This Instrument produces sounds like a soft woodwind lead instrument.
(PAGE2)
FILTER (p. 43) P-BEND (p. 43) SUSTAIN (p. 43)
(PAGE3)
EQ (p. 45) PAN (p. 45) MIXER (p. 45)

SOLO
This is a soft lead Instrument.
(PAGE2)
FILTER (p. 43) COLOR (p. 43) SUSTAIN (p. 43)
(PAGE3)
EQ (p. 45) PAN (p. 45) MIXER (p. 45)

PWM (pulse-width modulation)
This Instrument represents the pulse-width modulation (PWM) of an analog synthesizer. The pulse width of the waveform produced by the vibrating string is varied cyclically to create a characteristic sound.
(PAGE2)
FILTER (p. 43) MOD (p. 44) SUSTAIN (p. 43)
(PAGE3)
EQ (p. 45) PAN (p. 45) MIXER (p. 45)

CRYSTAL
This is an Instrument providing a metallic luster.
(PAGE2)
ATTACK (p. 44) BODY LEV (p. 44) SUSTAIN (p. 43)
(PAGE3)
EQ (p. 45) PAN (p. 45) MIXER (p. 45)

ORGAN
This is a Long Tone Instrument suitable for playing solo parts or slow songs. Like an organ, you should balance out the volume levels for the three parameters to create just the sound you’re after.
(PAGE2)
ORGAN (p. 44) SUSTAIN (p. 43)
(PAGE3)
EQ (p. 45) PAN (p. 45) MIXER (p. 45)

BRASS
This instrument detects the pitch of the electric guitar and creates a synthesizer sound.
(PAGE2)
FILTER (p. 43) SUSTAIN (p. 43)
(PAGE3)
EQ (p. 45) PAN (p. 45) MIXER (p. 45)

PICKUP
Simulates the characteristics of an electric guitar pickup.
* Cannot be turned on/off.

PRESET
Select one of the pre-programmed types of pickup.

MODEL
This selects the pickup arrangement to be simulated. The parameters that can be set vary according to the pickup type.

LP:
Simulates the installation of two humbucking pickups (passive type).

CLA-ST (Classic ST):
Simulates the installation of three single-coil pickups (passive type).

MOD-ST (Modern ST):
Simulates the installation of three single-coil pickups (active type).

TEL:
This provides two typical single-coil pickups, producing a contemporary solid-body sound suitable for country and rock’n’roll.

P-90:
This provides two single-coil pickups of the type used on fixed-neck guitars and affectionately known as “soap-bar” or “dog-ear” pickups.

LIPS (lipstick):
This provides two single-coil pickups of the type used on guitars played in hard rock bands of the 70’s, and characterized by an external case reminiscent of a tube of lipstick.

P.A.F.:
This provides two vintage humbucking pickups which are older than their type applied for a patent in U.S.A.

RICK:
This provides two unique single-coil pickups, producing the inimitable guitar sound used regularly by vocal groups of the 60’s.

CHET:
This provides two humbucking pickups, producing the sound of the hollow-bodied guitar used in rockabilly or jazz.

S-S-H:
This provides three pickups; in order from the front they are single, single, and humbucking. This produces a contemporary active-pickup sound.
Chapter 5. Parameter Guide

VARI (variable):
This allows you to use up to two pickups of your choice, selecting from double-coil, single-coil, piezo, and acoustic. If you use double-coil or single-coil type pickups, you may freely adjust the location of the pickups.

PICKUP
This is the switch that selects between the two pickups.
- REAR: Use the rear pickup.
- C+R: Use both center and rear pickups.
- CENTER: Use the center pickup.
- F+C: Use both front and center pickups.
- FRONT: Use the front pickup.
- F+R: Use both front and rear pickups.

TONE [-50–+50]
Adjusts the tone of the pickup. Positive (+) values will boost the high range, and negative (-) values will attenuate it.

LEVEL [0–100]
Sets the volume of the pickup. With a setting of 0, there will be no sound.

TYPE
Selects the type of pickup.
- SINGLE: Single-coil pickup.
- DOUBLE: Double-coil pickup.
- ACOUSTIC: A hypothetical pickup ideal for picking up the sound of an acoustic guitar.
- PIEZO: Piezo pickup.
- MIC: A hypothetical mic ideal for picking up the sound of an acoustic guitar.

* If you have COSM GUITAR TYPE set to “ACOUSTIC,” the “SINGLE,” “DOUBLE,” and “ACOUSTIC” settings then become unavailable.
* This cannot be set to “MIC” if anything other than “ACOUSTIC” is selected for the COSM GUITAR TYPE setting.

PHASE
When pickups FRONT and REAR are mixed, this setting determines the phase of pickup REAR relative to pickup FRONT.
- IN: It will have the same phase as pickup FRONT.
- OUT: It will be mixed in opposite phase. This is valid only when two pickups are being used.
  * The phase setting that is part of the pickup FRONT parameters is the same as the corresponding parameter for pickup REAR. Modifying one of them will cause the other parameter to change correspondingly.

POSITION [5–320 mm]
Specifies the distance from the bridge at which the pickup is placed. Larger values will produce the effect of the pickup being further from the bridge.
* If the Pickup Type has been set to “PIEZO” or “ACOUSTIC” the POSITION setting will not be available.

ANGLE [-315–+315 mm]
This simulates the angle of the pickup relative to the strings. The setting indicates the distance from the POSITION setting that the sixth string will be located. With positive (+) settings, the sixth string will be further from the bridge. With negative (-) values, the sixth string will be closer to the bridge. With a setting of 0, the pickup will be perpendicular with the strings.

* If “PIEZO” or “ACOUSTIC” is selected as the pickup type, the Angle setting will not be available.
* Angle settings which would exceed the range of the Position setting (5–320 mm) will have no effect. For example, if the Position is set to 100 mm, and valid range of the Angle setting will be -95–+220 mm.
**PT SHIFT (pitch shift)**

Specifies the pitch shifted sound.

**ON/OFF**

Switches the pitch shift on/off.

* Turning [VALUE] will select PRESET.

**MODE**

Selection for the pitch shift mode.

**SHIFT (pitch shift):**

The pitch shift amount can be set independently for each string.

**HARMO (harmony):**

This creates harmony that matches the key of the song being played.

● When “SHIFT” is selected as the mode

**SHIFT 1–6 (pitch shift) [-24–+24]**

Adjusts the amount of pitch shift (the amount of pitch change) in semitone steps.

**FINE 1–6 [-50–+50]**

Make fine adjustments to the pitch shift.

* The amount of the change in the Fine “100” is equivalent to that of the Pitch “1.”

**E.LEVEL 1–6 (effect level) [0–100]**

Adjusts the volume of the effect sound.

**D.LEVEL 1–6 (direct level) [0–100]**

Adjusts the volume of the direct sound.

● When “HARMO” is selected as the mode

**HARMO 1–6 (harmony) [-2– +2 OCT]**

This determines the pitch of the sound added to the input sound, when you are making a harmony. It allows you to set it by up to 2 octaves higher or lower than the input sound.

**KEY [C–B]**

On the VG-88, you can specify the key for each patch. The COSM GUITAR “HARMO” and the EFFECT “HARMONIST” refer to the same key setting. If you change one, the other will also be changed.

**E.LEVEL 1–6 (effect level) [0–100]**

Adjusts the volume of the effect sound.

**D.LEVEL 1–6 (direct level) [0–100]**

Adjusts the volume of the direct sound.

**BODY**

Specifies the resonances produced by the body of the instrument.

* Cannot be turned on/off.

**PRESET**

Select one of the pre-programmed types of body.

**ATTACK [0–100]**

Specifies the strength of the attack when you pluck the string strongly. As this setting is increased, the attack will be sharper, and the sound will be crisper.

**BODY [0–100]**

Adjusts the balance between the bypass sound and the resonant sound (body resonance) of the top plate and body. With lower settings of this value, only the bypass sound will be heard. With larger settings, only the body resonance will be heard.

* The body resonance is monophonic. This means that if this Body parameter is set to 100, the panning of each string will have less effect.

* To produce the sound of a solid body, set ATTACK and BODY to “0.”

* This parameter is not displayed if you have COSM GUITAR TYPE set to “NYLON STRINGS.”

**LOW CUT [THRU, 55.0–800 Hz]**

Specifies the cutoff frequency of the low-cut filter for the bypass sound.

* This parameter is not displayed if you have COSM GUITAR TYPE set to “NYLON STRINGS.”

**LEVEL [0–100]**

Adjusts the volume of the body. With a setting of 0, there will be no sound.

**BODY-TYPE**

Selects the type of resonating body.

* This parameter is not displayed if you have COSM GUITAR TYPE set to “NYLON STRINGS.”

**FLAT:**

The body of an acoustic guitar with a flat top and back.

**ROUND:**

The body of a flat top acoustic guitar with a round back made of resin.

**f HOLE:**

An f-hole body with an arched top and back. This is suitable for simulating semi-acoustic or full acoustic electric guitars.
Chapter 5. Parameter Guide

METAL:
A metal body with a single round cone resonator. This is suitable for bottle-neck (slide) playing, etc.

BANJO:
The sound of a body covered in stretched skin. Changing the size will produce an effect as if the tuning were changed.

SIZE [-50→+50]
Specifies the size of the body. This modifies the resonant frequency to simulate changes in body size. A setting of “0” will produce a “normal” resonance.

RESO (resonation) [0–100]
Adjusts the ease with which resonance will occur.
* If you have COSM GUITAR TYPE set to “NYLON STRINGS,” the range of settings values for the resonance switches to 0-10.
* This parameter is not displayed if you have COSM GUITAR TYPE set to “NYLON STRINGS.”

BOTTOM [0–10]
Adjusts the volume of the low frequency range.
* This parameter is displayed only if you have COSM GUITAR TYPE set to “NYLON STRINGS.”

TUNE
You can adjust the pitch of each string to create non-standard tunings. The direct sound will not be output.

ON/OFF
Switches the tune on/off.

TYPE
Sets the tuning of the strings.
If the shift type is “USER,” specify the pitch of each string.

OPEN-D:
This simulates an open-D tuning. Starting from the 6th string, the strings will be pitched D, A, D, F#, A, D. The original sound will not be heard.

OPEN-E:
This simulates an open-E tuning. Starting from the 6th string, the strings will be pitched E, B, E, G#, B, E. The original sound will not be heard.

OPEN-G:
This simulates an open-G tuning. Starting from the 6th string, the strings will be pitched D, G, D, G, B, D. The original sound will not be heard.

OPEN-A:
This simulates an open-A tuning. Starting from the 6th string, the strings will be pitched E, A, E, A, C#, E. The original sound will not be heard.

DROP-D:
This lowers only the 6th string one note. Starting from the 6th string, the strings will be pitched D, A, D, G, B, E. The original sound of the 6th string will not be heard.

NASH-VILLE:
Strings 1 and 2 will sound as they are. For strings 3 – 6 the original sound will not be heard, and they will sound an octave higher than the original.
* When you select a TYPE, the Pitch Shift, Fine Tune, Balance, and Level will be set automatically.

USER:
Pitch Shift, Fine Tune, Balance, and Level will be set automatically.

SHIFT 1–6 [-24–+24]
If you have HARMONY set to “USER,” the amount of pitch shift is then set relative to the notes as input with “C” selected for the KEY parameter.
A slightly pitch-shifted sound is added to the original sound of each string, producing a spacious feeling.

**ON/OFF**
Switches the detune on/off.

**DETUNE [0–100]**
A slightly pitch-shifted sound is added to the original sound of each string.

**PD SHIFT (pedal pitch shift)**
Specifies the shift amount of the pitch-shifted sound.

**ON/OFF**
Switches the pedal pitch shift on/off.

**PITCH [-24–24]**
Specifies the amount of pitch shift obtained when you operate the pedal.

**STRING 1–6 [ON/OFF]**
Turns pedal pitch shift on/off for each string. This allows you to shift only the pitch of specific strings.

**SET PDL (setting pedal)**
Assign the Pitch Shift function to the built-in EXP pedal.

You can individually distort the sound of each string to get a sound that can be played chordally without “breaking up.”

**ON/OFF**
Switches the distortion on/off.

* Turning [VALUE] will select PRESET.

**MODE**
Selects the type of distortion.

- **CLA OD (clear overdrive):**
  A clear overdrive sound is obtained.

- **TURBO OD (turbo overdrive):**
  Allows you to obtain a rich effect just like distortion, without losing the subtle nuance of the overdrive.

- **DS1 (distortion 1):**
  Allows you to obtain a standard distortion sound.

- **DS2 (distortion 2):**
  Allows you to obtain a distortion sound with a rich middle.

- **FUZZ:**
  This produces a basic fuzz sound.

**DRIVE [0–100]**
This sets the degree of sound distortion.

**HIGH CUT [700 Hz–11.0 kHz, FLAT]**
Adjusts the tone of the distorted sound.

**LEVEL [0–100]**
Adjusts the output level that is raised by being distorted.

**POLY BAL (poly balance) [0–100]**
Adjusts the degree of distortion for chordal playing.

**DRV BAL (drive balance) [0–100]**
Adjusts the degree of distortion between low and high strings, to even out the volume balance.
Chapter 5. Parameter Guide

POLY COMP/LIMITER (polyphonic compressor/limiter)

The compressor is an effect that attenuates loud input levels and boosts soft input levels, thus evening out the volume to create sustain without distortion.

ON/OFF
Turns the compressor on/off.

* Turning [VALUE] will select PRESET.

MODE
COMP: The effect will function as a compressor.
LIMITER: The effect will function as a limiter.

● When “COMP” is selected as the mode
SUSTAIN [0–100]
Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.

ATTACK [0–100]
Adjusts the strength of the picking attack. Larger values will result in a sharper attack, creating a more clearly defined sound.

TONE [-50–+50]
Adjusts the tone.

LEVEL [0–100]
Adjusts the volume.

CMP BAL (compressor balance) [0–100]
Adjusts the effect depth for the low strings.

● When “LIMITER” is selected as the mode
THRESHOLD [0–100]
Adjust this as appropriate for the input signal from your guitar. When the input signal level exceeds this threshold level, limiting will be applied.

RELEASE [0–100]
This adjusts the time from when the signal level drops below the threshold until when limiting is removed.

TONE [-50–+50]
Adjusts the tone.

LEVEL [0–100]
Adjusts the volume.

CMP BAL (compressor balance) [0–100]
Adjusts the effect depth for the low strings.

POLY OCTAVE (polyphonic octave)

This supports playing technique related to octaves.

ON/OFF
Turns “octave” on/off.

* Turning [VALUE] will select PRESET.

-1OCT 1–6 (-1 octave) [0–100]
This adds sound one octave lower than the original sound.

-2OCT 1–6 (-2 octave) [0–100]
This adds sound two octaves lower than the original sound.

DIR 1–6 (direct) [0–100]
This adjusts the level of the original sound.

POLY SG (polyphonic slow gear)

This produces a volume-swell effect (“violin-like” sound).

ON/OFF
Switches the slow gear on/off.

* Turning [VALUE] will select PRESET.

RISE TIME [0–100]
This adjusts the time needed for the volume to reach its maximum from the moment you begin picking.

SENS (sensitivity) [0–100]
This adjusts the sensitivity of the slow gear. When it is set to a lower value, the effect of the slow gear can be obtained only with stronger picking, while no effect is obtained with weaker picking. When the value is set higher, the effect is obtained even with weak picking.
The sound can be passed through a filter to adjust the brightness or character.

* Cannot be turned on/off.

**PRESET**
Select one of the pre-programmed types of filter.

**CUTOFF (cutoff frequency) [0–100]**
This sets the brightness (hardness) of the sound. A larger value results in a brighter sound.

**RESO (resonance) [0–100]**
This sets the degree of resonance (distinctiveness) of the sound. A larger value results in a sound that is more unique and extraordinary.

**TOUCH-S (touch sensitivity) [0–100]**
This sets the sensitivity for a filter that alters the sound in response to how much force is used to play the guitar. A higher setting results in a brighter sound when the guitar strings are played with force. When set to 0, the sound does not change in keeping with how forcefully or gently the strings are played.

**DECAY [0–100]**
This sets the length of time for the decay in the distinctive sound characteristics produced when the guitar is played with force. A smaller value results in a faster decay and a softer sound.

* The decay effect cannot be obtained if the TOUCH-S value is too low.
* This appears only when “FILTER BASS” is selected for the COSM GUITAR TYPE setting.

**P-BEND (power bend)**
A higher setting results in a “darker” sound. At the same time, the tone and volume also change with respect to fluctuations in pitch produced by using a tremolo bar or other techniques.

* Cannot be turned on/off.

**PRESET**
Select one of the pre-programmed types of power bend.

**P-BEND (power bend) [0–100]**
The higher the value, the more strained the sound becomes.

**P-BEND-Q (power bend Q) [0–100]**
The higher the value, the more the sound will consist of mainly the harmonic components, thus creating a sound that exhibits almost no attack.

**SUSTAIN**
You can specify how the resulting volume will be affected by changes (loud/soft dynamics) in the guitar string vibrations that are input.

**SUSTAIN [0–100]**
Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.

**COLOR**

**COLOR [0–100]**
In the case of FILTER BASS, this adjusts the strength of the low range. As the value is increased, the low range will become stronger. In the case of SOLO, this adjusts the strength of the overtones. As the value is increased, the overtones will become stronger.

**GLIDE**
Picking dynamics can affect the amount of pitch change over time. This is known as the Glide effect. With softly played notes for which no attack can be detected, a glide effect may not be obtainable.

* Cannot be turned on/off.

**PRESET**
Select one of the pre-programmed types of glide.

**GLD-SENS (glide sensitivity) [0–100]**
This sets the sensitivity for a filter that changes the sound in response to how much force is used to play the guitar.

**GLD-TIME (glide time) [0–100]**
This sets the speed of the glide. Larger values result in longer glides.

* If GLD-SENS is at a relatively low value, GLD-TIME will have less of an effect.
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**PWM MOD (PWM modulation)**

This changes the pulse width of the PWM waveform.

* Cannot be turned on/off.

**PRESET**
Select one of the pre-programmed types of modulation.

**DEPTH (PWM depth) [0–100]**
This sets the depth to which the waveform’s pulse width is varied. Higher values result in deeper undulations.

**RATE (PWM rate) [0–100]**
This sets the speed of the cycle at which the waveform’s pulse width is varied. Higher values result in a faster cycle.

**ATTACK**

This sets the force of attack when a string is played.

* Cannot be turned on/off.

**PRESET**
Select one of the pre-programmed types of attack.

**LENGTH [0–100]**
This sets the decay time for the attack portion of the sound. A smaller setting results in a shorter attack.

**MOD-TUNE (modulation tune) [0–100]**
This sets the tuning for the modulation applied to the attack.

**MOD-DEP (modulation depth) [0–100]**
This sets the depth of the modulation applied to the attack. Larger values result in deeper undulations.

**LEVEL [0–100]**
This sets the volume level of the attack portion.

**BODY LEV (body level)**

**BODY LEV [0–100]**
This sets the volume level for the sustained portion of the sound.

**ORGAN**

This is a Long Tone Instrument suitable for playing solo parts or slow songs. Like an organ, you should balance out the volume levels for the three parameters to create just the sound you’re after.

* Cannot be turned on/off.

**PRESET**
Select one of the pre-programmed types of organ.

**FEET-16 [0–100]**
This is a Long Tone one octave lower than the guitar.

**FEET-8 [0–100]**
This is a Long Tone at the same pitch as the guitar.

**FEET-4 [0–100]**
This is a Long Tone one octave higher than the guitar.
A four-band equalizer with high and low ranges is provided. The sound processed by the effect can be boosted by frequency range before it is output.

**ON/OFF**
Switches the equalizer on/off.
* Turning [VALUE] will select PRESET.

**LEVEL [-20→+20 dB]**
Adjusts the volume after the equalizer.

**LOW G (low gain) [-20→+20 dB]**
Adjusts the low frequency range tone.

**HIGH G (high gain) [-20→+20 dB]**
Adjusts the high frequency range tone.

**L-MID G (low-middle gain) [-20→+20 dB]**
Adjusts the low-middle frequency range tone.

**H-MID G (high-middle gain) [-20→+20 dB]**
Adjusts the high-middle frequency range tone.

**L-MID F (low-middle frequency)**
[100 Hz–10.0 kHz]
Specifies the center of the frequency range that will be adjusted by the “L-MID G.”

**L-MID Q (low-middle Q) [0.5–16]**
Adjusts the width of the area affected by the EQ centered at the “L-MID F.” Higher values will narrow the area.

**H-MID F (high-middle frequency)**
[100 Hz–10.0 kHz]
Specifies the center of the frequency range that will be adjusted by the “H-MID G.”

**H-MID Q (high-middle Q) [0.5–16]**
Adjusts the width of the area affected by the EQ centered at the “H-MID F.” Higher values will narrow the area.

**PAN**
This sets the stereo position of the sonic image for each of the strings.
* Cannot be turned on/off.

**PRESET**
Select one of the pre-programmed types of pan.

**STRING-1–6**
[L=100, R=0–L=50, R=50–L=0, R=100]
This sets the left/right pan of each string.
* The output will be in monaural if it is passed through the “WAH,” “EQ,” or “COMP/LM” effects.
* If you wish to preserve the pan position of the COSM GUITAR, use the Chain function to connect COSM GUITAR after COSM AMP “WAH,” “EQ,” and “COMP/LM.”

**MIXER**
This mixes the sounds of the normal pickup and the divided pickup.

**BALANCE (mixer balance)**
[CG=0, NP=100–CG=100, NP=0]
Adjusts the volume balance between the sounds of the normal pickup and the cosm guitar.
CG: Cosm guitar
NP: Normal pickup

**PU POLA (pickup polarity)**
Specifies the polarity of the normal pickup and the divided pickup.
NORMAL: The polarity will not be changed.
INVERT: The polarity will be inverted.

**LEVEL [0–100]**
Specifies the output level of the COSM GUITAR.
COSM AMP

This simulates the head and speaker sections of a guitar amp.

ON/OFF
Switches the COSM amp on/off.

TYPE
This sets the type of the COSM amp. The distortion and tone characteristics of each amp are as shown below:

JC-120:
The sound of the Roland “JC-120” (Jazz Chorus 120), a favorite of pro musicians around the world.

CLEAN TWIN:
The sound of a conventional built-in tube amp.

CRUNCH:
Allows you to obtain a crunch effect that creates a natural distortion.

MATCH DRIVE:
A simulation of the latest tube amp widely used in styles from blues and rock.

VO DRIVE:
Allows you to obtain the Liverpool sound of the 60’s.

BLUES:
A lead sound with a rich middle ideal for Blues.

BG LEAD:
The sound of a tube amp typical of the late ’70s to ‘80s, characterized by a distinctive mid-range.

MS1959(I):
The sound of a large tube amp stack that was indispensable to the British hard rock of the ’70s, and is used to this day by many hard rock guitarists.

A trebly sound created by using input I of the guitar amp.

MS1959(II):
A mild sound created by using input II of the guitar amp.

MS1959(I+II):
The sound of connecting inputs I and II of the guitar amp in parallel, creating a sound with a stronger low end than I.

SLDN LEAD:
A tube amp sound with versatile distortion, usable in a wide range of styles.

METAL 5150:
The sound of a large tube amp, suitable for heavy metal.

METAL DRIVE:
A high gain and powerful metal sound.

AC.GUITAR:
This is a preamp for electric-acoustic guitars.

VOLUME [0–100]
Adjusts the volume and distortion of the amp.

PRESENCE [0–100]
Increasing this value boosts the ultra-high frequencies.

* This appears only when anything other than “MATCH DRIVE” or “VO DRIVE” is selected for the COSM GUITAR TYPE setting.

HIGH CUT [0–100]
Increasing this value cuts the ultra-high frequencies.

MASTER [0–100]
Adjusts the volume of the entire preamp.

BASS [0–100]
Adjusts the tone for the low frequency range.

MIDDLE [0–100]
Adjusts the tone for the middle frequency range.

TREBLE [0–100]
Adjusts the tone for the high frequency range.

GAIN [LOW, NORMAL, HIGH]
Adjusts the distortion of the amp. Distortion will successively increase for settings of “LOW,” “NORMAL” and “HIGH.”

BRIGHT [ON/OFF]
Turns the bright setting on/off.

OFF: Bright is not used.

ON: Bright is switched on to create a lighter and crisper tone.

BALANCE [DI=100, MC=0 – DI=0, MC=100]
Adjusts the balance between the sound picked up by the mic and the direct sound.

SPEAKER
Selects the speaker type.

* If OUTPUT SELECT is not set to LINE/PHONES, all speakers other than ACOUSTIC are disabled.

<table>
<thead>
<tr>
<th>SP Simulator Type</th>
<th>Cabinet</th>
<th>Speaker Unit</th>
<th>Microphone Setting</th>
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<tr>
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<td>12 inch</td>
<td>On Mic</td>
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<tr>
<td>MIDDLE</td>
<td>Open-back enclosure</td>
<td>12 inch</td>
<td>On Mic</td>
<td>Roland JC-120 Simulation</td>
</tr>
<tr>
<td>JC-120</td>
<td>Open-back enclosure</td>
<td>12 inch</td>
<td>On Mic</td>
<td>A setting suitable to CLEAN TWIN</td>
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<tr>
<td>TWIN ON</td>
<td>Open-back enclosure</td>
<td>12 inch</td>
<td>On Mic</td>
<td>A setting suitable to CLEAN TWIN</td>
</tr>
<tr>
<td>TWIN OFF</td>
<td>Open-back enclosure</td>
<td>12 inch</td>
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<td>A setting suitable to CLEAN TWIN</td>
</tr>
<tr>
<td>MATCH ON</td>
<td>Open-back enclosure</td>
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<tr>
<td>MATCH OFF</td>
<td>Open-back enclosure</td>
<td>12 inch</td>
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<td>A setting suitable to MATCH DRIVE</td>
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<td>VO ON</td>
<td>Open-back enclosure</td>
<td>12 inch</td>
<td>On Mic</td>
<td>A setting suitable to VO DRIVE</td>
</tr>
<tr>
<td>VO OFF</td>
<td>Open-back enclosure</td>
<td>12 inch</td>
<td>Off Mic</td>
<td>A setting suitable for VO DRIVE</td>
</tr>
<tr>
<td>BG STACK ON</td>
<td>Large sealed enclosure</td>
<td>12 inch</td>
<td>On Mic</td>
<td>A setting suitable for BG Lead</td>
</tr>
<tr>
<td>BG STACK OFF</td>
<td>Large sealed enclosure</td>
<td>12 inch</td>
<td>Off Mic</td>
<td>A setting suitable for BG Lead</td>
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<tr>
<td>MS STACK ON</td>
<td>Large sealed enclosure</td>
<td>12 inch</td>
<td>On Mic</td>
<td>A setting suitable for MS1959</td>
</tr>
<tr>
<td>MS STACK OFF</td>
<td>Large sealed enclosure</td>
<td>12 inch</td>
<td>Off Mic</td>
<td>A setting suitable for MS1959</td>
</tr>
<tr>
<td>METAL STACK</td>
<td>Large dual stack</td>
<td>12 inch</td>
<td>Off Mic</td>
<td></td>
</tr>
<tr>
<td>ACOUSTIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MIC SET (mic setting) [CENTER, 1–10 cm]
This simulates the microphone position. “CENTER” simulates the condition that the microphone is set in the middle of the speaker cone. “1–10 cm” means that the microphone is moved away from the center of the speaker cone.
The compressor is an effect that attenuates loud input levels and boosts soft input levels, thus evening out the volume to create sustain without distortion. The limiter attenuates loud input levels to prevent distortion.

**ON/OFF**
Switches the COMP/LM on/off.

* Turning [VALUE] will select PRESET.

**TYPE**
Select either compressor or limiter.

**COMP (compressor):**
The effect will function as a compressor.

**LIMITER:**
The effect will function as a limiter.

- **When “COMP” is selected as the type**
  
  **SUSTAIN [0–100]**
  Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.

  **ATTACK [0–100]**
  Adjusts the strength of the picking attack. Larger values will result in a sharper attack, creating a more clearly defined sound.

  **TONE [-50–+50]**
  Adjusts the tone.

  **LEVEL [0–100]**
  Adjusts the volume.

- **When “LIMITER” is selected as the type**
  
  **THRESHOLD [0–100]**
  Adjust this as appropriate for the input signal from your guitar. When the input signal level exceeds this threshold level, limiting will be applied.

  **RELEASE [0–100]**
  This adjusts the time from when the signal level drops below the threshold until when limiting is removed.

  **TONE [-50–+50]**
  Adjusts the tone.

  **LEVEL [0–100]**
  Adjusts the volume.

The wah effect creates a unique tone by changing the frequency response of a filter. Pedal wah lets you use an Expression pedal or the like to obtain real-time control of the wah effect. Auto wah creates an automatic wah by cyclically changing the filter, or by changing the filter in response to the volume of the input.

**ON/OFF**
Switches the WAH on/off.

* Turning [VALUE] will select PRESET.

**TYPE**
Either “PEDAL WAH” or “AUTO WAH” can be selected.

**PEDAL WAH:**
The effect will function as a pedal wah.

**AUTO WAH:**
The effect will function as an auto wah.

- **When “PEDAL WAH” is selected as the type**
  
  **FREQ (frequency) [0–100]**
  This adjusts the center frequency of the Wah effect.

  **LEVEL [0–100]**
  Adjusts the volume.

  **SET PDL (setting pedal)**
  Assign the Wah function to the built-in EXP pedal.

- **When “AUTO WAH” is selected as the type**
  
  **MODE**
  Selection for the wah mode.

  **LPF (low pass filter):**
  This creates a wah effect over a wide frequency range.

  **BPF (band pass filter):**
  This creates a wah effect in a narrow frequency

  **POLARITY**
  Selection for the direction in which the filter will change in response to the input.

  **DOWN:**
  The frequency of the filter will rise.

  **UP:**
  The frequency of the filter will fall.
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SENS (sensitivity) [0–100]
This adjusts the sensitivity at which the filter will change in the direction determined by the polarity setting. Higher values will result in a stronger response. With a setting of “0,” the strength of picking will have no effect.

FREQ (frequency) [0–100]
This adjusts the center frequency of the Wah effect.

PEAK [0–100]
Adjusts the way in which the wah effect applies to the area around the center frequency. Lower values will produce a wah effect over a wide area around the center frequency. Higher values will produce a wah effect in a narrow area around the center frequency.
* With a value of “50” a standard wah sound will be produced.

RATE [0–100, BPM, –BPM, –BPM/s]
Adjusts the frequency of the wah.
* When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 55) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.

DEPTH [0–100]
Adjusts the depth of the auto wah effect.

LEVEL [0–100]
Adjusts the volume.

EQ (equalizer)
Adjusts the tone. Parametric control is provided for the high-mid range and low-mid range.

ON/OFF
Switches the EQ on/off.
* Turning [VALUE] will select PRESET.

LEVEL [-20→+20 dB]
Adjusts the volume after the equalizer.

LOW G (low gain) [-20→+20 dB]
Adjusts the low frequency range tone.

HIGH G (high gain) [-20→+20 dB]
Adjusts the high frequency range tone.

L-MID G (low-middle gain) [-20→+20 dB]
Adjusts the low-middle frequency range tone.

H-MID G (high-middle gain) [-20→+20 dB]
Adjusts the high-middle frequency range tone.

L-MID F (low-middle frequency)
[100 Hz–10.0 kHz]
Specifies the center of the frequency range that will be adjusted by the “L-MID G.”

L-MID Q (low-middle Q) [0.5–16]
Adjusts the width of the area affected by the EQ centered at the “L-MID F.” Higher values will narrow the area.

H-MID F (high-middle frequency)
[100 Hz–10.0 kHz]
Specifies the center of the frequency range that will be adjusted by the “H-MID G.”

H-MID Q (high-middle Q) [0.5–16]
Adjusts the width of the area affected by the EQ centered at the “H-MID F.” Higher values will narrow the area.
This effect creates a sense of spaciousness and adds depth to the sound. It allows you to produce the impression that multiple instruments are playing, or to add a distinctive type of modulation. You can use this effect to simulate a number of instruments playing together, or to create unique undulations.

There are ten types of Modulation you can select from. You can also edit each of these effects to your liking. It is also possible to switch Modulation off completely.

**ON/OFF**
Switches the MOD on/off.
* Turning [VALUE] will select PRESET.

**TYPE**
This selects the effect to be used from the following ones.

- **HARMONIST:**
  This lets you add two-note harmony suitable for the key.

- **P.SHIFTER (pitch shifter):**
  This is a pitch shifter with a maximum range of +/-2 octaves.

- **FLANGER:**
  The flanging effect gives a twisting, jet-airplane-like character to the sound.

- **PHASER:**
  By adding varied-phase portions to the direct sound, the phaser effect gives a whooshing, swirling character to the sound.

- **SUB EQ (sub equalizer):**
  This adjusts the tone. A parametric type is adopted for the high-middle and low-middle range.

- **2x2CHORUS:**
  This adds a pitch-shifted sound to the original sound, producing an effect of greater depth and spaciousness. Two separate stereo chorus units are used for the low-frequency and high-frequency ranges in order to create a more natural chorus sound.

- **TREMOLO:**
  The volume will change cyclically.

- **PAN:**
  The sound will be moved cyclically between left and right.

- **PD SHIFT (pedal shift):**
  This effect lets you use the EXP pedal of the VG-88 to control the amount of pitch shift.

- **VIBRATO:**
  This effect creates vibrato by slightly modulating the pitch.

---

**When “HARMONIST” is selected as the type**

**ON/OFF [OFF, ON]**
Turn on/off the two different harmonist sounds.

**HARMONY [-2OCT–+2OCT, USER]**
This determines the pitch of the sound added to the input sound, when you are making a harmony. It allows you to set it by up to 2 octaves higher or lower than the input sound. If you selected “USER,” you can specify the amount of pitch shift that will be applied to the input sound.

**PAN [L=100 R=0 – L=0 R=100]**
Assign the left/right location of the sound.

**LEVEL [0–100]**
Adjusts the volume of the harmonist sound.

**DIR LEV (direct level) [0–100]**
Adjusts the volume of the direct sound.

**<C>–<B>**
If you have HARMONY set to “USER,” the amount of pitch shift is then set relative to the notes as input with “C” selected for the KEY parameter.

**KEY [C–B]**
Specifies the key of the song you are playing. By specifying the key, you can create harmonies that fit the key of the song. The key setting corresponds to the key of the song (#,b) as follows.

![Major Key Chart]

![Minor Key Chart]
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● When “P.SHIFTER” is selected as the type

**ON/OFF [OFF, ON]**
Turns the two each pitch shifter sounds on/off.

**MODE**
Selection for the pitch shifter mode.
- **POLY:**
  You can play chords.
- **MONO:**
  Compared with conventional pitch shifters, modulation is minimized. You should play notes individually.

**SHIFT [-24–+24]**
Adjusts the amount of pitch shift (the amount of pitch change) in semitone steps.

**FINE [-50–+50]**
Make fine adjustments to the pitch shift.

**FEEDBACK [0–100]**
This adjusts the feedback amount of the pitch shift sound.

**PRE DLY [0–300msec, BPM /-–BPM /]**
Adjusts the time from when the direct sound is heard until the pitch shifted sounds are heard. Normally you can leave this set at “0ms.”

**PAN [L=100 R=0 – L=0 R=100]**
Assign the left/right location of the sound.

**LEVEL [0–100]**
Adjusts the volume of the pitch shifter sound.

**DIR LEV (direct level) [0–100]**
Adjusts the volume of the direct sound.

● When “FLANGER” is selected as the type

**RATE [0–100, BPM /-–BPM /]**
This sets the rate of the flanging effect.

* When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 55) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.

**DEPTH [0–100]**
Determines the depth of the flanging effect.

**MANUAL [0–100]**
Adjusts the center frequency at which to apply the effect.

**RESO (resonance) [0–100]**
Determines the amount of resonance (feedback). Increasing the value will emphasize the effect, creating a more unusual sound.

**SEPARATE (separation) [0–100]**
Adjusts the diffusion. The diffusion increases as the value increases.

**LEVEL [0–100]**
Adjusts the volume of the flanger sound.
● When “PHASER” is selected as the type

**RATE [0–100, BPM . –BPM .]**
This sets the rate of the phaser effect.
* When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 55) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.

**DEPTH [0–100]**
Determines the depth of the phaser effect.

**MANUAL [0–100]**
Adjusts the center frequency of the phaser effect.

**RESO (resonance) [0–100]**
Determines the amount of resonance (feedback). Increasing the value will emphasize the effect, creating a more unusual sound.

**STAGE**
Selects the number of stages that the phaser effect will use.
- **4STAGE:** This is a four-phase effect. A light phaser effect is obtained.
- **8STAGE:** This is an eight-phase effect. It is a popular phaser effect.
- **12STAGE:** This is a twelve-phase effect. A deep phase effect is obtained.
- **BI-PHASE:** This is the phaser with two phase shift circuits connected in series.

**STEP [OFF, 0–100, BPM . –BPM .]**
Adjusts the frequency at which rate and depth will change in steps. Increasing this value will make the change occur at a finer interval.
* If this is set to BPM, the parameter values will be set according to the BPM (p. 55) value specified for each patch. This makes it easy to make effect sound settings that match the song tempo.

**LEVEL [0–100]**
Adjusts the volume of the phaser sound.

● When “SUB EQ” is selected as the type

**LEVEL [-20–+20 dB]**
Adjusts the volume after the equalizer.

**LOW G (low gain) [-20–+20 dB]**
Adjusts the low frequency range tone.

**HIGH G (high gain) [-20–+20 dB]**
Adjusts the high frequency range tone.

**L-MID G (low-middle gain) [-20–+20 dB]**
Adjusts the low-middle frequency range tone.

**H-MID G (high-middle gain) [-20–+20 dB]**
Adjusts the high-middle frequency range tone.

**L-MID F (low-middle frequency)**
\[100 \text{ Hz}–10.0 \text{ kHz}\]
Specifies the center of the frequency range that will be adjusted by the “L-MID G.”

**L-MID Q (low-middle Q) [0.5–16]**
Adjusts the width of the area affected by the EQ centered at the “L-MID F.” Higher values will narrow the area.

**H-MID F (high-middle frequency)**
\[100 \text{ Hz}–10.0 \text{ kHz}\]
Specifies the center of the frequency range that will be adjusted by the “H-MID G.”

**H-MID Q (high-middle Q) [0.5–16]**
Adjusts the width of the area affected by the EQ centered at the “H-MID F.” Higher values will narrow the area.
Chapter 5. Parameter Guide

● When “2x2 CHORUS” is selected as the type

**X OVER F (crossover frequency)**

[100 Hz–4.00 kHz]

This parameter sets the frequency at which the frequency components of the direct sound are divided into bass and treble bands.

**RATE [0–100, BPM – BPM]*

Adjusts the speed of the chorus effect.

* When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 55) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.

**DEPTH [0–100]**

Adjusts the depth of the chorus effect. If you wish to use this as a doubling effect, use a setting of “0.”

**PRE DLY (pre delay)**

[0.0–40.0 msec] (0.5 msec steps)

Adjusts the time from when the direct sound is output until the effect sound is output. Extending the pre-delay will produce the sensation of multiple sounds (doubling effect).

**LEVEL [0–100]**

Adjusts the volume of the sound.

● When “TREMOLO” or “PAN” is selected as the type

**WAVE [0–100]**

With TREMOLO, you can adjust the smoothness of the volume change.

With PAN, you can adjust how smoothly the sound changes position.

**RATE [0–100, BPM – BPM]*

Adjusts the frequency (speed) of the change.

* When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 55) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.

**DEPTH [0–100]**

Adjusts the depth of the effect.

● When “PD SHIFT” is selected as the type

**PITCH [-24–+24]**

Specifies the amount of pitch shift obtained when you operate the pedal.

**MODE**

Selection for the pedal shift mode.

**POLY:**

You can play chords.

**MONO:**

Compared with the conventional pitch shifter, the modulation is minimized. You should play notes individually.

**SET PDL (setting pedal)**

Assign the Pitch Shift function to the built-in EXP pedal.

● When “VIBRATO” is selected as the type

**TRIGGER [OFF, ON]**

This selects on/off of the vibrato with the footswitch.

* This effect assumes that the trigger will be turned on with a footswitch for attaining the vibrato effect.

**RATE [0–100, BPM – BPM]*

This adjusts the rate of the vibrato.

* When set to BPM, the value of each parameter will be set according to the value of the Master BPM (p. 55) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.

**DEPTH [0–100]**

This adjusts the depth of the vibrato.

**RISE TIME [0–100]**

This sets the time passing from the moment the trigger is turned on until the set vibrato is obtained.
EFFECTS

Chapter 5. Parameter Guide

DELAY

This effect adds delayed sound to the direct sound, giving more body to the sound or creating special effects.

ON/OFF

Switches the DELAY on/off.

* Turning [VALUE] will select PRESET.

DLY TIME (delay time)

[0–1800 msec, BPM \( \frac{\text{BPM}}{2} - \text{BPM} \)]

This determines the delay time.

* When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 55) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song (synchronizing the time to twice or four times the time length of the BPM when the set time is increased).

* To adjust the setting in 1 msec units, press [F4] (FINE).

TAP TIME [OFF, 0–100%]

Adjusts the delay time of the right channel delay. This setting adjusts the right channel delay time relative to the left channel delay time (considered as 100%).

FEEDBACK [0–100]

“Feedback” is returning a delay signal to the input. This parameter determines the amount of feedback. A higher value will increase the number of the delay repeats.

HIGH CUT (high-cut filter)

[700 Hz–11.0 kHz, FLAT]

The high-cut filter cuts the frequency contents that are higher than the set frequency. This parameter adjusts the frequency where the high-cut filter starts working. When it is set to “Flat,” the high-cut filter does not work at all.

DLY LEV (delay level) [0–120]

Adjusts the volume of the delay sound.

CHORUS

In this effect, a slightly detuned sound is added to the original sound to add depth and breadth.

ON/OFF

Switches the CHORUS on/off.

* Turning [VALUE] will select PRESET.

MODE

Selection for the chorus mode.

MONO:

This chorus effect outputs the same sound from both L and R.

STEREO:

This is a stereo chorus effect that adds different chorus sounds to L and R.

RATE [0–100, BPM \( \frac{\text{BPM}}{2} - \text{BPM} \)]

Adjusts the rate of the chorus effect.

* When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 55) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.

DEPTH [0–100]

Adjusts the depth of the chorus effect. To use it for doubling, set the value to “0.”

PRE DLY (pre delay)

[0.0–40.0 msec] (0.5 msec steps)

Adjusts the time needed for the effect sound to be output after the direct sound has been output. By setting a longer pre delay time, you can obtain an effect that sounds like more than one sound is being played at the same time (doubling effect).

HIGH CUT (high-cut filter)

[700 Hz–11.0 kHz, FLAT]

The low-cut filter cuts the frequencies below the specified frequency. This setting adjusts the frequency at which the low-cut filter will begin to take effect. When “FLAT” is selected, the low-cut filter will have no effect.

CE LEVEL (chorus level) [0–100]

Adjusts the volume of the chorus sound.
Chapter 5. Parameter Guide  EFFECTS

REVERB

This simulates the sound that reaches the listener after being reflected from many surfaces (late reverberation).

ON/OFF
Switches the REVERB on/off.

* Turning [VALUE] will select PRESET.

MODE
This selects the reverb mode.

ROOM 1:
Simulates the reverberation of a small room. Provides the bright reverberation of a live room.

ROOM 2:
Simulates the reverberation of a small room. Provides warm reverberations.

HALL 1:
Simulates the reverberation of a concert hall. Provides clear and spacious reverberations.

HALL 2:
Simulates the reverberation of a concert hall. Provides warm reverberations.

PLATE:
Simulates plate reverberation (a reverb unit that uses the vibration of a metallic plate). Provides a metallic sound with a distinct upper range.

REV TIME (reverb time) [0.1–10.0 sec]
Adjusts the length (time) of reverberation.

LOW CUT (low-cut filter) [55.0 Hz–800 Hz]
The low-cut filter cuts the frequencies below the specified frequency. This setting adjusts the frequency at which the low-cut filter will begin to take effect.

HIGH CUT (high-cut filter) [700 Hz–11.0 kHz, FLAT]
The high-cut filter cuts the frequencies above the specified frequency. This setting adjusts the frequency at which the high-cut filter will begin to take effect. When “FLAT” is selected, the high-cut filter will have no effect.

PRE DLY (pre delay) [0–100 msec]
Adjusts the time until the reverb sound appears.

DENSITY [0–10]
This adjusts the density of the reverb sound.

REV LEV (reverb level) [0–100]
Adjusts the volume of the reverb sound.

NS (noise suppressor)

This effect reduces the noise and hum picked up by guitar pickups. Since it suppresses the noise in synchronization with the envelope of the guitar sound (the way in which the guitar sound decays over time), it has very little effect on the guitar sound, and does not harm the natural character of the sound.

* Please connect the noise suppressor prior to the reverberation type effect. This setup will prevent unnatural break of the reverberation type effect.

ON/OFF
Switches the noise suppressor on/off.

THRESHOLD [0–100]
Adjust this parameter as appropriate for the volume of the noise. If the noise level is high, a higher setting is appropriate. If the noise level is low, a lower setting is appropriate. Adjust this value until the decay of the guitar sound is as natural as possible.

* High settings for the threshold parameter may result in there being no sound when you play with your guitar volume turned down.

RELEASE [0–100]
Adjusts the time from when the noise suppressor begins to function until the volume reaches “0.”

FV (foot volume)

LEVEL [0–100]
This adjusts the volume.

SET PDL (setting pedal)
Assign the Foot Volume function to the built-in EXP pedal.
LEVEL/BPM/KEY

LEVEL [0–200]
This adjusts the output volume of the VG-88.

BPM [40BPM–250BPM, MIDI]
Adjusts the BPM value for each patch.
  * BPM (beats per minute) indicates the number of quarter note beats that occur each minute.

KEY [C (Am)–B (G#m)]
Specify the KEY of the COSM guitar and the Harmonist effect.

PEDAL/ASSIGN

Adjust these settings if you would like to use the VG-88’s EXP pedal or CTL pedal, a pedal connected to the VG-88, or an external MIDI device to control parameters as you play.

  * Turn on the effect that contains the parameter you wish to control.

EXP (ON/OFF)
Switches the EXP pedal on/off.
  * Turning [VALUE] will select PRESET.

CTL (ON/OFF)
Switches the CTL pedal on/off.
  * Turning [VALUE] will select PRESET.

GK VOL (ON/OFF)
Switches the GK volume on/off.
  * Turning [VALUE] will select PRESET.
  * Set SYNTH VOL in GK FUNC to “ASSIGNABLE” (p. 67).

GK S1/S2 (ON/OFF)
Switches the GK S1/S2 on/off.
  * Turning [VALUE] will select PRESET.
  * Set DOWN/S1 and UP/S2 in GK FUNC to “ASSIGNABLE” (p. 66).

ASSIGN1–8 (ON/OFF)
Switches the ASSIGN1–8 on/off.
  * Turning [VALUE] will select PRESET.

TARGET
Select the parameter that will be affected.
  * Parameters listed in “PEDAL/ASSIGN Parameter List” (p. 81) may be set to TARGET, regardless of the COSM GUITAR, COSM AMP, EFFECTS, and other settings.

MIN
Specify the minimum value for the range of change.

MAX
Specify the maximum value for the range of change.
Chapter 5. Parameter Guide

SOURCE
Specify the MIDI data or device that will be the source of the change.

* When using GK VOL, GK S1/S2, SUB CTL1, or SUB CTL2 as the source, GK FUNC SYNT H VOL, DOWN/S1 and UP/S2, and PEDAL SUB CTL1 and SUB CTL2 for SYSTEM, must be set, respectively, to “ASSIGNABLE” (p. 65-67).

MODE
Specify how the value will change in response to an operation.

When the CTL pedal or ASSIGN source is other than GK S1/S2
NORMAL:
   The value will be at MAX while the CTL pedal is pressed.
   The value will be at MIN when the CTL pedal is released.
TOGGLE:
   The MIN and MAX values will alternate each time the CTL pedal is pressed.

For GK S1/S2
DEC/INC:
   S1 will decrease the value, and S2 will increase it.
TOGGLE:
   The MIN and MAX values will alternate each time you press S1/S2.
* When the S1/S2 POSITION of the DRIVER (SYSTEM) is set to “REVERSE” position, the function of S1, S2 will be reversed.

ACTIVE RANGE
Specify the valid range for the specified source device or MIDI data.
LO:
   Specify the minimum value for the valid range.
HI:
   Specify the maximum value for the valid range.

EZ EDIT
This is where settings for the EZ Edit function are made.

TYPE
Selects the type of EZ Edit.
* If you set type to “PATCH DATA,” you can create a sound using the sound obtained by changing to the EZ Edit function.

COLOR
Selects a sound.

DRIVE [0–100]
Adjusts the amount of distortion or sustain.

TONE [0–100]
Adjusts the tone.

MOD (modulation) [0–100]
Adjusts the depth or modulation of the sound.

DELAY [0–100]
Adjusts the reverberation of the sound.

CONTRAST
[1–16]
Depending on the location of the VG-88, the display may be difficult to read. In such a case, adjust the display contrast.
Chapter 5. Parameter Guide

GK FUNC (GK function)

Here you can specify the function of the GK pickup.

DOWN/S1
UP/S2
Specifies the function assigned to the S1 or S2 switches of the GK pickup.

ASSIGNABLE:
Settings can be made in each patch as parameter control buttons.

MASTER LEVEL:
Increment or decrement the master level.

PEDAL FUNC:
While holding down the S1/S2 switch of the GK-2A/GK-3, press a VG-88 pedal to assign the function.
Number pedal [1]: MASTER LEVEL down
Number pedal [2]: MASTER LEVEL up
Number pedal [3]: TUNER
Number pedal [4]: BPM TAP
VG-88 CTL pedal: Control pedal
VG-88 EXP pedal: FOOT VOLUME
BANK ▼ pedal: PU SELECT down
BANK ▲ pedal: PU SELECT up

PATCH SELECT:
Increment or decrement the patch.

PU SELECT:
Alters the position of the pickup used in the COSM GUITAR block.

TUNER/BPM:
The S1 switch will be assigned the Tuner function, and the S2 switch will be assigned the BPM (tap input) function.

* When set to anything other than “ASSIGNABLE,” the PEDAL/ASSIGN GK S1/S2 and ASSIGN 1-8 SOURCE GK S1/S2 settings are disabled.

SYNTH VOL (synth volume)
Specifies the function assigned to the SYNTH VOL knob of the GK pickup.

ASSIGNABLE:
The function can be set for each patch as a parameter control knob. Depending on the parameter that is assigned, the GK pickup select switch may not function.

PICKUP LEVEL:
Controls the output level of the COSM GUITAR pickup.

MIXER LEVEL:
Controls the mixer level of the COSM GUITAR.
Chapter 5. Parameter Guide

GLOBAL

These settings allow you to make temporary adjustments that affect all Patches. This is a convenient way to make quick adjustments to suit changes in your equipment or in your performance environment.

ON/OFF
Switches the Global function on/off.

LOW G (low gain) [-20– +20 dB]
Adjusts the low frequency range tone.
* This adjusts the tone regardless of the equalizer on/off setting of each patch.

HIGH G (high gain) [-20– +20 dB]
Adjusts the high frequency range tone.
* This adjusts the tone regardless of the equalizer on/off setting of each patch.

NS (noise suppressor) [-20– +20 dB]
This is a -20 – +20 dB adjustment to the threshold level of the noise suppressor included in each patch. If you switch to a different guitar, it is convenient to adjust this setting to match the output level of the guitar.
* If you wish to use the data set in each patch, set it to “0 dB.”
* This setting will have no effect on patches in which the noise suppressor is turned off.

REVERB [0%–200%] (101 steps)
This adjusts the reverb level of the reverb in each Patch by 0%–200%. To obtain a more effective reverb, adjust this so you have the reverb level matched with the physical reverberation in the space where performing.
* If you wish to use the settings of each patch without change, set this to “100%.”
* This will have no effect on patches in which reverb is turned off.

TUNER

This is where settings for the Tuner function are made.

PITCH [435–445 Hz]
Sets the reference pitch. Effects that regulate the input pitch will use this reference pitch.

MUTE
Select whether or not the tuning sound will be output to the connected device (e.g., amp).
OFF: The tuning sound will be output.
ON: The tuning sound will not be output.

OUTPUT SELECT

This is where settings for Output Select are made.

OUTPUT SELECT
Selects the type of device that is connected.

GUITAR AMP:
If you have connected the VG-88 to the guitar input jack (INPUT) of a guitar amp
COMBO: Combo type
(single unit containing amp and speaker)
STACK: Stack type
(amp and speaker are separate)

POWER AMP+SP/RETURN:
If you have connected the VG-88 to the RETURN jack or MAIN IN jack of a guitar amp
COMBO: Combo type
(single unit containing amp and speaker)
STACK: Stack type
(amp and speaker are separate)

LINE/PHONES:
If you have connected the VG-88 to a mixer or MTR (multitrack recorder), or are using headphones
* When OUTPUT SELECT is set to GUITAR AMP or POWER AMP+SP/RETURN, and COSM AMP SPEAKER is set to anything other than ACOUSTIC, the SPEAKER parameters (BALANCE, SPEAKER, MIC SET) are disabled.
Chapter 5. Parameter Guide

SYSTEM

This is where settings for the VG-88’s operating environment are made.

DRIVER

This is where settings for the divided pickup are made.

SETTING [A, B, C, D, E]

Up to five Driver Settings can be stored in memory. If you use more than one guitar, this provides a handy way to store the settings for each one in memory.

←: Return the cursor to the left.
→: Advance the cursor to the right.
→↓: Advance the cursor to the end.

A, a, 1, ■:
Switch between inputting “uppercase characters,” “lowercase characters,” “numerals,” and “symbols.”

* This is displayed if the cursor is at the name of the setting.

SPACE:
Insert a blank space.

* This is displayed if the cursor is at the name of the setting.

DELETE:
Delete a character and move the subsequent text forward.

* This is displayed if the cursor is at the name of the setting.

GT PU PHASE (guitar pickup phase)

Sets the phase of the divided pickup and the normal pickup of your guitar.

* The sounds of the divided pickup and the normal pickup are mixed so that you can make settings accurately.

* Set this to “NORMAL,” and if the low-frequency range is cut, change the setting to “INVERSE.”

NORMAL:
The phase will remain unchanged.

INVERSE:
The phase will be inverted.

PU→BRIDGE (pickup↔bridge) [10–30 mm]

Set the distance between the GK pickup and the bridge.

* When TYPE is set to PIEZO, this setting is ignored.

SENSITIVITY [0–100]

Adjust the input sensitivity of the GK pickup.

S1/S2 POSITION

This exchanges the function of the GK-2A/GK-3’s S1/S2 switches.

NORMAL:
The switch functions will be left as they are.

REVERSE:
The S1 switch and S2 switch will be exchanged.

DIRECTION

Specifies the direction in which the divided pickup is attached.

NORMAL:
In this direction, the cable exits on the side of string 6.

REVERSE:
In this direction, the cable exits on the side of string 1.

SCALE [620–660 mm, ST (648), LP (628)]

This sets the scale length (the length from the bridge to the nut) on your guitar.
Chapter 5. Parameter Guide

**PEDAL**

Specifies the operations of the VG-88's built-in pedal and an external pedal.

**BANK SW MODE (bank switch mode)**
Determines how the patch will change when you press the BANK pedals.

- **WAIT NUM:**
  - After changing the bank, press a number pedal [1]–[4] to switch the patch.
- **NUMBER 1:**
  - When you change the bank, patch number 1 of the newly-selected bank will be chosen.
- **SAME NUM:**
  - When you change the bank, the same-numbered patch as in the previously-selected bank will be chosen.

**BANK AREA (MIN) [1–65]**
Specifies the lower limit of the bank pedals.

**BANK AREA (MAX) [1–65]**
Specifies the upper limit of the bank pedals.

**SUB CTL1 (sub control pedal 1)**
**SUB CTL2 (sub control pedal 2)**
Specifies the operation of the external device connected to the SUB CTL 1.2 jack.

- **ASSIGNABLE:**
  - The function can be assigned by each patch as a parameter control pedal.
- **TUNER:**
  - The tuner screen will be displayed.
- **BPM(TAP):**
  - Tap input of the MASTER BPM parameter.
- **PU to FRONT:**
  - Switch COSM GUITAR PICKUP sequentially toward the front pickup.
- **PU to REAR:**
  - Switch COSM GUITAR PICKUP sequentially toward the rear pickup.

*When set to anything other than “ASSIGNABLE,” the ASSIGN 1-8 SOURCE SUB CTL1 and SUB CTL2 settings are disabled.*

**EXP/GK VOL HOLD (EXP pedal/GK volume hold)**
Select whether or not the EXP and GK VOL values will be applied when a patch is recalled.

- **ON:**
  - The values of the various controllers will be applied when a patch is recalled. If you set the CTL pedal operation to Latch and change patches when CTL is lit, the settings at the time the patch was written will be recalled.
- **OFF:**
  - The patch will be recalled with the settings of when it was written. (The values of the various controllers will be ignored.)

**EXP PEDAL CALIBRATION**
Here's how to adjust the operation of the EXP pedal.

1. Return the built-in EXP pedal, and press [F4].
   - The display will indicate “ARE YOU SURE?”
2. If you wish to set, press [WRITE].
   - *If you do not wish to set the settings, press [EXIT] to return to Play page.*
3. Advance the built-in EXP pedal, and press [F6].
   - The display will indicate “ARE YOU SURE?”
4. If you wish to set, press [WRITE].
   - *If you do not wish to set the settings, press [EXIT] to return to Play page.*

**DIAL**

Specifies the function of the VALUE dial.

**FUNCTION**
Selects the function of the VALUE dial.

- **P.NUMBER&VALUE:**
  - In the Play page, the dial will change patches. In Edit screens, it will function as a value dial.
- **VALUE ONLY:**
  - It will function only as a value dial in Edit screens.
These are the settings for MIDI-related functions.

**CHANNEL [1–16]**
Selects the MIDI channel used for receiving MIDI messages.

**OMNI MODE [OMNI OFF, OMNI ON]**
If omni mode is turned on, MIDI data will be received on all channels, regardless of the MIDI channel setting.

**DEVICE ID [1–32]**
Determines the device ID used for transmitting and receiving exclusive messages.

**PROGRAM CHANGE OUT**
This selects whether or not to output program change messages when patch numbers are changed on the GT-3.

- **OFF:** Program change messages are not output even when patch numbers are changed.
- **ON:** When a patch number is changed, the program change message is output.

**PC MAP SELECT**
(program change map select)
Determines how patch numbers will change when the VG-88 receives program change messages.

- **FIX:** The patch numbers of the default settings will be selected.
- **PROG:** The patch numbers specified by the Program Change Map will be selected.

**EXP PEDAL NUMBER**
[OFF, CC#1–CC#31, CC#64–CC#95]
This sets the controller number of the control change messages that will be used to transmit information describing the operation of the Expression pedal. When set to “OFF,” no control change messages will be transmitted.

**CTL PEDAL NUMBER**
[OFF, CC#1–CC#31, CC#64–CC#95]
This sets the controller number of the control change messages that will be used to transmit information describing the operation of the CTL pedal. When set to “OFF,” no control change messages will be transmitted.

**SUB CTL 1 NUMBER**
[OFF, CC#1–CC#31, CC#64–CC#95]
This sets the controller number of the control change messages that will be used to transmit information describing the operation of the external device connected to the SUB CTL 1 jack. When set to “OFF,” no control change messages will be transmitted.

**SUB CTL 2 NUMBER**
[OFF, CC#1–CC#31, CC#64–CC#95]
This sets the controller number of the control change messages that will be used to transmit information describing the operation of the external device connected to the SUB CTL 2 jack. When set to “OFF,” no control change messages will be transmitted.

**PROG MAP (program map)**
When using program change messages transmitted from an external MIDI device to select patch numbers, you can freely specify the correspondence between the program change messages received by the VG-88 and the patch numbers that will be selected.

**BULK DUMP**
Provides for the transmission of data via MIDI.

**START [SYSTEM, #1-1–#25-4]**
Selects the first patch or system that will be transmitted.

**END**
Selects the last patch or system that will be transmitted.

**DUMP**
Initiates a bulk dump.

**BULK LOAD**
Provides for the reception of data via MIDI.

**EXCHANGE**
Exchange the order of patches.

**PATCH A [#1-1–#25-4]**
**PATCH B [#1-1–#25-4]**
Select the patches that you wish to exchange.

**EXCHANGE**
Begins the exchange.
Chapter 6. Changing the system settings

GK pickup settings

■ Select the save destination of GK pickup settings

1. Make sure you’re in Play page. If you’re not in Play page, press [EXIT] several times.
5. Rotate [VALUE] to select the save destination (A–E).
6. Press [EXIT] several times to return to the Play page.

■ Adjusting the GK pickup sensitivity for each string

Adjust the pickup sensitivity for each string as appropriate for the way in which the divided pickup was installed.

* If you will be using two or more guitars to play the VG-88, you must make sensitivity settings for the divided pickup of each guitar. For each guitar, turn off the power of the VG-88, re-connect, and then perform the following procedure. You can make and store settings for up to five guitars.

* These settings are required when you newly install a divided pickup on a guitar, or after you adjust the height of the divided pickup. Once the settings have been made correctly, they will be retained even while the power is turned off. So, you don’t need to redo the settings each time you play.

1. Make sure you’re in Play page. If you’re not in Play page, press [EXIT] several times.
4. Press [F1] (SETTING). Select the SETTING item that you wish to set.
5. Use [CURSOR ▶] to move the cursor to the name of the settings.
   [F1] ( ◄): Return the cursor to the left.
   [F2] ( ▶): Advance the cursor to the right.
   [F3] ( ▶): Advance the cursor to the end.
7. Rotate [VALUE] to select the pickup type for which you are making settings.
   GK-2A: Select this if you are using a GK-2A/GK-3 divided pickup.
   GK-2: Select this if you are using a GK-2 divided pickup.
   PIEZO: Select this if you are using a piezo divided pickup.
10. Rotate [VALUE] to set the value.
11. Repeat steps 9 – 10 to make settings for each string.
12. Press [EXIT] several times to return to the Play page.

■ Name the GK pickup settings

1. Make sure you’re in Play page. If you’re not in Play page, press [EXIT] several times.
4. Press [F1] (SETTING). Select the SETTING item that you wish to set.
5. Use [CURSOR ▶] to move the cursor to the name of the settings.
   [F1] ( ◄): Return the cursor to the left.
   [F2] ( ▶): Advance the cursor to the right.
   [F3] ( ▶): Advance the cursor to the end.
Chapter 6. Changing the system settings

[F4] (SPACE): A space will be inserted at the cursor location, and the cursor will move one space to the right.

[F5] (DELETE):
Delete a character and move the subsequent text forward.

[F6] (A, a, 1, ■):
Switch between inputting “uppercase characters,” “lowercase characters,” “numerals,” and “symbols.”

* Press [CURSOR ▼] several times to return to the previous page.

7. Press [EXIT] several times to return to the Play page.

Specify the direction in which the divided pickup is installed

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.


5. Rotate [VALUE] to select the direction in which the divided pickup is installed.
   NORMAL: In this direction, the cable exits on the side of string 6.
   REVERSE: In this direction, the cable exits on the side of string 1.

6. Press [EXIT] several times to return to the Play page.

Specify the neck scale

Specify the neck scale of the guitar you are using.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.


5. Rotate [VALUE] to select the appropriate neck scale.

   620 – 660 mm
   ST: 648 mm
   LP: 628 mm

6. Press [EXIT] several times to return to the Play page.

Specify the pickup phase

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.


5. Rotate [VALUE] to select the appropriate pickup phase.
   While playing String 6, select the position that does not cause the volume of the low-frequency range to diminish significantly.
   NORMAL: The phase will remain unchanged.
   INVERSE: The phase will be inverted.

6. Press [EXIT] several times to return to the Play page.

Specify the distance between the divided pickup and the bridge

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.


6. Rotate [VALUE] to set the value.

7. Repeat steps 5 – 6 to make settings for each string.

8. Press [EXIT] several times to return to the Play page.

* When TYPE is set to PIEZO, this setting is ignored.
Chapter 6. Changing the system settings

■ Exchanging the location of S1/S2

On guitars that have a built-in divided pickup, the S1/S2 switches may be located in the opposite locations from the GK pickup. You can make this setting if you want the operation to be the same.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
4. Press [F6] (S1/S2 POSITION).
5. Turn [VALUE] to select the setting.
   NORMAL: The switch functions will be left as they are.
   REVERSE: The S1 switch and S2 switch will be exchanged.
6. Press [EXIT] several times to return to the Play page.

Pedal function settings

■ Setting the function of the BANK pedals

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
5. Rotate [VALUE] to select the function of the BANK pedal.
   WAIT NUM: After changing the bank, press a number pedal [1]–[4] to switch the patch.
   NUMBER 1: When you change the bank, patch number 1 of the newly-selected bank will be chosen.
   SAME NUM: When you change the bank, the same-numbered patch as in the previously-selected bank will be chosen.
6. Press [EXIT] several times to return to the Play page.

■ Setting the range of bank change

This function is convenient when you wish to limit the banks that you use (for example, in a live performance situation).

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
4. Press [F2] (BANK AREA(MIN)), and use [VALUE] to specify the lowest bank that you wish to select.
5. Press [F3] (BANK AREA(MAX)), and use [VALUE] to specify the highest bank that you wish to select.
6. Press [EXIT] several times to return to the Play page.
## Setting the function of an external foot switch (FS-5U)

Here's how you can specify the function of an external foot switch connected to the SUB CTL 1,2 jack.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
4. Press [F4] (SUB CTL1), and use [VALUE] to select the function of the SUB CTL 1 jack.
5. Press [F5] (SUB CTL2), and use [VALUE] to select the function of the SUB CTL 2.
6. Press [EXIT] several times to return to the Play page.

### ASSIGNABLE:
The function can be assigned by each patch as a parameter control pedal.

### TUNER:
The tuner screen will be displayed.

### BPM(TAP):
Tap input of the MASTER BPM parameter.

### PU to FRONT:
Switch PICKUP sequentially toward the front pickup.

### PU to REAR:
Switch PICKUP sequentially toward the rear pickup.

* When set to anything other than “ASSIGNABLE,” the PEDAL/ASSIGN SUB CTL 1 and SUB CTL 2 settings are disabled.

5. Press [F5] (SUB CTL2), and use [VALUE] to select the function of the SUB CTL 2.
6. Press [EXIT] several times to return to the Play page.

## Reflecting the New EXP Pedal and GK VOL Values When Patches Are Switched

This setting determines whether or not the current EXP Pedal and GK VOL values after switching Patches are to be shown.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
   The display will indicate “ARE YOU SURE?”
6. If you wish to set, press [WRITE].
   * If you do not wish to set the settings, press [EXIT] to return to Play page.
   The display will indicate “ARE YOU SURE?”
8. If you wish to set, press [WRITE].
   * If you do not wish to set the settings, press [EXIT] to return to Play page.
9. Press [EXIT] several times to return to the Play page.

### Adjusting the depth of the built-in EXP pedal and the amount of change

You can specify the positions (minimum value/maximum value) of the built-in EXP pedal.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
5. If you wish to set, press [WRITE].
   * If you do not wish to set the settings, press [EXIT] to return to Play page.
6. Press [EXIT] several times to return to the Play page.
Chapter 6. Changing the system settings

VALUE dial settings

■ Preventing accidental operation of the VALUE dial

1. Make sure you’re in Play page. If you’re not in Play page, press [EXIT] several times.
4. Rotate [VALUE] to select the function of the dial.
   P.NUMBER&VALUE: In the Play page, the dial will change patches. In Edit screens, it will function as a value dial.
   VALUE ONLY: It will function only as a value dial in Edit screens.
5. Press [EXIT] several times to return to the Play page.

Screen/display-related settings

■ Adjusting the display contrast

Immediately after the VG-88’s power is turned on, or after it has been used for an extended period of time, the text or icons in the LCD screen may become difficult to read. If this occurs, please adjust the contrast. Here’s how to adjust the contrast of the LCD screen.

1. Make sure you’re in Play page. If you’re not in Play page, press [EXIT] several times.
3. Rotate [VALUE] to adjust the contrast.
4. When you have finished making adjustments, press [EXIT]. You will return to Play page.

GK pickup function settings

■ Selecting the function of the S1/S2 switches

1. Make sure you’re in Play page. If you’re not in Play page, press [EXIT] several times.
4. Rotate [VALUE] to select the function of the S1/S2 switches.
   ASSIGNABLE: Settings can be made in each patch as parameter control buttons.
   MASTER LEVEL: Increment or decrement the MASTER LEVEL.
   PEDAL FUNCTION: While holding down the S1/S2 switch, press a VG-88 pedal to assign the function.
   Number pedal [1]: MASTER LEVEL down
   Number pedal [2]: MASTER LEVEL up
   Number pedal [3]: TUNER
   Number pedal [4]: BPM TAP
   VG-88 CTL pedal: Control pedal
   VG-88 EXP pedal: FOOT VOLUME
   BANK ▼ pedal: PU SELECT down
   BANK ▲ pedal: PU SELECT up
   PATCH SELECT: Increment or decrement the patch.
   PU SELECT: Alters the position of the pickup used in the COSM GUITAR block.
   TUNER/BPM: The S1 switch will be assigned the Tuner function, and the S2 switch will be assigned the BPM (tap input) function.
5. Press [EXIT] several times to return to the Play page.
Chapter 6. Changing the system settings

Selecting the function of the SYNTH VOL knob

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
4. Rotate [VALUE] to select the function of the SYNTH VOL (GK Volume) knob.
   - **ASSIGNABLE**: The function can be set for each patch as a parameter control knob. Depending on the parameter that is assigned, the GK-2A/GK-3 select switch may not function.
   - **PICKUP LEVEL**: Alters the position of the pickup used in the COSM GUITAR block.
   - **MIXER LEVEL**: Controls the mixer level of the COSM GUITAR.
   * When set to anything other than “ASSIGNABLE,” the PEDAL/ASSIGN SYNTH VOL settings are disabled.
   - **MASTER LEVEL**: Controls the MASTER LEVEL.
5. Press [EXIT] several times to return to the Play page.

Rearranging the order of patches

* It is not possible to rearrange the preset patches.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
4. Use [F1] to move the cursor to “PATCH A.”
5. Rotate [VALUE] to select one of the patches you wish to exchange.
6. Use [F4] to move the cursor to “PATCH B.”
7. Rotate [VALUE] to select the other patch you wish to exchange.
8. After specifying the two patches, press [F1] (EXCHANGE).
   The patches will be exchanged.
9. Press [EXIT] several times to return to the Play page.
About MIDI

* The “Bank Select” described in this chapter is different than the “Banks” explained in Chapter 1. Bank Select is a type of MIDI message that is normally used for switching Patches. A Bank Select message has a value of 0 to 127, and is used in combination with a Program Change message.

? What is MIDI?

MIDI stands for “Musical Instrument Digital Interface,” a worldwide standard that enables electronic instruments and peripherals to share information about performances, sound switching, and other functions.

MIDI is a standard that is shared by a wide range of instruments from different manufacturers. For instance, you could use a MIDI controller from company A to play a sound module from company B, or to send data to a sequencer from company C.

What follows is a list of some of the different types of MIDI messages.

- **Note On messages** provide information on what note was played, and its velocity.
- **Note Off messages** provide information on when a note stops sounding.
- **Pitch Bend messages** provide information for changing the pitch smoothly.
- **Program Change messages** transmit commands for switching Patches.
- **Control Change messages** provide information on changes in volume, tone, and other effects.
- **System Exclusive (SysEx) messages** provide information that is unique to the instrument that originally generated them.

■ Checking Compatible MIDI Messages (the MIDI Implementation Chart)

MIDI makes it possible for a wide range of different instruments to communicate with each other. However, not all instruments can send and receive every type of MIDI message. Instruments can share only those types of MIDI messages that they have in common.

The owner’s manual for every MIDI instrument comes with a “MIDI Implementation Chart,” which provides a quick way to check what kinds of MIDI messages the instrument supports. You can easily determine what MIDI messages two instruments have in common by comparing their MIDI Implementation Charts. Just line up the charts for the sending instrument and the receiving instrument.

A separate publication titled “MIDI Implementation” is also available. It provides complete details concerning the way MIDI has been implemented on this unit. If you should require this publication (such as when you intend to carry out byte-level programming), please contact the nearest Roland Service Center or authorized Roland distributor.

■ MIDI channels

MIDI is able to independently control more than one MIDI device over a single MIDI cable. This is possible because of the concept of MIDI channels.

The idea of MIDI channels is somewhat similar to the idea of television channels. By changing channels on a television set, you can view a variety of programs. This is because the information of a particular channel is received when the channels of the transmitter and receiver match.

MIDI has sixteen channels 1 – 16, and MIDI messages will be received by the instrument (the receiving device) whose channel matches the channel of the transmitter.

* If omni mode is on, data of all MIDI channels will be received regardless of the MIDI channel setting. If you do not need to control a specific MIDI channel, you may set Omni On.
1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.


   ![IMAGE](channel.png)

5. Rotate [VALUE] to select the MIDI channel (1 – 16).

6. Press [EXIT] several times to return to the Play page.
   * This setting is preserved even after you turn off the power.

### About MIDI Omni Mode

* Even if Omni Mode is turned ON, exclusive data will be received only if its device ID matches the “Device ID” setting of the VG-88.

* The factory setting is “OMNI ON.”

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.


   ![IMAGE](omni.png)

5. Rotate [VALUE] to turn the setting on/off.
   **OMNI ON:**
   Data of all MIDI channels will be received, regardless of the MIDI channel setting.
   **OMNI OFF:**
   Data of only the specified MIDI channel will be received.

6. Press [EXIT] several times to return to the Play page.
   * This setting is preserved even after you turn off the power.

### About the MIDI Device ID

Here’s how to specify the device ID that is used when transmitting and receiving exclusive data.

* The factory setting is “1.”

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.


   ![IMAGE](device.png)

5. Rotate [VALUE] to set the device ID (1 – 32).

6. Press [EXIT] several times to return to the Play page.
   * This setting is preserved even after you turn off the power.

### Bank Select and Program Change

“Bank Select” and “Program Change” are MIDI messages that are generally used to switch Patches.

Ordinarily, Program Change messages are used in Patch switching. However, Program Change messages can only select a maximum of 128 patches. That’s why some instruments use the Bank Select MSB together with Program Change messages to expand the number of selectable Patches to 16,384 (128 x 128).

On instruments like these, each Patch is assigned a number that is a combination of a Bank Number MSB from 0 to 127 and a Program Number from 1 to 128.
Chapter 7. Using MIDI

Switching the patches of an external device

You can select whether or not Program Changes will be transmitted when you change patches.

* The Program Changes transmitted for patches are fixed. You may want to alter Program Change reception map settings on the external device when necessary.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
5. Rotate [VALUE] to switch transmission ON or OFF.
6. Press [EXIT] several times to return to the Play page.
   * This setting is preserved even after you turn off the power.

Selecting the Program Change map

By transmitting bank select and Program Change messages from an external MIDI device to the VG-88, you can switch VG-88 patches without using its foot pedals or [VALUE] dial.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
6. Rotate [VALUE] to change the setting.
   FIX: The default patch number will be selected.
   PROG: The patch number you specified in the Program Change map will be selected.
7. Press [EXIT] several times to return to the Play page.
   * This setting is preserved even after you turn off the power.
Chapter 7. Using MIDI

■ Setting the Program Change reception map

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.

```
SYSTEM:PROGRAM MAP  (PAGE 3)  
BANK PROG   PATCH
F1: 0  1-1 "U-GUITAR"  
F2: 0  2-1 "GDS-125"  
F3: 0  3-1 "TEX ST"  
F4: 0  4-1 "OCT DRY"  
F5: 0  5-1 "SMOKE ST"  
F6: 0  6-2 "NYLON"  
```

5. Press [CURSOR] to move the cursor to the BANK PROG value, then turn [VALUE] to move to the Program Change number to be set.

```
SYSTEM:PROGRAM MAP  (PAGE 3)  
BANK PROG   PATCH
F1: 0  1-1 "U-GUITAR"  
F2: 0  2-1 "GDS-125"  
F3: 0  3-1 "TEX ST"  
F4: 0  4-1 "OCT DRY"  
F5: 0  5-1 "SMOKE ST"  
F6: 0  6-2 "NYLON"  
```

6. Press [CURSOR] to move the cursor to the PATCH value, then select the target VG-88 internal Patch.

```
SYSTEM:PROGRAM MAP  (PAGE 3)  
BANK PROG   PATCH
F1: 0  1-1 "U-GUITAR"  
F2: 0  2-1 "GDS-125"  
F3: 0  3-1 "TEX ST"  
F4: 0  4-1 "OCT DRY"  
F5: 0  5-1 "SMOKE ST"  
F6: 0  6-2 "NYLON"  
```

7. Repeat steps 5–6 as necessary.
8. Press [EXIT] several times to return to the Play page.
   * This setting is preserved even after you turn off the power.

■ Synchronizing to the MIDI CLOCK arriving at MIDI IN

1. Make sure you’re at the Play screen.
   If the Play screen is not the current screen, press [EXIT] a number of times until the Play screen appears.
3. Turn [VALUE] to set the value to MIDI.
4. Once you’ve finished making the setting, you may want to save it. To do so, carry out the Write procedure (p. 25).
   * If you do not want to save the setting, press [EXIT] to return to the Play screen.

Specifying the Control Change number transmitted when the pedal is operated

Here’s how to specify the Control Change number that will be transmitted when you operate the built-in pedal or an external pedal.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.

```
SYSTEM:MIDI  (PAGE 2)  
PEDAL:PEDAL NUMBER OFF  
F1:1 SUB CTL 1 NUMBER OFF  
F4:SUB CTL 2 NUMBER OFF  
```

5. Use [CURSOR] to move the cursor to the parameter that you wish to set.
6. Turn [VALUE] to specify the Control Change number that will be transmitted.
7. Repeat steps 5–6 as necessary.
8. Press [EXIT] several times to return to the Play page.
   * This setting is preserved even after you turn off the power.
Chapter 7. Using MIDI

Transmitting/receiving all sound data

The VG-88’s system parameter and patch parameter settings can be transferred as a whole to or from an external device as MIDI exclusive data.

If you use a MIDI sequencer that is able to record exclusive data, you can transmit system parameters and patch parameters to the MIDI sequencer, and save them on a floppy disk. Alternatively, you can directly connect two VG-88 units via a MIDI cable, and transmit or receive parameters directly.

■ Transmitting settings to an external device (BULK DUMP)

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
4. Press [PAGE ➤ ] to access the BULK DUMP screen.
5. Press [F1] (START), and use [VALUE] to select the first patch or system that you wish to transmit.
6. Press [F4] (END), and use [VALUE] to select the last patch or system that you wish to transmit.
8. Press [EXIT] several times to return to the Play page.

■ Receiving settings from an external device (BULK LOAD)

You must use the following procedure to receive bulk dump data from an external device.

1. Make sure you’re in Play page.
   If you’re not in Play page, press [EXIT] several times.
4. Press [PAGE ➤ ] to access the BULK LOAD screen.
5. Transmit the bulk data from the external MIDI device.
   * If the display indicates “MIDI Receive Error !!,” check the connections and slow down the tempo of the transmitting MIDI device.
6. When data reception is complete, the following display will appear.
7. Press [EXIT] to end the BULK LOAD.
   The following display will appear.
8. Press [EXIT] several times to return to the Play page.
Chapter 8. Appendices

Troubleshooting

This section explains some things that might go wrong when using the VG-88, and what needs to be done to correct the problem. If you think there may be something wrong with your VG-88, please check through the following first. If these suggestions don’t fix the problem, then go ahead and contact the store you bought it from, or your nearest Roland Service Station.

■ Trouble with the Sound

The sound isn’t right.
- Is the divided pickup setting correctly?
  Check the divided pickup setting (p. 14, 18).

There is no VG sound when the guitar is played.
- Are the audio cables and the GK pickup connected correctly?
  Make sure the connections are correct (p. 14, 15).
- Are the VG-88, guitar amp, mixer, and other equipment switched on?
  Make sure the power is turned on for all equipment.
- Is [VOLUME] on the VG-88 set to “MIN”?
  Raise the volume to an appropriate level (probably somewhere near the midway point).
- Is the selector switch on the GK pickup set to “GUITAR”?
  Set the selector switch to “MIX”.
- Has the volume function been assigned to the expression pedal and others?
  If the volume function has been assigned to the expression pedal and others, and the pedal is in the fully returned position (toward yourself), there will be no sound. Advance the pedal away from yourself.

The GK pickup’s select switch does not switch the signal
- Is the SYNTH VOL knob set to a setting other than “MASTER LEVEL” or “PICKUP LEVEL”?
  Set it to “MASTER LEVEL,” “PICKUP LEVEL,” or “MIXER LEVEL” (p. 67).

The pitch isn’t right.
- Is the guitar in tune?
  Tune the guitar (p. 17).
- Is the VG-88 out of tune with other instruments?
  Adjust the Standard pitch setting (p. 17).
- Has COSM GUITAR Pitch Shift been set?
  Set an appropriate value for COSM GUITAR Pitch Shift (p. 39).

The volume fluctuates from one string to another.
- Are the Sensitivity settings for all strings correct?
  Adjust the settings if necessary (p. 20).

Onboard effects are not applied
- Is the effect turned “OFF”?
  If an effect is turned “OFF,” that effect will not be applied. Turn the effect “ON.”
- Are the effect levels high enough?
  An effect is not applied and only the original sound is heard when the effect level is at the lowest setting. Set the effect level to an appropriate value.

Depending on the guitar being used, hum may be audible.
- Is the output jack on your guitar connected to the NORMAL GUITAR input jack on the GK-2A/GK-3?
  You should be sure to make this connection even if the guitar sound is not to be output. For more details, see the Owner’s Manual for the GK-2A/GK-3.

The volume level of the instrument connected to GK IN or GUITAR INPUT is too low.
- Could you be using a connection cable that contains a resistor?
  Use a connection cable that does not contain a resistor.

■ Other Problems

“BATTERY LOW” is displayed when the power is switched on.
  The internal battery for saving Patch and system parameters is almost out of power. Replace the battery soon to prevent parameters from being lost. Contact your nearest Roland Service Station or the store where you bought the VG-88.

Patches aren’t switched when a Program Change is received from an external device.
- Are the Program Change messages being received on a MIDI channel other than the channel set for “MIDI Channel” on the System MIDI screen?
  Send the Program Change messages on the same channel as the one set with “MIDI Channel.”
- Is an invalid Bank Select being transmitted?
  Make settings so that a Bank Number MSB that the VG-88 can use is transmitted.
Chapter 8. Appendices

Can’t transmit/receive data via bulk dump

❍ Are you performing the operation in the bulk dump transmit/receive screens?
  Move to the bulk dump transmit/receive screens.

❍ Is the MIDI sequencer you are using able to record exclusive data?
  Use a MIDI sequencer that is able to record exclusive data. We recommend that you use the Roland MC-80.

❍ When receiving, is the device ID number set to the same value used when sending?
  Set the device ID number to the same number that was used when the data was sent.

Restoring the factory settings (Initialization)

To restore the factory settings of the VG-88, do as follows.
You can initialize all settings, or only a specified section of the patch data in the user area or system settings.
The following types of data can be initialized.

<table>
<thead>
<tr>
<th>Display</th>
<th>Data that is initialized</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYSTEM</td>
<td>All system parameters</td>
</tr>
<tr>
<td>#1-1 – #25-4</td>
<td>The setting contents of patches 1-1 – 25-4</td>
</tr>
</tbody>
</table>

1. Turn off the power.

2. While holding [PAGE ◀] and [PAGE ▶] down, switch on the unit.
   A display will appear, allowing you to specify the area of data you wish to initialize.

3. Move the cursor to “START” with [CURSOR], then use the VALUE dial to get the display to show the data that is the beginning point of the initialization.

4. Move the cursor to “END” with [CURSOR], then get the display to show the ending point of the initialization, also using the VALUE dial.

5. Press [WRITE].
   The display will indicate “ARE YOU SURE?”

6. If you wish to initialize, press [WRITE].
   The specified area of data will be initialized. The VG-88 will then be in its normal power-on state.
   * If you decide not to initialize the settings, press [EXIT].
     Initialization will be canceled, and the normal power-on display will appear.
## Chapter 8. Appendices

### V-GUITAR SYSTEM

**Model VG-88**

**MIDI Implementation Chart**

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**Date:** Mar. 1, 2000  
**Version:** 1.01

<table>
<thead>
<tr>
<th>Function...</th>
<th>Transmitted</th>
<th>Recognized</th>
<th>Remarks</th>
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<tr>
<td>Basic</td>
<td>Default</td>
<td>1–16</td>
<td>1–16</td>
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<tr>
<td>Channel</td>
<td>Changed</td>
<td>1–16</td>
<td>1–16</td>
</tr>
<tr>
<td>Mode</td>
<td>Default</td>
<td>X</td>
<td>OMNI ON/OFF</td>
</tr>
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<td>Messages</td>
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<td>X</td>
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<td>Altered</td>
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<td>Note Number</td>
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<td>After Touch</td>
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<td>Ch’s</td>
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<td>Pitch Bend</td>
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**Control Change**

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<th>1–31</th>
<th>64–95</th>
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<tbody>
<tr>
<td>O</td>
<td>*1</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
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<td>*3</td>
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<tr>
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| Prog Change   | True # | O  | *1 |
|               | 0–99   | O  | O  |
| 0–127         |       | 0–127 |

**System Exclusive**

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**Notes**

- *1 You can make a setting that either allows or prohibits transmission.
- *2 This ignores the LSB.
- *3 This message is assigned to the VG-88’s pedal as well as the external pedal.
- *4 This recognize the message set for “Parameters realtime control.”
- *5 Bulk data is transmitted only when the MIDI Bulk Dump screen is displayed.
- *6 Bulk data is received only when the MIDI Bulk Load screen is displayed.
- *7 Recognized when the “BPM” Patch parameter is set to “MIDI.”

**Mode**

- **Mode 1:** OMNI ON, POLY  
  - O : Yes
- **Mode 2:** OMNI ON, MONO  
  - X : No
- **Mode 3:** OMNI OFF, POLY  
  - O : Yes
- **Mode 4:** OMNI OFF, MONO  
  - X : No

---
Chapter 8. Appendices

Specifications

VG-88: V-Guitar System

AD Conversion

A/D
24 bit AF Method (NORMAL INPUT)
20 bit (GK INPUT)

D/A Conversion
20 bit 128 times Oversampling ΔΣ Modulation

Sampling Frequency
44.1 kHz

Program Memories
260 (Preset: 160 + User: 100)

Nominal Input Level
INPUT: -10 dBu

Input Impedance
INPUT: 1 MΩ

Nominal Output Level
OUTPUT: +4 dBu

Output Impedance
OUTPUT: 2 kΩ

Dynamic Range
100 dB or greater (IHF-A)

Display
160 x 64 dots backlit LCD
8-segment 2-character LED

Control
Output Level knob
Value dial
Cursor buttons
Output Select button
Function buttons 1–6
Page ➤ button
Page ◄ button
Exit button
Write button
COSM Guitar button
COSM Amp button
Effects button
Level/BPM/Key button
Pedal/Assign button
Name/Chain button
EZ Edit button
Tuner button
Number pedals 1–4
CTL pedal
Bank Up pedal
Bank Down pedal

Expression pedal
Pedal Number LEDs 1–4
Control Pedal LED
Output Select LEDs x 3
Power switch

Connectors
GK IN
GUITAR INPUT
GUITAR OUTPUT
OUTPUT L (MONO)
OUTPUT R
PHONES
SUB EXP PEDAL/SUB CTL1, 2
MIDI IN
MIDI OUT

Power Supply
AC 117 V, 230 V, 240 V

Power Consumption
24 W

Dimensions
504 (W) x 303 (D) x 101 (H) mm
19-7/8 (W) x 11/15/16 (D) x 4 (H) inches

Weight
4.9 kg / 10 lbs 13 oz

Accessories
Power Cord
Owner’s Manual
Quick Start
GK Connecting Cable: C13-A (5 m)

Options
Divided Pickup: GK-2A, GK-3
Unit Selector: US-20
GK Parallel Box: GKPP-4
GK Cable: GKC-3 (3 m), GKC-5 (5 m), GKC-10 (10 m)
Expression Pedal: EV-5, FV-300L
Foot Switch: FS-5U, FS-5L, FS-6

(0 dBu=0.775 Vrms)

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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## PEDAL/ASSIGN Parameter List

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<tr>
<td>FX:PAN (PAN)</td>
<td>RATE</td>
<td>DEPTH</td>
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<tr>
<td>FX:PD SFT (PD SHIFT)</td>
<td>PITCH</td>
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<tr>
<td>FX:VB (VIBRATO)</td>
<td>TRIGGER</td>
<td>RATE</td>
<td>DEPTH</td>
<td></td>
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<tr>
<td>FX:DELAY (DELAY)</td>
<td>ON/OFF</td>
<td>DLY TIME</td>
<td>FEEDBACK</td>
<td>DLY LEVEL</td>
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<tr>
<td>FX:CHORUS (CHORUS)</td>
<td>ON/OFF</td>
<td>RATE</td>
<td>DEPTH</td>
<td>CE LEVEL</td>
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<tr>
<td>FX:REVERB (REVERB)</td>
<td>ON/OFF</td>
<td>REV TIME</td>
<td>REV LEV</td>
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<tr>
<td>FX:NS (NOISE SUPPRESSOR)</td>
<td>ON/OFF</td>
<td></td>
<td></td>
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<tr>
<td>FX:FV (FOOT VOLUME)</td>
<td>LEVEL</td>
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### LEVEL/BPM/KEY

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<tr>
<th>MASTER (LEVEL/BPM/KEY)</th>
<th>BPM (TAP)</th>
<th>KEY</th>
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### TUNER

<table>
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<tr>
<th>TUNER (TUNER)</th>
<th>ON/OFF</th>
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</thead>
</table>

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IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounded plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

WARNING: This apparatus must be earthed.

IMPORTANT: THE WIRES IN THIS MARKS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

- GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE

As the colours of the wires in the mains lead of the apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured GREEN AND YELLOW must be connected to the terminal which is marked with the letter E or by the safety earth symbol ⚡ or coloured GREEN or GREEN AND YELLOW.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

PRODUCTS WEIGHT: 29.95 KG

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

WARNING
- Do not defeat the safety purpose of the polarized or grounded plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

These exclamation points within an equilateral triangle are intended to alert the user to the presence of uninsulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.


WARNING: Explosionsrisk! Använd samma typ av laddningsdjurfaktorer som rekommenderas av apparattillverkaren.

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

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:

- 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.

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

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

This equipment requires shielded interface cables in order to meet FCC Class B limits.

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

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