VG-99 V-Guitar System

Pickup Settings

VG99WS02

About the Workshop Booklets

Roland's VG-99 V-Guitar System is, simply put, the most powerful guitar processor ever made. It's the third and latest generation V-Guitar system from Roland, and it offers an astounding set of creative sound-making tools for the guitarist. Featuring dual COSM instrument and amp modeling paths, two independent multi-effects processors, massive realtime control options, guitar-to-MIDI conversion, and USB, the VG-99 is a guitarist's dream machine, capable of creating sounds that are limited only by your imagination.

Each VG-99 Workshop booklet focuses on one VG-99 topic, and is intended as a companion to the *VG-99 Owner's Manual*.

About This Booklet

This booklet discusses setting up the VG-99 for use with a divided pickup such as the Roland GK-3 or a piezo system. Connecting the guitar's normal output to the VG-99 is covered as well.

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Understanding the Symbols in This Booklet

Throughout this booklet, you'll come across information that deserves special attention—that's the reason it's labeled with one of the following symbols.

A note is something that adds information about the topic at hand.

A tip offers suggestions for using the feature being discussed.

Warnings contain important information that can help you avoid possible damage to your equipment, your data, or yourself.

Hot Links

Each Workshop booklet is meant to be read in order from beginning to end. However, if we mention an upcoming section—and you see this arrow—you can click the arrow to jump there immediately.

About Pickups and the VG-99

Using a Divided Pickup with the VG-99

To use the VG-99's COSM instrument modeling (along with its related features such as alternate tunings and Poly FX) and Guitar to MIDI function, you'll need a guitar with a "divided" pickup and a 13-pin output jack. This could be a guitar with:

- *a Roland GK-3 pickup (or similar)*—The GK-3 is a user-installable divided pickup and control unit that can be easily mounted on most six-string electric guitars, with no modifications necessary. The installation kit comes with everything needed to mount the pickup and the accompanying control unit. The GK-3 can be attached on many steel string acoustic guitars as well. (Roland's earlier generation GK-2A and GK-2 divided pickups can be used with the VG-99, too.)

Guitar with a Roland GK-3 Divided Pickup Installed

- *a permanently installed GK pickup and controls*—such as the Fender Roland-Ready Stratocaster or a guitar that's had a Roland GK-KIT-GT3 Divided Pickup Kit installed.

- *a piezo-type divided pickup system*—With this setup, the guitar's normal bridge saddles are replaced with special saddles, each incorporating its own piezo-type (pressure sensitive) pickup. Each pickup has its own separate output, which is fed first to a preamp unit and then to a 13-pin jack. Piezo-type divided pickup systems are available from pickup manufacturers such as RMC, L.R. Baggs, and Graph Tech Guitar Labs. Instrument manufacturers such as Brian Moore, Breedlove, Godin, Carvin, and others offer guitars with this type of pickup system factory installed.

Using Regular Guitar Pickups with the VG-99

You can use the output from a regular electric or acoustic-electric guitar—or any other electronic instrument for that matter—with the VG-99. Just plug its output into the VG-99's rear-panel 1/4-inch GUITAR INPUT jack. You won't be able to use COSM instrument modeling and its related features or the Guitar to MIDI function; those require a divided pickup. However, you can use all the rest of the VG-99's processing options, including COSM amps and effects.

When using only the GUITAR INPUT, you should set the GK CONNECT setting to AUTO or OFF. This is discussed in the "GK Connect" section near the end of this booklet.

Blending the Signal from a Divided Pickup and a Regular Pickup

The VG-99 allows you to combine and blend the signals from a divided pickup and the guitar's regular pickup. Combining signals can be accomplished one of two ways:

- *By sending your regular guitar's output down the 13-pin cable along with the divided pickup signal*—When using a Roland GK-3, GK2A, or GK-2 pickup, you can plug a short cable (included with the pickup) from your guitar's output jack into the GK control unit mounted on the face of the guitar. (See the image on the previous page.) The control unit has a switch that allows you to select the divided pickup, regular pickup, or a mix of the two.

  If you have a guitar with a GK or piezo divided pickup system built in, it will usually be configured to send the normal guitar sound through the 13-pin cable along with the divided pickup sound.

- *By plugging in the divided and normal pickups separately*—Plug the divided pickup's output into the 13-pin GK INPUT jack and the regular guitar's output into the VG-99's GUITAR INPUT jack.

When you wish to blend the divided and normal pickup sounds, you should set the GK CONNECT setting to AUTO or ON. This is discussed in the "GK Connect" section near the end of this booklet.

Plugging In

Divided Pickup

Using a Roland-compatible 13-pin cable (such as the one included with the VG-99), plug one end into the 13-pin jack on your guitar and the other end into the GK IN jack on the VG-99's front panel.

The 13-pin cable supplied with your VG-99 may have a ferrite sleeve attached at one end. If so, plug this end into the VG-99's GK IN jack.

To 13-pin jack on guitar

To VG-99 GK IN

Ferrite sleeve

Regular Pickup

If you want to use your guitar's normal pickups—and you're not sending the normal pickup signal along the 13-pin cable—plug one end of a standard guitar cable into your guitar's regular output jack, and plug the other end into the VG-99's rear-panel GUITAR INPUT jack.

To guitar's output jack   To VG-99 GUITAR INPUT

Divided Pickup Settings

When using a divided pickup, there are a number of VG-99 parameters that must be set to optimize the pickup's performance with the unit. These parameters are stored collectively as a "GK Setting," and they include:

- *the pickup type that's used*—You can choose from the GK-3, GK-2A/GK-2, or a variety of different piezo types.

- *the guitar's scale length*—That is, the distance from the nut to the bridge.

- *the orientation of the GK pickup and the distance from the guitar's bridge saddles to the pickup*—These settings are only necessary for GK-type pickups, as piezo-type pickups are built into the guitar's saddles.

- *the picking sensitivity for each string*—This setting balances the volume from string to string, and optimizes the input gain of each string for the VG-99's processing.

> Be sure to take the time to make accurate divided pickup settings—they have a very big impact on the VG-99's sound and performance, and are critical to achieving sonic nirvana with its modeled instruments.

You can edit and name 10 different GK Settings, so you can quickly call up the unique divided pickup settings for multiple different guitars.

Editing a GK Setting

You may need to make some measurements on your guitar for some of the following settings, so have a metric measurement tool handy.

1. Press SYSTEM, and then use the PAGE buttons to go to Page 1 in the display (the current page number is shown in the upper right-hand corner of the display).

2. Press F3 (GK), and then use the PAGE buttons to go to Page 1 in the display.

3. Use the F4 knob or button to choose the GK Setting (1-10) you'd like to edit. (The currently selected GK Setting is shown at the top of every GK SETTING screen.)

> There is no "save" procedure when working with GK Settings. All the adjustments you make are saved automatically.

4. Use the PAGE buttons to go to Page 2 in the display.
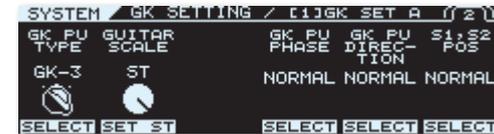
5. Use the F1 knob or button to select the type of divided pickup in your guitar. Select from the following:

- *GK-3*—Choose this setting if you're using a Roland GK-3 pickup.

- *GK-2A*—Choose this setting if you're using a Roland GK-2A or GK-2 pickup, or a Fender Roland-Ready Stratocaster.

- *PIEZO*—Choose this setting if your guitar has a flat-response piezo-type divided pickup.

4

- *PIEZO F*—Choose this setting if your guitar is equipped with a piezo-type divided pickup manufactured by Fishman Transducers.

- *PIEZO G*—Choose this setting if your guitar is equipped with a piezo-type divided pickup manufactured by Graph Tech Guitar Labs (such as the synth-access guitars offered by Carvin).

- *PIEZO L*—Choose this setting if your guitar is equipped with a piezo-type divided pickup manufactured by L.R. Baggs (such as some synth-access guitars offered by Godin Guitars).

- *PIEZO R*—Choose this setting if your guitar is equipped with a piezo-type divided pickup manufactured by the RMC Pickup Co. (such as the Brian Moore iGuitar, Breedlove Synergy, and some synth-access guitars offered by Godin Guitars).

If your VG-99 doesn't display all the piezo pickup options mentioned here, you need to update it to VG-99 System Version 1.04 or higher. The update is a free download from the VG-99 product page at *www.RolandUS.com*.

If your guitar is equipped with a piezo-type divided pickup but you're not sure of the manufacturer, try out the different piezo settings as you play, and then choose the one that has the most natural sound.

6   Turn the F2 knob to set the scale length to match that of your guitar. The available range is 620-660 mm.

    If you're using a Fender Stratocaster guitar, press F2 to select "ST."

    In the unlikely event that your guitar's scale is outside the available range, set GUITAR SCALE to the setting that's the closest.

The 628 mm setting is displayed as "LP," as this matches the scale length of a Gibson Les Paul guitar (24-3/4"). The 648 mm setting is displayed as "ST," the scale of a Fender Stratocaster guitar (25-1/2"). These designations make it easy to quickly set GUITAR SCALE if you're using one of these popular guitar types. (24-3/4" and 25-1/2" are two of the most common scale lengths found on electric guitars in general, so one of these settings is likely to match your instrument, even if it's not actually a Les Paul or Stratocaster.)

If you're unsure of your guitar's scale length, here's how to determine it: use a ruler or tape measure to measure down the center of the guitar's fingerboard from the leading edge of the guitar's nut (where the strings pass over from the fingerboard to the headstock) to the center of the 12th fret. Then, double this measurement and you'll have the guitar's scale length. If you don't have a measurement device handy, you should be able to get the scale length information from the guitar's manufacturer.

If you've selected GK-3 or GK-2A as the pickup type in Step 5, go ahead to Step 7. If you've selected a piezo-type pickup, skip ahead to Step 9.

7   Use the F5 button to choose the GK-3/GK-2A pickup's direction. If the GK pickup is installed so that the wire is coming from the guitar's sixth string side (low "E"), select NORMAL. If the pickup is reversed, select REVRSE. (If you're using a Fender Roland-Ready Stratocaster, select NORMAL.)

8   Use the F4 button choose the GK-3/GK-2A pickup's phase. If the GK pickup is installed so that the wire is coming from the guitar's sixth string side (low "E"), select NORMAL. If the pickup is reversed, select INVERS. (If you're using a Fender Roland-Ready Stratocaster, select NORMAL.)

The phase setting adjusts the divided pickup's phase in relation with your guitar's normal pickups. If the sound is thin or "hollow" when you blend your guitar's normal pickup with a COSM instrument sound, try an alternate GK PU PHASE setting to see if that alleviates the problem. When the divided pickup sound is played by itself, the GK PU PHASE setting will have no audible effect.

9   Roland divided pickups—as well as most non-Roland divided pickup systems—have two onboard switches for controlling various VG-99 functions remotely from the guitar. The S1,S2 POS setting allows you to reverse the control functions assigned to them if you wish. Press the F6 button to choose the desired setting: NORMAL or REVRSE.

10   If you've selected GK-3 or GK-2A in Step 5, use the PAGE buttons to go to Page 3 in the display. If not, skip ahead to Step 12.

11   Use the F knobs to set the distance from the GK pickup to each string's saddle ("1st" indicates the guitar's high "E" string). To determine the distance, use your measurement tool to measure from the center of the GK pickup to the point where each string passes over its saddle.

GK pickup   Saddle
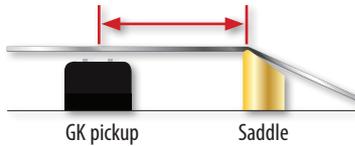
The saddles on most electric guitars are movable, allowing each string's length to be adjusted slightly so that it plays in tune up and down the neck. This procedure is called "adjusting the intonation," and it's typically part of a standard guitar setup when your instrument is serviced by a repair technician. If you have the intonation adjusted any time after making the settings in Steps 10 and 11, make sure you revisit those settings and adjust them if necessary.

12   Use the PAGE buttons to go to Page 4 in the display.
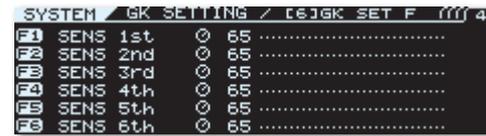
13   Set the input sensitivity for each string. Begin by playing the guitar's first string in open position (unfretted) at the maximum force that you'd normally play at. Watch the meter in the display, and adjust the F1 knob so that the meter registers just short of its highest level at the maximum playing force. Then, play the other strings in open position one at a time and use the appropriate F knobs to enter the sensitivity settings for each.
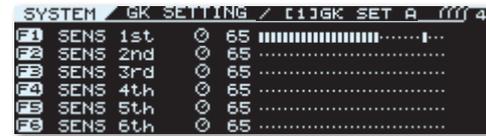
14   If you've chosen a piezo-type in Step 5, you can adjust the high and low frequency tonality of the pickup's sound. To do so, use the PAGE buttons to select Page 5 in the display. Then, use the F1 and F2 knobs to adjust the LOW and HIGH sound parameters. Values in the "+" range boost the selected frequency, while "-" values cut it.

> The goal is to adjust the LOW and HIGH parameters to achieve the most natural sound before the piezo pickup is processed by the VG-99's modeling and effects. You can do far more dramatic tonal adjustments later using the VG-99's various patch and global EQ controls. To start, we'd recommend leaving the LOW and HIGH parameters at 0. After working with VG-99's processing a bit, you can always go back and tweak them later if you feel it's necessary.

15   That's it—press EXIT twice to return to the Play screen, or move on to the next section to name the GK Setting.

> The Play screen is the VG-99's "home" screen. It's the screen that's displayed after the VG-99 finishes its power-up sequence. You'll usually want to return to the Play screen when you're done editing any VG-99 functions.

Naming a GK Setting

You can name GK Settings to keep track of settings for the different guitars you use with the VG-99.

1   Use Steps 1-3 in the previous procedure to navigate to Page 1 of the GK SETTING screens. (If you're still in another GK SETTING screen, simply use the PAGE buttons to navigate to Page 1.)

2   Use the F4 knob or button to choose the GK Setting (1-10) you'd like to name.

3   Press F6 (NAME).

4   Enter the desired name for your GK preset:
   • *To select a character*—use the PATCH/VALUE dial.
   • *To change to a different character position*—use the PAGE buttons.
   • *To insert or delete a character, or enter a blank space*—use the F1-F3 buttons.
   • *To change the selected character's type*—use the F4 button.
   • *To change the selected character's case*—use the F5 button.

5   When you're finished, press the EXIT button twice to return to the Play screen.

Selecting a GK Setting

To select a GK Setting you've edited for a particular guitar:

1   Navigate to Page 1 of the GK SETTING screens (see Steps 1-2 in "Editing a GK Setting").

2   Turn the F4 knob to select the desired GK Setting. (Alternately, you can scroll through the GK Settings by repeatedly pressing the F4 button.)

3   Press EXIT twice to return to the Play screen.

> If desired, you can store specific GK Settings in VG-99 patches. This allows you to create patches for use with different guitars, and automatically switch the GK Setting without having to navigate to the GK SETTING screen. We'll show you how in the next section.

Other Divided Pickup Settings

The following are global settings for any guitar connected to the VG-99's GK IN. To adjust these settings, first navigate to Page 1 of the GK SETTING screens (see Steps 1-2 in "Editing a GK Setting").

GK Connect

This setting determines whether the VG-99's GK IN jack is turned on, off, or switched automatically when a cable is plugged in.

Use the F1 knob or button to choose the desired setting:

- *OFF*—This disables the GK IN jack, and enables the rear-panel GUITAR INPUT jack. Use this setting when you're only using the VG-99 with a guitar with regular pickups that's connected to the GUITAR INPUT jack.

- *ON*—This enables the GK IN jack. Use this setting when you're only using the VG-99 with a guitar with a divided pickup.

- *AUTO*—With this setting, the VG-99 automatically detects whether a 13-pin pin cable is connected to the GK IN jack, and adjusts the GK Connect accordingly. Use this setting if you alternate using a guitar with divided pickups and a guitar with regular pickups, or if you're using both jacks simultaneously.

GK Setting Mode

Use this to choose whether the GK Setting is set globally for all patches, or selected on a patch-by-patch basis.

Use the F3 knob or button to choose the desired setting:

- *SYSTEM*—When this is selected, all VG-99 patches use the GK Setting currently selected on the GK SETTING screen. Use this setting when you're using a single divided pickup guitar with the VG-99, or when you want to manually switch settings for different guitars.

- *PATCH*—When this is selected, the GK Setting is determined by that chosen in the currently selected patch. Use this setting when you want to create different patches for use with specific GK-equipped guitars.

Saving a GK Setting in a Patch

Saving a patch overwrites the data in the selected destination patch. If the destination patch contains data you want to keep, select a different patch, or back up its data to a computer via USB before proceeding. To learn more about working with patches, see the *VG-99 Owner's Manual* or the VG-99 Workshop booklet *Patches*.

1   Set the GK Setting Mode to PATCH, as described above.

2   Select the desired patch.

3   Using the procedure described in "Selecting a GK Setting," choose the desired GK Setting.

4   Press WRITE, choose the desired user patch location with the PATCH/VALUE dial, and then press WRITE again.

If you change the GK Setting Mode back to SYSTEM, the GK Settings stored in patches are ignored, and the GK Setting currently selected on Page 1 of the GK SETTING screens is used by all patches.

GK Volume and Switch Functions

Roland's GK-3, GK-KIT-GT3, GK-2A, and GK-2 pickups—as well as most Roland-ready guitars and third-party divided pickup systems—have a control knob and two onboard switches that allow you to control various VG-99 parameters directly from your guitar.
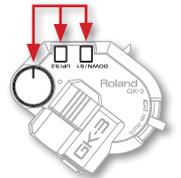
On the GK-3/GK-2A/GK-2, the control knob is called "GK VOL," while the switches are labeled "DOWN/S1" and "UP/S2."

The "DOWN" and "UP" designations on the switches refer to when you assign them to adjust a directional function, such as scrolling through patches or adjusting the patch level. When making assignments to them in the VG-99, the switches are simply called "GK S1" and "GK S2."

On a guitar with a non-Roland divided pickup, the knob and switches may be labeled differently, with names such as "synth volume" for the control knob and "program up" and "program down" for the switches.

From Page 1 of the GK SETTING screens, press F2 to select the GK FUNC screen. Here, you can select VG-99 parameters that are controlled by the GK VOL knob and S1/S2 switches.

1   Turn the F1 knob or press the F1 button to set the desired GK VOL behavior. Turn the F6 knob or press the F6 button to set the desired S1 and S2 switch behavior.

   • *OFF*—This setting disables the GK VOL knob or S1/S2 switches.

   • *ASSIGNABLE (PATCH)*—With this setting, the parameter (or parameters) controlled are determined by settings made in each patch.

   • *A specific parameter*—When a specific parameter is chosen, it's used globally by all patches.

2   Press EXIT three times to return to the Play screen.

For a listing of all parameters that can be assigned to the GK VOL knob and S1/S2 switches, see the *VG-99 Owner's Manual*.

The control orientation of the S1/S2 switches is affected by the setting made in Step 9 of "Editing a GK Setting."

The End

We hope you've found this workshop helpful. Keep an eye out for other VG-99 Workshop booklets available for downloading at *www.RolandUS.com*.