Roland®

V-LINK COSM GK

VB-99
V-Bass System

Owner's Manual

Thank you, and congratulations on your choice of the Roland VB-99.

Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" (p. 2–3), and "IMPORTANT NOTES" (p. 4–5). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, Owner's manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

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

- Do not open (or modify in any way) the unit or its AC adaptor.

....

- 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 install the unit in any of the following locations.
  - 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
  - Exposed to steam or smoke; or are
  - Subject to salt exposure; or are
  - Humid; or are
  - Exposed to rain; or are
  - Dusty or sandy; or are
  - Subject to high levels of vibration and shakiness.

....

- This unit should be used only with a rack-mount adaptor (RAD-99) or stand (PDS-10) that is recommended by Roland. (p. 93)

....

- When using the unit with a stand (PDS-10) recommended by Roland, the stand must be carefully placed so it is level and sure to remain stable. If not using a stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.

....

⚠WARNING

- Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.

....

- Connect only the specified device (FC-300) to the RRC2 IN connector (which provide a supply of power).

....

- Use only the attached power-supply cord. Also, the supplied power cord must not be used with any other device.

....

- 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.

....

⚠ WARNING

- Immediately turn the power off, remove the AC adaptor from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when:
  - The AC adaptor, the power-supply cord, or the plug has been damaged; or
  - If smoke or unusual odor occurs
  - Objects have fallen into, or liquid has been spilled onto the unit; or
  - The unit has been exposed to rain (or otherwise has become wet); or
  - The unit does not appear to operate normally or exhibits a marked change in performance.

....

- 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.

....

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

....

⚠ CAUTION

- The unit and the AC adaptor should be located so their location or position does not interfere with their proper ventilation.

....

- This VB-99 for use only with Roland rack-mount adaptor RAD-99 or Stand PDS-10. Use with other rack-mount adaptors or stands are capable of resulting in instability causing possible injury.

....

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

....

⚠ CAUTION

- Please be sure to read and adhere to the cautionary notices contained in the instructions that came with this product.
  Please note that, depending on the manner in which performances are carried out, you may encounter situations where the unit falls off the stand or the stand topples over, even though you have followed all of the instructions and advice contained within the product's manual. For this reason, you should always perform a safety check each time you use the stand.

....

- At regular intervals, you should unplug the AC adaptor and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the unit is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire.

....

- 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 AC adaptor or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.

....

- If you need to move the instrument, take note of the precautions listed below. It should be handled carefully, all the while keeping it level. Make sure to have a firm grip, to protect yourself from injury and the instrument from damage.

  - Check to make sure the screws or the attached knob bolts securing the unit to the stand have not become loose. Fasten them again securely whenever you notice any loosening.

  - Disconnect the power cord.

  - Disconnect all cords coming from external devices.

....

- Before cleaning the unit, turn off the power and unplug the AC adaptor from the outlet (p. 25).

....

- Whenever you suspect the possibility of lightning in your area, disconnect the AC adaptor from the outlet.

....

- Keep any screws you may remove and the included knob bolts in a safe place out of children's reach, so there is no chance of them being swallowed accidentally (p. 93, p. 94).

....

3

IMPORTANT NOTES

Power Supply

- Do not connect this unit to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter (such as a refrigerator, washing machine, microwave oven, or air conditioner), or that contains a motor. Depending on the way in which the electrical appliance is used, power supply noise may cause this unit to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this unit and the electrical outlet.

- The AC adaptor will begin to generate heat after long hours of consecutive use. This is normal, and is not a cause for concern.

- 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.

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

- When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.

- Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface.
  You can place a piece of felt or cloth under the rubber feet to prevent this from happening. If you do so, please make sure that the unit will not slip or move accidentally.

Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.

- 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.

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 loosing 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 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.

- 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 (Roland EV-5, BOSS FV-500L/500H with a connection cable (stereo 1/4" phone – stereo 1/4" phone); sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.

- 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.

- Use of the included CD-ROM for rental, lease, or the like without the permission of the copyright owner is prohibited. Unauthorized copying is also prohibited by law.

- The sensitivity of the D Beam controller will change depending on the amount of light in the vicinity of the unit. If it does not function as you expect, adjust the sensitivity as appropriate for the brightness of your location.

- Avoid touching or scratching the shiny underside (encoded surface) of the disc. Damaged or dirty CD-ROM discs may not be read properly. Keep your discs clean using a commercially available CD cleaner.

Printing Conventions and icons in This Manual

Text or numerals enclosed in square brackets [ ]	Indicate buttons. **[WRITE]** WRITE button
NOTE	Indicates information that you should be aware of when using the VB-99.
(MEMO)	Indicates supplementary information about an operation.
TIP	Indicates information about a convenient operation.
cf. (p.**)	Indicates a reference page.

Contents

7

Contents

8

Contents

Checking the Package Contents

The VB-99 comes with the following items. After opening the package, please check all items. If any items are missing, please contact the retailer from whom this product was purchased.

❏ **VB-99**
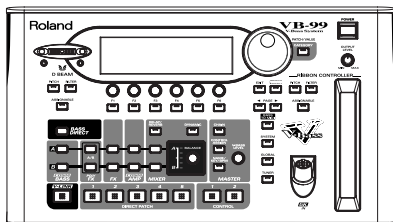
❏ **AC adaptor (PSB-1U)**
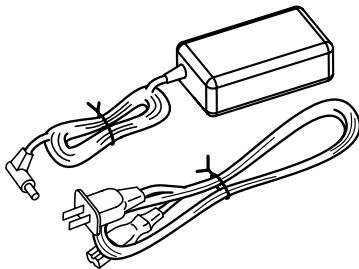
❏**GK cable (5 m)**
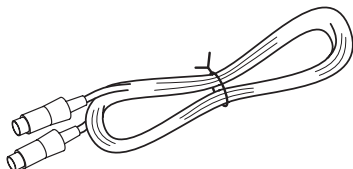
❏ **USB cable**
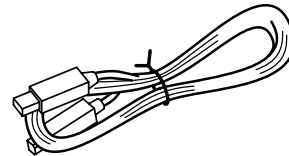
❏ **RRC2 cable**
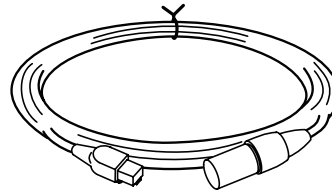
❏ **Knob bolt x 4**

❏ **VB-99 Software CD-ROM**

❏ **Owner's Manual (this manual)**

Main Features

Ultimate bass modeling system provides unlimited possibilities in creating sounds

The VB-99 is the culmination of Roland's COSM technology-based bass modeling systems. Featuring advanced software supported by the very latest custom DSP chips, the instrument also offers a large-sized high-contrast LCD, top-quality AD/DA converters, balanced XLR output connectors, digital output connectors, USB connector, and other features that all add up to a truly pro-spec system.

> **About COSM (Composite Object Sound Modeling)**
>
> Composite Object Sound Modeling—or "COSM" for short—is BOSS/Roland's innovative and powerful technology that's used to digitally recreate the sound of classic musical instruments and effects. COSM analyzes the many factors that make up the original sound—including its electrical and physical characteristics—and creates a digital model that accurately reproduces the original.

Two complete sound creation systems

The VB-99 features two separate bass and COSM amp systems. You can use two different types of modeled basses simultaneously and create different amp sounds to use with each bass. What's more, the VB-99 comes equipped with two effects systems featuring a huge selection of BOSS effects, including COSM effects. This all enables you to achieve the perfect processing for each individual bass.

Equipped with D Beam, ribbon, and other new realtime controllers

The VB-99 now enables new and heretofore unimaginable forms of musical expression, including new ways of using the bass's neck and your hands. Of course, you can still connect expression pedals and control switches as well, just as with previous V-Bass systems.

Console style accommodates a variety of usage environments

The VB-99 can be set up in a number of different ways to suit the needs of the user—as a desktop unit for recording or when using computer input, attached to its stand (optional) and set up right by the performer, or placed in a rack with the (optional) rack mount adaptor.

Combine with the FC-300 to create the perfect live system

Connecting a Roland FC-300 MIDI Foot Controller (optional) to the VB-99 allows you to switch tones and carry out other tasks using the FC-300's multiple foot pedals for easy hands-free operation. These units also feature an RRC2 connector, allowing you to connect the VB-99 and FC-300 with a single cable. This RRC2 function enables two-way communications between the devices, while further acting as a power supply to the FC-300, thus reducing the number of cables used to connect the devices.

Includes pitch/MIDI conversion function

The VB-99 can convert and output bass performance data as MIDI information, allowing you to connect a synthesizer sound module or similar device and use the setup as a bass synthesizer.

Features V-LINK function

This function enables you to use performance data and pedal operations in controlling video.

> **V-LINK**
>
> V-LINK is a function that allows music and images to be performed together. By using MIDI to connect two or more V-LINK compatible devices, you can easily enjoy a wide range of visual effects that are linked to the expressive elements of a music performance.

Names of Things and What They Do

Top Panel

1. **D BEAM**

    Switches the D Beam on and off. You can add a variety of
    effects to your sounds by moving your hand or the bass neck
    within the range of the beam. (p. 71)
    *   PITCH Button
        In addition to changing the pitch of the bass, this can be
        used for the Freeze function, which continuously holds
        the bass's tone. (p. 73)
    *   FILTER Button
        This changes the bass's tone. (p. 75)
    *   ASSIGNABLE Button
        Use this to assign different parameters and functions to
        the D Beam and change the tone in real time. (p. 77)

2. **LCD**

    Various information regarding the VB-99 is indicated here.

3. **PATCH/VALUE Dial**

    Used to switch patches and change settings values.

4. **CATEGORY Button**

    Used to select and change categories. (p. 85)

5. **FUNCTION Knob F1–F6**

    Changes the value of the setting for the parameter indicated in
    the LCD.

6. **FUNCTION Buttons F1–F6**

    Used to select the parameters indicated in the LCD.

7. **BASS DIRECT Button**

    This outputs only the normal pickup sound. (p. 27)

8. **COSM BASS Buttons**

    These set the COSM bass type and tone. (p. 26)

9. **POLY FX (Poly Effects) Buttons**

    These set the poly effects. (p. 28)

10. **FX (Effects) Buttons**

    These set the effects. (p. 28)

11. **COSM AMP Buttons**

    Used to make settings for the COSM amp. (p. 27)

12. **MIXER Buttons**

    Used to make settings for the mixer. (p. 31)

13. **DELAY/REVERB Button**

    Used to make settings for the mixer section's delay and
    reverb. (p. 32)

14. **DYNAMIC Button**

    Used for setting the dynamics. (p. 32)

15. BALANCE Knob

Sets the mix balance. (p. 32)

16. CHAIN Button

Used to make settings for the effect and COSM bass/COSM amp connection sequence. (p. 31)

17. CONTROL ASSIGN Button

This sets the functions assigned to pedals and switches. (p. 76)

18. NAME/KEY/BPM Button

Used to specify patch names (p. 34) and the tempo and key (p. 29) for songs to be played.

19. V-BASS LEVEL Knob

Adjusts the volume of a patch. (p. 33)

20. V-LINK Button

This switches the V-LINK function on and off. (p. 90)

21. DIRECT PATCH Buttons

Use these to directly call up the patches you have assigned to them. (p. 81)

22. CONTROL Buttons

You can assign and control a variety of different functions with these buttons. (p. 77)

23. EXIT Button

Used to return previous screens and to undo operations.

24. WRITE Button

Use for storing settings in patches and executing operations. (p. 34) (p. 82)

25. PAGE Buttons

This switches the screens displayed in the LCD.

26. BASS TO MIDI Button

This sets the BASS TO MIDI function (the function that converts what is played on the bass into MIDI signals). (p. 58)

27. SYSTEM Button

Used for making settings related to the VB-99's operating environment. (p. 35)

28. GLOBAL Button

This sets the GLOBAL function (which affects the tone of all patches). (p. 40)

29. TUNER Button

This turns the tuning function on. (p. 23)

30. RIBBON CONTROLLER

This allows you to change the tone by sliding your finger along the ribbon.

You can switch a variety of effects on and off directly with the three buttons. (p. 73)

- PITCH Button
  Changes the bass's pitch. (p. 74)
- FILTER Button
  Alters the brightness of the sound. (p. 75)
- ASSIGNABLE Button
  Use this to assign different parameters and functions to the ribbon controller and change the tone in real time. (p. 77)

31. GK IN Connector

Connect the GK cable here.

32. POWER Switch

Switches the power on and off. (p. 19) (p. 25)

33. OUTPUT LEVEL Knob

This adjusts the volume level for the MAIN OUT jacks and headphone jack.

MEMO **About the Illumination of Buttons**

When a button is lit, it indicates that the function for that button is switched on.

* *The corresponding DIRECT PATCH button (1–5) lights when a Direct Patch (1–5) is selected.*

13

Rear Panel

1. Security Slot (🔒)

Connect a commercially available anti-theft security cable here.
http://www.kensington.com/

2. BASS INPUT Jack

Use this jack when directly inputting a normal bass.

3. BASS OUTPUT Jack

This outputs sounds from normal basses connected to a GK-3B and unaltered signals from the BASS INPUT jack.

4. SUB OUT Connectors L, R

These balanced output jacks use XLR type connectors.

* *The SUB OUT L and R connectors are unaffected by the OUTPUT LEVEL knob settings; output is constant at a fixed output level (+4 dBu).*

5. GND LIFT Switch

You can disconnect the SUB OUT connectors' No. 1 pin from the VB-99's ground.
 Normally, this is set to GND. Switch to LIFT if a ground loop or similar problem is causing the output of hum or noise.

6. MAIN OUT Jacks L/MONO, R

These are unbalanced phone jack outputs. Use these to connect to amps, mixers, and similar equipment.

7. PHONES Jack

Connect headphones here.

8. DIGITAL OUT Connector

Digital audio signals are output here. (p. 33)

9. EXP PEDAL (EXPRESSION PEDAL) Jack

Connect an optional expression pedal (such as a Roland EV-5) here. (p. 17)

* *The VB-99 is set at the factory so that the pedal is automatically enabled to function as a foot volume.*

10. CTL3,4 (CONTROL 3,4) Jack

An optional footswitch (such as an FS-6) can be connected here. (p. 17)

* *The patch up/down function is assigned to this jack at the factory.*

11. USB Connector

Use a USB cable to connect a computer to this connector and enable exchange of data between the VB-99 and the computer. (p. 65)

12. RRC2 IN Connector

Accepts connection of an FC-300 (optional).
This connector supplies power to the FC-300 and provides for two-way communications with it. (p. 46)

* *The RRC2 IN connector is for use exclusively with the FC-300. It cannot be used with other devices.*

13. MIDI OUT, IN Connector

Connect an external MIDI device here to transmit and receive MIDI messages to and from the device. (p. 52)

14. DC IN (AC Adaptor) Jack

Connect the included AC adaptor here.
To prevent damaging the VB-99, please be sure not to use any AC adaptor other than the one included with the VB-99.

15. Cord Hook

Fasten the AC adaptor cord using this hook to prevent the cord from being disconnected accidentally. (p. 18)

* *Disconnecting the AC adaptor while the VB-99 is in use may result in corruption of important data.*

Signal Flow
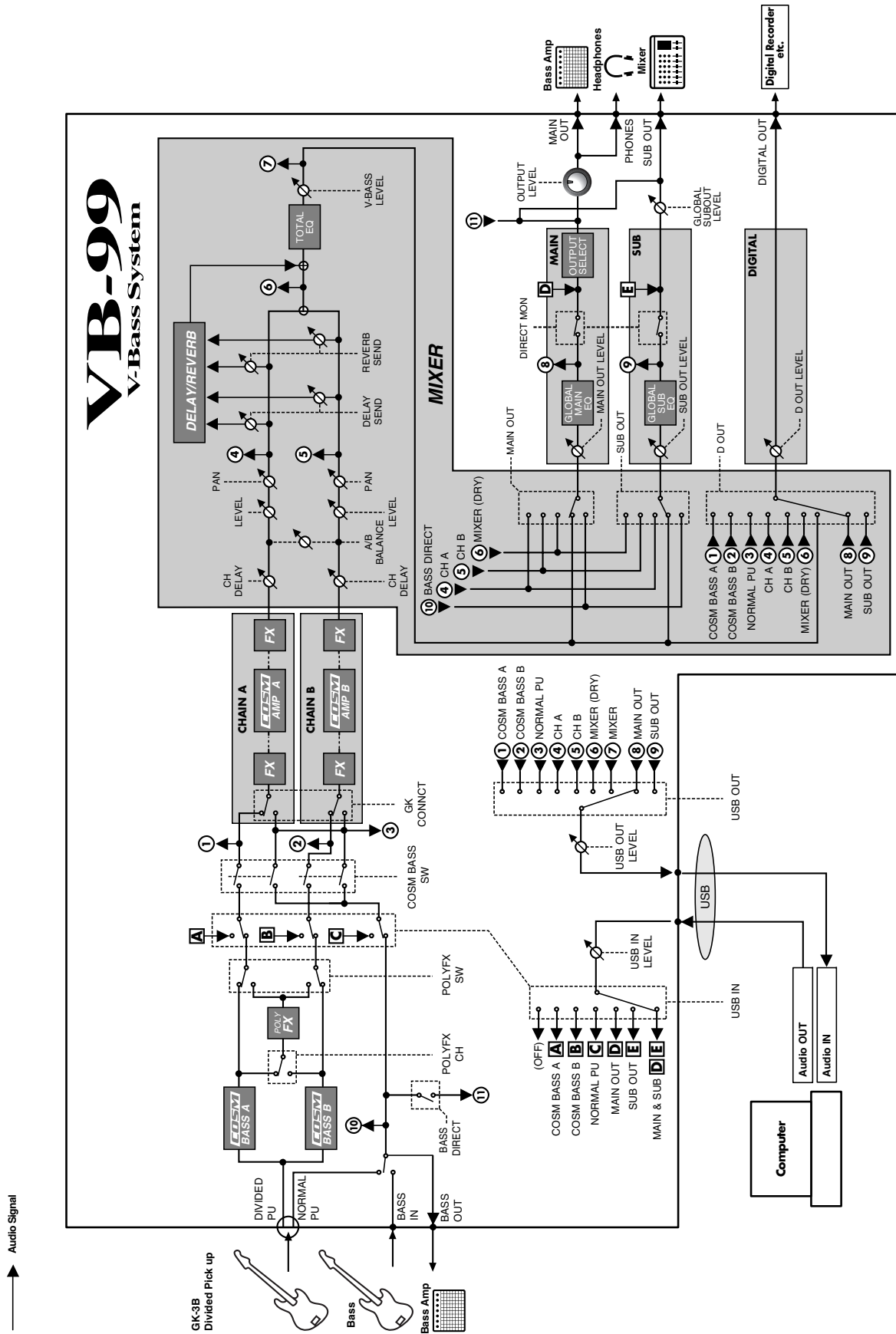
Chapter 1 Outputting Sounds

Installing the Divided Pickup

First install the GK-3B divided pickup (optional) on the bass to be used. For installation instructions, refer to the GK-3B Owner's Manual.

NOTE

The GK-3B cannot be used with the following basses (the pickup will not function properly even when installed).

* Basses with an unconventional string configuration, such as multi-stringed basses with seven or more strings, or double basses (acoustic string basses)
* Nylon-stringed or gut-stringed basses and basses using any non-steel strings
* Other basses whose construction does not provide adequate space to properly attach the GK-3B

About the GK-3B's GK Volume Control

With the VB-99, you can assign various different functions to the GK-3B's GK volume control. (p. 77)

You may not be able to control the VB-99's volume level with the GK volume control when another parameter is assigned to the GK volume control.

About the GK-3B's Select Switches

As the VB-99 allows you to set the balance between the COSM bass and the normal bass volume in each individual patch, we recommend that MIX be the basic function used for the select switch.

Also note that if a parameter other than volume is assigned as the GK volume control function, the GK-3B's select switch will stop functioning normally.

Before Connecting

To perform with the VB-99, first set up the following devices.

* A bass on which the GK-3B has been installed or equipped with internal GK function
* Bass amp/speaker or headphones

Performing can be made even more convenient using the following devices:

* MIDI foot controller (Roland FC-300; optional)
* Expression pedal (Roland EV-5 or BOSS FV-500L/500H with a connection cable (stereo 1/4" phone – stereo 1/4" phone); optional)
* Pedal switch (BOSS FS-5U or FS-6; optional)

Making the Connections

Top Panel

GK cable

Bass with GK-3B / GK-2B

Rear Panel

Stereo
Headphones

Digital
Recorder etc.

MIDI IN

Synthesizer
(external sound module) etc.

Mixer etc.

MIDI Sequencer etc.

(Normal Bass)

MIDI IN

V-LINK
Compatible Device
(EDIROL P-10 etc.)

MIDI IN

MIDI OUT

AC Adaptor PSB-1U

To the Power Outlet

RRC2 cable

EXP Pedal
(EV-5 etc.)

Footswitch
(BOSS FS-6 etc.)

Computer

MIDI Foot Controller
FC-300

Bass Amp

(for Normal Bass)
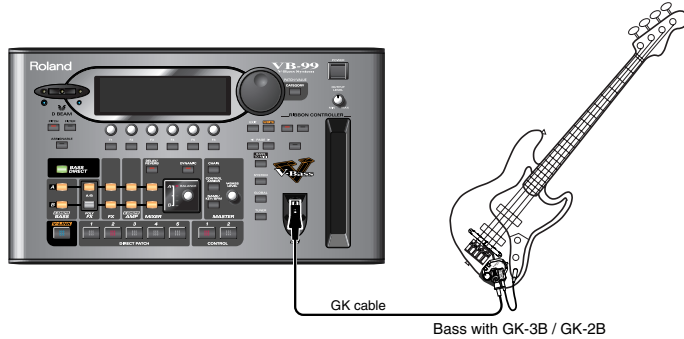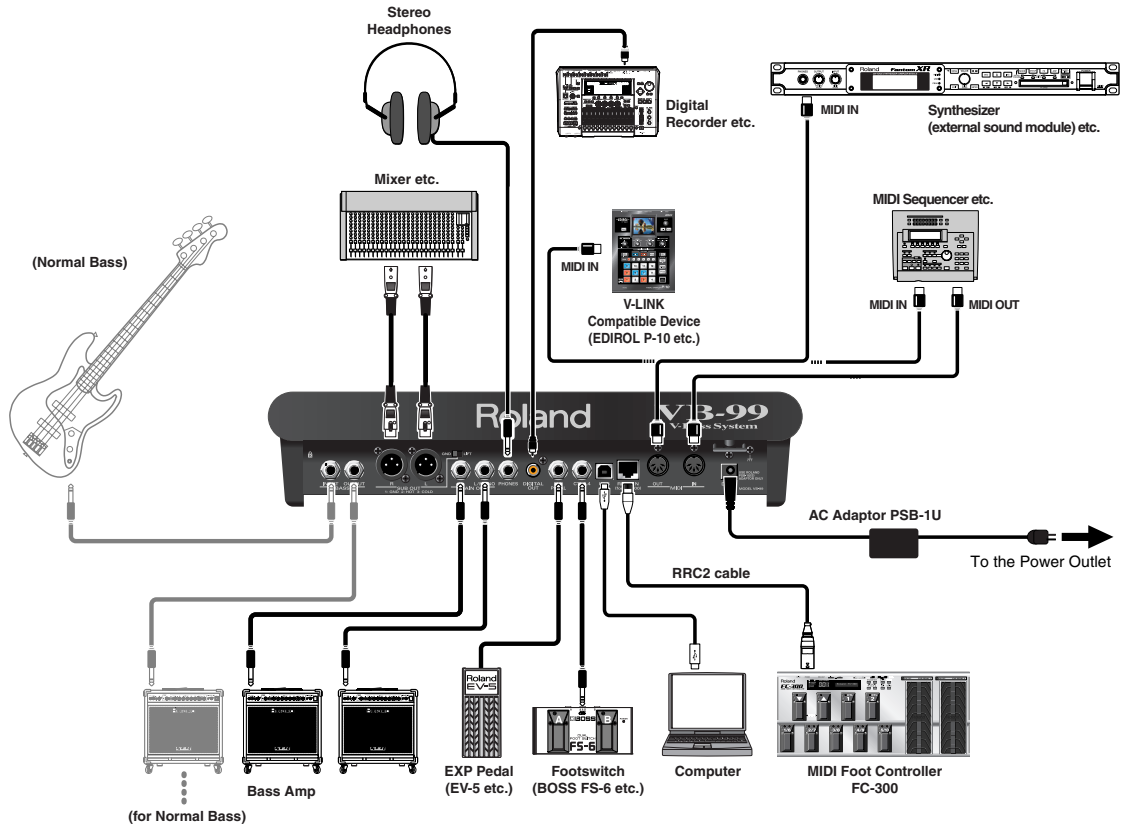
Example of Connections When Using Effects Units

Example 1)

Bass with GK-3B / GK-2B

MAIN
OUT

GK-IN

GK cable

Bass Amp Effector VB-99

Example 2)

Bass with GK-3B / GK-2B

MAIN
OUT

GK-IN

BASS
INPUT

GK cable

Bass Amp Effector VB-99

Effector

17
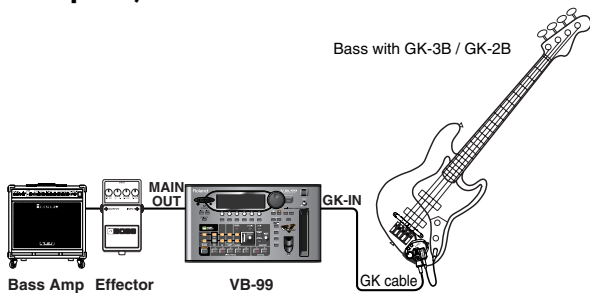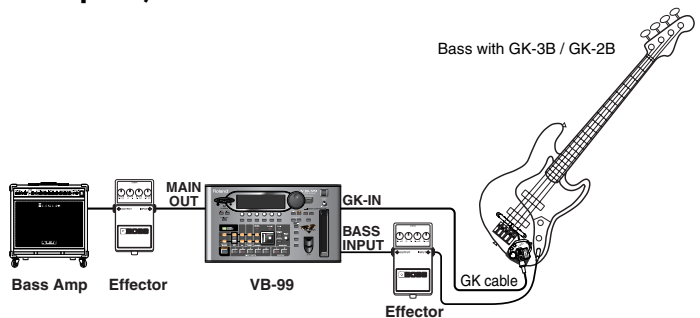
* The GK cable is a locking cable. When disconnecting the cable, do not pull on it with undue force, but instead release the lock and gently disconnect the cable. You can disconnect the cable simply and easily by holding down the locking portion with your finger and gently pulling on the plug.
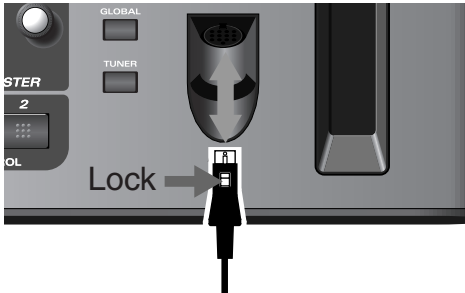
* To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

* Place the AC adaptor so the side with the indicator (see illustration) faces upwards and the side with textual information faces downwards.
  * The indicator will light when you plug the AC adaptor into an AC outlet.
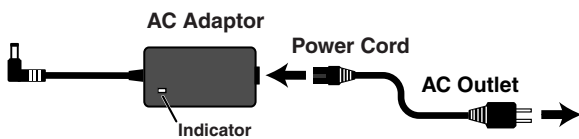
* To prevent the inadvertent disruption of power to your unit (should the plug be pulled out accidentally), and to avoid applying undue stress to the AC adaptor jack, anchor the power cord using the cord hook, as shown in the illustration.
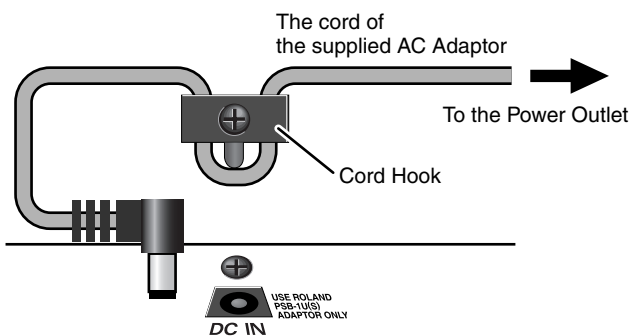
* Wiring diagrams for CTL3, 4 jack is shown below. Make connections after first checking the wiring diagrams of other equipment you intend to connect.
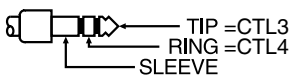
* You cannot use COSM BASS or POLY FX with signals input via

* This instrument is equipped with balanced type jack (XLR=SUB OUT). Wiring diagrams for this jacks is shown below. Make connections after first checking the wiring diagrams of other equipment you intend to connect.
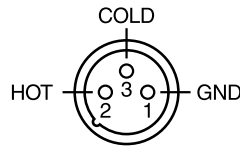
* Use only the specified expression pedal (Roland EV-5, BOSS FS-500L/500H with a connection cable (stereo 1/4" phone – stereo 1/4" phone); sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.

* Depending on the circumstances of a particular setup, you may experience a discomforting sensation, or perceive that the surface feels gritty to the touch when you touch this device, microphones connected to it, or the metal portions of other objects, such as basses. This is due to an infinitesimal electrical charge, which is absolutely harmless. However, if you are concerned about this, connect the ground terminal (see figure) with an external ground. When the unit is grounded, a slight hum may occur, depending on the particulars of your installation. If you are unsure of the connection method, contact the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

Unsuitable places for connection
  * Water pipes (may result in shock or electrocution)
  * Gas pipes (may result in fire or explosion)
  * Telephone-line ground or lightning rod (may be dangerous in the event of lightning)

* When connection cables with resistors are used, the volume level of equipment connected to the BASS INPUT may be low. If this happens, use connection cables that do not contain resistors.

* Never connect anything other than the FC-300's RRC2 OUT connector to the VB-99's RRC2 IN connector. Connecting to a LAN or other devices that use modular jacks of the same size and shape (RJ45) may result in damage to the VB-99 and/or the connected device.

* If using a commercially available ethernet cable as the RRC2 connecting cable, be sure that the cable meets the following specifications:
  * Category 5 (Cat5) or above
  * Maximum length of 15 meters
  * Cable designed for straight-through connections
  * Crossover cables cannot be used.

* Do not subject the RRC2 cable to stress or physical shock.

* Carefully connect the RRC2 cable all the way in–until it is firmly connected to the RRC2 IN connector.

* When outputting in mono, connect a cable only to the MAIN OUT L/MONO jack.

BASS IN. The GT-10B's internal FX, COSM AMP, MIXER, and

other settings can be used fully in two channels.

*   *When connecting an expression pedal to the EXP PEDAL jack, set the pedal's minimum level knob to the MIN position.*

*   *When connecting an FS-6 footswitch (optional) to the CTL3/4 jack, set the MODE switch and POLARITY switch as shown below.*
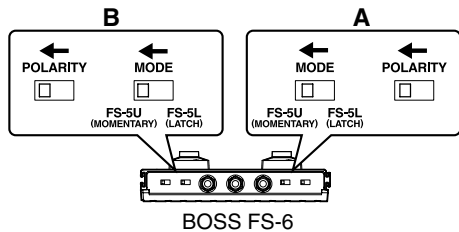
BOSS FS-6

*   *When connecting an FS-5U footswitch (optional) to the CTL3/4 jack, set the POLARITY switch as shown below.*
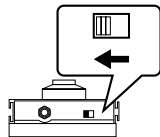
BOSS FS-5U

*   *You can connect two FS-5Us using the special Roland PCS-31 connection cable (optional).*

*   *When an FS-6 is connected to the CTL3,4 jack with an optional connection cable (stereo 1/4" phone – stereo 1/4" phone), pedal switch B operates according to the CONTROL 3 settings, and pedal switch A operates according to the CONTROL 4 settings.*
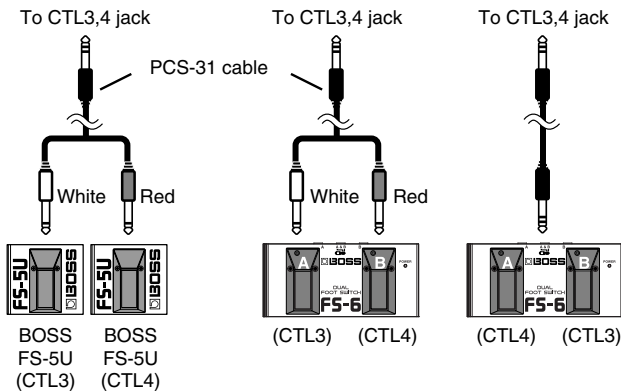
cf.

*   When using the VB-99 with an expression pedal connected to the EXP PEDAL jack, make the settings described on **"EXP PEDAL (Expression Pedal)"** (p. 139).
*   When using the VB-99 with a footswitch connected to the CTL3/4 jack, make the settings described on **"CTL3, CTL4 (Control3, Control4)"** (p. 139).

Turning On the Power

Once the connections have been completed (p. 17), 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.

*   *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.*

*   *Always make sure to have the volume level turned down before switching on power. Even with the volume all the way down, you may still hear some sound when the power is switched on, but this is normal, and does not indicate a malfunction.*

*   *Turning on devices in the wrong sequence may result in malfunction and/or damage to speakers and other devices.*

1. Switch on the POWER switch on the VB-99's top panel.

The display changes as described below, and after several seconds the VB-99 is ready for normal performance.
This screen is called the "Play screen."

Unless special note is made otherwise, the operations described in this manual are carried out with the Play screen displayed.

*   *When the power to the VB-99 is turned on, the patch selected at the time the power was last turned off is called up.*

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

2. Turn on the power to the bass amp or mixer.

*   *Raise amp volume levels only after turning on the power to all the devices.*

About the Play Screen

The VB-99 has a variety of Play screen variations, each providing different information about the current state of the VB-99.

You can switch the information shown in the Play screen by pressing PAGE [◄] [►].

Screen 1:

The first nine characters of the patch name are displayed in large type; also shown are icons for the basses and amps in both channels.

Screen 2:

All sixteen characters of the patch name are displayed.

Screen 3:

The effects used, as well as their connection sequence (CHAIN) in both channels are indicated.

Screen 4:

The screen shows level meters for the GK IN strings Hi C–Low B, normal pickup, MAIN OUT, and SUB OUT levels.

TIP

By assigning parameters to the F1–F6 knobs, as described in **"Changing the Sounds with the Function Knobs as You Play (DIRECT EDIT)"** (p. 76), you can use them to control values while in the Play screen. Additionally, you can display a popup for the assigned parameters and their values by pressing the [F1]–[F6] buttons.

About the Information in the Display (Basic Operation)

Some screens may contain parameters spanning multiple pages. The page number is indicated at the upper right of the screen.
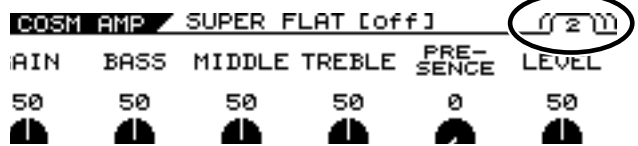
1. **Use PAGE [◄] [►] to switch pages.**

2. **Use [F1]–[F6] or the F1–F6 knobs to change the values.**

TIP

Pressing a FUNCTION button while SET** appears in the lower part of the screen sets the corresponding function to the indicated value of **.

Adjusting the Volume

Turn the OUTPUT LEVEL knob to set the volume to a suitable level.

*   *The output level from the SUB OUT connector (XLR type) cannot be adjusted with the OUTPUT LEVEL knob.*

*   *You can adjust the volume level by assigning this function to the expression pedal or GK-3B GK volume control. For details, see* **"Using the Switches, Pedals, and MIDI to Control the Sounds (CONTROL ASSIGN)"** *(p. 77).*

Setting the Device (Amp) Connected to MAIN OUT (Output Select)

Use this procedure to set the type of device connected to the MAIN OUT jacks.

1. **Press [GLOBAL].**

   The Global screen is displayed.

2. **Press PAGE [◄] to go to Page 1.**

3. **Press [F4] (SELECT) or turn the F4 knob to set the type of device to be connected to the MAIN OUT jacks.**

Value	Explanation
AMP WITH TWEETER	Use this setting when connecting to a tweeter-equipped bass amp.
AMP NO TWEETER	Use this setting when connecting to a bass amp that has no tweeter. The high-frequency range is adjusted.
LINE/PHONES	Use this setting when using headphones or connecting directly to a PA system or multi-track recorder.

4. **Press [EXIT] to return to the Play screen.**

Inputting the Divided Pickup Settings (GK Settings)

The VB-99's sound characteristics vary greatly depending on how the divided pickup is installed. To ensure consistent conditions for optimal sound production, be sure to make the settings affecting the divided pickup (the GK settings). With these settings appropriately made, the VB-99 can then operate under optimal conditions.

* *For information on parameters not described in this chapter, refer to "GK SETTING" (p. 145).*

(MEMO)

When using more than one bass with the VB-99, you can save the settings for each bass separately.

NOTE

The GK settings are extremely important to getting good tones from the VB-99. Be sure to input the settings correctly.
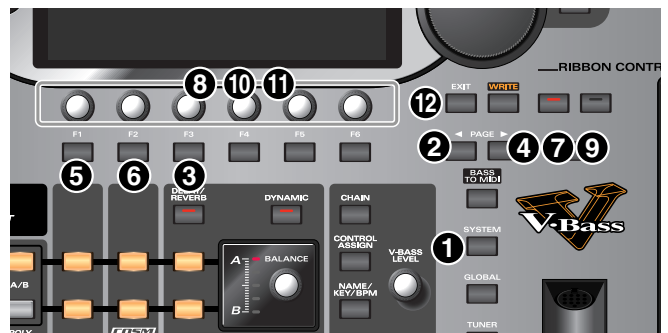
1. **Press [SYSTEM].**

   The System screen is displayed

2. **Press PAGE [◄] to go to Page 1.**

3. **Press [F3] (GK).**

   The GK Settings screen is displayed.

4. **Press PAGE [◄] [►] to go to Page 2.**

5. Select the divided pickup type.

Use the F1 knob to set the type of divided pickup installed in the bass you are using.

Settings	Explanation
GK-3B	Specifies the GK-3B.
GK-2B	Specifies the GK-2B.
PIEZO	This is suited to piezo pickups that have a flat response.
PIEZO G	This is suited to piezo pickups made by Graph Tech Guitar Labs.
PIEZO R	This is suited to piezo pickups made by RMC Pickup Co.

*   *If you're not sure which piezo type parameter is appropriate, choose the parameter for the piezo type that sounds the most natural as you play.*

*   *Piezo pickups are a type of pickup that are installed at the bass's bridge and use piezoelectric elements to determine the string vibrations.*

*   *Selecting PIEZO, PIEZO G or PIEZO R for GK PU TYPE lets you further adjust the sound quality of the low and high frequency ranges. For detailed information, refer to* **"Selecting the Divided Pickup Type (GK PU TYPE)"** *(p. 36).*

6. Set the scale length.

Use the F4 knob to set the scale length (the distance from the bridge to the nut) of the bass you are using. Then, specify the value within 710-940 mm, or select one of the 4 presets listed below.

Settings	Scale Length
SHORT	760mm
MEDIUM	812mm
LONG JB/PB	864mm
EXTRA LONG	914mm

7. Select the position of the divided pickup.

Use the F5 knob to set the position of divided pickup installed in the bass you are using.
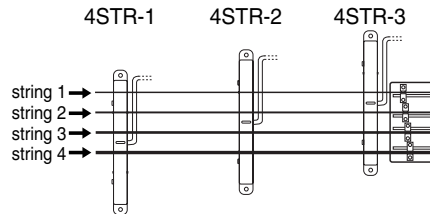
For a 4-string bass:
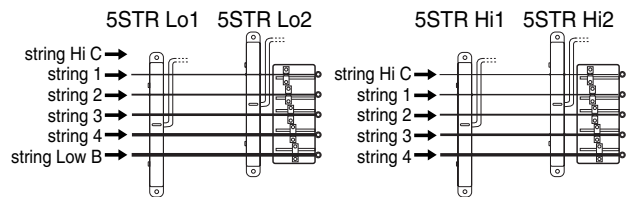
For a 5-string bass:

For a 6-string bass:
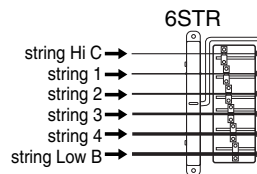
8. Press PAGE [►] to go to Page 4.

9. Input the gap between the pickup and the bridge.

Set the clearance from the divided pickup to the bridge's saddle.
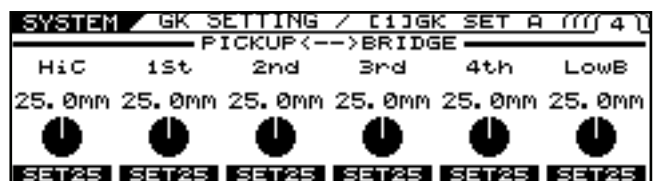
*   *This setting is not required when the GK PU TYPE is set to piezo type parameter.*

10. Press PAGE [►] to go to Page 5.
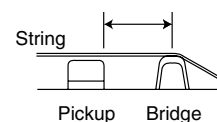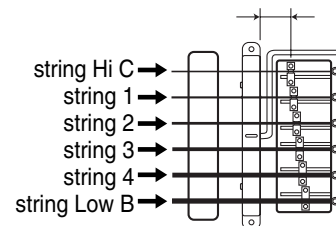
```
SYSTEM / GK SETTING / [1]GK SET A ///// 5
F1 SENS HiC    ⊘  65 ···························
F2 SENS 1st    ⊘  65 ···························
F3 SENS 2nd    ⊘  65 ···························
F4 SENS 3rd    ⊘  65 ···························
F5 SENS 4th    ⊘  65 ···························
F6 SENS LowB   ⊘  65 ···························
```
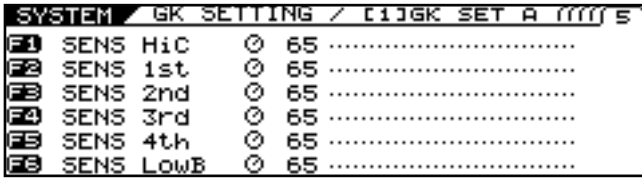
11. Rotate the F1–F6 knobs to adjust the divided pickup sensitivity for each string.

First play the Low B string with the maximum force to be used during actual performance, and as you play the string, set the sensitivity with the F1 knob until the meter registers at a point just before it crosses beyond the maximum level.

Set the sensitivity for the fifth through Hi C strings in the same manner.

*   If the level meter registers in excess of the maximum level, it means the level is set too high. Lower the sensitivity setting.

*   Depending on the bass you are using, the level meter may move to the maximum level even when the sensitivity is set to the minimum setting. If this occurs, adjust the clearance separating the divided pickup and the strings so the distance is slightly greater than specified.

12. Check the volume balance of the six strings.

Play the Low B through Hi C strings with the normal amount of force; if any string sounds particularly loud, lower the sensitivity setting for that string, and keep adjusting until the differences in the strings' volume levels are minimal.

13. Press [EXIT] several times to return to the Play screen.

*   Making these settings is necessary whenever you install the divided pickup on a new or different bass and when the divided pickup height is changed. Once the settings are completed properly, they are saved when the power is turned off. Afterwards, you need not make the settings each time you play the instrument.

cf.

For more information on other parameters in the GK Settings, refer to **"GK SETTING"** (p. 145).

Tuning the Bass (TUNER)

Tune the bass using the VB-99's tuner function.

*   To get the best tone quality from the VB-99, make sure the tuning is accurate.

1. Press [TUNER].

The tuner function is switched on.

2. Set the following with the PAGE [◄] [►] buttons.

TUNER	Explanation
MULTI MODE	You can play and tune six strings simultaneously.
SINGLE MODE	You can play one individual string to tune that string.

3. Press the function button ([F5], [F6]) corresponding to the function you want to set, then rotate the knobs to select the value for the setting.

If you do not want to change these settings, proceed to Step 4.

*   [F5] (PITCH: 435 Hz–445 Hz)
    This sets the reference pitch.

*   With the factory settings, this is set to 440 Hz.

*   The COSM bass PITCH SHIFT, HARMO, and BEND settings controlled by the KEY parameter and the HARMONIST effect refer to this reference pitch.

TERM

What is the Reference Pitch?

This is the frequency at A4 (the note played with the A key at the middle of the piano keyboard) played by the instrument (e.g., piano) used as the reference for tuning for performances.

- **[F6] (MUTE OFF, MUTE ON)**
  This setting determines whether sounds from the output jacks are output or not while tuning is in progress.

TUNER	Explanation
MUTE OFF	Sounds are output during tuning.
MUTE ON	Sounds are not output during tuning. * *With the factory settings, this is set to MUTE ON.*

4. Play a single note, open, on the string being tuned.

5. Tune the string until the name of the string is shown in the display.

When you choose the MULTI MODE
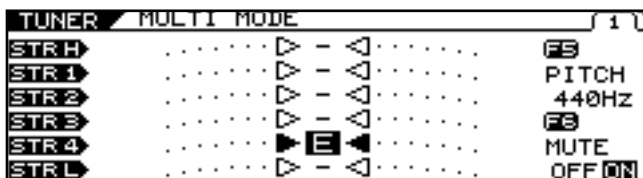
When you choose the SINGLE MODE
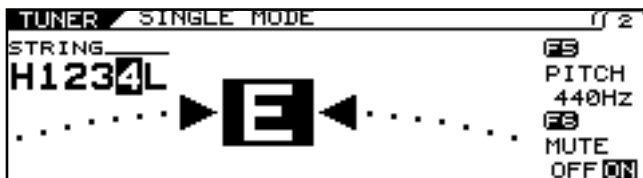
6. Keep checking the screen, tuning until the center indicator lights up.
Repeat Steps 3-5 to tune all the strings.

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

This completes the preparations for playing the instrument. Now try playing some sounds.

Switching Tones (Patch)

What is a patch?
The VB-99 provides 400 memory locations where settings determining the sound, including those for COSM basses, COSM amps, and effects, as well as settings for a variety of other parameters are stored.
Each one of these is called a patch.
Each time you switch a patch, you can instantly change to a different tone.

About the Patch Numbers

Patch numbers and patch names are indicated in the Play screen as shown below.
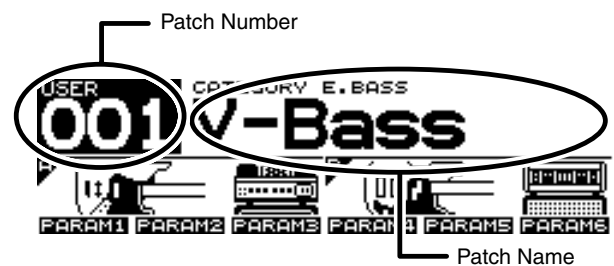
Patches are categorized into User patches and Preset patches.

User Patches
These include 200 preprogrammed patches. You can freely change the tones and save the your changes.

Preset Patches
Included here are 200 preprogrammed patches. Although you can make changes to these tones, you cannot save these changes in a Preset Patch. If you want to save a changed tone, save it as a User patch.

Switching with the PATCH/ VALUE Dial

You can switch patches consecutively with the PATCH/VALUE Dial.

1. Confirm that the Play screen is displayed.

If a screen other than the Play screen is shown, press [EXIT] several times until the Play screen appears.

2. Rotate the PATCH/VALUE dial to switch the patches.
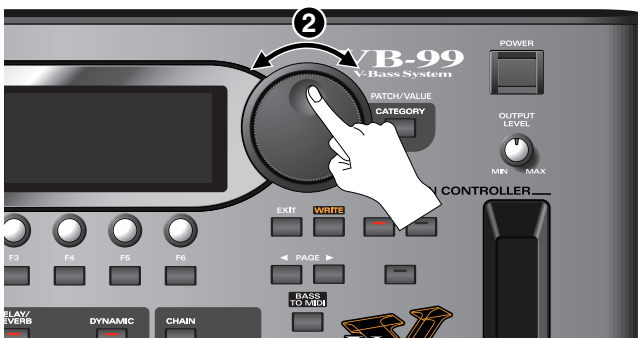
Turn the dial to the right (clockwise) to switch to the next patch number, or to the left (counterclockwise) to switch to the previous patch number.

Turning Off the Power

1. Confirm the following before turning off the power.

• Are the volume levels for the VB-99 and connected amp and other devices turned down completely?

2. Turn off the power to the bass amp (power amp).

3. Press [POWER] to turn off the VB-99's power.

NOTE

The message "NOW SHUTDOWN..." appears when the power is switched off. The VB-99's current settings are saved to memory at this time. Do not disconnect the AC adaptor until this message is no longer displayed.

Chapter 2 Creating Sounds

First, let's take a look at how the VB-99 is organized internally.

● COSM Basses

You can use COSM modeling to create the tones of a variety of different bass guitars. Available sounds include not just electric bass and acoustic bass tones, but extend beyond to include the sounds of synthesizers and electric guitars and even non-existent, imaginary bass guitars. Since the created sounds are based on the signals sent by the GK-3B for each individual string, the system allows you to play these sounds while still retaining all the flavor created by the unique playing techniques and picking nuances that the bass guitar offers.

The VB-99 allows you to make settings for two different COSM bass types at the same time, enabling you to instantly switch what amounts to two actual bass guitars and create sounds in which two bass guitars seem to be playing at the same time.

● COSM Amps

Since this technology models the bass amp circuitry and speaker characteristics, the modeled amps simulate exactly the behavior of the actual amps, even in the way distortion is added and the way the tone controls work.

You can configure preamps and speaker cabinets as you like—you can even model the amp's studio miking. The VB-99 produces two independent COSM amp systems at the same time, which allows you to process each of the two COSM basses through a different amp.

● Poly Effects

These are original VB effects that can be applied independently to each string. You can choose which of the two COSM basses the effects are applied to.

● Effects

The VB-99 is equipped with two BOSS GT-10B class multi-effects systems. You can apply effects separately to each of the two COSM basses.

● Mixer

In addition to having full freedom in mixing the sounds from the two COSM basses, you can also output the two bass guitars separately to MAIN OUT and SUB OUT. The Dynamic function further allows you to use the force of your playing attack to switch between the two bass sounds or many other functions. Furthermore, the mixer section also includes delay/reverb and an equalizer, enabling you to adjust the overall tone of the patches.

Setting the COSM BASS Tone

1. **Press [COSM BASS].**

2. **Press PAGE [◄] several times to display Page 1.**

3. **Use [F1] (ON/OFF) or the F1 knob to switch the COSM BASS ON/OFF setting.**

4. **Use [F2] (SELECT) or the F2 knob to select the Modeling type.**

5. **Use [F3] (SELECT) or the F3 knob to select the COSM BASS type.**

6. **Press PAGE [►].**

   * *Each press of PAGE [►] takes you to the next screen in which parameter settings are made.*

7. **Adjust the desired parameter with [F1]–[F6] or the F1–F6 knobs.**

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

   cf.

   For detailed information about each of the parameters, refer to **"COSM BASS"** (p. 96).

9. **If you want to save the edited settings, perform the Write procedure (p. 34).**

   * *If you do not want to save, press [EXIT] to return to the Play screen.*

One-touch Output of the Bass Direct Sound (BASS DIRECT)

Setting BASS DIRECT to "on" enables you to output the direct bass sound at a single touch.

It's possible to create sounds like bass direct sound plus synthesizer bass sound by combining the direct bass sound with COSM bass, effect, or COSM amp sound.

Press [BASS DIRECT] to switch this off (unlit) or on (lit).

You can store the BASS DIRECT setting in memory for each individual patch.
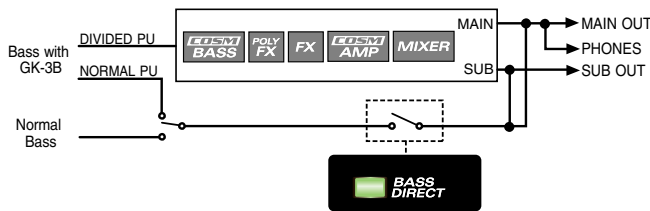
Applying the COSM Amps and Effects to Normal Pickup Sound

Setting the COSM BASS switch to "NORMAL PU" lets you apply COSM amps or effects using the normal pickup sound for the bass instead of the COSM bass.
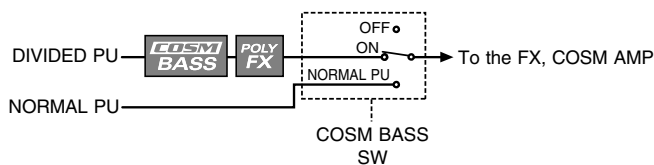
Setting the COSM AMP Tone

1. **Press [COSM AMP].**

2. **Press PAGE [◄] several times to display Page 1.**

3. **Use [F1] (ON/OFF) or the F1 knob to switch the COSM AMP ON/OFF setting.**

4. **Use [F2] (SELECT) or the F2 knob to select the COSM AMP type.**

5. **Press PAGE [►].**

   * *Each press of PAGE [►] takes you to the next screen in which parameter settings are made.*

6. **Adjust the desired parameter with [F1]–[F6] or the F1–F6 knobs.**

7. **Adjust the parameters until you achieve the sound you want.**

cf.

   For detailed information on all the parameters, refer to **"COSM AMP"** (p. 128).

8. **If you want to save the edited settings, perform the Write procedure (p. 34).**

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

Setting the Effects

POLY FX (Poly Effect)

* *You can use POLY FX in only one channel at a time (A or B).*

1. Press [POLY FX] for the channel, either A or B, in which you want to use it.

2. Press PAGE [◄] several times to display Page 1.
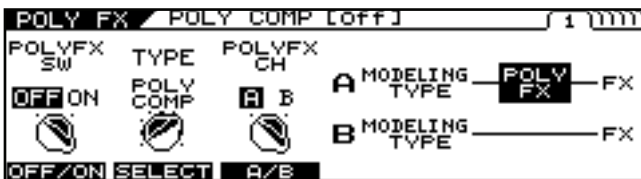
3. Switch the function on or off with the [F1] (ON/OFF) or the F1 knob.

4. Select the POLYFX TYPE with [F2] (SELECT) or the F2 knob.

5. Using [F3] (A/B) or the F3 knob, switch the channel to the one in which POLY FX is to be used.

6. Press PAGE [►].

* *Each press of PAGE [►] takes you to the settings screen for the next parameter.*

7. Set the desired parameter with [F1]–[F6] or with the F1–F6 knobs.

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

cf.

For detailed information on all the parameters, refer to **"POLY FX (Poly Effect)"** (p. 108).

9. If you want to save the edited settings, perform the Write procedure (p. 34).

* *If not saving the values, press [EXIT] to return to the Play screen.*

FX (Effects)

Here's how to make settings for the effects.

1. Press [FX].
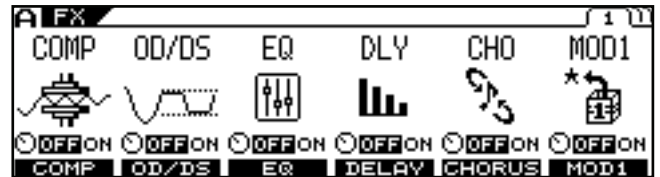
2. Switch the individual effects on or off with the [F1]–[F6] (ON/OFF).

* *Each press of PAGE [◄] [►] takes you to another effect screen in which parameter settings are made.*

TIP

All effects that are on can be alternately switched off (indicator unlit) and on (indicator lit) together by pressing [FX].

3. Press [F1]–[F6] to select the effect you want to edit.

4. Adjust the desired parameter with [F1]–[F6] or the F1–F6 knobs.

* *Each press of PAGE [►] takes you to the settings screen for the next parameter.*

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

cf.

For detailed information on all the parameters, refer to **"FX (Effects)"** (p. 111).

6. If you want to save the edited settings, perform the Write procedure (p. 34).

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

Rearranging the Effect and Amp Connection Sequence (CHAIN)

You can freely set the order in which the effects and COSM amps are connected.

1.   Press [CHAIN].

The Chain screen is displayed.

   *   *If the effects and COSM amps are off, OFF is indicated.*

2.   Select the channel for which you want to change the connection sequence with [F1] (A/B).

3.   Press [F2] (◄ SEL) [F3] (SEL ►) to select the effect, COSM bass, or COSM amp to be shifted in the sequence.

The output level for the selected effect is indicated in the upper right of the screen.

4.   Press [F4] (←MOVE) [F5] (MOVE→) to move to the position in the sequence you want the shifted item inserted.

5.   To make any additional changes in the connection sequence, repeat Steps 2–4.

   *   *You can also switch effects, COSM basses, and COSM amps on and off while setting the connection sequence. Pressing [F6] while the effect, COSM bass, or COSM amp is selected switches the function's ON/OFF setting.*

6.   Press [EXIT] to return to the Play screen.

7.   If you want to save the edited settings, perform the Write procedure (p. 34).

Specifying the tempo and key of the song to be played

Here's how to specify the tempo and key of a song you'll be playing. Set these when you want to specify a delay time or rate that suits a song's tempo (specifying it in terms of the note length) and when using the HARMONY function.

Setting the Tempo

1.   Press [NAME/KEY/BPM].
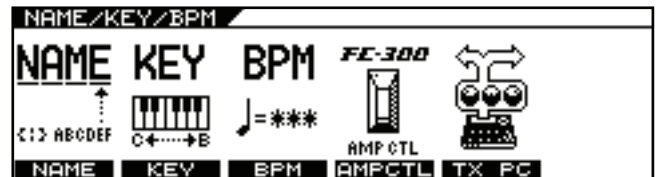
2.   Press [F3] (BPM).

3.   Tap [F1] (TAP) in time with the song tempo (quarter notes), or adjust the tempo with the F1 knob.

   *   *If you want to control a patch parameter with the adjusted tempo, set the corresponding effect parameter to BPM ♪ –BPM ○.*

TERM

BPM stands for "beats per minute," and represents the number of quarter notes played in one minute.

cf.

If you want to use the MIDI SYNC function, the SYNC CLOCK parameter must be set to AUTO (USB), AUTO (MIDI), or AUTO (RRC2). For detailed information, refer to **"Syncing to the MIDI Clock from an External Device"** (p. 58).

MEMO

To use Tap Input

Press [F5] (TAP) at least two times, at quarter note intervals of the desired tempo. The tempo will be calculated automatically, and set to the interval at which you pressed the button.

4.   If you want to save the edited settings, perform the Write procedure (p. 34).

   *   *If you do not want to save, press [EXIT] to return to the Play screen.*

Chapter 2

Setting the Key

1. **Press [NAME/KEY/BPM].**

2. **Press [F2] (KEY).**

```
NAME/KEY/BPM / KEY
KEY
C Am
SELECT
```
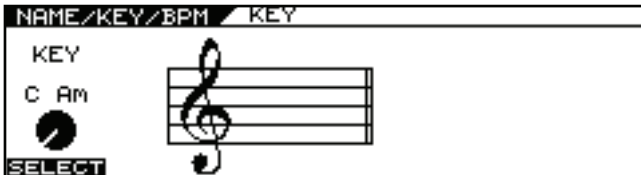
3. **Set the song's key with [F1] (SELECT) or the
   F1 knob.**
   * *The COSM bass PITCH SHIFT, HARMO, and BEND settings and
     the HARMONIST effect operate according to the key you set here.*

4. **If you want to save the edited settings,
   perform the Write procedure (p. 34).**
   * *If you do not want to save, press [EXIT] to return to the Play screen.*

Mixing the Normal Pickup Sound with the GK Input

It is possible to combine the sound of the COSM basses and the
normal bass pickups at the same time.

Setting the Volume Balance

1. **Press [COSM BASS].**

```
A COSM BASS / JB [ON]          1
COSM   MODLNG  E.BASS
BASS SW  TYPE   TYPE
 ON    E.BASS   JB

SELECT SELECT SELECT
```
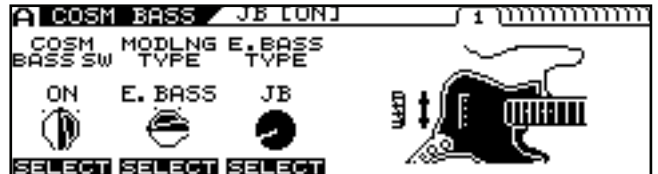
2. **Set the COSM BASS SW to ON with [F1] or
   with the F1 knob.**

(MEMO)

   The sounds from the normal pickup and COSM bass are
   not played when COSM BASS SW is set to OFF.

3. **Press PAGE [►] several times to move to the
   screen for setting the volume balance.**

```
A COSM BASS / MIX          14
— MIX LEVEL —        — NS —
COSM   NORMAL
BASS    PU        SW   THRSH  REL
 0       0       OFF ON  0     0

SET50  SET0     OFF/ON SET25 SET20
```

4. **Use the F1 and F2 knobs to set the balance
   between the COSM bass sound and the
   normal pickup sound.**

   F1 Knob

   Adjusts the COSM bass's volume level. When POLY FX is set
   to ON, it adjusts the volume level of the signal after it has
   passed through POLY FX.

   F2 Knob

   This adjusts the volume of the normal pickup.

   When the COSM bass is connected in CHAIN at a point other
   than the beginning of the effects chain, you can adjust the
   volume of the sounds that have passed though effects from
   the beginning of the chain up to the point where the bass is
   connected.

5. **If you want to save the edited settings,
   perform the Write procedure (p. 34).**
   * *If you do not want to save, press [EXIT] to return to the Play screen.*

Setting the Connection Locations for COSM Bass/Normal Pickup Sound

1.   Press [CHAIN].

```
A CHAIN    COSM BASS LCh·····················
                              RCh·····················
COSM BASS
  ⬇
  ⮙ -OFF-OFF-OFF-▨-OFF-⁑-⫽-OFF-▥-OFF
     M1 CMP DST AMP EQ  NS  FV  M2 DLY CHO
NORMAL PU
  A/B │ ◄SEL │ SEL► │←MOVE│MOVE→│OFF/ON
```

2.   Use [F2] (◄ SEL) and [F3] (SEL ►) to select the arrow that indicates the connection location for the COSM bass or normal pickup sound.

3.   Use [F4] (◄ MOVE) and [F5] (MOVE ►) to move the connection location for the COSM bass or normal pickup sound.

```
A CHAIN    COSM BASS LCh·····················
                              RCh·····················
COSM BASS──────────────────────────┐
  ⮙ -OFF-OFF-OFF-▨-OFF-⁑-⫽-⬇-OFF-▥-OFF
     M1 CMP DST AMP EQ  NS  FV  M2 DLY CHO
NORMAL PU
  A/B │ ◄SEL │ SEL► │←MOVE│MOVE→│OFF/ON
```

4.   If you want to save the edited settings, perform the Write procedure (p. 34).

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

Mixing Channels A and B Together (MIXER)

cf.

For a detailed block diagram of the signal path, refer to **"Signal Flow"** (p. 15).

Setting the Volume and Panning for Each Channel

1.   Press [MIXER].

2.   Press PAGE [◄] to display Page 1.

```
A MIXER  MIX A                    1 ▥▥▥
MIX SW   PAN    LEVEL  DELAY  REVERB   CH
                        A SEND A SEND DELAY
OFF ON L50:50R  50      50     50     0ms
  ⊘      ●       ●       ●      ●      ◔
OFF/ON 50:50 SET100 SET50  SET50   SET0
```
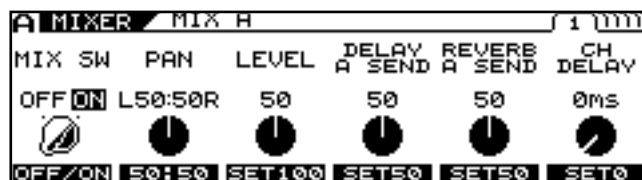
Make the settings for each channel on this page.

*   *Page 2 and later pages contain the mixer section's common settings.*

3.   Set the volume and panning with [F1]–[F6] or with the F1–F6 knobs.

4.   If you want to save the edited settings, perform the Write procedure (p. 34).

*   *If not saving the settings, press [EXIT] to return to the Play screen.*

TIP

When mixing two channels, you can produce a more realistic twin bass tone by setting a channel delay in one of the channels, thus causing the two bass sounds to be output at different times.

cf.

For detailed information on all the parameters, refer to **"MIXER"** (p. 131).

Setting the Mix Balance

You can set the mix balance of Channel A and Channel B with the BALANCE knob. Soon after the knob is turned, the balance value pops up in the screen.

*   *You can also adjust this parameter in Page 2 of the Mixer screen.*
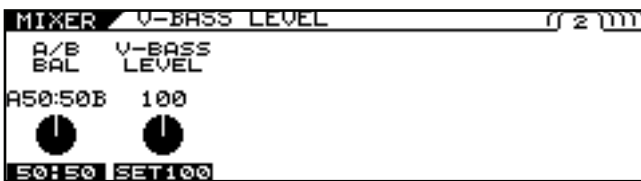
*   *This knob is disabled when the Dynamic function is switched on.*

Setting the Delay and Reverb (DELAY/REVERB)

This sets the mixer section's delay and reverb.

1. **Press [DELAY/REVERB].**

2. **Press PAGE [◄] to display Page 1.**

3. **Switch the delay on or off with [F1] (OFF/ON); switch the reverb on or off with [F4] (OFF/ON).**

4. **Set the parameters with [F1]–[F6] or with the F1–F6 knobs.**

    *   *Each press of PAGE [►] takes you to the settings screen for the next parameter.*

5. **Adjust the parameters until you achieve the desired sound.**

6. **If you want to save the edited settings, perform the Write procedure (p. 34).**

    *   *If not saving the values, press [EXIT] to return to the Play screen.*

cf.

For detailed information on all the parameters, refer to **"DELAY/REVERB"** (p. 133).

Using Playing Dynamics to Control the Mix Between the Two Channels (DYNAMIC)

You can control the mix between the two channels according to how strongly the strings are picked.

1. **Press [DYNAMIC].**

2. **Press PAGE [◄] to display Page 1.**
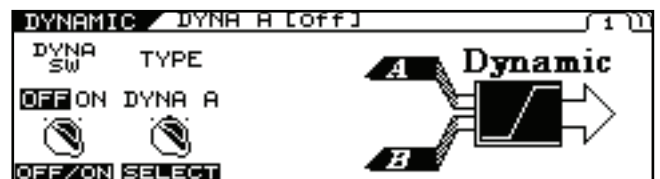
3. **Switch the Dynamic function on or off with [F1] (OFF/ON).**

4. **Select the Dynamic function type.**

5. **Press PAGE [►] to display Page 2.**
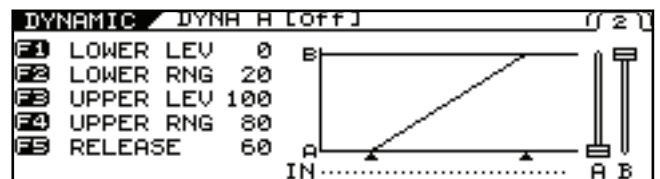
6. **Set the parameters with the F1–F5 knobs.**

7. **If you want to save the edited settings, perform the Write procedure (p. 34).**

    *   *If not saving the values, press [EXIT] to return to the Play screen.*

cf.

For detailed information on all the parameters, refer to **"DYNAMIC"** (p. 134).

Setting the Overall Patch Volume Level (V-BASS LEVEL)

You can set the overall patch volume level with the V-BASS LEVEL knob. Soon after the knob is turned, the V-Bass settings value pops up in the screen.

* *You can also adjust this parameter in Page 2 of the Mixer screen.*
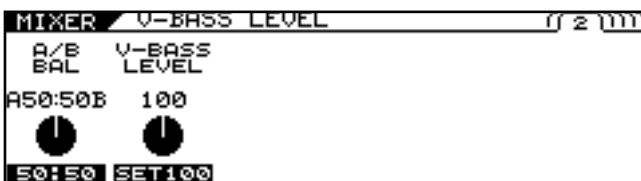
Adjusting the Overall Patch Tone (TOTAL EQ)

You can make separate settings in each individual patch for the overall tone after sounds have passed through the mixer.

1. **Press [MIXER].**

2. **Press PAGE [◄] [►] to display Page 3 or 4.**

3. **Switch the EQ on or off with [F1] (ON/OFF) on Page 3.**

4. **Set the tonal quality with [F1]–[F6] or with the F1–F6 knobs.**

5. **If you want to save the edited settings, perform the Write procedure (p. 34).**

* *If not saving the settings, press [EXIT] to return to the Play screen.*

cf.

For detailed information on all the parameters, refer to **"TOTAL EQ (Total Equalizer)"** (p. 131).

Setting the Output Signal and Level (OUTPUT)

This sets the signals and levels output for each of the VB-99's output jacks and connectors.

1. **Press [MIXER].**

2. **Press PAGE [►] to display Page 5.**
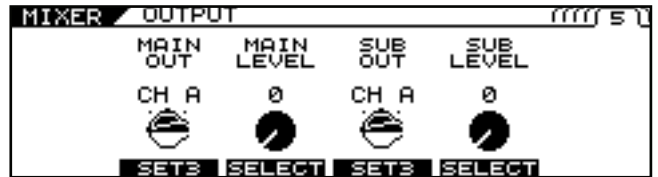
3. **Set the signal and level output to MAIN OUT and SUB OUT with [F2]–[F5] or with the F2–F5 knobs.**

cf.

For detailed information on the parameters that can be set, refer to **"OUTPUT"** (p. 132).

4. **Press PAGE [►] to display Page 6.**

5. **Set the signal and level output to DIGITAL OUT with [F2], [F3] or with the F2, F3 knobs.**

6. **If you want to save the edited settings, perform the Write procedure (p. 34).**

* *If not saving the settings, press [EXIT] to return to the Play screen.*

MEMO

You can also set the output signal and level for the entire system.

1. **Press [SYSTEM].**

2. **Press PAGE [◄] [►] to display Page 2.**

3. **Press [F1] (OUTPUT).**

4. **Set the OUTPUT MODE parameter to SYSTEM with [F1] (SELECT) or the F1 knob.**

The value in the MIXER screen is disregarded, and instead the SYSTEM value < > is applied.

33

Naming a Patch (PATCH NAME)

You can give names to the patches you create.

1.   Press [NAME/KEY/BPM].
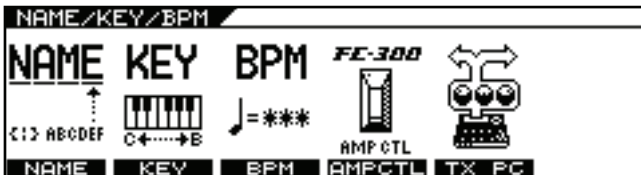
2.   Press [F1] (NAME).

3.   Press PAGE [◄] [►] to move the cursor to the position at which you want to change a character.

4.   Select the character with the PATCH/VALUE dial.

As you continue to rotate the PATCH/VALUE dial, the character guide automatically switches from uppercase letters to lowercase letters, numerals, and symbols.

You can use the following convenient operations by pressing [F1]–[F6].

Function Button	Description
[F1] (INSERT)	Inserts a blank space at the cursor position.
[F2] (DELETE)	Deletes the character and shifts the characters that follow to the left.
[F3] (SPACE)	Inserts a blank space at the cursor position.
[F4] (A0!)	Switches between letters, numerals, and symbols.
[F5] (A<=>a)	Switches between uppercase and lowercase letters.
[F6] (CATGRY)	Sets the category for the current patch. Refer to **"Assigning a Patch to a Category"** (p. 85)

5.   Repeat Steps 3 and 4 to complete the patch name.

6.   If you want to save the edited settings, perform the Write procedure (p. 34).

*   *If not saving the settings, press [EXIT] to return to the Play screen.*

Saving a Patch (WRITE)

The settings made to change a sound are temporary; when you switch to a different patch, the settings revert to the values in effect before the changes were made.

If you want to save the changes in the settings, carry out the Write procedure.

TIP

To make a copy of an existing patch, you can simply save it to a different patch number.

1.   Press [WRITE].

The Write screen appears.
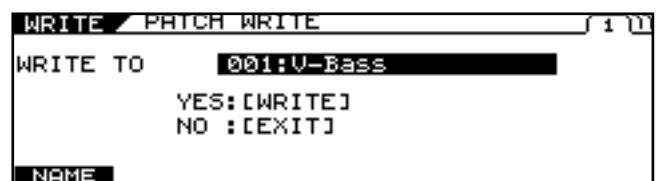
2.   Rotate the PATCH/VALUE dial to select the save-destination patch number.

3.   To save the patch, press [WRITE].

"NOW WRITING..." is displayed while the patch is being saved, and then the Play screen returns to the display.
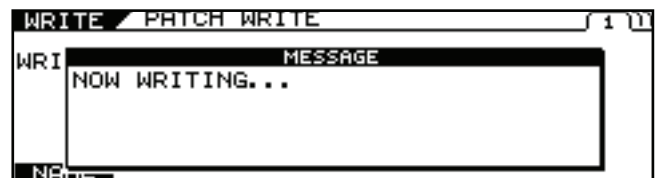
*   *If you do not want to save, press [EXIT] to return to the Play screen.*

Chapter 3 Global Device Settings (SYSTEM)

*   *The parameters described in this section are saved without the Write procedure being performed.*

Inputting the Divided Pickup Settings

To ensure optimal conditions for producing sounds with the VB-99, making the correct settings affecting the divided pickup (the GK settings) is required.

After you have finished inputting the various settings, press [EXIT] one or more times to return to the Play screen.

Selecting the Settings

The VB-99 can store ten separate sets of GK settings. If you are playing more than one bass using the VB-99, you can store separate settings for each one, allowing you to be ready in moments with the necessary settings when the basses are switched.

1.   **Press [SYSTEM].**

2.   **Press PAGE [◄] to display Page 1.**

3.   **Press [F3] (GK) to display the GK SETTING screen.**

4.   **Press PAGE [◄] to display Page 1.**

5.   **Press [F4] (SELECT) or turn the F4 knob to select the GK setting (1–10).**
    This specifies the setting to be stored as the GK setting.

*   *Pressing [EXIT] at this point and returning to the Play screen enables the selected GK setting.*

*   *When PATCH is selected for the SET MODE parameter, the GK settings specified in each patch take priority. For detailed information, refer to **"Using Different Bass Settings in Each Patch (SET MODE)"** (p. 39).*

Naming GK Settings (GK NAME)

You can give names to each of the GK settings.

1.   **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2.   **Press PAGE [◄] to display Page 1.**

3.   **Press [F6] (NAME).**

4.   **Set the name using PAGE [◄] [►], [F1]–[F5], and the PATCH/VALUE dial.**

Function Button	Explanation
[F1] (INSERT)	Insert a space at the cursor location.
[F2] (DELETE)	Delete a character. The characters that follow get shifted to the left.
[F3] (SPACE)	Input a space at the cursor location.
[F4] (A0!)	Switch between uppercase letters and lowercase letters.
[F5] (A<=>a)	Switch between uppercase letters, lowercase letters, numbers, and characters.

*   *Press [EXIT] one or more times to return to the previous screen.*

Selecting the Divided Pickup Type (GK PU TYPE)

1. **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2. **Press PAGE [◄] [►] to display Page 2.**

3. **Use F1 (SELECT) or the F1 knob to select the pickup type.**

Settings	Explanation
GK-3B	Specifies the GK-3.B
GK-2B	Specifies the GK-2B.
PIEZO	This is suited to piezo pickups that have a flat response.
PIEZO G	This is suited to piezo pickups made by Graph Tech Guitar Labs.
PIEZO R	This is suited to piezo pickups made by RMC Pickup Co.

*   *If you're not sure which piezo type parameter is appropriate, choose the parameter for the piezo type that sounds the most natural as you play.*

*   *Piezo pickups are a type of pickup that are installed at the bass's bridge and use piezo electric elements to determine the string vibrations.*

Selecting PIEZO, PIEZO G or PIEZO R for GK PU TYPE lets you further adjust the sound quality of the low and high frequency ranges. Adjust them as required.

4. **Use the F2 (LOW) and F3 (HIGH) knobs to adjust the sound quality of the low and high frequency ranges.**

Parameter/Range	Explanation
PIEZO TONE LOW	
-10–+10	Adjusts the low frequency range tone.
PIEZO TONE HIGH	
-10–+10	Adjusts the high frequency range tone.

Inputting the Bass's Scale (BASS SCALE)

Set the scale length (the distance from the bridge to the nut).

1. **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2. **Press PAGE [◄] [►] to display Page 2.**

3. **Use the F4 knob to set the scale length of the bass you are using.**

Settings	Explanation
710–940mm, SHORT (760mm) MEDIUM (812mm) LONG JB/PB (864mm) EXTRA LONG (914mm)	Specifies the scale of your bass.

Selecting the Position of the Divided Pickup (GK PU POS)

1. **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2. **Press PAGE [◄] [►] to display Page 2.**

3. **Use the F5 knob to select the position of divided pickup installed in the bass you are using.**
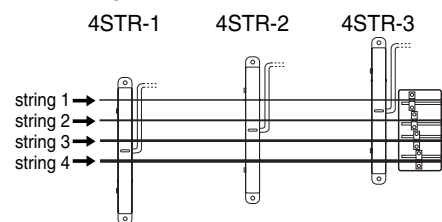
For a 4-string bass:
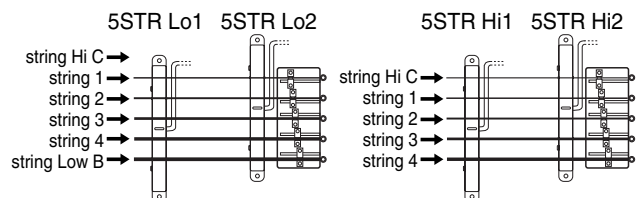
For a 5-string bass:

For a 6-string bass:
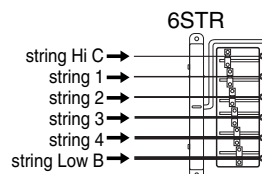
Matching the Divided Pickup and Normal Pickup Phase (GK PU PHASE)

Certain peculiarities in the sound may appear when the COSM bass and normal pickup sounds are mixed. If this occurs, adjust this parameter and switch the COSM bass's phase.

1. **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2. **Press PAGE [◄] [►] to display Page 3.**

3. **Use [F1] (SELECT) or the F1 knob to select the phase.**

Settings	Explanation
NORMAL	Leave the phase unchanged.
REVRSE	Invert the phase.

Setting the Direction for the Installed Divided Pickup (GK PU DIRECTION)

* *Make this setting if the divided pickup has been installed with the Hi C string end and Low B string end reversed.*

1. **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2. **Press PAGE [◄] [►] to display Page 3.**

3. **Use [F2] (SELECT) or the F2 knob to select the pickup direction.**

Settings	Explanation
NORMAL	The cable exits the pickup in the direction of the bass's bridge.
REVRSE	The cable exits the pickup in the direction of the bass's neck.

NORMAL   REVERSE

string Hi C
string 1
string 2
string 3
string 4
string Low B
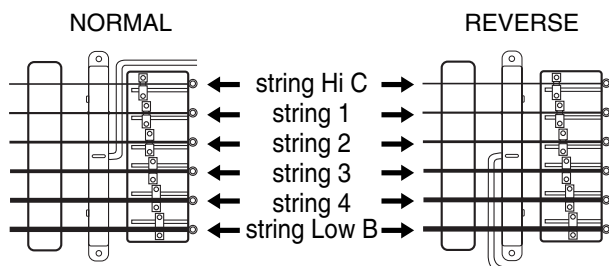
Setting the DOWN/S1, UP/S2 Switch Arrangement (S1, S2 POS)

On some basses with the divided pickup built in, the positions of the DOWN/S1 and UP/S2 switches are reversed. Set this so that the functions match.

1. **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2. **Press PAGE [◄] [►] to display Page 3.**

3. **Use [F3] (SELECT) or the F3 knob to select the arrangement.**

Settings	Explanation
NORMAL	The switches will not be reversed.
REVRSE	The DOWN/S1 switch and UP/S2 switch will be reversed.

Chapter 3

37

Setting the Gap Between the Pickup and the Bridge (PICKUP↔BRIDGE)

Set the clearance from the divided pickup to the bridge's saddle for each string.

> *   *This setting is not required when the GK PU TYPE is set to piezo-type parameter.*

1. **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2. **Press PAGE [◄] [►] to display Page 4.**

```
SYSTEM / GK SETTING / [1]GK SET A  (((( 4 ]
――――――――― PICKUP<-->BRIDGE ―――――――――
  HiC     1st     2nd     3rd     4th    LowB
25.0mm  25.0mm  25.0mm  25.0mm  25.0mm  25.0mm
  ●       ●       ●       ●       ●       ●
SET25   SET25   SET25   SET25   SET25   SET25
```

3. **Rotate the F1–F6 knobs to set the clearance for strings Hi C–Low B.**

Settings	Explanation
0.0–50.0 mm	Specify the distance between the divided pickup and the center of each bridge saddle. The setting is disregarded when the GK PU TYPE is set to piezo type parameter.

string Hi C →
string 1 →
string 2 →
string 3 →
string 4 →
string Low B →

String

Pickup   Bridge
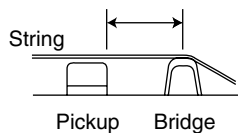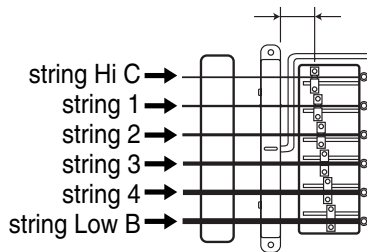
Adjusting the Sensitivity for Each String (SENS)

Adjust the divided pickup sensitivity for each string.

1. **Follow Steps 1–5 in "Selecting the Settings" (p. 35) to select the GK SETTING.**

2. **Press PAGE [►] to display Page 5.**

```
SYSTEM / GK SETTING / [1]GK SET A  (((( 5 )
F1  SENS HiC    ⊘  65 ..........................
F2  SENS 1st    ⊘  65 ..........................
F3  SENS 2nd    ⊘  65 ..........................
F4  SENS 3rd    ⊘  65 ..........................
F5  SENS 4th    ⊘  65 ..........................
F6  SENS LowB   ⊘  65 ..........................
```
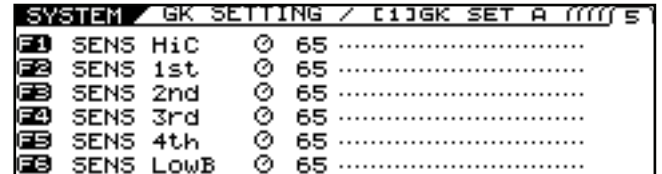
3. **Rotate the F1–F6 knobs to adjust the sensitivity.**
    Play each open string with the maximum force you'd use in an actual performance, and set the sensitivity such that the meter registers a level just before reaching the maximum level.

    *   *If the large segments at the right end of the level meter appear, it means the level is set too high. Lower the sensitivity setting.*

    *   *Pressing [F1]–[F6] initializes each string's value to 65.*

    *   *Depending on the bass you use, the level meter may move to the maximum level even when the sensitivity is set to the minimum setting. If this occurs, adjust the clearance separating the divided pickup and the strings so the distance is slightly greater than specified.*

4. **Play the Low B through Hi C strings with the normal amount of force; if any string sounds particularly loud, lower the sensitivity setting for that string, and keep adjusting until the differences in the strings' volume levels are minimal.**

Settings	Explanation
0–100	Adjusts the divided pickup input sensitivity for each string.

Setting Whether or Not the Divided Pickup Is Used (GK CONNCT)

The VB-99 comes equipped with a function that automatically detects whether or not a GK connection exists and switches the internal settings accordingly. This makes it possible for you to use all functions other than a COSM bass (COSM amp, effects, tuner, etc.) when you've connected only to the BASS INPUT.

1. **Follow Steps 1–3 in "Selecting the Settings" (p. 35) to display the GK SETTING screen.**

2. **Press PAGE [◄] to display Page 1.**

3. **Use [F1] (SELECT) or the F1 knob to select the setting.**

Settings	Explanation
AUTO	The presence of a GK connection is detected automatically and the internal settings are switched accordingly.
ON	Settings appropriate for a GK connection are always used.
OFF	Settings appropriate for a BASS INPUT connection are always used.

* *You should ordinarily use AUTO (the default setting). In cases where the auto-detect function does not operate correctly, (for example, when you are using a divided pickup other than the GK-3B), pickup, use [F1] or the F1 dial to change the setting.*

Using Different Bass Settings in Each Patch (SET MODE)

This setting determines whether the VB-99 uses a single global GK setting or if the GK settings can be specified individually for each patch.

1. **Follow Steps 1–3 in "Selecting the Settings" (p. 35) to display the GK SETTING screen.**

2. **Press PAGE [◄] to display Page 1.**

3. **Use [F3] (SELECT) or the F3 knob to select the setting.**

Settings	Explanation
SYSTEM	The GK SETTING set here is used globally for the entire VB-99. This is the default factory setting.
PATCH	The GK Settings can be specified individually for each patch. Use this setting when switching among multiple basses as you perform.

Determining the Function of the GK Volume Control and DOWN/S1, UP/S2 Switches (GK FUNC)

This sets the function for the GK-3B's GK Volume and DOWN/S1, UP/S2 switches.

1. **Follow Steps 1–3 in "Selecting the Settings" (p. 35) to display the GK SETTING screen.**

2. **Press PAGE [◄] to display Page 1.**

3. **Press [F2] (GK FUNC).**
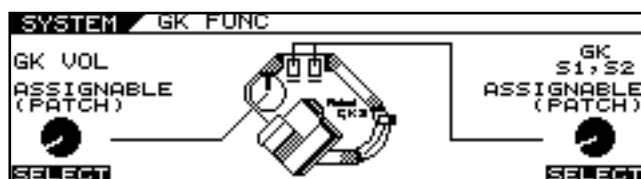
4. **Set the parameter you want to assign with [F1] (SELECT), [F6] (SELECT) or the F1, F6 knob.**

> **cf.**
>
> For detailed information on the parameters that can be assigned, refer to **"GK VOL (GK Volume)"** (p. 145) and **"GK S1, S2 (GK S1, S2 Switch)"** (p. 145).

* *When assigning functions to each patch for GK Volume, DOWN/S1 and UP/S2, set Control Assign to ASSIGNABLE (PATCH). With other settings, the assignment settings in the patches are disregarded.*

* *This is the same setting as that set with GK VOL or GK S1, S2 in [SYSTEM] (CTL).*

Adjusting the Overall Tone According to the Environment (GLOBAL/OUTPUT SELECT)

The VB-99 includes a function for adjusting the overall tone produced by the device. This is referred to as the Global function. You can use the Global function to adjust the overall sound of the VB-99 to suit the equipment being used or environment you are in without altering the individual patches.

Selecting the Settings

The VB-99 can store ten separate Global function settings (1–10).

After you have finished inputting the various settings, press [EXIT] one or more times to return to the Play screen.

1. **Press [GLOBAL].**

2. **Press PAGE [◄] to display Page 1.**
   The Global screen appears.

3. **Select any setting 1–10 with [F1] (SELECT) or the F1 knob.**

Naming the Settings

You can assign up to ten user names, each containing up to eight characters. For example, you could create names that suggest the gear used in a certain setting or a place where you perform.

1. **Follow Steps 1–3 in "Selecting the Settings" (p. 40) to select the SETTING.**

2. **Press [F3] (NAME).**

3. **Set the name using PAGE [◄] [►] and [F1]–[F5].**

Function Button	Explanation
[F1] (INSERT)	Insert a space at the cursor location.
[F2] (DELETE)	Delete a character. The characters that follow get shifted to the left.
[F3] (SPACE)	Input a space at the cursor location.
[F4] (A0!)	Switch between uppercase letters and lowercase letters.
[F5] (A<=>a)	Switch between uppercase letters, lowercase letters, numbers, and characters.

Setting the Types of Connected Devices (OUTPUT SELECT)

You can match the VB-99's output response to that of the connected device. Making this setting helps keep differences in sound qualities respective to the connected device to a minimum.

1. **Follow Steps 1–3 in "Selecting the Settings" (p. 40) to select the SETTING.**

2. **Use [F4] (OUTPUT SELECT) or the F4 knob to set the type of device to be connected to the MAIN OUT jacks.**

Value	Explanation
AMP WITH TWEETER	Use this setting when connecting to a tweeter-equipped bass amp.
AMP NO TWEETER	Use this setting when connecting to a bass amp that has no tweeter. The high-frequency range is adjusted.
LINE/PHONES	Use this setting when using head-phones or connecting directly to a PA system or multi-track recorder.

Adjusting the Overall Tone (GLOBAL EQ)

Both MAIN OUT and SUB OUT feature four-band EQs.

(MEMO)

> EQ (MAIN) is applied to the output from MAIN OUT; EQ (SUB) is applied to the output from SUB OUT.

1. **Follow Steps 1–3 in "Selecting the Settings" (p. 40) to select the SETTING.**

2. **Press PAGE [◄] [►] to display Page 2–5.**

```
GLOBAL / EQ(MAIN)               2
  MAIN   TOTAL         LOW    HIGH
  EQ SW  GAIN         GAIN   GAIN
  OFF ON  0dB          0dB    0dB
    ⊘      ●            ●      ●
OFF/ON  SET0         SET0   SET0
```

3. **Use [F1] – [F6] or the F1 – F6 knobs to adjust the tone.**

Parameter/ Range	Explanation
MAIN EQ (Main Equalizer), SUB EQ (Sub Equalizer)	
A four-band equalizer with high and low ranges is provided.	
MAIN EQ SW (Main Equalizer Switch), SUB EQ SW (Sub Equalizer Switch)	
OFF, ON	Turns the EQ effect on/off.
TOTAL GAIN	
-12–+12dB	Adjusts the volume before the equalizer.
LOW GAIN	
-12–+12dB	Adjusts the low frequency range tone.
HIGH GAIN	
-12–+12dB	Adjusts the high frequency range tone.
LOW MID FREQ (Low Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the LOW MID GAIN.
LOW MID Q (Low Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the LOW MID FREQ. Higher values will narrow the area.
LOW MID GAIN (Low Middle Gain)	
-12–+12dB	Adjusts the low-middle frequency range tone.
HIGH MID FREQ (High Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH MID GAIN.
HIGH MID Q (High Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH MID FREQ. Higher values will narrow the area.
HIGH MID GAIN (High Middle Gain)	
-12–+12dB	Adjusts the high-middle frequency range tone.

Controlling the Overall Effect of the Noise Suppressor (Total NS)

This controls the overall threshold value for the noise suppressor settings in the individual patches. This is an effective tool when basses are changed during performances and for making adjustments in response to noise levels at the performance venue. This is an overall setting and does not alter the individual patch settings.

1. **Follow Steps 1–3 in "Selecting the Settings" (p. 40) to select the SETTING.**

2. **Press PAGE [►] to display Page 6.**

```
GLOBAL / NS/REVERB/SUB OUT        6
            REVERB  SUBOUT
   NS               LEVEL
  0dB       100%    100%
   ●         ●       ●
  SET0     SET100  SET100
```
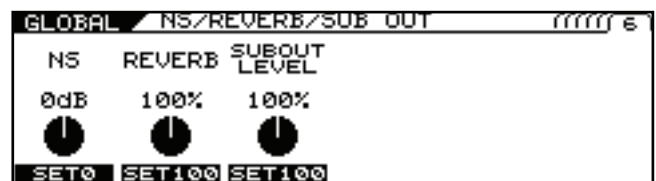
3. **Adjust the level with the F1 knob.**

> This adjusts the noise suppressor threshold levels set in each patch.
>
> -20 dB – +20 dB

> * *This adjustment has no effect on patches in which the noise suppressor is off.*

> * *To use the levels set in the individual patches, set this to 0 dB.*

Chapter 3

Controlling the Overall Reverb Level (Total REVERB)

This controls the overall reverb level settings in the individual patches. This is effective for adjusting to the acoustics of the performance venue. This setting does not affect the individual patch settings.

1. Follow Steps 1–3 in "Selecting the Settings" (p. 40) to select the SETTING.

2. Press PAGE [►] to display Page 6.

```
GLOBAL  NS/REVERB/SUB OUT        6
  NS    REVERB  SUBOUT
                LEVEL
  0dB    100%    100%

  SET0  SET100 SET100
```
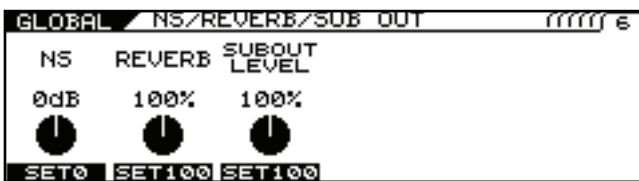
3. Adjust the level with the F2 knob.

This adjusts the reverb level set in each patch.

0–200%

* *This adjustment has no effect on patches in which reverb is switched off.*

* *To use the levels set in the individual patches, set this to 100%.*

Setting the Sounds Output from SUB OUT (SUB OUT LEVEL)

This setting selects which signals are output from the SUB OUT jacks.

1. Follow Steps 1–3 in "Selecting the Settings" (p. 40) to select the SETTING.

2. Press PAGE [►] to display Page 6.

```
GLOBAL  NS/REVERB/SUB OUT        6
  NS    REVERB  SUBOUT
                LEVEL
  0dB    100%    100%

  SET0  SET100 SET100
```
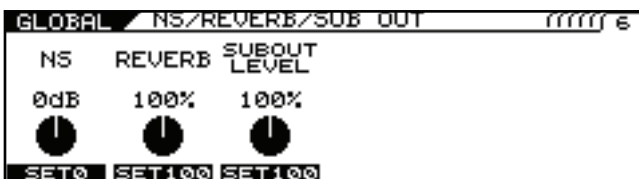
3. Adjust the setting with the F3 knob.

This adjusts the sub output level set in each patch.

0–200%

* *To use the levels set in the individual patches, set this to 100%.*

Setting the GK VOLUME Control and Switch and the Pedal Function (SYSTEM CONTROL ASSIGN)

1. Press [SYSTEM].

2. Press PAGE [◄] to display Page 1.

```
SYSTEM                         1
                        FC-300
CONTRAST
  LCD  DIRECT   GK   CTL FC-300 MIDI
```

3. Press [F4] (CTL).

4. Press PAGE [◄] to display Page 1.

```
SYSTEM  CONTROL ASSIGN          1
GK VOL          ASSIGNABLE(PATCH)
GK S1/S2        ASSIGNABLE(PATCH)
CTL1            ASSIGNABLE(PATCH)
CTL2            ASSIGNABLE(PATCH)
EXP PEDAL       ASSIGNABLE(PATCH)
CTL3            ASSIGNABLE(PATCH)
     SEL ▼  SEL ▲        SELECT
```

5. Select any setting from GK VOL to FC-300 CTL8 with [F2] (SEL) or [F3] (SEL) or the F2 or F3 knobs, then use [F5] (SELECT) or the F5 knob to select the function you want to assign.

(MEMO)

If you want to be able to assign the functions for the controllers on an individual patch basis, set Control Assign to ASSIGNABLE (PATCH). With Control Assign set to ASSIGNABLE (PATCH), the unit operates in accordance with the assignments set in each patch, as described in **"Using the Switches, Pedals, and MIDI to Control the Sounds (CONTROL ASSIGN)"** (p. 77).

* *With other settings, the assignment settings in the patches are disregarded.*

cf.

For information on assigned controllers, refer to **"Controller"** (p. 146) ; for more on assignable parameters, refer to **"Parameters That Can Be Assigned to Controllers"** (p. 147).

Having Values from an External Pedal, GK VOLUME Control, or Other Controller Carried Over When Patches are Called Up (ASSIGN HOLD)

This setting determines whether or not the current settings for each controller (the expression pedals, the FC-300's expression pedals, control pedals or other controllers) are applied to the patch when patches are switched.

* *Assign Hold is not performed when the SW MODE parameter in Control Assign Source is set to LATCH. (LATCH toggles between the minimum and maximum value each time the switch is pressed.)*

1. **Press [SYSTEM].**

2. **Press PAGE [◄] to display Page 1.**

3. **Press [F4] (CTL).**

4. **Press PAGE [►] to display Page 2.**

The Control screen appears.
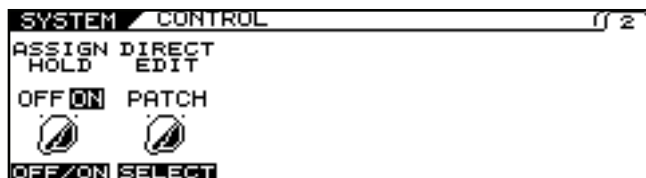
5. **Select ON or OFF for the Assign Hold function with [F1] (OFF/ON) or the F1 knob.**

Settings	Explanation
ON	Current values of controllers are applied when patches are called up.
OFF	Stored values (at the time of Patch Write) of controllers are used when patches are called up. (Current controller values ignored.)

Making System-wide Settings for the Features Controlled by the Function Knobs (SYSTEM DIRECT EDIT)

1. **Press [SYSTEM].**

2. **Press PAGE [◄] to display Page 1.**

3. **Press [F4] (CTL).**

4. **Press PAGE [◄] [►] to display Page 2.**

The Control screen appears.
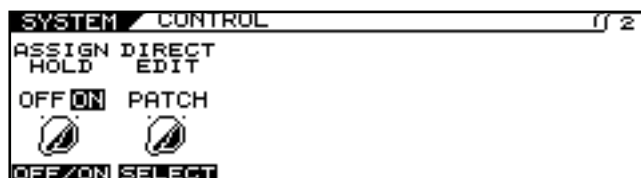
5. **Set the DIRECT EDIT parameter to SYSTEM with [F2] (SELECT) or with the F2 knob.**

(MEMO)

If you want to be able to assign the functions for the knobs on an individual patch basis, set DIRECT EDIT to PATCH. With DIRECT EDIT set to PATCH, the unit operates in accordance with the assignments set in each patch, as described in **"Changing the Sounds with the Function Knobs as You Play (DIRECT EDIT)"** (p. 76).

6. **Press Page [►] to go to the page for the knob you want to set.**

7. **Use the [F1]–[F6] or F1–F6 knobs to select the parameters you want to assign to the knob.**

(TIP)

You can quickly locate and select the desired parameter by first narrowing down the parameter type with F1 (F4), then using F2 (F5) and then F3 (F6) to reach the right parameter.

Limiting the Patches That Can Be Switched (PATCH EXTENT)

Setting upper and lower limits for the patches that can be switched allows you to select only the patches you need.

1.   **Press [SYSTEM].**

2.   **Press PAGE [▶] to display Page 3.**
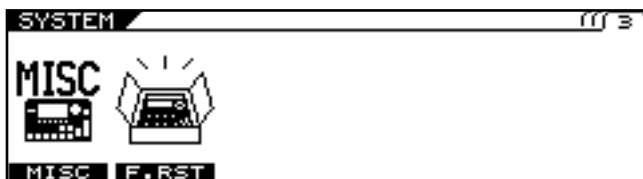
3.   **Press [F1] (MISC).**
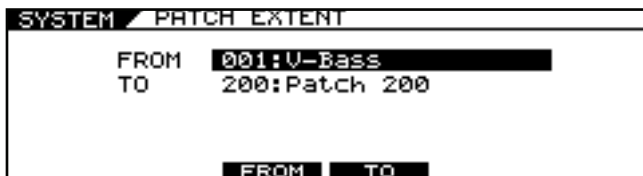
4.   **Press [F3] (FROM).**

5.   **Set the lower limit of the patch selection with the PATCH/VALUE dial and [F3] (FROM) or the F3 knob.**

6.   **Press [F4] (TO).**

7.   **Set the upper limit of the patch selection with the PATCH/VALUE dial and [F4] (TO) or the F4 knob.**

     *   *These settings are enabled in the following situations.*
         *   When the PATCH/VALUE dial is turned
         *   When patches are switched with the control switches or other controls
         *   When SYSTEM CONTROL ASSIGN (p. 42) is used to assign PATCH SELECT INC or PATCH SELECT DEC to the FC-300's control switches or expression pedal switches
             These settings have no effect on other FC-300 operations or operations using an external MIDI device.

Adjusting the Screen's Contrast

The text and icons in the LCD screen may be difficult to make out sometimes, such as immediately after the VB-99 is turned on or after extended use. The conditions at the place where you are using the VB-99 can also affect visibility. Should you run into this problem, try adjusting the contrast.

1.   **Press [SYSTEM].**

2.   **Press PAGE [◀] to display Page 1.**

3.   **Press [F1] (LCD).**
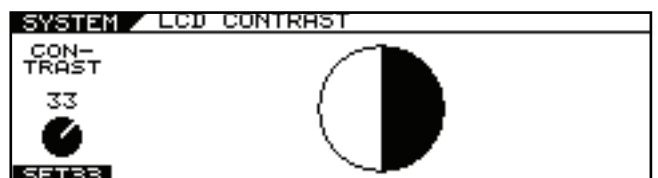
4.   **Turn the F1 knob to adjust the contrast.**

Setting the Output Signal and Level (SYSTEM OUTPUT)

This sets the signals and levels output for each of the VB-99's output jacks and connectors (MAIN OUT, SUB OUT, and DIGITAL OUT).

1. Press [SYSTEM].

2. Press PAGE [◄] [►] to display Page 2.

```
SYSTEM                                        2
          BPM          CATEGORY
          =***  V-LINK  NAME
                               {:} ABCDEF
OUTPUT  USB   BPM  V-LINK CATGRY CALIB
```

3. Press [F1] (OUTPUT).

```
SYSTEM   OUTPUT                               1
OUTPUT  MAIN   MAIN    SUB    SUB
MODE    OUT    LEVEL   OUT    LEVEL
SYSTEM  MIXER  100    MIXER   100

SELECT SELECT SET100 SELECT SET100
```

4. Set the OUTPUT MODE parameter to SYSTEM with [F1] (SELECT) or with the F1 knob.

   * *If set to PATCH, the values set under **"Setting the Output Signal and Level (OUTPUT)"** (p. 33) are enabled. The value in the MIXER screen is disregarded, and instead the value < > is applied.*

```
SYSTEM   OUTPUT                               1
OUTPUT  MAIN   MAIN    SUB    SUB
MODE    OUT    LEVEL   OUT    LEVEL
PATCH <MIXER> <100> <MIXER> <100>

SELECT SELECT SET100 SELECT SET100
```

5. Set the signal and level output to each output with PAGE [◄] [►] or with the F1–F6 knobs.

> **cf.**
>
> For detailed information on the parameters that can be set, refer to **"OUTPUT"** (p. 151).

Chapter 3

Chapter 4 Using the VB-99 in Combination with an FC-300

With an FC-300 (optional) connected to the VB-99, you can perform the following operations:

- Switch patches
- Have patch names be shown in the FC-300's display
- Control tones with the FC-300's pedals (Control Assign)
- Show the VB-99's tuner in the FC-300's display when the TUNER function is used
- Switch the FC-300's Amp Control on and off

Connecting with the RRC2 IN Connector

Connect the VB-99 and FC-300 using the RRC2 cable included with the unit.

TERM

What is RRC2?

RRC2 is a Roland protocol that provides for the supply of power and two-way data communications over a single cable.

Devices can also be connected using a commercially available ethernet cable instead of the included RRC2 cable.

NOTE

- Be sure to connect the RRC2 OUT connector to a device with an RRC2 IN connector. Use of the connection with LAN or other devices may cause generation of heat and damage to the equipment.
- Carefully connect the RRC2 cable the way in—until it is firmly to the RRC2 IN connector.
- Do not subject the RRC2 cable to stress or physical shock.
- If using commercially available ethernet cable as the RRC2 connecting cable, be sure that the cable meets the following specifications:
  - Category 5 (Cat5) or above
  - Maximum length of 15 meters
  - Cable designed for straight-through connection.
- *Ethernet cables designed for crossover connections cannot be used.*

Settings Related to the FC-300

If connecting the VB-99 with an FC-300 using an RRC2 cable, make the settings below as needed.

Settings for Control of the FC-300

This sets the method for controlling the FC-300.

1. **Press [SYSTEM].**

2. **Press PAGE [◄] to display Page 1.**

3. **Press [F5] (FC-300).**

4. **Set the SYS EX MODE with [F1] (OFF/ON) or with the F1 knob.**

Available Settings	Description
ON	When connected to the VB-99, the FC-300 automatically changes to Exclusive mode and functions in accordance with the settings made with the VB-99. This is the setting normally selected. You can control the FC-300 even without matching the VB-99's and FC-300's Device IDs. Connecting an FC-300 automatically switches the FC-300 to Exclusive mode. Normally, you should select this setting.
OFF	Select OFF when using the FC-300 in a mode other than System Exclusive mode. The mode does not switch automatically.

* *The FC-300 will not respond unless you return to the Play screen.*

Setting the Operation When Patches Are Switched

This sets the timing at which patches are switched when you press [▼] [▲] pedals on the FC-300.

1. **Press [SYSTEM].**

2. **Press PAGE [◄] to display Page 1.**

3. **Press [F5] (FC-300).**

4. **Set BANK CHANGE with [F2] (SELECT) or with the F2 knob.**

Available Settings	Description
IMMEDIATE	The patch changes immediately when the FC-300's [▼] [▲] pedals are pressed.
WAIT NUM	Even after the FC-300's [▼] [▲] pedals are pressed, the patch does not change until the NUMBER is set.

* *The FC-300 will not respond unless you return to the Play screen.*

Activating the VB-99's Tuner from the FC-300 (QUICK TUNER)

You can use the FC-300's number pedals to switch the Tuner function on and off.

* *The Quick Tuner function is enabled only in the Play screen.*

* *The Quick Tuner function is enabled only when the FC-300's MODE is set to SYS EX.*

1. **Press [SYSTEM].**

2. **Press PAGE [◄] to display Page 1.**

3. **Press [F5] (FC-300).**

4. **Set QUICK TUNER with [F3] (SELECT) or with the F3 knob.**

Available Settings	Description
OFF	The QUICK TUNER function is not operational.
ON	The QUICK TUNER function is operational. The TUNER function is alternately switched on and off each time the currently selected number pedal is pressed.

Chapter 4

47

Setting the FC-300 Amp Control

This switches the FC-300's AMP CTL 1 and AMP CTL 2 parameters on and off.

When the bass amp's channel switch jack is connected to the FC-300's AMP CONTROL 1 jack (or AMP CONTROL 2 jack), you can then switch the bass amp channels with the VB-99's AMP CTL1 (or AMP CTL2) parameter.

1. **Use the PATCH/VALUE dial to select the patch you want to set.**

2. **Press [NAME/KEY/BPM].**
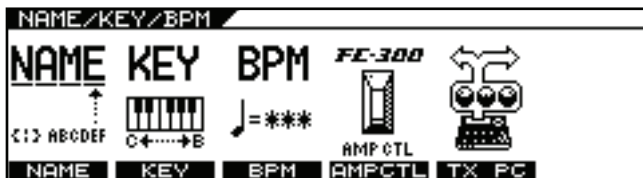
3. **Press [F4] (AMP CTL).**
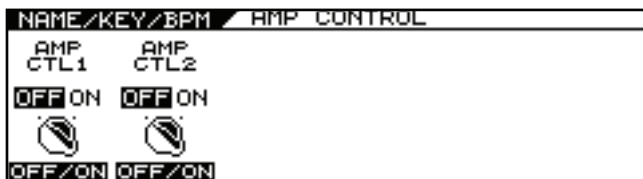
4. **Use [F1] and [F2] or the F1 and F2 knobs to set AMP CTL1 and AMP CTL2 to ON or OFF.**

Available Settings	Description
OFF	The FC-300's AMP CTL1 and AMP CTL2 parameters are set to OFF.
ON	The FC-300's AMP CTL1 and AMP CTL2 parameters are set to ON.

(MEMO)

With Amp Control, not only can you switch amp channels, you can also use it to switch the amp's effects on and off, like a foot switch controller.

Chapter 5 Using MIDI

About MIDI

MIDI, an abbreviation for Musical Instrument Digital Interface, is a universal standard that enables musical instruments to exchange musical performance data, messages concerning changes in the sounds, and other information. Any device that conforms to the MIDI specifications can communicate (to the extent that is relevant to both devices) with any other MIDI device, even those that were made by a different manufacturer or that belong to a different category of instrument.

Under the MIDI specifications, performance data produced by such actions as playing a keyboard or pressing a pedal is handled as MIDI messages.

What You Can Do Using MIDI

Using MIDI, you can carry out the following operations with the VB-99.

If using the VB-99 with an FC-300 connected, also refer to **"Chapter 4 Using the VB-99 in Combination with an FC-300"** (p. 46).

> *   *Use of MIDI requires that the MIDI channels of connected devices be matched.*

Data cannot be transmitted to or received from other MIDI devices unless the MIDI channels are set correctly.

Operating from the VB-99

Outputting Program Change Messages

When a patch is selected with the VB-99, the VB-99 simultaneously transmits a Program Change message corresponding to the selected number. The external MIDI device switches its settings in response to the received Program Change message.

MIDI IN

MIDI OUT
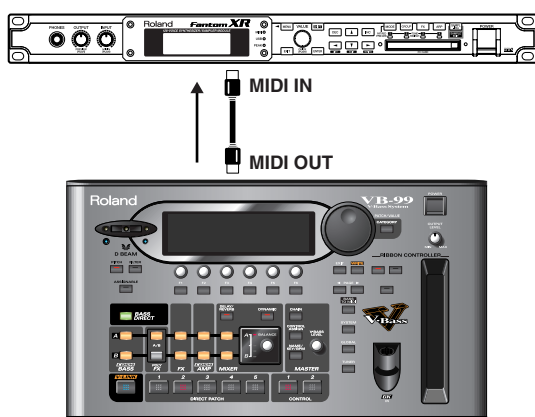
Outputting Control Change Messages

Data describing the action of an external device (expression pedal or footswitch) connected to the VB-99 is output as Control Change messages. These messages can be used for such tasks as adjusting external MIDI devices' parameters.

Outputting Performance Data

The bass's performance data can be output as Note messages and Bend messages, allowing you to perform through synthesizer sound modules and other devices connected to the VB-99. For more detailed information, refer to **"Playing an External Synthesizer Sound Module (BASS TO MIDI)"** (p. 58).

Transmitting Data

You can use Exclusive messages to transmit settings for effect sounds and other data stored in the VB-99 to other MIDI devices. This allows you to give another VB-99 the identical settings and to save effect sound settings to MIDI sequencers and other such devices.

Controlling the VB-99 from an External MIDI Device

Switching Patch Numbers

The VB-99's patches switch immediately in response to Program Change messages received from external MIDI devices.

MEMO

> You can set the correspondence between MIDI Program Change messages and the VB-99's patches with the **"RX PC MAP (RECEIVE PROGRAM CHANGE MAP)"** (p. 55). Set this to ensure correspondence of the VB-99's effect sounds with those of other MIDI devices.

The connections shown in the diagram below are used when playing your bass backed by an automatic sequencer performance. The VB-99's patches change automatically when a Program number is entered with the performance data at the point where you want the VB-99's patches to change.

MIDI OUT

MIDI IN
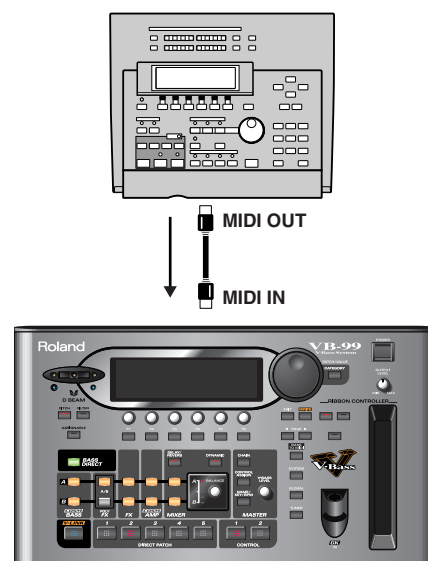
Receiving Control Change Messages

MEMO

The VB-99 can receive Control Change messages to control specified parameters while a performance is in progress. Set the parameters to be controlled with **"Using the Switches, Pedals, and MIDI to Control the Sounds (CONTROL ASSIGN)"** (p. 77).

Receiving Data

The VB-99 can receive data transmitted from other VB-99's and data saved to MIDI sequencers.

Main Types of MIDI Messages Handled by the VB-99

In order to be able to convey the full range of expression that is possible during performance, MIDI provides for different types of MIDI messages. MIDI messages can be categorized broadly into two groups; messages handled on an individual MIDI channel basis (Channel messages), and those handled independently of MIDI channels (System messages).

Channel Messages

These are messages used for conveying the events that take place during performance. Normally, you can control most performances using only these messages. The action controlled with each MIDI message is determined by the receiving device's settings.

Program Change Messages

These message are generally used for switching sounds; sounds are switched with Program Change numbers 1–128. Furthermore, with the VB-99, you can also use Control Change Bank Select messages together with the Program Change messages, allowing you to switch 400 different patch numbers.

Control Change Messages

Control Change messages are used for enhancing performance expression. Functions are distinguished from one another with Control numbers; the particular functions that can be controlled varies with the MIDI device. With the VB-99, you can control specified parameters.

Note On Messages

These messages convey to the device the pitches and volumes at which sounds are played.

Note Off Messages

These messages instruct the device to stop sounds currently being played.

Bend Messages

These messages are sent to produce continuous changes in the pitch.

System Messages

System messages include Exclusive messages, messages required for synchronized performances, and messages designed to prevent problems with operation.

Exclusive Messages

Exclusive messages are used for handling sounds unique to a particular device and other such messages. Basically, you can exchange messages between devices of the same type from the same manufacturer. Using Exclusive messages, you can store parameter settings to sequencers and transmit parameter settings to other VB-99s.

To exchange Exclusive messages, the Device ID numbers for each of the instruments must match.

About the MIDI Implementation

While the use of MIDI allows various devices to communicate with each other, this does not mean that it enables exchanges of all information. The data that can be exchanged between any two connected devices is limited to the messages common to both devices.

Therefore, MIDI device owner's manuals always contain a MIDI Implementation chart, which allows the user to determine quickly what MIDI messages the particular device supports. Comparing the MIDI Implementation charts for each device allows you to confirm what information can be exchanged and how to accomplish this. Since these charts are uniform in size, you can overlay the charts for the transmitting and receiving devices when checking the information.
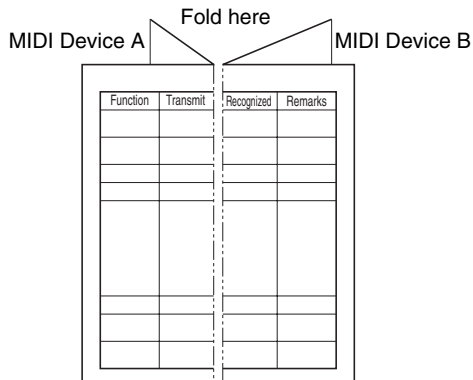
A separate publication titled "MIDI Implementation" is also available. It provides complete details concerning the way MIDI has been implemented on this unit. If you should require this publication (such as when you intend to carry out byte-level programming), please access the Roland web site.

http://www.roland.com/

Exchanging MIDI Messages

This section provides a simple description of how MIDI messages are exchanged.

About MIDI Connectors

MIDI messages are exchanged via the connectors described below. Connect MIDI cables to these connectors according to the use.
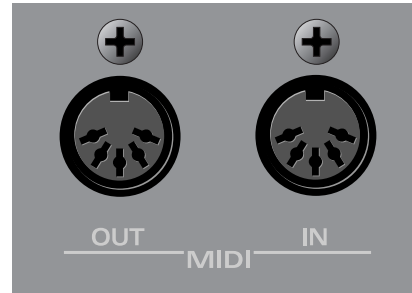
MIDI Connector	Description
MIDI IN	Messages from other MIDI devices are received here.
MIDI OUT	Messages from the VB-99 are transmitted here.

About MIDI Channels

MIDI allows various different messages to be sent separately to multiple MIDI devices over a single MIDI cable. This is possible thanks to the concept of MIDI channels.

MIDI channels use an approach similar to that of television channels. Switching channels on the TV allows the viewer to watch programs from a variety of broadcasters. This is because information is transferred over the channel to which both the transmitter and receiver are tuned.
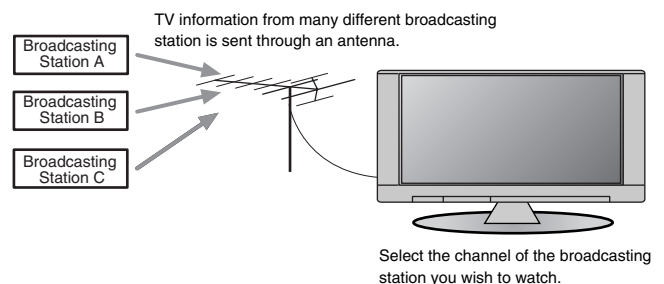
MIDI includes channels numbered 1–16; MIDI messages are transmitted to (receiving) instruments set to the same channel as the transmitting device's.

Bank Select and Program Change

Bank Select and Program Change are MIDI messages generally used for switching patches.

Normally, patches are switched using Program Change messages. However, if Program Changes alone are used, you'll only be able to select up to a maximum of 128 different patches. Because of this, some devices also employ the Bank Select, expanding the number of selectable patches.

Patches for these devices are assigned numbers combining Bank Select MSB, LSB numbers 0–127 and Program numbers 1–128.

> *   *The VB-99 disregards the Bank Select LSB.*

Setting the MIDI-Related Functions

This section describes the VB-99's MIDI-related functions. Set these according to how they are to be used.

1.   Press [SYSTEM].

The System screen appears.

2.   Press PAGE [◄] to display Page 1.

3.   Press [F6] (MIDI).

The MIDI settings screen appears.

The following section describes the settings used with MIDI.

MIDI Channel

This sets the channel used for transmitting and receiving MIDI messages corresponding to the VB-99's patches and operations.

Also refer to **"Playing an External Synthesizer Sound Module (BASS TO MIDI)"** (p. 58) if you are using the BASS TO MIDI function, and refer to **"Controlling Video Images with Your Bass (V-LINK)"** (p. 90) if you are using the V-LINK function.

1.   Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.

2.   Press PAGE [◄] to display Page 1.

3.   Rotate the F1 knob to set the MIDI channel (1– 16).

(MEMO)

Be sure not to set the same MIDI channel as the channel used for the BASS TO MIDI or V-LINK functions.

MIDI Omni Mode

When set to MIDI Omni mode, the VB-99 receives messages on all MIDI channels, regardless of the MIDI channel settings. You can use Omni mode whenever you do not need to use specific MIDI channels in controlling the VB-99.

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] to display Page 1.**

3. **Set Omni mode on or off with [F2] or the F2 knob.**

(MEMO)

Even with Omni mode set to ON, the only Exclusive messages received will be those carrying the Device ID set for Device ID.

(MEMO)

Omni mode is set to ON at the factory.

MIDI Device ID

This sets the Device ID to be used for the transmission and reception of Exclusive messages.

(MEMO)

Device ID is set to 1 at the factory.

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] to display Page 1.**

3. **Rotate the F3 knob to set the Device ID (1–32).**

SYNC CLOCK

You can synchronize the VB-99 to the MIDI Clock (tempo) transmitted from a MIDI sequencer or other external MIDI device.

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] to display Page 1.**

3. **Use [F6] (SELECT) or the F6 knob to select the MIDI Clock to use as the tempo reference.**

cf.

For detailed information on the parameters that can be set, refer to **"Syncing to the MIDI Clock from an External Device"** (p. 58).

MIDI ROUTING

Set the VB-99's control signal path.

The VB-99 features three types of connectors for data input and output: the MIDI connectors (IN/OUT), a USB connector, and the RRC2 IN connector. When connecting the VB-99 to devices other than the FC-300, you need to consider the routing of the control signals.

Check the display as you set the necessary connections.

You can make the settings for MIDI IN and OUT on Page 2, for the USB connector on Page 3, and for the RRC2 IN connector on Page 4.

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] [►] to display Pages 2–4.**
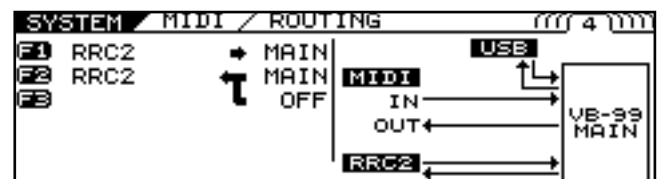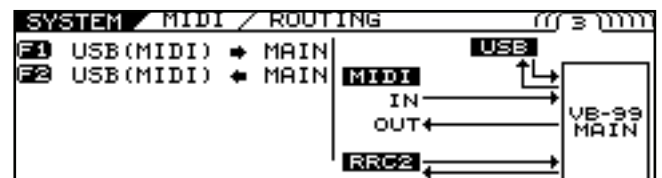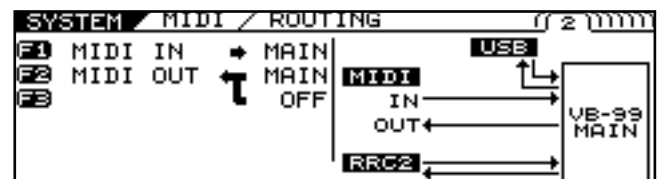
3. **Set the connections with [F1]–[F3] or the F1–F3 knobs.**

Chapter 5

MIDI PC OUT

This setting determines whether or not Program Change messages are output when the VB-99's patches are switched.

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] [►] to display Page 5.**

```
SYSTEM / MIDI / PC          (((( 5 ))))
                  TX       RX
PC OUT    PC MAP  PC MAP
OFF ON    FIX      FIX
  ⬙         ⬙        ⬙
OFF/ON  SELECT  SELECT
```

3. **Set PC OUT ON/OFF with [F1] or the F1 knob.**

MEMO

When outputting Program Change messages, the VB-99 simultaneously outputs MIDI Bank Select messages.

TX PC MAP (TRANSMIT PROGRAM CHANGE MAP)

This setting determines the sequence of Program Change messages output when the VB-99's patches are changed.

You can select whether to output Program Change messages set for the patches in advance or the Program Change messages programmed in each patch.

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] [►] to display Page 5.**

```
SYSTEM / MIDI / PC          (((( 5 ))))
                  TX       RX
PC OUT    PC MAP  PC MAP
OFF ON    FIX      FIX
  ⬙         ⬙        ⬙
OFF/ON  SELECT  SELECT
```

3. **Use [F2] or the F2 knob to set whether or not the Transmit Program channel is used.**

Available Settings	Description
FIX	Regardless of the patch settings, Program Change messages predetermined for each patch number are output.
PROG	The Program Change messages programmed in each patch are output.

The table below shows the correspondence between the patches and Program Change messages when TX PC MAP is set to FIX.

Patch Number	Bank Select	Program Number
001	0	1
:	:	:
100	0	100
101	1	1
:	:	:
200	1	100
201	2	1
:	:	:
400	3	100

Setting the TX PC MAP

To set Program Change messages to be transmitted with individual patches, make the settings described below.

MEMO

Patch parameters are settings made individually for each patch. The Write procedure (p. 34) is required to save changes in the settings.

1. **Select the patch to which you want to assign the predetermined Program Change message to be transmitted.**

2. **Press [NAME/KEY/BPM].**

3. **Press [F5] (TX PC).**

4. **Use [F1] – [F3] or F1 – F3 knob to set the Program Change Number and the Bank Select.**

5. **If you want to save the edited settings, perform the Write procedure (p. 34).**

    *   *If not saving the settings, press [EXIT] to return to the Play screen.*

RX PC MAP (RECEIVE PROGRAM CHANGE MAP)

You can select whether to use a fixed or freely set correspondence between program numbers received and the patches switched to when the VB-99's patches are switched by Program Change messages transmitted by an external MIDI device.

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] [►] to display Page 5.**

3. **Use [F3] or the F3 knob to set whether or not the Receive Program Change Map is used.**

Available Settings	Description
FIX	The VB-99 switches to the patches predetermined for the corresponding received Program Change messages, regardless of the Receive Program Change Map settings.
PROG	The VB-99 switches to the patches set in the Receive Program Change Map.

4. **To change the patch assigned to a received Program Number, press [LEFT] [RIGHT] to display Page 6.**

    The RX PC MAP screen appears.
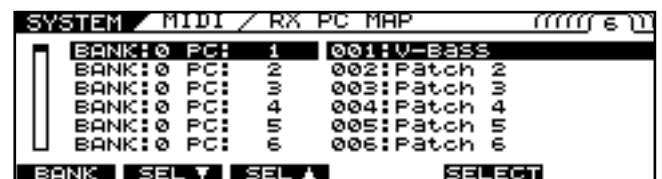
5. **Assign the patch to a received Program Number.**

    *   [F1] (BANK)/F1 Knob
        Selects the Bank number.

    *   [F2] (SEL ▼) or [F3] (SEL ▲)/F2 or F3 Knob
        Selects the Program number.

    *   [F5] (SELECT)/F5 Knob
        Selects the patch.

        When the combination of the Bank number and Program number selected with F1, F2, and F3 is received, the VB-99 switches to the patch selected with F5.

Chapter 5

The table below shows the correspondence between the factory default Program change Map and the Program Change messages received when RX PC MAP is set to FIX.

Bank Select	Program Number	Patch Number
0	1	001
:	:	:
0	128	128
1	1	101
:	:	:
2	128	328
3	1	301
:	:	:
3	100	400

*   *When setting **"OMNI MODE"** (p. 149) to OFF, be sure to match **"MIDI CH (MIDI Channel)"** (p. 149) to the external MIDI device's transmit channel beforehand.*

Setting the MIDI Output Control Change Number

This sets the Control Change numbers output when the VB-99's pedals and external pedals or the FC-300's pedals and external pedals are operated.

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] [►] to display Page 7.**
    The TX CC screen appears.

```
SYSTEM / MIDI / TX CC        (((((( 7 )
        GK VOL              OFF
        GK S1               OFF
        GK S2               OFF
        CTL1                OFF
        CTL2                OFF
        EXP PEDAL           OFF
        SEL ▼   SEL ▲              SET OFF
```

3. **Use [F2] (SEL ▼) or [F3] (SEL ▲), the F2 or F3 knobs to select the controller you want to set.**

4. **Use [F5] or the F5 knob to assign the Control Change number to be transmitted when the controller is adjusted.**
    When the controller selected with F2 or F3 is operated, the Control Change message selected with F5 is transmitted.
    *   *Control Changes message cannot be output if OFF is selected.*

Bulk Dump

With the VB-99, you can use Exclusive messages to set another VB-99 to the same settings or to save effect sound settings to MIDI sequencers and other such devices.

This transmission of data is referred to as bulk dump.

Data that can be transmitted is described below.

Displayed	Data Transmitted
ALL	All transmittable data (SYSTEM, GK SETTING, GLOBAL, PATCH 001–200, FAVORITE SETTING)
SYSTEM	SYSTEM parameters.
GK SETTING	Settings content for GK SETTING
GLOBAL	GLOBAL function settings
PATCH	Settings for patch numbers 001–200
FAVORITE SETTING	Settings content in FAVORITE SETTINGS 01–10 for all effects

How to Transmit the Data

When Saving Data to a MIDI Sequencer

Connect the devices as shown below, then place the MIDI sequencer in standby mode, so it is ready to receive Exclusive messages.

MIDI IN

MIDI OUT
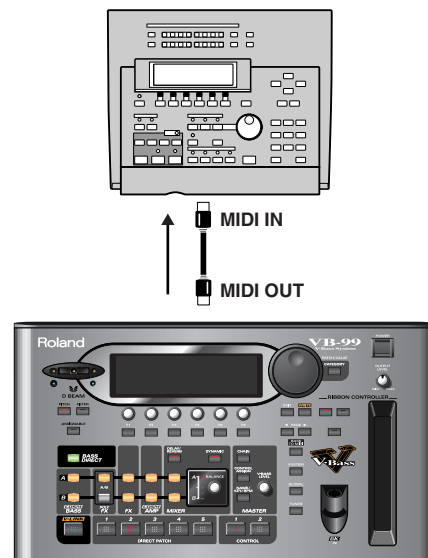
(MEMO)

For information on how to operate the sequencer you are using, refer to the owner's manual that came with it.

When Transmitting Data to Another VB-99

Connect the devices as shown below, then match the Device IDs for the transmitting and receiving devices.
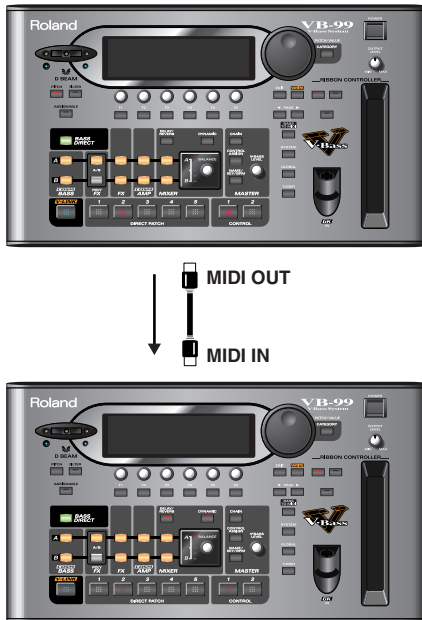
MIDI OUT

MIDI IN

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] [►] to display Page 8.**

3. **Use [F2] (SEL) or [F3] (SEL) to select the data you want to transmit.**

4. **Press [F1] (CHECK).**
   Only the types of data with a check mark are transmitted.

   MEMO
   When selecting PATCH FROM/TO, you can use the PATCH/VALUE dial to specify the range of patch numbers to be transmitted

5. **Repeat Steps 2 and 3 as needed.**

6. **Press [F6] (DUMP).**
   Transmission begins. Once the transmission is complete, you're returned to the screen you were in prior to transmission.

   MEMO
   You can cancel the procedure in progress by pressing [EXIT].

Bulk Load

Reception of VB-99 data saved to MIDI sequencers and other devices is referred to as bulk load.

When Receiving Data Saved to a MIDI Sequencer

1. **Connect the devices as shown below. Set the VB-99's Device ID to the same one used when the data was transmitted to the MIDI sequencer.**

MIDI OUT

MIDI IN
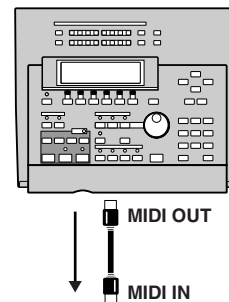
2. **Transmit the bulk data from the MIDI sequencer.**
   The message "SYSTEM EXCLUSIVE MESSAGE RECEIVING..." is displayed while the data is being received.
   Once the reception is complete, you're returned to the screen you were in prior to reception.
   In this state, the VB-99 can then receive further data.

   MEMO
   If the message "MIDI BUFFER FULL" appears, check the connections and reduce the tempo of the transmitting MIDI device.

Syncing to the MIDI Clock from an External Device

1. **Follow Steps 1–3 in "Setting the MIDI-Related Functions" (p. 52) to display the MIDI screen.**

2. **Press PAGE [◄] to display Page 1.**

```
SYSTEM / MIDI / CH           1
MIDI    OMNI    DEVICE          SYNC
CH      MODE    ID              CLOCK
                                INTER-
7ch     OFF ON   1              NAL

SET7   OFF/ON  SET1            SELECT
```

3. **Use [F6] (SELECT) or the F6 knob to select the synchronizing signal.**

    This specifies the setting to be stored as the SYNC CLOCK setting.

    • INTERNAL
        The VB-99 operates independently.
    • AUTO (USB)
        The VB-99 is synchronized to the MIDI Clock received via USB. However, operations are automatically synchronized to the VB-99's internal Clock if the VB-99 is unable to receive the external Clock.
    • AUTO (MIDI)
        The VB-99 is synchronized to the MIDI Clock received via MIDI. However, operations are automatically synchronized to the VB-99's internal Clock if the VB-99 is unable to receive the external Clock.
    • AUTO (RRC2)
        The VB-99 is synchronized to the MIDI Clock received via RRC2. However, operations are automatically synchronized to the VB-99's internal Clock if the VB-99 is unable to receive the external Clock.

Playing an External Synthesizer Sound Module (BASS TO MIDI)

The VB-99 can convert performance data to MIDI Note and Bend messages and output these messages. Using this function allows you to record performances to sequencers and play sounds through external sequencer sound modules.

The BASS TO MIDI function features system parameters, whose settings affect the overall functionality of the device, and patch parameters, which are set on an individual patch basis.

About MIDI messages Output with Bass to MIDI

The following MIDI messages are output with Bass to MIDI.

Program Change Messages

These messages convey information about a patch change.

Control Change Messages

These messages describe any changes made using the panel knobs or by operating pedals.

Note On Messages

These messages convey to the device the pitches and volumes at which sounds are played.

Note Off Messages

These messages instruct the device to stop sounds currently being played.

Bend Messages

These messages are sent to produce continuous changes in the pitch.

MEMO

The Channel-A COSM BASS settings (PITCH SHIFT, HARMO, and BEND) and the D Beam and ribbon controller settings (T-ARM) affect the pitch (MIDI note messages) output with Bass to MIDI. Channel B COSM BASS settings are not affected.

*   *If the pitch (MIDI note messages) output with Bass to MIDI becomes too low (or too high) because of the effects of the Channel A COSM BASS settings, the pitch is automatically shifted one octave higher (or lower).*

Setting the BASS TO MIDI Function (System Parameters)

These procedures are used for making settings for the device as a whole. Changes are saved automatically, and the Write procedure is not required.

After entering these parameters, press [EXIT] several times to return to the Play screen.

Switching the BASS TO MIDI Function On and Off

1. **Press [BASS TO MIDI].**

   The BASS TO MIDI screen appears.
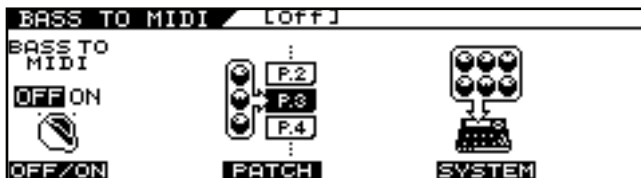
2. **Set BASS TO MIDI to ON with [F1] (OFF/ON) or the F1 knob.**

   Setting this to OFF prevents the output of all MIDI messages related to the BASS TO MIDI function.

Selecting the Controller Used to Control the Hold Function (HOLD CTL)

1. **Press [BASS TO MIDI].**

   The BASS TO MIDI screen appears.
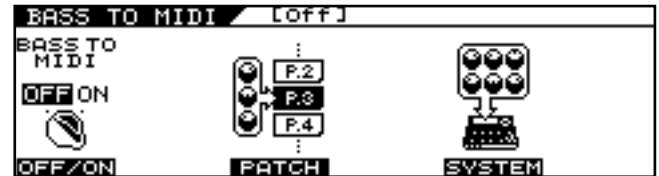
2. **Press [F5] (SYSTEM).**

3. **Use [F1] (SELECT) or the F1 knob to select the controller you want to set.**

HOLD CTL	Controller
GK S1, S2	GK-3B DOWN/S1, UP/S2 switch
CTL 1–4	VB-99's CONTROL 1, 2 buttons or foot switch connected to CTL 3,4 jack
FC-300 CTL1–8	FC-300's CTL 1, 2 pedals or foot switch connected to CTL jacks 3–8

(MEMO)

Controllers to which HOLD CTL is assigned are enabled simultaneously with parameters set in the SYSTEM CONTROL ASSIGN settings (p. 146). Set CONTROL ASSIGN to OFF if you want to use only the Hold function.

cf.

You can select the way the Hold function operates. For more details, refer to **"Selecting How the Hold Functions (HOLD TYPE)"** (p. 63).

Chapter 5

Thinning Out Bend Messages (BEND THIN)

Vibrato, slides, and other such data in bass performances are output as Pitch Bend messages. For this reason, the receiving MIDI device may encounter problems with operation when Pitch Bend messages containing large amounts of data are included.

You can use the BEND THIN function to thin out the Pitch Bend messages and control the volume of MIDI data.

1. Follow Steps 1–2 in "Selecting the Controller Used to Control the Hold Function (HOLD CTL)" (p. 59) to display the BASS TO MIDI screen.

2. Set the function to ON with [F2] (OFF/ON) or the F2 knob.

Select OFF when you do not want to reduce the amount of data transmitted in the Pitch Bend messages.

Setting the MIDI Transmit Channel (BASIC CH)

This sets the MIDI channel used for output of string performance data from the VB-99.

Set the MIDI channels according to the POLY/MONO mode as shown below.

- When set to POLY mode
  The performance data for all of the strings is transmitted over the basic channel.
- When set to MONO mode
  Hi C string: Transmitted over the basic channel.
  1st string: Transmitted over the channel number one higher than the basic channel.

        :

  Low B string: Transmitted over the channel number five higher than the basic channel.

cf.

For more details about the mode, refer to **"Setting the Transmission Mode (MODE)"** (p. 61).

1. Follow Steps 1–2 in "Selecting the Controller Used to Control the Hold Function (HOLD CTL)" (p. 59) to display the BASS TO MIDI screen.

2. Set the channel with [F3] (SELECT) or the F3 knob.

Preventing Transmission of Program Change Messages (PC MASK)

You can prevent transmission of Program Change messages that can be set in **"Outputting Program Change Messages Simultaneously When Switching Patches (PC)"** (p. 64).

* *This does not affect such Program Changes as those set in **"MIDI PC OUT"** (p. 54).*

1. Follow Steps 1–2 in "Selecting the Controller Used to Control the Hold Function (HOLD CTL)" (p. 59) to display the BASS TO MIDI screen.

2. Set the function to ON with [F4] (OFF/ON) or the F4 knob.

When PC MASK is set to ON, the Program Change messages set with the PC parameter (p. 64) in BASS TO MIDI are not transmitted.

Setting the BASS TO MIDI Function (Patch Parameters)

(MEMO)

Patch parameters are settings made individually for each patch. The Write procedure is required to save changes in the settings. Carry out the Write procedure as needed.

Setting the Transmission Mode (MODE)

1. Press [BASS TO MIDI].

The BASS TO MIDI screen appears.
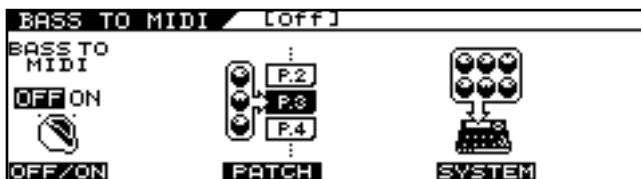
2. Press [F3] (PATCH).

3. Press PAGE [◄] to display Page 1.

4. Set the mode with [F1] (SELECT) or the F1 knob.

• MONO (MONO Mode)

In this mode, one channel per string is used, thus using a total of six channels.

Since each string uses a different MIDI channel, you can select a different tone for each string, using string bending or continuously varying the pitch on a specific string; however, this requires use of a multitimbral sound module.

• POLY (POLY Mode)

In this mode, the messages for all six strings are transmitted over a single channel.

While transmitting the MIDI messages for all of the strings over one channel does simplify the settings needed for the sound module and reduces the number of MIDI channels used, it does impose certain limitations; for example, permitting only one tone to be selected for all of the strings.

(MEMO)

• All patches are set to MONO mode at the factory.
• When chords are played in POLY mode, pitch bends change in semitone increments, while vibrato cannot be used. Pitch bends work normally in POLY Mode when playing single notes.

Chapter 5

Adjusting the Feel Produced in Playing the Bass (PLAY FEEL)

This selects the response of the synth sound relative to the playing dynamics.

Changing this setting depending on the performance style used with the bass or the tone allows you to express dynamics more naturally.

1. **Follow Steps 1–2 in "Setting the Transmission Mode (MODE)" (p. 61) to display the BASS TO MIDI screen.**

2. **Press PAGE [◄] to display Page 1.**

```
BASS TO MIDI / PITCH [off]      1
        PLAY   CHRO-   HOLD
MODE    FEEL   MATIC   TYPE
MONO    FEEL1  OFF     HOLD1
SELECT SELECT SELECT SELECT
```

3. **Adjust the setting with [F2] (SELECT) or the F2 knob.**

- FEEL1–FEEL4
  FEEL1 is the mode that gives sounds the broadest variation in volume based on the playing dynamics. As the setting number is increased, it becomes easier to produce high volume sounds even with weaker playing.
  This allows you to play with consistent volume, whether you tap the strings or use rough playing.
- NO DYNA
  In this mode, sounds are played at a fixed volume regardless of the playing strength.
- STRUM
  This suppresses the output of sounds from weaker playing.
  This setting allows you to prevent undesired sounds produced when playing rhythm or due to incidental contact with strings from incorrect playing.

Changing the Pitch in Semitone Units (CHROMATIC)

When using string bending or other such techniques to gradually change the pitch with the bass, you can set the VB-99 so that the pitch of the MIDI messages being output changes in semitone increments.

1. **Follow Steps 1–2 in "Setting the Transmission Mode (MODE)" (p. 61) to display the BASS TO MIDI screen.**

2. **Press PAGE [◄] to display Page 1.**

```
BASS TO MIDI / PITCH [off]      1
        PLAY   CHRO-   HOLD
MODE    FEEL   MATIC   TYPE
MONO    FEEL1  OFF     HOLD1
SELECT SELECT SELECT SELECT
```

3. **Adjust the setting with [F3] (SELECT) or the F3 knob.**

- OFF
  Normal Pitch Bend messages are output. The pitch varies continuously in keeping with the string bending or vibrato.
- TYPE 1
  When the pitch changes, this setting applies the results of the pitch change information without stopping the note that is playing.
  This produces a unique effect, whereby there is no attack sound when the pitches change, similar to slurring on a recorder.
- TYPE 2
  When the pitch changes, the VB-99 retriggers (replays) the sound at the changed pitch, producing pitch changes only at the semitone increments.
  As a result, the attack sound plays each time the pitch changes. The attenuation of the string vibration following the moment the string is played is reflected in the gradual fading of the retriggered sound.
- TYPE 3
  As with TYPE 2, sounds are retriggered at the changed pitch, expressing the pitch changes only in semitones.
  However, instead of reflecting the attenuation of the string vibration, the retriggered sound is the same as that when the string was initially played.

Selecting How the Hold Functions (HOLD TYPE)

This selects the Hold function type when the controller set with the HOLD CTL parameter (p. 59) is adjusted.

1. **Follow Steps 1–2 in "Setting the Transmission Mode (MODE)" (p. 61) to display the BASS TO MIDI screen.**

2. **Press PAGE [◄] to display Page 1.**

```
BASS TO MIDI / PITCH [off]        1  1
MODE     PLAY    CHRO-   HOLD
         FEEL    MATIC   TYPE
POLY     FEEL1    OFF    HOLD1
SELECT SELECT SELECT SELECT
```

3. **Use [F1] (SELECT) or the F1 knob to select MONO.**

4. **Adjust the setting with [F4] (SELECT) or the F4 knob.**
   - HOLD 1
     The Note On messages are held when the Hold function is switched on with the controller.
     If the Hold function remains on as you continue to play the strings, each successive Note On message is held, and when a Note message is already being played from the same string, the previous Note message is cancelled, and the next Note On message is held. This allows you to prevent any interruption in the sounds, even sounds from releasing the strings over the frets.
   - HOLD 2
     The Note On messages are held when the Hold function is switched on with the controller.
     However, subsequent Note On messages are not output if you continue to play the instrument with the Hold effect left on.
   - HOLD 3
     The Note On messages are held when the Hold function is switched on with the controller.
     If the Hold function remains on as you continue to play the strings, Note On messages for strings other than the one already being held can be output, but they are not held.

Outputting Control Changes by Operating the Controllers (CC)

You can operate the panel knobs and pedals to output Control Change messages.

There are two different settings.

1. **Follow Steps 1–2 in "Setting the Transmission Mode (MODE)" (p. 61) to display the BASS TO MIDI screen.**

2. **Press PAGE [◄] [►] to display Page 2.**

```
BASS TO MIDI / PITCH / CC [off]    2
       1                      2
  SRC    CC              SRC    CC
GK VOL   OFF           GK VOL   OFF
SELECT SELECT         SELECT SELECT
```

3. **Use [F1] (SELECT) or the F1 knob, or [F4] (SELECT) or the F4 knob, to select the controller you want to set.**

SRC	Controller
GK VOL	GK-3B Volume knob
GK S1	GK-3B DOWN/S1 Switch
GK S2	GK-3B UP/S2 Switch
CTL1	Control Button 1
CTL2	Control Button 2
EXP PEDAL	External Expression Pedal
CTL3	External Footswitch 3
CTL4	External Footswitch 4
D BEAM V	D BEAM Height
D BEAM H	D BEAM Left-Right
RIBBON ACT	Ribbon Controller Touch
RIBBON POS	Ribbon Controller Touch Position
FC-300 EXP1	FC-300's EXP PEDAL 1
FC-300 EXPSW1	FC-300's EXP PEDAL SW1
FC-300 EXP2	FC-300's EXP PEDAL 2
FC-300 EXPSW2	FC-300's EXP PEDAL SW2
FC-300 CTL1	FC-300's CTL1
FC-300 CTL2	FC-300's CTL2
FC-300 E3/C3	FC-300's External Expression Pedal 3, External Footswitch 3
FC-300 CTL4	FC-300's External Footswitch 4
FC-300 E4/C5	FC-300's External Expression Pedal 4, External Footswitch 5
FC-300 CTL6	FC-300's External Footswitch 6
FC-300 E5/C7	FC-300's External Expression Pedal 5, External Footswitch 7
FC-300 CTL8	FC-300's External Footswitch 8

4. **Use [F2] (SELECT) or the F2 knob, or [F5] (SELECT) or the F5 knob, to select the Control Change number you want to output.**
   Off, CC #1–#31, CC #64–#95

Chapter 5

MEMO

The MIDI channel over which the messages are output in POLY mode is only the basic channel. In MONO mode, the messages are output over the six channels spanning from the basic channel up to the channel numbered five above the basic channel.

Outputting Program Change Messages Simultaneously When Switching Patches (PC)

This sets the Program Change messages that are output when the VB-99's patches are switched.

* *Program Change messages are not output while PC MASK (p. 60) is set to ON.*

1. **Follow Steps 1–2 in "Setting the Transmission Mode (MODE)" (p. 61) to display the BASS TO MIDI screen.**

2. **Press PAGE [◄] [►] to display Pages 3–5.**
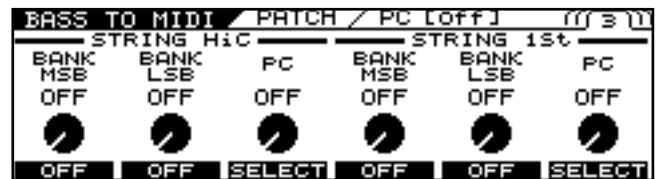
When MODE (p. 61) is set to MONO, you can make settings individually for each of the six strings of STRING HiC–LowB.

3. **Make the settings with [F1]–[F6] or the F1–F6 knobs.**

Set the following parameters.

BANK MSB	Explanation
OFF, 0–127	This sets the Bank Select (MSB).

BANK LSB	Explanation
OFF, 0–127	This sets the Bank Select (LSB).

PC	Explanation
OFF, 1–128	This sets the Program Number.

4. **If you want to save the edited settings, perform the Write procedure (p. 34).**

* *If you do not want to save, press [EXIT] to return to the Play screen.*

MEMO

The MIDI channel over which the messages are output in POLY mode is only the basic channel. In MONO mode, the messages are output over the six channels spanning from the basic channel up to the channel numbered five above the basic channel.

Chapter 6 Using the VB-99 Connected to a Computer Via USB

Before Using the USB Connection

By using USB with the VB-99, you'll be able to exchange digital audio signals and MIDI messages with your computer.

Installing and Setting the USB Driver

Use of the VB-99's USB functionality requires that the USB driver first be installed on the computer.

The dedicated VB-99 driver is contained on the "VB-99 Software CD-ROM" included with the VB-99.

As the program and procedures used in installing the driver vary according to the operating environment, carefully read the following Readme file contained on the "VB-99 Software CD-ROM" before use.

Using OS	Contained location
Windows XP	\Driver\XP\Readme_E.htm
Windows Vista	\Driver\Vista\Readme_E.htm
Mac OS X	\Driver\Readme_E.htm

What is a USB Driver?

A USB driver is software that acts as a go-between in transferring data between computer applications (such as recording software and sequencer software) and the USB device when the computer and USB device are connected using a USB cable.

The USB driver transmits data from the applications to the USB device, and conversely, passes messages from the USB device to the applications.
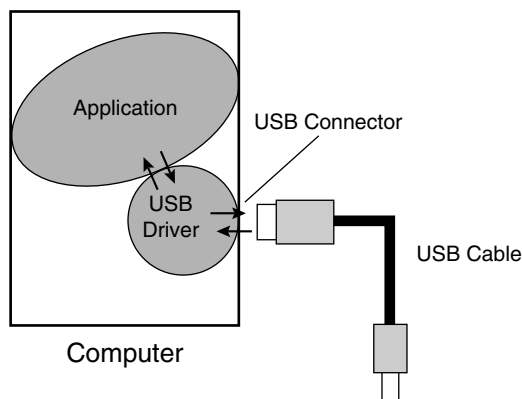
VB-99

Driver Mode

The VB-99 features two operational modes, one which uses the special driver contained on the included CD-ROM, and one in which the OS's (Windows/Mac OS) standard driver is used.

Using the specialized driver, you can record, play back, and edit audio with high-quality sound and stable timing.

It also allows you to control the VB-99 using MIDI messages.

Dedicated Software for the VB-99

Dedicated software that enables you connect and use a computer is available for the VB-99.

The software for the VB-99 will be available on the Roland website (http://www.roland.com).

Separate versions for Windows and for Macintosh are available.

VB-99 Editor

You can use this to make settings for the VB-99 from your computer.

You can also save tone setting (patch) data you have created as files on the computer.

VB-99 Librarian

You can manage the VB-99's settings and patches all together using your computer.

Switching the Driver Mode

1. Press [SYSTEM].

2. Press PAGE [◄] [►] to go to Page 2.

3. Press [F2] (USB).

4. Press PAGE [►] to go to Page 2.
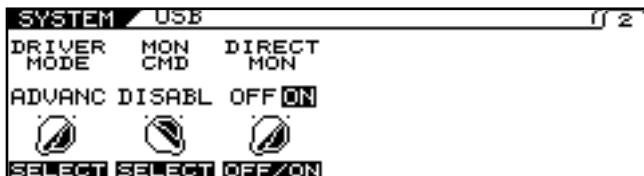
5. Set the DRIVER MODE with [F1] (SELECT) or the F1 knob.

Setting	Explanation
STNDRD	This mode uses the OS's standard USB driver.
ADVANC	This mode uses the dedicated driver contained on the CD-ROM.

* *When using VB-99 Editor/Librarian, set this to ADVANC.*

* *The message "PLEASE RESTART" appears when DRIVER MODE is switched.*

6. Press [EXIT] one or more times to return to the Play screen.

* *If you have not yet installed the driver for the mode you have set, turn off the power to the VB-99 in this condition and install the driver.*

7. Quit all sequencer software and other applications on the computer that are using the VB-99.

8. Turn on the power to the VB-99 again.

* *The functions of a mode won't become available until after the power has been turned off, then on again.*

About MIDI in Standard Driver Mode

You cannot use MIDI when STNDRD is selected as the driver mode.

If you want to use MIDI with the USB connection, set the VB-99 to the advanced driver mode.

Setting the USB Functions

The following section describes the VB-99's USB-related functions. Make these settings in accordance with how you plan to use the VB-99.

Setting the Digital Audio Signal Input and Output

1. Press [SYSTEM].

2. Press PAGE [►] to go to Page 2.

3. Press [F2] (USB).

4. Press PAGE [◄] to go to Page 1.

5. Change the setting's value with [F1]–[F4] or the F1–F4 knobs.

6. Press [EXIT] one or more times to return to the Play screen.

Parameter/ Range	Explanation
USB IN	
This sets the point at which digital audio signals received via USB (from your computer) are connected within the VB-99.	
* *Do not connect at a point before the point set with the USB OUT parameter. For more on the connection points, refer to* ***"Signal Flow"*** *(p. 15).*	
* *If the USB IN parameter is set to COSM BASS A, COSM BASS B, or NORMAL PU, the setting automatically changes to MAIN & SUB the next time the VB-99 is powered up. If you plan to use COSM BASS A, COSM BASS B, or NORMAL PU, make the setting each time you turn on the power to the VB-99.*	
OFF	The signals are not connected at any point.
COSM BASS A	The signals are connected at the point where the COSM BASS A is output. The audio output from the computer, instead of the COSM bass sounds played by the connected bass, is input to the effects. * *POLY FX are not applied.*

Parameter/ Range	Explanation
COSM BASS B	The signals are connected at the point where the COSM BASS B is output. The audio output from the computer, instead of the COSM bass sounds played by the connected bass, is input to the effects. * *POLY FX are not applied.*
NORMAL PU	The signals are connected at the normal pickup input. The audio output from the computer, instead of the normal sounds played by the connected bass, is input to the effects.
MAIN OUT	The signals are connected at the point where MAIN OUT is output. The signals from the VB-99's MAIN OUT and the audio output from the computer are mixed and output.
SUB OUT	The signals are connected at the point where SUB OUT is output. The signals from the VB-99's SUB OUT and the audio output from the computer are mixed and output.
MAIN&SUB	The signals are connected at the point where both MAIN OUT and SUB OUT are output. Each of the signals from the VB-99's MAIN OUT and the audio output from the computer are mixed, SUB OUT and the audio output from the computer are mixed from the output.
IN LEVEL	
0–200	Adjusts the volume level of the digital audio received via USB (from the computer).
USB OUT	
This sets the point internally within the VB-99 from which signals are output via USB (to the computer).	
COSM BASS A	The output from COSM BASS A is output.
COSM BASS B	The output from COSM BASS B is output.
NORMAL PU	The normal pickup input is output.
CH A	The output from Channel A is output.
CH B	The output from Channel B is output.
MIXER (DRY)	The signals that have been mixed with the mixer, but before application of DELAY/ REVERB, are output.
MIXER	The signals that have been mixed with the mixer and have DELAY/REVERB applied are output.
MAIN OUT	The same signals as those from MAIN OUT are output.
SUB OUT	The same signals as those from SUB OUT are output.
OUT LEVEL	
0–200	Adjusts the volume level of the digital audio output via USB (to the computer).

Setting the Direct Monitor

1.   Press [SYSTEM].

2.   Press PAGE [◄] [►] to go to Page 2.

3.   Press [F2] (USB).

4.   Press PAGE [►] to go to Page 2.

5.   Change the setting's value with [F2] (SELECT), [F3] (OFF/ON) or the F2, F3 knobs.

cf.

For more information on signal paths set by the Direct Monitor parameter settings, refer to **"Signal Flow"** (p. 15).

6.   Press [EXIT] one or more times to return to the Play screen.

Chapter 6

Parameter/ Range	Explanation
MON CMD (Monitor Command)	
This setting determines whether or not the command (the Direct Monitor command) controlling the Direct Monitor (described later) setting is enabled.	
DISABL	The Direct Monitor command is disabled, maintaining the Direct Monitor mode set by the VB-99.
ENABLE	The Direct Monitor command is enabled, allowing the Direct Monitor mode to be switched from an external device.
DIRECT MON (Direct Monitor)	
Switches the output of the VB-99 sound to the PHONES jack, MAIN OUT jacks, or SUB OUT jacks.	

OFF	Set this to Off if transmitting audio data internally through a computer (Thru).
ON	The VB-99 sound is output. Set this to On when using the VB-99 as a standalone device, without connecting to a computer (only USB IN input sound will be output if this is set to Off).

* *This setting cannot be saved. It is set to ON when the power is turned on.*

* *If you are using the special driver, you can control DIRECT MON On/Off from ASIO 2.0-compatible application.*

Recording the VB-99's Output with a Computer

In the computer application, set the audio input port to the VB-99.

You can freely set the point at which signals are sent to the computer with **"USB OUT"** (p. 67)

For example, by selecting COSM BASS A or COSM BASS B, you can listen to the performance with the effects applied, while recording it without the effects.

> * *If passing audio data through the software you're using, switch the direct monitor off.*

Using the VB-99 to Add Effects to Audio Playback from a Computer

In the computer application, set the audio output port to the VB-99.
You can use the VB-99 to apply effects to the audio data played by the computer, then record the data again with the computer.
Use this process when, for example, you want to add effects to existing audio data.

   * *Set the software so audio is not passed through it.*

1. **Press [SYSTEM].**

2. **Press PAGE [◄] [►] to go to Page 2.**

3. **Press [F2] (USB).**

4. **Press PAGE [◄] to go to Page 1.**

5. **Use [F1] or the F1 knob to set the point within the VB at which you want the connection to be made.**

   Here, set either COSM BASS A, COSM BASS B, or NORMAL PU.

   cf.

   For more information about the USB IN parameter settings, refer to **"Setting the Digital Audio Signal Input and Output"** (p. 66).

6. **Use [F2] or the F2 knob to adjust the level of the digital audio from the USB (computer).**

7. **Press [EXIT] one or more times to return to the Play screen.**

Chapter 6

Chapter 7 Other Functions

Changing the Tone in Real Time with the D Beam and Ribbon Controllers

Adjusting the D Beam (CALIBRATION)

The sensitivity of the D Beam controller can vary depending on the amount of light in the vicinity of the controller and the object (e.g., hand, bass neck) used to operate it. Perform this adjustment so you can control the tone in the intended range.

1. Press [SYSTEM].

2. Press PAGE [◄] [►] to go to Page 2.

3. Press [F6] (CALIB).

4. Press PAGE [◄] to go to Page 1.

5. Set the beam's responsive range as you actually operate the D Beam controller.
- First, hold the object you will use to activate the controller (your hand, bass neck, etc.) at the point farthest from the VB-99 in the range you want the controller to respond, and press [F1] (SetMIN).
- Next, hold the object at the closest point in the range you want the controller to respond, and press [F4] (SetMAX).

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

NOTE
- The D Beam controller's response may also vary with the stage lighting used. Confirm operation of the controller by testing it onstage under the actual illumination.
- If the set range is too narrow or if the positioning is not suitable, the message "OUT OF RANGE! SET AGAIN." appears. To keep this message from appearing, change the range or position and recalibrate.
- The controller may not function properly with spot lights or other such lighting shining directly on it.

MEMO
- Be sure to adjust the CALIBRATION directly above the D Beam controller.

OK!
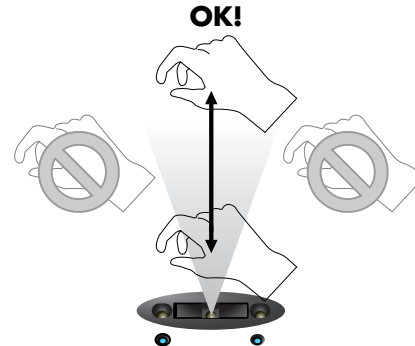
- When the message "MISSING THE TARGET!" appears, it indicates that the calibration is not being performed correctly.
- The CALIBRATION setting is a system parameter, so the Write procedure is not required.

Disabling the D Beam (DISABLE)

You can disable the D Beam controller for the entire device.

If you are using the VB-99 rack-mounted or otherwise not using the D Beam controller, we recommend disabling the D Beam controller by setting D BEAM DISAB to OFF.

1.   Press [SYSTEM].

2.   Press PAGE [◄] [►] to go to Page 2.

3.   Press [F6] (CALIB).

4.   Press PAGE [◄] to go to Page 1.
     The D BEAM CALIB screen appears.

```
SYSTEM / D BEAM CALIB         ( 1 )
D BEAM              D BEAM   CTL   D BEAM
  MIN                 MAX    VAL    DISAB

                              0    OFF ON

SetMIN              SetMAX          OFF/ON
```

5.   Switch the controller on or off with [F6] (OFF/ON).

Available Settings	Explanation
OFF	The D Beam is enabled.
ON	The D Beam is disabled. * *Pressing the D BEAM [PITCH], [FILTER], or [ASSIGNABLE] button to switch the D Beam controller on will have no effect.*

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

(MEMO)
     The DISABLE setting is a system parameter, so the Write procedure is not required.

Controlling Sounds by Hand Motion or the Bass Neck (D Beam Controller)

The D Beam controller allows you to change the sounds played by moving your hand or bass neck over it. You can apply various effects to the sound by changing the functions assigned to this controller.

(MEMO)
     Before using the D Beam controller, you need to adjust its sensitivity **"Adjusting the D Beam (CALIBRATION)"** (p. 70).

1.   Press the D BEAM [PITCH], [FILTER], or [ASSIGNABLE] button to switch the D Beam controller on.

(MEMO)
     The D Beam controller ON/OFF setting is a patch parameter. Carry out the Write procedure as required. (p. 34)

Available Settings	Explanation
PITCH	You can use the T-Arm function to control the bass's pitch, and the Freeze function to hold bass sounds. * *The PITCH effect is applied only to COSM basses. Use this with the COSM bass volume raised. (p. 30)*
FILTER	You can change the tone using the D Beam controller.
ASSIGNABLE	The D Beam controller controls the function assigned to it. You can assign a variety of functions to the controller.

cf.

For instructions on how to set these functions and tones, please read **"Using the Switches, Pedals, and MIDI to Control the Sounds (CONTROL ASSIGN)"** (p. 77).

2.   While you play the bass to produce sound, place your hand or bass neck above the D Beam controller and move it slowly up and down.

(MEMO)
     Use of the D Beam ASSIGNABLE setting also enables detection horizontally (left to right).

3.   The effect is applied to the sound in accordance with the function assigned to the D Beam controller.
     The blue indicator under the D Beam controller lights while the D Beam effect is being applied.

Chapter 7

71

4. **To turn off the D Beam controller, press the button you pressed in Step 1 again so the indicator goes off.**

Effective Range of the D Beam Controller

The D Beam controller's effective range is shown in the figure below. Moving your hand outside this effective range produces no effect.
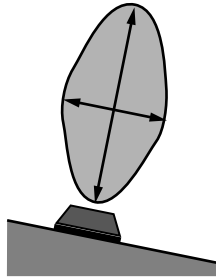
NOTE

> The effective range of the D Beam controller will be extremely limited when used under strong, direct sunlight. Please be aware of this when using the D Beam controller outdoors.

NOTE

> The sensitivity of the D Beam controller can vary depending on the amount of light in the vicinity of the unit. If it does not function as you expect, adjust the D Beam.(p. 70)

MEMO

> The parameter values set by holding your hand or other object over the D Beam controller change as shown below.

D BEAM vertical movements	Explanation
Closer to the D Beam	The value approaches the MAX value.
Farther from the D Beam	The value approaches the MIN value.

D BEAM horizontal movements	Explanation
To the right of the D Beam	The value approaches the MAX value.
To the left of the D Beam	The value approaches the MIN value.

Adjusting the Ribbon Controller (CALIBRATION)

While the ribbon controller has been adjusted at the factory for optimum performance, the responsive range may vary with the width of the finger used to activate the controller.

If this occurs, use the procedure below to readjust the range.

1. **Press [SYSTEM].**

2. **Press PAGE [◄] [►] to go to Page 2.**

3. **Press [F6] (CALIB).**

4. **Press PAGE [►] to go to Page 2.**

The RIBBON CALIB screen appears.

5. **Set the responsive range as you actually operate the ribbon controller.**

• First, while holding your finger against the near end of the ribbon controller, press [F1] (SetMIN).
• Next, hold your finger against the far end and press [F4] (SetMAX).

NOTE

> If the message "OUT OF RANGE! SET AGAIN." is displayed, carry out the calibration process once more. If the message continues to appear even after the calibration is correctly performed, it may indicate damage or malfunction. Consult your Roland dealer or contact Roland Service.

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

MEMO

> The CALIBRATION setting is a system parameter, so the Write procedure is not required.

Controlling the Sounds with the Movement of Your Fingertip (Ribbon Controller)

The ribbon controller allows you to change sounds by "scratching" or tracing your finger along the ribbon. You can apply various effects to the sound by changing the functions assigned to this controller.

1. **Press the RIBBON CONTROLLER [PITCH], [FILTER], or [ASSIGNABLE] button to switch on the ribbon controller.**

Available Settings	Explanation
PITCH	You can use the T-Arm function to control the bass's pitch, and the Freeze function to hold bass sounds. *The PITCH effect is applied only to COSM basses. Use this with the COSM bass volume raised. (p. 30)*
FILTER	You can change the tone using the ribbon controller.
ASSIGNABLE	The ribbon controller controls the function assigned to it. You can assign a variety of functions to the controller.

cf.

For more on how to set functions and tones, please read "**Using the Switches, Pedals, and MIDI to Control the Sounds (CONTROL ASSIGN)**" (p. 77).

2. **While you play the bass to produce sound, move your fingertip along the ribbon controller.**

3. **The effect is applied to the sound in accordance with the function assigned to the ribbon controller.**

4. **To turn off the ribbon controller, press the button you pressed in Step 1 again so the indicator goes off.**

MEMO

The setting switching the ribbon controller on and off is a patch parameter. Carry out the Write procedure as required.

NOTE

A light touch is sufficient when operating the ribbon controller. Never press the ribbon controller forcefully or with a hard or pointed object.

Holding Sounds for Extended Periods (FREEZE)

You can press the D BEAM [PITCH] button to use the FREEZE effect, which allows you to hold sounds indefinitely.

1. **Press [CONTROL ASSIGN]**

2. **Press PAGE [◄] [►] to go to Page 2.**
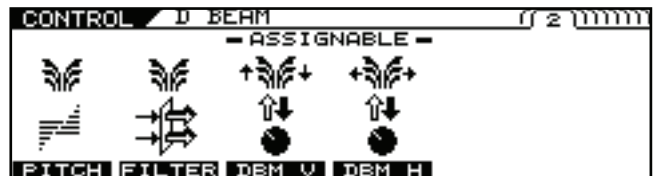
3. **Press [F1] (PITCH).**

4. **Select FREEZE with [F1] (SELECT) or the F1 knob.**

   The D BEAM FREEZE screen appears.

5. **Use [F2] (SELECT) or the F2 knob to select the channel with the sounds you want to freeze.**

6. **Set each of the FREEZE parameters on Page 1 or Page 2**

cf.

For more detailed information on the parameters that can be set, refer to (p. 136).

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

8. **Press the D BEAM [PITCH] button, causing the indicator to light.**

9. **Play the bass, and while the sounds are playing, cut across the D Beam with your hand or bass neck.**

10. **The FREEZE function switches on and the same sound continues to hold, while the D Beam controller's blue indicator lights up.**

11. **To switch FREEZE off, swipe your hand or bass neck across the D Beam controller's beam.**

   With D BEAM:FREEZE:SW set as the target in Control Assign, you can control the FREEZE effect ON/OFF using an external

73

Chapter 7

pedal, MIDI device, or any of a variety of other controllers.

Changing the Pitch as with a Tremolo Arm (T-ARM)

You can press the D BEAM or RIBBON CONTROLLER [PITCH] button to use T-ARM, which changes the pitch of the COSM bass like a tremolo arm.

1.   Press [CONTROL ASSIGN]

2.   Press PAGE [◄] [►] to go to Page 2 for the D Beam, or Page 3 for the ribbon controller.
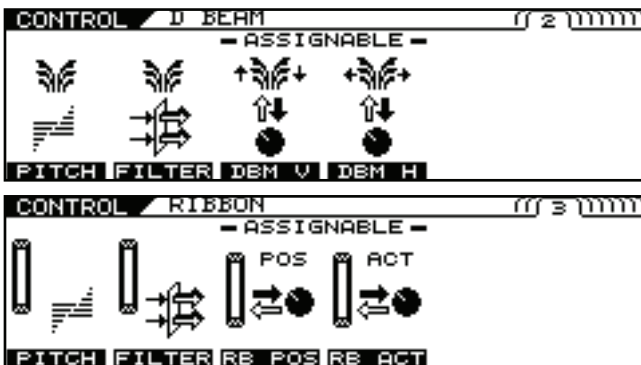
3.   Press [F1] (PITCH).

4.   Press PAGE [◄] to go to Page 1.

5.   Select T-ARM with [F1] (SELECT) or the F1 knob.

The D BEAM T-ARM or the RIBBON T-ARM screen appears.

*   *This step is not necessary if you are using the ribbon controller. In this case, proceed to Step 5.*
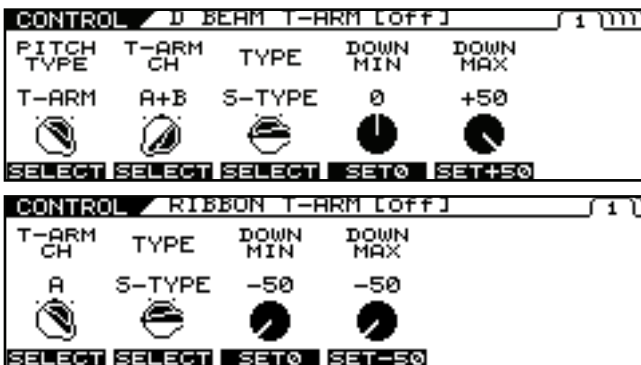
6.   Use [F2] (SELECT) or the F2 knob in the D Beam screen or [F1] (SELECT) or the F1 knob in the Ribbon Controller screen to select the channel to which you want to apply the effect.

7.   Set each of the T-ARM parameters on Page 1 or Page 2

cf.

For more detailed information on the parameters that can be set, refer to **"PITCH"** (p. 136), (p. 138).

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

9.   Press the D BEAM or RIBBON CONTROLLER [PITCH] button, causing the indicator to light.

10.   Use the D Beam or ribbon controller like a tremolo arm to change the pitch.

*   *With D BEAM:T-ARM:SW or RIBBON:T-ARM:SW and " BEAM:T-ARM:CONTROL and RIBBON:T-ARM:CONTROL set as the target in Control Assign, you can control the T-ARM effect using an external pedal, MIDI device, or any of a variety of other controllers.*

Adding Nuance to the Sound (FILTER)

You can press the D BEAM or RIBBON CONTROLLER [FILTER] button to apply the FILTER effect and add nuance to the tone in Channel A or B, or both channels.

1. **Press [CONTROL ASSIGN]**

2. **Press PAGE [◄] [►] to go to Page 2 for the D Beam, or Page 3 for the ribbon controller.**
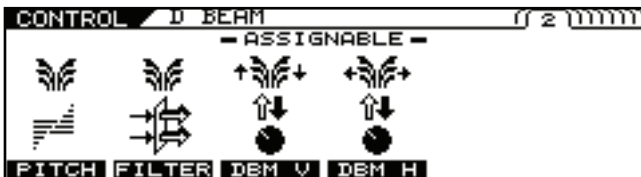
3. **Press [F2] (FILTER).**

4. **Press PAGE [◄] to go to Page 1.**

The D BEAM FILTER or the RIBBON FILTER screen appears.

5. **Use [F1] (SELECT) or the F1 knob to select the channel to which you want the effect to be applied.**

6. **Set each of the FILTER parameters on Page 1.**

⟨ cf. ⟩

For more detailed information on the parameters that can be set, refer to **"FILTER"** (p. 137), (p. 138).

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

8. **Press the D BEAM or RIBBON CONTROLLER [FILTER] button, causing the indicator to light.**

9. **Use the D Beam or ribbon controller to apply the filter and add nuance to the sound.**

*   *With D BEAM:FILTER:SW or RIBBON:FILTER:SW and D BEAM:FILTER:CONTROL and RIBBON:FILTER:CONTROL set as the target in Control Assign, you can control FILTER:CONTROL using an external pedal, MIDI device, or any of a variety of other controllers.*

Chapter 7

75

Changing the Sounds with the Function Knobs as You Play (DIRECT EDIT)

You can assign parameters to the F1–F6 knobs to control the parameters as you play.

Additionally, you can check (display) the assigned parameters by pressing [F1]–[F6].

* *Set the DIRECT EDIT parameter (p. 148) settings to PATCH.*

1. **Press [CONTROL ASSIGN]**

2. **Press PAGE [►] to go to the last page.**
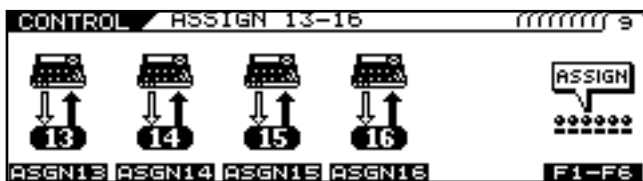
3. **Press [F6] (F1–F6) to enter the DIRECT EDIT screen.**

The DIRECT EDIT screen appears.
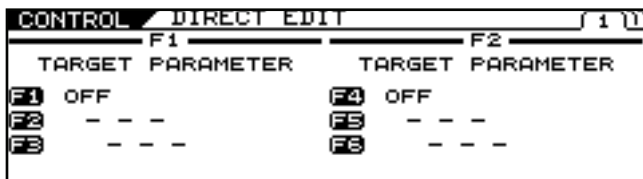
4. **Press Page [◄] [►] to go to the page for the knob you want to set.**

5. **Use the [F1]–[F6] or F1–F6 knobs to select the parameters you want to assign to the knob.**

TIP

You can quickly locate and select the desired parameter by first narrowing down the parameter type with F1 (F4), then using F2 (F5) and then F3 (F6) to reach the right parameter.

6. **If you want to save the edited settings, perform the Write procedure (p. 34).**

* *If not saving the settings, press [EXIT] to return to the Play screen.*

MEMO

When Messages Are Displayed

These appear because the DIRECT EDIT parameter is set to SYSTEM.

This means that the settings in the DIRECT EDIT screen, which are the patch parameters, have no effect.

To enable the settings, the DIRECT EDIT parameter in the CONTROL screen for SYSTEM must be set to PATCH. For detailed information, refer to **"Making System-wide Settings for the Features Controlled by the Function Knobs (SYSTEM DIRECT EDIT)"** (p. 43).
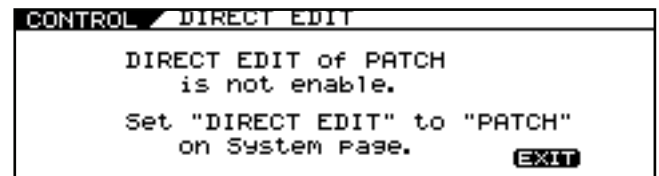
To dismiss this message, press [EXIT].

Using the Switches, Pedals, and MIDI to Control the Sounds (CONTROL ASSIGN)

These settings are made when parameters are to be controlled with the GK-3B VOLUME knob or DOWN/S1, UP/S2 switches, the VB-99's CONTROL buttons, an external pedal or other connected controller, or a connected MIDI device.

In addition to settings already assigned to controllers, the VB-99 also features sixteen prepared general-purpose control assigns that let you freely assign settings to controllers as you like.

* *If you intend to control the parameters of effects and the like, be sure to set the effect to ON beforehand.*
* *For more detailed information on the parameters, refer to* **"CONTROL ASSIGN"** *(p. 135),*
* *Enabling the settings requires setting each of the controller assignments to ASSIGNABLE in the SYSTEM CONTROL ASSIGN screen. For detailed information, refer to* **"Setting the GK VOLUME Control and Switch and the Pedal Function (SYSTEM CONTROL ASSIGN)"** *(p. 42).*

1. **Press [CONTROL ASSIGN]**

2. **Select the controller you want to set with PAGE [◄] [►] and [F1]–[F6].**

   The various controllers' setting screens appear.

* *The following section describes the controllers you can set.*

	Displayed screen	Controller
GK VOL	GK VOL	Settings for the volume knob on the GK-3B.
S1, S2	GK S1, S2	Settings for the switches on the GK-3B.
CTL1	CONTROL1	Settings for the CONTROL 1 button on the VB-99's top panel.
CTL2	CONTROL2	Settings for the CONTROL 2 button on the VB-99's top panel.
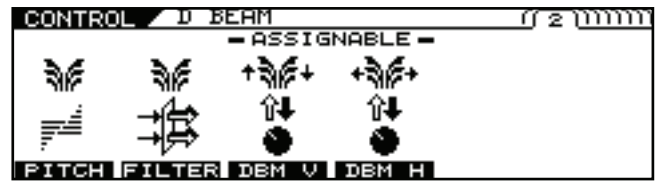
	Displayed screen	Controller
PITCH	D BEAM T-ARM/ D BEAM FREEZE	Control of TREMOLO ARM/ FREEZE with the D Beam controller
FILTER	D BEAM FILTER	Control of FILTER with the D Beam controller
DBM V	D BEAM V	D Beam controller vertical sensor
DBM H	D BEAM H	D Beam controller horizontal sensor
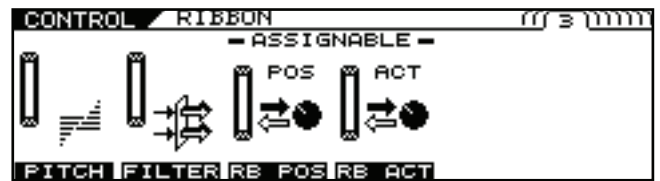
	Displayed screen	Controller
PITCH	RIBBON T-ARM	Control of PITCH with the TREMOLO ARM.
FILTER	RIBBON FILTER	Control of FILTER with the Ribbon controller
RB POS	RIBBON POS	Ribbon controller position sensor
RB ACT	RIBBON ACT	Ribbon controller touch sensor
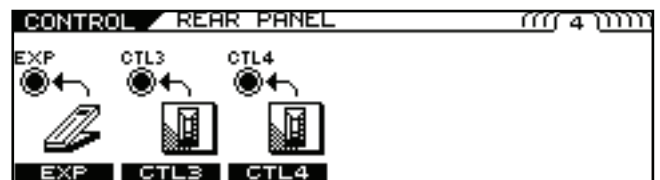
	Displayed screen	Controller
EXP	EXP PEDAL	Settings for the expression pedal connected to the EXP PEDAL jack on the VB-99's rear panel.
CTL3	CTL3	Settings for the footswitch connected to the CTL3 jack on the VB-99's rear panel.
CTL4	CTL4	Settings for the footswitch connected to the CTL4 jack on the VB-99's rear panel.

Chapter 7

CONTROL / FC-300 〔5〕

EXP1 | EXPSW1 | EXP2 | EXPSW2 | CTL1 | CTL2
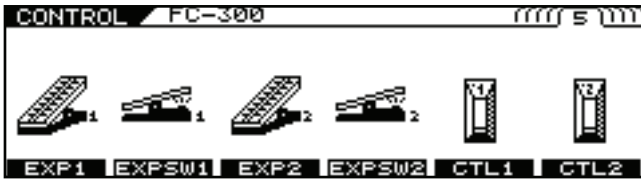
	Displayed screen	Controller
EXP1	FC EXP1	Settings for the expression pedal 1 on the FC-300 connected to the VB-99.
EXPSW1	FC EXPSW1	Settings for the expression pedal switch 1 on the FC-300 connected to the VB-99.
EXP2	FC EXP2	Settings for the expression pedal 2 on the FC-300 connected to the VB-99.
EXSW2	FC EXPSW2	Settings for the expression pedal switch 2 on the FC-300 connected to the VB-99.
CTL1	FC CTL1	Settings for the CTL1 on the FC-300 connected to the VB-99.
CTL2	FC CTL2	Settings for the CTL2 on the FC-300 connected to the VB-99.

CONTROL / FC-300 〔6〕

E3/C3 | CTL4 | E4/C5 | CTL6 | E5/C7 | CTL8

	Displayed screen	Controller
E3/C3	FC E3/C3	Settings for the expression pedal 3 or footswitch 3 connected to the FC-300's rear panel.
CTL4	FC CTL4	Settings for the footswitch 4 connected to the FC-300's rear panel.
E4/C5	FC E4/C5	Settings for the expression pedal 4 or footswitch 5 connected to the FC-300's rear panel.
CTL6	FC CTL6	Settings for the footswitch 6 connected to the FC-300's rear panel.
E5/C7	FC E5/C7	Settings for the expression pedal 5 or footswitch 7 connected to the FC-300's rear panel.
CTL8	FC CTL8	Settings for the footswitch 8 connected to the FC-300's rear panel.

CONTROL / ASSIGN 1-6 〔7〕

ASGN 1 | ASGN 2 | ASGN 3 | ASGN 4 | ASGN 5 | ASGN 6

CONTROL / ASSIGN 13-16 〔9〕

ASGN13 | ASGN14 | ASGN15 | ASGN16 | F1-F6
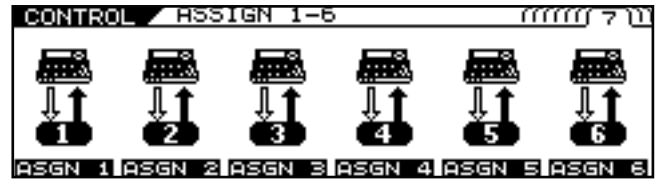
	Displayed screen	Controller
ASGN 1 : **ASGN16**	ASSIGN1 : ASSIGN16	Settings for general purpose assigns you can set freely as controllers for MIDI messages and other controllers in addition to those described above.
F1–F6	DIRECT EDIT	Settings for the function knobs arranged below the VB-99's LCD.

3. **Select the function you want to assign with PAGE [◄] [►], [F1]–[F6], and the F1–F6 knobs.**

TIP

You can assign two different functions to one controller. For example, you can assign separate functions to the GK VOL (1) and GK VOL (2) displayed in the screen.

cf.

For more on PITCH and FILTER of the D BEAM controller, refer to **"Controlling Sounds by Hand Motion or the Bass Neck (D Beam Controller)"** (p. 71). For more on PITCH and FILTER of the Ribbon controller, refer to **"Controlling the Sounds with the Movement of Your Fingertip (Ribbon Controller)"** (p. 73).

The following section describes the parameters you can set on each page.

* *The screen shown in the example is for ASSIGN1.*

Page 1, 3

```
CONTROL / ASSIGN1 [1:Off][2:Off]    1
                    ━━ASSIGN1(1)━━
SOURCE              SW   TARGET PARAMETER
GK VOL            OFF ON  F4 V-BASS LEVEL
                          F5  - - -
                          F6  - - -
SELECT            OFF/ON
```

F1: SOURCE (ASSIGN1–16 only)

This selects the controller assigned to the function.

F3: SW (ON/OFF)

Setting this to ON enables the controller.

F4–F6: TARGET PARAMETER

Use these to select the parameter you want to assign.

You can quickly locate and select the desired parameter by first narrowing down the parameter type with F4, then using F5 and then F6 to reach the right parameter.

cf.

For more details on the parameters, refer to **"CONTROL ASSIGN"** (p. 135).

Page 2, 4

```
CONTROL / ASSIGN1 [1:Off][2:Off]    2
                    ━━ASSIGN1(1)━━
SOURCE    MIN    MAX    SW    RANGE  RANGE
                       MODE    LOW   HIGH
GK VOL     0      0   MOMENT    0     1

          MIN    MAX  SELECT   MIN    MAX
```

```
CONTROL / GK S1,S2 [1:Off][2:Off]    2
                    ━━GK S1,S2(1)━━
SOURCE    MIN    MAX    MODE
  GK       0      0   S1:DEC
 S1,S2                 S2:INC

          MIN    MAX  SELECT
```

F2: MIN

This sets the minimum value for the target's controllable range.

F3: MAX

This sets the maximum value for the target's controllable range.

F4: SW MODE (only when a switch type controller is selected for SOURCE)

This specifies how the switches function.

Available Settings	Explanation
MOMENT	The parameter switches to the maximum value only while the switch is held down, and switches to the minimum value when the switch is released.
LATCH	The value alternately switches between maximum and minimum each time the switch is pressed.

F4: MODE (GK S1, S2 only)

This specifies how the switches function.

* *Combinations of the actions below are possible.*
  S1: DEC / S2: INC
  S1: INC / S2: DEC
  S1: MIN / S2: MAX
  S1: MAX / S2: MIN

Available Settings	Explanation
INC	The value increases.
DEC	The value decreases.
MIN	The value is set to the minimum.
MAX	The value is set to the maximum.

F5: RANGE LOW (only when an expression pedal or other controller that changes values in a continuous, non-discrete way is set as the source)

This sets the minimum for the range in which the value of the setting can be changed.

F6: RANGE HIGH (only when an expression pedal or other controller that changes values in a continuous, non-discrete way is set as the source)

This sets the maximum for the range in which the value of the setting can be changed.

Chapter 7

About the Range of Targets' Change

The target's value changes between MIN (the minimum value) and MAX (the maximum value).

When a foot switch or other controller that switches settings on and off is used, OFF sets the minimum value and ON sets the maximum value.
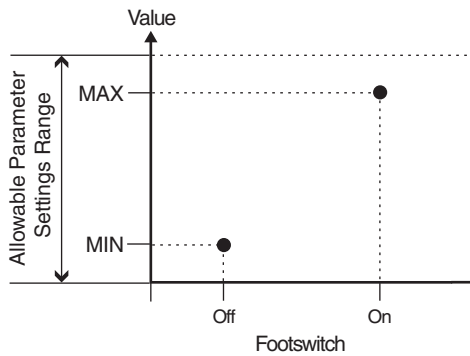
When an expression pedal or other controller that changes values in a consecutive manner is used, the value changes within the range between MIN and MAX.
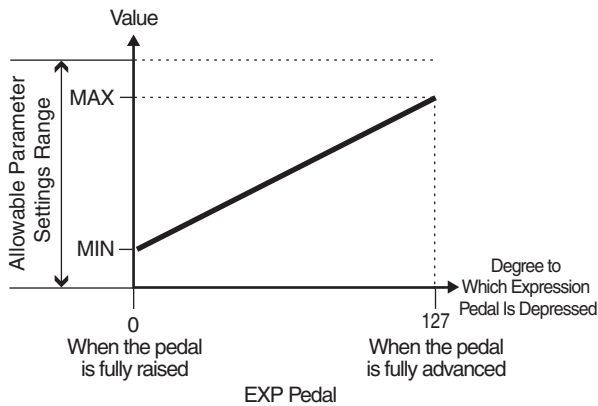
When an expression pedal or other controller that changes values in a consecutive manner is used to control a two-value (On/Off) parameter, the controller functions as shown below.
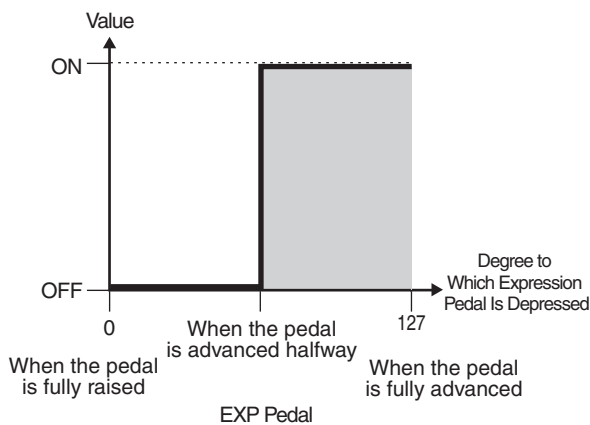
About the Range of Controllers' Change

This sets the operational range (range in which the value actually changes) for an expression pedal, or similar controller that changes the value of a setting in a continuous fashion, when it has been set as the source.

If the controller adjustment moves beyond the enabled range of operation, the value of the setting remains at the maximum value or minimum value, without changing any further.
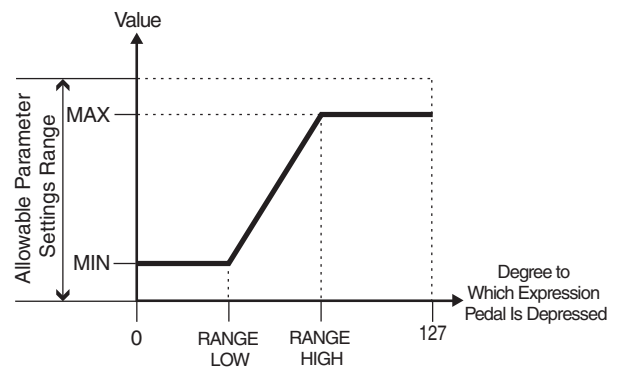
4. **If you want to save the edited settings, perform the Write procedure (p. 34).**

   *   *If you do not want to save, press [EXIT] to return to the Play screen.*

Activating the Virtual Expression Pedal at the Start of Operations (Internal Pedal System)

The VB-99 features a function called Internal Pedal system. This function assigns specified parameters to a virtual expression pedal (the internal pedal), providing an effect automatically that changes volume and tone in real time just the way an expression pedal functions.

The Internal Pedal system features the following two functions, allowing you to set Source for each assign 1-16 (p. 78) of the Control Assign (p. 77).

* Internal Pedal
* Wave Pedal
* *When the Internal Pedal or the Wave Pedal is used, set the ASSIGN SW MODE to MOMENT.*

Internal Pedal

With the trigger you have set, the assumed expression pedal starts working. If you have set INTERNAL PEDAL to SOURCE, set the TRIGGR parameter (p. 141).

| cf. |

> For more detailed information on the parameters that can be set using INTERNAL PEDAL, refer to **"TRIGGR (Trigger)"** (p. 141), **"TIME"** (p. 141), and **"CURVE"** (p. 141).

Wave Pedal

This changes the parameter selected as a target in a certain cycle with the assumed expression pedal. When you have set WAVE PEDAL for SOURCE, the RATE parameter (p. 141) and FORM parameter (p. 141) should be set.

| cf. |

> For more detailed information on the parameters that can be set using WAVE PEDAL, refer to **"RATE"** (p. 141) and **"FORM"** (p. 141).

One Touch Call Up of Favorite Patches (DIRECT PATCH)

You can assign your favorite patches to the [DIRECT PATCH 1] – [DIRECT PATCH 5] buttons, then call up these patches just by pressing the buttons.

Setting DIRECT PATCH

1. **Press [SYSTEM].**

2. **Press PAGE [◄] to go to Page 1.**

3. **Press [F2] (DIRECT).**
    The DIRECT PATCH screen appears.
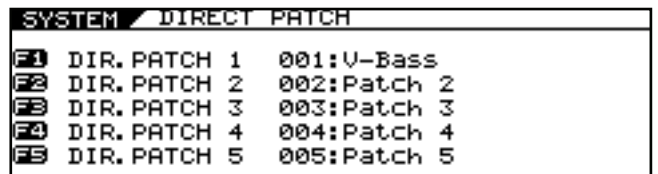
4. **Use the F1–F5 knobs to select the patches to be assigned to [DIRECT PATCH 1]– [DIRECT PATCH 5].**

    The numbers correspond, with DIR. PATCH 1 assigned with the F1 knob, DIR. PATCH 2 assigned with the F2 knob, and so on.

5. **Press [EXIT] several times to return to the Play screen.**

Chapter 7

81

Managing the Patches

Saving and Copying Patches (PATCH WRITE)

To save any changes you've made in the settings, you need to perform the write procedure.

To make a copy of an existing patch, you can simply write it to another patch location.

1. **Press [WRITE].**

The PATCH WRITE screen appears.

"WRITE TO" is displayed, and the write-destination patch number and name are indicated.

```
WRITE  PATCH WRITE              1

WRITE TO      001:V-Bass

        YES:[WRITE]
        NO :[EXIT]

 NAME
```
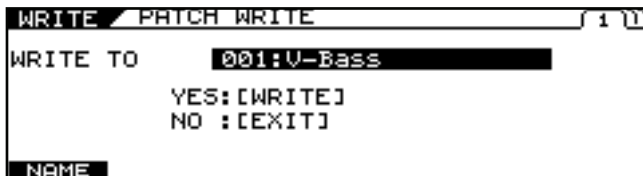
2. **Use the PATCH/VALUE dial to select the copy-destination patch.**

3. **Press [WRITE] again.**

The message "NOW WRITING..." is displayed as the patch is copied, and the VB-99 changes to the copy-destination patch number.

```
WRITE  PATCH WRITE              1

WRI          MESSAGE
    NOW WRITING...


 NA
```

*   *If you are not saving the settings, press [EXIT] to return to the Play screen.*

Exchanging the Current Patch with a Different Patch (PATCH EXCHANGE)

This exchanges the user patch with the different patch.

*   *You cannot exchange tones in preset patches.*

1. **Confirm that a User patch is selected.**

2. **Press [WRITE].**

3. **Press PAGE [►] to go to Page 2.**

"EXCHANGE" is displayed.

The exchange-destination patch number and name are indicated.

```
WRITE  PATCH EXCHANGE           2

EXCHANGE  ↕  001:V-Bass
             001:V-Bass

        YES:[WRITE]
        NO :[EXIT]
```
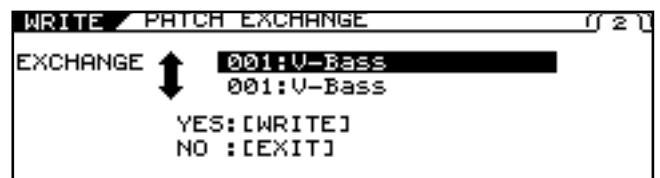
4. **Use the PATCH/VALUE dial to select the exchange-destination patch.**

5. **Press [WRITE] again.**

The message "NOW EXCHANGING..." is displayed as the current patch and the selected patch are exchanged, and the VB-99 changes to the exchange-destination patch number.

```
WRITE  PATCH EXCHANGE           2

EXC          MESSAGE
    NOW EXCHANGING...


```

*   *If you do not want to exchange the patches, press [EXIT] to return to the Play screen.*

Initializing User Patches (PATCH INITIALIZE)

You can set user patches to their initial conditions, with all effects switched off.

This is convenient when you want to create a patch from scratch.

*   *You cannot initialize preset patches.*

1.   Confirm that a User patch is selected.

2.   Press [WRITE].

3.   Press PAGE [►] to go to Page 3.

The PATCH INITIALIZE screen appears.

```
WRITE  PATCH INITIALIZE         3

INITIALIZE    001:V-Bass

            YES:[WRITE]
            NO :[EXIT]
```
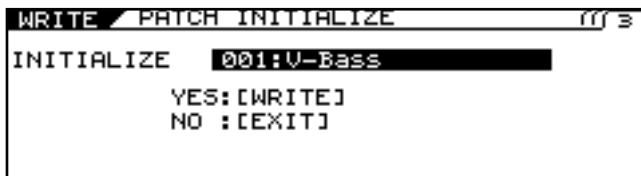
"INITIALIZE" is displayed, and the number and name of the patch to be initialized are indicated.

4.   Use the PATCH/VALUE dial to select the patch you want to initialize.

5.   Press [WRITE] again.

The message "NOW INITIALIZING..." is displayed as the VB-99 switches to the patch to be initialized, then the Play screen returns.

```
WRITE  PATCH INITIALIZE         3
      ┌──────MESSAGE──────┐
INI   │NOW INITIALIZING...│
      │                   │
      └───────────────────┘
```

*   *If you do not want to initialize the patch, press [EXIT] to return to the Play screen.*

Copying Settings Between Channel A and Channel B (A/B COPY)

1.   Go to the settings screen for the parameters whose settings you want to copy.

2.   Press PAGE [►] several times to go to the last page.

3.   Use [F1] (SELECT) or the F1 knob to select A/B COPY.

```
A COSM BASS  A/B COPY          14
FUNC-       ┌A/B COPY──────────┐
TION        │                  │
A/B         │   ┌ [B] COSM BASS│
COPY        │   └►[A] COSM BASS│
SELECT      └──────────────EXEC┘
```
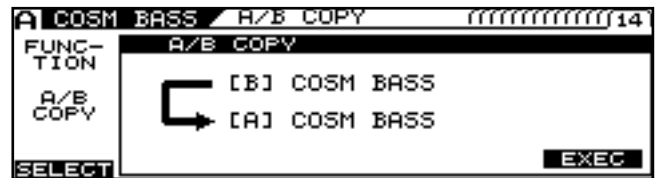
4.   Press [F6] (EXEC) to copy the settings.

5.   If you want to save the edited settings, perform the Write procedure (p. 34).

*   *If you do not want to save, press [EXIT] to return to the Play screen.*

Exchanging the Channel A and Channel B Settings (A/B EXCHANGE)

1.   Go to the settings screen for the parameters whose settings you want to exchange.

2.   Press PAGE [►] several times to go to the last page.

3.   Use [F1] (SELECT) or the F1 knob to select A/B EXCHNG.

```
A COSM BASS  A/B EXCHNG        14
FUNC-       ┌A/B EXCHANGE──────┐
TION        │  ┌►[B] COSM BASS │
A/B         │  │                │
EXCHNG      │  └►[A] COSM BASS │
SELECT      └──────────────EXEC┘
```
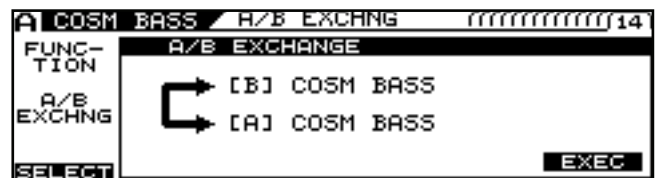
4.   Press [F6] (EXEC) to exchange the settings.

5.   If you want to save the edited settings, perform the Write procedure (p. 34).

*   *If you do not want to save, press [EXIT] to return to the Play screen.*

Chapter 7

Partially Copying Parameters in a Different Patch (MODULE COPY)

You can copy and reuse portions of patch parameters (such as COSM amps, effects, and other modules).

1. **Go to the settings screen for the parameters whose settings you want to copy.**

2. **Press PAGE [►] several times to go to the last page.**

3. **Use [F1] (SELECT) or the F1 knob to select MODULE COPY.**

   The MODULE COPY screen appears.

```
A COSM BASS  MODULE COPY       ((((((((((((14
FUNC-      MODULE COPY FROM PATCH
TION      F2 ---:(CURRENT PATCH)
MODULE         F3 [B] COSM BASS
COPY           → [A] COSM BASS
SELECT PATCH SOURCE              EXEC
```
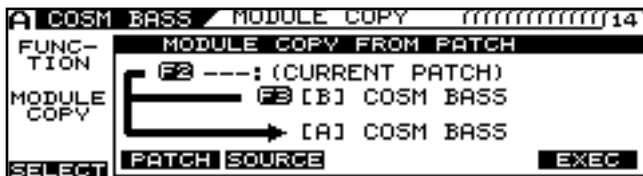
4. **Use [F2] (PATCH) or the F2 knob and [F3] (SOURCE) or the F3 knob to select the copy source.**

5. **Press [F6] (EXEC) to copy the settings.**

6. **If you want to save the edited settings, perform the Write procedure (p. 34).**

   * *If you do not want to save, press [EXIT] to return to the Play screen.*

Partially Initializing Patch Parameters (MODULE INITIALIZE)

1. **Go to the settings screen for the parameter whose settings you want to initialize.**

2. **Press PAGE [►] several times to go to the last page.**

3. **Use [F1] (SELECT) or the F1 knob to select MODULE INIT.**

   The MODULE INITIALIZE screen appears.

```
A COSM BASS  MODULE INIT       ((((((((((((14
FUNC-      MODULE INITIALIZE
TION
MODULE
INIT          [A] COSM BASS

SELECT                          EXEC
```

4. **Press [F6] (EXEC) to initialize the settings.**

5. **If you want to save the edited settings, perform the Write procedure (p. 34).**

   * *If you do not want to save, press [EXIT] to return to the Play screen.*

The following parameters can be handled as modules.

- COSM BASS
- POLY FX
- Overall FX for Channel A and B
- Each of the effects in FX
- COSM AMP
- MIXER section DELAY and REVERB
- MIXER section DYNAMIC

84

Separating Patches into Groups (CATEGORY)

The VB-99 includes a function that allows you to categorize patches into a number of different groups. This is called the CATEGORY function. Specifying the category for each patch makes searching for patches more convenient. The CATEGORY function also features ten user categories you can name however you like.

Using CATEGORY to Call Up Patches

1. **Confirm that the Play screen is displayed.**

2. **Press [CATEGORY].**

   The Category screen appears.

   The categories and the patches in these categories are shown in list format.

3. **Use [F1] (SEL ▼) and [F2] (SEL ▲) or the F1 and F2 knobs to select the category.**

4. **Use the PATCH/VALUE dial or [F3] (SEL ▼), [F4] (SEL ▲) to select a patch.**

5. **Press [CATEGORY] again.**

   The VB-99 switches to the selected patch.

   (MEMO)

   If no operation if performed within a set period of time, the display returns to the Play screen.

Assigning a Patch to a Category

You can assign categories to patches and separate them into groups.

1. **From the PLAY screen, use the PATCH/VALUE dial to select the patch you want to include in a category.**

2. **Press [NAME/KEY/BPM].**
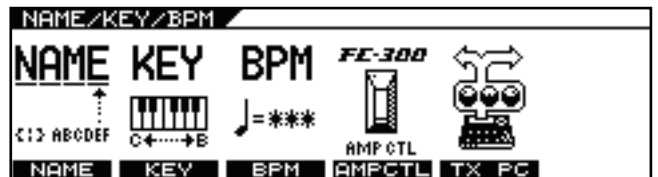
3. **Press [F1] (NAME).**

   The Name settings screen appears.

4. **Press [F6] (CATGRY).**

   The Category settings popup appears.

5. **Use the F6 knob to select the category.**

6. **Press [EXIT].**

   The category is assigned to the patch.

7. **If you want to save the edited settings, perform the Write procedure (p. 34).**

   * *If you do not want to save, press [EXIT] to return to the Play screen.*

Chapter 7

Naming User Categories (CATEGORY NAME)

1.   Press [SYSTEM].

2.   Press PAGE [◄] [►] to go to Page 2.

3.   Press [F5] (CATGRY).

The Category Name settings screen appears.

4.   Use [F6] or the F6 knob to select User Category with the name you want to change.

5.   Press PAGE [◄] [►] to move the cursor to the position with the character you want to change.

6.   Select the character with the PATCH/VALUE dial.

As you continue to rotate the PATCH/VALUE dial, the character guide automatically switches from uppercase letters to lowercase letters, numerals, and symbols.
You can carry out the following operations by pressing [F1]–[F6].

Buttons	Functions
[F1] (INSERT)	Inserts a blank space at the cursor position.
[F2] (DELETE)	Deletes the character and shifts the following characters to the left.
[F3] (SPACE)	Enters a blank space at the cursor position.
[F4] (A0!)	Switches between letters, numerals, and symbols.
[F5] (A<=>a)	Switches between uppercase and lowercase letters.
[F6] (CATGRY)	Select the user category you want to name.

7.   Repeat Steps 6 and 7 to complete the category name.

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

* *Category names are system parameters. They are saved at the time they are entered, even without the Write procedure.*

Storing Your Preferred Settings Individually (FAVORITE SETTINGS)

What are Favorite Settings?

The VB-99 includes a function that, apart from the patches, stores the settings you like for each effects processor. These are called Favorite Settings.

By storing the settings you like for each of a variety of effects processors, you can then easily create sounds simply by combining these settings.

Furthermore, creating patches using the Favorite Settings vastly simplifies editing when multiple similar tones are used.

For example, if you beforehand select the same Favorite Settings for a multiple number of patches, you'll later be able to implement changes in all those patches at once simply by editing the Favorite settings.

Calling Up Favorite Settings

Here is an example using the compressor effect.

1. **Press [FX].**

2. **Press PAGE [◄] to go to Page 1.**
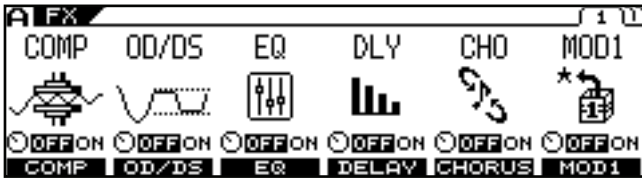
3. **Press [F1] (COMP).**
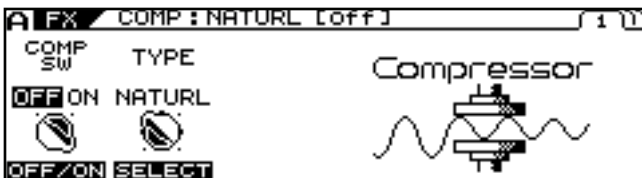
4. **Press PAGE [►] to display the last page (in this case, Page 3).**

5. **Use [F1] (SELECT) or the F1 knob to select FAVORITE.**
   The FAVORITE screen appears.

6. **Use [F2] (SELECT) or the F2 knob to select your preferred setting.**

7. **When you have made your choice, press [F6] (OK); to cancel the procedure, press [F5] (CANCEL) or press [EXIT] several times to return to the Play screen.**

8. **If you want to save the edited settings, perform the Write procedure (p. 34).**

   * *If you do not want to save, press [EXIT] to return to the Play screen.*

Changing Tone Settings

This procedure changes the tones in patches using the Favorite Settings. The method below can also be used to edit the Favorite Settings themselves.
Here is an example using the compressor effect.
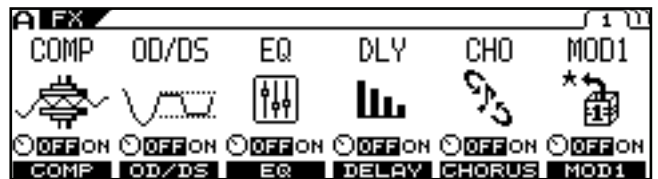
1. **Press [FX].**

2. **Press PAGE [◄] to go to Page 1.**

3. **Press [F1] (COMP).**
   The number and name of the currently selected Favorite Settings are displayed.
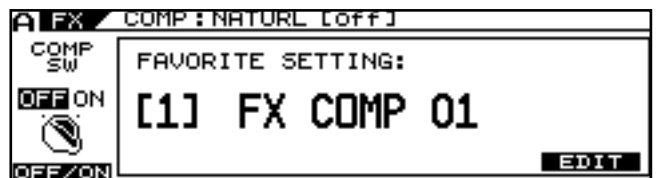
4. **Press [F6] (EDIT).**
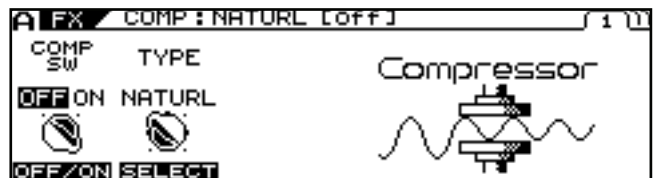
5. **Use [F1]–[F4] or the F1–F4 knobs to adjust the desired parameters on Pages 1 and 2.**

6. **To store the content of the settings, carry out the steps described next.**

Chapter 7

Saving Changed Tones

There are two methods you can use to save changed tones.

Saving to Patches

1. Press [WRITE].

The PATCH WRITE screen appears.
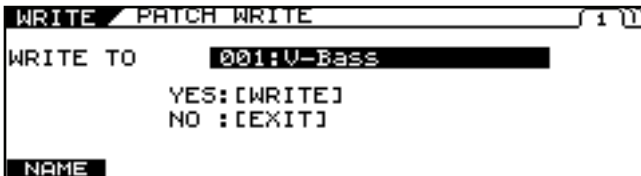
```
WRITE  PATCH WRITE              1 1
WRITE TO      001:V-Bass
              YES:[WRITE]
              NO :[EXIT]
 NAME
```

2. Use the PATCH/VALUE dial to select the save-destination patch.

3. Press [WRITE].

```
WRITE  PATCH WRITE              1 1
WRI         MESSAGE
    NOW WRITING...

 NA
```
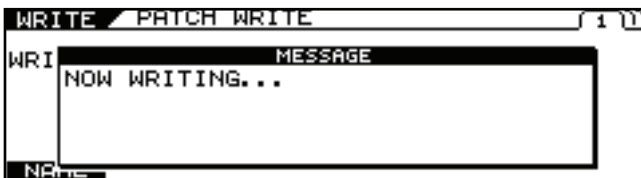
"NOW WRITING..." is displayed as the patch is being saved, and then the Play screen returns to the display.

NOTE

Saving tones with this process undoes the link between the patch and the Favorite Settings. Afterwards, any changes to tones with Favorite Settings used earlier will not be reflected in the tone for this patch.

Saving to the Favorite Settings

The following describes an example with the status indicated in the Compressor edit screen in Step 4 of **"Changing Tone Settings"** (p. 87).

1. Press PAGE [►] to display the last page (in this case, Page 3).

2. Rotate the F1 (SELECT) knob to select FAVORITE WRITE.

The FAV WRITE screen appears.

```
A FX  FAV WRITE                  3
FUNC-     FAVORITE WRITE
TION       [A]FX COMP
FAVORT    01:FX COMP 01
WRITE
SELECT SELECT SEARCH     NAME  WRITE
```

3. Rotate the F2 (SELECT) knob to select the write destination.

(MEMO)

At this point, you can press [F3] (SEARCH) to display a list of patches using the write-destination Favorite Settings. For more detailed information, refer to **"Searching for Patches That Use the Same Favorite Settings"** (p. 89).

```
A FX  FAV WRITE                  3
FUNC-   SEARCH USING FAVORITE
TION    ---:(CURRENT PATCH)
        001:V-Bass
FAVORT
WRITE
SELECT SEL   SEL    SEL    EXIT   TE
```

4. Press [F6] (WRITE) to save the settings.

"NOW WRITING..." is displayed as the Favorite Settings are being saved, and the number and name of the currently selected Favorite Settings are displayed.

```
A FX  COMP:BOSS COMP [off]
COMP
SW     FAVORITE SETTING:
OFF ON
       [1] FX COMP 01
OFF/ON                    EDIT
```

5. Press [EXIT] several times to return to the Play screen.

NOTE

This procedure only saves information to the Favorite Settings. Nothing is saved to the patches. To save parameters to patches, carry out the Write procedure. (p. 34)

Naming Favorite Settings (FAVORITE NAME)

When storing Favorite Settings, you can also give the settings names. Carry out the following procedure in Step 2 of **"Saving to the Favorite Settings"** (p. 88).

1.   Press [F5] (NAME).

The Name edit screen appears.

```
FAVORITE NAME
      FX_COMP_01_
ABCDEFGHIJKLMNOPQRSTUVWXYZ
INSERT DELETE SPACE   A0!   A<=>a
```

2.   Press PAGE [◄] [►] to move the cursor to the position with the character you want to enter.

3.   Select the character with the PATCH/VALUE dial.

As you continue to rotate the PATCH/VALUE dial, the character guide automatically switches from uppercase letters to lowercase letters, numerals, and symbols.

You can carry out the following operations by pressing [F1]–[F5].

Buttons	Functions
[F1] (INSERT)	Inserts a blank space at the cursor position.
[F2] (DELETE)	Deletes the character and shifts the following characters to the left.
[F3] (SPACE)	Enters a blank space at the cursor position.
[F4] (A0!)	Switches between letters, numerals, and symbols.
[F5] (A<=>a)	Switches between uppercase and lowercase letters.

4.   Repeat Steps 2 and 3 to complete the Favorite Setting name.

5.   When you have finished editing the name, press [EXIT].

The Favorite Settings save screen returns to the display.

6.   Press [F6] (WRITE); the settings are saved.

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

Searching for Patches That Use the Same Favorite Settings

Here is an example using the compressor effect.

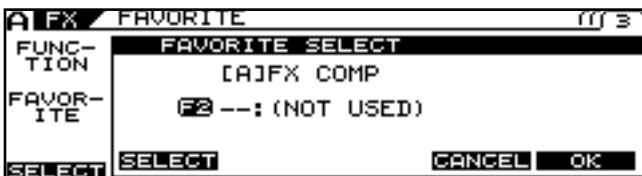**1.   Press [FX].**

2.   Press PAGE [◄] to go to Page 1.

```
A FX                              1
COMP  OD/DS  EQ   DLY   CHO  MOD1
 ⏚    ＼⎍   ▥    ▮▮    ♪     ☆
OFFON OFFON OFFON OFFON OFFON OFFON
COMP  OD/DS   EQ  DELAY CHORUS MOD1
```

3.   Press [F1] (COMP).

The number and name of the currently selected Favorite Settings are displayed.

```
A FX   COMP:NATURL [off]
COMP
SW    FAVORITE SETTING:
OFFON
      [1]  FX COMP 01
OFF/ON                      EDIT
```
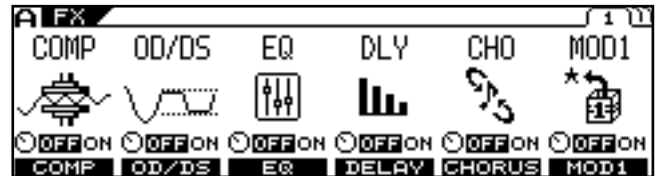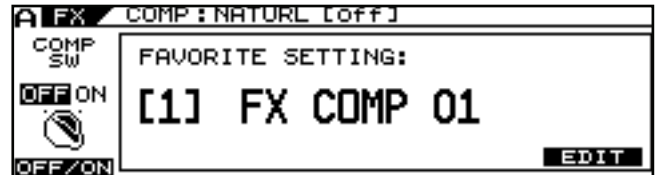
If not using the Favorite Settings, proceed to Step 4.

4.   Press [F6] (EDIT).

```
A FX   COMP:NATURL [off]            1
COMP
SW    TYPE            Compressor
OFFON NATURL
OFF/ON SELECT
```
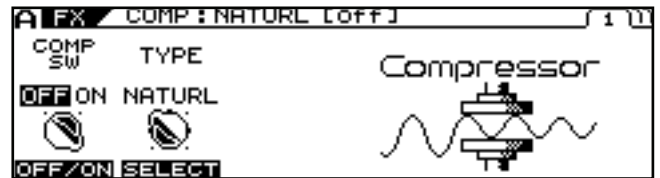
5.   Press PAGE [►] to display the last page (in this case, Page 3).

6.   Use [F1] (SELECT) or the F1 knob to select FAVORITE WRITE.

The FAV WRITE screen appears.

```
A FX   FAV WRITE                   3
FUNC-     FAVORITE WRITE
TION       [A]FX COMP
FAVORT    ┗➤ F2 01:FX COMP 01
WRITE
SELECT SELECT SEARCH    NAME  WRITE
```
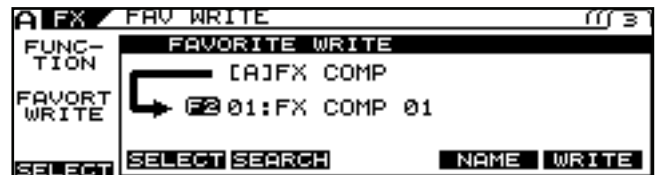
7.   Rotate F2 (SELECT) to select the Favorite Settings you want to search for.

8. Press [F3] (SEARCH).

A list of patches using the selected Favorite Setting is displayed.

9. You can scroll through the list using [F3] and [F4] or the F3 and F4 knobs.

10. Press [F5] (EXIT).

The list disappears from the screen.

11. Press [EXIT] several times to return to the Play screen.

Controlling Video Images with Your Bass (V-LINK)

The VB-99 features the V-LINK function.

With the VB-99 connected to another V-LINK compatible device, you can use your bass performance to control playback of video images.

What is V-LINK?

V-LINK is a function that synchronizes the performance of music and video.

Connecting V-LINK compatible devices to each other via MIDI makes it simple to enjoy using a variety of video effects linked with what you express in your performances.

For example, combining the VB-99 with the EDIROL motion dive .tokyo performance package lets you do the following.

- Set the required information for motion dive .tokyo performance package performances.
- Switch motion dive .tokyo performance package video images (palettes/clips) and control the video brightness and hue.
- Enjoy synchronized performances of music and video.

TIP

Be sure also to read the owner's manual for the connected V-LINK compatible device.

Connecting the V-LINK Device

Connect the VB-99's MIDI OUT connector to the V-LINK compatible device.

NOTE

When connecting these and other devices, turn down the volume completely on all the devices and turn off their power before connecting to prevent malfunction and damage to speakers and other equipment.

MIDI IN

MIDI OUT

**V-LINK Compatible Device
(EDIROL P-10, MD-P1 or CG-8 etc.)**
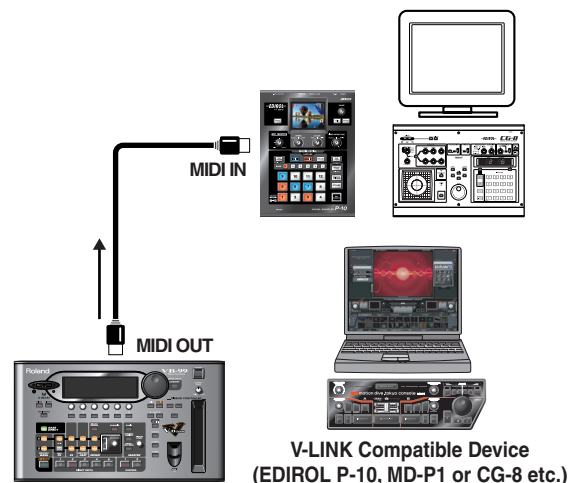
Switching V-LINK On and Off

1. **Connect the VB-99's MIDI OUT connector to the V-LINK compatible device.**

2. **Turn on the power to the device to start it up.**

3. **Press [V-LINK].**

   V-LINK is switched on, and [V-LINK] lights up.

   The function set in **"Setting V-LINK"** (p. 91) is enabled, allowing you to control the video images and have them linked with the performance on the VB-99.

   (MEMO)

   Even with V-LINK on, the VB-99 operates as normal.

   (MEMO)

   Depending on the settings in **"MIDI ROUTING"** (p. 53), signals may not be output from MIDI OUT. In such cases, V-LINK signals are not output either.

4. **Press [V-LINK] once more.**

   The [V-LINK] light goes off, and the V-LINK function is switched off.

   (MEMO)

   When the V-LINK function is switched off, all V-LINK-related MIDI messages are no longer output.

Setting V-LINK

Making the Palette and Clip Settings (PALETTE/CLIP)

This sets the Program Change messages transmitted when patches are switched.

You can set different Program Changes in Channel A and Channel B.

1. **Press [SYSTEM].**

2. **Press PAGE [◄] [►] to go to Page 2.**

3. **Press [F4] (V-LINK).**

   The V-LINK screen appears.

4. **Press [F1] (CLIP).**

   The PATCH/CLIP screen appears.

5. **Use [F1] and [F2] or the F1 or F2 knobs to set the palette and clip for V-LINK Channel A; set the palette and clip for V-LINK Channel B with [F4] and [F5] or the F4 or F5 knobs.**

Parameter	Available Setting	V-LINK Function	Transmitted MIDI Messages
PALETTE	OFF, 1–32	Changing the palette.	CC00 (Bank Select): 00H–1FH
CLIP	OFF, 1–32	Changing the clip.	Program Change: 00H–1FH

Setting the String Channel (STRING CH)

This setting determines which of the V-LINK device's channels is used in controlling the note messages output when a string is played. This can be set individually for each string.

1. **Follow Steps 1–3 in "Making the Palette and Clip Settings (PALETTE/CLIP)" (p. 91) to display the V-LINK screen.**

2. **Press [F4] (STR CH) to select the channel to be controlled with each string.**

STRING CH HiC, 1–4th, LowB	Explanation
OFF	No channel is controlled.
A CH	Channel A of the V-LINK compatible device is controlled.
B CH	Channel B of the V-LINK compatible device is controlled.
C CH	MIDI Note plug-in is controlled.
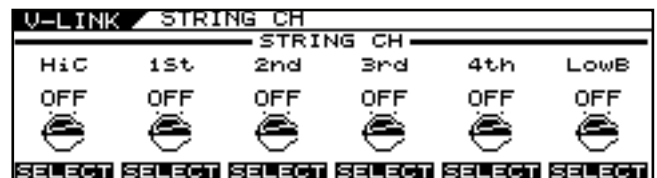
(MEMO)

Some V-LINK compatible models such as the EDIROL DV-7PR allow only Channel A to be used.

(MEMO)

Note messages output with the V-LINK function are affected by the parameters set in **"Playing an External Synthesizer Sound Module (BASS TO MIDI)"** (p. 58) as well as the STRING CH settings.

Chapter 7

Setting the Assign (ASSIGN1–2)

These settings are necessary for controlling video using the bass's performance data and messages from the VB-99's controllers.

You can make up to two types of settings.

1. **Follow Steps 1–3 in "Making the Palette and Clip Settings (PALETTE/CLIP)" (p. 91) to display the V-LINK screen.**

2. **Press [F2] (ASGN1) or [F3] (ASGN2) to select Assign 1 or Assign 2.**

```
V-LINK / PATCH / ASSIGN-1
SOURCE TARGET    MIN      MAX
         DISLV
OFF      CC #5     0        0
 ◓        ◓        ◓        ◓
SELECT SELECT  SET0  SET127
```

3. **Use [F1] (SELECT) or the F1 knob to set the source to be used in operating the target.**

4. **Use [F2] (SELECT) or the F2 knob to set the target.**

cf.

For more on the source and target parameters, refer to **"V-LINK PATCH"** (p. 153).

5. **Rotate the F3 knob to set the minimum value for the TARGET parameter's control range.**

6. **Rotate the F4 knob to set the maximum value for the TARGET parameter's control range.**

7. **If you want to save the edited settings, perform the Write procedure (p. 34).**

 * *If you do not want to save, press [EXIT] to return to the Play screen.*

Using the VB-99 on a Stand

You can use the VB-99 while attached to a PDS-10 stand (optional).

1. Turn the VB-99 over and remove the screws from the bottom panel.
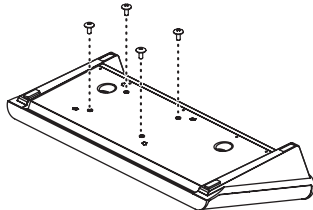
2. Attach the mounting plate as shown in the figure, using the screws removed in Step 1 or the knob nuts included with the kit.
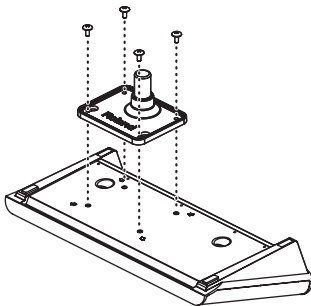
3. Attach the VB-99 to the stand.
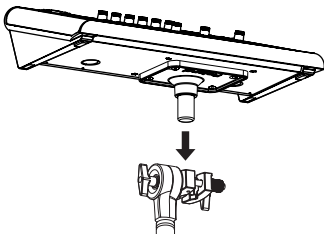
(MEMO)

For instructions on how to assemble the PDS-10 and attach the mounting plate, refer to the Owner's Manual that came with the PDS-10.

NOTE
• To prevent the PDS-10 stand from falling, use the attached cable ties to wind all cables around the stand, as shown in the figure below.

Cable tie
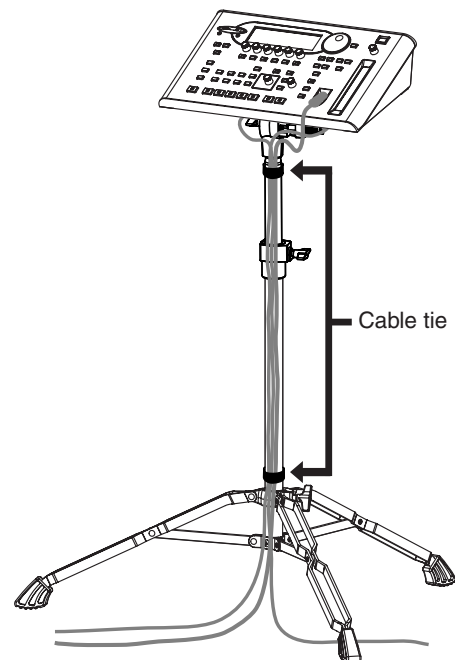
• Use the screws (M5 x 10) included with the VB-99 to attach the PDS-10 mounting plate. Use of other screws may damage the device internally or cause the unit to be inadequately secured.
• When turning the unit over, place some newspapers, magazines, or other such material under the four corners or at both ends to prevent damage to the buttons, dials, and other controls. Also, try to orient the unit so no buttons or controls are damaged.
• When turning the unit upside-down, handle with care to avoid dropping it, or allowing it to fall or tip over.
• When removing the screws, be sure to keep them out of the reach of children to prevent smaller children from accidentally swallowing them.
• Take care not to allow hands and fingers to become pinched when attaching and removing the units.

Chapter 7

Using the VB-99 Mounted in a Rack

By employing the separately available RAD-99 rack mount adaptor , you can use the VB-99 in a rack-mounted configuration.

1. Turn the VB-99 over and remove the screws from the bottom panel.
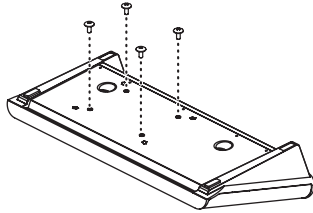
2. Attach the RAD-99 as shown in the figure, using the screws removed in Step 1 or the knob nuts included with the kit.
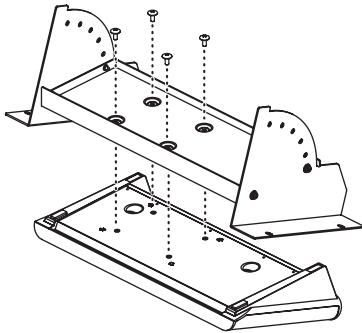
3. Mount the VB-99 in the rack.

Use screws (in four places) to securely affix the unit to the rack.

*   *Use the screws included with the rack.*
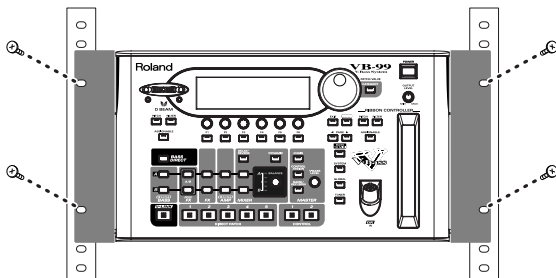
MEMO

For instructions on how to assemble the RAD-99 and adjust the angle of attachment, refer to the RAD-99 Owner's Manual.

NOTE
*   Use the screws (M5 x 10) included with the VB-99 to attach the RAD-99. Use of other screws may damage the device internally or cause the unit to be inadequately secured.
*   When turning the unit over, place some newspapers, magazines, or other such material under the four corners or at both ends to prevent damage to the buttons, dials, and other controls. Also, try to orient the unit so no buttons or controls are damaged.
*   When turning the unit upside-down, handle with care to avoid dropping it, or allowing it to fall or tip over.
*   When removing the screws, be sure to keep them out of the reach of children to prevent smaller children from accidentally swallowing them.
*   Take care not to allow hands and fingers to become pinched when attaching and removing the units.

Restoring the VB-99 to its Original Factory Condition (FACTORY RESET)

1.   Press [SYSTEM].

2.   Press PAGE [►] to display Page 3.

3.   Press [F2] (F.RST).

The FACTORY RESET screen appears.

4.   Select the parameters you want to restore to the original factory condition.

Available Settings	Explanation
ALL	All data
SYSTEM	System parameters
GK SETTING	Content of GK settings
GLOBAL	Content of settings for the Global function
PATCH	Content of settings for PATCH 001–200
FAVORITE SETTING	Content of settings for FAVORITE SET-TINGS 01–10 for all effects

5.   Press [F6] (EXEC).
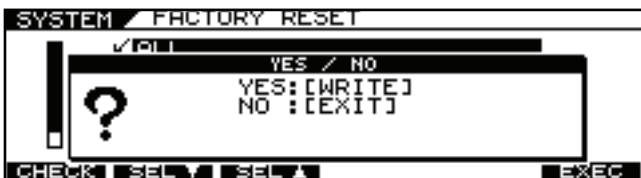
6.   To execute Factory Reset, press [WRITE].

*   *To cancel Factory Reset, press [EXIT].*
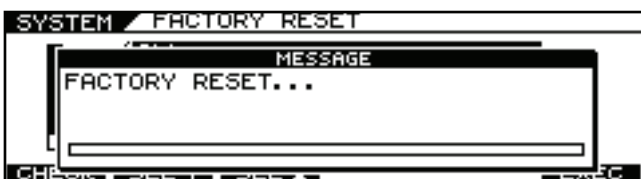
When Factory Reset is completed, the display returns to the Play screen.

Chapter 7

95

Chapter 8 Parameters Guide

In this chapter you'll find detailed descriptions for each of the VB-99's operational parameters.

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Those companies are not affiliated with Roland and have not licensed or authorized Roland's VB-99.
Their marks are used solely to identify the equipment whose sound is simulated by Roland's VB-99.

COSM BASS

The COSM BASS section provides a rich array of settings that allow you to produce an enormous variety of instrument tones. In addition to traditional bass parameters—such as settings for the pickup, body, and string tuning—you can also produce tones not normally available from a bass guitar, including synthesizer and electric guitar sounds.

Parameter/Range	Explanation
COSM BASS SW	
Turns the COSM bass on/off.	
OFF	Normal pickup sound and COSM bass are not played.
ON	COSM bass is played.
NORMAL PU	Normal pickup sound is played.
MODLNG TYPE (Modeling Type)	
E.BASS	This models an electric bass.
AC BASS	This models an acoustic bass.
SYNTH	This produces synthesizer sound.
E. GTR	This converts a bass guitar sound to an electric guitar sound.
E. BASS TYPE (Electric Bass Type)/SYNTH TYPE (Synthesizer Type)/E. GTR TYPE (Electric Guitar Type)	
Refer to Modeling Type List	Select the COSM bass from each modeling type. *The parameters that can be set will depend on the type. For details on the parameters, refer to the corresponding item.*

COSM bass configuration
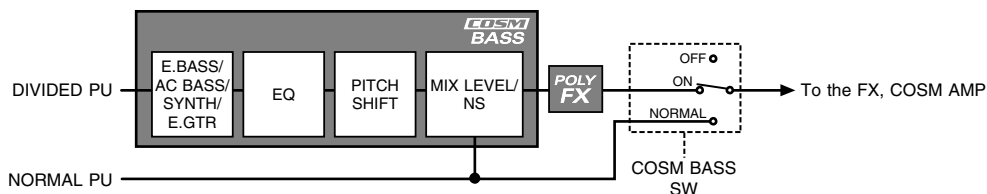
Modeling Type List

E. BASS TYPE (Electric Bass Type)

Parameter/Range	Explanation
VINT JB	This models a Fender Jazz Bass from the sixties.
JB	This models a Fender Jazz Bass from the late seventies or later.
VINT PB	This models a Fender Precision Bass from the early sixties.
PB	This models a Fender Precision Bass from the late seventies or later.
M-MAN	This models a Music Man StingRay Bass from the seventies.
RICK	This models a Rickenbacker 4001.
T-BIRD	This models a Gibson Thunderbird.
ACTIVE	This models a modern bass equipped with an active pickup.
VIOLIN	This models a Höfner Violin Bass.
VARI	This allows you to use up to two pickups of your choice, selecting from double-coil, single-coil and piezo. If you use double-coil or single-coil type pickups, you may freely adjust the location of the pickups.

SYNTH TYPE (Synthesizer Type)

Parameter/ Range	Explanation
ANALOG GR	This is the sound of a vintage analog polyphonic bass guitar synthesizer. Equipped with Hexa VCO and VCF (variable cutoff-frequency filter) that generates sawtooth waves independently for each of the six strings, this sound accommodates hexa-distortion and pitch shifting, and enables you to enjoy analog-synthesizer tones while producing all the nuances of live bass guitar play.
WAVE SYNTH	This algorithm creates synth sounds by directly processing the string signal from the divided pickup. It allows a natural feeling of playability.
OSC SYNTH	This detects the pitch and attack information in the input bass sound and outputs signals produced by the built-in oscillator.
FILTER	This instrument is like a bass whose sound is passed through a filter.
BOWED	This represents stringed musical instruments played with a bow.
PIPE	This produces sounds like a soft woodwind lead instrument.
CRYSTL (Crystal)	This is an instrument sound with a metallic luster.
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 (FEET 16, 8, 4) to create just the sound you're after.
BRASS	This instrument detects the pitch of the bass guitar and creates a synthesizer sound.

E.GTR TYPE (Electric Guitar Type)

Parameter/ Range	Explanation
ST (Stratocaster)	The sound of a Fender Stratocaster. Simulates the installation of three single-coil pickups (passive type).
LP (Les Paul)	The sound of a Gibson Les Paul Standard. Simulates the installation of two humbucking pickups (passive type).

Chapter 8

97

E.BASS (Electric Bass)

Parameters for the various electric bass models.

VINT JB/JB/T-BIRD

Parameter/ Range	Explanation
MASTER VOL (Master Volume)	
0–100	Sets the overall bass volume level. With a setting of 0, there will be no sound.
REAR VOL (Rear Volume)	
0–100	Sets the volume of the rear pickup. With a setting of 0, there will be no sound.
FRONT VOL (Front Volume)	
0–100	Sets the volume of the front pickup. With a setting of 0, there will be no sound.
TONE	
0–100	Adjusts the tone.

VINT PB/PB

Parameter/ Range	Explanation
VOL (Volume)	
0–100	Sets the volume. With a setting of 0, there will be no sound.
TONE	
0–100	Adjusts the tone.

M-MAN

Parameter/ Range	Explanation
VOL (Volume)	
0–100	Sets the volume. With a setting of 0, there will be no sound.
TREBLE	
-50–+50	Adjusts the tone for the high frequency range.
BASS	
-50–+50	Adjusts the tone for the low frequency range.

RICK

Parameter/ Range	Explanation
MASTER VOL (Master Volume)	
0–100	Sets the overall bass volume level. With a setting of 0, there will be no sound.
REAR VOL (Rear Volume)	
0–100	Sets the volume of the rear pickup. With a setting of 0, there will be no sound.
FRONT VOL (Front Volume)	
0–100	Sets the volume of the front pickup. With a setting of 0, there will be no sound.
REAR TONE (Rear Tone)	
0–100	Adjusts the tone of the rear pickup.
FRONT TONE (Front Tone)	
0–100	Adjusts the tone of the front pickup.
PU SEL (Pickup Select)	
REAR	Use the rear pickup.
R+F	Use both rear and front pickups.
FRONT	Use the front pickup.

ACTIVE

Parameter/ Range	Explanation
MASTER VOL (Master Volume)	
0–100	Sets the overall bass volume level. With a setting of 0, there will be no sound.
REAR VOL (Rear Volume)	
0–100	Sets the volume of the rear pickup. With a setting of 0, there will be no sound.
FRONT VOL (Front Volume)	
0–100	Sets the volume of the front pickup. With a setting of 0, there will be no sound.
TREBLE	
0–100	Adjusts the tone for the high frequency range.
BASS	
0–100	Adjusts the tone for the low frequency range.

VIOLIN

Parameter/ Range	Explanation
MASTER VOL (Master Volume)	
0–100	Sets the overall bass volume level. With a setting of 0, there will be no sound.
REAR VOL (Rear Volume)	
0–100	Sets the volume of the rear pickup. With a setting of 0, there will be no sound.
FRONT VOL (Front Volume)	
0–100	Sets the volume of the front pickup. With a setting of 0, there will be no sound.
TREBLE ON	
OFF, ON	Switches the rear pickup on/off.
BASS ON	
OFF, ON	Switches the front pickup on/off.
RHYTHM/SOLO	
RHYTHM	The volume will be set to 50.
SOLO	The volume will be set to 100.

VARI

Parameter/ Range	Explanation
CTL TYPE (Control Type)	
2V2T	Two volume and two tone controllers.
2V1T	Two volume and one tone controller.
BAL	One balance and one tone controller.
2BAND	Bass and treble controllers.
MASTER VOL (Master Volume) *1	
0–100	Sets the overall bass volume level. With a setting of 0, there will be no sound.
VOL (Volume) *2	
0–100	Sets the overall bass volume level. With a setting of 0, there will be no sound.
REAR VOL (Rear Volume) *1	
0–100	Sets the volume of the rear pickup. With a setting of 0, there will be no sound.
FRONT VOL (Front Volume) *1	
0–100	Sets the volume of the front pickup. With a setting of 0, there will be no sound.
BAL (Balance) *2	
R100:0F–R0:100F	Adjusts the volume balance of the rear pickup and front pickup.
REAR TONE *3	
-50–+50	Adjusts the tone of the rear pickup.
FRONT TONE *3	
-50–+50	Adjusts the tone of the front pickup.
TONE *4	
-50–+50	Adjusts the tone of the pickup.
TREBLE *5	
-50–+50	Adjusts the tone for the high frequency range.

Parameter/ Range	Explanation
BASS *5	
-50–+50	Adjusts the tone for the low frequency range.
REAR PU (Rear Pickup), FRONT PU (Front Pickup)	
TYPE	
Specify the type of pickup.	
SINGLE	A single-coil pickup.
DOUBLE	A double-coil pickup.
PIEZO	A piezo pickup.
POS (Position)	
5–450mm	Specifies the location of the pickup in terms of the distance from the bridge. Higher settings will simulate a greater distance between the pickup and bridge. * It is not possible to set the position if "PIEZO" is selected as the pickup type.
PHASE	
Specify the phase of the pickup when mixing the front and rear pickups.	
IN	The pickup will be mixed in normal phase.
OUT	The pickup will be mixed in reverse phase.
OFFSET	
-445–+445mm	Finely adjust the rear pickup position for each string. * It is not possible to set the offset if "PIEZO" is selected as the pickup type.

*1 Setting available with CTL TYPE set to 2V2T or 2V1T.

*2 Setting available with CTL TYPE set to BAL or 2BAND.

*3 Setting available with CTL TYPE set to 2V2T.

*4 Setting available with CTL TYPE set to 2V1T or BAL.

*5 Setting available with CTL TYPE set to 2BAND.

Chapter 8

AC BASS (Acoustic Bass)

Parameters for the acoustic bass model.

Parameter/ Range	Explanation
LEVEL	
0–100	Adjusts the volume. With a setting of 0, there will be no sound.
BODY	
0–100	This sets the volume level of the resonant sound produced by the panels and cavity (the body resonation).
	* *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.*
RESO (Resonance)	
0–100	Adjusts the body resonance. The resonance increases as the value is raised.
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.
ATTACK	
0–100	This sets the intensity of the attack when the strings are fingered. The higher the value you set, the greater the intensity of the sound produced when the strings are played. The attack of the body sound will increase as well.
BOTTOM	
0–100	This sets the volume level of string vibration.
BUZZ SENS (Buzz Sensitivity)	
0–100	This sets the sensitivity for the distinctive harmonics of an acoustic bass. Adjust this to match the velocity of fingering.
DECAY	
0–100	This sets the decay of the string vibration.

SYNTH (Synthesizer)

Parameters for the synthesizer sound.

ANALOG GR

Parameter/ Range	Explanation
MASTER LEVEL	
0–100	Sets the volume.
MODE	
This setting determines whether the HEXA-VCO (sawtooth wave) or the HEXA-DISTORTION (rectangular wave) is played, or if both are played.	
VCO	The HEXA-VCO sound is played.
V+D	The HEXA-VCO and HEXA-DISTORTION sounds are played simultaneously.
DIST	The HEXA-DISTORTION sound is played.
COMP (Compression)	
OFF, ON	When this is set to ON, the HEXA-VCO's decay time is extended. When ENV MOD SW is set to ON, the VCF (variable frequency filter) decay time is also extended
	* *The HEXA-DISTORTION decay time is not extended.*
CUTOFF FREQ (Cutoff Frequency)	
0–100	Adjusts the cutoff frequency, setting the brightness (hardness) of the sound. The sound gets brighter (harder) as the value is raised.
RESO (Resonance)	
0–100	Adjusts the resonance (distinctiveness of the sound). As the value is increased, sounds in the frequency range near the cutoff frequency are boosted, making the sound more distinctive and unique.
ENV MOD (Envelope Modulation)	
This automatically changes the VCF cutoff frequency according to the amplitude of the string vibration. This allows you to change the tone with a wah-like effect each time you pick a string.	
SW	
OFF	Envelope modulation is not used.
ON	This causes the VCF cutoff frequency to change from a high to low frequency each time the string is picked. This produces a wah-like effect, with the sound going from low frequencies to high. **TIP** Setting the cutoff frequency to an extremely high value makes the effect difficult to discern.
INV	As opposed to the ON setting, this allows you to have the VCF cutoff frequency change from a low to high frequency each time the string is picked. This produces a reverse wah-like effect, with the sound going from high frequencies to low. **TIP** Setting the cutoff frequency to a relatively high value makes the effect easier to discern.

Parameter/ Range	Explanation
SENS (Sensitivity)	
0–100	Adjusts the input sensitivity for the envelope modulation function. As the value is raised, the change from the envelope modulation broadens with progressively weaker playing. **TIP** Confirm the change in the tone as you make the adjustment. Try setting the value near 0, then gradually raise it as you pick a string. Setting the attack time to 0 makes the changes easier to discern.
ATTACK	
0–100	Adjusts the attack time for the change in the envelope modulation produced by playing. Raising the value slows the attack.
PITCH A/PITCH A FINE, PITCH B/PITCH B FINE	
These parameters adjust the amount of pitch shift. * *This is enabled when the PITCH SW parameter is set to anything other than OFF.* * *The final amount of shift in the pitch is the sum of the pitch shift set with PITCH and PITCH FINE.*	
PITCH A PITCH B -12–+12	This sets the amount of shift in pitch from the original sound in semitone increments. A setting of -12 lowers the pitch one octave, while +12 raises the pitch one octave.
PITCH A FINE PITCH B FINE -50–+50	This finely adjusts the pitch. A setting of -50 lowers the pitch one semitone; +50 raises the pitch by one semitone. You can use this FINE setting effectively in the DUET feature that follows.
PITCH SW	
This setting allows you to switch on and off the pitch shift, which enables the pitch of the HEXA-VCO sound to shift in response to the pitch of the sound caused by the string's vibration. * *PITCH SHIFT is applied only to the HEXA-VCO, not the HEXA-DISTORTION. Set MODE to VCO or V+D when using the pitch shift function.*	
A	The shift in pitch set with PITCH A and PITCH A FINE is applied.
OFF	The pitch of the original source sound is unchanged.
B	The shift in pitch set with PITCH B and PITCH B FINE is applied.
DUET	
OFF, ON	When DUET is set to ON, then in addition to the HEXA-VCO, a sawtooth wave is played at the same pitches as the source sound, adding greater breadth to the sound. **TIP** Setting HEXA-VCO pitch shifts to values such as PITCH+/-12 (up or down an octave), +/-7 (perfect fifth), or +/-5 (perfect fourth) produces a thicker sound like that from a synthesizer. You can add further depth to the sound by setting PITCH FINE to +/-5, thus slightly shifting the pitch of the HEXA-VCO.

Parameter/ Range	Explanation
SWEEP	
This SWEEP function smoothly changes the amount of pitch shift when the amount of pitch shift is changed with PITCH SW.	
SW	
OFF, ON	Turns the SWEEP function on/off. **TIP** PITCH SW is normally controlled after the settings for the operation of PITCH SW are made in Control Assign. * *The SWEEP function is enabled when the amount of shift in the pitch of the HEXA-VCO is changed through the operation of PITCH SW. It is not activated in response to changes in the pitch of the input when the amount of pitch shift does not change. No effect is produced when the SWEEP SW in RISE and FALL is set to OFF.*
RISE	
0–100	Adjusts the amount of time for the pitch to shift when the PITCH SW parameter is switched and the sound changes to a higher pitch. When set to zero, the pitch changes instantly; at higher values, the pitch rises more slowly.
FALL	
0–100	Adjusts the amount of time for the pitch to shift when the PITCH SW parameter is switched and the sound changes to a lower pitch. When set to zero, the pitch changes instantly; at higher values, the pitch falls more slowly.
VIBRATO	
You can apply an electronic vibrato effect to the HEXA-VCO.	
SW	
OFF, ON	Turns the VIBRATO function on/off. **TIP** By setting VIBRATO SW as the function to be controlled in Control Assign and then switching the VIBRATO SW to ON as you are playing, you can apply stronger vibrato at whatever point in a performance you want. * *You cannot apply vibrato to the HEXA-DISTORTION.*
RATE	
0–100	This adjusts the rate of the vibrato. Raising the value increases the rate.
DEPTH	
0–100	This adjusts the depth of the vibrato. No vibrato is added when the value is set to 0. The vibrato deepens as the value is raised.

* *When ANALOG GR has been selected for COSM BASS, using SHIFT, HARMO, or BEND to make settings that shift the pitch in an extreme way may make sound generation unstable.*

Chapter 8

WAVE SYNTH

Parameter/ Range	Explanation
MASTER LEVEL	
0–100	Sets the volume.
WAVE SHAPE	
Selects the wave type on which the synth sound is based.	
SAW	Creates a synth sound with a sawtooth waveform.
SQUARE	Creates a synth sound with a square waveform.
WAVE SENS (Wave Sensitivity)	
0–100	This adjusts the input sensitivity to be used for detecting when a string has been played. Adjusting this parameter allows you to suppress erroneous processing of volume and tone changes after a string is played.
WAVE ATTACK	
0–100	Adjusts the time it takes for the synth sound to rise after a string is plucked. When it is set to a lower value, the sound will rise quickly. When it is set higher, the sound will rise slowly.
WAVE DECAY	
0–100	Adjusts the time it takes for the synth sound to decay. The synth sound decays more quickly when this parameter is set to a lower value. Setting a higher value increases the decay time.
CUTOFF	
0–100	Adjusts the cutoff frequency at which the filter cuts off the sound's harmonic components. This parameter determines the sound that will result after the filter has stopped varying due to FILTER DEPTH.
RESO (Resonance)	
0–100	Adjusts the resonance (distinctiveness of the sound). As the value is increased, sounds in the frequency range near the cutoff frequency are boosted, making the sound more distinctive and unique.
FILTER TYPE	
-12 dB, -24 dB	Selects the curve of attenuation in the filter. The -24 dB setting has very steep filtering characteristics.
FILTER ATTACK	
0–100	Sets the filter attack time.
FILTER DECAY	
0–100	Sets the filter decay time.
FILTER DEPTH	
-50–+50	Adjusts the depth of the filter's change. When set to a positive value, the VCF cutoff frequency shifts from a high value to a low value. When set to a negative value, the VCF cutoff frequency shifts from a low value to a high value.

OSC SYNTH

Parameter/ Range	Explanation
MASTER LEVEL	
0–100	Sets the volume.
OSC SHAPE	
SQ=0, SW=100– SQ=100, SW=0	Specifies the waveform by adjusting the balance of SQ (square wave) and SW (sawtooth wave).
SENS (Sensitivity)	
0–100	Adjusts the input sensitivity
PWM WIDTH	
0–100	Adjusts the width of the positive phase and negative phase of the SQUARE wave.
PWM RATE	
0–100	Adjusts the frequency at which the pulse width of the SQUARE wave will be modulated.
PWM DEPTH	
0–100	Adjusts the depth to which the pulse width of the SQUARE wave will be modulated.
	* *PWM WIDTH, RATE, and DEPTH will have no effect if OSC SHAPE is SW=100 and SQ=0.*
ENV FOLLOW (Envelope Follow)	
OFF, ON	When set to "ON," the sound is generated according to the amplitude of the strings. When set to "OFF," the sound is generated at a fixed level.
HOLD	
OFF, ON	This function sustains the output of the synth sound. If you turn Hold "ON" while the synth sound is being output, the output of the synth sound will be held until you turn it "OFF." It would be useful when you assign it to the CTL pedal, and use it while you perform. Normally, you should set this "OFF."
CUTOFF (Cutoff Frequency)	
0–100	Adjusts the brightness (hardness) of the sound. Increasing this value will brighten the sound.
RESO (Resonance)	
0–100	Adjusts the amount of resonance (tonal character) for the synthesizer sound. Increasing this value will produce a more strongly distinctive tone.
FILTER TYPE	
-12 dB, -24 dB	Specifies the depth of the effect produced by the filter.
FILTER ATTACK	
0–100	Specifies the attack time of the filter.
FILTER DECAY	
0–100	Adjusts the time over which the filter will come to rest.

Parameter/ Range	Explanation
FILTER DEPTH	
-50–+50	Adjusts the depth of the filter. Increasing this value will produce a greater amount of filter change. "+" and "-" will cause the filter to move in opposite directions.
SUB OSC	
Adds depth to the sound by layering a synth sound onto each string.	
OFF	SUB OSC is not used.
DETUNE	Adds depth to the sound by layering a pitch-shifted sound.
-1OCT	Adds depth to the sound by layering sound one-octave lower.
SUB DETUNE	
-50–+50	Specify the pitch of the DETUNE sound in units of a cent.
SUB LEVEL	
0–100	Specify the volume of the DETUNE sound or -1OCT sound.

FILTER

Parameter/ Range	Explanation
MASTER LEVEL	
0–100	Sets the volume.
FILTER CUTOFF	
0–100	Adjusts the cutoff frequency, setting the brightness (hardness) of the sound. The sound gets brighter (harder) as the value is raised.
FILTER RESO (Filter Resonance)	
0–100	Adjusts the resonance (distinctiveness of the sound). As the value is increased, sounds in the frequency range near the cutoff frequency are boosted, making the sound more distinctive and unique.
TOUCH SENS (Touch Sensitivity)	
0–100	This sets the sensitivity when the filter is shifted according to the playing. The shifting of the filter caused by the playing increases as the value is raised. When the value is set to 0, the filter remains set, with no movement.
FILTER DECAY	
0–100	This sets the speed at which the filter stops. The speed increases as the value of the setting is reduced. * *The decay effect cannot be obtained if the TOUCH SENS value is too low.*
COLOR	
0–100	Adjusts the strength of the low range. As the value is increased, the low range will become stronger.

BOWED/PIPE

Parameter/ Range	Explanation
MASTER LEVEL	
0–100	Sets the volume.
FILTER CUTOFF	
0–100	Adjusts the cutoff frequency, setting the brightness (hardness) of the sound. The sound gets brighter (harder) as the value is raised.
FILTER RESO (Filter Resonance)	
0–100	Adjusts the resonance (distinctiveness of the sound). As the value is increased, sounds in the frequency range near the cutoff frequency are boosted, making the sound more distinctive and unique.
TOUCH SENS (Touch Sensitivity)	
0–100	This sets the sensitivity when the filter is shifted according to the playing. The shifting of the filter caused by the playing increases as the value is raised. When the value is set to 0, the filter remains set, with no movement.
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 vibrato or other techniques.	
0–100	The higher the value, the more strained the sound becomes.
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	
0–100	Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.

Chapter 8

CRYSTL

Parameter/ Range	Explanation
MASTER LEVEL	
0–100	Sets the volume.
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 DEPTH (Modulation Depth)	
0–100	This sets the depth of the modulation applied to the attack. Larger values result in deeper undulations.
ATTACK LEVEL	
0–100	This sets the volume level of the attack portion.
BODY LEVEL	
0–100	This sets the volume level for the sustained portion of the sound.
SUSTAIN	
0–100	Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.

ORGAN

Parameter/ Range	Explanation
MASTER LEVEL	
0–100	Sets the volume.
FEET 16'	
0–100	This is a long tone at the same pitch as the bass.
FEET 8'	
0–100	This is a long tone one octave lower than the bass.
FEET 4'	
0–100	This is a long tone two octave higher than the bass.
SUSTAIN	
0–100	Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.

BRASS

Parameter/ Range	Explanation
MASTER LEVEL	
0–100	Sets the volume.
FILTER CUTOFF	
0–100	Adjusts the cutoff frequency, setting the brightness (hardness) of the sound. The sound gets brighter (harder) as the value is raised.
FILTER RESO (Filter Resonance)	
0–100	Adjusts the resonance (distinctiveness of the sound). As the value is increased, sounds in the frequency range near the cutoff frequency are boosted, making the sound more distinctive and unique.
TOUCH SENS (Touch Sensitivity)	
0–100	This sets the sensitivity when the filter is shifted according to the playing. The shifting of the filter caused by the playing increases as the value is raised. When the value is set to 0, the filter remains set, with no movement.
SUSTAIN	
0–100	Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.

E.GTR (Electric Guitar)

Parameters for the electric guitar models.

ST

Parameter/Range	Explanation
VOL (Volume)	
0–100	Sets the volume. With a setting of 0, there will be no sound.
TONE	
0–100	Adjusts the tone. The standard value is 100; lowering the value creates a softer tone.
PU SEL (Pickup Select)	
REAR	Use the rear pickup.
R+C	Use both center and rear pickups.
CENTER	Use the center pickup.
C+F	Use both front and center pickups.
FRONT	Use the front pickup.

LP

Parameter/Range	Explanation
VOL (Volume)	
0–100	Sets the volume. With a setting of 0, there will be no sound.
TONE	
0–100	Adjusts the tone. The standard value is 100; lowering the value creates a softer tone.
PU SEL (Pickup Select)	
REAR	Use the rear pickup.
R+F	Use both rear and front pickups.
FRONT	Use the front pickup.

COSM BASS Common Parameters

Besides the other COSM BASS parameters, the VB-99 also includes the following shared parameters.

EQ

A four-band equalizer with high and low ranges is provided.

Parameter/Range	Explanation
EQ SW (Equalizer Switch)	
OFF, ON	Turns the EQ effect on/off.
TOTAL GAIN	
-12–+12dB	Adjusts the volume before the equalizer.
LOW GAIN	
-12–+12dB	Adjusts the low frequency range tone.
HIGH GAIN	
-12–+12dB	Adjusts the high frequency range tone.
LOW MID FREQ (Low Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the LOW MID GAIN.
LOW MID Q (Low Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the LOW MID FREQ. Higher values will narrow the area.
LOW MID GAIN (Low Middle Gain)	
-12–+12dB	Adjusts the low-middle frequency range tone.
HIGH MID FREQ (High Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH MID GAIN
HIGH MID Q (High Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH MID FREQ. Higher values will narrow the area.
HIGH MID GAIN (High Middle Gain)	
-12–+12dB	Adjusts the high-middle frequency range tone.

Chapter 8

PITCH

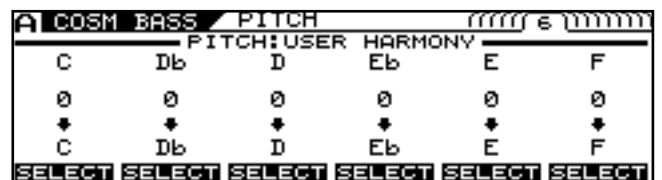| Parameter/ Range	Explanation
PITCH SHIFT (Pitch Shift)	
OFF, ON	Turns pitch shift on/off.
SHIFT MODE (Pitch Shift Mode)	
Selects the operation of pitch shift.	
SHIFT	This lets you fine tune the setting for the fixed amount of pitch shift.
HARMO	This analyzes the pitch of the bass input and automatically adjusts the amount of pitch shift. You can use this to create diatonic-scale harmonies.
KEY *1	
C Am–B G#m	Specify the key of the song you are playing. **TIP** This KEY parameter is the same as the Key setting in the [NAME/KEY/BPM] section (p. 142) and FX MOD1, 2 HARMONIST. Altering either one changes the key.
HARMO (Harmony) *1	
-2oct–TONIC–+2oct, USER	This sets the pitch for the harmony interval relative to the input sound. When this is set to USER, you can set this to the desired harmony in USER INTERVAL.
BEND	
0–100	Setting this to 0 makes for no shift in pitch by bend, and setting it to 100 produces shifting according to the settings for HiC, 1st through 4th, LowB. Normally, you can use the unit with BEND for patches set at 0 and use Control Assign to adjust the bend setting between 0 and 100. *This setting cannot be saved with the patch. Switching patches resets the setting to 0.*
SHIFT HiC, 1–4th, LowB *2	
-24–+24	This sets the amount of pitch shift for each individual string, in semitone steps.
FINE HiC, 1–4th, LowB *2	
-50–+50	This fine tunes the amount of change in the pitch shift sound for each individual string.
USER HARMONY C–B *3	
-24–+24	This sets the output pitch relative to the input pitch for the selected key.
BEND SHIFT HiC, 1–4th, LowB	
-24–+24	This sets the amount of pitch shift in each string when the BEND is set to 100. The amount of shift from the current pitch is set in semitone increments.
DELAY HiC, 1–4th, LowB	
0–100ms	This adjusts the delay of the pitch-shift sound for each individual string.
EFFECT LEVEL HiC, 1–4th, LowB *4	
0–100	Adjusts the volume of the pitch shift sound for each string.

Parameter/ Range	Explanation
DIRECT LEVEL HiC, 1–4th, LowB *4	
0–100	Adjusts the volume of the direct sound for each string.
LEVEL HiC, 1–4th, LowB *5	
0–100	Adjusts the volume of the pitch shift sound for each string.

*1   Setting available with SHIFT MODE set to HARMO.

*2   Setting available with SHIFT MODE set to SHIFT.

*3   Setting available with HARMO set to USER.

*4   Setting available when MODLNG TYPE for COSM BASS is set to E.BASS, AC BASS, or SYNTH.

*5   Setting available when MODLNG TYPE for COSM BASS is set to E.GTR.

*   *When ANALOG GR has been selected for COSM BASS, using SHIFT, HARMO, or BEND to make settings that shift the pitch in an extreme way may make sound generation unstable.*

Creating Harmony Scales (User Harmony)

When HARMO is set to any value from -2oct to +2oct, and the harmony does not sound the way you intend, use a User harmony. You can set the corresponding pitches to be output for each input pitch.

1.   **Set HARMO to USER in the Harmony screen.**

2.   **Press PAGE [▶] .**
The User Harmony screen appears.

3.   **Use PAGE [◀] [▶], [F1]–[F6], and the F1–F6 knob to set the amount of pitch shift for each voice.**

MIX

Parameter/Range	Explanation
STRING PAN HiC, 1–4th, LowB	
L0:100R–L100:0R	This sets the left/right pan of each string.
	* The pan effect is cancelled if a monaural effect or COSM amp is connected after the COSM bass.*
STRING LEVEL HiC, 1–4th, LowB	
0–100	Specifies the output level of each string.
MIX LEVEL	
COSM BASS	
0–100	Specifies the level of the COSM bass.
NORMAL PU (Normal Pickup)	
0–100	Adjusts the volume of the normal pickup.
NS (Noise Suppressor) *1	
This effect reduces the noise and hum picked up by bass pickups. Since it suppresses the noise in synchronization with the envelope of the bass sound (the way in which the bass sound decays over time), it has very little effect on the overall sound, and does not harm its the natural character.	
SW (Noise Suppressor Switch)	
OFF, ON	Turns the NS effect on/off.
THRSH (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 bass sound is as natural as possible.
REL (Release)	
0–100	Adjusts the amount of time from the point at which application of the noise suppressor begins to when the volume is fully attenuated.

*1   Setting available when MODLNG TYPE for COSM BASS is set to E.BASS, AC BASS, or E.GTR.

Chapter 8

POLY FX (Poly Effect)

Parameter/ Range	Explanation
POLYFX SW (Poly Effect Switch)	
OFF, ON	Turns the poly effect on/off.
TYPE	
POLY COMP	Select the poly effect type.
POLY LIMITR	
POLY DEFRET	* *The parameters that can be set differ with each type. Refer to each of the parameters cited later.*
POLY DIST	
POLY EQ	
POLY OCTAVE	
POLY RING	
POLY SG	
STRING MODLNG	
POLYFX CH (Poly Effect Channel)	
A, B	This selects the channel to which the POLY FX are applied.

POLY COMP (Poly Compressor)

The Poly Compressor attenuates loud input levels and boosts soft input levels, thus evening out the volume to create sustain without distortion. With the Poly Compressor, compression is applied separately to each string.

Parameter/ Range	Explanation
COMP SUSTAIN HiC, 1–4th, LowB (Compressor Sustain)	
0–100	Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.
COMP ATTACK HiC, 1–4th, LowB (Compressor Attack)	
0–100	Adjusts the strength of the playing attack. Larger values will result in a sharper attack, creating a more clearly defined sound.
COMP TONE HiC, 1–4th, LowB (Compressor Tone)	
-50–+50	Adjusts the tone.
COMP LEVEL HiC, 1–4th, LowB (Compressor Level)	
0–100	Adjusts the volume.

POLY LIMITR (Poly Limiter)

This lets you apply an independent limiter for each string. The limiter suppresses the volume of sounds that exceed the threshold setting.

Parameter/ Range	Explanation
LIMITER ATTACK HiC, 1–4th, LowB	
0–100	Adjusts the strength of the playing attack. Larger values will result in a sharper attack, creating a more clearly defined sound.
LIMITER THRESHOLD HiC, 1–4th, LowB	
0–100	Adjust this as appropriate for the input signal from your bass. When the input signal level exceeds this threshold level, limiting will be applied.
LIMITER RATIO HiC, 1–4th, LowB	
1:1–∞:1	This selects the compression ratio used with signals in excess of the threshold level. Higher values create a stronger compression effect.
LIMITER RELEASE HiC, 1–4th, LowB	
0–100	Adjusts the time from when the signal level drops below the threshold until when limiting is removed.
LIMITER TONE HiC, 1–4th, LowB	
-50–+50	Adjusts the tone.
LIMITER LEVEL HiC, 1–4th, LowB	
0–100	Adjusts the volume.

POLY DEFRET (Poly Defretter)

This changes the sound of a fretted bass guitar to make it resemble a fretless bass guitar.

Parameter/Range	Explanation
SENS (Sensitivity)	
0–100	This controls the input sensitivity of the de-fretter.
COLOR	
0–100	Adjusts how the harmonics of the sound's attack are produced.
TONE	
0–100	Adjusts the tone.
LEVEL	
0–100	Adjusts the volume.

POLY DIST (Poly Distortion)

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

Parameter/Range	Explanation
TYPE	
Selects the type of distortion.	
OD1	A clear overdrive sound is obtained.
OD2	Allows you to obtain a rich effect just like distortion, without losing the subtle nuance of the overdrive.
DS1	Allows you to obtain a standard distortion sound.
DS2	Allows you to obtain a distortion sound with a rich middle.
DRIVE	
0–100	This sets the degree of sound distortion.
TONE	
-50–+50	Adjusts the tone.
EFFECT LEVEL	
0–100	Adjusts the volume of the distortion sound.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.
DRIVE BAL (Drive Balance)	
-50–+50	Adjusts the degree of distortion between low and high strings, to even out the volume balance.
POLY BAL (Poly Balance)	
0–100	Adjusts the degree of distortion for chordal playing.

POLY EQ (Poly Equalizer)

Each string is provided with its own four-band equalizer, allowing you to achieve the right tone by boosting or cutting any of the four bands. The tone can be adjusted independently for each string.

Parameter/Range	Explanation
LOW GAIN HiC, 1–4th, LowB	
-20–+20dB	Adjusts the low frequency range tone.
LOW MID FREQ HiC, 1–4th, LowB (Low Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the LOW MID GAIN.
LOW MID Q HiC, 1–4th, LowB (Low Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the LOW MID FREQ. Higher values will narrow the area.
LOW MID GAIN HiC, 1–4th, LowB (Low Middle Gain)	
-20–+20dB	Adjusts the low-middle frequency range tone.
HIGH MID FREQ HiC, 1–4th, LowB (High Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH MID GAIN.
HIGH MID Q HiC, 1–4th, LowB (High Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH MID FREQ. Higher values will narrow the area.
HIGH MID GAIN HiC, 1–4th, LowB (High Middle Gain)	
-20–+20dB	Adjusts the high-middle frequency range tone.
HIGH GAIN HiC, 1–4th, LowB	
-20–+20dB	Adjusts the high frequency range tone.
TOTAL GAIN HiC, 1–4th, LowB	
-20–+20dB	Adjusts the overall volume level of the equalizer.

Chapter 8

POLY OCTAVE (Poly Octave)

This supports playing technique related to octaves.

Parameter/ Range	Explanation
-1 OCTAVE LEVEL HiC, 1–4th, LowB	
0–100	This adds sound one octave lower than the original sound.
-2 OCTAVE LEVEL HiC, 1–4th, LowB	
0–100	This adds sound two octaves lower than the original sound.
DIRECT LEVEL HiC, 1–4th, LowB	
0–100	Adjusts the level of the original sound.

POLY RING (Poly Ring Modulator)

This enables you to mix the internal oscillator with the input sound and apply a ring modulator independently for each string, creating a sound with pitchless metallic reverberations.

Parameter/ Range	Explanation
MODE	
This selects the operation of the ring modulator.	
NORMAL	This is the normal ring modulator.
INTELLIGENT	This changes the oscillator frequency according to the pitch of the input sound. Unlike NORMAL, this produces sound that has pitch.
FREQ (Frequency)	
0–100	Adjusts the frequency of the internal oscillator.
DISTORTION	
This effect makes the effect sound of the ring modulator more extreme.	
DRIVE	
0–100	Adjusts the depth of distortion.
TONE	
-50–+50	Adjusts the tone.
LEVEL	
0–100	Adjusts the volume of the distortion sound.
EFFECT LEVEL HiC, 1–4th, LowB	
0–100	Adjusts the volume of the effect sound.
DIRECT LEVEL HiC, 1–4th, LowB	
0–100	Adjusts the volume of the direct sound.

POLY SG (Poly Slow Gear)

This creates a volume-swell (violin-like) effect independently for each string.

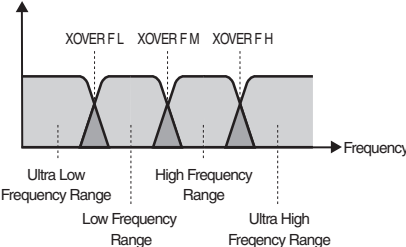| Parameter/ Range	Explanation
RISE TIME	
0–100	Adjusts the time needed for the volume to reach its maximum from the moment you begin playing.
SENS (Sensitivity)	
0–100	Adjusts the sensitivity. When set to a lower value, the slow gear effect is only triggered with strong playing. When set to a higher value, the slow gear effect can be triggered with both weak and strong playing.

STRING MODLNG (String Modeling)

This converts the sound of a bass guitar strung with round-wound strings to the sound of a bass with flat wound or black nylon strings. COSM BASS settings other than E.BASS may not produce the expected results.

Parameter/ Range	Explanation
STRING TYPE HiC, 1–4th, LowB	
OFF	No conversion is performed.
FLAT WOUND	Converts sound to that of flat wound strings.
BLACK NYLON	Converts sound to that of black nylon strings.
STRING LEVEL HiC, 1–4th, LowB	
0–100	Specifies the output level of each string.

FX (Effects)

COMP (Compressor)

This is an effect that attenuates loud input levels and boosts soft input levels, thus evening out the volume to create sustain without distortion. Many different types of compression are provided, including digital models of vintage compressors, as well as limiters that suppress only the sound peaks.

Parameter/ Range	Explanation
COMP SW	
OFF, ON	Turns the COMP effect on/off.
TYPE	
Select the compressor type.	
BOSS COMP	Models the BOSS CS-3
D-COMP	Models the MXR DynaComp.
BOSS LIMITR	This selects a stereo limiter.
RACK 160D	Models the dbx 160x.
VTG RACK U	Models the UREI 1178.
MULTI BAND	This limiter lets you divide the input signal into four separate bands—ultra low, low, high, and ultra high frequency ranges—and apply different settings to the low and high frequency ranges. You can set the frequencies separating each band using the XOVER F L, M, and H parameters. *XOVER F L XOVER F M XOVER F H* Ultra Low Frequency Range High Frequency Range Low Frequency Range Ultra High Freqency Range → Frequency * *The limiter is applied neither to the ultra low range, which is critical to the bass's sound, nor to the ultra high range, which affects the nuance of the attack.*
NATURAL	This compressor is configured using the same frequency divisions as MULTI BAND, but with simplified parameter settings.
SUSTAIN *1	
0–100	This adjusts the intensity of the effect that amplifies a weak input signal to produce a uniform volume level. Larger values will result in longer sustain.
THRSH *2	
0–100	Adjust this as appropriate for the input signal from your bass. When the input signal level exceeds this threshold level, limiting will be applied.
RATIO *2	
1:1–∞:1	This selects the compression ratio used with signals in excess of the threshold level. Higher values create a stronger compression effect.

Parameter/ Range	Explanation
ATTACK *3	
0–100	Adjusts the strength of the playing attack when the strings are played. Higher values result in s sharper attack, creating a more clearly defined sound.
REL *2	
0–100	Adjusts the time from when the signal level drops below the threshold until when limiting is removed.
LOW THRSH *4	
0–100	In the Low Frequency Range, when the input signal level exceeds this threshold level, limiting will be applied.
LOW RATIO *4	
1:1–∞:1	In the Low Frequency Range, this selects the compression ratio used with signals in excess of the threshold level. Higher values create a stronger compression effect.
HIGH THRSH *4	
0–100	In the High Frequency Range, when the input signal level exceeds this threshold level, limiting will be applied.
HIGH RATIO *4	
1:1–∞:1	In the High Frequency Range, this selects the compression ratio used with signals in excess of the threshold level. Higher values create a stronger compression effect.
DRIVE *5	
0–100	This adjusts the intensity of the effect that amplifies a weak input signal to produce a uniform volume level. Larger values will result in longer sustain.
TONE	
-50–+50	Adjusts the tone.
LEVEL	
0–100	Adjusts the volume.
X-OVER FREQ LOW (Crossover Frequency Low) *4	
32Hz–315Hz	This sets the frequency dividing the ultra low- and low-frequency ranges.
X-OVER FREQ MID (Crossover Frequency Middle) *4	
100Hz–4.00kHz	This sets the frequency dividing the low- and high-frequency ranges.
X-OVER FREQ HIGH (Crossover Frequency High) *4	
2.50kHz–10.0kHz	This sets the frequency dividing the high- and ultra high-frequency ranges.

*1 Setting available with Type set to BOSS COMP or D-COMP.

*2 Setting available with Type set to BOSS LIMITR, RACK 160D, or VTG RACK U.

*3 Setting available with Type set to BOSS COMP, D-COMP, BOSS LIMITR, RACK 160D, or VTG RACK U.

*4 Setting available with Type set to MULTI BAND.

*5 Setting available with Type set to NATURAL.

Chapter 8

OD/DS (Overdrive/Distortion)

This effect distorts the sound to create long sustain.
12 different types of overdrive/distortion are provided.

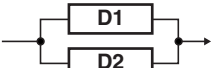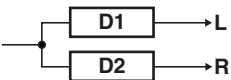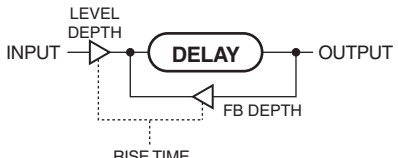| Parameter/ Range	Explanation
OD/DS SW	
OFF, ON	Turns the OD/DS effect on/off.
TYPE	
Selects the type of distortion.	
BOOSTER	This not only functions as a booster, but also produces a clean tone that has punch even when used alone.
NATURAL	This is a mild and natural overdrive sound.
BASS DRIVER	Models the TECH21 SANSAMP BASS DRIVER DI.
BASS OD	Overdrive tuned especially for use with basses.
BLUES OD	The crunch sound of the BOSS BD-2. This produces distortion that faithfully re-produces the nuances of playing.
BASS DS	Distortion tuned especially for use with basses.
GUV DS	This models a Marshall GUV' NOR.
BASS MT	Wild, radical distortion sound.
METAL ZONE	This is the sound of the BOSS MT-2. It produces a wide range of metal sounds, from old style to slash metal.
BASS FUZZ	Fuzz tuned especially for use with basses.
MUFF FUZZ	This models an Electro-Harmonix Big Muff π.
HI-BAND DRIVE	With this effect, distortion is applied only to the high frequency sounds, and not to the sounds in the low frequency range.
DRIVE	
0–100	Adjusts the depth of distortion.
TONE	
-50–+50	Adjusts the tone.
BOTTOM	
0–100	Extracts the low-frequency components of the sound input to this effect, and adjusts the amount added to the effect sound.
DIRECT MIX	
0–100	Adjusts the mix volume of the direct sound.
LEVEL	
0–100	Adjusts the volume.

EQ (Equalizer)
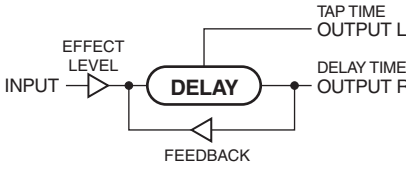
The EQ is a powerful sound-shaping tool, with four frequency bands and low cut and high cut filters. A parametric-type EQ is provided for the high-middle and low-middle ranges.

Parameter/ Range	Explanation
EQ SW (Equalizer Switch)	
OFF, ON	Turns the EQ effect on/off.
TOTAL GAIN	
-20–+20dB	Adjusts the overall volume level of the equalizer.
LOW GAIN	
-20–+20dB	Adjusts the low frequency range tone.
HIGH GAIN	
-20–+20dB	Adjusts the high frequency range tone.
LOW MID FREQ (Low Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the LOW MID GAIN.
LOW MID Q (Low Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the LOW MID FREQ. Higher values will narrow the area.
LOW MID GAIN (Low Middle Gain)	
-20–+20dB	Adjusts the low-middle frequency range tone.
HIGH MID FREQ (High Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH MID GAIN.
HIGH MID Q (High Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH MID FREQ. Higher values will narrow the area.
HIGH MID GAIN (High Middle Gain)	
-20–+20dB	Adjusts the high-middle frequency range tone.
LOW CUT (Low Cut Filter)	
FLAT, 55 Hz–800 Hz	This lets you cut the low-end component below the set frequency to create a clear, distinct low end, thereby bringing out the high end of the effect. When FLAT is selected, the low cut filter will have no effect.
HIGH CUT (High Cut Filter)	
700 Hz–11kHz, FLAT	This allows you to get a mild effect sound by cutting the high-end component above the set frequency. When it is set to FLAT, the high cut filter is off or has no effect.

DELAY

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

Parameter/ Range	Explanation
DELAY SW	
OFF, ON	Turns the DELAY effect on/off.
DELAY TYPE	
Selects the type of delay.	
SINGLE	This is a simple monaural delay.
PAN	The primary delay time is divided—or "tapped"—and the primary delay is sent to the R output, while the tap delay is sent to the L output.
STEREO	The direct sound is output from the left channel, and the effect sound is output from the right channel.
DUAL-S (Dual Series)	This is a delay comprising two different delays connected in series. Each delay time can be set in a range from 1 ms to 900 ms. D1: Delay 1 D2: Delay 2
DUAL-P (Dual Parallel)	This is a delay comprising two delays connected in parallel. Each delay time can be set in a range from 1 ms to 900 ms.
DUAL-L/R	This is a delay with individual settings available for the left and right channels. Delay 1 goes to the left channel, Delay 2 to the right.
REVRSE	This produces an effect where the sound is played back in reverse.
ANALOG	This gives a mild analog delay sound. The delay time can be set within the range of 1 to 1800 ms
TAPE	This setting provides the characteristic wavering sound of the tape echo. The delay time can be set within the range of 1 to 1800 ms.
WARP	This simultaneously controls the delay sound's feedback level and volume to produce a totally unreal delay.

Parameter/ Range	Explanation
MOD (Modulate)	This delay adds a pleasant wavering effect to the sound.
HOLD	Up to 10 seconds of performance content is recorded, then played back repeatedly. You can also layer this as you perform something else, then record these together (overdub), allowing you to produce what is called sound-on-sound or looping.

* For more detail the operation, refer to **"Using the HOLD (Hold Delay)"** (p. 115).

* If you switch patches with the TYPE set to either DUAL-S, DUAL-P, or DUAL L/R and then begin to play immediately after the patches change, you may be unable to attain the intended effect in the first portion of what you perform.

* The stereo effect is cancelled if a monaural effect or COSM amp is connected after a stereo delay effect.

DELAY Common Parameters

Parameter/ Range	Explanation
DELAY TIME *1	
1 ms–1800 ms, BPM ♪ –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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	

* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.

* After setting DELAY TIME to BPM (♪ – 𝅝), if you tap [F1] (TAP), the BPM value will change to match the timing of your tapping.

FEEDBACK *1	
0–100	This sets the amount of delay sound returned to the input. A higher value will increase the number of the delay repeats. **TERM** Feedback is returning a delay signal to the input.
HIGH CUT (High Cut Filter) *1	
700 Hz–11 kHz, FLAT	This allows you to get a mild effect sound by cutting the high-end component above the set frequency. When it is set to FLAT, the high cut filter is off or has no effect.
EFFECT LEVEL *1	
0–120	Adjusts the volume of the delay sound.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

*1 The DELAY TIME, FEEDBACK, HIGH CUT, and EFFECT LEVEL are not enabled when the TYPE is set to DUAL-S, DUAL-P, or DUAL-L/R.

Chapter 8

PAN

Parameter/Range	Explanation
TAP TIME	
0%–100%	Adjusts the delay time of the left channel delay. This setting adjusts the L channel delay time relative to the R channel delay time (considered as 100%).

DUAL-S, DUAL-P, DUAL-L/R

Parameter/Range	Explanation
DELAY1 TIME	
1 ms–900 ms, BPM ♪ –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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.	
* After setting DELAY TIME to BPM (♪ – 𝅝), if you tap [F1] (TAP), the BPM value will change to match the timing of your tapping.	
DELAY1 FEEDBACK	
0–100	Adjusts the amount of feedback of the Delay1. A higher value will increase the number of the delay repeats.
DELAY HI-CUT (Delay 1 High Cut Filter)	
700 Hz–11 kHz, FLAT	This sets the frequency at which the high cut filter of the Delay1 begins to take effect. When it is set to FLAT, the high cut filter is off or has no effect.
DELAY1 LEVEL	
0–120	Adjusts the volume of the Delay1.
DELAY2 TIME	
1 ms–900 ms, BPM ♪ –BPM 𝅝	This determines the delay time of the Delay2.
DELAY2 FEEDBACK	
0–100	Adjusts the amount of feedback of the Delay2.
DELAY2 FEEDBACK (Delay 2 High Cut Filter)	
700 Hz–11 kHz, FLAT	This sets the frequency at which the high cut filter of the Delay2 begins to take effect. When it is set to FLAT, the high cut filter is off or has no effect.
DELAY2 LEVEL	
0–120	Adjusts the volume of the Delay2.

WARP

Parameter/Range	Explanation
WARP SW	
OFF, ON	Turns the WARP effect on/off. **(MEMO)** This parameter is assigned to the footswitch (CTL 3/4) and/or FC-300's CTL pedal.
RISE TIME	
0–100	Adjusts how rapidly the warped delay sound rises.
FB DEPTH (Feedback Depth)	
0–100	Adjusts the feedback level of the warped delay sound.
LEVEL DEPTH	
0–100	Adjusts the volume of the warped delay sound.

MOD

Parameter/Range	Explanation
MOD RATE (Modulation Rate)	
0–100	Adjusts the modulation rate of the delay sound.
MOD DEPTH (Modulation Depth)	
0–100	Adjusts the modulation depth of the delay sound.

Using the HOLD (Hold Delay)

* *Recording and playback of performances and other operations are carried out with pedals while Hold is in effect. Connect external pedals (footswitches) or an FC-300.*

1. **Referring to "Using the Switches, Pedals, and MIDI to Control the Sounds (CONTROL ASSIGN)" (p. 77), assign the following functions to the connected external pedals (footswitches) or FC-300 CTL pedals.**

Controller	TARGET PARAMETER	SW MODE
CTL3, etc	[A] FX (or [B] FX) DELAY (HOLD) REC	LATCH
CTL4, etc	[A] FX (or [B] FX) DELAY (HOLD) STOP	- - -

2. **Set TYPE to HOLD in the Delay screen.**

3. **Press the pedal to which REC is assigned.**
Recording starts when you press the pedal.

4. **Press the pedal to which REC is assigned again to stop recording.**

* *The maximum recording time is 10 seconds. If the recording time exceeds 10 seconds, the recording stops automatically, and the recorded content is then played back.*

* *An oscillating sound may be audible with extremely short recording times.*

5. **When layering recordings, repeat Steps 4 and 5.**

* *The recorded content is cleared when the TYPE or patch is switched to a different setting or when the power is turned off.*

6. **To return to recording standby, press the pedal to which STOP is assigned.**
The unit returns to recording standby.

* *When playback is stopped, the recorded content is erased.*

* *You can also set REC SW MODE to MOMENT.*
If you use this setting, be sure to keep the pedal held down during recording.

CHORUS

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

Parameter/ Range	Explanation
CHORUS SW	
OFF, ON	Turns the CHORUS effect on/off.
CHORUS MODE	
Selection for the chorus mode.	
MONO	This chorus effect outputs the same sound from both L channel and R channel.
ST1 (Stereo1)	This is a stereo chorus effect that adds different chorus sounds to L channel and R channel.
ST2 (Stereo2)	This stereo chorus uses spatial synthesis, with the direct sound output in the L channel and the effect sound output in the R channel.
RATE	
0–100, BPM ♩ –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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
DEPTH	
0–100	Adjusts the depth of the chorus effect. **TIP** To use it for doubling effect, set the value to 0.
PRE DELAY	
0.0 ms–40.0 ms	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).
LOW CUT (Low Cut Filter)	
FLAT, 55 Hz–800 Hz	This lets you cut the low-end component below the set frequency to create a clear, distinct low end, thereby bringing out the high end of the effect. When FLAT is selected, the low cut filter will have no effect.
HIGH CUT (High Cut Filter)	
700 Hz–11 kHz, FLAT	This allows you to get a mild effect sound by cutting the high-end component above the set frequency. When FLAT is selected, the high cut filter will have no effect.
EFFECT LEVEL	
0–100	Adjusts the volume of the effect sound.

Chapter 8

115

MOD1, MOD2

For MOD1 and MOD2, you can choose one of the following effect types. (If desired, you can select the same effect for both MOD1 and MOD2.)

MOD TYPE			
	PHASER	Phaser	(p. 116)
	FLANGR	Flanger	(p. 117)
	TREML	Tremolo	(p. 117)
	PAN	Pan	(p. 117)
	PEDAL WAH	Pedal Wah	(p. 118)
	T.WAH	Touch Wah	(p. 118)
	AUTO WAH	Auto Wah	(p. 119)
	M-TRON III	M-TRON III	(p. 119)
	OCTAVE	Octave	(p. 120)
	PITCH SHIFT	Pitch Shifter	(p. 120)
	HARMONIST	Harmonist	(p. 121)
	PEDAL BEND	Pedal Bend	(p. 122)
MOD1	2x2 CHORUS	2x2 Chorus	(p. 122)
MOD2	ROTARY	Rotary	(p. 123)
Common	UNI-V	Uni-V	(p. 123)
	VIB	Vibrato	(p. 123)
	SLICER	Slicer	(p. 123)
	HUMANIZER	Humanizer	(p. 124)
	SLOW GEAR	Slow Gear	(p. 124)
	RING MOD	Ring Modulator	(p. 124)
	ANTI FB	Anti Feedback	(p. 124)
	ADV.COMP	Advanced Compressor	(p. 125)
	LIMITR	Limiter	(p. 125)
	ENHANCER	Enhancer	(p. 125)
	PEQ	Parametric Equalizer	(p. 126)
	GEQ	Graphic Equalizer	(p. 126)
	SUB DELAY	Sub Delay	(p. 126)

Parameter/ Range	Explanation
MOD1 SW, MOD2 SW	
OFF, ON	Turns the MOD-1 (MOD-2) effect on/off.
MOD 1 TYPE, MOD 2 TYPE	
see above	Selects the effect to be used.

PHASER

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

Parameter/ Range	Explanation
TYPE	
Selects the number of stages that the phaser effect will use.	
4STG	This is a four-phase effect. A light phaser effect is obtained.
8STG	This is an eight-phase effect. It is a popular phaser effect.
12STG	This is a twelve-phase effect. A deep phase effect is obtained.
BI-PHS	This is the phaser with two phase shift circuits connected in series.
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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.	
DEPTH	
0–100	Determines the depth of the rotation effect.
MANUAL	
0–100	Adjusts the center frequency of the rotation effect.
RESO (Resonance)	
0–100	Determines the amount of resonance (feedback). Increasing the value will emphasize the effect, creating a more unusual sound.
STEP RATE	
OFF, 0–100, BPM ♩ –BPM ♪	This sets the cycle of the step function that changes the rotation. When it is set to a higher value, the change will be finer. Set this to Off when not using the Step function.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.	
EFFECT LEVEL	
0–100	Adjusts the volume of the phaser.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

FLANGER

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

Parameter/ Range	Explanation
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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
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.
SEPARATION	
0–100	Adjusts the diffusion. The diffusion increases as the value increases.
LOW CUT (Low Cut Filter)	
FLAT, 55 Hz–800 Hz	This lets you cut the low-end component below the set frequency to create a clear, distinct low end, thereby bringing out the high end of the effect. When FLAT is selected, the low cut filter will have no effect.
EFFECT LEVEL	
0–100	Adjusts the volume of the flanger.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

TREML (Tremolo)

Tremolo is an effect that creates a cyclic change in volume.

Parameter/ Range	Explanation
WAVE SHAPE	
0–100	Adjusts the curve for the volume change. Raising the value makes the changes occur more rapidly.
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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
DEPTH	
0–100	Adjusts the depth of the effect.

PAN

This is a stereo effect that pans the sound alternately between the left and right outputs, making the sound fly back and forth between the speakers.

Parameter/ Range	Explanation
WAVE SHAPE	
0–100	Adjusts the curve for the volume change. Raising the value makes the changes occur more rapidly.
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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
DEPTH	
0–100	Adjusts the depth of the effect.

* *The pan effect is cancelled if a monaural effect or COSM amp is connected after the COSM bass.*

Chapter 8

PEDAL WAH

This is a wah effect that you control in real time by adjusting the EXP pedal connected to the EXP PEDAL jack or an FC-300 EXP pedal.

Parameter/ Range	Explanation
TYPE	
Selects the type of wah.	
CRY WAH	This models the sound of the CRY BABY wah pedal popular in the `70s.
VO WAH	This models the sound of the VOX V846.
FAT WAH	This a wah sound featuring a bold tone.
LIGHT WAH	This wah has a refined sound with no unusual characteristics.
BASS WAH	This wah has been specially adapted for use in the bass registers. Inclusion of the low-frequency range in the wah sound produces a robust wah effect, with no dilution of the sound.
RESO WAH	This completely original effect offers enhancements on the characteristic resonances produced by analog synth filters.
PEDAL POS (Pedal Position)	
0–100	Adjusts the position of the wah pedal.
	* *This parameter is usually assigned to an expression pedal or the like for use.*
PEDAL MIN (Pedal Minimum)	
0–100	Selects the tone produced when the heel of the EXP Pedal is depressed.
PEDAL MAX (Pedal Maximum)	
0–100	Selects the tone produced when the toe of the EXP Pedal is depressed.
EFFECT LEVEL	
0–100	Adjusts the volume.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

T.WAH (Touch Wah)

This is an automatic wah effect where the filter changes in response to the bass level.

Parameter/ Range	Explanation
MODE	
Selects the wah mode.	
LPF (Low Pass Filter)	This passes only the low band.
BPF (Band Pass Filter)	This passes only a specific band.
POLARITY	
Selects the direction in which the filter will change in response to the input.	
DOWN	The frequency of the filter will fall.
UP	The frequency of the filter will rise.
SENS (Sensitivity)	
0–100	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 playing will have no effect.
FREQ (Frequency)	
0–100	Adjusts the center frequency of the Wah effect.
PEAK	
Higher values will produce a stronger tone which emphasizes the wah effect more.	
0–100	Adjusts the way in which the wah effect applies to the area around the center frequency. With a value of 50 a standard wah sound will be produced.
LEVEL	
0–100	Adjusts the volume of the effect sound.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

AUTO WAH

This filters the sound over a periodic cycle, providing an automatic wah effect.

Parameter/ Range	Explanation
MODE	
Selects the wah mode.	
LPF (Low Pass Filter)	This passes only the low band.
BPF (Band Pass Filter)	This passes only a specific band.
FREQ (Frequency)	
0–100	Adjusts the center frequency of the Wah effect.
PEAK	
0–100	Adjusts the amount of wah effect applied in the range near the reference frequency. Higher values will produce a stronger tone which emphasizes the wah effect more. With a value of 50 a standard wah sound will be produced.
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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.	
DEPTH	
0–100	Adjusts the depth of the effect.
LEVEL	
0–100	Adjusts the volume of the effect sound.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

M-TRON III

This models a Musitronics Mu-Tron III. Filter movement corresponds to the intensity of the input, producing a touch-wah sound suited to funk.

The original used monaural input and output, but on the VB-99 this is enhanced to stereo input and output.

Parameter/ Range	Explanation
MODE	
This chooses the type of filter.	
LPF (Low Pass Filter)	This passes only the low band.
BPF (Band Pass Filter)	This passes only a specific band.
HPF (High Pass Filter)	This passes only the high band.
DRIVE	
This chooses the direction of filter movement during the attack.	
DOWN	Moves in the low-band direction.
UP	Moves in the high-band direction.
PEAK	
0–100	Adjusts the intensity of the filter's idiosyncrasies.
DEPTH	
0–100	Adjusts the range of variability for the filter according to the input level. **MEMO** The DEPTH parameter is sensitive to input. Adjust it as appropriate to match the intensity of touch and the style of play.
RANGE	
0–100	Adjusts the range of filter movement. LOW on the original corresponds to around 25, and HIGH to around 75.
EFFECT LEVEL	
0–100	Adjusts the volume of the effect sound.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

Chapter 8

OCTAVE

This adds a note one octave lower, creating a richer sound.

* *Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played.*

Parameter/ Range	Explanation
OCTAVE LEVEL	
0–100	Adjusts the volume of the sound one octave below.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

PITCH SHIFT (Pitch Shifter)

This effect changes the pitch of the original sound (up or down) within a range of two octaves.

Parameter/ Range	Explanation
VOICE	
Selects the number of voices for the pitch shift sound.	
1VOICE	One-voice pitch-shifted sound output in monaural.
2MONO	Two-voice pitch-shifted sound (PS1, PS2) output in monaural.
2ST (2Stereo)	Two-voice pitch-shifted sound (PS1, PS2) output through left and right channels.
LEVEL1, LEVEL2 *1	
0–100	Adjusts the volume of the pitch shift sound
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.
PITCH SHIFT1, PITCH SHIFT2	
MODE1, MODE2 *1	
Selection for the pitch shifter mode.	
FAST, MEDIUM, SLOW	A chord can be input with a normal pitch shifter. The response is slower in the order of FAST, MEDIUM and SLOW, but the modulation is lessened in the same order.
MONO	MONO is used for inputting single notes. *You may be unable to produce the intended effect when playing chords (two or more notes played simultaneously).*
PITCH 1, PITCH2 *1	
-24–+24	Adjusts the amount of pitch shift (the amount of interval) in semitone steps.
FINE1, FINE2 *1	
-50–+50	Make fine adjustments to the interval. The amount of the change in the Fine 100 is equivalent to that of the Pitch 1.
PRE DELAY1, PRE DELAY2 *1	
0 ms –300 ms, BPM ♪ –BPM 𝅝	Adjusts the time from when the direct sound is heard until the pitch shifted sounds are inputted. Normally you can leave this set at 0ms.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
FEEDBACK1	
0–100	Adjusts the feedback amount of the pitch shift sound.

*1   With VOICE set to 2MONO or 2ST, you can select two sounds.

HARMONIST

Harmonist is a pitch-shift effect where the amount of shifting is adjusted according to an analysis of the bass input, allowing you to create harmonies based on diatonic scales.

* *Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played.*

* *You cannot use the Harmonist effect with audio input via USB IN.*

Parameter/ Range	Explanation
KEY	
C (Am)–B (G#m)	Specify the key of the song you are playing. By specifying the key, you can create harmonies that fit the key of the song.

TIP

This KEY parameter is the same as the Key setting in the [NAME/KEY/BPM] section (p. 142) and FX MOD1, 2 HARMONIST. Altering either one changes the key.

The key setting corresponds to the key of the song (#, ♭) as follows.

Major	C	F	B♭	E♭	A♭	D♭
Minor	Am	Dm	Gm	Cm	Fm	B♭m

Major	G	D	A	E	B	F#
Minor	Em	Bm	F#m	C#m	G#m	D#m

Parameter/ Range	Explanation
VOICE	
Selects the number of voices for the pitch shift sound.	
1VOICE	One-voice pitch-shifted sound output in monaural.
2MONO	Two-voice pitch-shifted sound (PS1, PS2) output in monaural.
2ST (2Stereo)	Two-voice pitch-shifted sound (PS1, PS2) output through left and right channels.
FEEDBACK1	
0–100	Adjusts the feedback amount of the harmonist sound.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.
HARMONY1, HARMONY2 *1	
HARM1, HARM2 (Harmony) *1	
This determines the pitch of the sound added to the input sound, when you are making a harmony.	
-2 oct–+2 oct, USER	It allows you to set it by up to 2 octaves higher or lower than the input sound. When the scale is set to USER, this parameter sets the user scale number to be used.

Parameter/ Range	Explanation
PRE DELAY1, PRE DELAY2 *1	
0 ms–300 ms, BPM ♪ –BPM 𝅗𝅥	Adjusts the time from when the direct sound is heard until the harmonist sounds are heard. Normally you can leave this set at 0ms.

When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.

* *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*

Parameter/ Range	Explanation
LEVEL1, LEVEL2 *1	
0–100	Adjusts the volume of the harmony sound.
VOICE1 INTERVAL C–B, VOICE2 INTERVAL C–B *2	
-24–+24	Sets the output pitch for the set key relative to the input pitch.

*1　HARM1 and HARM2 are set individually.

*2　VOICE1 INTERVAL (VOICE2 INTERVAL) is enabled when HARM1 (HARM2) is set to USER.

Creating Harmonist Scales (Voice Interval)

When HARM is set to any value from -2oct to +2oct, and the harmony does not sound the way you intend, use a voice interval. You can set the corresponding pitches to be output for each input pitch.

1. **Set HARM1 (or HARM2) to USER in the Harmonist screen.**

2. **Select VOICE1 INTERVAL (or VOICE2 INTERVAL) with PAGE [▶].**
The Voice Interval screen appears.
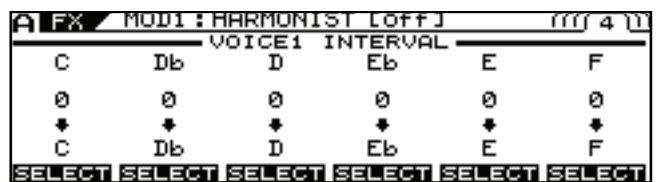
A	FX	MOD1 : HARMONIST [off]			4
		VOICE1 INTERVAL			
C	D♭	D	E♭	E	F
0	0	0	0	0	0
♦	♦	♦	♦	♦	♦
C	D♭	D	E♭	E	F
SELECT	SELECT	SELECT	SELECT	SELECT	SELECT

3. **Use PAGE [◀] [▶], [F1]–[F6], and the F1–F6 knob to set the amount of pitch shift for each voice.**

Chapter 8

121

PEDAL BEND

This lets you use a pedal to get a pitch bend effect.

> * *Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played.*

cf.

Parameter/ Range	Explanation
PITCH MIN (Pitch Minimum)	
-24–+24	This sets the pitch at the point where the expression pedal is fully lifted.
PITCH MAX (Pitch Maximum)	
-24–+24	This sets the pitch at the point where the expression pedal is all the way down.
PEDAL POS (Pedal Position)	
0–100	Adjusts the pedal position for pedal bend. * *This parameter is used after it's been assigned to an expression pedal or similar controller.*
EFFECT LEVEL	
0–100	Adjusts the volume of the pitch bend sound.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

2x2 CHORUS

Frequency band division is employed to produce two different choruses, one for low frequencies and one for higher frequencies, for both the left and right channels (for a total of four). This allows you to achieve a natural chorus sound.

Parameter/ Range	Explanation
X-OVER FREQ (Crossover Frequency)	
100 Hz–4.00 kHz	This sets the frequency dividing the low- and high-frequency ranges.
LOW RATE	
0–100, BPM ♩ –BPM ♪	Adjust the speed of the chorus effect for the low frequency range.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
LOW DEPTH	
0–100	Adjust the depth of the chorus effect for the low frequency range. If you wish to use this as a doubling effect, use a setting of 0.
LOW PREDLY (Low Pre Delay)	
0.0 ms–40.0 ms	Adjusts the delay of the effect sound in the low-frequency range. Extending the pre-delay will produce the sensation of multiple sounds (doubling effect).
LOW LEVEL	
0–100	Adjusts the volume of the effect sound in the low-frequency range.
HIGH RATE	
0–100, BPM ♩ –BPM ♪	Adjust the speed of the chorus effect for the high frequency range.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
HIGH DEPTH	
0–100	Adjust the depth of the chorus effect for the high frequency range. If you wish to use this as a doubling effect, use a setting of 0.
HIGH PREDLY (High Pre Delay)	
0.0 ms–40.0 ms	Adjusts the delay of the effect sound in the high-frequency range. Extending the pre-delay will produce the sensation of multiple sounds (doubling effect).
HIGH LEVEL	
0–100	Adjusts the volume of the effect sound in the high-frequency range.

ROTARY

This produces an effect like the sound of a rotary speaker.

Parameter/ Range	Explanation
SPEED	
SLOW, FAST	This parameter changes the simulated speaker's rotating speed (Slow or Fast).
RATE SLOW	
0–100, BPM 𝅝 –BPM 𝅘𝅥𝅮	This parameter adjusts the speed of rotation when set to SLOW.
RATE FAST	
0–100, BPM 𝅝 –BPM 𝅘𝅥𝅮	This parameter adjusts the speed of rotation when set to FAST.
When the Rate (SLOW) or Rate (FAST) set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
RISE TIME	
0–100	This parameter adjusts the time it takes for the rotation speed to change when switched from Slow to Fast.
FALL TIME	
0–100	This parameter adjusts the time it takes for the rotation speed to change when switched from Fast to Slow.
DEPTH	
0–100	This parameter adjusts the amount of depth in the rotary effect.

UNI-V

This models the sound of the Uni-vibe.

Although the same type of effect as a phaser, its characteristic feature is a unique twisting effect, which you can't get from an ordinary phaser.

Parameter/ Range	Explanation
RATE	
0–100, BPM 𝅝 –BPM 𝅘𝅥𝅮	Adjusts the rate of the Uni-V effect.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
DEPTH	
0–100	Adjusts the depth of the Uni-V effect.
LEVEL	
0–100	Adjusts the volume.

VIB (Vibrato)

This effect creates vibrato by slightly modulating the pitch.

Parameter/ Range	Explanation
RATE	
0–100, BPM 𝅝 –BPM 𝅘𝅥𝅮	Adjusts the rate of the vibrato.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
DEPTH	
0–100	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.
	* When a patch with TRIG set to ON is called up, the effect obtained is identical to what happens when TRIG is switched from OFF to ON. If you want the vibrato effect to be produced immediately after the patches are switched, set RISE TIME to 0.*
TRIG (Trigger)	
OFF, ON	This selects on/off of the vibrato. It is assumed that this parameter will be assigned to the footswitch. (p. 42)

SLICER

This consecutively interrupts the sound to create the impression that a rhythm backing phrase is being played.

Parameter/ Range	Explanation
PATTERN	
P1–P20	Select the slice pattern that will be used to cut the sound.
RATE	
0–100, BPM 𝅝 –BPM 𝅘𝅥𝅮	Adjust the rate at which the sound will be cut.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
TRIG SENS (Trigger Sensitivity)	
0–100	Adjust the sensitivity of triggering. With low settings of this parameter, softly picked notes will not retrigger the phrase (i.e., the phrase will continue playing), but strongly picked notes will retrigger the phrase so that it will playback from the beginning. With high settings of this parameter, the phrase will be retriggered even by softly picked notes.

Chapter 8

123

HUMANIZER

This creates human vowel-like sounds.

Parameter/ Range	Explanation
MODE	
This sets the mode that switches the vowels.	
PICK (Picking)	The sound changes from VOWEL1 to VOWEL2 along with the playing. The time cycle for the change is adjusted with the rate.
AUTO	By adjusting the rate and depth, two vowels (VOWEL1 and VOWEL 2) can be switched automatically.
RANDOM	Five vowels (A, E, I, O, U) are called out at random by adjusting the rate and depth.
VOWEL1 *1	
A, E, I, O, U	Selects the first vowel.
VOWEL2 *1	
A, E, I, O, U	Selects the second vowel.
SENS (Sensitivity) *2	
0–100	Adjusts the sensitivity. When set to a lower value, the humanizer effect is only triggered with strong playing. When set to a higher value, the humanizer effect can be triggered with both weak and strong playing.
RATE	
0–100, BPM ♩ –BPM ♪	Adjusts the cycle for changing the two vowels.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.	
MANUAL *3	
0–100	This determines the point where the two vowels are switched. When it is set to 50, VOWEL1 and VOWEL2 are switched in the same length of time. When it is set to lower than 50, the time for vowel 1 is shorter. When it is set to higher than 50, the time for vowel 1 is longer.
DEPTH	
0–100	Adjusts the depth of the effect.
LEVEL	
0–100	Adjusts the volume.

*1   Setting available with MODE set to PICK or AUTO.

*2   Setting available with MODE set to PICK.

*3   Setting available with MODE set to AUTO.

SLOW GEAR

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

Parameter/ Range	Explanation
SENS (Sensitivity)	
0–100	Adjusts the sensitivity.
RISE TIME	
0–100	Adjusts the time needed for the volume to reach its maximum from the moment you begin playing.

RING MOD (Ring Modulator)

This creates a bell-like sound by ring-modulating the bass sound with the signal from the internal oscillator. The sound can be unmusical and lack distinctive pitches.

Parameter/ Range	Explanation
MODE	
This selects the mode for the ring modulator.	
NORMAL	This is a normal ring modulator.
INTELLIGENT	By ring-modulating the input signal, a bell like sound is created. The intelligent ring modulator changes the oscillation frequency according to the pitch of the input sound and therefore produces a sound with the sense of pitch, which is quite different from the NORMAL setting. This effect does not give a satisfactory result if the pitch of the bass sound is not correctly detected. So, you must use single notes, not chords.
FREQ (Frequency)	
0–100	Adjusts the frequency of the internal oscillator.
EFFECT LEVEL	
0–100	Adjusts the volume of the effect sound.
DIRECT LEVEL	
0–100	Adjusts the volume of the direct sound.

ANTI FB (Anti-feedback)

This prevents the acoustic feedback that can be produced by the body resonances of an acoustic bass.

Parameter/ Range	Explanation
FREQ1–3 (Frequency 1–3)	
0–100	Set the fixed frequency point at which feedback will be cancelled. You can set up to three cancellation points.
DEPTH1–3	
0–100	Adjusts the degree of the anti-feedback at each of the three cancellation points.

ADV.COMP (Advanced Compressor)

This is an effect that produces a long sustain by evening out the volume level of the input signal. You can also use it as a limiter to suppress only the sound peaks and prevent distortion.

Parameter/ Range	Explanation
TYPE	
Selects the compressor type.	
BOSS COMP	This models a BOSS CS-3.
HI-BAND	This is a compressor that adds an even stronger effect in the high end.
LIGHT	This is a compressor with a light effect.
D-COMP	This models a MXR DynaComp.
ORANGE	This is modeled on the sound of the Dan Armstrong ORANGE SQUEEZER.
FAT	When applied heavily, this compressor effect provides a fat tone with a boosted midrange.
MILD	When applied heavily, this compressor effect produces a sweet tone with the high end cut.
STEREO COMP	This selects a stereo compressor.
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 playing 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.

LIMITR (Limiter)

The limiter attenuates loud input levels to prevent distortion.

Parameter/ Range	Explanation
TYPE	
Selects the limiter type.	
BOSS LIMITR	This selects a stereo limiter.
RACK 160D	This models a dbx 160X.
VTG RACK U	This models a UREI 1178.
ATTACK	
0–100	Adjusts the strength of the playing attack when the strings are played. Higher values result in s sharper attack, creating a more clearly defined sound.
THRSH (Threshold)	
0–100	Adjust this as appropriate for the input signal from your bass. When the input signal level exceeds this threshold level, limiting will be applied.
RATIO	
1: 1–∞: 1	This selects the compression ratio used with signals in excess of the threshold level.
REL (Release)	
0–100	Adjusts the time from when the signal level drops below the threshold until when limiting is removed.
LEVEL	
0–100	Adjusts the volume.

ENHANCER

This is an effect that clarifies the contour of the input sound by emphasizing the attack of the sound following changes in the input level.

Parameter/ Range	Explanation
SENS (Sensitivity)	
0–100	This adjusts the Enhancer sensitivity. The more the value is increased, the more softly you can play and still have the effect applied.
LOW FREQ (Low Frequency)	
31.5Hz–125Hz	Sets the low frequency range for the enhanced sound.
LOW LEVEL	
0–100	Adjusts the enhancer volume for the high frequency range.
HIGH FREQ (High Frequency)	
800Hz–8.00kHz	Sets the high frequency range for the enhanced sound.
HIGH LEVEL	
0–100	Adjusts the enhancer volume for the high frequency range.

Chapter 8

125

PEQ (Parametric Equalizer)

Adjusts the tonal quality. You can adjust the sound quality in four bands.

Parameter/Range	Explanation
TOTAL GAIN	
-20–+20dB	Adjusts the overall EQ volume. Set this so that no difference in volume level occurs when switched on and off.
LOW GAIN	
-20–+20dB	Adjusts the low frequency range tone.
HIGH GAIN	
-20–+20dB	Adjusts the high frequency range tone.
LOW MID FREQ (Low Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the LOW MID GAIN.
LOW MID Q (Low Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the LOW MID FREQ. Higher values will narrow the area.
LOW MID GAIN (Low Middle Gain)	
-20–+20dB	Adjusts the low-middle frequency range tone.
HIGH MID FREQ (High Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH MID GAIN.
HIGH MID Q (High Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH MID FREQ. Higher values will narrow the area.
HIGH MID GAIN (High Middle Gain)	
-20–+20dB	Adjusts the high-middle frequency range tone.
LOW CUT (Low Cut Filter)	
FLAT, 55 Hz–800 Hz	This lets you cut the low-end component below the set frequency to create a clear, distinct low end, thereby bringing out the high end of the effect. When FLAT is selected, the low cut filter will have no effect.
HIGH CUT (High Cut Filter)	
700 Hz–11 kHz, FLAT	This allows you to get a mild effect sound by cutting the high-end component above the set frequency. When it is set to FLAT, the high cut filter is off or has no effect.

GEQ (Graphic Equalizer)

This is a seven-band graphic equalizer that allows you to precisely adjust tones by boosting/cutting any of the seven bands.

Parameter/Range	Explanation
TOTAL GAIN	
-20–+20dB	Adjusts the overall EQ volume. Set this so that no difference in volume level occurs when switched on and off.

Parameter	Range
This boosts or cuts the respective frequency bands.	
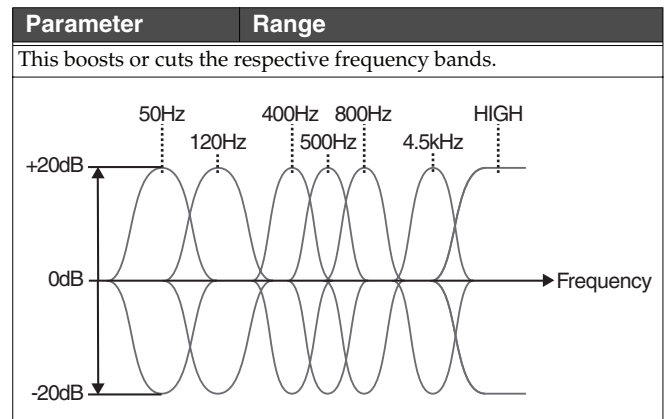
SUB DELAY

This is a delay with a maximum delay time of 400 ms. This effect is useful for making the sound fatter.

Parameter/Range	Explanation
DELAY TIME	
1 ms–400 ms, BPM ♪ –BPM 𝅝	Adjusts the delay time.
When set to BPM, the value of each parameter will be set according to the value of the BPM (p. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.	
* After setting DELAY TIME to BPM (♪ – 𝅝), if you tap [F1] (TAP), the BPM value will change to match the timing of your tapping.	
FEEDBACK	
0–100	Adjusts the volume that is returned to the input. Feedback refers to returning the delayed signal back into the input of the delay. Higher settings will result in more delay repeats.
EFFECT LEVEL	
0–120	Adjusts the volume of delay sound.

NS (Noise Suppressor)

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

> * Please connect the noise suppressor in the signal path prior to the reverberation type effect. This setup will prevent an unnatural break of the reverberation effect.

Parameter/ Range	Explanation
NS SW (Noise Suppressor Switch)	
OFF, ON	Turns the NS effect on/off.
THRSH (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 bass sound is as natural as possible. * High settings for the threshold parameter may result in there being no sound when you play with your bass volume turned down.
REL (Release)	
0–100	Adjusts the amount of time from the point at which application of the noise suppressor begins to when the volume is fully attenuated.
DETECT	
This controls the noise suppressor based on the volume level for the point specified in Detect.	
INPUT	Volume of the COSM bass and normal pickup
NS IN (NS Input)	Noise suppressor input volume.

FV (Foot Volume)

This is a volume control effect.

Normally, this is controlled with an expression pedal connected to the EXP PEDAL jack or one of the FC-300's EXP pedals.

> * When making the settings determining each pedal's foot volume operations, refer to **"Setting the GK VOLUME Control and Switch and the Pedal Function (SYSTEM CONTROL ASSIGN)"** (p. 42), **"Settings Related to the FC-300"** (p. 46).

Parameter/ Range	Explanation
LEVEL	
0–100	Adjusts the volume.
VOL CURVE (Volume Curve)	
You can select how the actual volume changes relative to the amount the pedal is pressed.	
SLOW1, SLOW2, NORMAL, FAST	

<div style="text-align:right">**Chapter 8**</div>

COSM AMP

COSM technology simulates different preamp characteristics, speaker sizes, and cabinet shapes.

*   *You can make separate settings for Channel A and Channel B.*

Parameter/ Range	Explanation
COSM AMP SW	
OFF, ON	Turns the COSM amp effect on/off.
PREAMP TYPE	
This sets the type of the bass preamp.	
SUPER FLAT	An amp with flat response.
FLIP TOP	Models the Ampeg B-15.
B MAN	Models the Fender Bassman 100.
CONCRT 810	Models the Ampeg SVT.
BASS 360	Models the Acoustic 360.
T.E.	Models the Trace Elliot AH600SMX.
SESSION	Models the SWR SM-400.
AC BASS	An amp ideal for ACOUSTIC BASS.
GTR AMP CLEAN	This is a clean sound that is smooth and warm.
GTR AMP CRUNCH	This is a crunch sound that can faithfully re-produce the nuances of playing.
GTR AMP DRIVE	This is a drive sound producing awesome distortion.
GTR AMP METAL	This is a metal sound suited to heavy riffs.
GAIN	
0–100 (0–120)	Adjusts the distortion of the amp.
	* When a guitar setting has been selected for PREAMP TYPE, the setting is within the range shown in parentheses.*
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.
LEVEL	
0–100	Adjusts the volume of the entire preamp.
	* Be careful not to raise the Level setting too high.*

SUPER FLAT / AC BASS

Parameter/ Range	Explanation
PRESENCE	
0–100	Adjusts the tone for the ultra high frequency range.

FLIP TOP

Parameter/ Range	Explanation
MIDDLE FREQ (Middle Frequency)	
220Hz, 800Hz, 3.0kHz	Specifies the center of the frequency range that will be adjusted by the MIDLLE.
BRIGHT	
Turns the bright setting on/off.	
OFF	Bright is not used.
ON	Bright is switched on to create a lighter and crisper tone.
RESPONCE	
BASS, FLAT	This controls the overall amp characteristics. Select the position corresponding to the characteristics for one of the two types of sound.

B MAN

Parameter/ Range	Explanation
MIDDLE FREQ (Middle Frequency)	
220Hz, 800Hz, 3.0kHz	Specifies the center of the frequency range that will be adjusted by the MIDDLE.
DEEP	
OFF, ON	This switch changes the character of the lower range.

CONCRT 810

Parameter/ Range	Explanation
MIDDLE FREQ (Middle Frequency)	
220Hz, 800Hz, 3.0kHz	Specifies the center of the frequency range that will be adjusted by the MDDLE.
BRIGHT	
Turns the bright setting on/off.	
OFF	Bright is not used.
ON	Bright is switched on to create a lighter and crisper tone.
ULTRA LOW	
-, 0, +	This controls the character of the lower range.
ULTRA HIGH	
OFF, ON	This controls the ultra high-frequency range lying beyond treble.

128

BASS 360

Parameter/Range	Explanation
BRIGHT	
Turns the bright setting on/off.	
OFF	Bright is not used.
ON	Bright is switched on to create a lighter and crisper tone.

T.E.

Parameter/Range	Explanation
MIDDLE FREQ (Middle Frequency)	
220Hz, 800Hz, 3.0kHz	Specifies the center of the frequency range that will be adjusted by the MIDDLE.
PRE SHAPE	
OFF, 1, 2	This is a shape switch that adds a particular nuance to the midrange.

SESSION

Parameter/Range	Explanation
MIDDLE FREQ (Middle Frequency)	
220Hz, 800Hz, 3.0kHz	Specifies the center of the frequency range that will be adjusted by the MIDDLE.
ENHANCER	
0–100	This controls the clarity and presence of the sound.

GTR AMP CLEAN / GTR AMP CRUNCH

Parameter/Range	Explanation
PRESENCE	
0–100	Adjusts the tone for the ultra high frequency range.
BRIGHT	
Turns the bright setting on/off.	
OFF	Bright is not used.
ON	Bright is switched on to create a lighter and crisper tone.
GAIN SW	
LOW, MIDDLE, HIGH	Provides for selection from three levels of distortion: LOW, MIDDLE, and HIGH. Distortion will successively increase for settings of LOW, MIDDLE and HIGH. * *The sound of each Type is created on the basis that the Gain is set to MIDDLE. So, normally set it to MIDDLE.*
SOLO SW	
OFF, ON	Switches the tone to one suitable for solos.
SOLO LEVEL	
0–100	Adjusts the volume level when the SOLO SW is ON.

GTR AMP DRIVE / GTR AMP METAL

Parameter/Range	Explanation
PRESENCE	
0–100	Adjusts the tone for the ultra high frequency range.
GAIN SW	
LOW, MIDDLE, HIGH	Provides for selection from three levels of distortion: LOW, MIDDLE, and HIGH. Distortion will successively increase for settings of LOW, MIDDLE and HIGH. * *The sound of each Type is created on the basis that the Gain is set to MIDDLE. So, normally set it to MIDDLE.*
SOLO SW	
OFF, ON	Switches the tone to one suitable for solos.
SOLO LEVEL	
0–100	Adjusts the volume level when the SOLO SW is ON.

Speaker Settings

SUPER FLAT / FLIP TOP / B MAN / CONCRT 810 / BASS 360 / T.E. / SESSION / AC BASS

Parameter/Range	Explanation
SP TYPE (Speaker Type)	
Select the speaker type.	
OFF	This turns off the speaker simulator.
ORIG	This is the built-in speaker of the amp you selected with PREAMP TYPE.
1x15″	Models the Trace Elliot 1518.
1X18″	Models the SWR Big Ben.
2X15″	Models the Acoustic 402.
4X10″	Models the SWR Goliath.
8X10″	Models the Ampeg 810E.
MIC POS (Mic Position)	
This simulates the microphone position.	
CENTER	Simulates the condition that the microphone is set in the middle of the speaker cone.
1–10cm	Simulates the condition that the microphone is moved away from the center of the speaker cone.
BOTTOM	
0–100	Extracts the low-frequency components of the sound input to this effect, and adjusts the amount added to the effect sound.
DIRECT MIX	
0–100	Adjusts the volume of the direct sound.
LEVEL	
0–100	Adjusts the volume.

Chapter 8

129

GTR AMP CLEAN / GTR AMP CRUNCH / GTR AMP DRIVE / GTR AMP METAL

Parameter/ Range	Explanation
SP TYPE (Speaker Type)	
Select the speaker type.	
OFF	This turns off the speaker simulator.
ORIG	This is the built-in speaker of the amp you selected with PREAMP TYPE.
1x8"	This is a compact open-back speaker cabinet with one 8-inch speaker.
1x10"	This is a compact open-back speaker cabinet with one 10-inch speaker.
1X12"	This is a compact open-back speaker cabinet with one 12-inch speaker.
2X12"	This is a general open-back speaker cabinet with two 12-inch speakers.
4X10"	This is an optimal speaker cabinet for a large enclosed amp with four 10-inch speakers.
4X12"	This is an optimal speaker cabinet for a large enclosed amp with four 12-inch speakers.
8X12"	This is a double stack of two cabinets, each with four 12-inch speakers.
MIC TYPE	
This setting selects the simulated mic type.	
DYN57	This is the sound of the SHURE SM-57, a general-purpose dynamic mic used for instruments and vocals.
DYN421	This is the sound of the SENNHEISER MD-421, a dynamic mic with an extended low-frequency response.
CND451	This is the sound of the AKG C451B, a small-diaphragm condenser mic for use with instruments.
CND87	This is the sound of the NEUMANN U87, a classic large-diaphragm condenser mic.
FLAT	Simulates a mic with perfectly flat response. Produces a sonic image close to that of listening to the sound directly from the speakers (on site).
MIC DIS (Mic Distance)	
Simulates the distance between the mic and speaker.	
Off MIC	This setting points the mic away from the speaker.
On MIC	Provides conditions whereby the mic is directed more towards the speaker.
MIC POS (Mic Position)	
This simulates the microphone position.	
CENTER	Simulates the condition that the microphone is set in the middle of the speaker cone.
1–10cm	Simulates the condition that the microphone is moved away from the center of the speaker cone.
BOTTOM	
0–100	Extracts the low-frequency components of the sound input to this effect, and adjusts the amount added to the effect sound.

Parameter/ Range	Explanation
DIRECT MIX	
0–100	Adjusts the volume of the direct sound.
LEVEL	
0–100	Adjusts the volume.

130

MIXER

MIXER

The mixer allows you to combine Channel A and Channel B together, adjust their relative levels and panning, and apply effects and EQ to the combined signals.

MIXER A, B (MIXER CHANNEL A, B)

Parameter/ Range	Explanation
MIX SW (Mixer Switch)	
OFF, ON	This setting switches mixing of Channel A (or Channel B) on and off. The sounds in the respective channel are not mixed when this is set to OFF.
PAN	
L100:0R–L0:100R	This sets the panning for Channel A (or Channel B).
LEVEL	
0–100	This sets the Channel A (or Channel B) volume level.
DELAY A SEND, DELAY B SEND	
0–100	Adjusts the send level from Channel A (or Channel B) to the mixer's delay.
REVERB A SEND, REVERB B SEND	
0–100	Adjusts the send level from Channel A (or Channel B) to the mixer's reverb.
CH DELAY (Channel Delay)	
0–50ms	Adjusts the time that the overall sound in Channel A (or B) is delayed. Although this is normally set to 0 ms, you can produce greater breadth along with a chorus effect by setting a difference in the time the sounds are played relative to the sounds from Channel B.

V-BASS LEVEL

Parameter/ Range	Explanation
A/B BAL (A/B Balance)	
A0:100B–A100:0B	Adjusts the volume balance of Channel A and Channel B. You can set this parameter in the Mixer screen or with the BALANCE knob. This parameter is disabled when DYNAMIC is on.
V-BASS LEVEL	
0–200	Adjusts the overall patch volume.

TOTAL EQ (Total Equalizer)

This adjusts the tone of the mixed signals from Channel A and Channel B. Parametric EQ is used for the low-middle and high-middle frequency ranges.

Parameter/ Range	Explanation
EQ SW (Equalizer Switch)	
OFF, ON	Turns the EQ effect on/off.
TOTAL GAIN	
-12–+12dB	Adjusts the volume before the equalizer.
LOW GAIN	
-12–+12dB	Adjusts the low frequency range tone.
HIGH GAIN	
-12–+12dB	Adjusts the high frequency range tone.
LOW MID FREQ (Low Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the LOW MID GAIN.
LOW MID Q (Low Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the LOW MID FREQ. Higher values will narrow the area.
LOW MID GAIN (Low Middle Gain)	
-12–+12dB	Adjusts the low-middle frequency range tone.
HIGH MID FREQ (High Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH MID GAIN.
HIGH MID Q (High Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH MID FREQ. Higher values will narrow the area.
HIGH MID GAIN (High Middle Gain)	
-12–+12dB	Adjusts the high-middle frequency range tone.

Chapter 8

OUTPUT

This setting determines the signal routing and level to the VB-99's outputs.

Parameter/Range	Explanation
MAIN OUT	
This switches the signals output from the MAIN OUT.	
CH A	This outputs Channel A. This output also reflects the mixer's MIX SW, PAN, LEVEL, and A/B BAL settings.
CH B	This outputs Channel B. This output also reflects the mixer's MIX SW, PAN, LEVEL, and A/B BAL settings.
MIXER (DRY)	This outputs the post-A/B mix signals before application of DELAY/REVERB.
MIXER	This outputs the post-A/B mix signals after application of DELAY/REVERB and TOTAL EQ.
BASS DIRECT	This outputs only the bass direct sound (normal pickup sound).
MAIN LEVEL	
0–200	Adjusts the output volume to the MAIN OUT.
SUB OUT	
This switches the signals output from the SUB OUT.	
CH A	This outputs Channel A. This output also reflects the mixer's MIX SW, PAN, LEVEL, and A/B BAL settings.
CH B	This outputs Channel B. This output also reflects the mixer's MIX SW, PAN, LEVEL, and A/B BAL settings.
MIXER (DRY)	This outputs the post-A/B mix signals before application of DELAY/REVERB.
MIXER	This outputs the post-A/B mix signals after application of DELAY/REVERB and TOTAL EQ.
BASS DIRECT	This outputs only the bass direct sound (normal pickup sound).
SUB LEVEL	
0–200	Adjusts the output volume to the SUB OUT.

Parameter/Range	Explanation
D OUT (Digital Output)	
This switches the signals output from the DIGITAL OUT.	
COSM BASS A	This outputs the sounds from COSM BASS A.
COSM BASS B	This outputs the sounds from COSM BASS B.
NORMAL PU	This outputs the sounds from the normal pickup.
CH A	This outputs Channel A. This output also reflects the mixer's MIX SW, PAN, LEVEL, and A/B BAL settings.
CH B	This outputs Channel B. This output also reflects the mixer's MIX SW, PAN, LEVEL, and A/B BAL settings.
MIXER (DRY)	This outputs the post-A/B mix signals before application of DELAY/REVERB.
MIXER	This outputs the post-A/B mix signals after application of DELAY/REVERB and TOTAL EQ.
MAIN OUT	This outputs the same signals as those from MAIN OUT.
SUB OUT	This outputs the same signals as those from SUB OUT.
D OUT LEVEL (Digital Output Level)	
0–200	Adjusts the output volume to theDIGITAL OUT.

*   The parameters enabled (MAIN OUT, MAIN LEVEL, SUB OUT, SUB LEVEL, D OUT, D OUT LEVEL) change according to the settings in **"OUTPUT MODE"** (p. 151) in the SYSTEM screen. When disabled, the value < > is given.

DELAY/REVERB

You can apply delay and reverb jointly to Channel A and Channel B.

DELAY/REVERB Signal Flow

DELAY

Parameter/ Range	Explanation
DELAY SW	
OFF, ON	Turns the DELAY effect on/off.
TIME	
1–1800 ms, BPM ♪ –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. 142) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song.	
* *If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.*	
* *After setting DELAY TIME to BPM (♪ – 𝅝), if you tap [F2] (TAP), the BPM value will change to match the timing of your tapping.*	
FEEDBACK	
0–100	Adjusts the amount of feedback.
Feedback is returning a delay signal to the input. A higher value will increase the number of the delay repeats.	
HIGH CUT (High Cut Filter)	
700 Hz–11.0 kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect.
This allows you to get a mild effect sound by cutting the high-end component above the set frequency. When it is set to FLAT, the high cut filter is off or has no effect.	
LEVEL	
0–120	Adjusts the volume of the direct sound.

REVERB

Parameter/ Range	Explanation
REVERB SW	
OFF, ON	Turns the REVERB effect on/off.
TYPE	
This selects the reverb type. Various different simulations of space are offered.	
AMB (AMBIENCE)	Simulates an ambience mic (off-mic, placed at a distance from the sound source) used in recording and other applications. Rather than emphasizing the reverberation, this reverb is used to produce a sense of openness and depth.
ROOM	Simulates the reverberation in a small room. Provides warm reverberations.
HALL1	Simulates the reverberation in a concert hall. Provides clear and spacious reverberations.
HALL2	Simulates the reverberation in 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.
TIME	
0.1 s–10.0 s	Adjusts the length (time) of reverberation.
PRE DELAY	
0 ms–100 ms	Adjusts the time until the reverb sound appears.
LOW CUT (Low Cut Filter)	
FLAT, 55 Hz–800 Hz	This sets the frequency at which the low cut filter begins to take effect. This lets you cut the low-end component below the set frequency to create a clear, distinct low end, thereby bringing out the high end of the effect. When Flat is selected, the low cut filter will have no effect.
HIGH CUT (High Cut Filter)	
700 Hz–11 kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. This allows you to get a mild effect sound by cutting the high-end component above the set frequency. When Flat is selected, the high cut filter will have no effect.
DENS (Density)	
0–10	Adjusts the density of the reverb sound.
LEVEL	
0–100	Adjusts the volume of the reverb sound.

Chapter 8

DYNAMIC

This function allows you use your playing dynamics to control the volume of the mix of the two channels. The volume and balance of the channels change according to the dynamics each time you pick the strings. You can set the point at which the volume changes in the settings screen as you check the dynamics level shown by the meter.

(MEMO)

The A/B BAL setting is disabled when DYNAMIC is switched on.

Parameter/ Range	Explanation
DYNA SW (Dynamic Switch)	
OFF, ON	This setting switches DYNAMIC on and off.
TYPE	
This sets the DYNAMIC type. This setting determines the channel for which the volume is controlled with the playing dynamics.	
DYNA A	Channel A's volume level is controlled. The volume in Channel B is fixed.
DYNA B	Channel B's volume level is controlled. The volume in Channel A is fixed.
DYNA BAL (DYNA Balance)	The volume levels of both Channel A and Channel B (the balance) is controlled.
LOWER LEV (Lower Level)	
0–100	Adjusts the volume of the sounds played softly. *1 You can adjust the A level when DYNA A is used and the B level when DYNA B is used.
LOWER BAL (Lower Balance)	
0:100–100:0	Adjusts the balance between Channel A and B when sounds are played softly. *2
LOWER RNG (Lower Range)	
0–99	This sets the point at which the strength of the playing begins to change from the soft sound's volume (or balance) to the louder sounds' volume (or balance). When the volume is below the set point, the volume (or balance) switches to that set in either LOWER LEV or LOWER BAL in accordance with the TYPE setting.
UPPER LEV (Upper Level)	
0–100	Adjusts the volume of the sounds played loudly. *1 You can adjust the A level when DYNA A is used and the B level when DYNA B is used.
UPPER BAL (Upper Balance)	
0:100–100:0	Adjusts the balance between Channel A and B when sounds are played loudly. *2
UPPER RNG (Upper Range)	
1–100	This sets the point at which the strength of the playing begins to change from the loud sound's volume (or balance) to the softer sounds' volume (or balance). When the volume is above the set point, the volume (or balance) switches to that set in either UPPER LEV or UPPER BAL in accordance with the TYPE setting.

Parameter/ Range	Explanation
RELEASE	
0–100	This adjust the rate of the response when the input level drops.

*1 Setting available when TYPE is set to DYNA A or DYNA B.
*2 Setting available when TYPE is set to DYNA BAL.

TIP

With DYNAMIC, when a new note is detected, the peak level at the instant the string is picked (i.e., the playing dynamics) is held momentarily, and control of the channel volume or balance is based on that value.
The playing dynamics controls the sound as described below.

- When the level is at or below the LOWER RNG setting, the playing controls the volume or balance of the softer sounds set in LOWER LEV (when TYPE is set to DYNA A or DYNA B) or LOWER BAL (when TYPE is set to DYNA BAL).

- When the level is at or above the UPPER RNG setting, the playing controls the volume or balance of the louder sounds set in UPPER LEV (when TYPE is set to DYNA A or DYNA B) or UPPER BAL (when TYPE is set to DYNA BAL).

- When the level is between these settings, the playing controls the volume or balance between the softer sounds and louder sounds described above (continuously changing the level according to the dynamics).

Changes made to the above parameters are indicated in the graph in the settings screen.

When TYPE is set to DYNA A or DYNA B
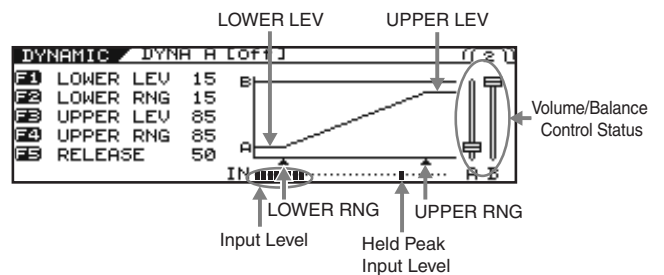
When TYPE is set to DYNA BAL
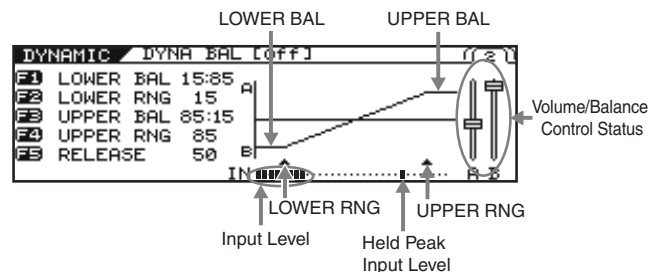
Changes made to the above parameters are indicated in the graph in the settings screen.
The input level and held peak input level are indicated beneath the graph display. Making these settings is easier by actually playing the strings as you watch the meter and adjust the LOWER RNG and UPPER RNG settings.
In addition, you can confirm the volume/balance control status with the fader displayed to the right of the graph.

MASTER

CONTROL ASSIGN

Adjust these settings if you would like to use a pedal connected to the VB-99, or an external MIDI device (control source) to control parameters as you play.

You can set two parameters as targets to each control source.

* *Turn on the COSM bass, COSM amp, and effect that contains the parameter you wish to control.*

GK VOL (GK Volume)

Parameter/ Range	Explanation
SW	
OFF, ON	This setting switches GK VOL on and off.
TARGET PARAMETER	
This selects the parameter to be changed.	
MIN (Minimum)	
This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
MAX (Maximum)	
This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
RANGE LOW, RANGE HIGH	
Low: 0–126 High: 1–127	You can set the controllable range for target parameters within the GK Volume's operational range. Target parameters are controlled within the range set with RANGE LOW and RANGE HIGH. You should normally set RANGE LOW to 0 and RANGE HIGH to 127.

GK S1, S2 (DOWN/S1, UP/S2 Switch)

Parameter/ Range	Explanation
SW	
OFF, ON	This setting determines whether control using DOWN/S1 and UP/S2 is switched on or off.
TARGET PARAMETER	
This selects the parameter to be changed.	
MIN (Minimum)	
This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
MAX (Maximum)	
This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
MODE	
Specify how the value will change in response to an operation.	

* *When the DOWN/S1, UP/S2 POS of the GK SETTING is set to REVRSE position, the function of DOWN/S1, UP/S2 will be reversed.*

* *When KEY/BPM/AMPCTL:BPM TAP, FX–DELAY(HOLD)–REC, or FX–DELAY(HOLD)–STOP is set for the TARGET PARAMETER, control is available regardless of whether DOWN/S1 or UP/S2 is pressed. In this case, the MODE setting is disabled.*

S1: DEC S2: INC	S1 will decrease the value, and S2 will increase it.
S1: INC S2: DEC	S2 will decrease the value, and S1 will increase it.
S1: MIN S2: MAX	The value will be at MIN when S1 is pressed. The value will be at MAX when S2 is pressed.
S1: MAX S2: MIN	The value will be at MAX when S1 is pressed. The value will be at MIN when S2 is pressed.

Chapter 8

135

PANEL CTL1/CTL2 (Control Button 1/2)

Parameter/ Range	Explanation
SW	
OFF, ON	This setting switches CONTROL button on and off.
TARGET PARAMETER	
This selects the parameter to be changed.	
MIN (Minimum)	
This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
MAX (Maximum)	
This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER. *While you can set two different target parameters each to CTL1 and CTL2, the CTL1 and CTL2 buttons light when the value set in MAX for the first parameter set to either one is reached.*	
SW MODE (Switch Mode)	
This sets the behavior of the value each time the switch is operated.	
MOMENT	The setting is normally OFF (minimum value), switching to ON (maximum value) while the CONTROL button is held down.
LATCH	The setting alternately switches to OFF (minimum value) and ON (maximum value) each time the CONTROL button is pressed.

D BEAM

PITCH

Parameter/ Range	Explanation
PITCH TYPE	
This selects the effect applied when [PITCH] is pressed.	
T-ARM	This feature changes the pitch of the COSM bass as a tremolo arm does. Use of a tremolo arm can be simulated by holding your bass neck or hand over the D BEAM controller.
FREEZE	This continuously holds the sound of the COSM bass. You can switch the FREEZE effect on and off by holding your bass neck or hand over the D BEAM controller.

Parameter/ Range	Explanation
T-ARM CH (Tremolo Arm Channel)	
This selects the channel to which the tremolo T-ARM is applied.	
A	T-ARM is applied only to Channel A.
B	T-ARM is applied only to Channel B.
A+B	T-ARM is applied to both Channel A and B.
TYPE	
This selects the T-ARM type.	
S-TYPE	This simulates the characteristics of a synchronized-type tremolo arm on the Fender Stratocaster.
B-TYPE	This simulates a Bigsby-type tremolo arm on the Gibson or the Rickenbacker.
F-TYPE	This simulates the characteristics of a Floyd Rose's locking-type tremolo arm.
TRANS	This simulates how a Trans-tremolo type arm changes the pitch of all the strings equally.
DOWN MIN (Down Minimum)	
-50–+50 (S-TYPE, B-TYPE, F-TYPE)	This sets the pitch when T-ARM is first activated (the minimum value).
-24–+24 (TRANS)	Setting a negative value causes the pitch to rise, while positive values produce lowered pitches.
DOWN MAX (Down Maximum)	
-50–+50 (S-TYPE, B-TYPE, F-TYPE)	This sets the pitch when T-ARM is most fully applied (the maximum value).
-24–+24 (TRANS)	Setting a negative value causes the pitch to rise, while positive values produce lowered pitches.

Parameter/ Range	Explanation
FREEZE CH (Freeze Channel)	
This selects the channel to which the FREEZE effect is applied.	
A	FREEZE is applied only to Channel A.
B	FREEZE is applied only to Channel B.
A+B	FREEZE is applied to both Channel A and B.
ATTACK	
0–100	This sets the attack time for the FREEZE sound when FREEZE is switched on. Raising the value increases the attack time.
REL (Release)	
0–100	This sets the time for the FREEZE sound to be released when FREEZE is switched off. Raising the value increases the release time.
LEVEL	
0–100	This sets the volume level of the freeze sound. The volume increases as the value is raised.
DIRECT	
0–100	This sets the volume level of the direct sound. The volume increases as the value is raised.

FILTER

This passes only portions of the sound's frequency ranges, giving the sound a unique tone. You can add different types of expression to the sound by changing the frequencies (pitches) that are passed.

Parameter/ Range	Explanation
FILTER CH (Filter Channel)	
This selects the channel to which the filter is applied.	
A	The filter is applied only to Channel A.
B	The filter is applied only to Channel B.
A+B	The filter is applied to both Channel A and B.
TYPE	
This selects the filter type.	
LPF	This filter passes only the low frequencies.
BPF	This filter passes frequencies only in the specified range.
HPF	This filter passes only the high frequencies.
FREQ MIN (Frequency Minimum)	
0–100	This sets the frequency when the filter is first activated. Higher frequencies are set as the value is raised.
FREQ MAX (Frequency Maximum)	
0–100	This sets the frequency when the filter is most fully applied (the maximum value). Higher frequencies are set as the value is raised.
RESO (Resonance)	
0–100	Adjusts the amount of filter resonance (distinctiveness of the sound) used. Raising the value strengthens the characteristic coloring of the tone.

Parameter/ Range	Explanation
LEVEL	
0–100	Adjusts the volume level. Raising the value increases the volume.

ASSIGNABLE

Parameter/ Range	Explanation
SW	
OFF, ON	This setting switches D BEAM ASSIGNABLE on and off.
TARGET PARAMETER	
This selects the parameter to be changed.	
MIN (Minimum)	
This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
MAX (Maximum)	
This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
SW MODE (Switch Mode) *1	
This sets the behavior of the value each time the switch is operated.	
MOMENT	The setting is normally OFF (minimum value), switching to ON (maximum value) while the CONTROL button is held down.
LATCH	The setting alternately switches to OFF (minimum value) and ON (maximum value) each time the CONTROL button is pressed.
RANGE LOW, RANGE HIGH	
Low: 0–126 High: 1–127	You can set the range for control of target parameters within the D BEAM controller's response range. Target parameters are controlled within the range set with RANGE LOW and RANGE HIGH. You should normally set RANGE LOW to 0 and RANGE HIGH to 127.

*1   Setting available with SOURCE set to D BEAM V.

Chapter 8

RIBBON

PITCH

Parameter/ Range	Explanation
T-ARM CH (Tremolo Arm Channel)	
This selects the channel to which the tremolo T-ARM is applied.	
A	T-ARM is applied only to Channel A.
B	T-ARM is applied only to Channel B.
A+B	T-ARM is applied to both Channel A and B.
TYPE	
This selects the T-ARM type.	
S-TYPE	This simulates the characteristics of a synchronized-type tremolo arm on the Fender Stratocaster.
B-TYPE	This simulates a Bigsby-type tremolo arm on the Gibson or the Rickenbacker.
F-TYPE	This simulates the characteristics of a Floyd Rose's locking-type tremolo arm.
TRANS	This simulates how a Trans-tremolo type arm changes the pitch of all the strings equally.
DOWN MIN (Down Minimum)	
-50–+50 (S-TYPE, B-TYPE, F-TYPE)	This sets the pitch when the RIBBON CONTROLLER is pressed at the end closest to the front. Setting a negative value raises the pitch, while setting a positive value lowers the pitch.
-24–+24 (TRANS)	
DOWN MAX (Down Maximum)	
-50–+50 (S-TYPE, B-TYPE, F-TYPE)	This sets the pitch when the RIBBON CONTROLLER is pressed at the end farthest from the front. Setting a negative value raises the pitch, while setting a positive value lowers the pitch.
-24–+24 (TRANS)	

FILTER

This passes only portions of the sound's frequency ranges, giving the sound a unique tone. You can add different types of expression to the sound by changing the frequencies (pitches) that are passed.

Parameter/ Range	Explanation
FILTER CH (Filter Channel)	
This selects the channel to which the filter is applied.	
A	The filter is applied only to Channel A.
B	The filter is applied only to Channel B.
A+B	The filter is applied to both Channel A and B.
TYPE	
This selects the filter type.	
LPF	This filter passes only the low frequencies.
BPF	This filter passes frequencies only in the specified range.
HPF	This filter passes only the high frequencies.

Parameter/ Range	Explanation
FREQ MIN (Frequency Minimum)	
0–100	This sets the frequency when the RIBBON CONTROLLER is touched at the end closest to the front (the minimum value). Raising the value increases the set frequency.
FREQ MAX (Frequency Maximum)	
0–100	This sets the frequency when the RIBBON CONTROLLER is touched at the end away from the front (the maximum value). Raising the value increases the set frequency.
RESO (Resonance)	
0–100	Adjusts the amount of filter resonance (distinctiveness of the sound) used. Raising the value strengthens the characteristic coloring of the tone.
LEVEL	
0–100	Adjusts the volume level. Raising the value increases the volume.

ASSIGNABLE

Parameter/ Range	Explanation
SW	
OFF, ON	This setting switches RIBBON ASSIGNABLE on and off.
TARGET PARAMETER	
This selects the parameter to be changed.	
MIN (Minimum)	
This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
MAX (Maximum)	
This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
SW MODE (Switch Mode) *1	
This sets the behavior of the value each time the switch is operated.	
MOMENT	The setting is normally OFF (minimum value), switching to ON (maximum value) while the footswitch is held down.
LATCH	The setting alternately switches to OFF (minimum value) and ON (maximum value) each time the footswitch is pressed.
RANGE LOW, RANGE HIGH *2	
Low: 0–126 High: 1–127	You can set the range for control of target parameters within the RIBBON CONTROLLER's response range. Target parameters are controlled within the range set with RANGE LOW and RANGE HIGH. You should normally set RANGE LOW to 0 and RANGE HIGH to 127.

*1 Setting available with SOURCE set to RIBBON ACT.

*2 Setting available with SOURCE set to RIBBON POS.

EXP PEDAL (Expression Pedal)

Parameter/ Range	Explanation
SW	
OFF, ON	This setting determines whether control using an expression pedal connected to the EXP PEDAL jack is switched on or off.
TARGET PARAMETER	
This selects the parameter to be changed.	
MIN (Minimum)	
This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
MAX (Maximum)	
This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
RANGE LOW, RANGE HIGH	
Low: 0–126 High: 1–127	You can set the range for control of target parameters within an expression pedal's response range. Target parameters are controlled within the range set with RANGE LOW and RANGE HIGH. You should normally set RANGE LOW to 0 and RANGE HIGH to 127.

CTL3, CTL4 (Control3, Control4)

Parameter/ Range	Explanation
SW	
OFF, ON	This setting determines whether control using a footswitch connected to the CTL3, CTL4 jack is switched on or off.
TARGET PARAMETER	
This selects the parameter to be changed.	
MIN (Minimum)	
This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
MAX (Maximum)	
This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
SW MODE	
This sets the behavior of the value each time the switch is operated.	
MOMENT	The setting is normally OFF (minimum value), switching to ON (maximum value) while the footswitch is held down.
LATCH	The setting alternately switches to OFF (minimum value) and ON (maximum value) each time the footswitch is pressed.

Chapter 8

139

FC-300 CONTROL

The controllers (sources) controlling targets when an FC-300 is connected are shown below.

Source	Explanation
FC-300 EXP1 *1	FC-300 expression pedal1
FC-300 EXPSW1 *2	FC-300 expression pedal switch1
FC-300 EXP2 *1	FC-300 expression pedal2
FC-300 EXPSW2 *2	FC-300 expression pedal switch2
FC-300 CTL1 *2	FC-300 control pedal1
FC-300 CTL2 *2	FC-300 control pedal2
FC-300 E3/C3 *3	FC-300 external expression pedal3/external footswitch3
FC-300 CTL4 *2	FC-300 external footswitch4
FC-300 E4/C5 *3	FC-300 external expression pedal4/external footswitch5
FC-300 CTL6 *2	FC-300 external footswitch6
FC-300 E5/C7 *3	FC-300 external expression pedal5/external footswitch7
FC-300 CTL8 *2	FC-300 external footswitch8
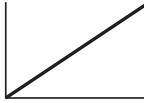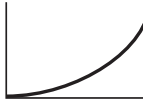
*1 The types of parameters that can be set are the same as those described in **"EXP PEDAL (Expression Pedal)"** (p. 139).

*2 The types of parameters that can be set are the same as those described in **"CTL3, CTL4 (Control3, Control4)"** (p. 139).

*3 When an expression pedal is connected, the types of parameters that can be set are the same as those described in **"EXP PEDAL (Expression Pedal)"** (p. 139); when a footswitch is connected, the types of parameters that can be set are the same as those described in **"CTL3, CTL4 (Control3, Control4)"** (p. 139).

ASSIGN 1–16

You can freely assign functions to the VB-99's and FC-300's controllers.

Parameter/ Range	Explanation
SOURCE	
This selects the controller to which the function is assigned.	
GK VOL	GK-3B GK volume knob
GK S1	GK-3B DOWN/S1 switch
GK S2	GK-3B UP/S2 switch
CTL1	Control button1
CTL2	Control button2
EXP PEDAL	Expression pedal connected to the EXP PEDAL jack
D BEAM V	D BEAM vertical movements
D BEAM H	D BEAM horizontal movements
RIBBON ACT	RIBBON CONTROLLER touch
RIBBON POS	RIBBON CONTROLLER position
CTL3	Footswitch connected to the CTL3,4 jack (jack tip)
CTL4	Footswitch connected to the CTL3,4 jack (jack ring)
FC-300 EXP1	FC-300 expression pedal1
FC-300 EXPSW1	FC-300 expression pedal switch1
FC-300 EXP2	FC-300 expression pedal2
FC-300 EXPSW2	FC-300 expression pedal switch2
FC-300 CTL1	FC-300 control pedal1
FC-300 CTL2	FC-300 control pedal2
FC-300 E3/C3	FC-300 external expression pedal3/external footswitch3
FC-300 CTL4	FC-300 external footswitch4
FC-300 E4/C5	FC-300 external expression pedal4/external footswitch5
FC-300 CTL6	FC-300 external footswitch6
FC-300 E5/C7	FC-300 external expression pedal5/external footswitch7
FC-300 CTL8	FC-300 external footswitch8
INTRNL PEDAL	Internal pedal
WAVE PEDAL	Wave pedal
INPUT LEVEL	Input level
CC	Control change
SW	
OFF, ON	This setting switches the VB-99's and FC-300's controllers on and off.
TARGET PARAMETER	
This selects the parameter to be changed.	
MIN (Minimum)	
This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	

Parameter/ Range	Explanation
MAX (Maximum)	
This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET PARAMETER.	
SW MODE (Switch Mode)	
This sets the behavior of the value each time the switch is operated.	
MOMENT	The setting is normally OFF (minimum value), switching to ON (maximum value) while the footswitch is held down.
LATCH	The setting alternately switches to OFF (minimum value) and ON (maximum value) each time the footswitch is pressed.
RANGE LOW, RANGE HIGH	
Low: 0–126 High: 1–127	You can set the controllable range for target parameters within the source's operational range. Target parameters are controlled within the range set with RANGE LOW and RANGE HIGH. You should normally set RANGE LOW to 0 and RANGE HIGH to 127.
TRIGGR (Trigger)	
This sets the trigger that activates the internal pedal. *1	
PATCH CHANGE	Functions when patches are switched.
GK VOL	Functions when the divided pickup's volume knob is adjusted.
GK S1, S2	Functions when the divided pickup's DOWN/S1 or UP/S2 switch position is changed.
CTL1–CTL4	Functions when the CTL 1, 2 buttons or foot switch connected to CTL 3,4 jack are operated.
EXP PEDAL	Functions when the expression pedal connected to EXP PEDAL jack are operated.
D BEAM V, H	Functions when the vertical or horizontal position is detected by the D Beam controller.
RIBBON ACT, POS	Functions when the ribbon controller is operated by touch or when the position is detected.
FC-300 EXP1, EXP2	Functions when the FC-300's EXP PEDAL 1 or 2 is operated.
FC-300 CTL1, CTL2	Functions when the FC-300's CTL1 or CTL2 is operated.
FC-300 E3/C3, E4/C5, CTL4, E5/C7, CTL6, CTL8	Functions when a pedal connected to the FC-300's E3/C3, CTL4, E4/C5, CTL6, E5/C7, or CTL8 jacks is operated.
TIME	
0–100, *BPM* ♪ – o	Adjusts the amount of time for the internal pedal to shift from the fully released position (pedal toe raised) to the fully depressed position (pedal toe pressed down). *1

Parameter/ Range	Explanation
CURVE	
This selects one of the three types that determines how the internal pedal should change. *1	

LINEAR   SLOW RISE   FAST RISE

Parameter/ Range	Explanation
RATE	
0–100, *BPM* o – ♪	This determines the time spend for one cycle of the wave pedal. *2
FORM	
This selects one of the three types that determines how the wave pedal should change. *2	

SAW   TRI   SIN

Parameter/ Range	Explanation
INPUT SENS	
0–100	This adjusts the input sensitivity when IN-PUT LEVEL is selected for SOURCE. *3

*1   The TRIGGR, TIME, and CURVE parameters are enabled when the SOURCE parameter is set to INTRNL PEDAL.

*2   The RATE and FORM parameters are enabled when the SOURCE parameter is set to WAVE PEDAL.

*3   The INPUT SENS parameter is enabled when the SOURCE parameter is set to INPUT LEVEL.

DIRECT EDIT F1–F6

Parameter/ Range	Explanation
This assigns functions to the function buttons operable in the Play screen and the [F1]–[F6] or F1–F6 knobs.	
TARGET PARAMETER	
This selects the parameter to be changed.	

Chapter 8

141

NAME/KEY/BPM
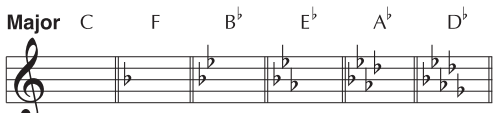
PATCH NAME

Parameter/ Range	Explanation
PATCH NAME	
This sets the patch name.	
INSERT	Insert a space at the cursor location.
DELETE	Delete a character. The characters that follow get shifted to the left.
SPACE	Input a space at the cursor location.
A0!	Switch between uppercase letters, numbers, and characters.
A<=>a	Switch between uppercase letters and lowercase letters.
CATEGORY	Sets the category for the current patch. Refer to **"Separating Patches into Groups (CATEGORY)"** (p. 85)

CATEGORY

Parameter/ Range	Explanation
CATEGORY	
USER 1–10 E.BASS AC BASS SYNTH E.GUITAR EFFECTS OTHERS	This selects the Category name. * *You can set USER1–USER10 in SYSTEM (p. 86).*

KEY

Parameter/ Range	Explanation
KEY	
C (Am)–B (G#m)	This sets the key for the COSM bass and FX HARMONIST.

The key setting corresponds to the key of the song (#, ♭) as follows.

BPM

Parameter/ Range	Explanation
BPM	
40–250	Adjust the BPM value for each patch.

* *BPM (beats per minute) indicates the number of quarter note beats that occur each minute.*

* *When **"SYNC CLOCK"** (p. 149) is set to a value other than INTERNAL, sending a MIDI clock signal from an external MIDI instrument synchronizes the VB-99 to the MIDI clock signal that was sent. To enable the BPM setting, set this to INTERNAL.*

* *The parameters enabled (SYSTEM BPM, BPM) change according to the BPM MODE settings. When they are disabled, the value < > is given.*

> **Control with the BPM**
> You can tap input the BPM with [F1].

AMP CONTROL

Parameter/ Range	Explanation
FC AMP CTL1, FC AMP CTL2	
OFF, ON	This setting switches the FC-300's AMP CTL 1 and AMP CTL 2 parameters on and off.

TX PC (Transmit Program Change)

Parameter/ Range	Explanation
You can assign whatever Program Change numbers you want to patches.	
* *This setting is enabled when the SYSTEM MIDI TX PC MAP is set to PROG (p. 150).*	
BANK MSB	
OFF, 1–127	This sets the Bank Select (MSB) to be output.
BANK LSB	
OFF, 1–127	This sets the Bank Select (LSB) to be output.
PC (Program Change)	
1–128	This sets the Program Change to be output.

V-BASS LEVEL

Parameter/ Range	Explanation
V-BASS LEVEL	
0–200	Adjusts the volume the patch. * *This parameter is the same as V-BASS LEVEL (p. 131) in MIXER.*

BASS TO MIDI

Parameter/Range	Explanation
BASS TO MIDI	
OFF, ON	This switches the BASS TO MIDI function on and off. Setting this to OFF prevents output of all BASS TO MIDI-related MIDI messages.

PATCH

These parameters are set for each individual patch with the BASS TO MIDI function.

Parameter/Range	Explanation
MODE	
This sets the transmission mode for the MIDI messages.	
MONO	In this mode, one channel per string is used, thus using a total of six channels. Since each string uses a different MIDI channel, you can select a different tone for each string, using string bending or continuously varying the pitch on a specific string; however, this requires use of a multitimbral sound module.
POLY	In this mode, the messages for all six strings are transmitted over a single channel. While transmitting the MIDI messages for all of the strings over one channel does simplify the settings needed for the sound module and reduces the number of MIDI channels used, it does impose certain limitations; for example, permitting only one tone to be selected for all of the strings.
PLAY FEEL	
This selects the feeling produced in playing the bass, allowing you to choose playing with fingers or a pick to provide more natural dynamic expression.	
FEEL1–4	FEEL1 is the mode that gives sounds the broadest variation in volume based on the playing dynamics. As the setting number is increased, it becomes easier to produce high volume sounds even with weaker playing. This allows you to play with consistent volume, whether you tap the strings or use rough playing. In general, use higher setting numbers for softer playing, fingerplaying or tapping.
NO DYNA	In this mode, sounds are played at a fixed volume regardless of the playing strength.
STRUM	This suppresses the output of sounds from weaker playing. This setting allows you to prevent undesired sounds produced when playing rhythm or due to incidental contact with strings from incorrect playing.

Parameter/Range	Explanation
CHROMATIC	
This sets the VB-99 so that if you play bends or slides, the unit will not send pitch bend message but instead will play the notes in half steps.	
OFF	Normal Pitch Bend messages are output. The pitch varies continuously in keeping with the string bending or vibrato.
TYPE1	When the pitch changes, this setting applies the results of the pitch change information without stopping the note that is playing. This produces a unique effect, whereby there is no attack sound when the pitches change, similar to slurring on a clarinet or a saxophone.
TYPE2	When the pitch changes, the VB-99 retriggers (replays) the sound at the changed pitch, producing pitch changes only at the semitone increments. As a result, the attack of the new note starts at the current volume of the string, not the original volume.
TYPE3	As with CHROMATIC TYPE 2, sounds are retriggered at the changed pitch, expressing the pitch changes only in semitones. However, instead of reflecting the attenuation of the string vibration, the retriggered sound is the same as that when the string was initially played.
HOLD TYPE	
This selects the way the Hold function works.	
HOLD1	Note On messages are held when the Hold function is switched on with the controller. If the Hold function remains on as you continue to play the strings, each successive Note On message is held, and when a Note message is already being played from the same string, the previous Note message is cancelled, and the next Note On message is held. This allows you to prevent any interruption in the sounds, even sounds from releasing the strings over the frets.
HOLD2	Note On messages are held when the Hold function is switched on with the controller. However, subsequent Note On messages are not output if you continue to play the instrument with the Hold effect left on.
HOLD3	Note On messages are held when the Hold function is switched on with the controller. If the Hold function remains on as you continue to play the strings, Note On messages for strings other than the one already being held can be output, but they are not held.

Chapter 8

143

Parameter/ Range	Explanation
CC (Control Change)	
You can output the actions of the controllers specified with SRC as Control Change messages. You can make two types of settings, 1 and 2.	
SRC (Source)	
GK VOL	GK-3B GK volume knob
GK S1	GK-3B DOWN/S1 switch
GK S2	GK-3B UP/S2 switch
CTL1	Control button1
CTL2	Control button2
EXP PEDAL	Expression pedal connected to the EXP PEDAL jack
CTL3	Footswitch connected to the CTL3,4 jack (jack tip)
CTL4	Footswitch connected to the CTL3,4 jack (jack ring)
D BEAM V	D BEAM vertical movements
D BEAM H	D BEAM horizontal movements
RIBBON ACT	RIBBON CONTROLLER touch
RIBBON POS	RIBBON CONTROLLER position
FC-300 EXP1	FC-300 expression pedal1
FC-300 EXPSW1	FC-300 expression pedal switch1
FC-300 EXP2	FC-300 expression pedal2
FC-300 EXPSW2	FC-300 expression pedal switch2
FC-300 CTL1	FC-300 control pedal1
FC-300 CTL2	FC-300 control pedal2
FC-300 E3/C3	FC-300 external expression pedal3/external footswitch3
FC-300 CTL4	FC-300 external footswitch4
FC-300 E4/C5	FC-300 external expression pedal4/external footswitch5
FC-300 CTL6	FC-300 external footswitch6
FC-300 E5/C7	FC-300 external expression pedal5/external footswitch7
FC-300 CTL8	FC-300 external footswitch8
CC (Control Change)	
OFF, #1–#31, #64–#95	This sets the Control Change number to be output.
	* When the MONO/POLY setting is set to POLY, messages are output only over the BASIC CH; when this is set to MONO, the messages are output over the six channels starting from the BASIC CH.*
PC (Program Change)	
This sets the Program Change messages that are output when the VB-99's patches are switched.	
BANK MSB	
OFF, 1–127	This sets the Bank Select (MSB).
BANK LSB	
OFF, 1–127	This sets the Bank Select (LSB).
PC (Program Change)	
OFF, 1–128	This sets the Program Number.

SYSTEM

These parameters are applied to the entire VB-99 in the BASS TO MIDI function.

Parameter/ Range	Explanation
HOLD CTL (Hold Control)	
This setting determines the controller used for the HOLD function.	
GK S1, S2	GK-3B DOWN/S1, UP/S2 switch
CTL1, 2	Control button1, 2
CTL3, 4	Footswitch connected to the CTL3,4 jack
FC-300 CTL1,2	FC-300 control pedal1, 2
FC-300 CTL3–8	FC-300 external footswitch3–8
BEND THIN	
OFF, ON	Setting this to ON thins out the Pitch Bend messages and reduces the volume of MIDI data.
BASIC CH (Basic Channel)	
1–11ch	This sets the MIDI transmit channel used for the BASS TO MIDI function.
PC MASK (Program Change Mask)	
OFF, ON	When set to ON, the Bank Select messages and Program Change messages used for the BASS TO MIDI function are not transmitted when patches are changed.

SYSTEM

LCD CONTRAST

Parameter/Range	Explanation
CONTRAST	
1–50	Setting up the VB-99 in certain positions may make the display difficult to read. If this occurs, adjust the display contrast (legibility).

DIRECT PATCH

Parameter/Range	Explanation
DIRECT PATCH	
DIR.PATCH 1–5	This sets the desired [DIRECT PATCH 1]–[DIRECT PATCH 5].

GK SETTING

Parameter/Range	Explanation
GK CONNCT (GK Connect)	
AUTO	This automatically determines the GK connection and switches the internal settings. When the GK connection is in use, the BASS INPUT connection is disabled.
OFF	Use this setting if you normally use the connection for BASS INPUT.
ON	Use this setting if you are normally using a GK connection.
GK FUNC (GK Function)	
GK VOL (GK Volume)	
This selects the function assigned to GK VOL.	

cf. ▷

> For more on the functions assigned, refer to the GK VOL column in **"Parameters That Can Be Assigned to Controllers"** (p. 147).

Parameter/Range	Explanation
GK S1, S2 (GK S1, S2 Switch)	
This selects the functions assigned to GK S1, S2.	

cf. ▷

> For more on the functions assigned, refer to the GK S1, S2 column in **"Parameters That Can Be Assigned to Controllers"** (p. 147).

Parameter/Range	Explanation
SET MODE	
This setting allows you to select whether one GK SETTING is used globally for the entire VB-99 or if different GK SETTINGS are specified for each patch individually.	
SYSTEM	The GK SETTING set here is used globally for the entire VB-99. This is the default factory setting.
PATCH	GK SETTINGS are specified for each patch individually. Carry out the Write procedure after making changes to the settings in each patch. Use this setting when performing with multiple basses, switching the instrument depending on the patch used.
SETTING1–10	
1–10	This selects the GK SETTING to be set.
NAME	
This sets the name for the GK SETTING (up to eight characters).	
INSERT	Insert a space at the cursor location.
DELETE	Delete a character. The characters that follow get shifted to the left.
SPACE	Input a space at the cursor location.
A0!	Switch between uppercase letters, numbers, and characters.
A<=>a	Switch between uppercase letters and lowercase letters.
GK PU TYPE (GK Pickup Type)	
GK-3B	Specifies the GK-3B.
GK-2B	Specifies the GK-2B.
PIEZO	This is suited to piezo pickups that have a flat response.
PIEZO G	This is suited to piezo pickups made by Graph Tech Guitar Labs.
PIEZO R	This is suited to piezo pickups made by RMC Pickup Co.
PIEZO TONE LOW *1	
-10–+10	Adjusts the low frequency range tone.
PIEZO TONE HIGH *1	
-10–+10	Adjusts the high frequency range tone.
BASS SCALE	
710–940mm, SHORT (760mm), MEDIUM(812mm), LONG JB/PB (864mm), EXTRA LONG (914mm)	This sets the scale length for your bass.

Chapter 8

Parameter/Range	Explanation
GK PU POS (GK Pickup Position)	
This sets the divided pickup's position.	
4STR-1	This is the position on a 4-string bass.
4STR-2	
4STR-3	
5STR Lo1	This is the position on a 5-string bass (Low B–G).
5STR Lo2	
5STR Hi1	This is the position on a 5-string bass (E–Hi C).
5STR Hi2	
6STR	This is the position on a 6-string bass.
GK PU PHASE (GK Pickup Phase)	
This sets the phase for the divided pickup and normal pickup. Set this to NORMAL, and if the low-frequency range is cut, set this to INVERS.	
TIP Mixing the divided pickup sound and normal pickup sound (p. 30) makes it easier to determine the phase.	
NORMAL	The phase is left unchanged.
INVERS	The phase is inverted.
GK PU DIRECTION (GK Pickup Direction)	
This sets the direction for the divided pickup's installation.	
NORMAL	The cable exits the pickup in the direction of the bass's bridge.
REVRSE	The cable exits the pickup in the direction of the bass's neck.
S1, S2 POS (S1, S2 Position)	
This exchanges the function for the GK-3B's or GK-2B's DOWN/S1, UP/S2 switches.	
NORMAL	The switches are left unchanged.
REVRSE	The DOWN/S1 switch and UP/S2 switch are exchanged.
PICKUP↔BRIDGE HiC, 1–4th, LowB	
0.0–50.0mm	This sets the distance of the gap between each divided pickup and the bridge. The setting is disregarded when the GK PU TYPE is set to piezo type parameter.
SENS HiC, 1–4th, LowB	
0–100	This sets the input sensitivity for each string.

*1 Setting available when GK PU TYPE is set to PIEZO G, PIEZO G or PIEZO R.

CTL (Control)

CONTROL ASSIGN

Parameter/Range	Explanation
Controller	
You can freely assign functions to the VB-99's and FC-300's controllers.	
GK VOL	GK-3B GK volume knob
GK S1, S2	GK-3B DOWN/S1, UP/S2 switch
CTL1	Control button1
CTL2	Control button2
EXP PEDAL	Expression pedal connected to the EXP PEDAL jack
CTL3	Footswitch connected to the CTL3,4 jack (jack tip)
CTL4	Footswitch connected to the CTL3,4 jack (jack ring)
FC-300 EXP1	FC-300 expression pedal1
FC-300 EXP SW1	FC-300 expression pedal switch1
FC-300 EXP2	FC-300 expression pedal2
FC-300 EXP SW2	FC-300 expression pedal switch2
FC-300 CTL1	FC-300 control pedal1
FC-300 CTL2	FC-300 control pedal2
FC-300 EXP3/CTL3	FC-300 external expression pedal3/external footswitch3
FC-300 CTL4	FC-300 external footswitch4
FC-300 EXP4/CTL5	FC-300 external expression pedal4/external footswitch5
FC-300 CTL6	FC-300 external footswitch6
FC-300 EXP5/CTL7	FC-300 external expression pedal5/external footswitch7
FC-300 CTL8	FC-300 external footswitch8

Parameters That Can Be Assigned to Controllers

*   *The parameters that can be set will depend on the controllers.*

Parameter	Explanation
OFF	No function is assigned.
ASSIGNABLE (PATCH)	Functions according to the Control Assign settings in each individual patch.
V-BASS LEVEL 0–100	Provides control of the V-Bass level.
V-BASS LEVEL 0–200	
V-BASS LEV DEC/INC	
V-BASS LEVEL INC	Increases the V-Bass level.
V-BASS LEVEL DEC	Decreases the V-Bass level.
AB BALANCE	Provides control of the balance of the volume in Channel A and Channel B.
AB BALANCE toA/toB	Provides control of the volume balance between Channel A and Channel B. The level from Channel A is increased with S1; the level from Channel B is increased with S2.
AB BALANCE toB	Increases the volume level in Channel B in the balance between Channel A and Channel B.
AB BALANCE toA	Increases the volume level in Channel A in the balance between Channel A and Channel B.
FOOT VOLUME [A&B]	Provides simultaneous control of the foot volume in Channel A and Channel B.
FOOT VOLUME [A]	Provides control of the foot volume in Channel A or Channel B.
FOOT VOLUME [B]	
BASS VOLUME [A&B]	Provides simultaneous control of the COSM bass volume in Channel A and Channel B.
BASS VOLUME [A]	Provides control of the COSM bass volume in Channel A or Channel B.
BASS VOLUME [B]	
BASS TONE [A&B]	Provides simultaneous control of the COSM bass tone in Channel A and Channel B.
BASS TONE [A]	Provides control of the COSM bass tone in Channel A or Channel B.
BASS TONE [B]	
MIXER LEVEL [A&B]	Provides simultaneous control of the mixer volume level in Channel A and Channel B.
MIXER LEVEL [A]	Provides control of the mixer volume level in Channel A or Channel B.
MIXER LEVEL [B]	
PATCH SEL DEC/INC	When set to INC, patch numbers increase when patches are switched; setting this to DEC causes the VB-99 to switch to lower patch numbers when patches are switched.
PATCH SELECT INC	Switches to higher patch numbers when patches are switched.
PATCH SELECT DEC	Switches to lower patch numbers when patches are switched.
S1:TUNER/ S2:BPM TAP	The TUNER screen is switched with S1. S2 can be used for tap input of the BPM parameter.
TUNER ON/OFF	Switches the TUNER screen.
BPM TAP	Allow tap input for the BPM parameter.

Parameter	Explanation
MIDI START/STOP	Transmits Start and Stop for transmission of MIDI Realtime messages.
MMC PLAY/STOP	Transmits Play and Stop for transmission of MIDI Machine Control.
FC-300 AMP CTL 1/2	Provides control of the FC-300's AMP CONTROL1 and AMP CONTROL2 jacks. This allows switching of the channels for bass amps connected to these jacks.
FC-300 AMP CTL 1	Switches to the channel assigned for the bass amp connected the FC-300's AMP CONTROL1 jack.
FC-300 AMP CTL 2	Switches to the channel assigned for the bass amp connected the FC-300's AMP CONTROL2 jack.

Chapter 8

CONTROL

Parameter/ Range	Explanation
ASSIGN HOLD	
This setting determines whether or not the values (positions) of the D BEAM (H) or RIBBON CONTROLLER or the FC-300's expression pedals or control pedals or other controllers are to be reflected in the sound as soon as a patch is called up.	
ON	When a patch is called up, the controller values (positions) are applied, producing a sound that reflects the controller settings.
OFF	When a patch is changed, the sound set in the patch is played, regardless of the controller values (positions).
DIRECT EDIT	
SYSTEM	The system parameter's direct edit setting is used. This applies the same settings to all patches.
PATCH	The patch parameter's direct edit setting is used. This allows you to use different settings in each individual patch.
DIRECT EDIT F1–F6	
This assigns functions to the function buttons operable in the Play screen and the [F1]–[F6] or F1–F6 knobs.	
TARGET PARAMETER	
This selects the parameter to be changed.	

FC-300

Parameter/ Range	Explanation
SYS EX MODE (System Exclusive Mode)	
This sets the FC-300's control method.	
ON	When connected to the VB-99, the FC-300 automatically changes to System Exclusive mode and operates in accordance with the settings made with the VB-99. This is the setting you should normally select. **(MEMO)** You can control the FC-300 even without matching the VB-99's and FC-300's Device IDs.
OFF	Select OFF when controlling the FC-300's with the FC-300 (manually).
BANK CHANGE	
This sets the timing with which tones switch when patches are changed with the FC-300.	
IMMEDIATE	The tone changes immediately when the FC-300's ▼ ▲ pedals are pressed.
WAIT NUM	Even after the FC-300's ▼ ▲ pedals are pressed, the tone does not change until the NUMBER is set.
QUICK TUNER	
This enables use of the FC-300's number pedals to switch the Tuner function on and off. The Quick Tuner function is enabled only when the FC-300's MODE is set to SYS EX.	
OFF	The QUICK TUNER function is not operational.
ON	The QUICK TUNER function is operational. The TUNER function is alternately switched on and off each time the currently selected number pedal is pressed.

MIDI

Parameter/ Range	Explanation
MIDI CH (MIDI Channel)	
1–16ch	This sets the channel used for transmitting and receiving MIDI messages. When controlling another synthesizer sound module using the BASS TO MIDI function, also refer to **"BASS TO MIDI"** (p. 143).
OMNI MODE	
OFF, ON	When MIDI OMNI MODE is set to ON, messages are received on all MIDI channels, regardless of the MIDI channel settings.
DEVICE ID	
1–32	This sets the Device ID used for transmission and reception of Exclusive messages.
SYNC CLOCK	
This setting determines the basis used for synchronizing the timing for effect modulation rates and other time-based parameters.	
INTERNAL	Operations are synchronized to the VB-99's internal Clock.
AUTO (USB)	Operations are synchronized to the MIDI Clock received via USB. However, operations are automatically synchronized to the VB-99's internal Clock if the VB-99 is unable to receive the external Clock.
AUTO (MIDI)	Operations are synchronized to the MIDI Clock received via MIDI. However, operations are automatically synchronized to the VB-99's internal Clock if the VB-99 is unable to receive the external Clock.
AUTO (RRC2)	Operations are synchronized to the MIDI Clock received via the RRC2 IN connector. However, operations are automatically synchronized to the VB-99's internal Clock if the VB-99 is unable to receive the external Clock.
ROUTING	
MIDI IN→	
This sets the routing of signals arriving at the MIDI IN connector.	
OFF	Only VB-99 Exclusive messages are received via MIDI IN.
MAIN	Signals received at MIDI IN are transmitted to the VB-99's internal section.

Parameter/ Range	Explanation
MIDI OUT←	
This sets the routing of signals at the MIDI OUT connector.	
OFF	Only Bulk Dump data is output from MIDI OUT.
MAIN	Signals from the VB-99 are output.
USB	MIDI signals received via USB are output.
MIDI	The MIDI signals received at MIDI IN are output from MIDI OUT (thru). When other signals also are set to be output simultaneously from MIDI OUT, the signals are mixed and then output together (merge).
RRC2	The MIDI signals received at through RRC2 IN connector are output from MIDI OUT (thru). When other signals also are set to be output simultaneously from MIDI OUT, the signals are mixed and then output together (merge).
USB (MIDI)→	
This sets the routing of signals received via USB.	
OFF	Only VB-99 Exclusive messages are received via USB.
MAIN	Signals received via USB are transmitted to the VB-99's internal section.
USB (MIDI)←	
This sets the routing of signals output from the USB connector.	
OFF	Only Bulk Dump data is output from USB.
MAIN	MIDI signals from the VB-99 are output.
MIDI	MIDI signals received at MIDI IN are output.
RRC2	MIDI signals received through RRC2 IN connector are output.
RRC2→	
This sets the routing of signals received via RRC2 IN connector.	
OFF	Only VB-99 Exclusive messages are received via RRC2 IN connector.
MAIN	Signals received at the RRC2 IN connector are transmitted to the VB-99's internal section.
RRC2←	
This sets the routing of signals output from the RRC2 IN connector.	
OFF	Only Bulk Dump data is output from the RRC2 IN connector.
MAIN	MIDI signals from the VB-99 are output.
USB	MIDI signals received via USB are output.
MIDI	MIDI signals received at MIDI IN are output from the RRC2 IN connector (thru). When other signals also are set to be output simultaneously from the RRC2 IN connector, the signals are mixed and then output together (merge).

Chapter 8

149

Parameter/ Range	Explanation
PC (Program Change)	
PC OUT (Program Change Out)	
OFF, ON	This setting determines whether or not Program Change messages are output when the VB-99's patches are switched. Program Change messages are output when this is set to ON.
TX PC MAP (Transmit Program Change Map)	
This setting determines the sequence of Program Change messages output when the VB-99's patches are changed.	
FIX	Regardless of the patch settings, Program Change messages predetermined for each patch number are output.
PROG	The Program Change messages programmed in each patch are output.
RX PC MAP (Receive Program Change Map)	
You can select whether to use a fixed or freely set correspondence between program numbers received and the patches switched to when the VB-99's patches are switched by Program Change messages transmitted by an external MIDI device.	
FIX	The VB-99 switches to the patches predetermined for the corresponding received Program Change messages, regardless of the Receive Program Change Map settings.
PROG	The VB-99's switches to the patches set in the Receive Program Change Map.
RX PC MAP (Receive Program Change Map)	
You can edit the correspondence between the Program Change numbers received and the patches that are switched to.	
[F1] (BANK)	Selects the Bank number.
[F2] [F3] (SEL)/ F2, F3 knob	Selects the Program number.
[F5] (SELECT)/ F5 knob	Selects the patch. When the combination of the Bank number and Program number selected with F1, F2, and F3 is received, the VB-99 switches to the patch selected with F5.
TX CC (Transmit Control Change)	
This sets the Control Change numbers output when the VB-99's pedals and external pedals or the FC-300's pedals and external pedals are operated.	
[F2] [F3] (SEL)/ F2, F3 knob	Selects the controller.
[F5] (SET OFF)/ F5 knob	When the controller selected with F2 or F3 is operated, the Control Change message selected with F5 is transmitted.

Parameter/ Range	Explanation
BULK DUMP	
With the VB-99, you can use Exclusive messages to set another VB-99 to the same settings or to save effect sound settings to MIDI sequencers and other such devices.	
ALL	All transmittable data (SYSTEM, GK SETTING, GLOBAL, PATCH 001–200, FAVORITE SETTING)
SYSTEM	SYSTEM parameters.
GK SETTING	Settings content for GK SETTING
GLOBAL	GLOBAL function settings
PATCH	Settings for patch numbers 001–200
FAVORITE SETTING	Settings content in FAVORITE SETTINGS 01–10 for all effects

OUTPUT

Parameter/ Range	Explanation
OUTPUT MODE	
SYSTEM	The values set in the SYSTEM parameters MAIN OUT, MAIN LEVEL, SUB OUT, SUB LEVEL, D OUT, and D OUT LEVEL are enabled.
PATCH	The values set in MAIN OUT, MAIN LEVEL, SUB OUT, SUB LEVEL, D OUT, D OUT LEVEL for each patch are enabled.
MAIN OUT	
This switches the signals output to MAIN OUT.	
CH A	This outputs Channel A. The mixer's MIX SW, PAN, LEVEL, and A/B BAL are also reflected here.
CH B	This outputs Channel B. The mixer's MIX SW, PAN, LEVEL, and A/B BAL are also reflected here.
MIXER (DRY)	This outputs the post-A/B mix signals before application of DELAY/REVERB.
MIXER	This outputs the post-A/B mix signals after application of DELAY/REVERB and TOTAL EQ.
BASS DIRECT	This outputs only the bass direct sound (normal pickup sound).
MAIN LEVEL	
0–200	Adjusts the level to MAIN LEVEL.
SUB OUT	
This switches the signals output to SUB OUT.	
CH A	This outputs Channel A. The mixer's MIX SW, PAN, LEVEL, and A/B BAL are also reflected here.
CH B	This outputs Channel B. The mixer's MIX SW, PAN, LEVEL, and A/B BAL are also reflected here.
MIXER (DRY)	This outputs the post-A/B mix signals before application of DELAY/REVERB.
MIXER	This outputs the post-A/B mix signals after application of DELAY/REVERB and TOTAL EQ.
BASS DIRECT	This outputs only the bass direct sound (normal pickup sound).
SUB LEVEL	
0–200	Adjusts the level to SUB OUT LEVEL.

Parameter/ Range	Explanation
D OUT (Digital Out)	
This switches the signals output from DIGITAL OUT.	
COSM BASS A	This outputs the sounds from COSM BASS A.
COSM BASS B	This outputs the sounds from COSM BASS B.
NORMAL PU	This outputs the sounds from the normal pickup.
CH A	This outputs Channel A. This output also reflects the mixer's MIX SW, PAN, LEVEL, and A/B BAL settings.
CH B	This outputs Channel B. This output also reflects the mixer's MIX SW, PAN, LEVEL, and A/B BAL settings.
MIXER (DRY)	This outputs the post-A/B mix signals before application of DELAY/REVERB.
MIXER	This outputs the post-A/B mix signals after application of DELAY/REVERB and TOTAL EQ.
MAIN OUT	This outputs the same signals as those from MAIN OUT.
SUB OUT	This outputs the same signals as those from SUB OUT.
D OUT LEVEL (Digital Out Level)	
0–200	Adjusts the level to DIGITAL OUT.

*   *The parameters enabled (MAIN OUT, MAIN LEVEL, SUB OUT, SUB LEVEL, D OUT, D OUT LEVEL) change according to the OUTPUT MODE settings.*
   When they are disabled, the value < > is given.

Chapter 8

USB

Parameter/Range	Explanation
USB IN	
This sets the point at which digital audio signals received via USB (from your computer) are connected within the VB-99.	
* *Do not connect at a point before the point set with the USB OUT parameter. For more on the connection points, refer to* **"Signal Flow"** *(p. 15).*	
* *If the USB IN parameter is set to COSM BASS A, COSM BASS B, or NORMAL PU, the setting automatically changes to MAIN & SUB the next time the VB-99 is powered up. If you plan to use COSM BASS A, COSM BASS B, or NORMAL PU, make the setting each time you turn on the power to the VB-99.*	
OFF	The signals are not connected at any point.
COSM BASS A	The signals are connected at the point where the COSM BASS A is output. The audio output from the computer, instead of the COSM bass sounds played by the connected bass, is input to the effects. * *POLY FX are not applied.*
COSM BASS B	The signals are connected at the point where the COSM BASS B is output. The audio output from the computer, instead of the COSM bass sounds played by the connected bass, is input to the effects. * *POLY FX are not applied.*
NORMAL PU	The signals are connected at the normal pickup input. The audio output from the computer, instead of the normal sounds played by the connected bass, is input to the effects.
MAIN OUT	The signals are connected at the point where MAIN OUT is output. The signals from the VB-99's MAIN OUT and the audio output from the computer are mixed and output.
SUB OUT	The signals are connected at the point where SUB OUT is output. The signals from the VB-99's SUB OUT and the audio output from the computer are mixed and output.
MAIN&SUB	The signals are connected at the point where both MAIN OUT and SUB OUT are output. Each of the signals from the VB-99's MAIN OUT and the audio output from the computer are mixed, SUB OUT and the audio output from the computer are mixed from the output.
IN LEVEL	
0–200	Adjusts the volume level of the digital audio received via USB (from the computer).
USB OUT	
This sets the point internally within the VB-99 from which signals are output via USB (to the computer).	
COSM BASS A	The output from COSM BASS A is output.
COSM BASS B	The output from COSM BASS B is output.

Parameter/Range	Explanation
NORMAL PU	The normal pickup input is output.
CH A	The output from Channel A is output.
CH B	The output from Channel B is output.
MIXER (DRY)	The signals that have been mixed with the mixer, but before application of DELAY/REVERB, are output.
MIXER	The signals that have been mixed with the mixer and have DELAY/REVERB applied are output.
MAIN OUT	The same signals as those from MAIN OUT are output.
SUB OUT	The same signals as those from SUB OUT are output.
OUT LEVEL	
0–200	Adjusts the volume level of the digital audio output via USB (to the computer).
DRIVER MODE	
This setting determines which operational mode is used, the mode using the special driver contained on the included CD-ROM (ADVANC) or the mode using the OS's (Windows/Mac OS) standard driver (STANDRD).	
* *Changing the settings for this parameter requires you to turn off the power to the VB-99 and then turn it on again.* *For more detailed information, refer to* **"Switching the Driver Mode"** *(p. 66).*	
STANDRD	This mode uses the OS's standard USB driver.
ADVANC	This mode uses the special driver contained on the included CD-ROM The mode using this driver allows you to record, play back, and edit audio with high-quality sound and stable timing.
MON CMD (Monitor Command)	
This setting determines whether or not the command (the Direct Monitor command) controlling the Direct Monitor (described later) setting is enabled.	
DISABL	The Direct Monitor command is disabled, maintaining the Direct Monitor mode set by the VB-99.
ENABLE	The Direct Monitor command is enabled, allowing the Direct Monitor mode to be switched from an external device.
DIRECT MON (Direct Monitor)	
Switches the output of the VB-99 sound to the PHONES jack, MAIN OUT jacks, or SUB OUT jacks.	
OFF	Set this to Off if transmitting audio data internally through a computer (Thru).
ON	The VB-99 sound is output. Set this to On when using the VB-99 as a standalone device, without connecting to a computer (only USB IN input sound will be output if this is set to Off).

* *This setting cannot be saved. It is set to ON when the power is turned on.*

* *If you are using the special driver, you can control DIRECT MON On/Off from ASIO 2.0-compatible application.*

BPM

Parameter/Range	Explanation
BPM MODE	
SYSTEM	The values set in the SYSTEM parameter SYSTEM BPM is enabled.
PATCH	The values set in BPM for each patch is enabled.
SYSTEM BPM	
40–250	Adjust the BPM value for the entire system.

* *BPM (beats per minute) indicates the number of quarter note beats that occur each minute.*

* *When **"SYNC CLOCK"** (p. 149) is set to a value other than INTERNAL, sending a MIDI clock signal from an external MIDI instrument synchronizes the VB-99 to the MIDI clock signal that was sent. To enable the BPM setting, set this to INTERNAL.*

* *The parameters enabled (SYSTEM BPM, BPM) change according to the BPM MODE settings.*
When they are disabled, the value < > is given.

Control with the SYSTEM BPM
You can tap input the SYSTEM BPM with [F2].

V-LINK

V-LINK PATCH
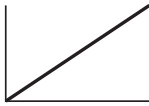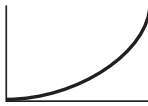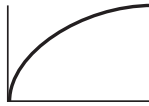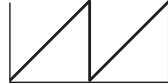
CLIP

Parameter/Range	Explanation
This sets the Program Change messages transmitted when patches are switched. You can set different Program Changes in Channel A and Channel B. The clips (video images) on the receiving device are switched by these Program Change messages.	
A ch/B ch PALETTE	
OFF, 1–32	This sets the Bank Select number (CC#0, #32).
A ch/B ch CLIP	
OFF, 1–32	This sets the Program Change numbers.

ASSIGN 1–2

Parameter/Range	Explanation
These settings are necessary for controlling video using the bass's performance data and messages from the VB-99's controllers. You can make up to two types of settings.	
SOURCE	
OFF	The V-LINK function is not assigned.
BEND	Pitch bend messages
VELO	Velocity messages
GK VOL	GK-3B GK volume knob
GK S1	GK-3B DOWN/S1 switch
GK S2	GK-3B UP/S2 switch
CTL1	Control button1
CTL2	Control button2
EXP PEDAL	Expression pedal connected to the EXP PEDAL jack
CTL3	Footswitch connected to the CTL3,4 jack (jack tip)
CTL4	Footswitch connected to the CTL3,4 jack (jack ring)
D BEAM V	D BEAM vertical movements
D BEAM H	D BEAM horizontal movements
RIBBON	RIBBON CONTROLLER
FC-300 EXP1	FC-300 expression pedal1
FC-300 EXPSW1	FC-300 expression pedal switch1
FC-300 EXP2	FC-300 expression pedal2
FC-300 EXPSW2	FC-300 expression pedal switch2
FC-300 CTL1	FC-300 control pedal1
FC-300 CTL2	FC-300 control pedal2
FC-300 E3/C3	FC-300 external expression pedal3/external footswitch3
FC-300 CTL4	FC-300 external footswitch4
FC-300 E4/C5	FC-300 external expression pedal4/external footswitch5

Chapter 8

Parameter/ Range	Explanation
FC-300 CTL6	FC-300 external footswitch6
FC-300 E5/C7	FC-300 external expression pedal5/external footswitch7
FC-300 CTL8	FC-300 external footswitch8
INTRNL PEDAL	Internal pedal
WAVE PEDAL	Wave pedal
TARGET	
Used in the general V-LINK compatible device.	
DISLV CC #5	Dissolve time (time elapsed in switching video images)
Cb CC #74	Color cb (Color difference signal)
Cr CC #71	Color cr (Color difference signal)
Used in the motion dive .tokyo performance package.	
COLOR EQ-FG	Color foreground
COLOR EQ-BG	Color background
SCRTCH SW	Scratch switch
SPEED KNOB	Speed knob
TOTAL FADER	Total fader
CROSS FADER	Cross fader
BPM SYNC	BPM sync switch
CLIP LOOP	Clip loop switch
ASSIGN KNOB	Assignable knob
FADE TIME	Fade time switch
VISUAL KNOB	Visual plug-in control knob
AB SW	A/B switch
TAP SW	Tap switch
TOTAL SELECT	Total select
FX SELECT	Effect select
PLAY POS	Play position
LOOP START	Loop start position
LOOP END	Loop end position
LAYER MODE	Layer mode select
DV-7PR	
PLAY SPEED	Play speed
DISLV TIME	Dissolve time (time elapsed in switching video images)
T BAR	T bar
COLOR Cb	Color cb (Color difference signal)
COLOR Cr	Color cr (Color difference signal)
BRIGHTNESS	Brightness
VFX 1	Visual effects1
VFX 2	Visual effects2
VFX 3	Visual effects3
VFX 4	Visual effects4
OUTPUT FADE	Output fade
DUAL STREAM	Dual stream
MIN (Minimum) *1	
0–127	Sets the lower limit in the range the parameter changes.
MAX (Maximum) *1	
0–127	Sets the upper limit in the range the parameter changes.

Parameter/ Range	Explanation
TRIGGR (Trigger) *2	
Sets the point at which the virtual expression pedal's action begins.	
PATCH CHANGE	Functions when patches are switched.
GK VOL	Functions when the divided pickup's volume knob is adjusted.
GK S1, S2	Functions when the divided pickup's DOWN/S1 or UP/S2 switch position is changed.
CTL1–CTL4	Functions when the CTL 1, 2 buttons or foot switch connected to CTL 3,4 jack are operated.
EXP PEDAL	Functions when the expression pedal connected to EXP PEDAL jack are operated.
D BEAM V, H	Functions when the vertical or horizontal position is detected by the D Beam controller.
RIBBON ACT, POS	Functions when the ribbon controller is operated by touch or when the position is detected.
FC-300 EXP1, EXP2	Functions when the FC-300's EXP PEDAL 1 or 2 is operated.
FC-300 CTL1, CTL2	Functions when the FC-300's CTL1 or CTL2 is operated.
FC-300 E3/C3, CTL4, E4/C5, CTL6, E5/C7, CTL8	Functions when a pedal connected to the FC-300's E3/C3, CTL4, E4/C5, CTL6, E5/C7, or CTL8 jacks is operated.
TIME *2	
0–100	Adjusts the amount of time for the virtual expression pedal to shift from the fully released position (pedal toe raised) to the fully depressed position (pedal toe pressed down).
CURVE *2	
This selects one of the three types that determines how the assumed expression pedal changes.	

LINEAR　　　　　SLOW RISE　　　　　FAST RISE

RATE *3	
0–100	This determines the time spend for one cycle of the assumed expression pedal.
FORM *3	
This selects one of the three types that determines how the assumed expression pedal should change.	

SAW　　　　　TRI　　　　　SIN

*1   You cannot set the MIN or MAX parameters when the TARGET parameter is set to one of the functions below. The MIN parameter is fixed at 0, and the MAX parameter is fixed at 127.

- SCRTCH SW
- BPM SYNC
- CLIP LOOP
- AB SW
- TAP SW
- DUAL STREAM

*2   The TRIGGR, TIME, and CURVE parameters are enabled when the SOURCE parameter is set to INTRNL PEDAL.

*3   The RATE and FORM parameters are enabled when the SOURCE parameter is set to WAVE PEDAL.

(MEMO)

Although the target names indicated refer to EDIROL DV-7PR and motion dive .tokyo, it is Control Change messages that are actually transmitted.
For more on the correspondence between the target names and Control Change numbers, refer to p. 161.

(MEMO)

For more detailed information on the EDIROL DV-7PR and motion dive .tokyo performance package, refer to the Owner's Manuals for each product.

STRING CH (String Channel)

Parameter/ Range	Explanation
HiC, 1–4th, LowB	
Selects the channel to be controlled with each string.	
OFF	No channel is controlled.
A CH	Channel A of the V-LINK compatible device is controlled.
B CH	Channel B of the V-LINK compatible device is controlled.
C CH	MIDI Note plug-in is controlled.

(MEMO)

Some V-LINK compatible equipments such as the EDIROL DV-7PR allow use only of A CH.

V-LINK SYSTEM

MIDI CH (MIDI Channel)

Parameter/ Range	Explanation
This sets the MIDI receive channel for the V-LINK compatible device connected to the VB-99.	
MIDI A CH (MIDI A Channel)	
1–16ch	Sets the MIDI channel for Channel A of the V-LINK compatible device.
MIDI B CH (MIDI B Channel)	
1–16ch	Sets the MIDI channel for Channel B of the V-LINK compatible device.
MIDI C CH (MIDI B Channel)	
1–16ch	Specifies the MIDI channel that will control MIDI note plug-in.

(MEMO)

- The V-LINK screen's MIDI CH parameter is a system parameter.

- When a V-LINK compatible device is connected to the VB-99, set this parameter so that the V-LINK compatible device's MIDI channel and the MIDI channel used by the VB-99 are not the same.

- The MIDI channels set here are output as System Exclusive messages when the VB-99's power is turned on and when the V-LINK function is switched on.

- Some V-LINK compatible equipments such as the EDIROL DV-7PR allow use only of MIDI A CH.

Chapter 8

CATEGORY NAME

Parameter/ Range	Explanation
CATEGORY NAME	
This sets the Category name.	
INSERT	Insert a space at the cursor location.
DELETE	Delete a character. The characters that follow get shifted to the left.
SPACE	Input a space at the cursor location.
A0!	Switch between uppercase letters, numbers, and characters.
A<=>a	Switch between uppercase letters and lowercase letters.
CATGRY	Select the user category you want to name.

D BEAM CALIB
(D BEAM Calibration)

Parameter/ Range	Explanation
D BEAM DISAB (D BEAM Disable)	
You can disable the D BEAM controller for the entire device.	
OFF	The D BEAM is enabled.
ON	The D BEAM is disabled.
	* Pressing the D BEAM [PITCH], [FILTER], or [ASSIGNABLE] button to switch the D BEAM controller on will have no effect.

PATCH EXTENT

Parameter/ Range	Explanation
PATCH EXTENT	
You can set upper and lower limits to define the range of patches that can be switched.	
FROM	Set the lower limits to define the range of patches.
TO	Set the upper limits to define the range of patches.

FACTORY RESET

Parameter/ Range	Explanation
FACTORY RESET	
This restores the VB-99 to the settings it had when it was shipped from the factory.	
ALL	All data.
SYSTEM	Content of the settings for the SYSTEM parameters.
GK SETTING	Content of the settings for GK SETTING.
GLOBAL	GLOBAL function settings.
PATCH	Settings for patch numbers 001–200.
FAVORITE SETTING	Content of the settings in FAVORITE SETTINGS 01–10 for all effects.

GLOBAL

Parameter/Range	Explanation
SETTING1–10	
1–10	This selects the SETTING to be set.
NAME	
This sets the name for the SETTING (up to eight characters).	
INSERT	Insert a space at the cursor location.
DELETE	Delete a character. The characters that follow get shifted to the left.
SPACE	Input a space at the cursor location.
A0!	Switch between uppercase letters, numbers, and characters.
A<=>a	Switch between uppercase letters and lowercase letters.
MAIN OUTPUT SELECT	
This selects the type of device to be connected.	
AMP WITH TWEETER	Use this setting when connecting to a tweeter-equipped bass amp.
AMP NO TWEETER	Use this setting when connecting to a bass amp that has no tweeter. The high-frequency range is adjusted.
LINE/PHONES	Use this setting when using headphones or connecting directly to a PA system or multi-track recorder.

EQ MAIN (Equalizer Main), EQ SUB (Equalizer Sub)

Parameter/Range	Explanation
MAIN EQ (Main Equalizer), SUB EQ (Sub Equalizer)	
A four-band equalizer with high and low ranges is provided.	
MEMO	
EQ (MAIN) is applied to the output from MAIN OUT; EQ (SUB) is applied to the output from SUB OUT.	
MAIN EQ SW (Main Equalizer Switch), SUB EQ SW (Sub Equalizer Switch)	
OFF, ON	Turns the EQ effect on/off.
TOTAL GAIN	
-12–+12dB	Adjusts the volume before the equalizer.
LOW GAIN	
-12–+12dB	Adjusts the low frequency range tone.
HIGH GAIN	
-12–+12dB	Adjusts the high frequency range tone.
LOW MID FREQ (Low Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the LOW MID GAIN.
LOW MID Q (Low Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the LOW MID FREQ. Higher values will narrow the area.

Parameter/Range	Explanation
LOW MID GAIN (Low Middle Gain)	
-12–+12dB	Adjusts the low-middle frequency range tone.
HIGH MID FREQ (High Middle Frequency)	
20Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH MID GAIN.

Parameter/Range	Explanation
HIGH MID Q (High Middle Q)	
0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH MID FREQ. Higher values will narrow the area.
HIGH MID GAIN (High Middle Gain)	
-12–+12dB	Adjusts the high-middle frequency range tone.

NS (Noise Suppressor)

Parameter/Range	Explanation
NS (Noise Suppressor)	
-20–20dB	This controls the global threshold level for the noise suppressor settings in each patch. This feature is effective when you connect a different bass or for adjusting for changes in noise levels in the performance venue. It does not affect the settings in each individual patch. **MEMO** To use the settings contained in the individual patches, set this to 0 dB.

REVERB

Parameter/Range	Explanation
REVERB	
0–200%	This controls the global reverb level for the reverb settings in each patch. Adjusting this reverb level is effective for adjusting to the acoustics of the performance space. It does not affect the settings in each individual patch. **MEMO** To use the settings contained in the individual patches, set this to 100%.

Chapter 8

SUB OUT LEVEL

Parameter/ Range	Explanation
SUB OUT LEVEL	
0–200%	This controls the global output level from the SUB OUT connectors. It does not affect the settings in each individual patch. ⓘ MEMO To use line level (+4 dBu) as the output level, set this to 100%.

TUNER

MULTI MODE, SINGLE MODE

Parameter/ Range	Explanation
PITCH	
435–445Hz	This sets the reference pitch.
MUTE	
This setting selects whether or not the tuning sound is output from the connected device (such as an amp).	
OFF	The tuning sound is output.
ON	The tuning sound is not output.

Chapter 9 Appendices

MIDI Implementation Chart

V-Bass System
Model VB-99

Date : July. 2, 2008
Version : 1.00

MIDI Implementation Chart (Main Section)

Function...		Transmitted		Recognized		Remarks
Basic	Default	1–16		1–16		Memorized
Channel	Changed	1–16		1–16		
Mode	Default	x		x		
	Messages	x		x		
	Altered	**************				
Note		x		x		
Number	True Voice	**************		**************		
Velocity	Note ON	x		x		
	Note OFF	x		x		
After	Key's	x		x		
Touch	Ch's	x		x		
Pitch Bend		x		x		
Control	0	o	*1	o		Bank Select MSB
Change	1 – 31	o	*1	o		
	32	o		x		Bank Select LSB
	33 – 63	x		x		
	64 – 95	o	*1	o		
Program		o	*1	o		
Change	True #	0 – 127		0 – 127		
System Exclusive		o		o		
Common	Song Position	x		x		
	Song Select	x		x		
	Tune Request	x		x		
System	Clock	x		o	*1	
Realtime	Commands	o	*2	x		
AUX	Local ON/OFF	x		x		
Messages	All Notes OFF	x		x		
	All Sound OFF	x		x		
	Reset All Controller	x		x		
	Active Sense	o		o		
	System Reset	x		x		
Notes		*1 O X is selectable.				
		*2 MIDI START/STOP can be set with SYSTEM - CONTROL ASSIGN.				

Mode 1: OMNI ON, POLY	Mode 2: OMNI ON, MONO	o: Yes
Mode 3: OMNI OFF, POLY	Mode 4: OMNI OFF, MONO	x: No

Chapter 9

159

V-Bass System   Date : July. 2, 2008

Model VB-99   **MIDI Implementation Chart (BASS TO MIDI Section)**   Version : 1.00

Function...		Transmitted	Recognized	Remarks
Basic	Default	1–11	x	Memorized
Channel	Changed	1–11	x	
Mode	Default	Mode 3, 4 (M=6)	Mode 3, 4 (M=6)	Memorized
	Messages	x	x	
	Altered	**************		
Note		o	x	
Number	True Voice	0–127	**************	
Velocity	Note ON	o	x	
	Note OFF	x *2	x	
After	Key's	x	x	
Touch	Ch's	x	x	
Pitch Bend		o *3	x	
Control	0, 32	o *1	x	Bank Select
Change	1 – 31	o *1	x	
	33 – 63	x	x	
	64 – 95	o *1	x	
	6, 38	o	x	Data Entry
	98, 99	x	x	NRPN LSB, MSB
	100, 101	o	x	RPN LSB, MSB
Program		o *1	x	
Change	True #	0 – 127	**************	
System Exclusive		x	x	
Common	Song Position	x	x	
	Song Select	x	x	
	Tune Request	x	x	
System	Clock	x	x	
Realtime	Commands	x	x	
AUX	Local ON/OFF	x	x	
Messages	All Notes OFF	x	x	
	All Sound OFF	x	x	
	Reset All Controller	x	x	
	Active Sense	o	x	
	System Reset	x	x	
Notes		*1 O X is selectable. *2 Note On is always transmitted with 9nH kkH 00H. *3 Can be set with the CHROMATIC parameter.		

Mode 1: OMNI ON, POLY   Mode 2: OMNI ON, MONO   o: Yes

Mode 3: OMNI OFF, POLY   Mode 4: OMNI OFF, MONO   x: No

V-Bass System

Date : July. 2, 2008

Model VB-99

MIDI Implementation Chart (V-LINK Section)

Version : 1.00

Function...		Transmitted		Recognized	Remarks
Basic Channel	Default	1–16		x	Memorized
	Changed	1–16		x	
Mode	Default	x		x	
	Messages	x		x	
	Altered	**************			
Note Number		o	*1	x	
	True Voice	0–127		**************	
Velocity	Note ON	o		x	
	Note OFF	x	*2	x	
After Touch	Key's	x		x	
	Ch's	x		x	
Pitch Bend		x		x	
Control Change	0, 32	o	*1, *3	x	Bank Select
	1	o	*1, *3	x	Modulation
	3	o	*1, *3	x	
	8	o	*1, *3	x	Balance MSB
	10	o	*1, *3	x	Pan MSB
	11	o	*1, *3	x	Expression MSB
	64	o	*1, *3	x	Hold-1
	65	o	*1, *3	x	Portamento
	71	o	*1, *3	x	Resonance
	72	o	*1, *3	x	Release
	73	o	*1, *3	x	Attack
	74	o	*1, *3	x	Cutoff
	81	o	*1, *3	x	General Purpose 6
	83	o	*1, *3	x	General Purpose 8
	85	o	*1, *3	x	
	86	o	*1, *3	x	
	91	o	*1, *3	x	Reverb
	92	o	*1, *3	x	Effects Depth 2
	93	o	*1, *3	x	Effects Depth 3
	94	o	*1, *3	x	Effects Depth 4
Program Change		o	*1, *3	x	
	True #	0 – 31		**************	
System Exclusive		o		x	
Common	Song Position	x		x	
	Song Select	x		x	
	Tune Request	x		x	
System Realtime	Clock	x		x	
	Commands	x		x	
AUX Messages	Local ON/OFF	x		x	
	All Notes OFF	x		x	
	All Sound OFF	x		x	
	Reset All Controller	o		x	
	Active Sense	o		x	
	System Reset	x		x	
Notes		*1 O X is selectable. *2 The Note OFF messages (9nH kkH 00H) are always transmitted. *3 For correspondences with this device's parameters, refer to the "V-LINK Correspondence Table."			

Mode 1: OMNI ON, POLY	Mode 2: OMNI ON, MONO	o: Yes
Mode 3: OMNI OFF, POLY	Mode 4: OMNI OFF, MONO	x: No

Chapter 9

V-LINK Correspondence Table

V-LINK Function	Transmitted MIDI Message	Transmitted Channel
These are used with models such as the DV-7PR or the motion dive .tokyo performance package.		
PALETTE 1–32 (Palette Change)	CC 0 (Bank Select MSB): 0–31 CC 32 (Bank Select LSB): 0	ch.A / ch.B
CLIP 1–32 (Clip Change)	Program Change: 0–31	ch.A / ch.B
These are used with the general V-LINK compatible device.		
DISLV CC #5	CC 5 (Portamento Time)	ch.A
Cb CC #74	CC 74 (Cutoff)	ch.A
Cr CC #71	CC 71 (Resonance)	ch.A
These are used with the motion dive .tokyo performance package.		
COLOR EQ–FG	CC 1 (Modulation)	ch.A & ch.B
COLOR EQ–BG	CC 71 (Resonance)	ch.A & ch.B
SCRTCH SW	CC 3 (---)	ch.A & ch.B
SPEED KNOB	CC 8 (Balance)	ch.A & ch.B
TOTAL FADER	CC 10 (Panpot)	ch.A
CROSS FADER	CC 11 (Expression)	ch.A
BPM SYNC	CC 64 (Hold 1)	ch.A & ch.B
CLIP LOOP	CC 65 (Portamento)	ch.A & ch.B
ASSIGN KNOB	CC 72 (Release)	ch.A & ch.B
FADE TIME	CC 73 (Attack)	ch.A
VISUAL KNOB	CC 74 (Cutoff)	ch.A
AB SW	CC 81 (General Purpose 6)	ch.A
TAP SW	CC 83 (General Purpose 8)	ch.A
TOTAL SELECT	CC 85 (---)	ch.A
FX SELECT	CC 86 (---)	ch.A
PLAY POS	CC 91 (Reverb)	ch.A & ch.B
LOOP START	CC 92 (Tremolo)	ch.A & ch.B
LOOP END	CC 93 (Chorus)	ch.A & ch.B
LAYER MODE	CC 94 (Celeste)	ch.A
These are used with models such as the DV-7PR.		
PLAY SPEED	CC 8 (Balance)	ch.A
DISLV TIME	CC 73 (Attack)	ch.A
T BAR	CC 11 (Expression)	ch.A
COLOR Cb	CC 1 (Modulation)	ch.A
COLOR Cr	CC 71 (Resonance)	ch.A
BRIGHTNESS	CC 74 (Cutoff)	ch.A
VFX 1	CC 72 (Release)	ch.A
VFX 2	CC 91 (Reverb)	ch.A
VFX 3	CC 92 (Tremolo)	ch.A
VFX 4	CC 93 (Chorus)	ch.A
OUTPUT FADE	CC 10 (Panpot)	ch.A
DUAL STREAM	CC 64 (Hold 1)	ch.A

Specifications

VB-99: V-Bass System

AD Conversion
24 bits + AF method

DA Conversion
24 bits

Sampling Frequency
44.1 kHz

Program Memories
400: 200 (User) + 200 (Preset)

Nominal Input Level
BASS INPUT: -10 dBu

Input Impedance
BASS INPUT: 2.2 M ohms

Nominal Output Level
MAIN OUT: -10 dBu

SUB OUT (XLR): +4 dBu

BASS OUT: -10 dBu

Output Impedance
MAIN OUT: 1 k ohm

SUB OUT (XLR): 600 ohms

Dynamic Range
100 dB or greater (IHF-A)

Controls
[Top Panel]

OUTPUT LEVEL knob

Function knobs x 6 (F1–F6)

BALANCE knob

V-BASS LEVEL knob

V-LINK button

DIRECT PATCH buttons x 5 (1–5)

CONTROL buttons x 2 (1, 2)

COSM BASS buttons x 2 (A, B)

BASS DIRECT button

POLY FX A/B buttons x 2 (A, B)

FX buttons x 2 (A, B)

COSM AMP buttons x 2 (A, B)

MIXER buttons x 2 (A, B)

DELAY/REVERB button

DYNAMIC button

CHAIN button

CONTROL ASSIGN button

NAME/KEY/BPM button

Function buttons x 6 (F1–F6)

EXIT button

WRITE button

PAGE buttons x 2 (Left, Right)

BASS TO MIDI button

SYSTEM button

GLOBAL button

TUNER button

CATEGORY button

PATCH/VALUE dial

Power switch

D BEAM

D Beam Controller

PITCH button

FILTER button

ASSIGNABLE button

RIBBON CONTROLLER

Ribbon Controller

PITCH button

FILTER button

ASSIGNABLE button

[Rear Panel]

Ground Lift switch (SUB OUT)

Display
240x64 dots graphic LCD (with backlit)

Connectors
[Top Panel]

GK IN connector (13-pin DIN type)

[Rear Panel]

BASS INPUT jack (1/4″ phone type)

BASS OUTPUT jack (1/4″ phone type)

SUB OUT jacks x 2 (L, R) (XLR type)

MAIN OUT jacks x 2 (L/MONO, R) (1/4″ phone type)

PHONES jack (Stereo 1/4″ phone type)

DIGITAL OUT jack (Coaxial type, conforms to IEC60958-3)

EXP PEDAL jack (1/4″ TRS phone type)

CTL 3,4 jack (1/4″ TRS phone type)

USB connector (B type)

RRC2 IN connector (RJ45 type)

MIDI connectors x 2 (IN, OUT) (5-pin DIN type)

DC IN jack

Power Supply
AC Adaptor (PSB-1U)

Current Draw
1.3 A

Chapter 9

163

Dimensions

384.0 (W) x 218.0 (D) x 93.5 (H) mm

15-1/8 (W) x 8-5/8 (D) x 3-11/16 (H) inches

* *EIA-5U rack mount type: optional rack mount adaptor RAD-99*

Weight

2.1 kg / 4 lbs 11 oz (excluding AC Adaptor)

Accessories

Owner's Manual

GK cable (5 m)

USB cable

RRC2 cable

VB-99 Software CD-ROM

AC adaptor (PSB-1U)

Knob Bolt x 4

Options

Divided Pickup: GK-3B

MIDI Foot Controller: FC-300

Footswitch: BOSS FS-5U

Dual Footswitch: BOSS FS-6

Expression Pedal: EV-5, BOSS FV-500L/500H

GK Cable: GKC-10/5/3

Unit Selector: US-20

Rack Mount Adaptor: RAD-99

Pad Stand: PDS-10

Footswitch Cable: PCS-31

Carrying Bag: CB-VG9

* *0 dBu = 0.775 V rms*

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

VB-99 Software System Requirements

For Windows

Operating System

- Microsoft Windows XP
- Microsoft Windows Vista

CPU/Clock

- Pentium/Celeron, Intel-compatible processor 1 GHz or higher

RAM

- 512 MBytes or more

Free space required on hard disk

- 190 MBytes or more

Display resolution/Color depth

- 1024 x 768 or higher / 65,536 colors (16 bit High Color) or more

For Mac OS

Operating System

- Mac OS X 10.4.3 or later

CPU/Clock

- PowerPC G4, G5/1 GHz or higher
- Intel processor

RAM

- 512 MBytes or more

Free space required on hard disk

- 190 MBytes or more

Display resolution/Color depth

- 1024 x 768 or higher / 32,000 colors or more

NOTE

While under most conditions, a computer similar to the above will permit normal operation of the VB-99, Roland cannot guarantee compatibility solely on these factors. This is due to numerous variables that may influence the processing environment, such as differences in motherboard design and the particular combination of other devices involved.

Error Messages

If there has been a mistake in an operation or if the operation is not executed properly, an error message will appear in the display. Please follow the instructions indicated in the message to resolve the issue.

"DATA WRITE ERROR"
● Writing to the memory for storage of user data failed.
❍ The unit may be damaged. Consult the nearest Roland service center.

"MIDI BUFFER FULL"
"RRC2 BUFFER FULL"
"USB BUFFER FULL"
● The data cannot be processed correctly due to the high volume of MIDI messages.
❍ Reduce the volume of MIDI messages transmitted to the VB-99.

"MIDI OFFLINE"
"RRC2 OFFLINE"
"USB OFFLINE"
● Transmissions from the connected device have been interrupted. This message also appears when the power to the connected device has been turned off. It does not indicate damage.
❍ Check to make sure no cable is disconnected and that there are no shorts.

"OUT OF RANGE! SET AGAIN"
● The D Beam controller or ribbon controller cannot be calibrated.
❍ If using the D Beam controller, change the range or position and recalibrate to keep this message from appearing.
❍ If using the ribbon controller, confirm the calibration by carrying out the procedure once more.
  If the message continues to appear even after the calibration is correctly performed, it may indicate damage or malfunction. Consult your Roland dealer or contact Roland Service.

"USB DEVICE ERROR"
● Initialization of the VB-99's internal USB device failed. USB cannot be used.
❍ The unit may be damaged. Consult the nearest Roland service center.

Troubleshooting

If the VB-99 is not producing sounds or if you think it is not operating properly, first check the following points. If checking these points fails to resolve the problem, consult your dealer or the nearest Roland service center.

(MEMO)

> For more on the USB drivers and problems when using the drivers, refer to the following file contained on the VB-99 Software CD-ROM.

OS	Location
Windows XP	\Driver\XP\Readme_E.htm
Windows Vista	\Driver\Vista\Readme_E.htm
Mac OS X	/Driver/Readme_E.htm

Problems with Sounds
No sound/Low volume

❏ **Is there a short in any connecting cable?**
→ Try replacing the connecting cable.

❏ **Are the VB-99 and other devices connected properly?**
→ Check the connections with the other devices (p. 17).

❏ **Is the power to the connected amp or mixer not turned on, or is the volume turned down?**
→ Check the settings for the connected device.

❏ **Is the OUTPUT LEVEL knob turned down completely?**
→ Adjust the knob to an appropriate setting (p. 20).

❏ **Is the tuner on?**
→ The direct sound is not output when the tuner is on if the volume setting during tuning is set to MUTE ON (p. 23).

❏ **Is the [SYSTEM] - GK - GK CONNCT set properly?**
→ If a divided pickup is connected: set [SYSTEM] - GK - GK CONNCT to ON (if AUTO does not function well).
→ If a divided pickup is not connected: set [SYSTEM] - GK - GK CONNCT to OFF.

❏ **Is [COSM BASS A] or [COSM BASS B] switched on?**
→ No sounds from the divided pickup will be played if [COSM BASS] is switched off. Switch on the [COSM BASS].

❏ **Is [A/B BALANCE] set correctly?**
→ Set [A/B BALANCE] for the channel in which sounds are being played.

Chapter 9

❏ **Is each effect set correctly?**

→ Use the "Meter function" (p. 31) in [CHAIN] to confirm the output level of each effect. If the meter for any effect is not fluctuating, check the settings for that effect.

❏ **Are volume parameters such as BASS:VOLUME, FV:LEVEL, and V-BASS LEVEL set to the assigned targets?**

→ Operate these in accordance with the sources.

❏ **Are the OUTPUT settings properly made?**

→ Check the output settings for [SYSTEM] - OUTPUT and [MIXER] - OUTPUT.

❏ **If there are no sounds through USB, are the [SYSTEM] - USB settings correct?**

→ Adjust the settings to the appropriate values (p. 66) (p. 152).

❏ **If there are no sounds through USB, is [SYSTEM] - GK SETTING correctly set?**

→ When GK CONNCT is set to OFF (or if the divided pickup is not connected), audio input via USB may not be output. Be sure to set the appropriate value (p. 145).

❏ **Is the [SYSTEM] - USB - DIRECT MON (p. 152) switched off?**

→ Set this to ON.

Low volume for device connected to INPUT

❏ **Could you be using an audio cable that incorporates a resistor?**

→ Use only connecting cables that don't contain a resistor.

Oscillating sound audible

❏ **Are any gain values or volume-related parameter values in the effect settings set too high?**

→ Lower the values.

❏ **Is [SYSTEM] - USB - USB IN (p. 152) set to anything other than OFF?**

→ When set to anything other than OFF, the software settings may cause looping of the audio signals. If this occurs, you can use any of the following methods to avoid the problem.
- Stop playback with the software, or set Soft Thru to OFF.
- Switch off the software's audio input.
- Change the [SYSTEM] - USB - USB IN setting to OFF.

No stereo effect produced

❏ **Do you have a monaural effect or COSM amp connected after the stereo effect (STRING PAN, CHORUS, etc.)?**

→ Passing the signal through a monaural effect or COSM amp cancels the stereo effect. Press [CHAIN] to confirm the effect connection sequence (p. 31).

Cannot change parameters with knobs or PATCH/VALUE dial

❏ **Are you using INTERNAL PEDAL (p. 140) with Control Assign?**

→ When INTERNAL PEDAL or WAVE PEDAL is used for the assign source, the effect parameters set as the assign targets change automatically.
If you want to change parameters with the knobs or PATCH/VALUE dial, first switch off Control Assign and cancel the INTERNAL PEDAL setting.

❏ **Is the source in Control Assign set to INPUT LEVEL (p. 140)?**

→ When the assign source is set to INPUT LEVEL, the effect parameters set as the assign targets automatically change according to the input level from the bass (the performance dynamics).
If you want to change parameters with the knobs or PATCH/VALUE dial, first switch off Control Assign.

Other Problems

Unable to save SYSTEM/USB USB IN settings

→ If the USB IN parameter is set to COSM BASS A, COSM BASS B, or NORMAL PU, then MAIN & SUB will be set the next time the VB-99 is powered up. If you plan to use COSM BASS A, COSM BASS B, or NORMAL PU, remake this setting each time you turn on the power to the VB-99 (p. 152).

Patches not switching

❑ **Is some screen other than the Play screen shown in the display?**

→ With the VB-99, you cannot switch patches in any screen other than the Play screen. Press [EXIT] one or more times to return to the Play screen (p. 20).

❑ **Is [SYSTEM] - MISC - PATCH EXTENT set correctly?**

→ The range of patches that can be selected is limited by the PATCH EXTENT setting. Be sure to set this correctly.

Unable to control parameters set with Assign as expected

❑ **Are the effects switched off?**

→ Check to make sure the effects incorporating the parameters being controlled are on.

❑ **Is the patch set to anything other than ASSIGNABLE (PATCH) in [SYSTEM] - CONTROL ASSIGN?**

→ Even with the patch's [CONTROL ASSIGN] setting made, the settings made in [SYSTEM] - CONTROL ASSIGN are given priority.
To enable the settings in the patch, set the controllers under [SYSTEM] - CONTROL ASSIGN to ASSIGNABLE (PATCH).

❑ **Are the MIDI channels matched?**

→ When carrying out operations using MIDI, check to confirm that both devices are set to the same MIDI channel (p. 52).

❑ **Are the controller numbers (CC#) matched?**

→ Check to confirm that the controller numbers you are using are the same (p. 56).

MIDI messages not being transmitted/received

❑ **Could there be a short in the MIDI cable?**

→ Try replacing the MIDI cable.

❑ **Are the VB-99 and the external MIDI device connected properly?**

→ Check the connection with the external MIDI device.

❑ **Are the MIDI channels matched?**

→ Check to confirm that both devices are set to the same MIDI channel (p. 52).

❑ **Are the Device ID matched?**

→ Check to confirm that both devices are set to the same Device ID (p. 53).

❑ **If you are transmitting from the VB-99, have the settings for transmission been made?**

→ Check the Program Change message transmission ON/OFF setting (p. 54) and the settings for the controller number to be transmitted (p. 56).

Parameters Indicated with Angle Brackets

→ When a parameter appears in angle brackets (< >), it indicates the parameter is currently disabled.
System parameters take priority over the patch parameters shown below; depending on the settings, these patch parameters may be disabled.
Please confirm the settings for the corresponding system parameters.

Disabled Patch Parameters	Corresponding System Parameters
[CONTROL ASSIGN] (p. 77)	[SYSTEM] - CONTROL ASSIGN (p. 42)
[MIXER] - OUTPUT (p. 33)	[SYSTEM] - OUTPUT - OUTPUT MODE (p. 45)
[NAME/KEY/BPM] - TX PC (p. 54)	[SYSTEM] - MIDI - TX PC MAP (p. 55)
[NAME/KEY/BPM] - BPM (p. 142)	[SYSTEM] - BPM - SYSTEM BPM (p. 153)

Chapter 9

Index

173

Index

MEMO

MEMO

MEMO

MEMO

有关产品中所含有害物质的说明

本资料就本公司产品中所含的特定有害物质及其安全性予以说明。

本资料适用于 2007 年 3 月 1 日以后本公司所制造的产品。

环保使用期限

此标志适用于在中国国内销售的电子信息产品，表示环保使用期限的年数。所谓环保使用期限是指在自制造日起的规定期限内，产品中所含的有害物质不致引起环境污染，不会对人身、财产造成严重的不良影响。

环保使用期限仅在遵照产品使用说明书，正确使用产品的条件下才有效。

不当的使用，将会导致有害物质泄漏的危险。

产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
外壳（壳体）	×	○	○	○	○	○
电子部件（印刷电路板等）	×	○	×	○	○	○
附件（电源线、交流适配器等）	×	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

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因根据现有的技术水平，还没有什么物质能够代替它。

For EU Countries

UK This symbol indicates that in EU countries, this product must be collected separately from household waste, as defined in each region. Products bearing this symbol must not be discarded together with household waste.

DE Dieses Symbol bedeutet, dass dieses Produkt in EU-Ländern getrennt vom Hausmüll gesammelt werden muss gemäß den regionalen Bestimmungen. Mit diesem Symbol gekennzeichnete Produkte dürfen nicht zusammen mit den Hausmüll entsorgt werden.

FR Ce symbole indique que dans les pays de l'Union européenne, ce produit doit être collecté séparément des ordures ménagères selon les directives en vigueur dans chacun de ces pays. Les produits portant ce symbole ne doivent pas être mis au rebut avec les ordures ménagères.

IT Questo simbolo indica che nei paesi della Comunità europea questo prodotto deve essere smaltito separatamente dai normali rifiuti domestici, secondo la legislazione in vigore in ciascun paese. I prodotti che riportano questo simbolo non devono essere smaltiti insieme ai rifiuti domestici. Ai sensi dell'art. 13 del D.Lgs. 25 luglio 2005 n. 151.

ES Este símbolo indica que en los países de la Unión Europea este producto debe recogerse aparte de los residuos domésticos, tal como esté regulado en cada zona. Los productos con este símbolo no se deben depositar con los residuos domésticos.

PT Este símbolo indica que nos países da UE, a recolha deste produto deverá ser feita separadamente do lixo doméstico, de acordo com os regulamentos de cada região. Os produtos que apresentem este símbolo não deverão ser eliminados juntamente com o lixo doméstico.

NL Dit symbool geeft aan dat in landen van de EU dit product gescheiden van huishoudelijk afval moet worden aangeboden, zoals bepaald per gemeente of regio. Producten die van dit symbool zijn voorzien, mogen niet samen met huishoudelijk afval worden verwijderd.

DK Dette symbol angiver, at i EU-lande skal dette produkt opsamles adskilt fra husholdningsaffald, som defineret i hver enkelt region. Produkter med dette symbol må ikke smides ud sammen med husholdningsaffald.

NO Dette symbolet indikerer at produktet må behandles som spesialavfall i EU-land, iht. til retningslinjer for den enkelte regionen, og ikke kastes sammen med vanlig husholdningsaffall. Produkter som er merket med dette symbolet, må ikke kastes sammen med vanlig husholdningsaffald.

SE Symbolen anger att i EU-länder måste den här produkten kasseras separat från hushållsavfall, i enlighet med varje regions bestämmelser. Produkter med den här symbolen får inte kasseras tillsammans med hushållsavfall.

FI Tämä merkintä ilmaisee, että tuote on EU-maissa kerättävä erillään kotitalousjätteistä kunkin alueen voimassa olevien määräysten mukaisesti. Tällä merkinnällä varustettuja tuotteita ei saa hävittää kotitalousjätteiden mukana.

HU Ez a szimbólum azt jelenti, hogy az Európai Unióban ezt a terméket a háztartási hulladéktól elkülönítve, az adott régióban érvényes szabályozás szerint kell gyűjteni. Az ezzel a szimbólummal ellátott termékeket nem szabad a háztartási hulladék közé dobni.

PL Symbol oznacza, że zgodnie z regulacjami w odpowiednim regionie, w krajach UE produktu nie należy wyrzucać z odpadami domowymi. Produktów opatrzonych tym symbolem nie można utylizować razem z odpadami domowymi.

CZ Tento symbol udává, že v zemích EU musí být tento výrobek sbírán odděleně od domácího odpadu, jak je určeno pro každý region. Výrobky nesoucí tento symbol se nesmí vyhazovat spolu s domácím odpadem.

SK Tento symbol vyjadruje, že v krajinách EÚ sa musí zber tohto produktu vykonávať oddelene od domového odpadu, podľa nariadení platných v konkrétnej krajine. Produkty s týmto symbolom sa nesmú vyhadzovať spolu s domovým odpadom.

EE See sümbol näitab, et EL-i maades tuleb see toode olemprügist eraldi koguda, nii nagu on igas piirkonnas määratletud. Selle sümboliga märgitud tooteid ei tohi ära visata koos olmeprügiga.

LT Šis simbolis rodo, kad ES šalyse šis produktas turi būti surenkamas atskirai nuo buitinių atliekų, kaip nustatyta kiekviename regione. Šiuo simboliu paženklinti produktai neturi būti išmetami kartu su buitinėmis atliekomis.

LV Šis simbols norāda, ka ES valstīs šo produktu jāievāc atsevišķi no mājsaimniecības atkritumiem, kā noteikts katrā reģionā. Produktus ar šo simbolu nedrīkst izmest kopā ar mājsaimniecības atkritumiem.

SI Ta simbol označuje, da je treba proizvod v državah EU zbirati ločeno od gospodinjskih odpadkov, tako kot je določeno v vsaki regiji. Proizvoda s tem znakom ni dovoljeno odlagati skupaj z gospodinjskimi odpadki.

GR Το σύμβολο αυτό υποδηλώνει ότι στις χώρες της Ε.Ε. το συγκεκριμένο προϊόν πρέπει να συλλέγεται χωριστά από τα υπόλοιπα οικιακά απορρίμματα, σύμφωνα με όσα προβλέπονται σε κάθε περιοχή. Τα προϊόντα που φέρουν το συγκεκριμένο σύμβολο δεν πρέπει να απορρίπτονται μαζί με τα οικιακά απορρίμματα.

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For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.
Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

For EU Countries

C E   This product complies with the requirements of EMC Directive 2004/108/EC.

For the USA

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

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

For Canada

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 brouilleur du Canada.

For the USA

DECLARATION OF CONFORMITY
Compliance Information Statement

Model Name : VB-99
Type of Equipment : V-Bass System
Responsible Party : Roland Corporation U.S.
Address : 5100 S.Eastern Avenue, Los Angeles, CA 90040-2938
Telephone : (323) 890-3700

For C.A. US (Proposition 65)

WARNING

This product contains chemicals known to cause cancer, birth defects and other reproductive harm, including lead.

Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

AFRICA

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9, EBN Hagar Al Askalany Street,
ARD E1 Golf, Heliopolis,
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Seocho Ku, Seoul, KOREA
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Cra 43 B No 25 A 41 Bododega 9
Medellin, Colombia
TEL: (574)3812529

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10237,
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EL SALVADOR
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Ciudad de Guatemala
Guatemala
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San Pedro Sula, Honduras
TEL: (504) 553-2029

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TEL: 596 596 426860

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97200 Fort De France
Martinique F.W.I.
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Av. Toluca No. 323, Col. Olivar
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