Roland

GUITAR SYNTHESIZER

GR-1

OWNER'S MANUAL

Roland GR - 1
GUITAR SYNTHESIZER

Owner's Manual

Before You Begin...

We'd like to take this opportunity to thank you for purchasing the GR - 1 guitar synthesizer.
Even if you're a guitarist who has never messed around much with electronic instruments, in no time you'll be accessing the many incredible built-in sounds using 'the stomp-boxy foot-pedal controls. There is also a multi-timbral sound module and built-in Recorder that will let you play along with an entire ensemble! Please take the time to look through this manual carefully so that you will fully understand all the great features and get years of enjoyment from your purchase.
And if you find that the GR - 1 has become your favorite "sound tool" wherever you go, on stage or in studio, well, there's nothing would please us more here at Roland.

Features

Super Fast Response and Accurate Tracking

● Based on a custom LSI expressly designed for guitar synthesizer use and a new pitch extractor LSI design. This greatly speeds up the pitch extraction process, giving you incredibly fast picking response.

● Analog pitch extraction circuitry has also been improved, to give you more natural tracking.

Designed to Look and Feel Like a Stomp Box

● Sound module, guitar MIDI interface and pedals combined into one unit, so you can make settings more quickly and avoid the tangle of cables. And thanks to the portable design, you can take the GR - 1 with you wherever you go, stage or studio.

● In addition to switching tones with the pedals, you can also use them to control a number of effects such as Hold or smooth Pitch Bending.

● Large fluorescent display makes it easy to see and check on settings, even on a dark stage.

Knobs, Just Like on an Amp or Effects Pedal

● Seven knobs on the panel for quick and easy editing operations.

● Easy to use, so you can start making your own synthesizer sounds right away, even if you've never done anything with electronic instruments like this before.

Loaded with the Latest Guitar Sounds

● Access 200 high-quality Original Tones and a wide variety of Variation sounds using the latest in sound module technology. And you can add even more expressive power to the sounds using built-in digital filters.

● With the Wave Expansion Kit (SR-GR1-01, sold separately), you can expand this to 400 Original Tones (tripling the capacity).

Built-In Recorder and Multi-Timbral Sound Module

● Built-in 4-track Recorder (in fact, a simple sequencer). You can use the Recorder for a variety of things, such as giving you intros when playing on stage or accompaniment for demo tapes.

● Song data for the Recorder can be stored in memory along with the patch data.

● The Recorder is directly hooked up to a built-in multi-timbral sound module (three Parts plus a rhythm Part), which can be played by an external keyboard or full-fledged sequencer as a MIDI expansion module.

Built-In Reverb and Chorus

● Built-in digital reverb and chorus for use as effects with the synthesizer sounds, including multitap delay and flanger settings.

● Parameters like Reverb Level and Chorus Depth can be directly adjusted and easily switched on and off with the front panel knobs and buttons.

A Variety of Rear Panel Jacks for Live Setups

● Equipped with stereo return jacks for use with the guitar. This way, you can play the guitar sound and the synth sound together on the same amp, with other external effects applied only to the guitar.

● Also equipped with two jacks for external pedals: one for volume and one for other use. This way, you can use one pedal as a wah-like tone controller and another just as a volume pedal.

■ Using This Manual

The manual includes the following sections. When necessary, read the sections you need to, as far as you need to.

Section 1 Preliminaries "Getting Your Guitar to Work With the GR-1"
Explains how to get your guitar set up to play the sounds on the GR - 1.

Section 2 Getting the Basic Idea "How the GR-1 is Set Up"
Basic ideas and concepts about the GR - 1 itself and how it's laid out.

Section 3 Making Sounds "Patch Editing and Creating New Sounds"
Easy patch editing on the GR - 1 guitar synth.

Section 4 Creating More Advanced Patches
"Let's Try Some More In-Depth Editing on Your Patches"
Adding even more details and fine-tuning of the patch editing procedures outlined in Section 3.

Section 5 Recording "Using the On-Board Recorder and Multi-Timbral Sounds"
How to use the built-in recorder.

Section 6 Expanding "Linking Up with Other MIDI Devices"
Explains how to combine the GR - 1 with other MIDI devices, and about the expandability afforded by MIDI.

Section 7 Some Handy Functions "Miscellaneous Settings and Functions"
How to save data, using the pedals, and other handy features.

Section 8 Advanced applications "Ideas for Getting the Most out of Your GR-1"
Some ideas and instructions are given for different ways to use the GR - 1.

Section 9 Reference
Miscellaneous settings and reference materials are found here.

【About the Symbols in the Text】
To make the explanations in this book easier to follow, we use the following symbols. If you run across one you don't understand, refer to this page to recall what it means.

● Words surrounded by a ☐ box indicate a button on the panel. For example, ENTER/YES refers to the "Enter/Yes" button itself.

● Two buttons next to one another, such as PARAMETER PREVIOUS NEXT or VALUE INC DEC means you can press either button.

● The * at the start of a sentence indicates an especially important note or warning.

● (☞ P.**) means you should refer to the indicated page number for more information about the topic being discussed.

Important Notes

● Be sure to use only the adaptor supplied with the unit. Use of any other power adaptor could result in damage, malfunction, or electric shock.

[Power Supply]

● When making any connections with other devices, always turn off the power to all equipment first; this will help prevent damage or malfunction.

● Do not use this unit on the same power circuit with any device that will generate line noise, such as a motor or variable lighting system.

● The power supply required for this unit is shown on its nameplate. Ensure that the line voltage of your installation meets this requirement.

● Avoid damaging the power cord; do not step on it, place heavy objects on it etc.

● When disconnecting the AC adaptor from the outlet, grasp the plug itself; never pull on the cord.

● If the unit is to remain unused for a long period of time, unplug the power cord.

[Placement]

● Do not subject the unit to temperature extremes (eg. direct sunlight in an enclosed vehicle). Avoid using or storing the unit in dusty or humid areas or areas that are subject to high vibration levels.

● Using the unit near power amplifiers (or other equipment containing large transformers) may induce hum.

● This unit may interfere with radio and television reception. Do not use this unit in the vicinity of such receivers.

● Do not expose this unit to temperature extremes (eg. direct sunlight in an enclosed vehicle can deform or discolor the unit) or install it near devices that radiate heat.

[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 mild neutral detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.

● Never use benzene, thinners, alcohol or solvents of any kind, to avoid the risk of discoloration and/or deformation.

[Additional Precautions]

● Protect the unit from strong impact.

● Do not allow objects or liquids of any kind to penetrate the unit. In the event of such an occurrence, discontinue use immediately. Contact qualified service personnel as soon as possible.

● Should a malfunction occur (or if you suspect there is a problem) discontinue use immediately. Contact qualified service personnel as soon as possible.

● To prevent the risk of electric shock, do not open the unit or its AC adaptor.

[Memory Backup]

● The unit contains a battery which maintains the contents of memory while the main power is off. The expected life of this battery is 5 years or more. However, to avoid the unexpected loss of memory data, it is strongly recommended that you change the battery every 5 years.

● When the battery becomes weak, the following message will appear in the display: " $BATT\ Lo$ ". Please change battery as soon as possible to avoid the loss of memory data.

● Please be aware that the contents of memory may at times be lost; when the unit is sent for repairs or when by some chance a malfunction has occurred. Important data should be stored on a Memory card or in another MIDI device (eg. a sequencer), or written down on paper. 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 be impossible to restore the data.

Contents

Section 6 Expanding

Section 7 Some Handy Functions

Section 8 Advanced applications

Section 9 Reference

■ Panel Descriptions:

《Front Panel》

(1) Master VOLUME

Controls the overall output of the GR - 1 (via the OUTPUT jacks).
Also controls headphone volume.

*Does not affect the volume of the guitar sound output
through the GUITAR OUT jack.

(2) Edit Knobs

Control tone, reverb, and chorus in the Play mode (☞ P.1-4).

(3) VALUE Knob

Controls Vibrato Rate or Chorus Rate in the Play mode. In the
Edit mode, it can be used to set parameter values.

(4) TARGET knob

Switches the target for settings made with the Edit knobs.

(5) Number Pedals,
    Bank [UP] / [DOWN] Pedals

Depress these pedals to select Patches (☞ P.1-9).

《Control Buttons》
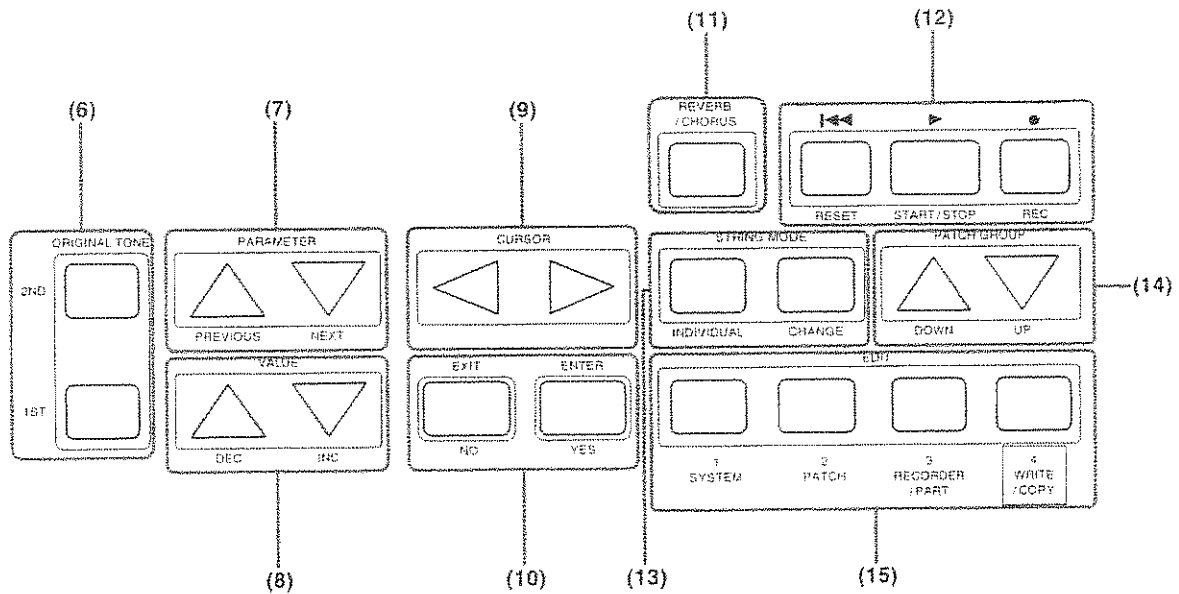
(6) ORIGINAL TONE Buttons

Used to assign an Original Tone to the 1st or 2nd Tone of a Patch.

(7) PARAMETER Buttons

Used to select parameters (for editing), or for switching between functions in the Edit mode.

(8) VALUE Buttons

In the Edit mode, use these buttons to scroll through parameter values. When setting a numerical value, pressing [INC] increases the value while [DEC] decreases it. Holding either button causes the numbers to change continuously. In the Play mode, these buttons can be used to scroll through Patch numbers.

(9) CURSOR Buttons

Used to move the "cursor" (flashing character in the display) left or right when naming a Patch, or for selecting strings in the String mode (☞ P.3-13, 4-2).

(10) [ENTER/YES] and [EXIT/NO] Buttons

The [ENTER/YES] button is used (for example) to select functions or confirm choices. The [EXIT/NO] button is used for returning to the Play mode from the current screen or for canceling a procedure.

✳The values that you set in the Edit mode remain in effect even after you press the [EXIT/NO] button.

(11) [REVERB/CHORUS] Button

Turns the reverb and chorus effects on and off (☞ P.3-9).

(12) [RECORDER/PART] Button

Controls the internal Recorder (☞ P.5-1). Only the RESET and [START/STOP] button function in the Play mode.

(13) STRING MODE Buttons

Sets whether each string will play the 1st and/or 2nd Tone (☞ P.3-6).

(14) PATCH GROUP Buttons

Used to switch between Patch Groups (☞ P.1-9). You can select Group 1 or 2 from internal memory, or Group 3 or 4 when using a Memory Card.

(15) EDIT Buttons

Used to enter the Edit mode . You can select one of four different Edit modes : System (☞ P.7-1), Patch (☞ P.4-1), Recorder/Part (☞ P.5-1), or Write/Copy (☞ P.3-14).

《Rear Panel》
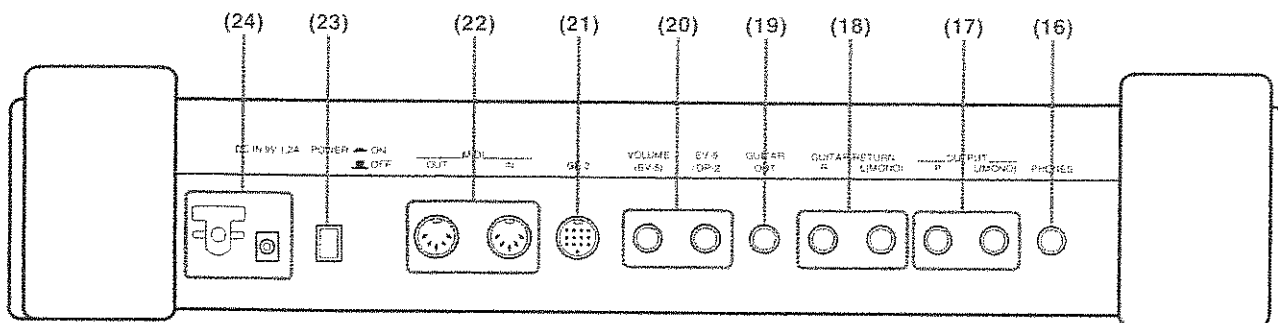
(16) PHONES Jack

Connect headphones to this jack.

(17) OUTPUT Jacks

The guitar and GR - 1 sounds are mixed and output through these jacks. Use the L(MONO) jack when using a mono setup.

(18) GUITAR RETURN Jacks

When you use the GUITAR OUT jack (next clause) as an effect send jack for the straight guitar sound, return the processed guitar signal from the external effects device to this jack (as an effect return). When the return signal is mono, use the L(MONO) jack.

(19) GUITAR OUT Jack

The straight (unprocessed) guitar sound is output through this jack. This is the best output to use with guitar amps and external effects.

(20) External Pedal Jacks

Connect external pedals to these jacks.
Guitar volume can be controlled using an optional EV-5 pedal connected to the VOLUME (EV-5) jack (☞ P.7-6). You can control the balance between the 1st and 2nd Tones or alter their sound using an EV-5 (or depending on the function, an optional DP-2 pedal) connected to the EV-5/DP-2 jack (☞ P.7-6).

(21) GK - 2 Port

Connect a GK - 2 synthesizer driver using the cable provided.

(22) MIDI Connectors

IN   : Connect this connector to the MIDI OUT connector of external MIDI devices (sequencers, MIDI keyboards etc.) when using them to control the GR - 1's synth Tone generator (usually the multi-timbral part).

OUT : Connect this connector to the MIDI IN connector of external MIDI devices when you wish to play their sounds using the GR - 1's guitar-to-MIDI converter.

(23) POWER Switch

(24) Power Supply Jack, Cord Hook

Connect the AC adaptor to this input and loop the cable around the hook —this will help prevent the adaptor from being accidentally disconnected.

＊Use only the AC adaptor supplied with your GR - 1. Use of any other adaptor may result in damage, malfunction or electric shock.

《Side Panel》
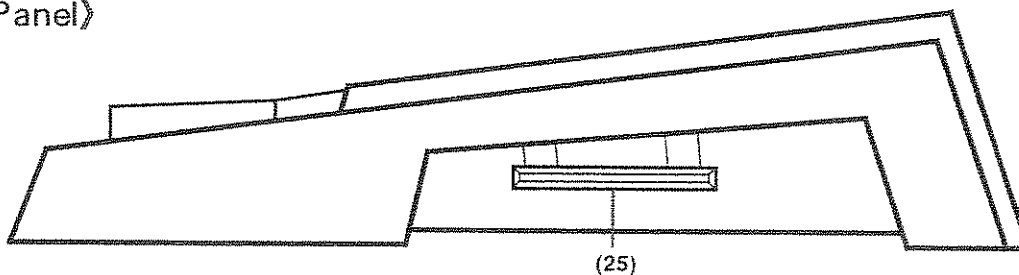
(25) Card Slot

Insert Memory Cards (☞ P.7-11)or GR-1 Tone Cards (☞ P.7-24) into this slot.

《Display》
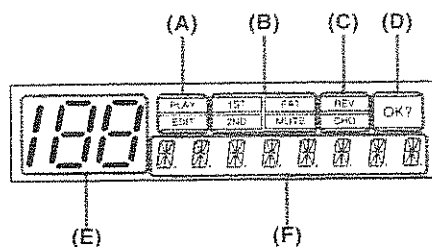
(A) PLAY, EDIT Display

The word "PLAY" lights when the GR - 1 is in the Play mode, and "EDIT" lights when an Edit button has been pressed (to select the Edit mode). If you change the current Patch settings from their stored values with the Edit knobs, PLAY/EDIT will flash to indicate this.

(B) 1ST, 2ND, FAT, MUTE Display

1ST and 2ND refer to the 1st and 2nd Tones: the appropriate one will light to indicate which has been selected with the STRING MODE buttons. If neither is selected, "MUTE" will light. When the Original Tone has been selected, they will both flash.
"FAT" lights to indicate that the FAT effect has been turned on.

(C) REV, CHO Display

REV stands for reverb and CHO for chorus. They light to indicate that the corresponding effect is on.

(D) "OK?" Display

This will flash to ask you for confirmation when carrying out an operation (for example, a Patch Write). Press [YES] to confirm, or [NO] to cancel the operation.

*When "OK?" is flashing, take a moment before pressing [YES]. You could be about to overwrite (replace) or initializing data that you wanted to keep.

(E) Number Display

This is where the two-digit (indicating Group and Bank) Patch numbers are displayed (☞ P.1-9). In the Edit mode, the number of the Patch being edited is displayed. When an Original Tone is selected, the number of that Tone (between 00 and 199) is displayed (☞ P.3-9). When the GR - 1 is in the Pedal Function mode, "Pd" is displayed (☞ P.1-12).

(F) Alphanumeric Display

Displays the currently selected Patch name. When you have pressed an Edit button (and are in the Edit mode), the display will show function names and settings. It also functions as the Tuner display (☞ P.1-5), String mode display (☞ P.4-2), and Pickup Sensitivity Adjust screen (☞ P.1-6).

Before Turning the Power On

● You Will Need the Following (not included with the GR-1):
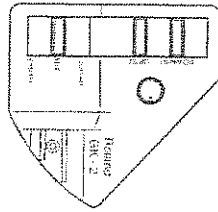
a. GK-2 Guitar Synthesizer Driver.
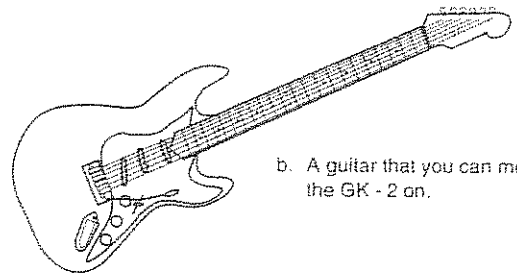
b. A guitar that you can mount the GK-2 on.
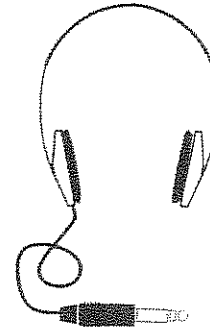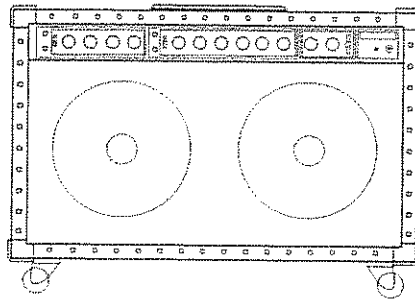
c. Amp, mixer, etc., for audio output; or headphones.

a. GK-2 Guitar Synthesizer Driver.

b. A guitar that you can mount the GK-2 on. (See also page 1-2, "Installing the GK-2")

c. Amp, mixer, etc., for audio output; or headphones.

* For best results, prepare guitar amps (or audio devices specially designed for guitars) to produce straight guitar sounds exclusively. (See also page 2-4, "Examples of Connecting Amps and Effects.")

● About the GK-2 Owner's Manual

The GK-2 manual was written with the Roland GR-50 Guitar Synthesizer in mind so there are places where it only talks about what to do on the GR-50. Consequently, you will want to refer to page 9-2 of this manual for information on "GK-2:Part Names and Functions." Also, for best results with the GR-1, be sure to refer to the GK-2 manual section about installing the driver (pages 5 to 11).

Preliminaries

"Getting Your Guitar to Work With the GR - 1"

[Objective]

In this section, we'll show you how to install the GK - 2 synthesizer driver (not included) on your guitar and actually get some sounds out of the GR - 1. We will concentrate on that first and not worry too much about what the displays mean, or what to do in detail with each switch and knob—that will all be explained later. Even if this is your first time with an electronic instrument, mastering this section means you will have a basic grasp of all the procedures for working with the GR - 1.

1. Installing the GK - 2

The first thing to do is install the GK - 2 on your guitar. Detailed instructions are included in the GK - 2 Owner's Manual (pages 5 to 11). Referring to these instructions, securely mount the GK - 2 on the guitar where it won't interfere with your playing.
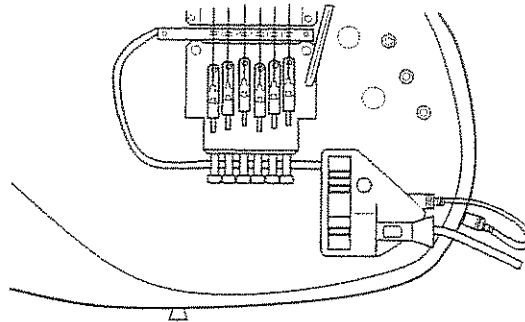
Note !

The GK - 2 has a compact design so that it can be installed on a wide range of guitars. However, there are a few guitars that it won't work on:

a. 12-string guitars or guitars with unusual or customized string setups, nylon- or gut-string guitars, or bass guitars. (Will not operate correctly even if properly installed.)

b. Certain guitars that, because of their design, do not have enough space to mount the GK - 2 pickup.

* These can sometimes be easily modified to accept a pickup; consult your GK - 2 retailer.

2. Making the Connections: GK - 2, GR - 1, Amp

Here is an example of the most basic setup. Use this as a guide when making the connections.

AC Adaptor (included)

Roland GK - 2

Guitar Amp

Stereo Headphones
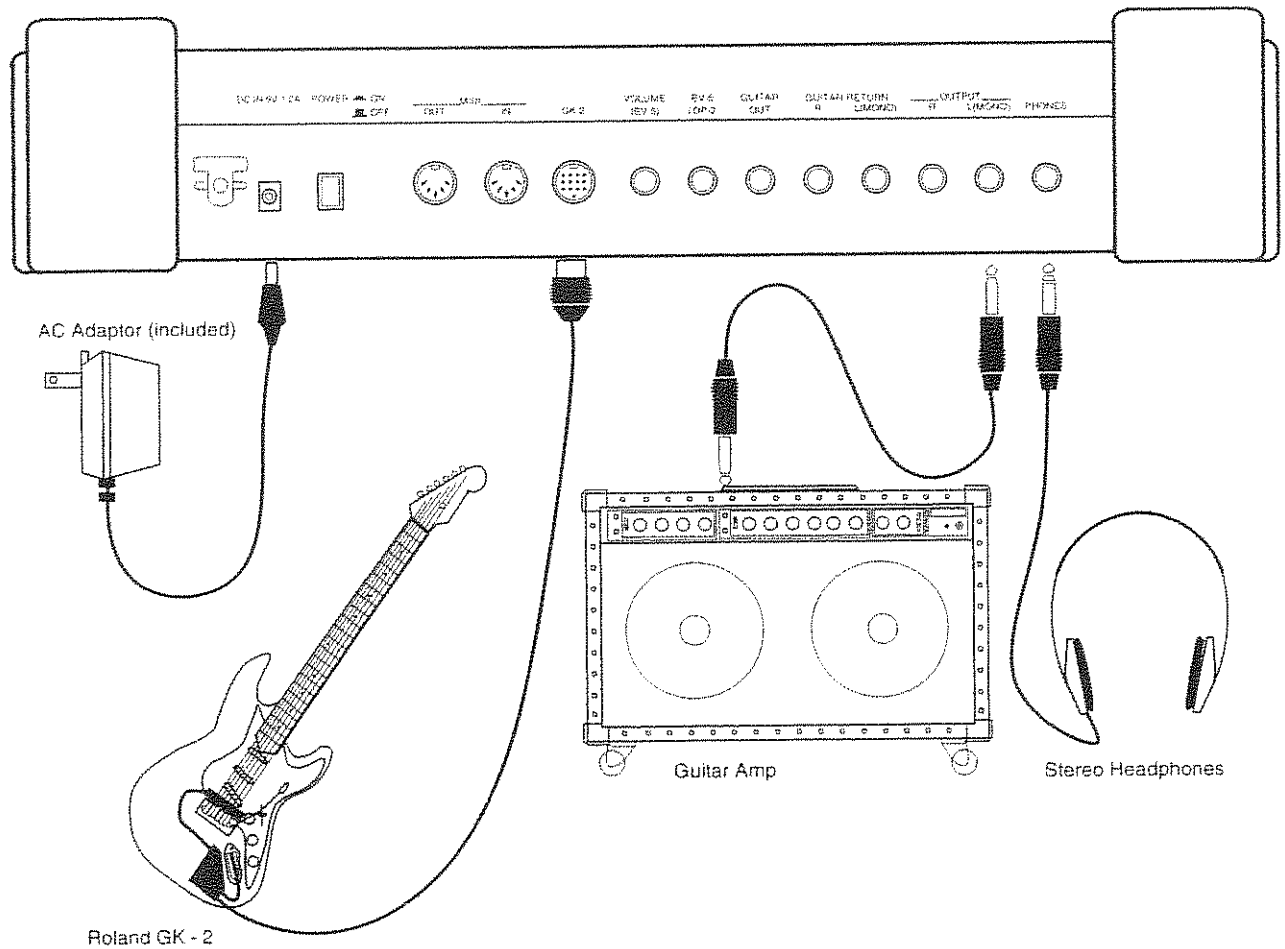
＊If there is nothing plugged into the GUITAR OUT jack, then the OUTPUT jacks will output both synth sound and straight guitar sound.

3. Turning On and Tuning Up

☐ Turning On the Power

① Be sure the AC adaptor is securely connected.

② Turn on the power switch on the rear panel.

POWER
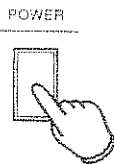
The following will appear in the display screen:

```
R O L A N D
```

↓

```
G U I T A R
```

↓

```
S Y N T H S I Z
```

↓

```
G R - 1
```
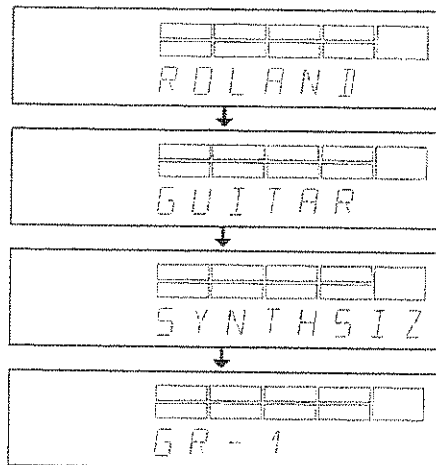
↓ In a moment the display will change to this:

```
| |    PLAY  1ST        REV
| |                     CHO
| |  R H O D E S
```
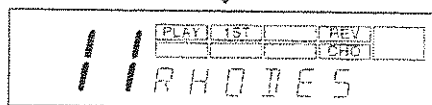
This is the "Play mode" display. All your basic operations will start from this point.

③ Now turn on the amp.

● When You Don't Understand What the Display Means...

Until you become more familiar with the GR - 1, you may accidentally find yourself looking at a display you've never seen before! If this happens, just press EXIT once (or several times) to return to the Play mode.

Or, if you notice the lights above all six of the foot pedals start to flash, that probably means you have accidentally pressed the S2 switch on the GK - 2. Press the GK - 2 S1 switch and everything will be returned to normal.

Or, if the numbers in the display are flashing, you probably just pressed a Group button (☞ P.0–11) or Bank pedal (☞ P.0–10) and started to select a new Patch.

After turning on the power, you can use the on-board tuner to tune your guitar. (If you're already in tune, you can skip over to the next section, "Adjusting the Pickup Sensitivity for Individual Strings" on page 1–6.)

☐ Tuning the Guitar

① Press the ⬚S2⬚ switch on the GK - 2.
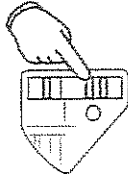
All the pedal lights on the GR - 1 will start to flash.
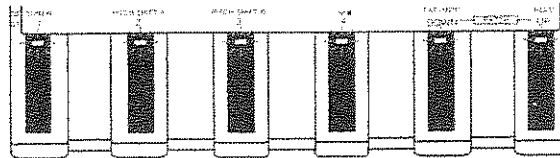
② Press the leftmost pedal (the one marked "TUNER 1").

The pedal lights will light continuously and the tuner function is ready to go.

③ Start by playing the sixth string.

The note closest to the current pitch of the sixth string will be displayed (in semi-tone intervals) by the first two characters of the alphanumeric display.

④ Slowly turn the tuning peg for the sixth string until the display reads " E ".

For example:

$$A = A \quad A\# = A\,o$$

* Be sure that you're playing the correct string!

⑤ Now, fine tune the string so that the indicator line in the character display is in the center reference position.

When the display looks like the above, the sixth string is in tune.

⑥ Repeat the procedure with the fifth through first strings, tuning them to A, D, G, B and E, respectively.

⑦ When you're finished tuning, press the ⬚S1⬚ switch on the GK - 2.

You'll be returned to the original screen and the tuner is turned off.

● Tuning To Other Instruments

The factory default Master Tune setting (standard pitch) for the GR - 1 is A=440.0 Hz. If you need to change this in order to play along with other instruments, you'll have to reset Master Tune; see page 2–6 for more about this.

Resetting Master Tune will change both the standard pitch of the guitar tuner and the pitch of the internal synth Tone generator.

4. Adjusting the Pickup Sensitivity for Individual Strings

The first time you use the GK - 2, or whenever you change the way you have installed the divided pickup on your guitar, you must adjust the sensitivity of each string.

● Divided Pickup

The pickups on guitar synth drivers–like the GK - 2—are called "divided pickups." These are designed to pick up the vibration from each string independently to drive the synth.

Adjusting Divided Pickup Sensitivity

① From the Play mode (☞ P.1–4), press the EDIT [SYSTEM] button.

You will see a screen that looks like the following:
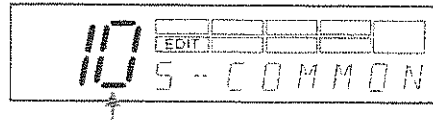
Only the " *0* " will flash.

② Press the PARAMETER [NEXT] button.

The display will read "SENS-ADJ."
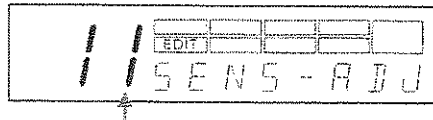
Only the " *1* " will flash

＊If you accidentally press the PARAMETER [NEXT] button one too many times and scroll past the function you wanted to select, just press PARAMETER [PREVIOUS] to back up.

③ Press [ENTER/YES].

Sensitivity adjust is now selected, and the screen will look like the following:

String Number   Sensitivity (0 to 7)

The "1 — 3" in the alphanumeric display in this case means "The first string is set to a sensitivity of 3."

④ Play a note on any string to select that string for adjustment.

When you play a string, the display will change automatically to show that string number. You can now adjust the sensitivity of that string using a "level meter" display that looks something like this:
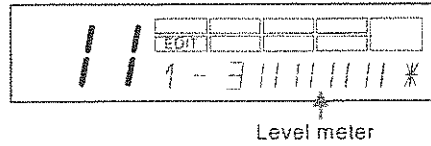
Level meter

⑤ Adjust the input sensitivity using the VALUE INC and DEC buttons.

The sensitivity is adjustable in a range from 0 to 7. Just like on a tape recorder's level meter, set the input sensitivity so that when playing hard the level meter only occasionally goes all the way over to the ＊ mark on the right-hand side.

If you are almost constantly "pegging" the meter, press VALUE DEC to back off. If you are never getting up to the * mark, press VALUE INC to boost the level a bit.

⑥ When you have adjusted the sensitivity of all the strings, press EXIT/NO twice.

You will be returned to the Play mode.

＊The above procedure will have to be repeated whenever you reinstall the GK - 2 pickup on your guitar or change the height of the divided pickup. Otherwise, once you have completed the adjustment, these setting values are stored in memory, so that even if you turn the power off you won't have to readjust the sensitivity every time.

5. Playing the Internal Synth Sounds with Your Guitar

So, let's get some actual sounds out of this box!

① Check to make sure the GR - 1 is in the Play mode (☞ P.1–4).

② Set the switch on the GK - 2 to "SYNTH."

③ Rotate the GK - 2 SYNTH VOL knob clockwise to increase the volume.

④ Rotate the GR - 1 VOLUME knob to increase the volume.

Now everything should be ready to go. Play the guitar a little: a Tone name will be called up in the alphanumeric display and you will hear that Tone being played by the GR - 1's internal synth Tone generator.

● What to Do If There's No Sound

Check connections (☞ P.1–3) and amp volume again.

● To Output the Straight Guitar Sound and the Synth Sound

Set the GK - 2 switch to MIX. If it's set to GUITAR, only the guitar sound will be output and the synth Tone generator will be muted.

If you want to use a separate amp for the straight guitar sound, use a standard cable to connect the amp to the GUITAR OUT jack on the rear panel of the GR - 1.

● Adjusting the Synth Volume

You can use either the GK - 2 SYNTH VOL knob or the VOLUME knob on the GR - 1.

Note !

The GR - 1 VOLUME knob controls the volume of everything output through the OUTPUT jacks and PHONES jack. If you are sending the straight guitar sound through the OUTPUT jacks, the VOLUME knob will control the guitar volume and the synth volume simultaneously (the volume at the GUITAR OUT jack will be unaffected). The GK - 2 SYNTH VOL knob controls only the synth volume.

6. Press the Pedals to Listen to Some of the Patches

☐ Patches

The different Sounds of the GR - 1 are organized into units called "Patches." You can call up any one of 64 different Patches by pressing the foot pedals.

* 63 Patches have already been set up and are ready to use.

In the Play mode, you'll see a Patch number and Patch name display (as illustrated below). Each Patch is identified by a three digit number in which the first digit indicates the "Group," the second number, the "Bank," and the third, the "Number." Here's an example showing Patch 111.
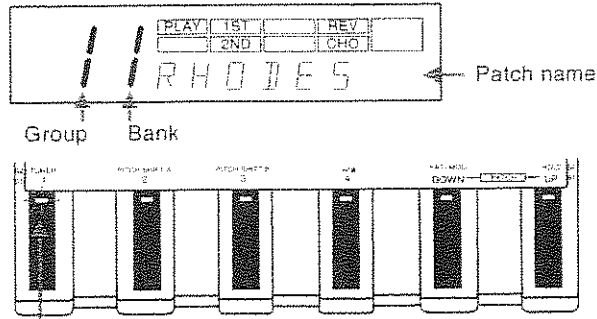
The light comes on to indicate the last digit of the Patch number, in this case a "1."

*Groups are numbered 1 to 4 (with 3 and 4 reserved for Memory Card use), Banks from 1 to 8, and Numbers from 1 to 4 (as indicated by the pedal lights).

*Group and Bank can also be combined into a single two-digit number, for example you might have a Bank 16 (meaning "Group 1, Bank 6").

● Identifying Patches by Number   Patches are identified and stored by their Patch numbers.

→You can instantly select one of four different Patches using the Number pedals (1—4).

→These four Patches are stored in Banks, and there are a total of 16 Banks, organized as follows:

      Group 1: the 8 Banks numbered 11—18

      Group 2: the 8 Banks numbered 21—28

→You can change the last digit of the Bank number using the PATCH BANK [UP] and PATCH BANK [DOWN] pedals.

PEDAL :   [UP]→[UP]→[UP]→[UP]→[DOWN]→[DOWN]

DISPLAY :   11 → 12 → 13 → 14 → 15 → 14 → 13 ...

→The first digit is the Group number and is changed using the PATCH GROUP [UP] and PATCH GROUP [DOWN] buttons on the panel.

SWITCH :   [UP] → [DOWN] → [UP]

DISPLAY :   11 → 21 → 11 → 21

Therefore, 2 Groups x 8 Banks x 4 Numbers = 64 different Patches which can be stored in the GR - 1. Optional M-256E Memory Cards give you an additional 2 Groups for a total of 128 Patches.

Switching Patches

◇ Calling Up Patches in the Same Bank and Group

Depressing a numbered pedal ☐1☐, ☐2☐, ☐3☐, or ☐4☐ selects the corresponding Patch number (the LED for that pedal will light).
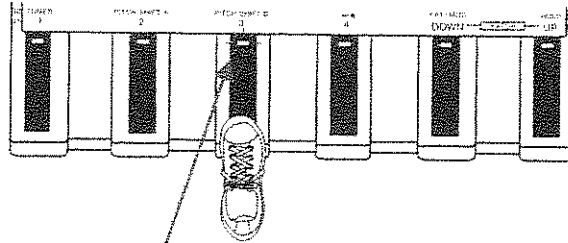
The LED on the pedal you depress will light.

◇ Calling Up a Patch from a Different Bank

① Select the new Bank.

Depress the PATCH BANK ☐UP☐ pedal to increase the Bank number (it will flash in the display as you do this). Likewise, depress PATCH BANK ☐DOWN☐ to decrease the Bank number.
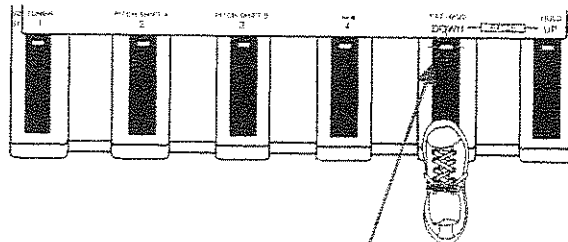
The light on the pedal you depress will light.

② Select a Number

Now, while the Bank number is still flashing in the display, press ☐1☐, ☐2☐, ☐3☐, or ☐4☐ to select a Number and the Patch that is assigned to it.
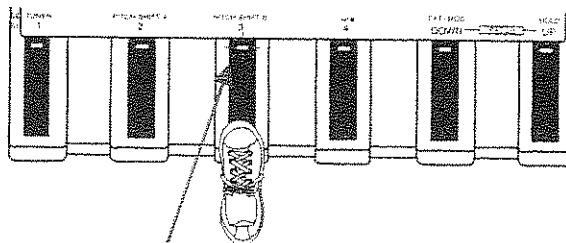
The light on the pedal you depress will light.

*You can also set it so the patch is changed as soon as you press on a Bank pedal. For details, see Section 7, "5. Changing the Patch Switching Method" (p.7–20).

◇Calling Up a Patch from a Different Group

① Select the new Group

Press the PATCH GROUP ⌐UP⌐ button to advance to the next Group. (The Group number will flash in the display as you do this). Likewise, press PATCH GROUP ⌐DOWN⌐ to select to the previous Group number.

PATCH GROUP
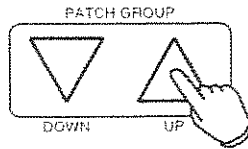
The Group number will change.

*Groups 3 and 4 select Patches from a Memory Card (if one has been inserted into the Card slot). If not, only Groups 1 and 2 can be selected.

② Select a Bank

Same as before, step on the PATCH BANK ⌐UP⌐ or ⌐DOWN⌐ pedal.
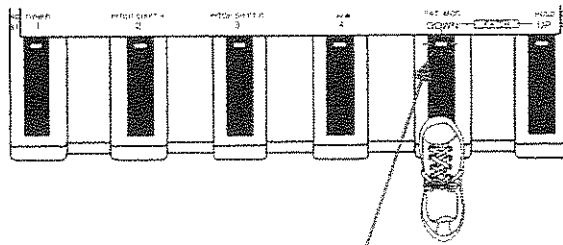
The light will on the pedal you depress will light.

③ Select a Number

Now, while the Bank number is still flashing in the display, depress pedal ⌐1⌐, ⌐2⌐, ⌐3⌐, or ⌐4⌐ to select a Number and the Patch assigned to it.
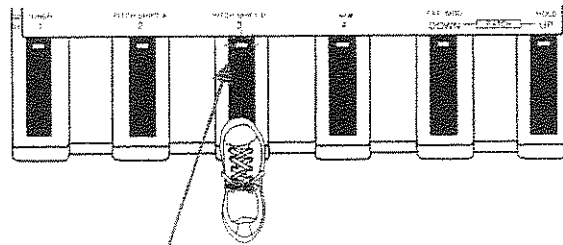
The LED on the pedal you depress will light.

Now that you've got the idea, try calling up and playing a few of the preset Patches.

● Alternate Patch Switching Method

In the Play mode, press the VALUE ⌐INC⌐ or ⌐DEC⌐ button to continuously scroll through and select Patch numbers.

··· 113, 114, 121, 122 ········ 127, 128, 131, 132 ···
⟵ ⌐DEC⌐   ⌐INC⌐ ⟶

7. Using the Pedals for Performance Effects (Hold, etc.)

In the Play mode, the pedals are used to switch Patches. However, you can also use them to apply certain effects to enhance the synth sounds while you play. To do this, you must be in the "Pedal Function mode." You can switch between the Play mode and the Pedal Function mode using a switch on the GK - 2.

① From the Play mode, press the [S2] switch on the GK - 2 to select the Pedal Function mode.
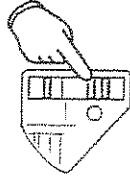
The Number display will read " Pd ", and all the pedal LEDs will flash.
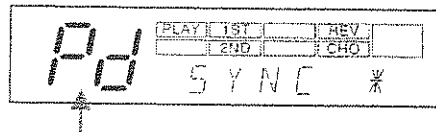
This indicates that you're in the Pedal Function mode.
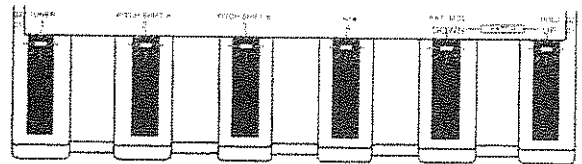
All the pedal LEDs flash in this mode.

② Press [S1] to return to the Play mode.
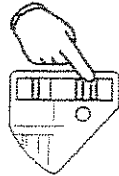
* The above method does not work if you are in the "Edit mode," that is, if you have pressed any one of the four Edit buttons or if you are selecting the Original Tone using [ORIGINAL TONE]. In that case, you must press [EXIT] to return to the Play mode or the Pedal Function mode, and then you can switch back and forth.

* When the "EDIT" in the display is lit, or during Tone Selection (☞ P.3–7), the GK - 2 [S1] and [S2] switches function exactly like the VALUE [INC] and [DEC] buttons on the GR - 1.

These are the available Pedal Functions in this mode (from left to right): [TUNER], [PITCH SHIFT A], [PITCH SHIFT B], [▶/■], [FAT/MOD], and [HOLD]. (Each function name is written above the pedal it is assigned to.)

Now let's try out each of these effects, using the default settings.

* You can program each of these pedal functions yourself. For more about this, refer to Section 7 (☞ P.7–2, P.7–9).

◇ Before Trying Out the Pedal Functions

① First, select a Patch in the Play mode.

For pitch shifting and Hold functions, use Patches with a long decay (like 161 : SYNC *) for best results. (See "Press the Pedals to Listen to Some of the Patches "on page 1-9).

② Then switch to the Pedal Function mode.

Press the [S2] switch on the GK - 2. The LEDs above the pedals will start to flash to indicate that you are in the Pedal Function mode.

Now you're ready to try out the pedals, one at a time.

∗ Press the [S1] switch to return to the Play mode.

◇ Description of the Pedal Functions

[TUNER]

Depress this pedal to select the guitar tuner. Depress it again to return to the Pedal Function screen. For more details about the tuner, see page 1-4, "Turning On and Tuning Up."

[PITCH SHIFT A]

On the GR - 1, you can smoothly change the pitch of a synth note using Pitch Shift. You can also change the pitch by as much as one octave while maintaining the interval between guitar notes—kind of like the "ultimate" vibrato arm!

∗ Straight out of the box, Pitch Shift A is set for a relatively slow drop in pitch.

① While playing a long, sustaining sound, step on the [PITCH SHIFT A] pedal (pedal number 2).

The LED on the pedal will light continuously and the pitch of the sound from the GR - 1 will slowly start to fall!

② As you hold down the pedal, the pitch will drop by one octave and remain there.

③ When you release the pedal, the sound gradually returns to its original pitch. And then, when the pitch has returned, the LED starts flashing again.

[PITCH SHIFT B]

This effect also creates a smooth pitch change, just like Pitch Shift A, but here you have a choice of pitch effects.

∗ When you first take the GR - 1 out of the box, Pitch Shift B is set for a very quick upward pitch shift.

① While playing a long, sustaining sound, depress the [PITCH SHIFT B] pedal (pedal number 3).

The LED on the pedal will light continuously and the pitch of the sound from the GR - 1 will suddenly shoot up one octave!

② When you release the pedal, the LED starts flashing again (and stays that way) as the pitch quickly returns to normal.

∗ The amount and direction of the pitch shift, rise time, and return time (after releasing the pedal) can be modified separately for Pitch Shift A and B.

∗ The range over which you can change the pitch with Pitch Shift A/B may be limited by the Tone, frequency region, and playing conditions.

▶/■ (Start/Stop)

This works exactly like the START/STOP switch on the GR - 1 to start and stop the on-board Recorder.

＊Straight out of the box this pedal is set up to start/stop play of the Demo Song. Depress it once to start the song, and once again to stop it.
＊For more information about the Recorder, see Section 5 "Recording" on page 5-1.

FAT／MOD

When you first took the GR - 1 out of the box, the FAT/MOD pedal is set to the "Fat" effect. This is an effect similar to an octave-divider effect pedal.

① Pressing the pedal once takes the synth sound currently being played, drops it down one octave, and then adds it back to the overall sound. This creates a warm, "fat" effect.

② Pressing the pedal one more time restores the sound.

● Note !

The Fat effect doubles the number of voices being used (☞ P.5–30). In the event there are not enough voices to go around, you may discover that the synth sounds being played are suddenly cut when you play another string.

● Note !

As soon as you play a new note on a string, the previous sound generated by that string is cut off to play the new note. However, this doesn't happen when FAT is turned on and the low-octave sound is also being played by the same string Tone generator. Accordingly, when FAT is in use, please note the following:
◇With long-release sounds, because you can hear the effect of bend information on the note after the release, you might hear pitch instabilities in the release section.
◇When using the Hold function, if you play while the pedal is held down, the next sound is layered on top of the previous sound.
You should use short-release Tones for playing solos with the FAT function.

＊Moreover, with the FAT/MOD pedal, you can also select the Modulation effect. When you select Modulation, pressing the pedal adds a deep vibrato to sounds. See page 7–9 for more on switching between the Fat and Modulation effects.

HOLD

This pedal creates a Hold effect so that even if the guitar string vibration is stopped (attenuated), the synth sound continues until you release the pedal.

① When you depress the pedal, Hold is applied to the note(s) sounding at that moment. Sound continues even after the vibration of the string(s) has stopped (as long as the pedal is depressed).

② When you release the pedal, the Hold effect is canceled.

＊When you take the GR - 1 out of the box, it is set so that when a string is played while the HOLD pedal is depressed, any synth notes already being sounded by that string are gradually damped while the new note you've played on that string is sounded. This makes it possible for you to invert cords without interrupting the synth note being sounded. (The GK - 2 switch must be set to MIX for this to work).
＊In addition to the effect described above (Type 1), there are also Types 2 and 3 that have an entirely different effects; find out more about how to select and use these in the section Section 7 "Modifying the Way Hold Works" on page 7–4.
＊Pressing S1 returns you to the Play mode.

【Checklist for Section 1】

● Is the GK - 2 properly mounted on the guitar? (☞ P.1–2)

● Do you have a basic understanding of how things should be hooked up? (☞ P.1–3)

● Can you adjust the sensitivity of the divided pickup? (☞ P.1–6)

● Are you getting pretty good at switching Patches? (☞ P.1–9)

● Can you adjust the volume of the synth Tone generator? (☞ P.1–8)

● Do you have a basic understanding of how to use the guitar tuner? (☞ P.1–4)

● Do you have a rough idea of how to use the Pitch Shifter and Hold pedals? (☞ P.1–12)

MEMO

Getting the Basic Idea

"How the GR - 1 is Set Up"

[Objective]

In this section we'll find out about the GR - 1 itself: how it's laid out, a few examples of how to program it, how to change Patches in numerical order, and how to change the Master Tune. Even if you're one of those people who say "Hey, it sounds just great right out of the box, I don't want to get into any programming." these are features that you should know about.

1. How the GR - 1 is Laid Out

This diagram illustrates the GR - 1's internal layout and how it is divided into the various functional sections.

(4) Recorder

DRUM PART
PART 3
PART 2
PART 1

(5) 4-part multi-timbral Sound generator

Start/Stop

MIDI IN

MIDI OUT

(1) Guitar performance detector section

Local On/Off

Patch select

Pedal select

2nd Tone
1st Tone

(2) Dedicated guitar Sound generator

STEREO OUT — Synth sound

GUITAR OUT — Guitar sound

(3) Foot pedal

GK -2
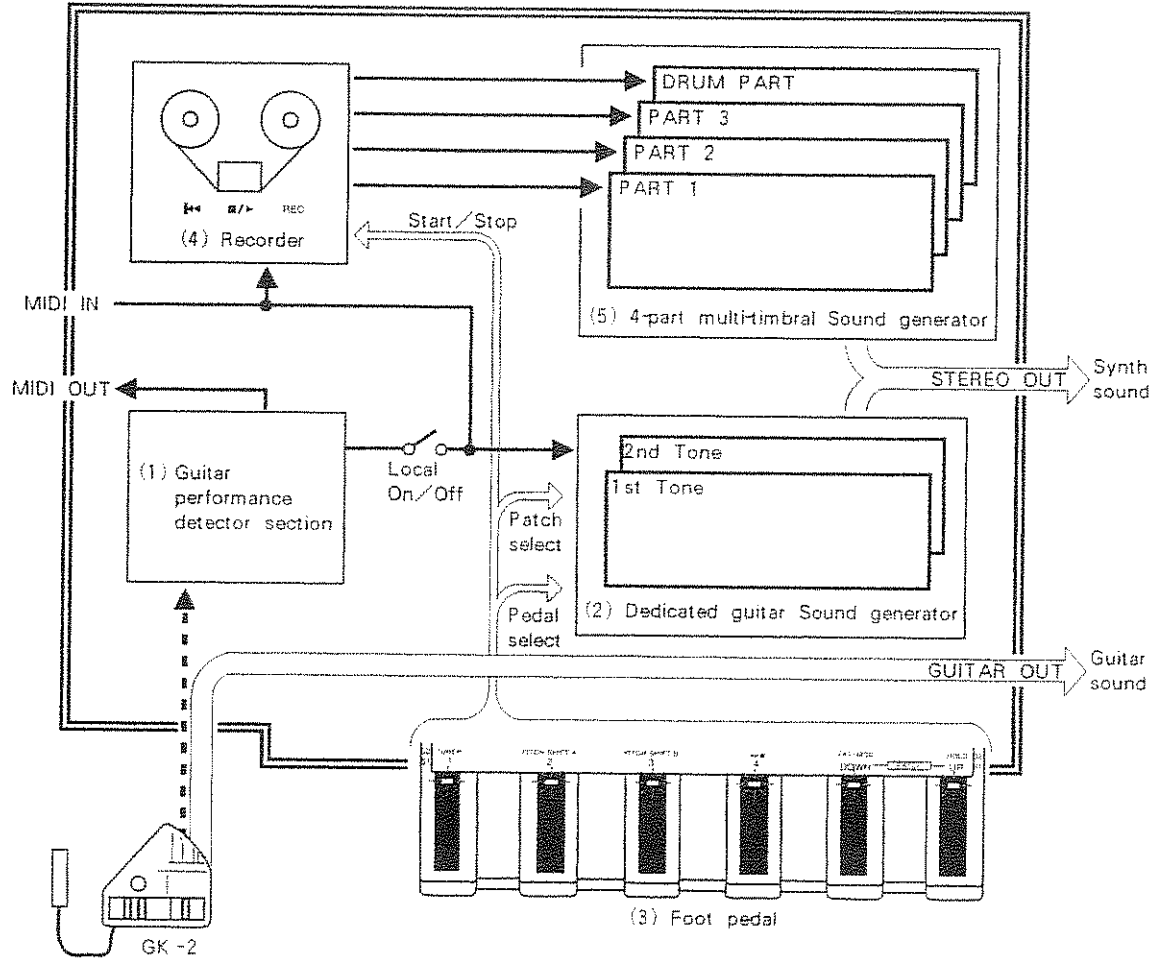
(1) Guitar performance detector section

This section determines the volume and pitch of each note being sent from the GK-2, and also controls the dedicated guitar Sound generator. It can also control an external MIDI sound generator (☞ P. 6-1).

(2) Dedicated guitar Sound generator

Receives the performance data from the guitar performance detector section and generates sound. It is set up to handle each string independently, responding to characteristic guitar playing techniques (e.g. tremolo arms). In each Patch, two sounds can be simultaneously generated for each string.

(3) Foot pedals

By depressing the foot pedals, the dedicated guitar Sound generator Patches are switched, and Hold and modulation effects can be obtained. In addition, the Recorder can be controlled, or the guitar tuner can be used (☞ P. 1-12).

(4) Recorder

The Recorder is a simple sequencer which is recorded by playing the guitar, that is, automatic music player. It is used for recording and playing back accompaniment parts. The Recorder has four tracks, each of which is directly connected to a part on the Sound generator. An external keyboard can also be used to enter data. Data can also be transmitted to the GR-1 Recorder from an external MIDI sequencer (☞ P. 6-22).

(5) Four part multi-timbral Sound generator

Each track of the Recorder is directly connected to one of the four parts of the Sound generator. It can also be used with an external keyboard or MIDI sequencer.

∗In Section 1 we introduced some of the basic features of the guitar performance detector, dedicated guitar Sound generator and foot pedals shown in the diagram above.

2. Examples of Connecting Amps and Effects

In Section 1 we showed you the simplest setup for using the GR - 1 (☞ P. 1–3). Here we'll expand that system a little to help explain what some of the other jacks on the rear panel do.

☐ A More Complex Set Up

AC adaptor (included)

GK -2

Synth volume pedal

IN   OUT

Guitar effects
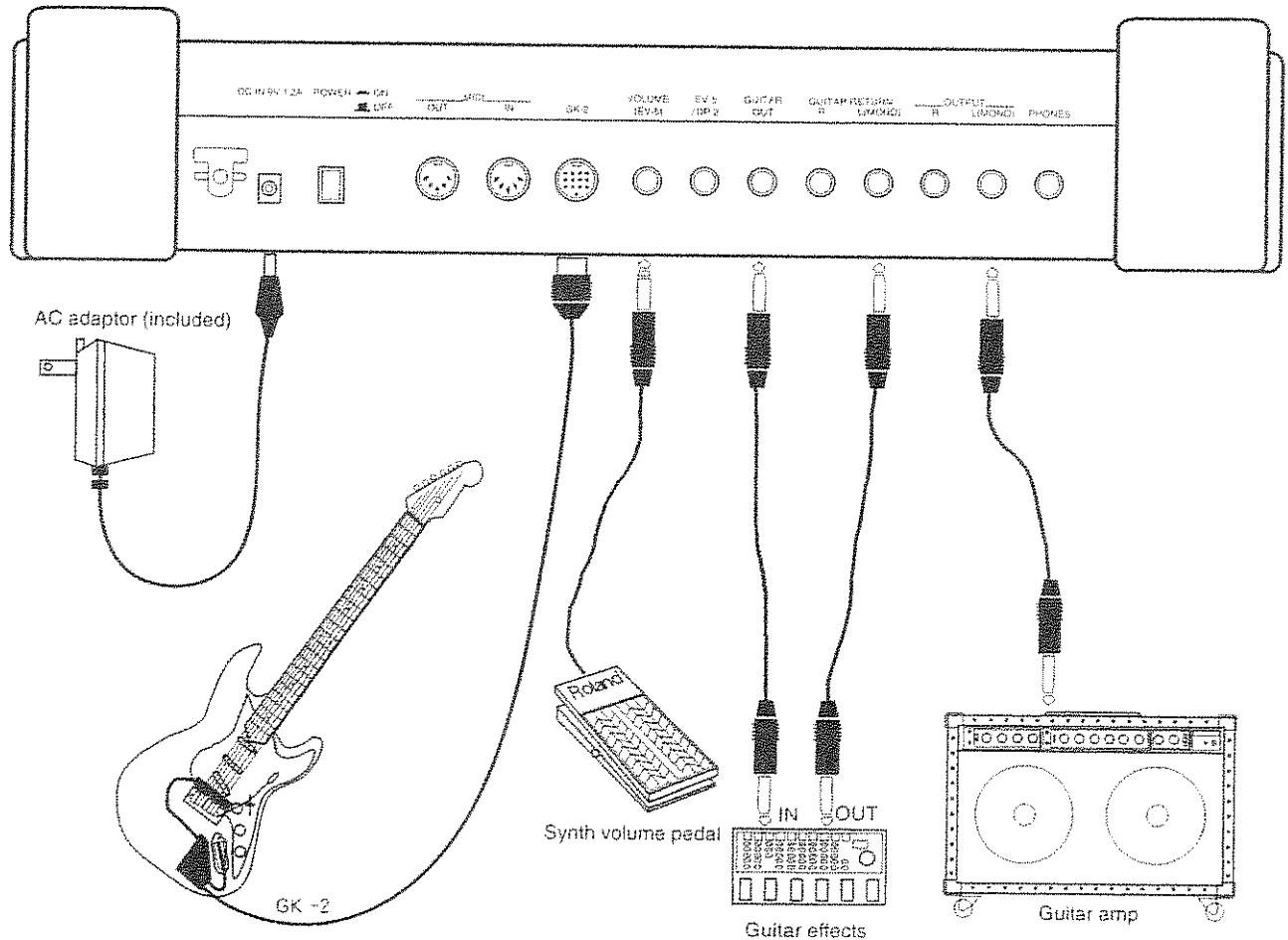
Guitar amp

This is an example of using a guitar amp to amplify the synthesizer sounds. Using the GUITAR RETURN jack to add foot-pedal type guitar effects (such as distortion) to the guitar alone, using the same amp just the way it is. In this case, the guitar sound can be created using the effects side as much as possible, and setting the amp for clean tone high lights the original synth sound. This is the easiest kind of set up.

● Amp Settings

You can also have the sounds sent to a line mixer (or similar device) instead of a guitar amp, using this same kind of set up.

If you do that, the guitar will sound much better if you use an effects device that has a guitar amp simulation feature. Check the Owner's Manual of your effects device to find out more about this.

☐Expanding the Set Up

AC adaptor (included)

GK -2

MIDI message
(performance data, etc.)

Synth volume pedal

Control pedal

MIDI IN

External MIDI device

Guitar effects device
(e.g., Roland GP-16, BOSS SE-50)   ▽INPUT

OUTPUT

INPUT   INPUT

OUTPUT

Mixer   SEND   RETURN

INPUT   OUTPUT

Guitar amp

Dedicated effects device for synth sounds

PA mixer or keyboard amp
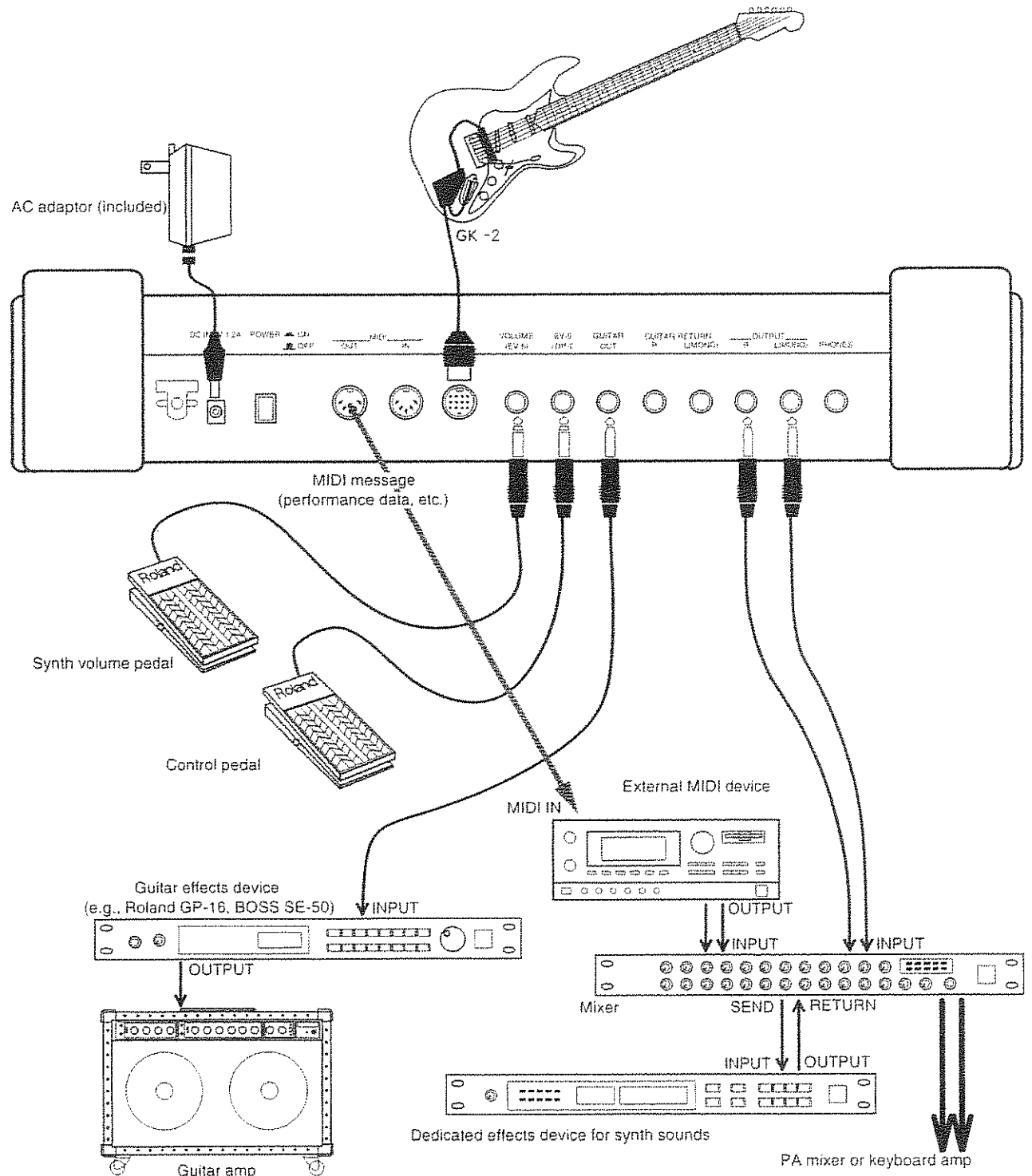
In this example, the guitar sound and synth sound each have their own effects device and their own amp or speaker system. You can use MIDI to play external Sound generators and to send Program Changes to the appropriate effects device (to switch Patches). In addition, another EV-5 has been added to this set up to function as a control pedal for the many other parameter settings (not just volume!) which you can control in real time (Section 7, "2. Using the EV-5 and DP-2 pedals," ☞ P.7-6).

3. Changing the Master Tune

If you must change the standard pitch of the GR - 1 in order to play with other instruments, follow the procedure outlined below to change the Master Tune setting. This will set the standard pitch that the guitar tunes to (using the on-board tuner), as well as the pitch of the internal Tone generators.

* The default setting for Master Tune (standard pitch) is A=440.0 Hz.

① From the Play mode (P.1–4), press the EDIT SYSTEM button. You'll see the following display.

```
IΠ  EDIT
IΠ  S - COMMON
```
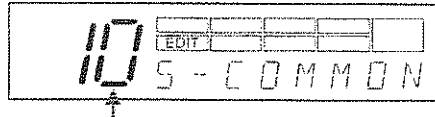
Only the " Π " will be flashing.

② Press ENTER/YES .

This selects "Master Tune," where you will see the following screen.

```
IΠ  EDIT
IΠ  A )   440_0
```

③ Press the VALUE INC and DEC buttons to change the standard pitch.

Pitch is variable from A=427.2 to 452.6 Hz.

④ When you're finished changing the setting, press the EXIT/NO button twice; you'll be returned to the Play mode.

4. Switching Patches in Numerical Order

When you play a song that contains a lot of Patch changes, it's most convenient to set up and switch between the Patches you're using in numerical order. It also makes it more convenient on stage if your Patches are arranged in the order you're going to use them.

If you need to arrange your Patches like this, there's a function called Patch Exchange. We'll use it to switch between the currently selected Patch and another one.

*Patch Exchange won't work if the currently selected Patch is being edited. In such a case, save the Patch first (☞ P. 3–14), then go ahead with the Patch Exchange operation.

How to : Exchange Patch numbers

① From the Play mode, press the EDIT [WRITE/COPY] button.

You'll see a display like the following.
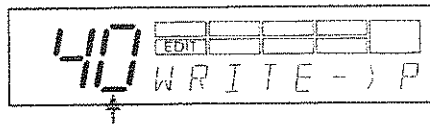
The " *0* " will be flashing.

② Press the PARAMETER [NEXT] button four (4) times.

"EXCHANGE" will appear in the display.
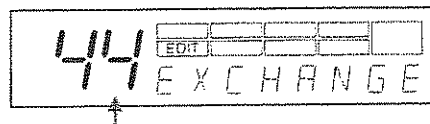
The " *4* " will be flashing.

*If you press the PARAMETER [NEXT] button too many times and pass this screen, just press PARAMETER [PREVIOUS] to back up to the screen you want.

③ Press [ENTER/YES].

This selects "Patch Exchange," where you will see the following screen.
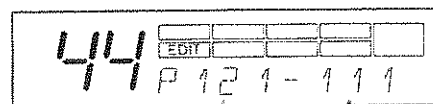
The Patch currently selected.   Destination Patch

④ Press the VALUE [INC] or [DEC] button.

The Patch number on the right will increase or decrease accordingly.

The number on the left is still the currently selected Play mode Patch; pressing these buttons only changes the number on the right.

⑤ When you have selected the Patch number you want changed, press ENTER/YES .

You will see the "OK?" message, asking you to confirm that these are the two Patches you want switched.

⑥ Press ENTER/YES .

When you see the word "COMPLETE" displayed, the two Patches you specified have been switched. And then it returns to the display of the step ④ .

COMPLETE is displayed.
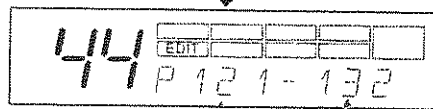
Note that the numbers are switched.

⑦ Repeat from step ③ to switch more Patches.

⑧ After you've switched all the Patches you want, press the EXIT/NO button two (2) times to return to the Play mode.

● Patch Exchange

Patch Exchange selects two Patches stored in memory, switches the Patch numbers, then stores them directly in memory under their new Patch numbers.

Let's say you want to use different Patches for soloing and comping in the same song. Patch Exchange lets you put these Patches in the same Bank so it's easier to make quick Patch changes during the song. Likewise, you can put all the Patches you use in a set into the order in which they are used. This eliminates the need to search for the desired Patch while on stage.

*See Section 1 "6. Press the Pedals to Listen to Some of the patches" (☞ P. 1–9) for more information about the Patch numbering system.

5. Returning to the Initial Patch Settings

If you wish, you can return all the Patches to the same order and parameter settings they had when you first took the GR - 1 out of the box.

＊If you do this, you are going to lose all the editing changes and Patch Exchanges you have made. Therefore, it's a good idea to copy this data to a Memory Card for safekeeping using the Save operation (☞ P. 3–14).

How to : Return to the initial Patch settings

① First, turn off the power.

② While holding down the PATCH button, turn the power back on.
"PAT INIT" will be displayed, and the "OK?" message will flash, asking you to confirm that you want to return to the initial Patch settings.

```
                              OK?  ← Flashing
  P A T      I N I T
```
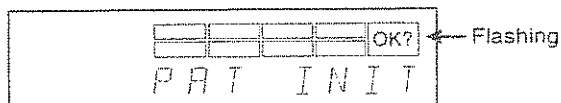
③ If so, press ENTER/YES .

```

  W A I T
```
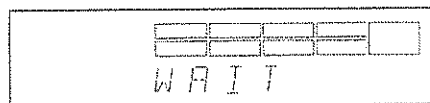
After a few seconds, you will see the opening screen (☞ P. 1–4)

The Patches has been initialized and the GR - 1 returns to the Play mode.

【Checklist for Section 2】

- Do you have a pretty good idea of how the GR - 1 is organized? (☞ P. 2–2)
- Are you sure of how to hook up other devices? (☞ P. 2–4)
- Can you change the Master Tune setting? (☞ P. 2–6)
- Do you have a good idea of how to switch two Patches? (☞ P. 2–7)

Making Sounds

"Patch Editing and Creating New Sounds"

[Objective]

The beauty of a synthesizer is the wide range of images and feelings you can conjure up through the magic of sound. In this section, we'll tackle simple Patch editing—the heart of the sound creation process.

1. Before Creating Your Own Sounds...Know the Difference Between a "Patch" and a "Tone"

The GR - 1 contains 200 "Original Tones" you can draw from to create your sounds (i.e., create new Patches). The way to create a new Patch is to first select the Original Tone that most closely resembles the sonic texture you're looking for. Then by "tweaking" (editing) it a little (using the knobs and switches), you create the sound you want.

These Original Tones were created by technical specialists based on input from leading professional guitarists. So if you're one of those guitarists who's not keen on synthesizer programming, you can be assured of great results even if you do no more than select from these Tones.

*There's a special Expansion Board you can install (the optional SR-GR1-01) which will give you up to 400 Original Tones (☞ P. 7–23).

The Difference Between a "Patch"and a "Tone"

Each Patch can have two Original Tones assigned to it. These are called the 1st and 2nd Tones for that Patch.

You can have the 1st Tone sound by itself, the 2nd Tone sound by itself, both Tones sound together, or neither Tone sound (Mute). These settings can be made separately for each string, or for all six strings (☞ P. 3–6, 4–2). What's more, you can set it so the 1st and 2nd Tones are played as a single layered sound, or as a sound that changes from the 1st Tone to the 2nd Tone depending on how hard you play the string (☞ P. 4–20).

In addition, not only can you store information about the Tones in a Patch, you can also include Note Shift for each string, reverb and chorus settings. There are 64 of these Patches in memory, and you can switch between them using the pedals on the GR - 1 (see "Press the Pedals to Listen to Some of the Patches" ☞ P. 1–9).

```
┌─┤Patch Contents├──────────────────────────┐
│                                            │
│    ◇ Patch Name                            │
│    ◇ Overall Volume                        │
│    ◇ Balance Between 1st and 2nd Tones     │
│    ◇ Other                                 │
│                                            │
│        ┌─────────────────────────────────┐ │
│        │ 2nd Tone                         │ │
│        │ 1st Tone                         │ │
│        │  ◇ Which Tone?                   │ │
│        │    (From among the 200 Original Tones) │
│        │  ◇ What Changes?                 │ │
│        │    (Each knob setting for the 1st Tone) │
│        └─────────────────────────────────┘ │
│                                            │
│        ┌─────────────────────────────────┐ │
│        │ Sixth String                     │ │
│        │ Fifth String                     │ │
│        │ Fourth String                    │ │
│        │ Third String                     │ │
│        │ Second String                    │ │
│        │ First String                     │ │
│        │  ◇ 1st, 2nd Tone ON/OFF (1st plus 2nd, │
│        │    1st only, 2nd only, or Mute)  │ │
│        │  ◇ Amount of Note Shift          │ │
│        └─────────────────────────────────┘ │
│                                            │
│        ┌─────────────────────────────────┐ │
│        │ Chorus Setting                   │ │
│        │ Reverb Setting                   │ │
│        │  ◇ Effect ON/OFF                 │ │
│        │  ◇ How applied?                  │ │
│        │    (Time, Volume, etc.)          │ │
│        └─────────────────────────────────┘ │
│                                            │
└────────────────────────────────────────────┘
```

2. Patch Editing Using the Knobs

In this section we'll "tweak" (edit) the sounds in an existing Patch using the seven knobs on the front panel.

● Note !   Patch editing normally occurs in the Patch Edit mode (pressing EDIT PATCH) (☞ P. 4-1). However, the operations that use the knobs, such as simple editing or chorus and reverb ON/OFF, can all be performed in the Play mode.

---

(1) Before You Start Editing, ...

① Set the TARGET knob (the knob furthest to the right on the front panel) to BOTH.

Each knob controls two functions and this selects the lower function.

← The lower row of functions is selected.
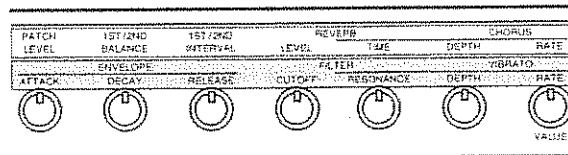
* Setting the TARGET knob to BOTH means that tweaking the knobs will affect both the 1st and 2nd Tones.
* See p.3 – 6 if you want to edit the 1st and 2nd Tones individually.

② Next, select Patch 144: SOLO VLN with the pedals.

This Patch clearly demonstrates the effect of each knob.

● Note!   Depending on the tone, if you set the filter cutoff too high you may hear some distortion. This is due to something called "digital filter processing overflow."

This can happan because we've purposely made the range of variability of the digital filters on the GR – 1 quite broad, so as to give you the maximum possible creative scope in changing the sounds. If this distortion is not something you want, you can eliminate it by adjusting the Patch Level (p. 3–12, 4–22).

---

(2) Try Changing the Tone with the Knobs

Now that we've got the proper controls selected, locate the knob groups for ENVELOPE, FILTER and VIBRATO editing. Each of the 200 Original Tones already have values set for these basic parameters (the value when the knob is at its central position).

The changes made here can be stored in memory as Patch Data (☞ P.3-14).

So, let's get down to some knob-twisting and see what happens!

◇ Changing the Envelope (Attack, Decay, Release)

| ATTACK |

This sets the amount of time from the start of the sound to when it reaches its maximum level. Rotating the knob counterclockwise (from the center position) decreases the amount of time (faster), and rotating the knob clockwise increases the attack time (slower).

| DECAY |

This adjusts how quickly the sound will decrease (decay) from its maximum level to the Sustain level. Rotating the knob counterclockwise (from the center position) will decrease the decay time (faster), and rotating the knob clockwise increases the decay time (slower).

* The Sustain level is also something that you can specify for each Original Tone (☞ P.3-2).

| RELEASE |

This determines how long the sound will continue after the string itself has stopped vibrating. Rotating the knob counterclockwise (from the center position) will decrease the release time (faster), and rotating the knob clockwise increases the release time (slower).

● What's an Envelope ? The volume (loudness) and tone (brightness and character) of a sound will change from one instant to the next; from the moment it begins, through its maximum level, to when it has completely died out completely. The contour of this volume/tone variation is called the "envelope" of the sound.

You can control three elements of the envelope on the GR-1: the Attack, Decay and Release. These elements can all be adjusted using the front panel knobs. This lets you control the entire volume/tone envelope with the proper balance using just one knob.

◇ Changing the Fifters (CUTOFF, RESONANCE)

CUTOFF
This knob controls the brightness of the tone. Rotating the knob clockwise creates a brighter, "harder" sound.

RESONANCE
Resonance changes the tonal character of synthesized sound. Rotating the knob clockwise creates a more intense resonance effect, while counterclockwise rotation creates a broader, more diffuse sound. You'll especially notice the difference on synth bass sounds.

● Filters

The distinctive quality of a sound—i.e., the "brassiness" of a brass Tone or the "pianoness" of a piano Tone—is determined by the waveform of the Original Tone. With the GR - 1's digital signal processing "filters" however, you can subtly change these characteristics to make the sound more expressive for your particular application. You could think of these filters as something like the tone knobs or equalizer on a guitar amp. The filters on the GR - 1 control two parameters: the Cutoff and Resonance mentioned above.

◇ Adjusting the Vibrato (Depth, Rate)

DEPTH
Rotating the knob clockwise increases the Vibrato depth.

RATE
Rotating the knob clockwise increases the Vibrato speed.

● Vibrato

Vibrato is a periodic "warble" in the pitch of a synth sound. This is not quite the same as the vibrato you would get on a guitar by bending a string, it's a more mechanical, synth-like sound. However, on the GR - 1, both types are possible!

◇ Saving the Changes You Have Made

As soon as you select another Patch, any changes you have made to the first Patch will be lost unless you save it. That's done with the Patch Write operation (☞ P. 3-14).

3. Turning the 1st and 2nd Tones On and Off

First, select Patch 124: GIT+STGS. Check to see that the "1ST" and "2ND" boxes in the display are lit. This means that this particular Patch is using both the 1st and 2nd Tones simultaneously.

You can change how the 1st and 2nd Tones are combined (i.e., whether the Tones are on or off) using the STRING MODE CHANGE button.

Let's try switching between 1st+2nd, 1st only, and 2nd only to see how this affects the Tone.

① In the Play mode, press the STRING MODE CHANGE button.

Each press of the button moves you one step at a time through the following conditions:

Display   Sound output

| 1ST |
| 2ND | 1st and 2nd Tones output together

↓

| 1ST | 1st Tone only output

↓

| 2ND | 2nd Tone only output

↓

| (both off) | No output (both Tones are Muted).

↓
⋮

And so on
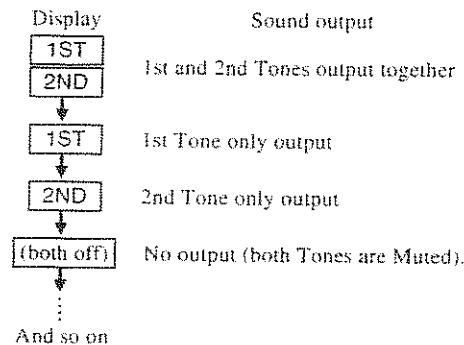
This setting is stored as part of the data for each Patch when you save it as per the instructions in "Patch Write" (☞ P. 3–14).

You can also set the 1st and 2nd Tones On/Off independently for each string (for example, you could set the first through fourth strings to play only the 1st Tone and make it something appropriate for a lead, while the two lowest strings could be playing an entirely different 2nd Tone, maybe something more bassy sounding). For more about this, refer to Section 4 "1. Setting String Mode (1st/2nd) for each string" (☞ P. 4–2).

● Editing the Tones Independently

In "Patch Editing Using the Knobs," we did all our editing with the TARGET knob set to "BOTH" so every change we made affected both the 1st and 2nd Tones.

This time, however, we'll set TARGET to either 1st or 2nd so that the knobs will affect only that one Tone. Combining this with switching using the STRING MODE CHANGE button (in the Play mode) makes it possible to edit the Tones independently.

---

4. Selecting a New Original Tone

You can change the Original Tones in each Patch to make the Patch completely different. Let's try that, following the procedure below to change the Original Tone in the selected Patch.

Example : Change the Original Tone assigned to the 1st Tone

① Make it so only the 1st Tone is heard, using the STRING MODE [CHANGE] button as explained in the previous section, "Turning the 1st and 2nd Tones On and Off" (☞ P. 3–6).

② Press the ORIGINAL TONE [1ST] button.

The "1ST" box in the display will start to flash, indicating that this is the screen for selecting the Original Tone.

"1ST" = ready to select Original Tone for the 1st Tone

```
      ↓
┌──────┬────┬────┬────┬────┐
│      │PLAY│1ST │    │    │
│ 00   ├────┴────┴────┴────┤
│      │ A   PIANO 1       │
└──────┴───────────────────┘
   ↑         ↑
```
Currently selected   Original Tone name
Original Tone number
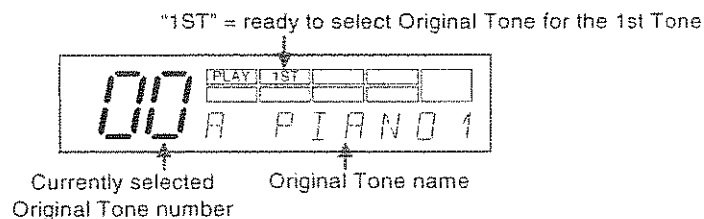
In this example, Tone 00 "A PIANO1" has been selected.

③ When things look like this in the display, press the VALUE [INC] and [DEC] buttons to scroll through Patch number values.

There are 200 Original Tones to choose from.

Play each Tone on your guitar until you come to one that's close to the what you're looking for. If you need to, check the "Original Tone List" (☞ P. 9–16).

④ When you've found the Tone you like, press [EXIT/NO].

This ends the procedure. You have now changed the Original Tone assigned to the 1st Tone.

The 2nd Tone can be changed in exactly the same way. Just return to Step ① and change it so only the 2nd Tone is heard. Continue with Step ② to change the Original Tone of the 2nd Tone.

∗ Unless you save this Original Tone selection, it will revert to the previous Tone as soon as you select a different Patch. If you want to save the selection, perform a Patch Write (☞ P. 3–14).

●Initializing the 1st or 2nd Tone

Even after the new Original Tone is selected, the edited changes of the previous Tone are still in effect. This is so that when you return to the first Original Tone, you will get the same sound you had before. When you want to get the sound of the new Tone as it was set originally (the previous condition before you tweaked it with the knobs), you could set all seven knobs to their center positions, or better yet, follow the procedure below. It has the same effect but takes a lot less time. It's called "initializing" the 1st (or 2nd) Tone. (In the following, the information in parentheses refers specifically to the 2nd Tone.)

① Press PATCH .
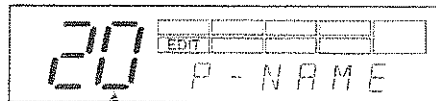
The " 0 " will flash.

② Press PARAMETER NEXT two (three) times.

This scrolls the display so it reads "1ST TONE" ("2ND TONE").
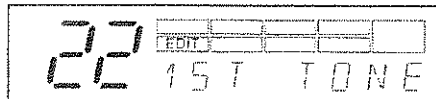
The " 2 " will flash.

③ Press ENTER/YES

The display will change to read "DTUN."
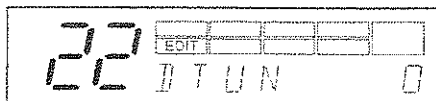
④ Press PARAMETER PREVIOUS .
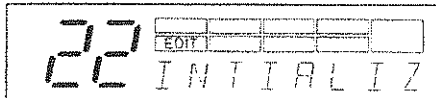
⑤ Press YES/ENTER .

The "OK?" message will flash to ask you to confirm that you want to initialize the 1st (2nd) Tone.

⑥ Press YES/ENTER to confirm and start the operation.

The display reads "COMPLETE" when initialization is finished.
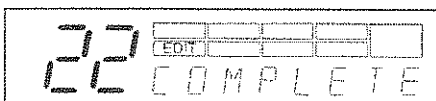
After a few seconds you'll be returned to the initialize screen again.
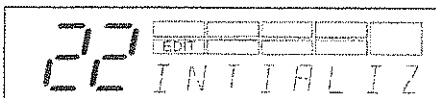
5. Editing: Turning Reverb and Chorus On/Off

The GR - 1 has two on-board digital effects: reverb, to give you a spacious feeling like you would get in a resonant concert hall, and chorus, to give you a distinctive undulating, "thickening" effect.

(1) Turning Reverb and Chorus On/Off

① In the Play mode, press the REVERB/CHORUS button.

Every time you press the button, the "REV" and "CHO" boxes in the display will change to show what effect is currently on.

Select Patch 163: SQR LEAD and try turning the effects on and off to hear the difference it makes in the sound.

Display	Effect
REV	ON: Reverb only
↓	
CHO	ON: Chorus only
↓	
REV / CHO	ON: Both reverb and chorus
↓	
(both off)	OFF: No effects

And so on
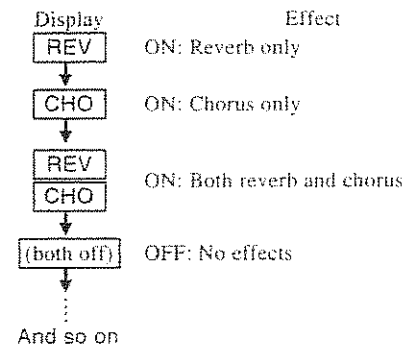
(2) Changing the Effects Using the Knobs

Set the TARGET knob to "COMMON." Now the knobs control the functions shown on the top row. At this time, we'll use only the four knobs on the right to adjust the effects.

Adjusts the effects with
these four knobs.
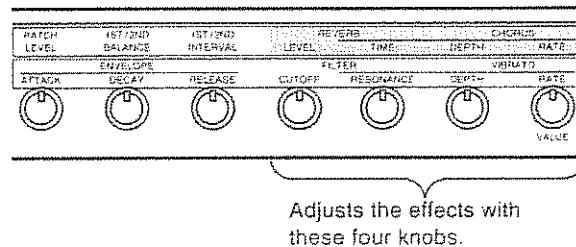
Use these four knobs to adjust the effects.

◇ Adjusting the Reverb (Level, Time)

REVERB LEVEL   This knob sets the volume of the reverberation sound itself. Rotating the knob clockwise increases the reverb level.

REVERB TIME   This sets the reverberation time. Rotating the knob clockwise increases the reverb time.

     *If you want to give the selected Patch a delay-type effect (many distinct repeats, kind of like an echo), this becomes a setting for delay time (time between repeats).

◇ Adjusting the Chorus (Depth, Rate)

CHORUS DEPTH   This knob sets the depth of the chorus effect (the intensity of the modulation and "thickness" of the sound). Rotating the knob clockwise intensifies the chorus effect.

CHORUS RATE   This sets the speed or rate of the warble in the chorus modulation. Rotating the knob clockwise increases the speed.

     *The CHORUS LEVEL cannot be changed using the knobs. To do that, you need to be in the Patch Edit mode (☞ P. 4–12).
     You might keep in mind that if the CHORUS LEVEL is set to "0," you will hear no effect. It's there, it's just set to zero.

● Other Reverb and Chorus Settings

In addition to the four knobs we've talked about for editing reverb and chorus, there are several other effect-type settings you can change. You make all these settings in the Edit mode (see page 4–9).

● What the Effects Are For

The on-board effects are meant exclusively for the synth sounds, and you can't apply them to the guitar signal coming from the GK-2 driver.

If you want to add effects to the straight guitar sound, you must connect a dedicated guitar effects processor (such as the Roland GP-16, BOSS ME-10, or ME-6) to the GUITAR OUT jack on the rear panel. See page 2–5 for how to connect such devices.

◇ Saving the Changes You Have Made

Any changes to the effects of a Patch will be lost as soon as you select a new Patch. For this reason, save any Patches that you wish to keep (see "Patch Write" (☞ P. 3–14)).

6. Miscellaneous Editing

We mentioned earlier some other things you can change without ever leaving the Play mode. These are: Patch Level, Tone Balance, and Tone Interval. Here's the procedure for editing these parameters.

◇Before You Start Editing ...

① Set the TARGET knob to COMMON.

Now the knobs control the functions indicated on the top row. At this time, we'll explain the effect of the three knobs on the left.
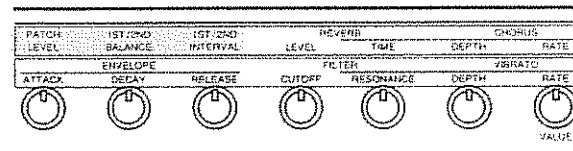
Explain about these three knobs.

② Press STRING MODE [CHANGE] so that both the 1st and 2nd Tones are heard. Rotate the knobs to hear what effect they have. (See also "Turning the 1st and 2nd Tones On and Off" (☞ P. 3–6).)

So, from left to right:

PATCH LEVEL

This sets the synthesizer volume level for the selected Patch only (as opposed to the VOLUME knob which sets the volume for the GR - 1 as a whole). This means that when you change Patches, this volume will also change.

You can store a setting made with this knob in the GR - 1's memory using Patch Write (☞ P. 3–14). That way, you can switch between two Patches and instantly compensate for differences in volume; or, alternatively, have two Patches with the same sound, but set one with back-up volume level and the other with lead level.

*For most purposes, you should set this knob as high as practicable to achieve the best signal-to-noise ratio.

1ST/2ND BALANCE

This sets the balance between the volumes of the 1st and 2nd Tones in a Patch. Rotating the knob counterclockwise increases the 1st Tone volume; clockwise rotation increases the 2nd Tone volume.

*Note that if you rotate the knob completely counterclockwise, 2nd Tone notes will completely disappear, and vice versa.

1ST/2ND INTERVAL

This sets the difference in pitch between the 1st and 2nd Tones (in semi-tone intervals). However, it does this by changing the pitch of the 2nd Tone only, leaving the pitch of the 1st Tone for each string unchanged. When the 1st and 2nd Tones' pitch are set to the same value, if you rotate the knob completely clockwise, the 2nd Tone will be an octave above the 1st Tone, and conversely, if you rotate the knob completely counterclockwise, the 2nd Tone will be one octave below the 1st. The center position gives you the same pitch for both Tones.

*Note that what you do with this knob will also change the Edit mode setting called "2nd Tone Note Shift" (☞ P.4 – 7).

◇ Saving the Changes You Have Made

Any changes to the Patch will be lost as soon as you select a new Patch. For this reason, save any Patches that you wish to keep (see "Patch Write" (☞ P. 3–14).

7. Naming a Patch

In this section, we've explained how to make some simple Patches just by rotating some of the knobs on the panel. Before we can store a new Patch in memory (which will be explained shortly), we first have to give the Patch a name—something that will make it easy for you to remember what it is.

① Press the EDIT PATCH button.

You'll see the Patch Naming screen, shown below.

```
20  EDIT
    P - N A M E
```
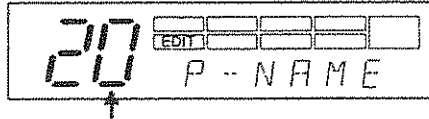
The " 0 " will be flashing.

② At this point, press ENTER/YES.

The Patch Naming screen is the one we want, so select it to name the currently displayed Patch. (In this example, it's the one called "SYNCLEAD.")

```
20  EDIT
    S Y N C L E A D
```
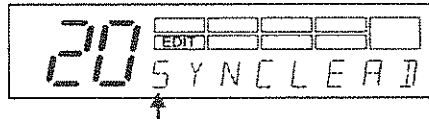
The first character will be flashing. You can change it with the INC and DEC buttons (pressing INC will step you through T, U, V, ...).

③ Press the VALUE INC and DEC buttons.

This will step the first character space ("S") through the alphabet.

④ When you've got this character set the way you want it, press the CURSOR ▶ button to move to the next character space ("Y").

Now the next character ("Y") will begin flashing.

⑤ Set the other characters with the VALUE INC and DEC buttons. If you want to return to a character, press the CURSOR ◀ button to back up.

⑥ When you're finished entering the new name, press EXIT/NO two (2) times.

You are returned to the Play mode.

＊If you want to save this name after editing, follow the Patch Write procedure on next page.

● Characters You Can Use in a Patch Name

In addition to the alphabet (capital letters only) and numbers, there are 64 symbols you can also use in naming Patches (they are arranged in order as shown in the following table).

A Patch name can contain up to eight characters. This means you could call all your brass Patches "----BRAS" and your string Patches "----STRG," and still have the first four characters left to drop in some kind of shorthand description of the particular Patch. You will find this system to be most helpful in quickly recognizing what kind of a Patch you have selected.

```
(space) ) { ^ " o ▽ g u ⌐ # + o - o / 0 1 2 3 4 5 6 7 8 9 4 ⊦ ( = ) ]
§ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z n \ ᵁ ⌐ _
```

8. Patch Write

All the editing changes we have made in this section can be saved and stored in the GR - 1's memory using the Patch Write operation. The edited Patch can then be accessed at any time using the pedals (as with any Patch). This operation saves all the data which can be stored in memory at once, including any new Tone edits that have been made.

① Press EDIT [WRITE/COPY].

You'll see the Patch Write screen displayed, as below.

```
40  [EDIT]
    W R I T E - > P
```

The " 0 " will be flashing.

② Press [ENTER/YES].

The Patch Write function is already displayed, so press this to enter it and you'll see the following display.

```
40  [EDIT]
    T O        1 1 4
```
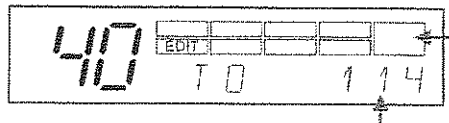
Destination Patch number, in this case Bank 11 pedal Number 4.

The three-digit number following the "TO" is the destination Patch number.

③ Select the destination Patch number with the VALUE [DEC] and [INC] buttons.

The Patch data currently stored at the destination Patch number will be deleted and "overwritten" by the new Patch data (which will be stored there). When you first take the GR - 1 out of the box, only the very last Patch, 284, is "empty" (has no data assigned to it), so for now let's make that our destination Patch. Or, if you are using an optional M-256 Memory Card, set the destination to Patch 311 or higher.

* If you accidentally overwrite and erase a Patch that you wanted to keep, it is possible to "reinitialize," that is, return all Patches to their original factory settings (⊂ P. 2-9). However, it's not possible to just reinitialize one Patch—you must do them all at once.

④ When you have selected your destination Patch, press [ENTER/YES].

The "OK?" message will appear, asking you to confirm your choice of destination Patch.

```
40  [EDIT]              [OK?]
    T O        1 4 1
```
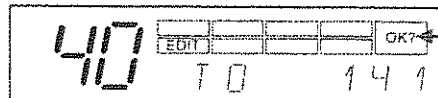
Flashing to ask "are you sure it's OK to overwrite this Patch?"

⑤ If you've checked and it's OK, then press [ENTER/YES].

You'll see the word "COMPLETE" in the display, and then you are returned to the screen you saw in Step ③.

```
40  [EDIT]
    C O M P L E T E
```

↓

```
40  [EDIT]
    T O        1 4 1
```
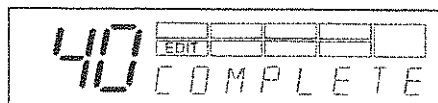
⑥ Press [EXIT/NO] two (2) times.

This cancels the Patch Write screen and moves the unit back into the Play mode.

● If You Want to Save a Patch on Top of Itself (Same Patch Number), ...

Press [WRITE/COPY], then [ENTER/YES] three (3) times, then [EXIT/NO] two (2) times.

【Checklist for Section 3】

● Do you understand the relationship between a Patch and a Tone? (☞ P. 3–2)

● Can you do some simple editing of a Patch? (☞ P. 3–3 to P. 3–8)

● Can you make some simple adjustments to the reverb and chorus? (☞ P. 3–9)

● Do you basically understand how to name a Patch? (☞ P. 3–13)

● Can you save Patch data with Patch Write? (☞ P. 3–14)

MEMO

Creating More Advanced Patches

"Let's Try Some More In-Depth Editing on Your Patches"

[Objective]

The Patch editing features we introduced in Section 3 are just a few of those available on the GR - 1. For example, you can transpose the pitch of individual strings or individual Tones, or switch between a variety of types of reverb. We'll discuss these and even more elaborate Patch editing procedures in this section.

1. Setting String Mode (1st/2nd) for Each String

In the previous section. we showed you how to use the STRING MODE [CHANGE] button to switch between 1st+2nd. 1st only. 2nd only. and Mute settings.

Pressing that button selects what is called the String mode. It is a mode specifically for making settings that apply to individual strings. This is great because it means you can create a whole ensemble with just one guitar by assigning a bass sound to your low strings and. for example, a piano Patch to the upper strings.

Example : Assign the 1st Tone to the First Through Fourth Strings, and the 2nd Tone to the Fifth and Sixth Strings

① From the Play mode, press the STRING MODE [CHANGE] button to set the Tone select to "1st" (this switches all the strings).

② Now press the STRING MODE [INDIVIDUAL] button.

You'll see a screen for setting individual strings that looks like the following.

(String number)

This part will be flashing
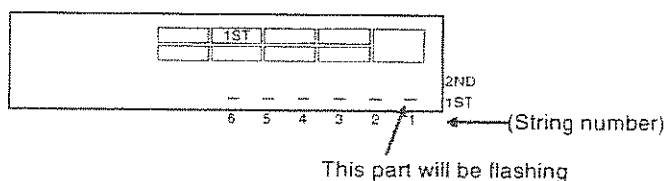
The numbers 1 to 6 printed below the character display indicate the string number. The "_" directly above "1" will be flashing to indicate that the first string is currently selected.

③ Press the CURSOR [◄] or [►] button.

This moves the flashing "_" left or right. Move it over so that it is above the number 5.

(String number)

Flashing part moved here by pressing CURSOR [◄] button
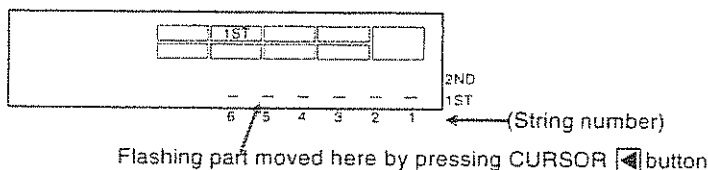
The display now indicates that you are ready to make changes to the fifth string only.

④ Press the STRING MODE [CHANGE] button.

Now watch the flashing (fifth string) position in the display. It will change with every press of the button in the following order:

"_" :1st Tone only sounds
↓
"⁻" :2nd Tone only sounds
↓
"M" :Both Tones Muted
↓
"¯_" :1st and 2nd Tones both sound
↓
⋮
and so on

Set the fifth string to "2nd Tone only."

⑤ Press the CURSOR ◄ button again to move the flashing position over to number 6.

Flashing part moved here by pressing CURSOR ◄ button
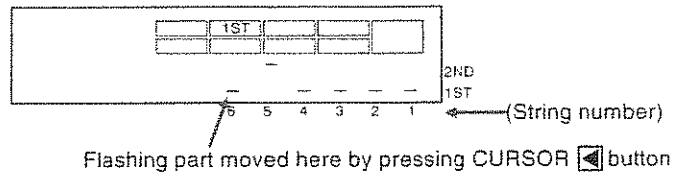
⑥ Set the sixth string to play "2nd Tone only" with the STRING MODE CHANGE button, same as you did in Step ④.

Changed with the STRING MODE CHANGE button
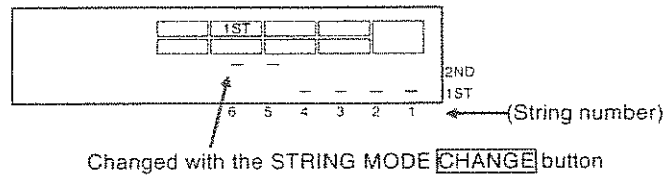
So now the first through fourth strings are assigned to the 1st Tone, and the fifth and sixth strings to the 2nd Tone.

⑦ Press EXIT/NO (to return to the Play mode).

* If you want to save the changes you have made to the Patch, perform a Patch Write
   (☞ P. 3–14). However,...
* ...do it soon. If you press STRING MODE CHANGE again from the Play mode, or select
   a new Patch before saving the old one with a Patch Write, all individual string settings will
   be lost.

● String Mode in Action !

Using the same general procedure, here are some more examples of settings that will:

● Set the top four strings to 1st Tone only, the bass strings to a mix of the 1st and 2nd Tones.
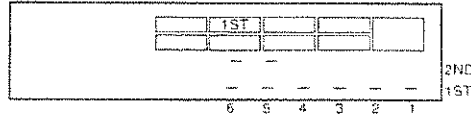
First string:1st
Second string:1st
Third string:1st
Fourth string:1st
Fifth string:1st+2nd
Sixth string:st+2nd

●Mute the synth sound so you have guitar sound only for the first through fourth strings, and layered synth bass and straight guitar sound on the fifth and sixth strings.
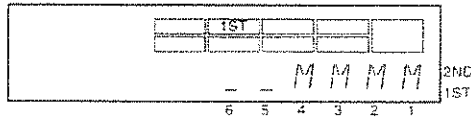
First string:MUTE
Second string:MUTE
Third string:MUTE
Fourth string:MUTE
Fifth string:1st
Sixth string:1st

● 1st Tone played on the first, third and fifth strings, 2nd Tone on the second, fourth and sixth strings.
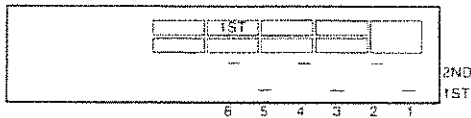
First string:1st(L)
Second string:2nd(R)
Third string:1st(L)
Fourth string:2nd(R)
Fifth string:1st(L)
Sixth string:2nd(R)

* In this example: assign the same Original Tone to the 1st and 2nd Tones, but with the pan set hard left on the 1st Tone and hard right on the 2nd Tone. Then when you play an arpeggio or other alternating string pattern through a stereo system, the notes will alternate between speakers.

2. Transposing Synth Notes (Note Shift)

If you think about it, there are times when it would be handy to transpose synth notes. For example, how about transposing the synth bass notes all down one octave? Or maybe adding a synth part that is a fifth above the guitar part.

On the GR - 1, pitch transposing can be done independently for both Tones, and each string can be shifted by a different amount.

These transposing features all fall under the name "Note Shift."

How to : Note Shift the 1st Tone

① Press EDIT PATCH .

```
20  EDIT
    P - N A M E
```

The " *0* " will flash.

② Press the PARAMETER NEXT button four (4) times, and you'll see the following screen.

```
24  EDIT
    1 S T S H I F T
```
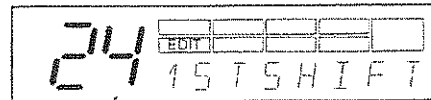
The " *4* " will flash.

③ Press ENTER/YES

This is the screen we want for shifting the 1st Tone, so press to enter.

```
24  EDIT
    A L L       0
```

This value can be changed from -24 to +12 with the VALUE INC and DEC buttons.

The " *4* " will stop flashing.

* If you now want to set each string individually, skip to Step ⑥ .

④ Press the VALUE INC or DEC button to increase or decrease the amount of shift.

You can change the pitch in the display over a range of -24 to +12 (semi-tones). That means you can change the pitch by as much as +one/-two octave.

⑤ Once you've got the pitch set the way you want, press EXIT/NO two (2) times.

This exits the Edit mode and returns you to the Play mode.

* Don't forget to save the new settings using Patch Write (☞ P. 3-14).

How to : Set a Different Pitch for Each String

After completing Step ③ above, continue with the following procedure.

⑥ Press PARAMETER [NEXT] to select the string for which you want to make settings.

The "Note Shift" screen will be shown as follows:

```
┌────────────────────────────┐
│  24  ┌EDIT┐┌──┐┌──┐┌──┐     │
│ ¦¦¦  STR 1        0 ◄──── 1st Tone note shift amount (first string)
└────────────────────────────┘
      STR 2         0 ◄──────── 1st Tone note shift amount (second string)
      STR 3         0 ◄──────── 1st Tone note shift amount (third string)
      STR 4         0 ◄──────── 1st Tone note shift amount (fourth string)
      STR 5         0 ◄──────── 1st Tone note shift amount (fifth string)
      STR 6         0 ◄──────── 1st Tone note shift amount (sixth string)
      ALL           0 ◄──────── 1st Tone note shift amount (all strings)
```
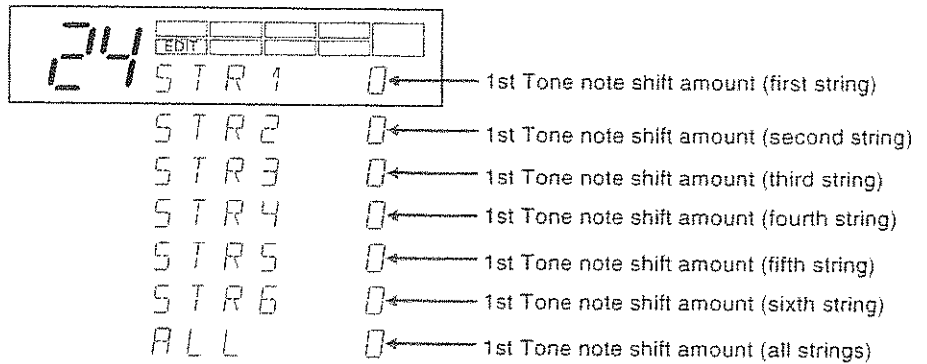
* If you need to back up, use the PARAMETER [PREVIOUS] button.

⑦ After selecting a string, press the VALUE [INC] and [DEC] buttons to set the amount of pitch shift you want.

In this display you can set note shift in a range from -24 to +12 (semi-tones). That means you can change the pitch by as much as +one/-two octave.

Repeat Steps ⑥ and ⑦ until you have set the pitch for all strings.

⑧ When you are finished, press [EXIT/NO].

This returns you to the Play mode.

* Don't forget to save the new settings using Patch Write (☞ P. 3-14).
* If each string has a different setting, the "ALL" screen will show the same setting as the first string only.

How to : Note Shift the 2nd Tone

This procedure is identical to that for the 1st Tone, except for the very first part.

① Press EDIT [PATCH].

```
20   [EDIT]
     P - NAME
```
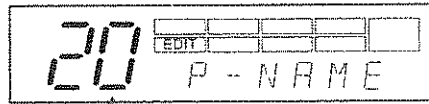
The " 0 " will flash.

② This time you need five presses of the PARAMETER [NEXT] button to select the following screen.

```
25   [EDIT]
     2ND SHIFT
```
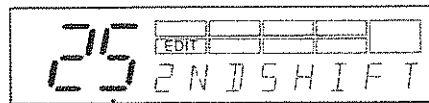
The " 5 " will flash.

③ From here, follow on just as you did with Step ③ for the 1st Tone (☞ P. 4-5).

＊And this applies to the 2nd Tone as well: don't forget to save your settings! See Patch Write (☞ P. 3-14).

＊You can change the 2nd Tone Note Shift value in the display over the range from –36 to 0 to +24. This means, since these are in units of semi-tones, that you can shift the pitch down three octaves or up two octaves.

●Individual String Note Shifting in Action !

Here are some practical examples of effects you can get using individual string Note Shifts.

Example 1) Two-Handed Keyboard-Type "Feel"

Drop the fifth and sixth strings down one octave, as shown below. This will let you play the fifth and sixth strings in the same range as a left-hand piano part. while the first through fourth strings play the chord parts in the right-hand range.

Also, turn Chromatic on (☞ P. 4–18)to keep the pitch from drifting (bending the strings will have no effect on the pitch). This will help give the sound more of a keyboard "feel."

	sixth	fifth	fourth	third	second	first
1st tone	– 12	– 12	0	0	0	0
2nd tone	*	*	*	*	*	*

Example 2) Special Guitar Tunings at the Press of a Pedal

One example of a special guitar tuning is the "open tuning." Create a Patch using a guitar-based synth sound and the Note Shift set up as in one of the tables below. Then, while playing a Patch that uses standard tuning, just call up this Patch to get the effect of playing in an open tuning —as if you had just retuned your guitar with the press of a pedal! When you do this, however. be sure the GK - 2 is set to "SYNTH." You will not want the straight guitar sound to be heard at the same time.

Open G Tuning

	sixth	fifth	fourth	third	second	first
1st tone	– 2	– 2	0	0	0	– 2
2nd tone	*	*	*	*	*	*
	(D)	(G)	(D)	(G)	(B)	(D)

∗ Or, you could just Mute the sixth string in String mode.

Open D Tuning

	sixth	fifth	fourth	third	second	first
1st tone	– 2	0	0	– 1	– 2	– 2
2nd tone	*	*	*	*	*	*
	(D)	(A)	(D)	(F♯)	(A)	(D)

Example 3) 12-String Guitar Tuning

With a Patch like this, you can make a regular six-string guitar sound like a 12-string. Depending on the Patch you select, you could make it sound like a 12-string electric sitar, or even make up a wild Patch of your own that sounds like no instrument on Earth! Both Tones should be Detuned slightly for the best result (Section 4, "4. A Little More Detail About Editing 1st/2nd Tone Setting": ☞ P. 4–15).

	sixth	fifth	fourth	third	second	first
1st tone	0	0	0	0	0	0
2nd tone	12	12	12	12	0	0

3. Reverb/Chorus Editing in More Detail

In Section 3, "Editing: Turning Reverb and Chorus On/Off," we showed you how to make simple changes to reverb and chorus using the knobs on the front panel and the REVERB/CHORVS button. Now let's return to the subject and fill in a few details.

First we'll explain a little about the procedure.

How to : Make Reverb Effect Settings

This is a general method for setting the various reverb "parameters" (settings that define basic elements of the sound).

① Press EDIT PATCH .

$$\boxed{\overline{c}\overline{L} \quad \overline{\text{EDIT}} \quad P - N A M E}$$

The " 0 "will flash.

② Press the PARAMETER PREVIOUS button two (2) times.

$$\boxed{\overline{c}\overline{7} \quad \overline{\text{EDIT}} \quad R E V E R B}$$
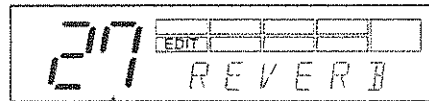
The " 7 " will flash.

③ Press ENTER/YES .

This is the screen for making reverb settings, so enter it.

$$\boxed{\overline{c}\overline{7} \quad \overline{\text{EDIT}} \quad T Y P E \quad R M 1}$$
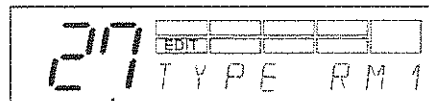
The " 7 " will stop flashing.

④ Now, by pressing PARAMETER NEXT and PREVIOUS , you can step through the various reverb parameters that you will want to set.

⑤ The settings themselves are made by pressing the VALUE INC and DEC buttons.

⑥ Repeat Steps ④ and ⑤ as many times as necessary to make all the settings you want.

⑦ When you're finished, press EXIT/NO however many times it takes to return to the Play mode.

＊ And as always, you need to save any changes you make with Patch Write (☞ P. 3-14).

◇ The Parameters

REVERB TYPE | There are eight different types of reverb from which to choose. Press VALUE INC and DEC to step through your choices until you come to the one you want.

```
27  EDIT
    TYPE    RM 1
```
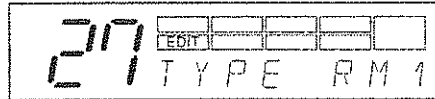
RM 1 to 3 (ROOM)	: Three different reverbs simulating the acoustic reverberation in small room environments.
HL1 and 2 (HALL)	: Two different reverbs simulating the acoustic reverberation of large concert halls.
PLT (PLATE)	: A reverb effect that simulates the electromechanical metal plate reverbs used in analog recording. As you might expect, the reverberation has a kind of metallic quality.
DLY (DELAY)	: A straight repeating delay effect, kind of like the distinct echoes you might hear in the mountains.
P-D (PANNING DELAY)	: A repeating sound with each repeat alternating between right and left (requires stereo output to achieve the full effect).

DELAY FEEDBACK

This sets the number of repeats in a delay-type sound. You can set this number in the range from 0 to 127, indicating from 0 to 127 repeats.

```
27  EDIT
    D-FB    64
```
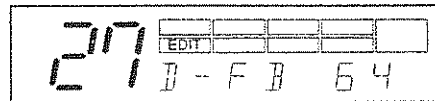
* This setting will only be valid when the Reverb Type is set to one of the delay-types (DLY or P-D).

REVERB TIME | This sets the time of the reverberation.

This number can be set in the range from 0 to 127, with the higher numbers corresponding to longer reverberation times.

```
27  EDIT
    TIME    64
```
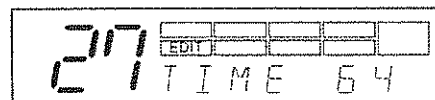
* When Reverb Type is set to one of the delay-types (DLY or P-D), this setting is used to set the Delay Time —the time interval between the individual repeats.
* This setting can also be changed directly from the Play mode by rotating the REVERB TIME knob on the front panel.

REVERB LEVEL   This knob sets the volume of the reverberation sound.

Values can be set in a range from 0 to 127, with 127 indicating maximum reverberation volume.

```
 ┌───────────────────────────┐
 │  ___      EDIT            │
 │ ¦_ '¦                     │
 │ ¦  ¦  L E V E L    6 4    │
 └───────────────────────────┘
```
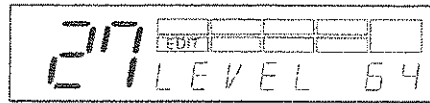
＊This setting can also be changed directly from the Play mode by rotating the REVERB
  LEVEL knob on the front panel.

● What is Reverb ?   Reverb takes the flat, dry sound of a pure electronic signal and mixes in it with delayed signals to simulate the sound of multiple reflections from walls in an acoustic space (like a concert hall or live room). This adds a "spacious" quality that we associate with live music.

How to : Make Chorus Effect Settings

① Press EDIT PATCH .

```
20  EDIT
    P-NAME
```

The " 0 " will flash.

② Press the PARAMETER PREVIOUS button one (1) time.

```
28  EDIT
    CHORUS
```
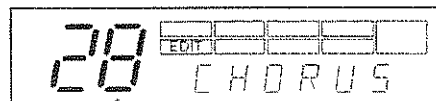
The " 8 " will flash.

③ Press ENTER/YES .

This is the screen we want to work in, so enter it.
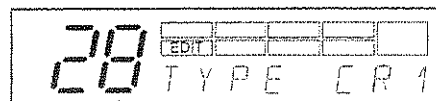
```
28  EDIT
    TYPE  CR1
```

The " 8 " will stop flashing.

④ Now, by pressing PARAMETER NEXT and PREVIOUS , you can step through the various chorus parameters that you will want to set.

⑤ The settings themselves are made by pressing the VALUE INC and DEC buttons.

⑥ Repeat Steps ④ and ⑤ as many times as necessary to make all the settings you want.

⑦ When you're finished, press EXIT/NO however many times it takes to return to the Play mode.

* And as always, you need to save any changes you make with Patch Write (☞ P. 3–14).

◇ The Parameters

| CHORUS TYPE | There are eight different types of chorus from which to choose. Press VALUE INC and DEC to step through the choices until you come to the one you want.

```
28  EDIT
    TYPE    CR1
```

CR1 to 4 : (CHORUS) Four different chorus effects that add a modulated character to the sound; like several people playing the same part at the same time.

FBC : (FEEDBACK CHORUS) An effect somewhere between flanging and chorusing.

FLN : (FLANGER) Similar to the chorus effect, but keener and more intense in its modulations.

SD1 and 2 : (SHORT DELAY) This is just like a delay-type reverb with extremely short spacing between delays. SD2 has a slightly longer delay time than SD1.

| CHORUS FEEDBACK |

The characteristic chorus/flanger effect can be intensified (or decreased) by applying what is called "feedback." This can be set between 0 and 127, with 127 being maximum feedback volume.

```
28  EDIT
    FBACK   64
```
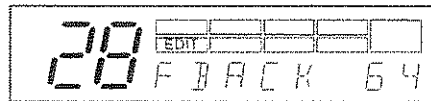
* This acts as the Delay Feedback setting (number of repeats in the delay) when Chorus Type is set to one of the Short Delays (SD1 or SD2). Also, there is no effect if you have Chorus Type selected as CR1 to CR4.

| CHORUS → REVERB SEND LEVEL |

You can chain chorus and reverb together, sending the output of the chorus effect straight to the input of the reverb. It's like what you would do if you were physically connecting the reverb unit and the chorus unit, and this setting controls the chorus effect level in the chain. Values range from 0 to 127, with 127 being the maximum volume.

```
28  EDIT
    C -> R   64
```
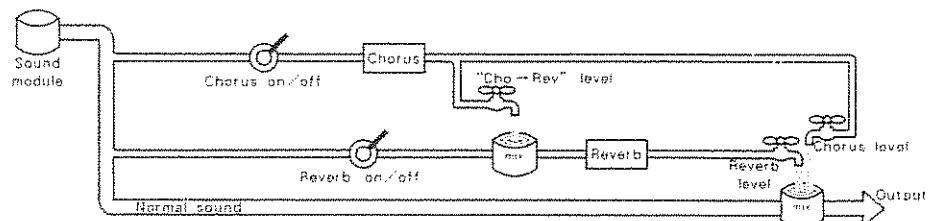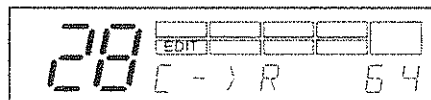
CHORUS LEVEL   This sets the level of the chorus effect.

The range is from 0 to 127, with 127 being the maximum effect level, and 0 meaning no chorus effect is applied.

```
28  EDIT
    LEVEL    64
```

CHORUS DEPTH   This sets the depth of the chorus modulation.

Values range from 0 to 127, with 127 being maximum modulation.

```
28  EDIT
    DPTH     32
```
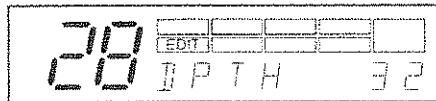
*This setting can also be changed directly from the Play mode by rotating the CHORUS DEPTH knob on the panel.

CHORUS RATE   This sets the speed or rate of the chorus modulation.

Values range from 0 to 127, with 0 an extremely slow undulation and 127 a rapid warble.

```
28  EDIT
    RATE     64
```
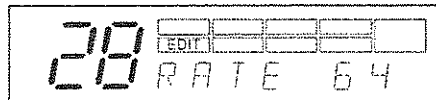
*This setting can also be changed directly from the Play mode by rotating the CHORUS RATE knob on the panel.

● What is a Chorus/Flanger ?

Chorus is an effect that mixes a short delay signal—that's been slightly detuned—back in with the original sound. This creates a spacious sound, like many instruments playing at once. A flanger is pretty much the same thing but with the short delay signal repeated a number of times (i.e., the feedback volume is increased), which gives the flanger its distinctive "wow-wow" modulation sound.

When you look at it this way, chorus and flanger are quite closely related, though each adds its own special flavor: Chorus is best for adding a sense of spaciousness, fattening up the sound and smoothing out attacks; and flanger, for those times when nothing but that brash undulating warble will do.

4. A Little More Detail About Editing 1st/2nd Tone Settings

We talked about using the panel knobs to edit the 1st and 2nd Tones in Section 3, "Patch Editing Using the Knobs." Now let's go back to that discussion and add some details about how to do similar things in the Patch Edit mode.

How to : Make 1st Tone Settings

① Press EDIT PATCH .

```
20  EDIT
    P - N A M E
```

The " 0 " will flash.

② Press the PARAMETER NEXT button two (2) times.

```
22  EDIT
    1 S T   T O N E
```
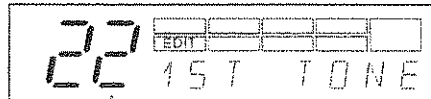
The " 2 " will flash.

③ Press ENTER/YES .

You'll see the following screen, indicating that you're ready to make settings for the 1st Tone.

```
22  EDIT
    D T U N E      0
```
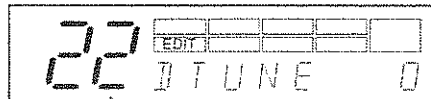
The " 2 " will stop flashing.

④ Now, by pressing PARAMETER NEXT and PREVIOUS , you can select the 1st Tone parameter that you want to set.

⑤ The settings themselves are made by pressing the VALUE INC and DEC buttons.

⑥ Repeat Steps ④ and ⑤ as many times as necessary to make all the settings you want.

⑦ When you're finished, press EXIT/NO two (2) times to return to the Play mode.

* And as always, you need to save any changes you make with Patch Write (☞ P. 3-14).

How to : Make 2nd Tone Settings

Basically, this procedure will be identical to what we just did for the 1st Tone, except that in Step ② you will have to press the PARAMETER NEXT button three (3) times to get to the screen that says " 2 3   2 N D   T O N E " From there on, it's the same until Step ⑦: there you have to push the EXIT/NO button two (2) times to exit to the Play mode.

* This applies to the 2nd Tone as well; don't forget to save your settings! See Patch Write (☞ P. 3-14).

◇ The Parameters

| PITCH DETUNE | Pitch Detune makes very fine tuning adjustments to the 1st and 2nd Tones. These tuning shifts are made from the value set in Master Tune (Section 2, "Changing the Master Tune." (☞ P. 2-6)).

The setting values range from -50 to +50, which correspond to a maximum pitch shift of +/- one quarter-tone.

```
22  [EDIT]
    D T U N        0
```
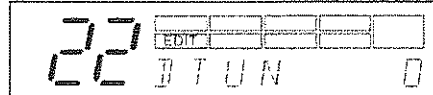
* If you detune the 1st or 2nd Tones, i.e. change the tuning of one of them slightly, you get a unique kind of thickening effect that is quite different from the chorus effect.

| VIBRATO RATE CHANGE |

This setting gives each string a slightly different Vibrato Rate for all Tones. The idea, when (for example) playing a backup part on a Strings Patch, is to make the Patch sound more like a real string ensemble, where you would be getting a slightly different vibrato style from each player in the group. The setting values range from -7 to +7. 0 indicates all strings have the same Vibrato Rate. As you get closer to +7, the vibrato on each string speeds up as you move from bass to treble strings. Toward -7, the vibrato slows down.

```
22  [EDIT]
    R - C H N G    0
```

| PAN |

If you running the sound through stereo speakers, you can assign the 1st and 2nd Tones to different positions in the stereo field.

```
22  [EDIT]
    P A N    (  0 )
```
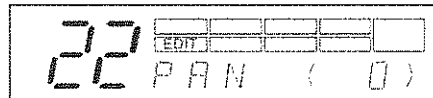
Pressing the VALUE [INC] and [DEC] buttons scrolls through your choices in the display as follows:

```
            P A N   R N D M   :Each note randomly positioned in stereo field
    [DEC]   P A N   ( 6 3     :Output from Left channel only
              :
            P A N   (   1
            P A N   (   0 )   :Output in center of stereo field (equal Right, Left)
    [INC]   P A N       1 )
              :
            P A N       6 3 ) :Output from Right channel only
```
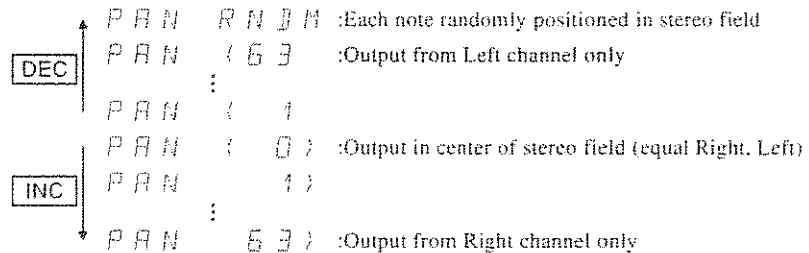
* It is effective to pan the 1st and 2nd Tones fixed right or left, or leave one in the center and set the other to Random.

ENVELOPE, FILTER and VIBRATO

As you continue to press the PARAMETER NEXT button, you'll come to the screens for ENVELOPE, FILTER and VIBRATO. We've already talked about these in Section 3, "2. Patch Editing Using the Knobs (☞ P. 3-3)," where we learned how to use them from the Play mode. (The parameter screens are arranged in the same order (from left to right) as the seven knobs on the front panel.)

This row of functions ➡️
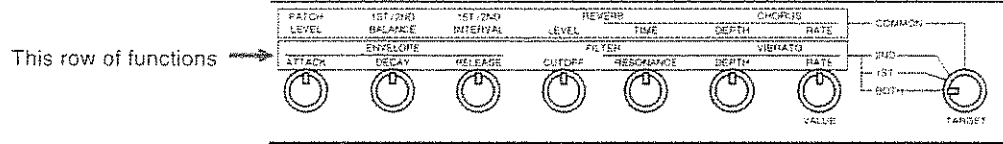
The big advantage of doing it from the Edit mode is that you can change the values more precisely by pressing the VALUE INC and DEC buttons than by turning a knob.

Values are in a range from -50 to +50.

ENVELOPE
(− 50 ~ 0 ~ +50)

FILTER
(− 50 ~ 0 ~ +50)

VIBRATO
(− 50 ~ 0 ~ +50)
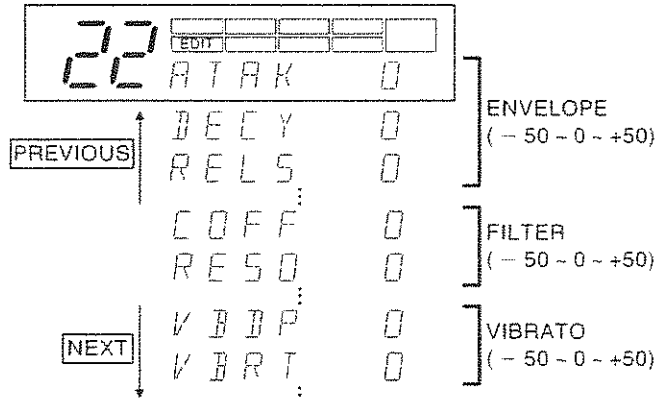
(goes you to the Tone Initialize screen: ☞ P. 3-8)

5. Other Patch Editing Settings (Patch Common)

Here we have grouped together a couple of miscellaneous functions in the Patch Edit mode under the heading of "21 P-COMMON" (Patch Common). These functions include Chromatic On/Off, and Picking Sensitivity, which lets you change how the sound is output to compliment your playing style.

How to : Make Patch Common Settings

① Press EDIT [PATCH].

```
20  EDIT
    P - N A M E
```

The " 0 " will flash.

② Press PARAMETER [NEXT] one (1) time.

```
21  EDIT
    P - C O M M O N
```
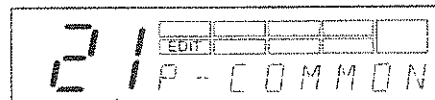
The " 1 " will flash.

③ This is it, so press [ENTER/YES] to enter.

You'll see the following screen, meaning you're ready to start making Patch Common changes.

```
21  EDIT
    C R M T   O F F
```
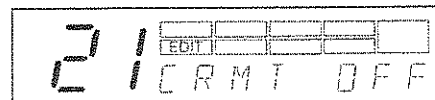
The " 1 " will stop flashing.

④ Now, by pressing PARAMETER [NEXT] and [PREVIOUS], you can select the parameter you want to set.

⑤ The settings themselves are made by pressing the VALUE [INC] and [DEC] buttons.

⑥ Repeat Steps ④ and ⑤ as many times as necessary to make all the settings you want.

⑦ When you're finished, press [EXIT/NO] two (2) times to return to the Play mode.

＊At the risk of sounding like a broken record: save your changes! See Patch Write
(☞ P. 3-14).

◇The Parameters

CHROMATIC ON/OFF

With Chromatic turned on, a smooth, fine variation in pitch (such as you get on a guitar by bending strings) will be played on the synthesizer by breaking it up into discrete semi-tone intervals. You'll want to use this to mimic the sound of pianos and organs, or other chromatic instruments that can't produce pitch variations of less than a semi-tone.

```
21  CRMT   OFF
    EDIT
```

Turn Chromatic on and off by pressing the VALUE INC and DEC buttons.

PICKING SENSITIVITY/DYNAMICS

Adjusts the picking sensitivity and the the dynamic response of the sound so that it reflects how hard or soft you play the strings

```
21  SENS3   D6
    EDIT
```

Sensitivity (0 to 7)
Dynamics (0 to 7)
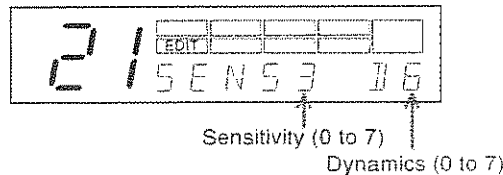
You can set both picking sensitivity ("SENS") and dynamics ("D") in this screen. The setting item that is currently selected will flash in the screen, and you can switch from one to the other with the CURSOR ◄ ► buttons.

With "SENS" you can, for each patch, fine-tune the response or "sensitivity" of the GR - 1 to match your picking attack. "2" is a reasonable value for most purposes.

However, for fingerpicking, with its softer attack, you'll want to step this up a little with the VALUE INC button. In effect, it's like moving the pickup a little closer to the string, so that even when you play softly you can be sure the synth will catch its every nuance.

*If you set this value high, so that a strong attack is needed, you might find that quick bursts of the same note on the same string will not always track properly on the synth.

With "D" you can set the dynamic response of the sound so that it reflects how hard or soft you play the strings. This can be set in a range from 0 to 7 with the VALUE INC and DEC button. Setting it to "7" gives you the maximum dynamic range in response to differences in picking attack, and "0" means that no matter how hard or soft you play, or what tone, you will always get the maximum level.

1ST/2ND COMBINATION

If both the 1st and 2nd Tones are assigned to certain strings in Section 3, "Turning the 1st and 2nd Tones On and Off," we can set the way in which the Tones sound.

If both Tones are assigned to a string, ordinarily they are layered and produced simultaneously. But, depending on the picking intensity, the Tone heard might be switched, so that during hard picking only both Tones are played.

```
┌──────────────────────────────┐
│  ⊐ ┃ ┌EDIT┬──┬──┬──┐          │
│  ┃ ┃ └────┴──┴──┴──┘          │
│  ┗ ┃    1 / 2   L A Y R       │
└──────────────────────────────┘
```

Use the VALUE [INC] and [DEC] buttons to switch between the following options:

1/2 LAYR (Layer)	: When two Tones are assigned to a string, they are layered and played together.
1/2 V-SW (Velocity Switch)	: When two Tones are assigned to a string, if you play that string softly you will hear only the 1st Tone, and only the 2nd Tone will be heard if you play the string hard. The point between "hard" and "soft" picking, where the Tones will switch, is set by Velocity Threshold, which we will discuss in a minute (see next page).
1/2 V-MX (Velocity Mix)	: When two Tones are assigned to a string, the 1st Tone will always sound. You will not hear the 2nd Tone if you play softly, but as you pick harder and harder, at some point the 2nd Tone kicks in as well and both Tones will sound. That point is set by Velocity Threshold, the next topic of discussion.

● What is Velocity ?

When we think of velocity we usually think of "speed." But in the world of MIDI and electronic instruments "velocity" is generally used to mean how hard you play, not how fast.

VELOCITY THRESHOLD

Referring to your picking attack, this parameter sets the point at which you switch between the 1st and 2nd Tones in V-SW, or the point at which the 2nd Tone is added to the 1st Tone in V-MX.

```
┌──────────────────────────────┐
│  ⊐ ┃ ┌EDIT┬──┬──┬──┐          │
│  ┃ ┃ └────┴──┴──┴──┘          │
│  ┗ ┃    V - T H   9 0         │
└──────────────────────────────┘
```
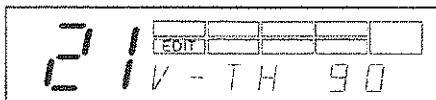
Values range from 0 to 127, with higher values corresponding to harder picking attacks.

This is something you'll want to try playing with a little, to see what value best suits your playing style.

*This setting has no effect if you have selected LAYR in the 1ST/2ND COMBINATION screen.

● If You Want to Switch the 1st and 2nd Tones

With Velocity Switch or Velocity Mix enabled, you'll hear the 1st Tone when you play softly.

If you need to, however, you can have it play the 2nd Tone instead. Use the "Swap 1st/2nd" feature to switch the 1st and 2nd Tones (☞ P. 4–24).

FAT Initial Setting

We have already told you about the FAT pedal in Section 1, "Using the Pedals for Performance Effects": how depressing the pedal adds an octave-lower note to the synth sound you're using to make it sound, well, "fatter." Usually (i.e., when this screen is set to OFF), FAT is not on when you first switch to a Patch and comes on only after you press the pedal.

If you set this screen to FAT ON, however, FAT will already be turned on when you switch to a Patch.

```
 ___       _____
|___|  |  |EDIT|__|__|__|__|__|
|___|  |   _____
 ___   |  | FAT     OFF
|___|  |
```
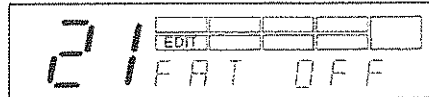
Press the VALUE INC and DEC buttons to turn this ON or OFF.

∗The FAT effect is really an effective way to make melody notes and solo lead lines stand out, but... don't forget it also uses up twice as many synth voices. if you are already using close to the maximum number of voices, you may run into a situation where the notes you played a second ago get cut off in order to sound new notes.

2ND TONE EFFECT ON/OFF

This determines whether reverb and chorus will be applied to the 2nd Tone. Let's say you have the 1st Tone (a string sound) assigned to the treble strings only, and the 2nd Tone (a synth bass sound) to the fifth and sixth strings only. Then, if you want to apply some reverb and chorus to the string sound only, set this to OFF. No effects will be applied to the 2nd Tone (synth bass).

```
 ___       _____
|___|  |  |EDIT|__|__|__|__|__|
|___|  |   _____
 ___   |  | 2-FX      ON
|___|  |
```

Press the VALUE INC and DEC buttons to select ON (effects applied to 2nd) or OFF (no effects applied to 2nd).

∗Note that this turns off 2nd Tone effects regardless of any other effects settings you may have made. To avoid confusion later on, it's better to leave this set to ON in your regular Patches.

2nd TONE HOLD ON/OFF

This determines whether Hold will work on the 2nd Tone. For example, you could set this to OFF, then play a harmony note with the 1st Tone and Hold it. Since the Hold now has no effect on the 2nd Tone, you can use it to play a melody over top of the sustained harmony note.

```
 ____  _____
|  __| | EDIT |_|_|_|_|
|__|_| | 2-HD    ON   |
```

Press VALUE INC and DEC to select ON and OFF.

*This turns off 2nd Tone Hold for this Patch. Best to save it for special occasions, not general-use Patches, so usually you'll leave this set to ON.

● If You Want to Swap 1st and 2nd Tones

You'll note that if you want to have chorus/reverb or Hold apply to only one Tone, the 1st Tone is always ON, and the 2nd Tone is the one you can switch OFF.

If you need to, however, you can make the 1st Tone switchable. Use the "Swap 1st/2nd" feature to switch the 1st and 2nd Tones (☞ P. 4-24).

● Note !

If you are using an external MIDI sequencer to record the guitar part (Section 6, "3. Teaming Up with an External MIDI Sequencer," p. 6-18), Hold will be applied to both Tones during playback, even if you've previously set 2nd Tone Hold to "OFF."

PATCH LEVEL

This sets the volume level for the synth sound on this Patch.

This setting does exactly the same thing as the PATCH LEVEL knob we talked about in Section 3, "Patch Editing Using the Knobs." The advantage of doing it from the Edit mode is, you can change the values more precisely by pressing the VALUE INC and DEC buttons than by turning a knob. You can store this setting into the GR - 1's memory using Patch Write (☞ P. 3-14). That way, you can switch between two Patches and instantly compensate for differences in volume; or, alternatively, have two Patches with the same sound, but set one with back-up volume level and the other with lead level.

```
 ____  _____
|  __| | EDIT |_|_|_|_|
|__|_| | LEVEL 127   |
```
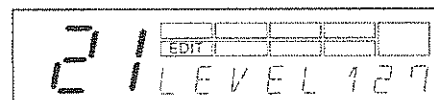
You can set the volume between 0 (no sound) and 127 (maximum).

*For most purposes, you should set the level as high as possible to get the best signal-to-noise ratio.

1ST/2ND TONE LEVEL BALANCE

This sets the balance between the 1st and 2nd Tones.

Once again, this is identical to what we did with the 1ST/2ND BALANCE knob in Section 3, except that we can step through the values more precisely with the INC and DEC buttons that with a knob.

```
 ___  _____
|   |/|EDIT |__|__|__|
|   |  _____
|___| |L - BAL - 64 |
       _____
```

Values range from -64 to +63. At 0, the 1st and 2nd Tones are evenly balanced (same volume). Toward +63 gives you more and more 2nd Tone, and toward -64 gives you a more prominent 1st Tone.

＊In fact, at a setting of +63 you can hear only the 2nd Tone, and at -64 only the 1st Tone.

6.Convenient Functions for Patch Editing

Here are a couple of handy features you can use when creating your own Patches from pre-existing Patches on the GR - 1: "Swap 1st/2nd" and "Tone Copy."

☐ Swapping the 1st and 2nd Tones

"Swap 1st/2nd" is the function to use if you want to make the 1st and 2nd Tones "change places". Performing this operation means the sound that was assigned to the 1st Tone is now assigned to the 2nd Tone, and vice versa.

How to : Swap 1st and 2nd Tones

① In the Play mode, select the Patch containing the Tones you wish to switch.

② Press EDIT WRITE/COPY .

You'll see the following screen.

The " 0 " will flash.

③ Press PARAMETER NEXT three (3) times.

That brings us to the following screen for entering the "Swap 1st/2nd" function.
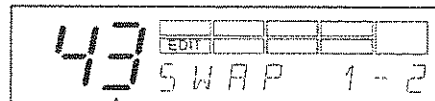
The " 3 " will flash.

④ Press ENTER/YES .

As always, the number in the display will stop flashing to confirm that you have entered this function.
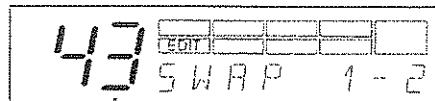
The " 3 " will stop flashing.

⑤ If it's OK to switch these Tones, press ENTER/YES .

The "OK?" message (asking you for confirmation) will now start flashing.

  ← flashing
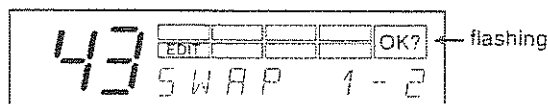
⑥ If it's still OK to switch these Tones, press ENTER/YES .

After the Tones have been switched you will be returned to the screen in Step ④ .

```
┌─────────────────────────────────────┐
│ ╻╻╾┐ ┌──┐┌──┐┌──┐┌──┐                │
│ ┝━┥ │EDIT│└──┘└──┘└──┘                │
│ ╹╹━┙ [  ┌┐ ┌┐ ┌─┐ ┌  ┌─ ┌─           │
│      ╵╵╵╵ │ │ │ │ │ └─ │             │
└─────────────────────────────────────┘
```
←──The swap is being completed.

↓ After a few seconds

```
┌─────────────────────────────────────┐
│ ╻╻╾┐ ┌──┐┌──┐┌──┐┌──┐                │
│ ┝━┥ │EDIT│└──┘└──┘└──┘                │
│ ╹╹━┙ ┌─ ╷    ╷ ┌─┐ ┌─┐    ╷   ┌─┐    │
│      └─ └─┐┌┘ │ │ │ │     │ ─ ┌─┘    │
└─────────────────────────────────────┘
```
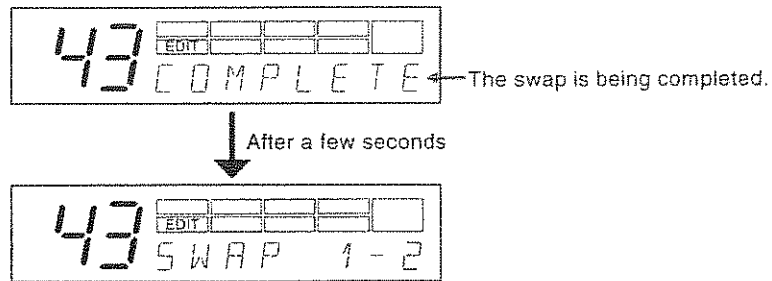
⑦ Press EXIT/NO two (2) times.

You'll be returned to the Play mode.

∗ If you want to save the results of this operation, do so with a Patch Write (☞ P. 3–14).

This operation not only swaps the Original Tone for both Tones, but also Envelope and Filter, and all the other Edit parameters that apply to each Tone. This is a convenient feature for when you want to reverse the order of sounds in Velocity Switch or Velocity Mix, or change which sound is being affected by the "2nd Tone Effect ON/OFF" and "2nd Tone Hold ON/OFF" settings (see "Other Patch Editing Settings (☞ P. 4–18)).

∗The Swap function, however, will not swap Note Shift settings between the 1st and 2nd Tones.

□Copy One Tone to Another (Tone Copy Function)

This function lets you copy the entire 1st (or 2nd) Tone from any Patch you like and make it the 1st Tone of the Patch you are currently editing. The copied data includes the Original Tone plus Envelope and Filter, and all the other Edit parameters that apply to each Tone.

* You can't copy to the 2nd Tone, however.
* Note Shift settings cannot be Copied.

How to : Copy the 2nd Tone Contents into the 1st Tone (Example)

① In Edit mode, press the EDIT [WRITE/COPY] button.

You'll see a screen like the following.

```
4□  [EDIT]
    WRITE->P
```
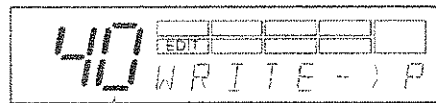
The " 0 " will flash.

② Press the PARAMETER [NEXT] button two (2) times.

This puts you to where you can select the "Copy 2nd Tone" function.

```
42  [EDIT]
    COPY  2ND
```
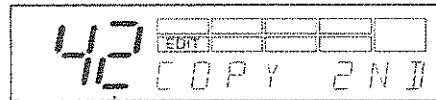
The " 2 " will be flashing.

* If you only press it once, you select the "Copy 1st Tone" function. The steps would be the same, though, from here on.

③ Press [ENTER/YES].

This confirms that you want to enter the "Copy 2nd Tone" function.

```
42  [EDIT]
    FROM   114
```

The " 2 " stops flashing.   Copy source Patch number (change with VALUE [INC][DEC])

The number displayed in the lower part of the screen (114 in this example) is the "copy source" Patch number or the Patch from which you are going to copy the 2nd Tone. (When you use Tone Copy, the "copy destination" is always the 1st Tone of the Patch you are currently editing.)

④ Press the VALUE [INC] and [DEC] buttons as needed to select the copy source Patch number you want.

It should be different from the current Patch number, or else there's no point to the operation!

⑤ Press ENTER/YES again.

This time, the "OK?" message will flash, asking you to confirm that you're ready to execute the Tone Copy.

```
 ЧР  ┌EDIT┬───┬───┬───┬─OK?┐←─Flashing
 ЧC   FROM    114
```

⑥ Ready? To confirm, press ENTER/YES .

When the Tone Copy is finished, you'll see the following screen for a few seconds before being returned to the screen of Step ③ .

```
 ЧР  ┌EDIT┬───┬───┬───┐
 ЧC   COMPLETE ←─Indicates Tone Copy is complete
```

↓ After a few seconds

```
 ЧР  ┌EDIT┬───┬───┬───┐
 ЧC   FROM    114
```
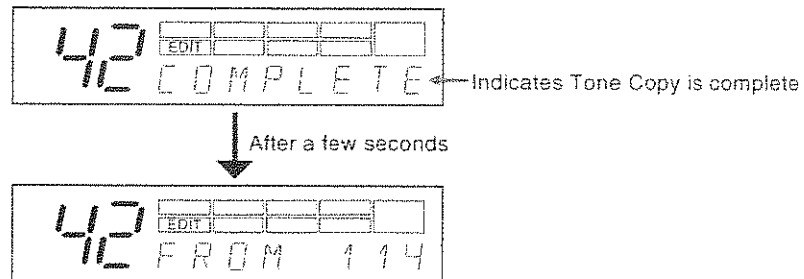
⑦ Press EXIT/NO two (2) times.

You'll be returned to the Play mode.

* Save your changes! (☞ P. 3–14)

Tone Copy is especially handy for mixing and matching different Patches to come up with new ones. Or, if in Step ③ you select the Patch number currently being edited, it's a quick way to make the 1st Tone identical to the 2nd Tone. Although you can't copy directly to the 2nd Tone, you can use the "Swap 1st/2nd" feature (☞ P. 4–24) in combination with this function to put the copy wherever you want.

【Checklist for Section 4】

● Have you understood how assign 1st and 2nd Tones to individual strings? (☞ P. 4-2)

● Do you know how to do a Note Shift on individual strings? (☞ P. 4-6)

● How about modifying the settings for reverb and chorus without using the knobs? (☞ P. 4-9)

● Can you Detune and adjust the Pan on the 1st or 2nd Tones? (☞ P. 4-16)

● Do you understand how to Velocity Switch or Velocity Mix the 1st and 2nd Tones? (☞ P. 4-20)

● Can you set things so that effects or Hold don't apply to the 2nd Tone? (☞ P. 4-21, 4-22)

● And do you know how to Copy or Swap the 1st and 2nd Tones? (☞ P. 4-24)

Recording

The On-Board Recorder and Multi-Timbral Sound Module

[Objective]

In this section we'll explain about using the on-board Recorder with the multi-timbral sound module. The GR - 1 is equipped with a four-track Recorder (a simple sequencer with record and playback capabilities) connected to a four-Part multi-timbral sound module. You could use it to record all the backing parts for a demo tape, or to give you intros when playing on stage, or any number of other useful applications.

*For more information, see also Section 6. "Using the GR - 1 as an Expansion Module for an External MIDI Device" on page 6–12.

*By "Track," we mean the "road" or "path" on which the recorded data is laid down. On the GR — 1 at least, you could think of it as almost the same thing as a Part.

*Anytime you use the Recorder, but especially during a recording, please be very careful not to turn off the power. This will wipe out song and patch data, and there is even the outside chance that things may not work right when you turn the power back on. If that happens, you will have to do a System Data, Patch and Song Initialize (as described on page 7 — 22). This means, unfortunately, that all the settings and data you have changed up to this point will be lost.

1. Listening to the Demo Song
Layout of the Multi-Timbral Sound Module

☐ Listening to the Demo Song

The GR - 1 contains a Demo Song, and when you first take the unit out of the box, this data is loaded into the Recorder ready to play. Follow the procedure below to do just that.

① Press the [START/STOP] button on the panel to start the Demo song.

② Press the [START/STOP] button during play to pause playback.

③ If you press the [START/STOP] button again, play will resume.

＊ If you want to go back to the top at any time during play, press the [RESET] button.

Using a Foot Pedal for Recorder Control

You can also start and stop the Recorder with the [▶/■] pedal.

① In Play mode, press the GK - 2 [S2] switch.
This puts you in Pedal mode, and all the lights on the pedals will be flashing.

② Depress the [▶/■] pedal.
This will start the Recorder. Another press stops it.

＊When you want to switch Patches, press the [S1] switch on the GK - 2 to exit Pedal mode.

Step on the pedal to pause playback, pressing it once again will either start play from the top again, or continue play from the pause point; turn the page to find out how you can select between these two options.

＊This setting is valid only for the pedal. It doesn't affect the action of the [START/STOP] button on the panel.

"Styles"   Music by Paul Youngblood   Copyright ©1991, Roland US

Paul Youngblood   Paul Youngblood is a sound designer, author, composer, performer, and noted authority on electronic musical instruments. He has done sound design work for top artists such as George Michael, Lee Ritenour, KISS, and Larry Carlton. A graduate of the Berklee College of Music, Paul is the author of the Hal Leonard publication *MIDI Guitar and Synthesis*, an important reference book for guitar synthesists. Paul regularly conducts clinics for Roland, Guitar Institute of Technology, Dick Groves School of Music, and is a part-time instructor for the UCLA Extention Program.

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How to : Set the Reset Function

① In Play mode, press the EDIT [SYSTEM] button.

You'll see a screen like the following.

```
 /┐ ┌EDIT┐
/┗┛   S - C O M M O N
```
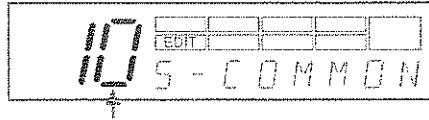
The " 0 " will flash.

② Press PARAMETER [PREVIOUS] three (3) times.

"PLAY/STP" will be displayed in the screen.

```
 /┐ ┌EDIT┐
/ /   P L A Y / S T P
```

The " 7 " will flash.

③ Press [ENTER/YES].

You'll see a screen like the following, indicating the current reset status.

```
 /┐ ┌EDIT┐
/ /   R E S E T    O N ◄── Switch with the VALUE [INC][DEC]
                              buttons.
       R E S E T O F F
```
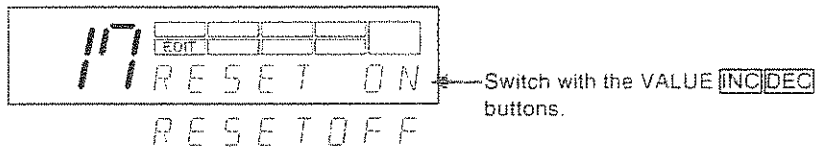
④ In this screen, press the VALUE [INC] and [DEC] buttons to switch between Reset On and Reset Off.

RESET ON   : After pressing the pedal to pause play, the next press "takes it from the top" — sends you immediately back to the first bar and starts play.

RESET OFF   : After pressing the pedal to pause play, the next press starts play again from the pause point.

⑤ When the settings are completed, press [EXIT/NO] two (2) times to return to Play mode.

＊The settings you make by pressing the EDIT [SYSTEM] button are automatically saved even after you turn off the power. There's no need to perform a Patch Write operation to save data, like you do after editing a Patch.

＊You can also set something called 'Repeat Play' when playing back Recorder data. Once the song has played all the way through, Repeat Play returns you to the first bar again and continues play.

See "The Recorder: Miscellaneous Settings" (☞ P. 5–26) for how to set this.

☐ Guitar Parts and Multi-Timbral Parts

The sound module of the GR - 1 is broadly divided into the guitar section and the multi-timbral section. The guitar section is ordinarily used when playing the GR - 1 purely as a guitar synthesizer. It is the multi-timbral section which is used as the main sound module for the on-board Recorder.

■ Guitar Section (1 Part)

● Sounds are primarily controlled by the guitar (GK - 2).
● Can select a Patch from a maximum of 128 available (including those on a Card).
● Each Patch is made up of two Tones; a 1st and 2nd Tone.
● Can be played from an external MIDI device, assuming six MIDI channels are available (one for each string).
● Independent pitch changes on each string (for bends or vibrato) are possible.

■ Multi-Timbral Section (Three Parts plus a Drum Part)

● Sounds are primarily controlled by the Recorder or external MIDI devices.
● One MIDI channel per Part.
● Except when recording the guitar with the Recorder, can be played with signals from the guitar (GK - 2).
● Except for Reverb and Chorus settings (like Type or Rate), the Patch which is selected is identical to the one for the guitar Part.

◇ Parts 1, 2 and 3

● Select from 200 Original Tones (400 with the Expansion Board), one Tone per Part.
* Tones only, not Patches as with the guitar section.
● No editing of selected Original Tones possible.
● Volume, Pan, Reverb and Chorus levels are independently adjustable for the three Parts.

◇ Drum Part

● Each note (that is, position on the guitar fingerboard) corresponds to a different percussion instrument, such as snare, kick, hihat, etc., which can all be played at the same time.
● Volume, Pan and Reverb levels are independently adjustable for each instrument.
● Can't change assignment or layout of Drum Part Tones. Can't add Chorus.

2. Recording With Parts 1, 2 and 3

Actually, playing the multi-timbral section with the guitar and recording it is quite similar to the way you'd work with an ordinary cassette tape recorder. In some respects, that is! What kind of tape recorder would let you record at a nice, leisurely tempo and then speed it up later for the playback, without changing pitch? You can do that on the GR - 1 Recorder. Or how about playing through a part over and over while recording? That's called "Loop Recording" (☞ P. 5–12). Or copying a certain range of measures to another part of the song, or deleting just a few measures and closing up the gap (☞ P. 5–19)... these are all things the GR - 1 Recorder can do.

In addition to performance data from the guitar (GK - 2), you can also record from a connected external MIDI keyboard. This lets you play guitar-type Tones with a guitar, and keyboard-type Tones with a keyboard, so that they sound that much more realistic and natural.

Making the Connection : Recording from an External Keyboard

MIDI IN   MIDI OUT

GR -1   Keyboard, rackmount sound module, etc.
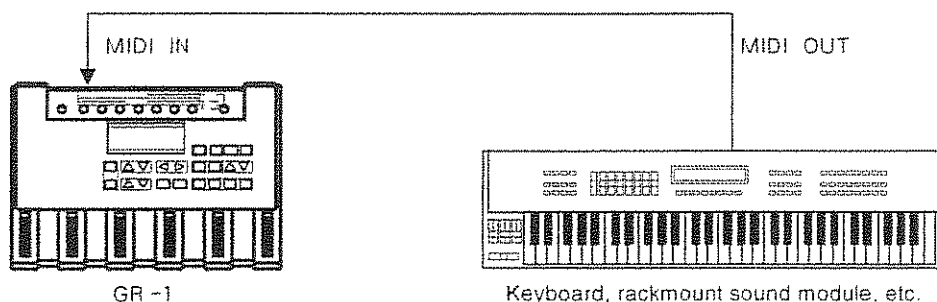
* There's no need to set the keyboard MIDI Transmit channel, as the Recorder will accept and record the data coming in on any channel.

See Section 6, "Using the GR - 1 as an Expansion Module for an External MIDI Device" on page 6–12 for more information on using an external keyboard in recording.

How to Initialize the Song in the Recorder

You can only work with one song at a time in the Recorder. The first song in the Recorder is the Demo song; we'll show you how to get it out of the way so you can work on another song. (Unlike other songs, the Demo is stored in a special place in the GR - 1's memory, so we can easily get it back again later.)

We'll use the Song Initialize function.

① Turn the power off.

② While holding down the EXIT/NO button, turn the power on again.

You'll see a screen like the following. "OK?" will start flashing in the upper right corner.

— OK? flashes
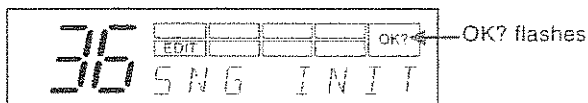
③ Press ENTER/YES .

The following screen will appear.

```
┌─────────────────────────────┐
│  ╗┌     ┌──┬──┬──┬──┐         │
│  ╛└  ┌──┤EDIT├──┼──┼──┐       │
│  ╜┘     └──┴──┴──┴──┘         │
│         ╦╖ ╔═╗  ┌╴                │
│         ║║ ╟─╢  ┤                 │
│         ╨╜ ╨ ╨  ╵                 │
└─────────────────────────────┘
```
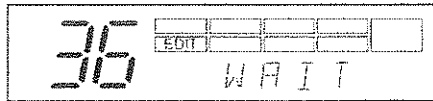
After few seconds, opening screen (☞ P. 1–4) will appear.

Check your work by pressing the START/STOP button: if nothing happens, then the old song has been cleared and there is no song currently loaded in the Recorder.

Calling Up the Demo Song Again

① If you have a song currently in the Recorder that you don't want to lose, get a Memory Card ready (M-256E, sold separately) and follow the instructions on page 7–17 to save the song.

② Press and hold EDIT RECORDER/PART and turn on the power.

The display will read "DEMOSONG" and "OK?" will flash.

```
┌───────────────────────────────────┐
│    ┌──┬──┬──┬──┐                   │
│    ├──┼──┼──┼──┤ OK?  ◄──OK? flashes│
│    └──┴──┴──┴──┘                   │
│  ╥╖ ╔═╗ ╦╦ ╔═╗ ╔═╗ ╥╦ ╔═╗         │
│  ║║ ╠═  ║║║ ║ ║ ║ ║ ║║║ ║ ╦         │
│  ╨╜ ╚═╝ ╨ ╨ ╚═╝ ╚═╝ ╨ ╨ ╚═╝        │
└───────────────────────────────────┘
```
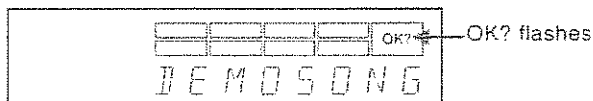
③ Press ENTER/YES .

You'll see the following screen as the Demo song loads.

```
┌───────────────────────────────────┐
│         ┌──┬──┬──┬──┐              │
│      ┌──┤──┼──┼──┼──┐              │
│         └──┴──┴──┴──┘              │
│         ╦╖ ╔═╗  ┌╴                 │
│         ║║ ╟─╢  ┤                  │
│         ╨╜ ╨ ╨  ╵                  │
└───────────────────────────────────┘
```
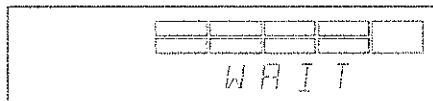
In just a moment you'll kick into Play mode as usual, but now the Demo song has been called up into the Recorder.

So, now that we've learned how to clear the decks for recording, let's try it.

How to : Record Parts 1, 2 and 3

(1) Press EDIT [RECORDER/PART].

That brings up the Recorder/Part screen, as shown below:

```
30
 EDIT
R E C / P L A Y
```

∗If you have selected a song on a Card, you won't be able to do this step. Follow the instructions on page 5–32 to select a song on the GR - 1 itself.

(2) Select the Tones you want to record for each Part.

(2)—1 From the Recorder/Part screen, press PARAMETER [PREVIOUS] one (1) time to bring up this screen:

```
39
 EDIT
P R T - T O N E
```
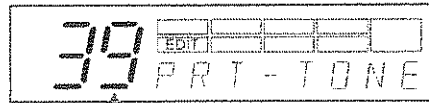
The " 9 " will flash.

(2)—2 Now press [ENTER/YES] to enter the following screen for changing the Tone you want for each Part.

```
39
 EDIT
P R T 1        0       ↑  PARAMETER [PREVIOUS]
P R T 2        1
P R T 3        2       ↓  PARAMETER [NEXT]
```
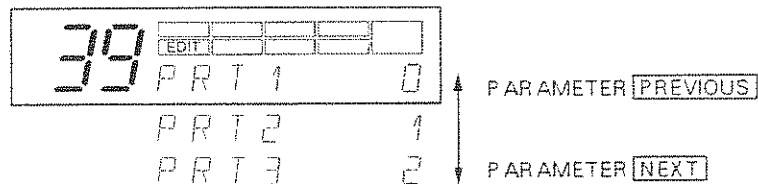
(2)—3 You can select the Part with the PARAMETER [NEXT] [PREVIOUS] buttons...

(2)—4 ...and when you've done that, assign the Tone using the VALUE [INC] [DEC] buttons. You can play a little on the guitar to check that this is the Tone you want, or...

```
39
 EDIT
P R T 2    1 0 6      ← Change the Tone number with the
                         VALUE [INC][DEC] buttons.
```
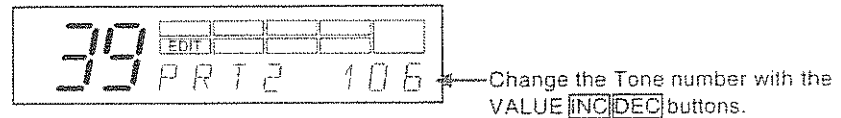
..check the Tone name by pressing the CURSOR [▶] button, then CURSOR [◀] to return to the Tone number display.

```
39
 EDIT
T O R M B O N E      ← Check the Tone name with CURSOR
                         [▶] (back with [◀])
```
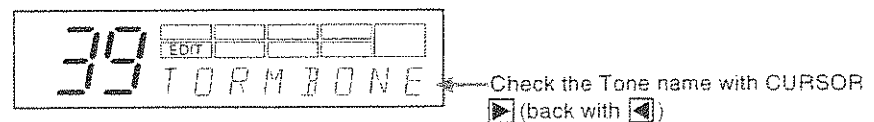
∗However, you can't insert patch switching messages into a song with this procedure. For that you should refer to Section 5, "6. Switching Tones and Recording During a Performance" (p. 5 – 28), where it talks about changing patches using the Pedals.

*As shown on the Tone List on page 9–16, there are 200 Tones, numbered 0 to 199, from which to choose. If you add the optional Expansion kit, that allows you to select from even more Tones, numbered 200 to 399.

②—5 After selecting your Tones, press [EXIT/NO], then the PARAMETER [NEXT] button.

This returns you to the screen we started from in Step ①.
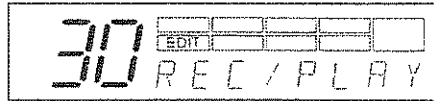
③ Set the tempo.

③—1 From the screen in Step ② -5, press [ENTER/YES], then the PARAMETER [NEXT] button.

You'll see the following screen, and the metronome will start ticking at the setting for that song.
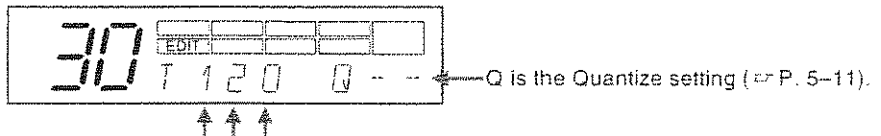
Q is the Quantize setting (☞ P. 5–11).

The number just to the right of the " T " is the Tempo (increase/decrease with VALUE [INC][DEC] buttons)

③—2 Set the tempo with the VALUE [INC] [DEC] buttons while listening to the ticking.

④ Select the Part you want to record.

④—1 From the screen in Step ③, press PARAMETER [PREVIOUS].

You'll be returned to the following Track Select screen. The characters 1, 2, 3, and D refer of course to the respective Part numbers or the Drum Part. Just to the right of each is a "_" to indicate that nothing is currently recorded for that Part.
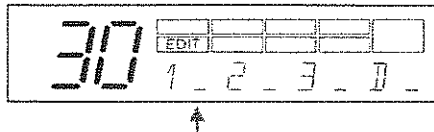
The " _ "to the right of the " 1 " flashes to show Part 1 is currently selected (change this with CURSOR [◄][►]).

The Part with the flashing underline next to it is the one currently selected.

④—2 Change this with the CURSOR [◄][►] buttons to select the Part you want to record.

⑤ Now let's get into the Recording screen itself and enter Recording Standby mode.

⑤—1 From the screen in ④ -2, press [ENTER/YES].

This puts you into the following screen for recording the Part selected in Step ③.

The " - " indicates that recording is paused.

Current bar
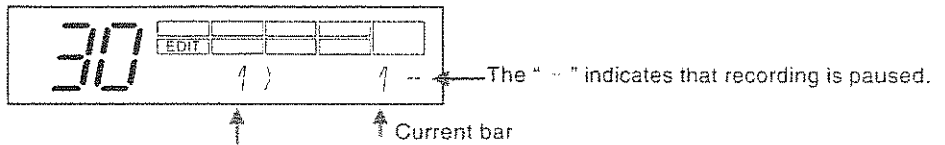
Starting bar (here a "1," the beginning of the song)

First off, let's try a recording from the top.

⑤-2 From the above screen, press the red [REC] button.
The Recording Standby mode is selected.

```
3 0   [EDIT]  [  ][  ][  ][  ]
         1 )      - 2 R
```

—The " R " flashes to indicate Recording
Standby mode.

Current bar (" -2" means recording will start after
a two-bar count-in)
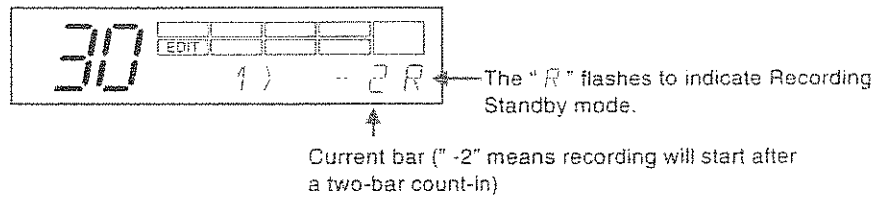
＊If you want to cancel Recording Standby, press [REC] again to return to regular Recording
mode as in Step ⑤-1.

⑥ Start recording!

⑥-1 Press the [START/STOP] button.
This starts the metronome and Recorder. On the right-hand side of the screen you'll see
the "Current Measure Number" go from " — 2" to " — 1," then at "1" the actual
recording begins.

```
3 0   [EDIT]  [  ][  ][  ][  ]
         1 )      4 R
```

—When the " R " stops flashing, recording
has started

Current bar (counts up from 1)

＊At first we're in 4/4 time, so you'll hear a slight emphasis on the first of each four
metronome ticks.

(with accent)   (with accent)
▼   ▼
tick   tick   tick   tick   tick   tick   tick   tick

```
|    |    |    |    ‖    |    |    |    ‖
1    2    3    4    5    6    7    8
```
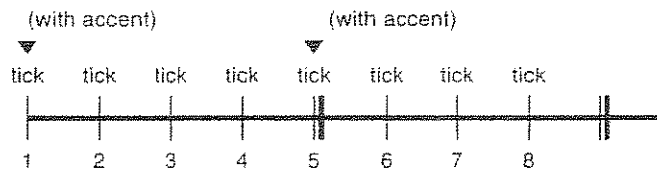
Refer to the instructions in "The Recorder: Miscellaneous Settings" (☞ P. 5–26) for how to
record in time signatures other than 4/4.

⑥-2 Play a few riffs on your guitar to record them.
You'll hear the licks played with whatever Tone you selected in Step ②.

⑦ OK, it's a wrap; stop the recording.
At the bar number you want to stop at, press [START/STOP] again.
This kills the metronome and stops the recording. The "Current Measure Number" in the display
immediately returns to the measure number you started recording from (in this case, Measure 1).

⑧ Now playback what you've just recorded.
Just press [START/STOP].

```
3 0   [EDIT]  [  ][  ][  ][  ]
         1 )      1 P
```

—The "P" lights up during playback

Alright! You should be hearing those blazing licks you just recorded in Step ⑥! Well, maybe they
weren't as blazing as you thought. If you want to do them over again, just repeat Steps ⑤ and ⑥ (but
remember, just like on a real tape recorder, the previous data will be obliterated when you rerecord
over it).

⑨ When you've got it down the way you want, press the VALUE INC and DEC buttons to specify a new starting bar for recording, and follow through with Steps ⑤ through ⑧ to continue recording. Wherever you press the REC button, you'll get a two-bar count-in before recording actually begins.

Current bar (changes as you change Start bar)

Start bar (advance with VALUE INC, back up with VALUE DEC)

⑩ When you've got all the recording done you want on this Part, switch to another Part.

 ⑩—1 Press EXIT/NO .

  You'll see the Track Select screen again, as we saw in Step ④.

 ⑩—2 Once again, use the CURSOR ◄ ► buttons to select the Part.

 ⑩—3 Repeat Steps ⑤ through ⑧ to record Parts 2 and 3.

At this point though, when you're finished recording Part 1 and selecting the next part to record, you'll see a "P" (for "Play") in the Part Select display next to the "1". This indicates that the Part has already been recorded. When you set the cursor on this "P" (it starts flashing), you can switch it from "Play" to "M" ("Mute") with the VALUE INC and DEC buttons. This means you can choose to hear Part 1 (or mute it) while recording the other Parts. You can do this with the other Parts, too.

Change Parts with CURSOR ◄►

Switch between "P" and "M" with VALUE INC DEC

This is basically what you need to know to successfully record Parts 1, 2, and 3.

Changing Volume, Reverb and Chorus Volume, and Pan

You might want to refer to Section 6, "Changing Things Like Volume and Channel for Each Part" (☞ P. 6–15).

We suggest you might want to watch the balance with the Drum Part and if necessary, turn down Parts 1, 2 and 3 (things sound different in a mix than they do on their own, and the Drum Parts tend to get lost). In addition, from the same starting screen, you can set the Receive channel, Pitch Bend Range and MIDI Channel for each Part. In the Recorder settings, when Bend is on (☞ P. 5–27) and you are using an external keyboard for recording, you need to set the Pitch Bend range for each Part the same as the Pitch Bend range of the keyboard. For more about that, see (☞ P. 6–12).

And again, when you're recording only the guitar (GK - 2) with the Recorder, there's no need to worry about the MIDI channel.

Loop Recording

Loop Recording is when you can go over and over the same range of measures and "build up" or "layer" a recording a note or two at a time. Usually this kind of input is useful for Drum Parts, but it's also convenient for recording Parts 1-3 if you want to record just a few measures at a time, or there's just one place you want to fix up a little.

See Section 5 "The Recorder: Miscellaneous Settings" (☞ P. 5–26) for how to set the Loop measures, and "Entering the Drum Part" (☞ P. 5–12) for the actual steps to try Loop Recording.

Tightening Up Drum Parts (Quantize Feature)

The Recorder has a Quantize feature that, as you record, moves the timing of the notes you play on guitar or keyboard to match a sort of even-timing "grid." The effect is that, even if you didn't quite play them that way the first time, the notes are made to fall exactly on the beat during playback. The Quantize setting is the smallest unit on this "grid." In the example below, Quantize is set to sixteenths, which means that the timing of every note you play is shifted to fall exactly on the nearest sixteenth note.
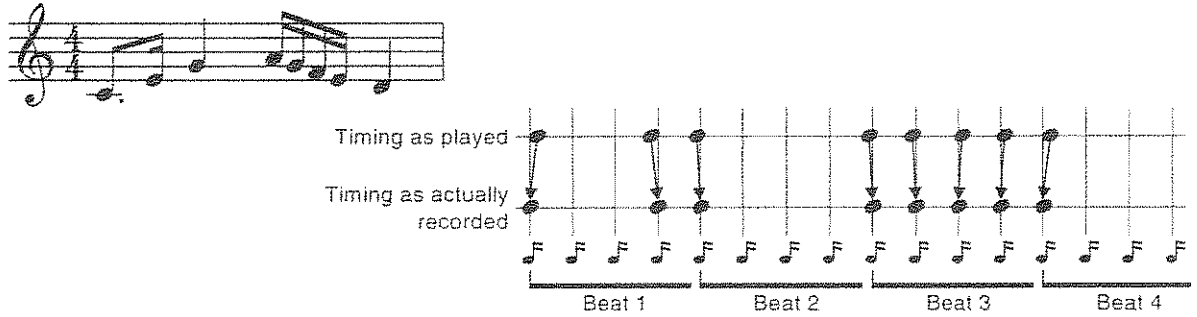
Remember the "Q – –" on the right-hand side of the Step ③ Tempo setting screen on page 5–8? That's were we will set the Quantize value.

"Q – –": Quantize value

" Q – – " indicates that Quantize is currently turned off.

① Press CURSOR [▶] until the " – – " part of the screen is flashing.

② Press VALUE [INC] and [DEC] to scroll through the possible settings.

When you see a number following the "Q," you will get the corresponding Quantize effect during recording.
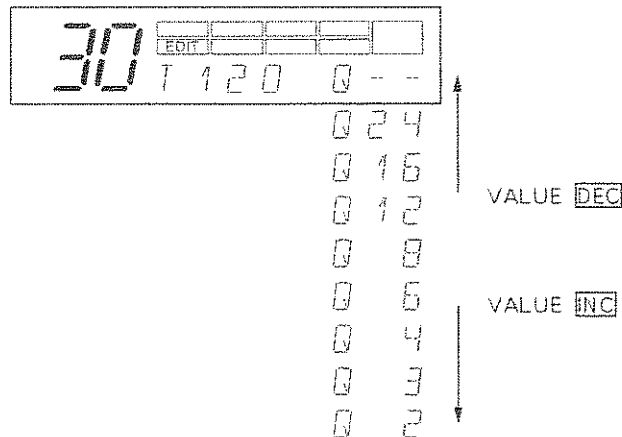
Even without using a guitar or external keyboard, you can record a Drum Part using the [ENTER/YES] button on the GR - 1 itself. This is called "Tap Entry."

There's also a Loop Recording feature for Drums on the GR - 1, and we will try combining these two features in this section to create a Drum Part.

∗Basically, the method for recording the Drum Part is the same as for recording Parts 1-3 with the exception of this Tap Entry setting, so that you can record without Loop Recording a guitar or external keyboard.

∗See the Drum Set diagram on page 9–15 to find out what note on a guitar or keyboard corresponds to which percussion instrument in the Drum set.

Note!	No matter how hard you punch the button to enter the rhythm, the data will be recorded with the same intensity of attack or "velocity" as specified by the Tap Entry Velocity setting. Refer to "The Recorder: Miscellaneous Settings" (☞ P. 5–26) or "Changing the Tap Entry Velocity" (☞ P. 5–16).
	So, there's no point in punching the button any harder than it takes to enter the note — it won't

---

How to : Record a Drum Part (with Loop Recording)

① First, set the size of the loop.

①–1 Press EDIT [RECORDER/PART].

The " ☐ " will flash.

∗If you have a song on a Card currently selected, you won't be able to do this step. Follow the instructions on page 5–32 to select a song on the GR - 1 itself.

①–2 Press PARAMETER [NEXT] four (4) times.

You'll see the following screen.

The " 4 " will flash.

①–3 Press [ENTER/YES].
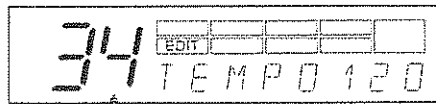
The " 4 " will stop flashing.

①–4 Press PARAMETER [PREVIOUS].

This is the screen for setting the loop section. When you first take the GR - 1 out of the box, this is set to OFF.
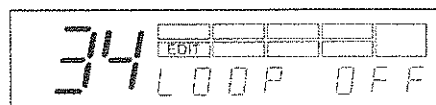
Change this with VALUE [INC][DEC]
(OFF, or 1 through 8)

①— 5 Use the VALUE [INC] and [DEC] buttons to set it in the range from 1 to 8.

This means that Loop is on, and the number is the number of bars in the loop.

* This setting, and all the other Loop Recording settings, work the same way for Parts 1-3 as well as for Drums.

①— 6 Once you've got the number of measures set, press [EXIT/NO].

①— 7 Press PARAMETER [PREVIOUS] four (4) times.

You'll be returned to this screen:

```
 ___
|  |  | [EDIT]  |__|__|__|
|__|  |  REC / PLAY
```

② Set the Tempo and Quantize.

②— 1 From the screen in Step ①-7, press [ENTER/YES] one time.

②— 2 Press [NEXT].

This moves you to the next screen, where you can set the tempo of the metronome that will play along with the song.
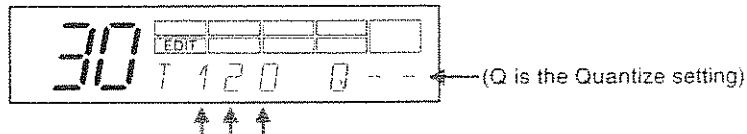
```
 ___
|  |  | [EDIT]  |__|__|__|
|__|  |  T 120   0 - -   ◄——(Q is the Quantize setting)
        ↟ ↟ ↟
```

The number just to the right of the " T " is the Tempo
(increase/decrease with VALUE [INC][DEC] buttons)

②— 3 As you listen to the metronome, adjust the tempo setting (the flashing numbers) with the [INC] and [DEC] buttons. Also, at this point you can set the Quantize function.

* When you first take the GR - 1 out of the box this is set for 4/4 time, but you can record in other time signatures as well. See "The Recorder: Miscellaneous Settings" (☞ P. 5–26) for how to change this.

● Using the Quantize Feature

While recording, the Quantize feature shifts the timing of the notes you play so that they land exactly on the beat, even if you didn't quite play them that way. If you diagram the timing (as we have below), the notes line up neatly on a "grid," where the smallest unit is the Quantize setting. Here, Quantize is set to sixteenths, which means that the timing of every note you have recorded is shifted to fall exactly on the nearest sixteenth note during playback.

The " _ -- " means that Quantize is turned off.

① Press CURSOR ▶ until the " --- " starts flashing.

② Press VALUE INC and DEC .

That brings up the following screen, where you can set the Quantize value.
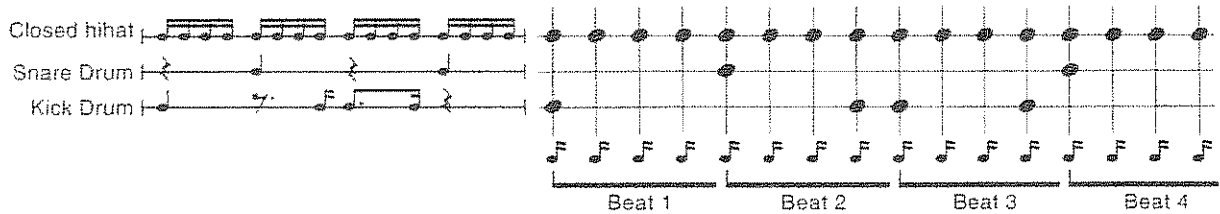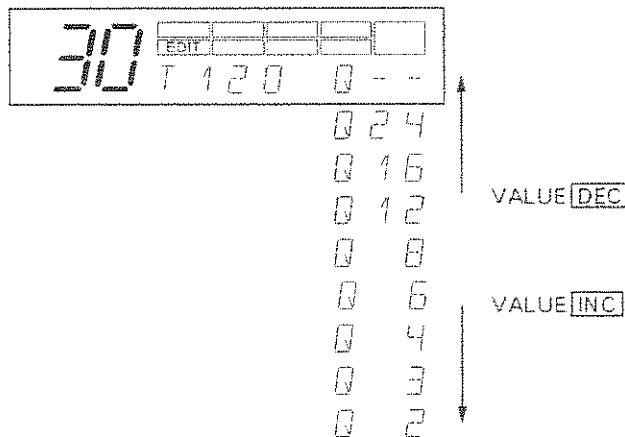
You can select from the following as the smallest unit in the "grid."

---		Off	12	♪♪♪	Triplet eighths	4	♩	Quarter notes
24	♪♪♪	Triplet sixteenths	8	♪	Eighth notes	3	♩♩♩	Triplet half notes
16	♪	Sixteenths	6	♩♩♩	Triplet quarters	2	♩	Half notes

③ Select the Drum Part.

③—1 From the screen in Step ②, press PARAMETER [PREVIOUS]

This returns you to the Track Select screen again. The flashing underline indicates the currently selected Part.

```
┌─────────────────────────────────┐
│ ∃┌┐ ▛▀▜ ┌──┬──┬──┬──┐            │
│ ╵╵╵ ┃EDIT┃  │  │  │  │           │
│ ∃└┘  1P 2P 3 _ ]] _              │
└─────────────────────────────────┘
                        ↑
```

Press CURSOR [▷] until this flashes to
select Drum Part

③—2 Move the cursor to the right with the CURSOR [▷] button to select the Drum Part.

∗The "1," "2," and "3" in the display refer to Parts 1, 2, and 3, and "D" stands for the Drum Part. The Parts you have already recorded will have a "P" next to them (or an "M" if they are muted), and those that have nothing recorded on them will have an underline.

④ Go to the Recording screen to put the GR - 1 into Recording Standby.

④—1 Press [ENTER/YES].

The display will now change to the Recording Screen for the Part you selected in Step ③. The three characters on the left indicate the type of percussion instrument.
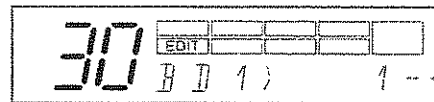
```
┌─────────────────────────────────┐
│ ∃┌┐ ▛▀▜ ┌──┬──┬──┬──┐            │        When you press [REC], the " -- " or "R" will
│ ╵╵╵ ┃EDIT┃  │  │  │  │           │ ◀── start flashing to indicate Recording Standby.
│ ∃└┘  ]] ]] 1 )        1 --       │
└─────────────────────────────────┘
         ↑              ↑
                    Current bar
```

Type of percussion instrument, here Bass Drum 1

④—2 Tap on the [ENTER/YES] key lightly to test.

You should hear the Bass Drum 1 sound.

④—3 Now, press the red [REC] button.

The " — " on the far right will change to a flashing "R" to indicate that you are in Recording Standby.

∗To get out of Recording Standby and return to the condition in Step ④-1, press [REC] again.

● Changing the Tap Entry Velocity

① In the screen above, press [EXIT/NO].

② Then press PARAMETER [NEXT] again once.

```
30  [EDIT]
    T 1 2 1   0 - - 0
```
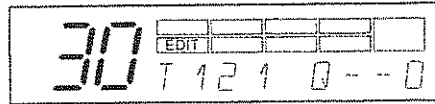
③ Press PARAMETER [NEXT].

This is the screen for setting the Velocity.

```
30  [EDIT]
    V E L O    1 0 0    ←—— Increase/decrease with VALUE [INC][DEC]
```

④ Press the VALUE [INC] and [DEC] buttons.

This changes the velocity setting for Tap Entry notes.

⑤ When you've got it set where you want, press PARAMETER [NEXT].

⑥ Press [ENTER/YES].

This returns you to the recording screen of Drum part.

＊Drum sounds are toned down a little when they're in a mix, so it's basically a good idea to set this high, maybe 100 or above. This setting has no effect when playing and entering Drum notes from the guitar or keyboard.

⑤ Start recording.

⑤—1 Press [START/STOP].

The metronome will start, indicating that recording is underway.

Let's say you set the number of measures in the loop to be "2" in Step ① -5. Then the "Current Measure Number" on the right side of the screen will alternate from "1" to "2" to "1" to "2," and so on, starting from the first bar and going two bars before looping back to the start.

```
30  [EDIT]
    B D 1 )      1 R   ←——The " R " stops flashing to indicate
                 ↑         recording is underway
          Current Measure Number (alternates between "1"
          and "2" in this case)
```
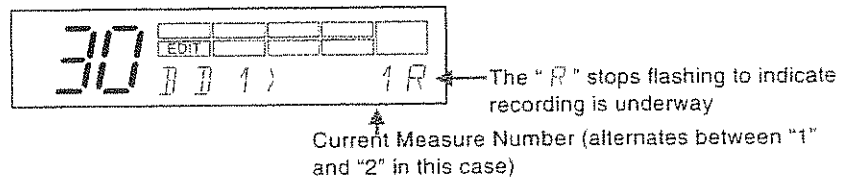
Important!	This looping occurs only during recording! It does not play back this way.

⑥ Tap on the [ENTER/YES] key in time with the metronome.

You are now recording the sound indicated in the display (in this case, Bass Drum 1).

With Loop Recording, you will continue to loop over this range indefinitely and every note you play will be recorded and added to the other notes, until you stop recording.

⑦ Delete any wrong notes.

⑦— 1 With the Recorder still running, press the | EXIT/NO | button when you reach a place where you think the timing is incorrect.

For as long as you continue to hold down the | EXIT/NO | button, the recorded notes for the displayed instrument will be deleted. If you're quick enough on the button, you can use this for a "realtime edit" to get rid of just one or two bad notes.

⑦— 2 When you've deleted the offending section, put in new notes with the | ENTER/YES | button again.

＊This delete feature only works in Loop Recording, and only on the percussion sound currently shown in the display.

⑧ If you're finished entering the notes for the currently selected percussion instrument over this range, select another Drum sound.

⑧— 1 With the Recorder still running, press | REC |.

This puts you back in Recording Standby again (the "R" at the right of the screen will flash), so that you can press the Tap Entry key (| ENTER/YES | button) without recording the sounds.

Press | REC | to turn Tap Entry off
(flashing)

Current Measure Number
(alternates between 1 and 2 in this case)

Change this with PARAMETER | PREVIOUS |
(see Drum Set (☞ P. 9–15))
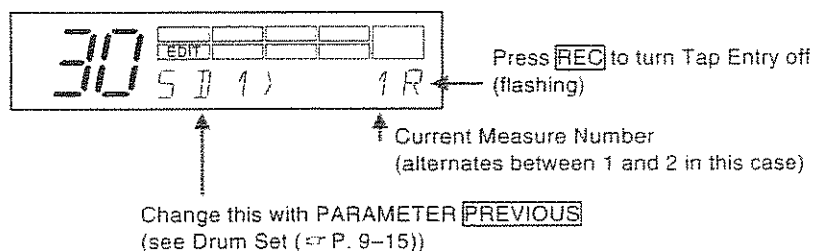
⑧— 2 While tapping on the | ENTER/YES | button, press PARAMETER | NEXT |.

This way you can check on the sounds as you scroll through to select the right one.

⑧— 3 When you find the one you want to record next, press | REC |.

Recording is underway again.

⑧— 4 Repeat Steps ⑥ through ⑧ until you've finished the Drum Part over this looping range.

Note!	Straight out of the box, the GR - 1 has the following 17 different Drum sounds to choose from:

BD1,SD1, CHH. OHH, HT1, HT2, MT1. MT2, LT1, LT2, CR1. CR2, RID, SPL, SST, HCP, CWB.

The following sounds are not in fact "standard equipment" on the GR - 1. You have to have the optional SR-GR-01 Expansion kit installed to actually get these sounds to select.

BD2,SD2, PHH, RDB. CHN, TBR, MCG, HCG. LCG, HTL. LTL. HAG, LAG, CBS, WDB.

⑨ Stop the Recorder.

When you're finished entering Drum sounds over this Loop range, press the | START/STOP | button. The metronome will stop and recording is finished. The "Current Measure Number" will return to the first bar of the Loop range (in this case, bar 1).

⑩ Now set the next Loop range.

In this example, we've already got Drum sounds recorded for the first two bars. Now let's record another two-bar loop (so we don't have to reset the Loop Range) from Bar 3 to Bar 4.

With the VALUE INC and DEC buttons, set the new Start position to "3."

```
 ╔═══════════════════════════════════╗
 ║  ╺═╗  ╔═  ┌EDIT┐ ┌──┐ ┌──┐ ┌──┐   ║
 ║  ╺═╝  ║    └──┘  └──┘ └──┘ └──┘   ║
 ║  ╺═╝  ╚═   ♩ ♩ 1 )        ╕ --    ║
 ╚═══════════════════════════════════╝
```

                     ↑
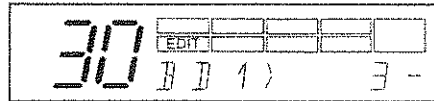
Current Measure Number (change this to the new start position with VALUE INC DEC)

From here on, just follow the same procedure as in Steps ⑤ through ⑩ above.

If you want to check on how smoothly the stuff you've recorded in this range ties in with that recorded in the previous range, press START/STOP to stop the Recorder, VALUE DEC to back up to the place you want to start from, then START/STOP again to start the Recorder from that point.

∗ The looping does not occur during playback.
∗ If you want to change the overall Tempo or Quantize setting for a recording, repeat Step ②
   (☞ P. 5–13). (Note, however, that you cannot record tempo changes as part of a song.)
∗ If you want to change the Loop Range, repeat Step ① (☞ P. 5–12).

When you've done all the above, you've got yourself a recorded Drum Part! Press EXIT/NO three (3) times to return to Play mode.

Changing the Volume, Reverb Volume and Pan for Each Percussion Instrument

Refer also to Section 6, "Changing Things Like Volume and Channel for Each Part" (☞ P. 6–15) and the Drum Part items on page 6–17.

Watch the balance between the Drum Part and Parts 1, 2 and 3 (the Drum Parts may sound fairly prominent on their own, but can get washed out in a mix). It might be a good idea to just set the snare and kick at their maximum level.

∗ Since there can be a lot of repetition in Drum Parts, check out the following pages for how to use the Copy feature to cut down on the amount of note entry you have to do.

4. Song Editing (Copy, Erase and Delete)

The Recorder has three simple editing tools you can use to make song writing easier: Copy, Erase and Delete.

☐ Copy

This means "take a range of measures and reproduce them at a different location." You can Copy all the recorded data in a track from a given starting measure, for whatever range of measures you set, and Copy it starting at a different point in that same track, as many times as you specify.

* Note, this means that on the GR - 1 itself, you can't copy data from one track to another.

● Tracks

A "Track" is like a "path" for the data (performance messages) on the Recorder. The term got started in stereo tape recording, where you have the sounds for the right channel recorded on one track and the left channel sounds on the other track of a two-track tape. Now, in the Recorder what we have is performance data (which sounds are being played, how long the notes are, etc.) rather than an audio signal, but we can still think of it as being organized into tracks.

At least on the GR - 1, you can think of tracks as basically the same thing as a Part.

Let's try an actual example here of Copying two bars of the bass pattern (Bars 3 and 4) from Part 2, three times, starting from Bar 3.
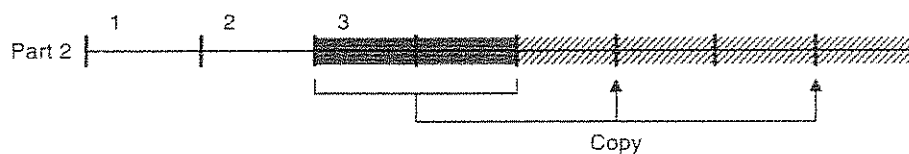
How to : Copy, for the Above Example

① From Play mode, press EDIT RECORDER/PART .

REC/PLAY appears in the screen.

```
┌─────────────────────────┐
│ ╗╔  ┌─┐┌──┬──┬──┬──┐      │
│  ║  │EDIT│  │  │  │      │
│ ╝║  └─┘└──┴──┴──┴──┘      │
│  ╝  R E C / P L A Y      │
└─────────────────────────┘
```

The " *0* " will flash.

*If you have selected a song on a Card, you won't be able to do this step. Follow the instructions on page 5–32 to select a song on the GR - 1 itself.

Press PARAMETER NEXT .

② The screen changes as shown.

```
┌─────────────────────────┐
│ ╗┐  ┌─┐┌──┬──┬──┬──┐      │
│  │  │EDIT│  │  │  │      │
│ ╝│  └─┘└──┴──┴──┴──┘      │
│  │  B A R   C O P Y      │
└─────────────────────────┘
```

The " */* " will flash.

③ Select the track.

③—1 Press ENTER/YES .

This brings up the following screen.
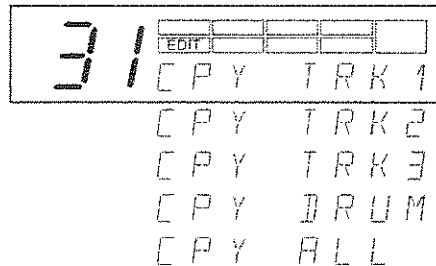
```
┌─────────────────────────┐
│ ╗┐  ┌─┐┌──┬──┬──┬──┐      │
│  │  │EDIT│  │  │  │      │
│ ╝│  └─┘└──┴──┴──┴──┘      │
│  │  C P Y   T R K 1   ▲  │
│     C P Y   T R K 2      │
│     C P Y   T R K 3      │     Select the track to Copy with
│     C P Y   D R U M      │     PARAMETER NEXT PREVIOUS
│     C P Y   A L L     ▼  │
└─────────────────────────┘
```

③—2 Press PARAMETER NEXT PREVIOUS .

This lets you select the track from which to Copy; your choices being "TRK 1" through "TRK 3," "DRUM," or "ALL." In this example, we'll pick "TRK 2."

④ Specify the Copy source.

④—1 From the screen in ③-2, press ENTER/YES .

You'll see the following screen.

```
┌─────────────────────────┐
│ ╗┐  ┌─┐┌──┬──┬──┬──┐      │      Move with CURSOR ◀▶ , change with
│  │  │EDIT│  │  │  │      │ ◀──  VALUE INC DEC
│ ╝│  └─┘└──┴──┴──┴──┘      │
│  │    3 -      2 )        │
└─────────────────────────┘
              ▲        ▲
              │        "Two bars long...
     ...starting from Bar 3"
```

Here you specify the Copy "source." On the left is the bar number to start from, and on the right is the number of bars in the section to be copied.

④—2 Switch between these with the CURSOR ◀ ▶ buttons (flashes when selected), and increase or decrease the values with (guess what!) the VALUE INC and DEC buttons.

So now the Copy source is set for "two bars, starting from Bar 3" (i.e., Bars 3 and 4).

⑤ Specify the Copy destination.

⑤ — 1 From the screen in ④-2, press ENTER/YES .

You'll see the following screen.

Move with CURSOR ◀▶ , change with VALUE INC DEC

"Copy three times...

...starting from Bar 3"
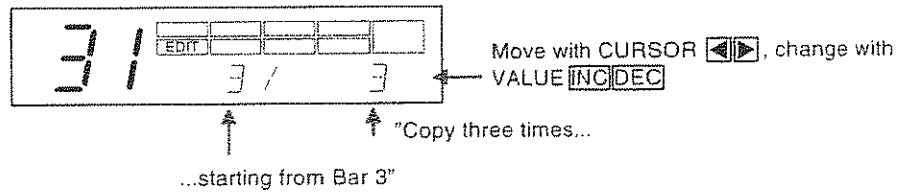
Here you specify the Copy "destination." On the left is the bar number to start from, and on the right is the number of times to Copy the source data.

⑤ — 2 Switch between these with the CURSOR ◀ ▶ buttons (flash when selected), and change the values with the VALUE INC and DEC buttons.

So now we have it set for "Copy the source data three times, starting at Bar 3."

⑥ Copy!

⑥ — 1 When you've got the destination set up, press ENTER/YES .

The "OK?" message will start to flash asking for confirmation.

Flashing
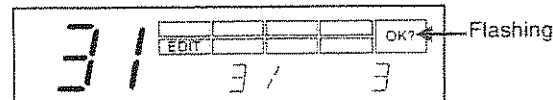
⑥ — 2 Press ENTER/YES once more.

You'll see the message "COMPLETE" in the screen as the Copy is carried out, followed by a return to the screen in Step ④.

...a moment later,
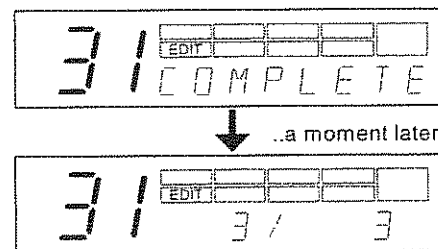
⑥ — 3 Press EXIT/NO a few times.

This takes you back, one screen at a time.

*With the Copy destination specified this way, this operation overwrites the Copy source data. The previous data is lost and there's no way to recover it. That's OK in this case, but a word to the wise: always double check what you're doing before you do it!

☐ Erase

This function wipes out all the data over a specified range of measures, leaving empty space where notes used to be.

You simply specify the track, the starting position and the number of measures to be Erased.

We'll experiment with the following example: "Erase 8 bars of the Part 3 synth solo from Bar 5 to Bar 12."

Wipe out the data except measures.
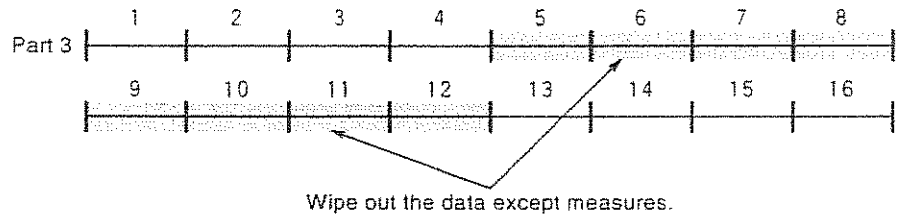
How to : Erase, for the Above Example

① In Play mode, press EDIT [RECORDER/PART].
REC/PLAY appears in the screen.

The " *0* " will flash.

* If you have currently selected a song on a Card, you won't be able to do this step. Follow the instructions on page 5–32 to select a song on the GR - 1 itself.

② Press PARAMETER [NEXT] two (2) times.
The screen changes as shown.

The " *2* " will flash.

③ Select the track.
③— 1 Press [ENTER/YES].
This brings up the following screen.
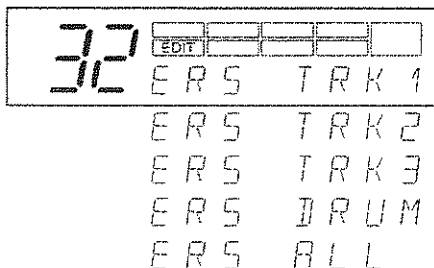
Select the track to Erase with
PARAMETER [NEXT][PREVIOUS]

③— 2 Press PARAMETER [NEXT] [PREVIOUS].

Select the track to Erase: "TRK 1" through "TRK 3," "DRUM," or "ALL." In this example, it's "TRK 3."

④ Specify the Erase range.

⠀⠀④— 1 Press [ENTER/YES].

⠀⠀⠀⠀You'll see the following screen.
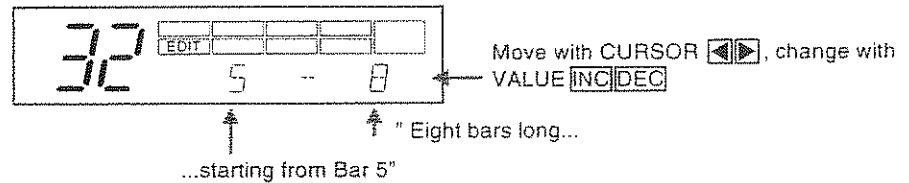
Move with CURSOR [◄][►], change with
VALUE [INC][DEC]

" Eight bars long...

...starting from Bar 5"

On the left is the bar number to start from, and on the right is the number of bars in the section to be Erased.

⠀⠀④— 2 Select one or the other with the CURSOR [◄] [►] buttons (the selected item flashes), and change the values with the VALUE [INC] and [DEC] buttons.

⠀⠀⠀⠀So now the Erase range is set for "eight bars, starting from Bar 5" (i.e., Bars 5 through 12).

⑤ Erase!

⠀⠀⑤— 1 Now that you've specified the Erase range, press [ENTER/YES].

⠀⠀⠀⠀The "OK?" message will start flashing in the display.

Flashing
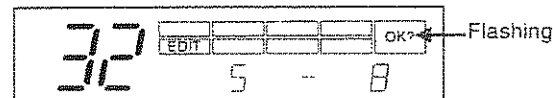
⠀⠀⑤— 2 Press [ENTER/YES] once more to say "sure, go ahead."

⠀⠀⠀⠀The screen responds with the message "COMPLETE" as the data is Erased, then returns you to the screen in Step (4).

...a moment later,
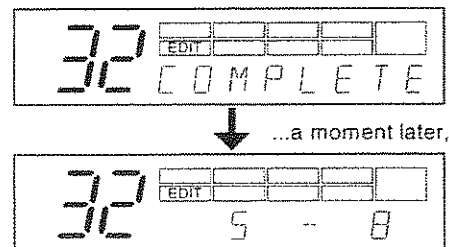
⠀⠀⑤— 3 Press [EXIT/NO] a few times.

⠀⠀⠀⠀This takes you back, one screen at a time.

* With the Erase function, once it's gone there's no way to recover the data, so be careful!

☐ Delete

This function wipes out a specified range of measures, not just the data, and closes up the gap rather than leaving empty space where the notes used to be.

You simply specify the track, the starting position and the number of measures to be Deleted. In closing up the space after the Deleted range, the following measures are renumbered.

Let's use a concrete example: "Delete the four-bar Intro and start the song at Bar 5."

```
    1        2        3        4        5        6        7        8
 |////////|////////|////////|////////|        |        |        |        |
 |////////|////////|////////|////////|        |        |        |        |
                        ↑
```

Delete the data including measures.

How to : Delete, for the Above Example

① In Play mode, press EDIT [RECORDER/PART].
REC/PLAY appears in the screen.

```
    30  [EDIT]
        R E C / P L A Y
      ↑
```

The "*0*" will flash.

*If you have currently selected a song on a Card, you won't be able to do this step. Follow the instructions on page 5–32 to select a song on the GR - 1 itself.

② Press PARAMETER [NEXT] three (3) times.
The screen changes as shown.

```
    33  [EDIT]
        D E L E T E
      ↑
```

The "*3*" will flash.

③ Select the track.
  ③—1 Press [ENTER/YES].
       This brings up the following screen.

```
    33  [EDIT]
        D E L   T R K 1      ↑
        D E L   T R K 2
        D E L   T R K 3        Select the track to Delete with
        D E L   D R U M        PARAMETER [NEXT][PREVIOUS]
        D E L   A L L        ↓
```

  ③—2 Press PARAMETER [NEXT] [PREVIOUS].
       Select the track to Delete: "TRK 1" through "TRK 3," "DRUM," or "ALL." In this example, we want "ALL" to wipe out the Intro (which is on all Tracks)

④ Specify the Delete range.

④— 1 From the screen in Step ③-2, press ENTER/YES .
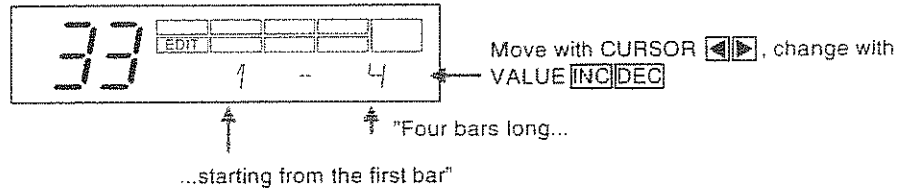
You'll see the following screen.

Move with CURSOR ◀▶ , change with
VALUE INC DEC

"Four bars long...

...starting from the first bar"

On the left is the bar number to start from, and on the right is the number of bars in the section to be Deleted.

④— 2 Select between these with the CURSOR ◀ ▶ buttons (the selected item flashes), and change the values with the VALUE INC and DEC buttons.

So now the Delete range is set for "four bars, starting from the top" (i.e., Bars 1 through 4, all Tracks).

⑤ Delete!

⑤— 1 The Delete range is specified. Press ENTER/YES to proceed.

The "OK?" message will start flashing in the display. Check and make sure things are set up the way you intended.

Flashing
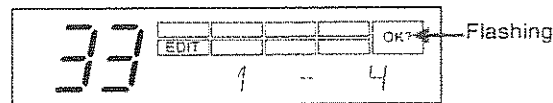
⑤— 2 Press ENTER/YES to confirm.

The display changes to read "COMPLETE" as the data is Deleted, then returns you to the screen we saw in Step ④.

...a moment later,
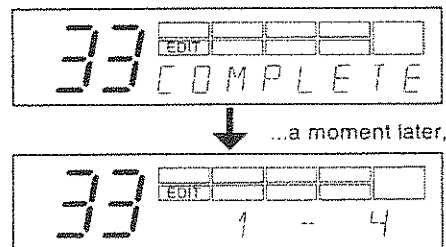
⑤— 3 Press EXIT/NO a few times.

This takes you back, one screen at a time.

∗ There's no way to recover Deleted data, so be careful!

5. The Recorder: Miscellaneous Settings

We've gathered together a lot of miscellaneous settings for the Recorder such as Timing Offset, Time Signature, Metronome On/Off, etc., under the general heading of "Recording Parameters" (REC PARM). Here's how to access them.

How to : Set Recording Parameters

① From the Play mode, press EDIT [RECORDER/PART].

You'll see the REC/PLAY screen.

```
30  [EDIT]
    REC / PLAY
```

The " 0 " will flash.

*If you have currently selected a song on a Card, you won't be able to do this step. Follow the instructions on page 5–32 to select a song on the GR - 1 itself.

② Press PARAMETER [NEXT] four (4) times to bring up the following screen.

```
34  [EDIT]
    REC  PRAM
```

The " 4 " will flash.

③ Press [ENTER/YES].

You'll see a screen like the following where you can set the various recording parameters.
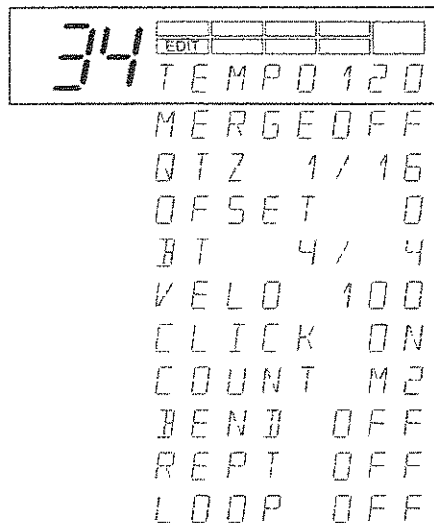
```
34  [EDIT]
    TEMPO 120
    MERGE OFF
    QTZ   1 / 16
    OFSET     0
    BT    4 / 4        PARAMETER [PREVIOUS]
    VELO    100        These scroll by in the display (each will be
    CLICK    ON        discussed below)
    COUNT   M2         PARAMETER [NEXT]
    BEND   OFF
    REPT   OFF
    LOOP   OFF
```

④ Use the PARAMETER [NEXT] and [PREVIOUS] buttons to scroll to the parameter you want to set. Then set it with the VALUE [INC] and [DEC] buttons.

⑤ After you're all finished, press [EXIT/NO] two (2) times.

You'll be returned to Play mode.

☐ What These Functions Do (The shaded part is where you make the settings)

TEMPO 120
Tempo. Tempo range: 20 to 250 beats per minute (bpm)
Sets the recording tempo. This feature works the same as the Tempo setting part of the REC/PLAY screen.

MERGE OFF
Turns the Merge option on and off. Settings: OFF, ON
In everything except Loop Recording, if you try to record new material on a track that already has data on it, all that data is lost. However, with Merge set to ON, the new data you record will be layered on top of existing data, so that you can hear both parts together. (This setting has no effect on how Loop Recording is handled.)

QTZ 1/16
Sets the Quantize resolution. Settings: nine different note values or OFF
This feature works the same as the Quantize part of the REC/PLAY screen (see "Quantize" on page 5-11).

OFSET 0
Timing Offset. Range: -48 to +48
This allows fine adjustments of the recorded timing. Negative values move all the notes slightly forward in time, and positive values delay them slightly. The effect is to "drag" or "push" the beat in the recorded material, thus creating specific rhythmic feels.

BT 4/4
Beat (Time Signature). Range: beats per measure, 1 to 16; note values, 2, 4, 8 or 16
This sets the time signature of the recorded material, and also the way the metronome will sound.

VELO 100
Tap Entry Velocity Value. Range: 1 to 127
This sets the (uniform) velocity of all the notes you input when using Tap Entry for the Drum Part (☞ P.5-12). This setting is made the same as in the REC/PLAY screen.

CLICK ON
Turns the metronome off and on. Settings: OFF, ON
This sets whether or not you'll hear the metronome during recording.

COUNT M2
Length of the count-in. Range: M0, M1, M2, M4
This sets the length of the count-in you get between the time you press START/STOP and when the recording actually starts. "M0," then, means that recording starts immediately upon pressing the button. "M2" means two bars of count-in, and so on.

BEND OFF
Pitch Bend Recording off and on. Settings: OFF, ON
In general, you can't record pitch bend messages on the Recorder. However, if you need to make an exception, turn this on.
*Pitch Bend messages involve a continuous stream of data, so in no time you could fill up the Recorder's memory.

REPT OFF
Repeat Play off and on. Settings: OFF, ON
Repeat Play plays the recorded song over and over again until you press the ▶/■ pedal or the START/STOP button.

LOOP OFF
Loop Recording range. Range: OFF, 1 to 8 bars
When set to a number, that is the number of bars in the Loop Recording range. When set to off, you get regular recording (no looping).

6. Switching Tones and Recording During a Performance

If you could switch Tones during recording, you could get more mileage out of the Parts available. However, the Recorder has buttons that need to be pushed, like a regular tape recorder, and you probably already have your hands full playing the guitar.

For this kind of situation, we've figured out a way you can change Tones during recording using the foot pedals. You can set things up as explained below so that whenever you press a pedal, it selects an Original Tone.

How to : Call Up an Original Tone with a Foot pedal

① From Play mode, press EDIT RECORDER/PART .

This brings up the REC/PLAY screen.

```
3 1 0  EDIT
       R E C / P L A Y
```
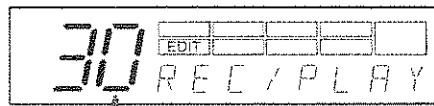
The " 0 " will flash.

∗ If you have currently selected a song on a Card, you won't be able to do this step. Follow the instructions on page 5–32 to select a song on the GR - 1 itself.

② Press PARAMETER NEXT five (5) times.

The screen changes to the following.

```
3 1 5  EDIT
       P D L > T O N E
```
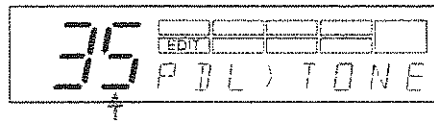
The " 5 " will flash.

③ Press ENTER/YES .

This brings up the screen in which you can set which pedal will correspond to what Tone.

```
3 1 5  EDIT
       N o  1 - T        1
```

This is the number of the Original Tone (set with VALUE INC/DEC)

Select between the two with the CURSOR ◄│► buttons.

...and this is the pedal that will select it (set with VALUE INC/DEC)

The pedal is on the left of the display, and on the right is a number between 00 and 399 which corresponds to the Original Tone number that will be selected when the pedal is depressed.

④ Move from right to left with the CURSOR ◄ ► buttons (the side that is currently selected will flash) and change the values with the VALUE INC and DEC buttons.

You have the following options for changing the left side (pedal assignment):

```
 ŦŚ  [EDIT]
      N o   1 - T        1
      N o   2
      N o   3
      N o   4
      D W N
      U P
```
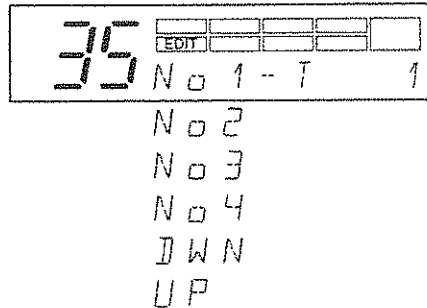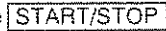
So for example, "DWN - T 16" means that when you press the DOWN pedal during recording, you will call up Original Tone 16, "ORGAN 1."

⑤ If you want to see what the name of the Original Tone is, just to check, press the CURSOR ► button.

```
 ŦŚ  [EDIT]
      O R G A N        1   ◄─── Press CURSOR ► to display the Tone name
                                (◄ returns you to the previous display)
```
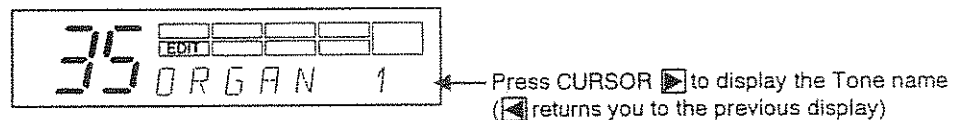
⑥ After checking, press CURSOR ◄.
This returns you to the display in Step ④.

⑦ Repeat Steps ④ to ⑥ until you've assigned Tones to all the pedals.

⑧ After making all the settings, press EXIT/NO two (2) times.
You will be returned to Play mode.

These settings are now stored in memory, so that you can change Tones during recording.

∗When you do this, you must start and stop the Recorder with the START/STOP button on the panel, rather than the pedal.

∗You can use a Pedal to insert patch change messages, however, it cannot be done at Step ② – 4 of "Recording with Parts 1, 2, and 3." (see p.5 – 7) Instead, after you've recorded everything, go back and turn Recording Merge on (see p.5 – 27), then record again and press the appropriate pedals to insert patch switching messages into the song.

How to : Set Voice Reserve

① From Play mode, press EDIT | RECORDER/PART |.

This brings up the REC/PLAY screen.

```
30  EDIT
    R E C / P L A Y
```
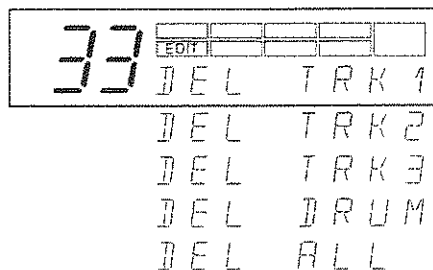
The " 0 " will flash.

* If you have currently selected a song on a Card, you won't be able to do this step. Follow the instructions on page 5–32 to select a song on the GR - 1 itself.

② Press PARAMETER | PREVIOUS | three (3) times.

The screen changes to the following.

```
37  EDIT
    V O I C E   R S
```
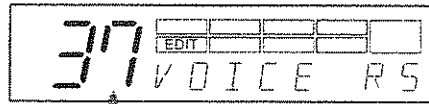
The " 7 " will flash.

③ Press | ENTER/YES |.

This brings up the Voice Reserve screen.

```
37  EDIT
    G - 1 S T       6  ◄── Set Voice Reserve with VALUE INC DEC
    G - 2 N D      ▲
    P A R T  1       | PREVIOUS |
    P A R T  2       Change Parts
    P A R T  3       | NEXT |
    D R U M S      ▼
```
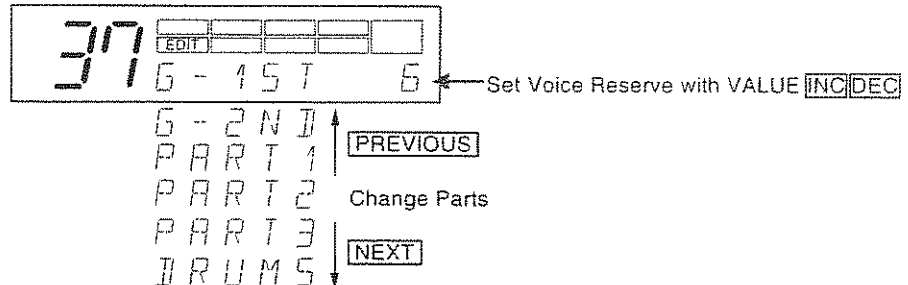
④ Select the Part you want to set with the PARAMETER | NEXT || PREVIOUS | button. There are separate settings for the guitar 1st and 2nd Tones.

⑤ When you've selected a Part, set the Voice Reserve with VALUE | INC || DEC |.

Note!	In setting Voice Reserve, the total for each Part cannot exceed 24 voices. In setting the guitar Part, there are three levels for the 1st and 2nd Tones together: "0, 6, 12". "6" means each string is assured of getting one voice and "12" means each gets two voices. For the multi-timbral module, you can set each voice for "1, 2 or 3" up to the maximum possible 24 voices.

⑥ When settings are finished, press | EXIT/NO | two (2) times.

This returns you to the Play mode.

8. Switching How You Playback a Song (GR - 1 or Card)

The GR - 1 has two different ways of handling the Recorder.

●One song in internal memory (either for recording or playback)
●One song on a Memory Card (M-256E: sold separately) (playback only)

If you have a Card in the Card Slot, even after you've copied the song on it into internal memory, you can still play the song on the Card, too. So at some point you need to specify which you want to do, play the song in internal memory or the song on the Card, and here's how to do that.

How to : Select the Song in the Recorder

① Press the EDIT [SYSTEM] button from Play mode.
You'll see the screen that says "S- COMMON"
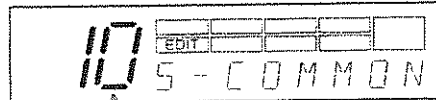
```
 IO  [EDIT]
     5-COMMON
```
The " *0* " will flash.

② Press [ENTER/YES].
You'll see the following screen.

```
 IO  [EDIT]
     A)  440_0
```
The " *0* " will flash.
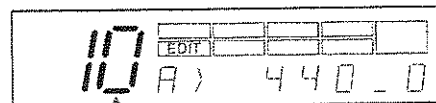
③ Press PARAMETER [NEXT].
You'll see the following screen.

```
 IO  [EDIT]
     SONG   INT
```
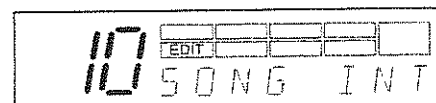
④ Press VALUE [INC] [DEC].
Now you can select either "INT" (for a song stored in internal memory) or "CRD" (for the Card).
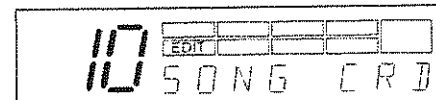
```
 IO  [EDIT]
     SONG   CRD ◄── Change with [DEC][INC]
```

⑤ Press [EXIT/NO] two (2) times.
You will be returned to Play mode.

⑥ Press [START/STOP].
Now you can play the song the way you have selected it.

Important!	Songs on Cards are for playback only. You cannot record songs directly onto Memory Cards. This is why, when you have selected a song on a Card, you will not be able to enter the Recorder/Part screen after you press the EDIT RECORDER/PART button.
	To save a new song onto a Card, first record the song in internal memory, then use Song Copy to transfer it to the Card. Song Copy can be used to copy a song from internal memory to a Card, as well as from a Card to internal memory (the setting data from when you press EDIT RECORDER/PART is also included in the Song data). For more about Song Copy, turn to page7–17 in Section 7.

【Checklist for this Section】

●Do you basically know how to play and record with the Recorder? (☞ P. 5-5)

●Do you understand how to make a Loop Recording? (☞ P. 5-12)

●Can you input a Drum part using Tap Entry? (☞ P. 5-12)

●Can you edit a song using Copy and Delete? (☞ P. 5-19)

●Can you do a Merge Recording? (☞ P. 5-27)

●Do you have a pretty good understanding of how Quantize works? (☞ P. 5-11)

●Do you know how to turn recording on and off during a performance? (☞ P. 5-28)

●Do you understand how Voice Reserve works? (☞ P. 5-30)

●Can you switch between the different ways to play back a song? (☞ P. 5-32)

SECTION

6

Expanding

"Connecting Other MIDI Devices"

[Objective]

The rear panel of the GR - 1 is equipped with both MIDI IN and MIDI OUT connectors. Using MIDI gives you a lot of very practical capabilities: using the guitar to control an external sound module, or the other way around, using the GR - 1 as an additional sound module for a keyboard or sequencer. This section is about expanding your MIDI system.

● What is MIDI? MIDI stands for Musical Instrument Digital Interface, a world-wide standard for data transfer between digital musical instruments and computers. A MIDI-compatible instrument can read and understand patch switching messages or performance data sent from another MIDI instrument, even if they are completely different models or made by different manufacturers. So for example, you could use a guitar synth made by Manufacturer A to play Manufacturer B's sound module, and use them together to enter data into a sequencer made by Manufacturer C.

The GR - 1 uses MIDI messages to transmit information about:

◇The pitch of a note that has been played, and with what kind of attack (Note On messages);

◇When string vibrations have decayed beyond a certain point (Note Off messages);

◇Continuous changes in pitch, such as from string bends, vibrato arm, slides, etc. (Bend messages);

◇Patch switching, or Tone switching when we're talking about a multi-timbral part (Program Change messages); and

◇Changes in volume and effects of all types (Control Change messages).

These are just a few of the many different kinds of messages.

1. Playing an External Sound Module with a Guitar

Notes from your guitar are converted into MIDI messages by the GR - 1, which can then be used to drive an external MIDI sound module. This makes it possible for you to play any of the zillions of MIDI keyboards or sound modules from your guitar. Imagine that!

Making the Connection

External keyboard or rackmount sound module   GR - 1
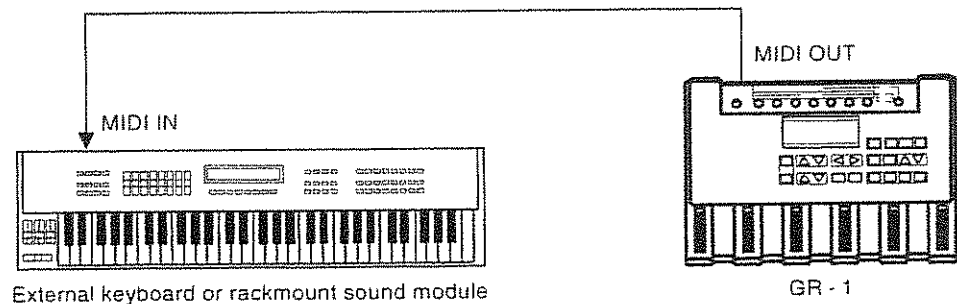
There are three ways to go about this, depending on your sound module.

Type A: You have a multi-timbral sound module with six or more Parts available (transmitting in Mono mode)

Type B: You have a multi-timbral sound module with five or less Parts, or you wish to cut down on the number of Parts and channels used (transmitting in Poly mode)

Type C: Your sound module is not multi-timbral but can use six channel simultaneously (transmitting in Mono mode)

■ Type A: Multi-Timbral Sound Modules with Six or More Parts

The GR - 1 can use a total of six MIDI channels, one per string, for transmitting MIDI note and bend messages. If you mate it with a sound module that has six or more Parts, you can get a one-to-one correspondence between strings (which play only one note at a time) and Parts (which also play only one note at a time) using what is called "Mono mode."

With this kind of setup you can do very guitar-like things, such as unison bends, where you bend one string while holding another at the same pitch.

Getting the GR -1 Ready

① Set the basic channel.

①— 1 Press EDIT SYSTEM.
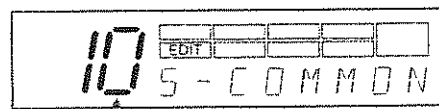
The " 0 " will flash.

①− 2 Press PARAMETER [NEXT] two (2) times.

The word "MIDI" will be displayed.
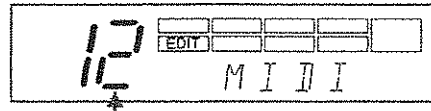
The "乙" will flash.

①− 3 This is the screen for setting the basic channel, so press [ENTER/YES] to enter.
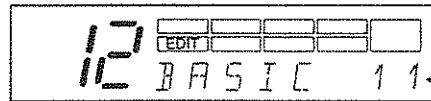
You can set this using the [INC] and [DEC] buttons (in a range from 1 to 11, OFF; default is 11)

* This mode uses six channels at a time, one for each string, so a basic channel setting of "11" means channels 11 through 16 are being used. A setting of "5" indicates that channels 5 through 10 are in use. Use the VALUE [INC] and [DEC] buttons to set this to match the available channels on your sound module.

② Set the MIDI transmit mode to MONO.

From Step ①-3, press the PARAMETER [NEXT] button.

You'll see the following screen for switching modes. Check to see that it says "MONO" in the display.

Set this to MONO with the VALUE [DEC] button (choices are MONO and POLY, with MONO being the default).

③ Set the Pitch Bend range.

From Step ②-1, press the PARAMETER [NEXT] button.

This brings you to the Bend Range screen. Here you can select the maximum setting (from 0 to 24) for the MIDI sound module you will be using.

Change this setting with the VALUE [INC] and [DEC] buttons (in a range from 0 to 24, with 12 the default).

This Bend Range is the maximum amount of pitch bending produced on the sound module by MIDI Pitch Bend messages. It must be set to match the maximum Pitch Bend range on the receiving sound module for best results. "12" means a maximum Pitch Bend of up or down 12 semi-tones (that is, up or down 1 octave). When the Pitch Bend range is set to "0", the GR - I will send the note data at interval of a semi-tone to the external MIDI device.

● Bend Range Settings

You should set the Bend Range as wide as possible to faithfully reproduce glides, bends, and other guitar stuff!

④ Press EXIT/NO two (2) times.

This returns you to Play mode. The settings you have just made are stored automatically.

OK, things are set on the GR - 1. Now for the receiving end.

Getting the External MIDI Sound Module Ready

Follow the procedures given in the owner's manual of your external MIDI sound module to do the following:

① Turn on the MIDI channels (in order starting from the basic channel number you set in Step ① -3 above) for the six parts you want to control with the guitar. So for example, if the basic channel is set to 11, the first string on the guitar will send messages over channel 11, the second string over channel 12, and so on up to channel 16.

② Set the Bend Range to match the Range you set on the GR - 1 in Step ③ above.

③ On the sound module, select the Tone you want to play for each string.

That's it. Now you should be ready to play the guitar and hear sounds coming from the external MIDI sound module. If not, check your MIDI connections and the amp one more time. In the last half of this chapter, we'll explain how you can switch Tones while playing ("Using the GR - 1 Pedals to Switch Tones on an External Sound Module" (☞ P. 6–7)).

■Type B: Multi-Timbral Sound Modules with Five or Less Parts; or, You Just Want to Cut Down on the Number of Parts and Channels Used

You can set up the GR - 1 to play an external sound module by transmitting all the notes over just one MIDI channel, like a keyboard instrument would do. This is called "Poly mode."

The tradeoff is, you can't send a Pitch Bend message for only one string at a time, so you can't do real guitar things like bending one string while holding another at the same pitch, as we did in Mono mode. However, you'll want to use Poly if you don't have six channels available. It is also ideal for use with a synth bass where you don't often need harmonized pitch bends, or when simulating keyboard instruments.

Getting the GR -1 Ready

① Set the basic channel, same as we did for Mono mode.

①— 1 Press EDIT SYSTEM .

```
|⁷  EDIT
|  S - C O M M O N
```
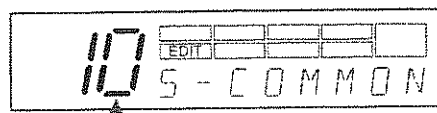
The " 0 " will flash.

①— 2 Press PARAMETER NEXT two (2) times.
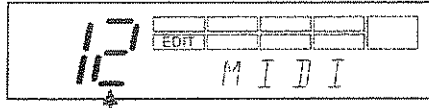
The " 2 " will flash.

①— 3 This is the screen we want for setting the basic channel, so press ENTER/YES to enter.
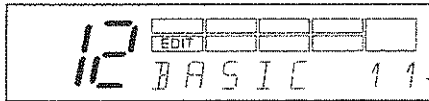
Set this using the INC and DEC buttons
(in a range from 1 to 11, OFF; default is 11)

①— 4 Set this using the INC and DEC buttons (in a range from 1 to 11; default is 11)

In this mode, you are only transmitting over one channel, so a basic channel setting of "11" means you are transmitting all notes from the GR - 1 over channel 11. This leaves channels 12 through 16 available for other uses on your sound module.

② Set the MIDI transmit mode to POLY.

②— 1 At the screen in Step ①-3, press the PARAMETER NEXT button.

You'll see the following screen for switching modes.
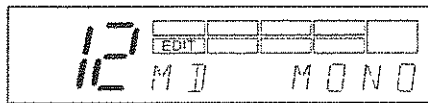
Set this to POLY with the VALUE INC button
(choices are MONO and POLY, with MONO
the default)(MONO/POLY

②— 2 Set this to POLY with the VALUE INC button.

③ Set the Pitch Bend range.

③— 1 At the screen in Step ②-2, press the PARAMETER NEXT button once.

This brings you to the Bend Range screen.

Change this setting with the VALUE INC and
DEC buttons (in a range from 0 to 24, with
12 being the default)

③— 2 Set the Bend Range using the VALUE INC and DEC buttons.

③— 3 After you're done making the settings, press the EXIT/NO button two (2) times to return to the Play screen.

Getting the External MIDI Sound Module Ready

Follow the procedures given in the owner's manual of the external MIDI sound module you're using to make the following settings:

① Set the MIDI receive channel on the external sound module to match the basic channel on the GR - 1 you set in Step ①-3 above.

② Set the Bend Range to match the Range you set on the GR - 1 in Step ③ above.

③ On the sound module, select the Tone you wish all the notes to play.

This completes the setup, so you should now be able to play the guitar and hear the notes coming from the external MIDI sound module. If not, check your connections and amp settings once more. In the last half of this chapter, we'll explain how you can switch Tones while playing ("Using the GR - 1 Pedals to Switch Tones on an External Sound Module" (☞ P. 6–7)).

■ Type C : Mono-Timbral Sound Modules in Mono Mode

Nowadays multi-timbral sound modules are commonplace, but there are still a lot of modules around (from the old days!) that can receive on all channels but only play one tone at a time (i.e.. only one Part). This means they don't have a Multi-timber mode. But they can be controlled by Mono mode using six channel. To control these kinds of sound modules with the GR - 1. follow the steps outlined below.

* Follwing Roland products come under this category.
D - 50, D - 550, MKS - 70, MKS - 50 etc.

Getting the GR - 1 Ready

Follow the same procedure as for a Type A module to set Mono mode, basic channel, and Bend Range.

Getting the External MIDI Sound Module Ready

Follow the procedures in the owner's manual of the sound module you're using to make the following settings:

① Set the MIDI receive channel on the sound module to match the basic channel on the GR - 1.

② Set the Bend Range to match the Range you set on the GR - 1.

③ On the sound module. select the Tone you wish to play.

Now when you play the guitar. you should hear the sounds coming from the module.

Using the GR-1 Pedals to Switch Tones on an External Sound Module

Every time you make a patch change using the pedals on the GR - 1, you send out Program Change message from the MIDI OUT ports. The relationship between a selected patch number and the transmitted Program Change number is as follows (this is the default, i.e., how it was set up when you first took the GR - 1 out of the box).

Group/Bank \ Number	1	2	3	4
11	1	2	3	4
12	5	6	7	8
13	9	10	11	12
14	13	14	15	16
15	17	18	19	20
16	21	22	23	24
17	25	26	27	28
18	29	30	31	32

Group/Bank \ Number	1	2	3	4
21	33	34	35	36
22	37	38	39	40
23	41	42	43	44
24	45	46	47	48
25	49	50	51	52
26	53	54	55	56
27	57	58	59	60
28	61	62	63	64

If needed, you can change these assignments any way you like.

How to: Assign a Different Transmitted Program Change Number to a Patch Change

① Press the pedals on the GR - 1 to call up the patch you want to change.

② Press EDIT [PATCH].
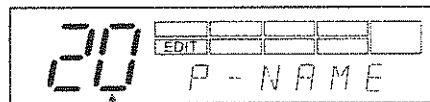
```
20   [EDIT]
     P - N A M E
```

The " 0 " will flash.

③ Press PARAMETER PREVIOUS three (3) times.

This selects the "PG.CHG" screen.

```
26  EDIT
    P G   C H G
```

↑

The " 6 " will flash.

④ Press ENTER .

Right after the "S-ALL" is the Program Change number that is sent out whenever you select the patch that you called up in Step ① .
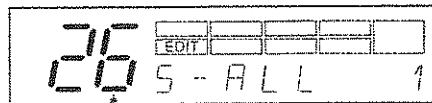
```
26  EDIT
    S - A L L        1
```
→ Change this Program Change assignment with the VALUE INC and DEC buttons.

↑

The " 6 " will stop flashing.

⑤ Change this to the desired Program Change number with the VALUE INC and DEC buttons.

⑥ Press EXIT two (2) times to return to Play mode.

∗Be sure to carry out a Patch Write operation, as described in Section 3, "Patch Write" (⌐ P. 3-14). Otherwise, this new setting will be lost the next time you switch patches.

⑦ Repeat Steps ① through ⑥ as many times as required to reassign all the patches you wish.

In Mono mode, you can also send out a different Program Change message for each of the six strings (each Part). This way, if you're using a Type A sound module (multi-timbral, with six or more Parts), with just one press of a pedal you can call up six completely different Tones to play.

How to : Transmit a Different Program Change for Each String

① Select a patch using the GR-1 Group button and Bank/Number pedals. This will be the patch you switch to in order to send out six simultaneous Patch Change messages on six different channels.

② Press the EDIT PATCH button.
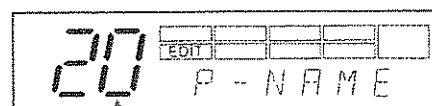
```
20  EDIT
    P - N A M E
```

↑

The " 0 " will flash.

③ Press PARAMETER [PREVIOUS] three (3) times.

This selects the "PG.CHG" screen.

```
 ⎺⎺   ⎺⎺  ┌────┬──┬──┬──┬──┐
 ╱┌  ┌─  │EDIT│  │  │  │  │
┌─┘  └─  └────┴──┴──┴──┴──┘
┌─┐  ┌─┐    P G    C H G
```
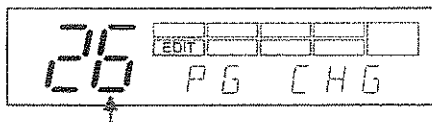
The " 6 " will flash.

④ Press [ENTER/YES].

Right after the "S-ALL" is the Program Change number that is sent out whenever you select the patch called up in Step ①.

```
 ⎺⎺   ⎺⎺  ┌────┬──┬──┬──┬──┐
 ╱┌  ┌─  │EDIT│  │  │  │  │
┌─┘  └─  └────┴──┴──┴──┴──┘
┌─┐  ┌─┐   5 - A L L       1
```
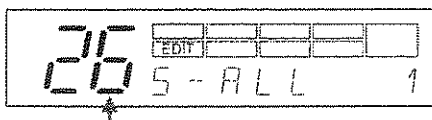
The " 6 " will stop flashing.

⑤ Press the PARAMETER [NEXT] button repeatedly to scroll through the strings you can set (back up with PARAMETER [PREVIOUS]).

As in the diagram below, the strings are listed in order, next to the Program Change number that gets sent over the appropriate channel for that string.

```
 ⎺⎺   ⎺⎺  ┌────┬──┬──┬──┬──┐
 ╱┌  ┌─  │EDIT│  │  │  │  │
┌─┘  └─  └────┴──┴──┴──┴──┘          Change the Program Number with the
┌─┐  ┌─┐   5 - A L L       1  ←────   VALUE [INC] and [DEC] buttons.
           5  T  R  1      1  ▲
           5  T  R  2      1  │      PARAMETER [PREVIOUS]
           5  T  R  3      1  │
           5  T  R  4      1  │      Change the string number.
           5  T  R  5      1  │
           5  T  R  6      1  ▼      PARAMETER [NEXT]
```
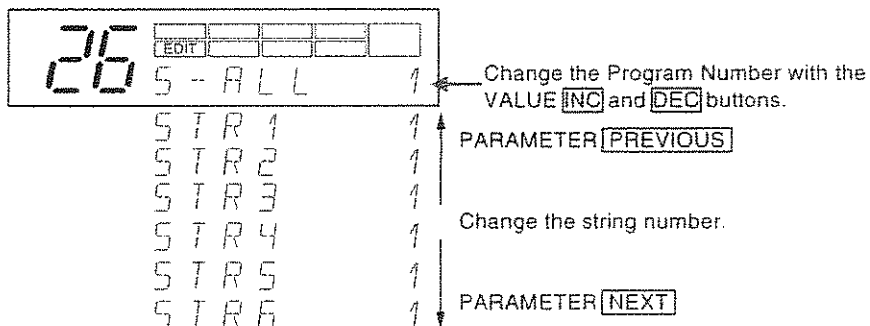
⑥ Scroll to each string in turn, and change the Program Number as desired with the VALUE [INC] and [DEC] buttons.

⑦ When you're all finished setting, press the [EXIT] button two (2) times.

You will be returned to Play mode.

∗ Now, be sure to perform a Patch Write (☞ P. 3–14) to save the changes you have made.

⑧ Repeat this procedure for each patch to which you wish to assign a Program Change for each string.

∗ This function can be used only when the GR - 1 is set to the Mono mode (☞ P. 6–2).

Note!	If you are using a C Type external sound module (☞ P. 6–6), things may not work right if you try to send multiple Patch Changes at once. So to prevent that, set all strings to the same Program Change number with the [DEC] and [INC] buttons at the "S-ALL" screen, as shown in Step ⑤.

□MIDI Messages Sent to External Modules by the GR-1

There are a variety of MIDI messages sent from the GR-1's MIDI OUT port whenever you depress one of the GR-1's pedals (or an external pedal like the EV-5 or DP-2). The following list contains MIDI messages that control particular functions when you're using an external module. (There are other messages too, which don't have any particular effect, but you can read about them in the MIDI Implementation Chart at the end of the manual.)

◇ Guitar performance messages (Note On/Off, Pitch Bend)

Transmits the notes and "stuff" you play on the guitar.

◇ Volume messages (Controller #7)

Transmits the volume changes created by an external EV-5 pedal or the volume knob on the GK-2.

◇ Modulation messages (Controller #1)

Transmits the modulation changes created by the EV-5 pedal when it's assigned to control Modulation. Also, transmits a value of "127" when you turn Modulation On with a press of the FAT/MOD pedal, or "0" when you turn it Off with that pedal (only when the Modulation function is assigned to the FAT/MOD pedal).

◇ Program Change messages

Transmitted every time you switch patches. You can modify what Program Change number gets transmitted when you select a specific patch. You can also set this individually for each string (☞ P. 6-8).

◇ Start/Stop messages

Transmits Start, Stop and Continue messages when you press the [▶ / ■] pedal on the panel, or the [▶ / ■] button, for remote control of external sequencers or drum machines.

◇ General Purpose messages (Controller #16)

Transmits Controller #16 values via the MIDI OUT port when an external EV-5 pedal is assigned to that function.

☐Dropping the Pitch of Note Messages Sent to External Devices by One Octave

The lowest note on the guitar is the open E on the sixth string, which means you won't be able to play notes lower than this on external sound modules using the GR - 1.

Unless of course you use the following procedure (as needed) to drop the pitch of all transmitted Note Messages by one octave.

How to : Drop All Transmitted Note Messages by One Octave, or Return to Normal

① Press EDIT [SYSTEM].

```
   ICl   ┌EDIT┐
        5 - COMMON
```

The " 0 " will flash.

② Press PARAMETER [NEXT] two (2) times.

"MIDI" will be displayed.

```
   I2   ┌EDIT┐
         M I D I
```

The " 2 " will flash.

③ Press [ENTER/YES].

```
   I2   ┌EDIT┐
       B A S I C    11
```
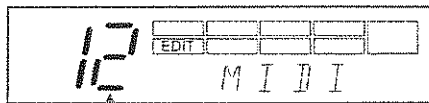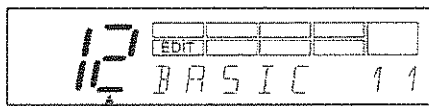
The " 2 " will stop flashing.

④ Press PARAMETER [PREVIOUS] one (1) time.

You'll see a screen like the following.

```
   I2   ┌EDIT┐
       O C T    N O R M ←      (Change this with VALUE [INC][DEC])
              D O W N
```
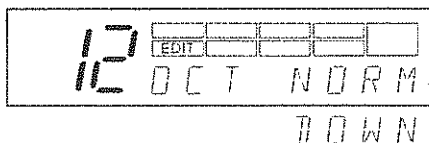
⑤ Switch between the "NORM" and "DOWN" settings with VALUE [INC] [DEC]. "NORM" means the normal Note Messages are sent, and "DOWN" means that all Note Messages will be dropped in pitch one octave.

⑥ After making your selection, press [EXIT/NO] two times to return to Play mode.

∗ This setting has no effect on the way the internal sound module plays these notes.
∗ This setting is lost once you turn off the GR - 1.

2. Using the GR - 1 as an Expansion Module for an External MIDI Device

By plugging into the MIDI IN port, you can play the multi-timbral sound module of the GR - 1 (with its three Parts and a drum Part) using an external MIDI controller, such as a keyboard.

Note!	The dedicated guitar sound module part can also receive and play MIDI signals from an external device. However, this function differs from the multi-timbral module in terms of actions and the settings you need to make when using the GR - 1 to playback guitar synth performance data recorded on a sequencer.
	When playing in standard polyphonic mode with a keyboard (using the GR - 1 as a general-purpose MIDI sound module), you should use the GR - 1's multi-timbral sound module.

*When the GR - 1 receives Aftertouch messages, the cutoff frequency of the Tone which is counding will be changed. If you don't need this affect, stop transmitting aftertouch messages.

Making the Connections

MIDI IN   MIDI OUT

GR - 1   External keyboard or other device
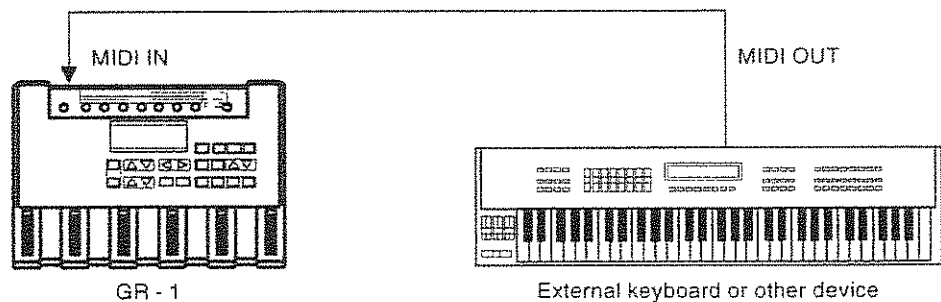
☐ Playing the GR -1 Multi-Timbral Sound Module

Set the external MIDI device's send channel to match the GR - 1's receive channel. When you first take the GR - 1 out of the box, the default receive channels are as follows:

Part 1   : 2ch
Part 2   : 3ch
Part 3   : 4ch
Part 4   : 10ch

(* Guitar parts are from 11ch to 16ch, with one channel per string)

① Following the instructions given in the owner's manual of the external MIDI device, set the MIDI transmit channel to match the GR - 1's receive channel.

*If for any reason you need to change the default MIDI receive channels on the GR - 1, follow the instructions in the section toward the end of this chapter ("How to Make a Variety of Settings for Parts 1, 2 and 3" (☞ P. 6-15)).

□Switching Tones on the GR-1 Multi-Timbral Sound Module

You can select any one of the 200 Original Tones (400 with the Expansion Board installed) for each of the Parts on the GR-1's multi-timbral module; these Parts are numbered 1, 2 and 3.

* These Tones must be used "as is," with no editing.

● Difference Between Multi-Timbral Module and Guitar Module

In the guitar module, a maximum of two Tones can be selected for each string, and the Tones themselves can be edited or modified in a variety of ways. On the other hand, the multi-timbral part uses Original Tones just the way they are, so you are completely unable to do any further editing of the sound.

How to : Switch Tones on the Multi-Timbral Module

① Press EDIT [RECORDER/PART].

```
ЗЦ  EDIT ▭▭▭▭
    REC / PLAY
```
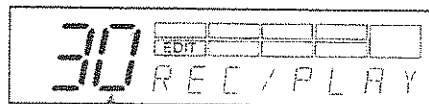
The " 0 " will flash.

*This operation cannot be performed if you have selected a song stored on a Card, so select a song on the GR-1 itself with the procedure on page 5-32.

② From the Recorder/Part screen, press PARAMETER [PREVIOUS] until you see the following screen.

```
ЗЧ  EDIT ▭▭▭▭
    PRT - TONE
```

The " 9 " will flash.

③ Press [ENTER/YES].

The display will change to the screen for setting what Tone to assign to the Part.

```
ЗЧ  EDIT ▭▭▭▭
    PRT 1      0
```
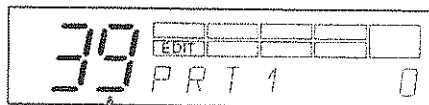
The " 9 " will stop flashing.

④ Use the PARAMETER [NEXT] and [PREVIOUS] buttons to select the Part you want ("PRT1," "PRT2" or "PRT3").

Change the Tone number with VALUE [INC][DEC]

Select the Part with PARAMETER [NEXT][PREVIOUS]
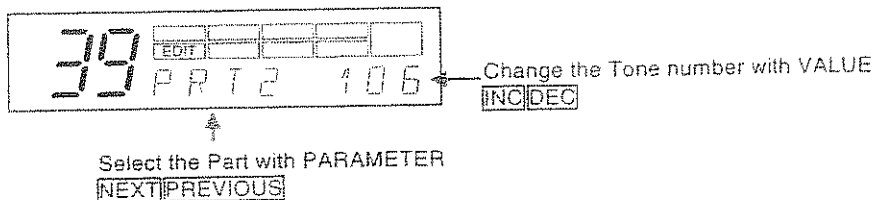
⑤ After selecting the Part, press the VALUE [INC] and [DEC] buttons to select the Tone.

A quick look at the Tone List on page 9-16 will show you the 200 Tones (0 to 199) you can select from. You can add another 200 available Tones (200 to 399) by installing the special Expansion Board (☞ P. 7-23).

⑥ After selecting the Tone, press the [EXIT/NO] button two (2) times.

You will be returned to Play mode.

The Tones on the multi-timbral module can be switched using a combination of Control Change and Program Change messages sent from the external MIDI device. First, a Controller #0 (value between 0 and 3) must be sent, followed by a Program Change number (between 1 and 128). The Tone numbers that you switch to for a given combination of Controller #0 and Program Change number are given in the table below.

[Tone Number Table]

(Program Change Numbers)

		1	2	3	4	......	(16)	......	125	126	127	128
	0	00	01	02	03	....			124	125	126	127
Controller #0 Values	1	128	129	130	131	....			252	253	254	255
	2	256	257	258	259	....			380	381	382	383
	3	384	385	386	387	......	399					

For example, when you want to call up Tone 131 on the GR - 1, transmit a Controller #0 value of "1" followed by a Program Change "4" from the external MIDI device.

Note!
You cannot receive Program Change messages in the drum Part.
The drum Part or rhythm Part is set up a little differently from the others, in that every note is assigned to a different percussion instrument (a snare drum, hi-hat, etc.). So the drum Part has to call up specially configured "drum sets" instead of standard Tones. To see which instruments are assigned to what notes on the GR - 1, see page 9-15.

☐Changing Things Like Volume and Channel for Each Part

You can set the volume, MIDI receive channel, Reverb and Chorus volumes, bend range, and pan independently for each Part and the drum Part. If that is something you need to do, read on.

How to : Make a Variety of Settings for Parts 1, 2 and 3

① Press EDIT [RECORDER/PART] .

"REC/PLAY" is displayed.

```
30  [EDIT]
    R E C / P L A Y
```

The " 0 " will flash.

② Now press PARAMETER [PREVIOUS] two (2) times until you see the following screen for changing Part settings.

```
38  [EDIT]
    P A R T   S E T
```
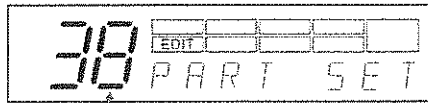
The " 8 " will flash.

③ Press [ENTER/YES] .

The Part number is displayed.

```
38  [EDIT]
    P A R T   1 - >
```

④ In this screen, press the PARAMETER [NEXT] button.

This scrolls you through Part 1, 2 or 3 in order, using the PARAMETER [NEXT] button (or, back up with PARAMETER [PREVIOUS]).

```
38  [EDIT]
    P A R T   1 - >      ↑ PARAMETER [PREVIOUS]
    P A R T   2 - >
    P A R T   3 - >      ↓ PARAMETER [NEXT]
```
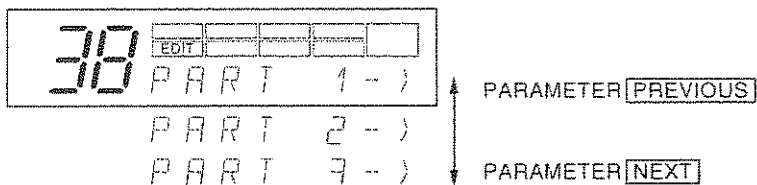
⑤ After selecting one of these Parts, press ENTER/YES ...

...which calls up the screen for making all the settings for that Part.

```
38  [EDIT]
    P 1 V O L   1 0 0
```

⑥ Select the setting you want to change with the PARAMETER NEXT and PREVIOUS buttons.

```
38  [EDIT]
    P 1 V O L   1 0 0
```
— Sets the Volume for this Part (in this case, Part 1) (range 0 to 127)

```
P 1   C H       2
```
— Sets the Receive Channel for this Part (range 1 to 16, OFF)

```
P 1 R E V     4 0
```
— Sets the Reverb Volume for this Part (0 to 127)

```
P 1 C H O       0
```
— Sets the Chorus Volume for this Part (0 to 127)

```
P 1 B N D     2 4
```
— Sets the Bend Range for this Part (0 to 24)

```
P P A N (    0 )
```
— Sets the Pan for this Part (can be set to RNDM, or from <63 to <0> to 63>)

∗Reverb and Chorus settings (except those mentioned above) are automatically set to the settings of the current patch.

⑦ When you've selected the item you want, make the changes with the VALUE DEC and INC buttons.

● Receive Channel Setting	The GR-1 uses the basic channel (☞ P. 6–3) plus the next five channels for receiving and transmitting MIDI data for the guitar Parts. Be careful not to set the Receive Channel for the multi-timbral Parts to overlap one of the channels you have set for the guitar Parts!
● Bend Range Setting	The Bend Range is the maximum amount by which the pitch can be changed when you receive MIDI Pitch Bend messages for that Part. A setting of "24" means a pitch bend range of 24 semi-tones, that is, two octaves up or down. A setting of "0" effectively means to ignore all incoming Pitch Bend messages.
● Pan Setting	When a stereo output is used, this value determines the position of the sound in the stereo field, like a left/right balance knob. A "<63" means panned hard left (all sound in the left channel), a 0" means positioned in the center, and "63>" means hard right panned output. "RNDM" stands for "Random," and means that every time you play another note, it will appear at some random position in the stereo field.

⑧ When you've made all the settings you want, press the EXIT/NO button three (3) times.

This returns you to Play mode.

How to : Make a Variety of Settings for the Drum Part

① Press EDIT [RECORDER/PART].

This puts you in the Recorder/Part screen.

```
30  [EDIT]
    REC / PLAY
```

The " *0* " will flash.

② Press PARAMETER [PREVIOUS] two (2) times.

You'll see the following screen for changing Part settings.

```
38  [EDIT]
    PART  SET
```
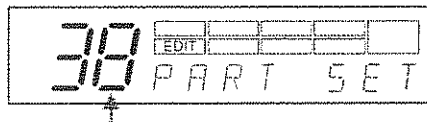
The " *8* " will flash.

③ Press [ENTER/YES].

You'll see a display like the following.

```
38  [EDIT]
    PART  1 - )
```

The " *8* " will stop flashing.

④ In this screen, press the PARAMETER [NEXT] button three (3) times.

This brings you to the screen for setting the Drum Part Volume.

```
38  [EDIT]
    DRUM - VOL        PARAMETER [PREVIOUS]
    DRUM - REV
    DRUM - PAN        PARAMETER [NEXT]
```
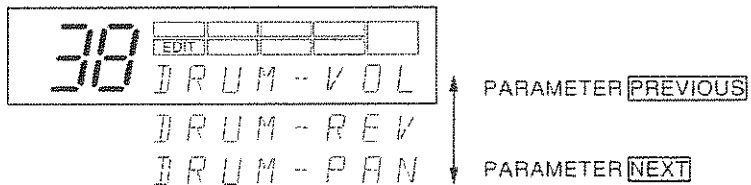
Or, pressing PARAMETER [NEXT] four (4) times brings you to the Drum Reverb setting screen; five (5) times. the Drum Pan setting screen. (if you overshoot the screen you want. back up with PARAMETER [PREVIOUS]).

⑤ After selecting the screen you want, press [ENTER/YES] ...

...and you will enter the appropriate screen for making settings.

〈Volume Setting Screen〉

```
38  [EDIT]
    B D 1        1 0 0  ◄──(Range 0 to 127)
```

〈Reverb Volume Setting Screen〉

```
38  [EDIT]
    B D 1          6 4  ◄──(Range 0 to 127)
```

〈Pan Setting Screen〉

```
38  [EDIT]
    B D 1     〈  0  〉  ◄──(can be set to RNDM, or from <63 to <0> to
                              63>)
```
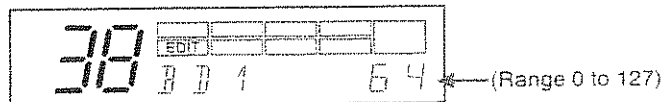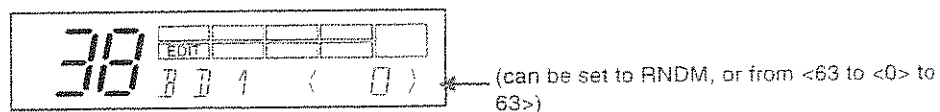
⑥ Whichever screen you select, use the PARAMETER [INC] and [DEC] buttons to select the particular percussion instrument you want to change and change its setting with the VALUE [DEC] and [INC] buttons.

```
38  [EDIT]
    B D 1        1 0 0  ◄──Vary this value with VALUE [INC][DEC]

    B D 2   ▲  PARAMETER [PREVIOUS]
    S D 1   │
        :   ▼  PARAMETER [NEXT]
```
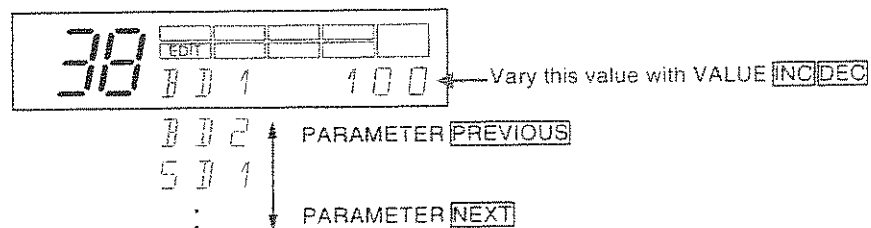
⑦ When you've made all the settings you want, press the [EXIT/NO] button three (3) times. This returns you to Play mode.

If You Want to Change the Drum Part Channel

① This can be done by pressing the PARAMETER [PREVIOUS] button one (1) time instead of two (2) times in Step ⑤ above.
You'll see the following screen.

```
38  [EDIT]
    D R - C H   1 0  ◄── Change the channel with the VALUE [INC]
                          [DEC] buttons (range 1 to 16, OFF)
```

② Change the Drum Part channel using the VALUE [INC] and [DEC] buttons.

③ Finished? Press [EXIT/NO] two (2) times to return to the Play screen.

3. Teaming Up with an External MIDI Sequencer

The GR - 1 contains an easy-to-use Recorder that works great for recording and playing back spur-of-the-moment ideas, for practice, or for capturing live performances.

But let's face it, its capabilities are somewhat limited; it's not a full-blown sequencer (like the Roland MC-50 or MV-30). You can, however, team up with a dedicated sequencer to get all the capabilities that the Recorder lacks, such as:

● By recording on six channels in Mono mode, you can record and playback real guitar playing stuff like whammy bar falls.

● By hooking up another sound module, you can create some really enormous multi-Part ensemble sounds.

● You can record and playback longer songs that require more memory.

● You have access to all the advanced editing features that any sequencer would have.

But best of all, armed only with a guitar, you can now record your music in real-time on a MIDI sequencer! No keyboard skills required!

☐Recording Data with the Guitar (GR-1) for Playback on a Keyboard or External Sound Module

Making the Connection

GR - 1   Sequencer   Sound module (in this case, a keyboard)
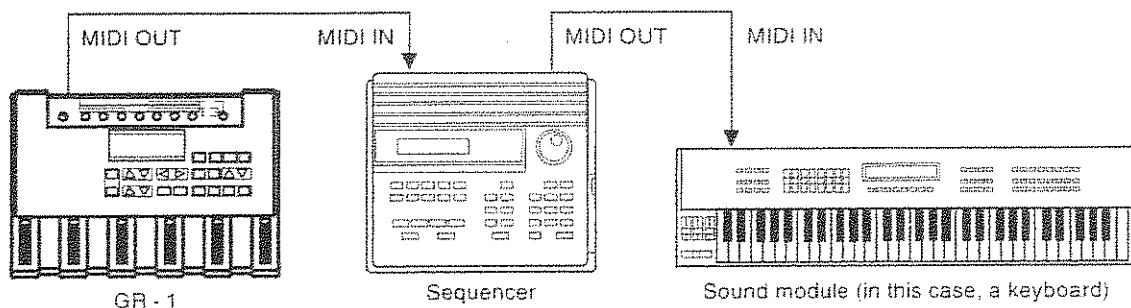
① Refer to the first part of this chapter and make all the necessary settings for your guitar to play an external sound module.

② Turn on the "Soft Thru" (or equivalent feature) of your sequencer to send an exact copy of the GR - 1's MIDI messages to the MIDI OUT of the sequencer (and on to the external module) during recording.

③ When all is ready, play a little on the guitar to see if the external sound module is responding to the MIDI messages.

④ No problems? Follow the instructions in the sequencer manual for recording, and then do some!

  *When recording in Mono mode with a Type A or Type C module, as we talked about earlier (☞ P. 6-2), you must be able to record on six channels at once. If your sequencer is unable to handle the simultaneous recording of multiple channels, you'll have to use the Poly mode to make your recording. Likewise, if you run short of channels and don't have six to spare, Poly mode is the way to go.

☐ Hooking Up the GR-1 and a Sequencer

The GR - 1 itself has a modest multi-timbral sound module on board, so you don't necessarily need the external sound module in the previous example; you can just team up a sequencer with the GR - 1 and go from there. This lets you record and playback guitar parts that you couldn't accomplish on the Recorder alone. (Remember, the guitar part requires six MIDI channels.)

Making the Connection
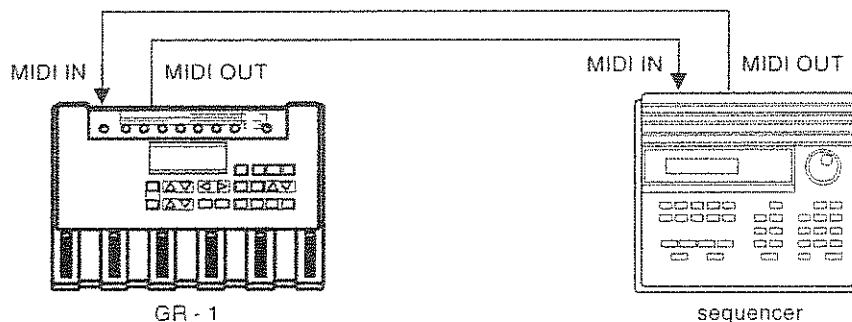
GR - 1   sequencer

① Turn on the "Soft Thru" (or equivalent feature) of your sequencer to send an exact copy of the GR - 1's MIDI messages to the MIDI OUT of the sequencer (and back to the GR - 1 MIDI IN) during recording.

② Turn the "LOCAL ON/OFF" setting of the GR - 1 to Off (☞ P. 6–21).

MIDI messages from the GR - 1 guitar controller section will no longer be sent to the internal ("local") guitar sound module, meaning that it will be played exclusively by messages from the external ("remote") sequencer. This Local Off setting prevents "collisions" of MIDI data coming from both guitar and sequencer when Soft Thru is turned on.

* Local On is the setting you'll want for most other purposes.

③ Set the Voice Reserve if needed. You can use this to make best use of a limited number of voices and reduce voice stealing (☞ P. 5–30).

④ When recording all parts with the guitar, be sure to record a multi-timbral sound module first (record a guitar module last).

    ④—1 Set the basic channel to match the receive channel of the Part you are recording. When you do this, you should no longer hear the guitar part (refer to the first part of this chapter, ☞ P. 6–2).

* This is because if there is some overlap of the channels used by the guitar module and the multi-timbral module, the multi-timbral module takes precedence.

    ④—2 Set MIDI Receive mode to Poly. (☞ P. 6–4).

④— 3 Match the transmitted Bend Range to the Bend Range setting of the Part you are recording (☞ P. 6–2).

⑤ When all these preparations are complete, play a few notes to see if you are playing the selected channel of the GR - 1 multi-timbral module.

If there are no problems, press all the right buttons on the external sequencer to start recording.

⑥ Lastly, we will record the guitar module. First, make the following settings:

⑥— 1 Set the basic channel (☞ P. 6–2) of the guitar module so that its six channels won't overlap with any of the multi-timbral module receive channels.

⑥— 2 Set the MIDI Transmit mode to "Mono" (☞ P. 6–2).

⑥— 3 Since the guitar Part Pitch Bend Range is fixed at 24, be sure to set the Transmit Bend Range to 24 as well (☞ P. 6–2).

⑦ When you've done all this, play a few notes to see if the guitar module is working.

If so, start recording with the external sequencer.

＊The guitar module can only receive MIDI messages in Mono mode, which means you won't be able to play more than one note at a time over a single channel.

● Note!

If you hooked up like this to an external MIDI sequencer to record the guitar part, Hold will be applied to both Tones during playback, even if you've previously set 2nd Tone Hold to "OFF."

(see Section 4, "5. Other Patch Editing Settings," p. 4–18.)

How to : Set Local On/Off

① Press EDIT SYSTEM .

The " 0 " will flash.

② Press PARAMETER NEXT two (2) times.

You'll see "MIDI" in the display.
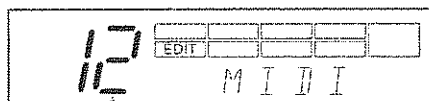
The 2 " will flash.

③ Press ENTER/YES two (2) time.

```
 _      _____
| _ |  |EDIT|__|__|__|__|
|| _'   _  _   _   _       _  _
|| _   |_| _  |  |    |     |
           _|  |_ _  |_|
```
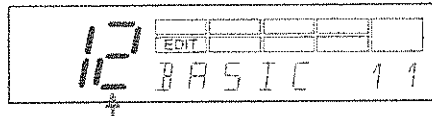
The " _ " will stop flashing.

④ Now press PARAMETER PREVIOUS to back up to the "LOCAL ON" screen.

```
 _      _____
| _ |  |EDIT|__|__|__|__|
|| _'   _   _  _   _   _        _   _
|| _   |_  |_|  |_ |_| |     |_| | |
```
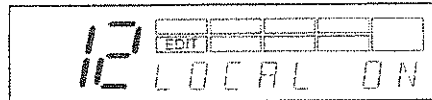
⑤ Pressing VALUE DEC turns this Off.

(VALUE INC turns it On again.)

⑥ Press EXIT/NO two (2) times to return to Play mode.

☐If You Want to Turn Local On and Off During Performance

Let's say the following applies to you:

"Playing live, I want to use the GR - 1 guitar module as the guitar synth for some songs, and on others I want it to play song data from an external sequencer while I use the guitar like a regular guitar, not a MIDI controller."

In this situation, the LOCAL setting can be set to OFF, with just one press of an (optional) DP-2 foot pedal plugged into the EV-5/DP-2 jack on the rear panel. The following instructions will tell you how to do this.

How to : Use a DP-2 to Switch Local On/Off

① In Play mode, press the EDIT [SYSTEM] button.

```
 ___          _____
|  /|  EDIT  |      |      |      |
| / |        |_____|_____|_____|
|/__|   5 - [ []  M M []  N
```

The " *0* " will flash.

② Press PARAMETER [NEXT] four (4) times.

The display will read "EXT FOOT."

```
 __  __       _____
|  ||_|  EDIT |      |      |      |
|  ||        |_____|_____|_____|
|__||    E X T    F []  []  T
```
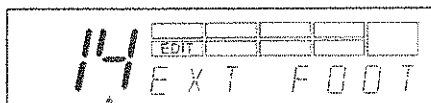
The " *4* " will flash.

③ Press [ENTER/YES] to enable this setting.

```
 __  __       _____
|  ||_|  EDIT |      |      |      |
|  ||        |_____|_____|_____|
|__||       [ U T []  F F
```
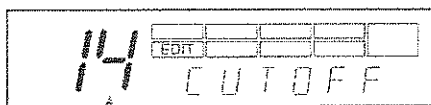
THe " *4* " now stops flashing.

④ Press the VALUE [INC] and [DEC] buttons a couple times until this reads "LOCALOFF."

```
 __          _____
|  _|  EDIT |      |      |      |
|  _|       |_____|_____|_____|
|__|   L []  [ A L []  F F
```
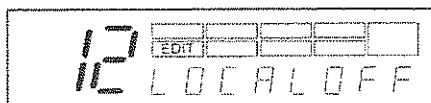
⑤ Now that you've made the setting, press [EXIT/NO] two (2) times.

You're back in Play mode.

＊ This new DP-2 setting is now stored in memory, even if you turn off the power.

Now when you step on the DP-2, you'll be switched to Local Off (and you'll see "LOCALOFF" in the display).

At that time, press the EDIT [SYSTEM] button and the set "Local On/Off" setting will be ignored. When you step on the pedal again, you will be returned to the normal state (Local On).

4. Transferring Songs from a Sequencer to the Recorder

You can also transfer songs written on an external sequencer, so that the GR - 1 can play them all by itself. This transfer process is called "downloading."

However, in the following cases you will not be able to download:

●The song is longer than 2000 notes. (Remember, this includes Pitch Bend data, too.)

●The song has more than four Parts (three standard Parts plus a drum Part).

●The GR - 1's multi-timbral module does not have the proper four MIDI Receive channels available to accept the four Parts in the data.

∗ If you download, you are going to lose the recorded song data in the GR - 1.

Connections

MIDI IN

MIDI OUT

GR - 1

External Sequencer
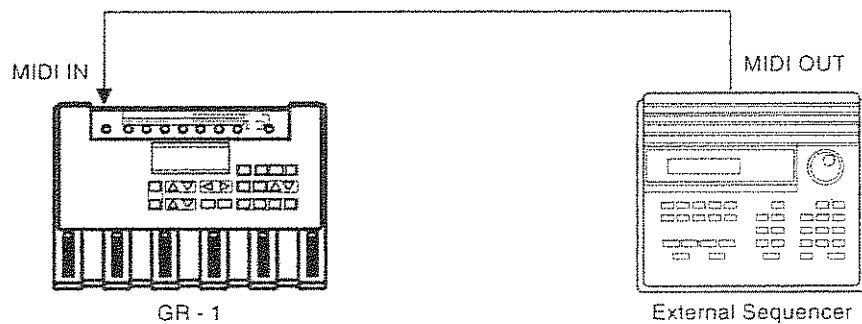
How to : Download from a MIDI Sequencer to the Recorder

① Press EDIT | RECORDER/PART | .

This selects the Recorder/Part screen.

```
3□    EDIT
      REC / PLAY
```
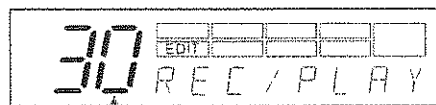
The " *□* " will flash.

∗ This operation cannot be done if you have selected a song stored on a Card, so select a song on the GR - 1 itself with the procedure on page 5~32.

② Press PARAMETER | PREVIOUS | four (4) times to bring up the following screen.

```
36    EDIT
      DOWNLOAD
```
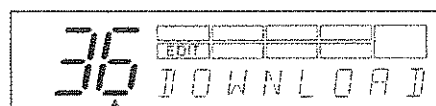
The " *6* " will flash.

③ Press ENTER/YES

This calls up the actual screen for downloading data. "SONG CLR" will be displayed, and the "OK?" message in the corner will flash.

flashing.
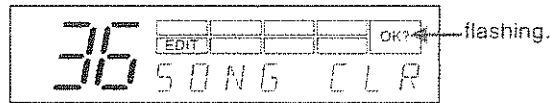
④ That means there is data already stored in the Recorder which will be overwritten; is that OK? Press ENTER/YES

Now you'll see the "STANDBY" message in the screen.

* To cancel the download at any point, press the EXIT/NO button to return to Play mode.

⑤ Start playback on the external MIDI sequencer.

The screen reads "RECORDING" to show that the internal Recorder has started recording (downloading) the data coming from the external sequencer.
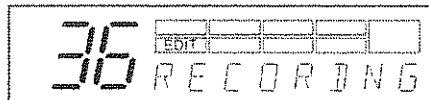
When the song is finished, the screen reads "COMPLETE."

* If there's additional data that won't fit in the Recorder, you'll see the "Memory Full" error message.
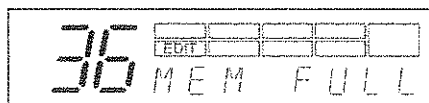
If this happens, press EXIT/NO two (2) times to return to Play mode. Then reduce the amount of data by shortening the song or cutting out Pitch Bends. Repeat these steps to try the download once again.

⑥ Press EXIT/NO two (2) times.

You'll be returned to Play mode.

Press the START/STOP button to try playing back some of the downloaded data.

● Types of MIDI Messages That Can Be Downloaded

The following MIDI messages are transmitted during download.

● Note On/Off
● Tone switching messages (Controller #0 plus Program Change messages)
● Controller #7 MIDI Volume (except for drum Part)
● Controller #10 MIDI Pan (except for drum Part)
● Pitch Bend

When these messages are part of the data already in the sequencer, they can be transmitted during the download operation.

∗Continuous controller data, such as Pitch Bend messages, take up a lot of memory — so much so that it's pointless to try and download it to the Recorder (even though it is possible).

Other messages (such as Tempo, individual Part volumes, Reverb and Chorus levels, etc.) can't be downloaded, so you have to set them yourself on the GR - 1.

∗The timing resolution of the Recorder is 48 ppqn (pulses per quarter note). If you are downloading from a sequencer that has greater resolution than this, the data will automatically be converted to 48 ppqn.

5. MIDI Control of External Effects

You can use MIDI messages to control external effects with the GR - 1.

Making the Connection

MIDI OUT

MIDI IN

External Effects Unit

GR - 1
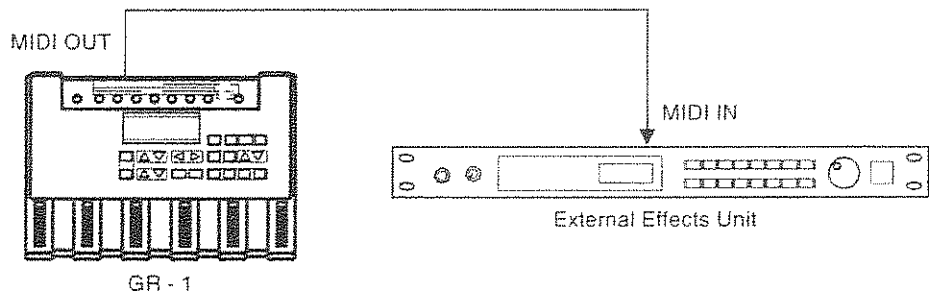
* Connect the MIDI OUT of the GR - 1 to the MIDI IN of the effects device.

□Switch a Patch and an Appropriate Effects Program

When teamed up with a MIDI-capable effects unit, you can stomp on the GR - 1 pedals to switch patches and simultaneously change effects programs on the external unit. No more embarrassing pauses while you take ring distortion off the classical piano sound! As soon as you switch patches, you can also switch to the most appropriate effects program for that patch.

Procedure

① Check the current setting for the GR - 1 basic channel.

①― 1 Press EDIT [SYSTEM].
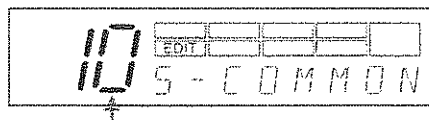
The " *0* " will flash.

①― 2 Press PARAMETER [NEXT] two (2) times.

This selects the MIDI screen.
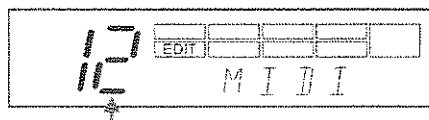
The " *2* " will flash.

①— 3 Press ENTER/YES .

The current basic channel is displayed (in this case "11," which is the default).

```
 | ⁻|     [EDIT]
 |_|²  B A S I C    1 1
```

The " ² " will stop flashing.

①— 4 If you must change this for any reason, do so with the VALUE INC DEC buttons.

①— 5 Press EXIT two (2) times to return to Play mode.

② OK, now that we've checked that, set the MIDI receive channel on the effects unit to match the GR - 1 basic channel (refer to the instructions in the effects unit manual).

③ Set the Program Change number that is transmitted for each patch on the GR - 1.

③— 1 Call up the GR - 1 patch with the pedals.

③— 2 Press EDIT PATCH .

```
 ²|⁻|    [EDIT]
 |_||    P - N A M E
```
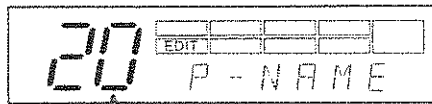
The " ￮ " will flash.

③— 3 Press PARAMETER PREVIOUS three (3) times.

This selects the "PG.CHG" screen.

```
 ²|⁻    [EDIT]
 |_|￮   P G   C H G
```
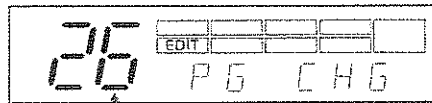
The " ￮ " will flash.

③— 4 Press ENTER .

Let's use "S-ALL 1" as an example. In this screen, you can set what Program Change number will be sent from the GR - 1's MIDI OUT port when you switch to this patch. This Program Change number should correspond to the program on the effects unit that you want applied to the current Patch.

```
 ²|⁻    [EDIT]
 |_|￮   S - A L L      1
```
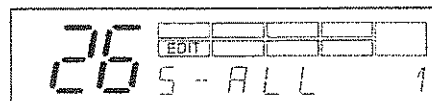
③— 5 Make this setting with the VALUE INC and DEC buttons. Now when you call up this Patch, you should get the appropriate effects as well.

③— 6 Press EXIT two (2) times.

This returns you to Play mode. You must perform a Patch Write here (☞ P. 3-14) in order to store the setting.

④ Repeat Step ③ above for all the patches you want accompanied by a particular effects setting.

Also, if you have an EV-5 expression pedal hooked up to the GR - 1, you can use it to send MIDI Controller #16 messages from the MIDI OUT port. This will let you control settings on the external effects unit with movements of the expression pedal. There's more about what you can do with an external pedal in the next chapter (☞ P. 7–6).

＊The parameters you can control with MIDI Controller #16 will depend on the effects unit itself. The unit's owner's manual should describe all this in detail.

6. Exchanging Patches and Recorded Songs with External Devices Via MIDI

You can transmit patch data and Recorder data to external MIDI devices via MIDI cables. This lets you exchange data with other GR - 1's as well.

This kind of all-in-one data transfer to an external device is called a "bulk dump."

☐ Data Transfer

Making the Connections

MIDI OUT   MIDI IN

GR - 1   External device
(another GR - 1, sequencer, etc.)
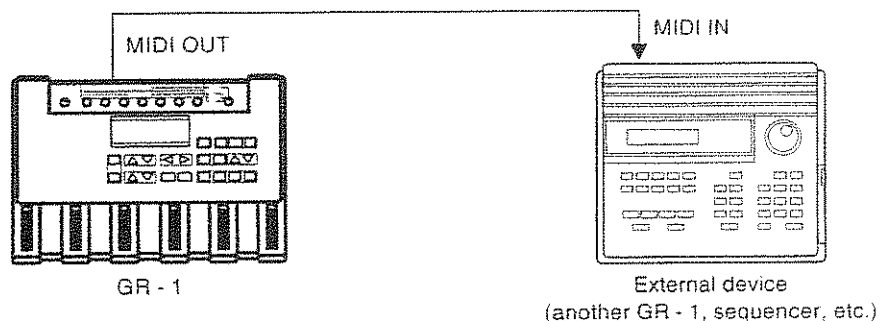
If you're using a MIDI sequencer that has a disk drive, you can store and save the GR - 1's patch data and song data onto a floppy disk using a bulk dump.

To return the data saved onto a floppy disk to the GR - 1, just make all the connections in reverse: make it so the GR - 1 is the receiving device and the external sequencer is the device transmitting the data.

MIDI OUT   MIDI IN

External device   GR - 1
(another GR - 1, sequencer, etc.)
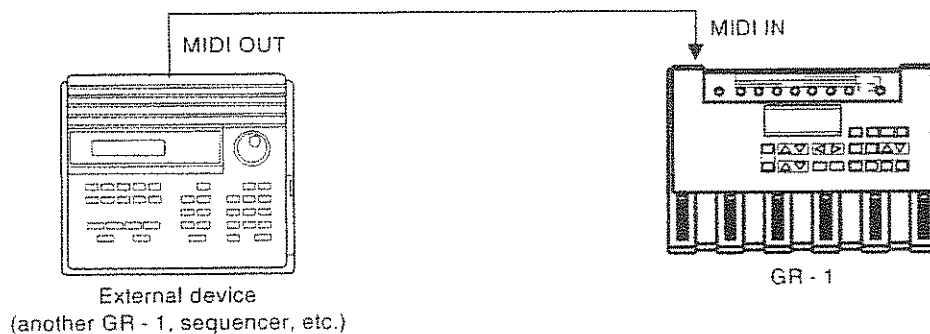
How to : Transmit Data with a Bulk Dump

① Press EDIT SYSTEM .

The " *0* " will flash.

② Press PARAMETER NEXT three (3) times.

The message "BLK DUMP" will appear in the screen.

The " *3* " will flash.

③ Press ENTER/YES .

"SONG" now appears in the screen.

If you move straight on to Step ④ from here, you will transmit the song data from the song currently in the Recorder. To transmit the patch data, press PARAMETER NEXT one (1) time from this screen to select "PATCHALL." Or, if you want to transmit just one patch, use the VALUE INC and DEC buttons to specify the patch number.

④ After selecting the kind of data you want transmitted, make sure that the receiving end is ready (see below), then press ENTER/YES two (2) times.

The data will be transmitted.
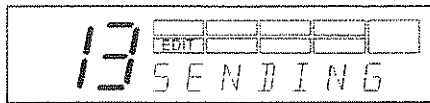
When it's done, you'll see the message "COMPLETE" in the display, and you'll be returned to the screen we saw in Step ③.
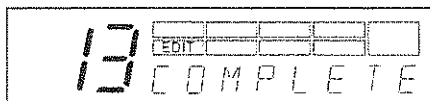
∗ Selecting the "PATCHALL" entry means that you will be sending all settings relating to the system along with the patch data. (This includes things like Master Tune, etc.)

⑤ Press EXIT/NO two (2) times.

This returns you to Play mode.

Getting the Receiving Side Ready (Transmitting to an External Sequencer)

When transmitting data to an external sequencer, just before Step ③ you need to put the external sequencer in the proper mode for Real-Time Recording. That way the sequencer will be recording the data coming from the GR - 1 in the form of SysEx messages. For more about this part of it, refer to the owners manual for the receiving device(s).

Getting the Receiving Side Ready (Transmitting to Another GR - 1)

If you are going to be receiving data with a GR - 1, follow this procedure to put it in "receive ready" state.

① Press EDIT [SYSTEM].

The " *0* " will flash.

② Then press PARAMETER [NEXT] three (3) times.

"BLK DUMP" is displayed.
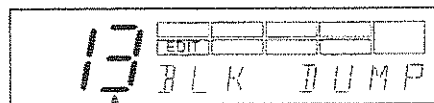
The " *3* " will flash.

③ Press [ENTER/YES].
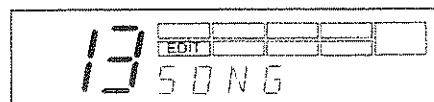
④ Press PARAMETER [PREVIOUS] one (1) time.

This time you'll see "RECV" in the display, indicating that you are in a receive-ready condition.
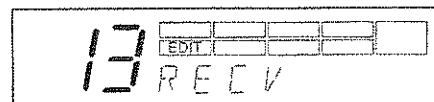
☐ Device ID

When transferring data with a bulk dump, you have to make the "device IDs" of the receiving and sending devices the same. For example, when the sending side is an external sequencer with its device ID set to "17," you have to set the device ID of the receiving GR - 1 to "17" as well in order to exchange data. The device ID on a GR - 1 can be set anywhere from 1 to 32, with 17 being the default ID number.

How to : Change the Device ID

① Press EDIT [SYSTEM].

The " *0* " will flash.

② Press PARAMETER [NEXT] three (3) times.

"BLK DUMP" is displayed.
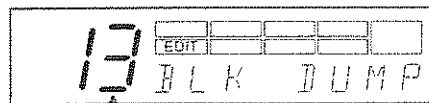
The " *3* " will flash.

③ Press [ENTER/YES].
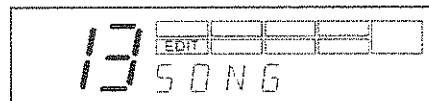
④ Press PARAMETER [PREVIOUS] two (2) times.

The words "DEVICE 17" are now displayed.
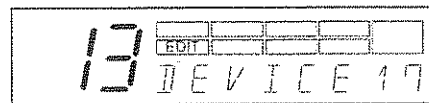
⑤ Change this by pressing the VALUE [INC] and [DEC] buttons.

⑥ Once the setting is made, press [EXIT/NO] two (2) times.

This returns you to Play mode.

【Checklist for This Section】

●Have you got a pretty good understanding of how to hook up an external MIDI device? (☞P.6–2, P. 6–12, P. 6–19, P. 6–24).

●Do you understand the differences between Mono and Poly mode? (☞P. 6–2, P. 6–3)

●Do you know how to switch Local On/Off, and what practical applications this has? (☞P. 6–20)

●Do you understand how to switch Tones on the GR - 1's multi-timbral sound module from an external device? (☞P. 6–14)

●Can you transmit (download) songs from an external sequencer to the GR - 1's Recorder? (☞P. 6–24)

Some Handy Functions

"Miscellaneous Settings and Functions"

[Objective]

In this section we group together and explain the functions relating to the system itself and how to use Memory Cards.

1. Changing the Pitch Shift and Hold Effects

We already explained in Section 1 how to use the pedals to obtain the Pitch Shift and Hold effects. In this section we'll show you how you can modify the way these effects work to suit your playing style.

Modifying the Way Pitch Shift A Works

① Press EDIT [SYSTEM] from the Play mode.

You'll see the following screen.

```
  ⌐┐ ┌──┬──┬──┬──┐
  │┌┘ │EDIT│  │  │  │
  │└┘ └──┴──┴──┴──┘
       5 - COMMON
```
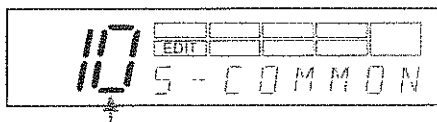
Only the " 0 " will be flashing.

② Press the PARAMETER [NEXT] button five (5) times.

That brings up the "P - SIFT A" (Pitch Shift A) screen.

```
  ┌┌┐ ┌──┬──┬──┬──┐
  │┌┘ │EDIT│  │  │  │
  │└┐ └──┴──┴──┴──┘
       P - SIFT   A
```
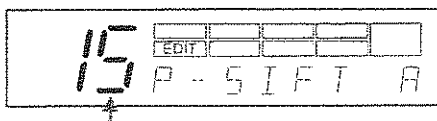
Now only the " 5 " will be flashing.

③ Press [ENTER/YES].

This selects the Pitch Shift A function, and the screen will change to this:

```
  ┌┌┐ ┌──┬──┬──┬──┐
  │┌┘ │EDIT│  │  │  │
  │└┐ └──┴──┴──┴──┘
       RANGE - 12
```
← Change this value with the VALUE [INC][DEC] buttons
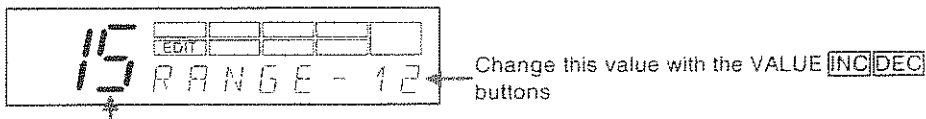
The " 5 " stops flashing

This is the Range screen where you can set how far the pitch will change (up or down) when you press the Pitch Shift A pedal.

✻When you set the value of the Pitch Shift A (or B) Range parameter too low, the retrigger of the note may occur during the pitch change.

④ Set this range with the VALUE [INC] and [DEC] buttons.

The number indicates the number of semi-tones, so that, for example, a "2" means a whole step up, or a "-12" an octave down. The maximum range is − 24 to +12 (an octave up or two octave down).

⑤ Press [NEXT].

That moves you to the "RAISE" screen.

```
  ┌┌┐ ┌──┬──┬──┬──┐
  │┌┘ │EDIT│  │  │  │
  │└┐ └──┴──┴──┴──┘
       RAISE    32
```
← Change this value with the VALUE [INC][DEC] buttons

This is the Raise Time screen, where you can set how long it will take for the pitch to rise (or fall) to the point set in the Range screen.

⑥ Set the Pitch Shift Rise Time with the VALUE [INC] and [DEC] buttons.

Values range from 1 to 63. A "1" gives you an almost instantaneous sweep up (or down) to the new pitch, and larger values make the change more and more gradual.

⑦ Press NEXT .

Now you'll see the Return screen.

```
 ┌─────────────────────┐
 │┌──┐ ┌────┬──┬──┬──┐ │
 │└──┘ │EDIT├──┼──┼──┤ │       Change this value with the VALUE INC DEC
 │     └────┴──┴──┴──┘ │ ◄──── buttons
 │  R E T R N    1 8   │
 └─────────────────────┘
```

This is the "RETRN" (Return) Time screen where you can set how fast the pitch will return to its original value after you release the Pitch Shift A pedal.

⑧ Set the Pitch Shift Return Time with the VALUE INC and DEC buttons.

Values range from 1 to 63. A "1" brings you back to the original pitch almost instantly, and larger values make the change more and more gradual.

⑨ Press NEXT .

This brings up the "Latch" screen.

```
 ┌─────────────────────┐
 │┌──┐ ┌────┬──┬──┬──┐ │
 │└──┘ │EDIT├──┼──┼──┤ │       Turn this ON or OFF with VALUE INC DEC
 │     └────┴──┴──┴──┘ │ ◄──── buttons
 │  L A T C H   O N    │
 └─────────────────────┘
```

This is where you can set the action for the Pitch Shift A pedal.

⑩ Turn this ON or OFF with the VALUE INC DEC buttons.

LATCH OFF : Pitch Shift is applied only as long as you have the pedal depressed. As soon as you release the pedal, the pitch returns.

LATCH ON : Acts like a switch —each time you press the pedal, it alternates between turning the Pitch Shift on and off.

⑪ When you're finished making all these settings, press the EXIT/NO button two (2) times to return to the Play mode.

＊These System settings are retained in the GR - 1's memory even after you turn the power off, so there's no need to perform a Patch Write.

＊The Pitch Shift A Range setting will be affected if you are using an external pedal (like the EV-5). (See "Using the EV-5 and DP-2 Pedals" in this section (☞ P. 7–6) for more about external pedals.)

＊You may also want to limit the Pitch Shift Control range using Pitch Shift, depending on the Tone, frequency range and playing conditions.

Modifying the Way Pitch Shift B Works

This procedure is basically identical to what we did for Pitch Shift A, with the only difference being in Step ② ; you should press the PARAMETER PREVIOUS button four (4) times to bring up the "P - SIFT B" (Pitch Shift B) screen.
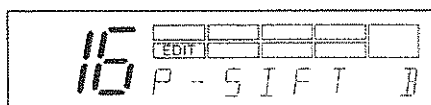
```
 ┌─────────────────────┐
 │┌──┐ ┌────┬──┬──┬──┐ │
 │└──┘ │EDIT├──┼──┼──┤ │
 │     └────┴──┴──┴──┘ │
 │  P - S I F T   B    │
 └─────────────────────┘
```

＊You may also want to limit the Pitch Shift Control range using Pitch Shift, depending on the Tone, frequency range and playing conditions.

Modifying the Way Hold Works

① In the Play mode, press the EDIT | SYSTEM | button.
You'll see this screen:

```
IO  [EDIT]
    S - COMMON
```
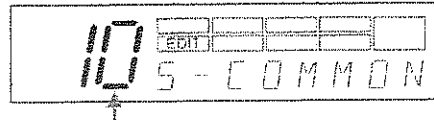
Only the " *0* " will be flashing.

② Press the PARAMETER | PREVIOUS | button one (1) time.
This selects the "HOLD" screen.

```
I9  [EDIT]
    HOLD
```
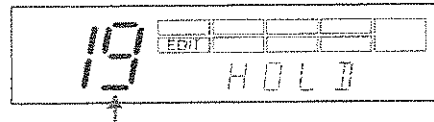
Now only the " *9* " will be flashing.

③ Press | ENTER/YES |.
The screen will change to the following, indicating that you're ready to make changes to the Hold effect settings.

```
I9  [EDIT]
    H - TYPE   1
```
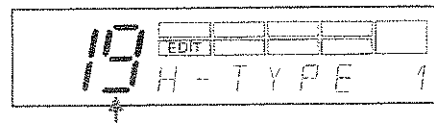
The " *9* " will stop flashing.

You can select what kind of Hold to apply from the "H-TYPE" screen.

④ Select the type of Hold effect with the VALUE | INC | and | DEC | buttons.

H-TYPE 1   : Hold Type 1 gives you a Hold effect similar to the damper pedal on a piano. When a string is played while Hold is on, any synth notes already being sounded by that string are gradually damped while the new note you've played on that string is sounded. This way, you can invert chords without interrupting the synth note being sounded.

H-TYPE 2   : Hold Type 2 gives you an effect very similar to the Sostenuto on an electric piano. Here, Hold is applied only to the synth sound associated with the string(s) that are sounding at the moment you press on the pedal (the string vibration is stopped, as are any synth sounds which have already sounded and are in decay).
The pitch of the string that is sounding the instant you step on the pedal is Held. And, no new synth sounds can be generated until you let up on the pedal, not even if you pick another string. This is great for Holding a synth note or chord or bass note and then playing some guitar riffs over the top of it. For this to work, however, you should have the GK - 2 switch set to MIX.

H-TYPE 3   : Hold Type 3 has basically the same effect as Hold Type 2, except that it applies to only the string or strings that are generating synth sounds at the moment you press the Hold pedal. That is, strings that are not being Held can be played and can generate a new synth sound even though the pedal is pressed down.
This is useful if you want to Hold a certain synth note, just as in Type 2, yet also start some new sounds with the other strings in the usual fashion.

⑤ Press NEXT .

This selects the Latch screen.

```
 ┌──────────────────────────────┐
 │  ╷╺┓   ┌──┬──┬──┬──┐          │
 │  ┃ ┃   EDIT              │          │       Turn this ON or OFF with the VALUE INC
 │  ╹ ┛   L  A  T  C  H     O F F │       DEC buttons
 └──────────────────────────────┘
```
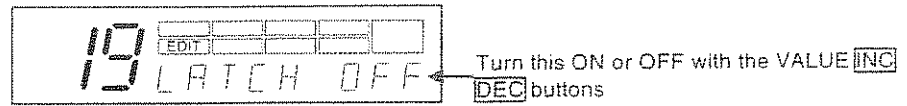
This is where you can set the action for the Pitch Shift A pedal.

⑥ Switch Latch ON or OFF using the VALUE INC and DEC buttons.

LATCH OFF : Hold is applied only as long as you have the pedal depressed. As soon as
              you release the pedal, the Hold is canceled.
LATCH ON   : Acts like a switch —each time you press the pedal, it alternates between
              turning the Hold on and off.

⑦ When you're finished making all these settings, press the EXIT/NO button two (2) times to
return to the Play mode.

∗These System settings are retained in the GR - 1's memory even after you turn the power
 off, so there's no need to perform a Patch Write.

2. Using the EV - 5 and DP - 2 Pedals

There are two jacks on the rear panel of the GR - 1 for connecting external pedals. The pedals can be used to control a variety of performance effects. The jacks are labeled VOLUME (EV - 5) and EV - 5/DP - 2.

VOLUME (EV -5) Jack

This is where you would connect an optional EV-5 expression pedal if you wanted to use it to control volume. The pedal could then be used to control the volume of the guitar synth part played on the internal synth Tone generator.

* MIDI Volume messages (Control Change 7) are output from the GR - 1's MIDI OUT jack at the same time, reflecting the amount of pedal control. The MIDI transmit channel should match the guitar part channel.

EV-5/DP -2 Jack

An EV-5 or a DP-2 can also be connected to this jack. The VOLUME (EV-5) jack is expressly for controlling the volume of synth sounds, whereas with this jack, you can select the following functions.

How to : Switch Between External Pedal Functions

① From the Play mode, press EDIT [SYSTEM].
You'll see this screen:

```
 10 [EDIT]
 10  S - C O M M O N
```
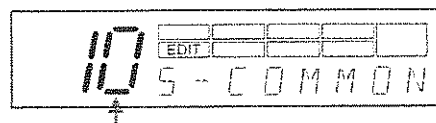
Only the " 0 " will be flashing.

② Press the PARAMETER [NEXT] button four (4) times.
This switches you into the screen called "EXT FOOT" (for External Foot Pedals).

```
 14 [EDIT]
 14  E X T   F O O T
```
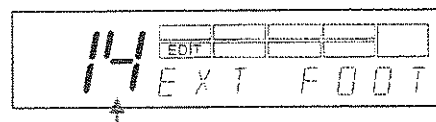
Now only the " 4 " will be flashing.

③ Press [ENTER/YES].
The screen will change to the following, indicating you're about to make External Foot Pedal settings.

```
 14 [EDIT]
 14  C U T O F F
```
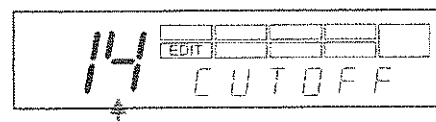
The " 4 " will stop flashing.

④ Select the EV-5 function with the VALUE [INC] and [DEC] buttons.

This will scroll you through the following options.

```
14  EDIT
    CUTOFF
  1 S T / 2 N D
  M O D U L A T E          [DEC]
      B E N D E R
  G R O U P   U P          [INC]
  L O C A L   O F F
  C N T _ N o 1 6
        ⋮
    and so on
```
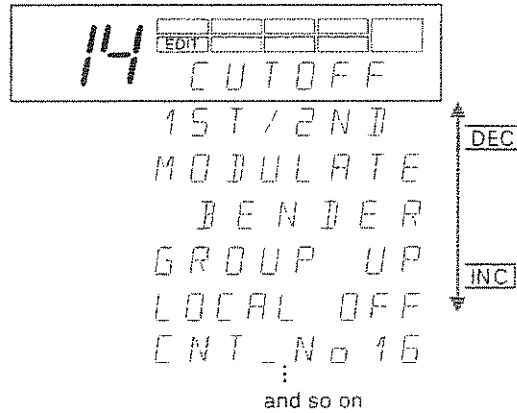
Here's a description of the functions:

CUTOFF   : Moving the EV-5 pedal has the same effect as turning the CUTOFF knob
(Filter Cutoff)   on the front panel, as described in Section 3, "Try Changing the Tone
                      with the Knobs" (☞ P.3-3). If you have a Patch that has the
                      RESONANCE knob set high, you can control the synth sound with the
                      pedal like you would with a wah-wah pedal.

1ST/2ND   : This function lets you change the balance between the 1st and 2nd
(1st/2nd Tone   Tones with the pedal. You'll hear only the 2nd Tone with the pedal fully
Balance)   depressed, and only the 1st Tone with it in the full up position.

MODULATE   : This gives you the same Vibrato effect as pressing the MOD pedal on the
(Modulation)   GR - 1 itself. With the EV-5 you can change the Vibrato Depth
                      continuously. This lets you get a suitable Vibrato that is between the ON
                      and OFF positions of the GR - 1's pedal. At this time, if the FAT (MOD)
                      pedal is selected for the FAT effect, you can get modulation at the same
                      time using the EV-5.

BENDER   : This lets you smoothly change the pitch of a synth note. With the pedal
(Bender)   all the way up, you get the normal interval, but the further you depress it,
                      the further from normal pitch you get. When the pedal is all the way
                      down, the interval can be set by the Pitch Shift A "Pitch Shift Range"
                      setting (☞ P. 7-2)for the pedal function.
                      The setting is in semi-tone steps, so for example, a "-12" means the pitch
                      drops one octave when you fully depress the pedal. A setting of "+7,"
                      however, indicates an interval of a perfect fifth.

∗The Pitch Shift Control range using the EV-5 may be limited depending on the Tone,
  frequency range and playing conditions.

GROUP UP : If you have a DP-2 pedal connected when you select this function, the
(Patch Group Up) DP-2 will work just like the PATCH GROUP [UP] button on the front
panel. You can still switch Patches using the PATCH GROUP [UP] and
[DOWN] buttons as usual, but this adds the capability of group switching
with a pedal as well.

*With GROUP UP selected, be sure you have a DP-2 (on/off switch) pedal connected to the
EV-5/DP-2 jack; not an EV-5.

LOCAL OFF : With this function selected and a DP-2 pedal connected to the jack,
(Local Off) depressing the pedal puts the GR-1 in a temporary 'Local Off' mode,
which separates the guitar control signals (not the guitar sound itself)
from the guitar part. When that mode is in effect, the display will read
LOCAL OFF.
If you press the pedal again, you will be back in the standard mode.
This can be really handy when you're on stage using an external
sequencer and you want to switch Local Control ON/OFF, depending on
the song (see Section 6, "Teaming Up with an Extenal MIDI Sequencer".
(☞ P. 6-19).)

*This is another function that will not work with the EV-5 pedal. Be sure you have an on-off
switching pedal (like the DP-2) connected to the rear panel EV-5/DP-2 jack.

CNT_No16 : With this function selected, depressing an EV-5 connected to the jack
(Controller #16) causes continuous output of a general purpose controller message
(Controller #16) from the GR-1's MIDI OUT. This will let you change
(with the EV-5) the parameters of external devices (such as rack effects
or other types of devices) that can respond to Controller #16.

*If you have this function selected, moving the pedal will have no effect on the GR-1
internal Tone generator.

⑤ When you have selected the function you want, press [EXIT/NO] two (2) times.
You will be returned to the Play mode.
*There is no need to save the changes you have made to System settings with Patch Write,
as they are automatically registered in memory when you exit to the Play mode.

3. Switching the Effect of the FAT/MOD Pedal

As we mentioned in Section 1, you obtain the Fat effect by depressing the GR - 1's [FAT/MOD] pedal after switching the GK - 2 to [S2].
The effect is set to Fat when you first take the GR - 1 out of the box; however, you can change this to MOD (Modulation) by following the
procedure outlined below.

How to : Switch the Effect of the Pedal

① From the Play mode, press EDIT [SYSTEM].
You'll see this screen:

```
┌──────────────────────────┐
│  ╷┌╴ ┌EDIT┬──┬──┬──┬──┐   │
│  │└┘  ├──┼──┼──┼──┼──┤   │
│  │└   ┘ 5 - C O M M O N   │
└──────────────────────────┘
        ↑
```
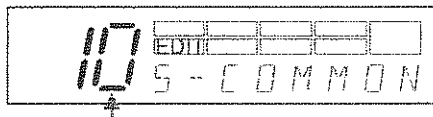
The " ☐ " will be flashing.

② Press PARAMETER [PREVIOUS] two (2) times.
This brings up the "FAT/MOD" screen.

```
┌──────────────────────────┐
│  ╷┌┐ ┌EDIT┬──┬──┬──┬──┐   │
│  │└┤ ├──┼──┼──┼──┼──┤   │
│  │└┘  F A T / M O D      │
└──────────────────────────┘
        ↑
```

Now only the " ☐ " will be flashing.

③ Press [ENTER/YES].
The screen will change to show your options in the FAT/MOD function.

```
┌──────────────────────────┐
│  ╷┌┐ ┌EDIT┬──┬──┬──┬──┐   │
│  │└┤ ├──┼──┼──┼──┼──┤   │ ←—Scroll between options with VALUE [INC][DEC]
│  │└┘  T Y P E   F A T    │
└──────────────────────────┘
        T Y P E   M O D
```
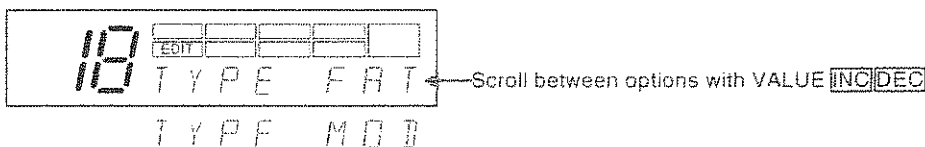
④ Switch TYPE FAT or TYPE MOD using the VALUE [INC] and [DEC] buttons.

TYPE FAT   : When you depress the pedal, the same synth sound (one octave lower)
              will be added to create a rich, full sound.
TYPE MOD   : When you depress the pedal, a deep vibrato will be added to the synth
              sound.

● Note !

After you pick a string, the sound begins to decay naturally. Usually, as soon as you play a new note
on that same string, the decay sound is cut off and the new note is played. However, it doesn't work
this way when FAT is turned on and the lower-octave sound is also being played on the same string
Tone generator. Accordingly, for Tone generation when FAT is in use, please acknowledge the
following characteristics:

◇With long-release sounds, because you hear the effect of bend information on the
  note after the release, you might encounter pitch instability.
◇When using the Hold function, if you play while the pedal is held down, the next sound
  is layered on top of the previous sound.

Please use the FAT function for Solo Play etc. with short release sound.

⑤ Press NEXT .

This selects the Latch screen.

Turn this ON or OFF with the VALUE
INC DEC buttons

⑥ Switch Latch ON or OFF using the VALUE INC and DEC buttons.

You can select between the following:

LATCH OFF : The Fat effect is applied only while you have the pedal depressed. As soon as you release the pedal, the Fat effect is turned off.

LATCH ON : Acts like a switch —every time you depress the pedal, it alternates between turning the Fat effect on and off.

⑦ When you're finished making settings, press the EXIT/NO button two 2 times.

You'll be returned to the Play mode.

∗These System settings are retained in the GR - 1's memory even after you turn the power off, so there's no need to perform a Patch Write.

∗You can get the Fat effect by simply calling up the patch, even if you aren't in the Pedal function mode (by using the GK - 2's S2 switch). For details, see the Patch Common discussion in Section 4, "FAT Initial Setting" (☞ P. 4–21). (Note that you can't make this setting for modulation.)

4. Using Memory Cards

In addition to saving data in the GR - 1's internal memory, you can also save data on (optional) M-256E Memory Cards.

| Patch Data : 64 Patches |

The GR - 1 itself can store a total of 64 Patches in two Groups (1 and 2). However, when you insert a Card into the Memory Card slot you automatically get another two Groups (3 and 4), with room enough for another 64 Patches.

| Song Data from the Recorder : 1 Song |

You can only store one song from the Recorder at a time in the GR - 1's internal memory. However, Recorder songs can be stored on Memory Cards, allowing you to create your own library of recorded material. At playback time, you have the option of playing the song in memory or a song from a Card.

| System Data : 1 Set |

You can transmit all GR - 1 System Edit parameters as a group (☞ P. 7–1)and save them to a Memory Card.

There is a slot for Memory Cards on the right side of the GR - 1. Be sure that you insert Memory Cards correctly and securely (refer to the Card's instructions).
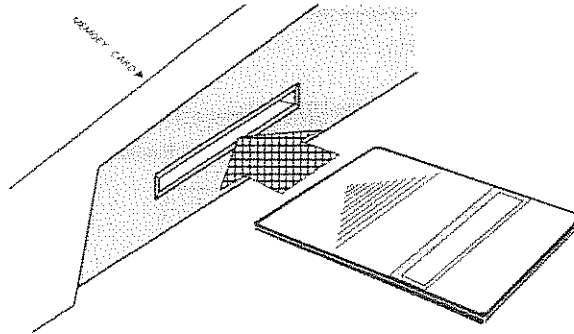
Note!

Every Memory Card contains a 'Protect Tab'to prevent data from being accidentally erased. This tab should be set to PROTECT at all times, except when actually writing data onto the Card. Refer to the instructions that came with the Card for more information.
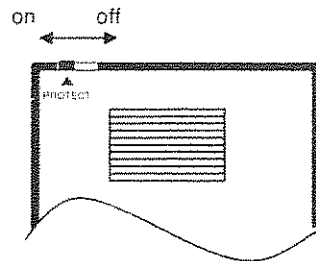
How to : Save a Patch on a Card

For writing (storing) a Patch and edited settings to a Card, the procedure is exactly the same as writing a Patch into the GR - 1's memory (see Section 3, "Patch Write" (☞ P. 3–14).) The only difference is that the destination Patch numbers are in the range from 311 to 484, meaning that you store Patch data on Memory Cards with Patch numbers in Groups 3 and 4. Don't forget to move the Protect tab to WRITE (OFF) when you go to save data on a Card.

How to : Copy All 64 Internal Patches to a Card

You can copy Patch data from all 64 Patches in Groups 1 and 2 to a Card to provide a back up.

＊This procedure will delete all the data already stored on the Card, so be sure there is nothing on the Card you want to keep.

① Press EDIT WRITE/COPY .

You'll see the following screen.
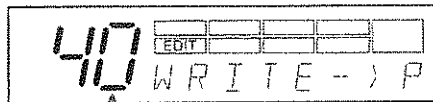
The " *0* " will flash.

② Press PARAMETER PREVIOUS three 3 times.

That selects the following screen to Copy All Patches.
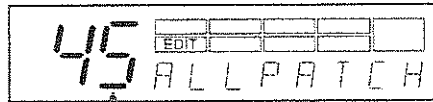
The " *5* " will flash.

③ Press ENTER/YES .

"CARD>INT" will now be displayed to show that the Copy All Patches function is enabled.

Right now, it's set up to copy all Patches from the Card into the GR - 1's memory.

④ Press PARAMETER NEXT .

This switches the display to "INT>CARD" and selects the "copy all Patches from internal memory onto the Card" function.

Transmits all Patches to the Card

⑤ Press ENTER/YES .

The "OK?" message will flash.

 The "OK?" message will flash.

* Confirm that it's OK to erase all existing data on the Card in the slot.
* If you want to cancel at any point, press [EXIT/NO].

⑥ Press [ENTER/YES] to proceed.

The display will read "COMPLETE" as the copying proceeds.

```
45  [EDIT]
    COMPLETE ◄───Indicates that Formatting is being carried out
```

When that is complete, you'll be returned to the "INT>CARD" display.

```
45  [EDIT]
    INT > CARD
```
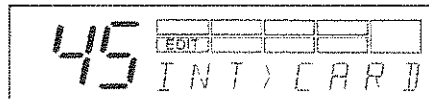
⑦ Press [EXIT] two (2) times to return to the Play mode.

All 64 Patches in Groups 1 and 2 of the GR - 1's internal memory have been copied to Groups 3 and 4 on the Card.

Using a New Card

In Step ④ above, if you are using a new Card, or one that has been used by a different device, you will first see the warning "NOT GR - 1" in the screen. In a moment you will automatically be switched over to the Card Formatting screen.

```
45  [EDIT]
    NOT  GR - 1
```

⬇ About 3 seconds later

```
45  [EDIT]        [OK?] ◄───Flashing. OK to Format?
    FORMAT
```

③—1
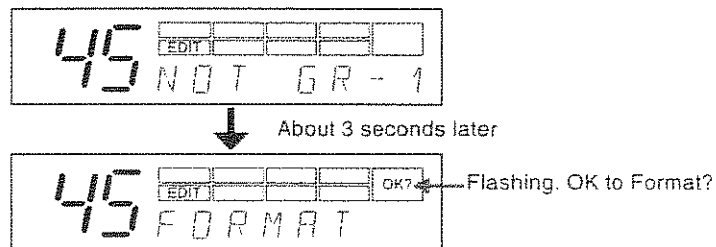
Press [ENTER/YES].

You will see the message "COMPLETE" in the screen as the Formatting is carried out.

At this time, all the System settings and all 64 Patches from the GR - 1 will be automatically transferred to the Card.

* Any data that is already stored on the Card will be lost.

```
45  [EDIT]
    COMPLETE ◄───Indicates that Formatting is being carried out
```

As soon as that's complete, you are returned to the "INT>CARD" display.
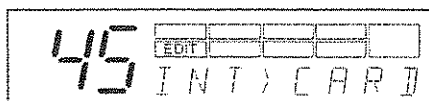
```
45  [EDIT]
    INT > CARD
```

③—2

Press [EXIT] two (2) times to return to the Play mode.

● What is Formatting?   Formatting is a process whereby a new Card (or one used by another device) is prepared for use with the GR - 1.

Be aware, however, that when you Format a Card, the data already stored on it will be lost.

When you Format a Card with the GR - 1, all the System settings and all 64 Patches are automatically copied onto the Card. If you were Formatting the Card in order to copy some Patches, well, that's already been done for you during the Format process itself.

How to : Copy All 64 Patches from a Card into GR - 1 Internal Memory

Here's how to take all 64 Patches copied into Groups 3 and 4 on a Card and "restore" or copy them back into the GR - 1's internal memory.

 * This will delete all the data stored in internal memory, so double check that you're not overwriting something you want to keep.

① Press EDIT [WRITE/COPY].

You'll see the following screen.

```
4D  [EDIT]
    W R I T E - > P
```
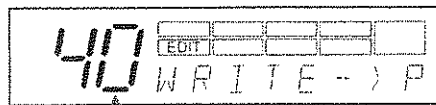
The " 0 " will flash.

② Press PARAMETER [PREVIOUS] three (3) times.

That selects the "Copy All Patches" screen.
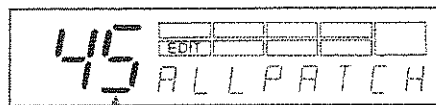
```
45  [EDIT]
    A L L P A T C H
```

The " 5 " will flash.

③ Press [ENTER/YES].

"CARD>INT" will now be displayed to show that the Copy All Patches function is enabled.

The way it's set up now, all Patches from the Card will be copied into internal memory. That's what we want here.

```
45  [EDIT]
    C A R D > I N T
```
(From Card to internal memory)

④ Press [ENTER/YES].

The "OK?" message will flash.

```
45  [EDIT]        [OK?]
    C A R D > I N T
```
— Flashes to ask if you're sure about copying

 * If you want to cancel at any point, press [EXIT/NO].

⑤ Press ENTER/YES .

The display will read "COMPLETE" as the copying proceeds.

```
45  ┌EDIT┐───┬───┬───┐
    └────┴───┴───┴───┘
    COMPLETE ◄── Indicates All Patch Copy is complete
```
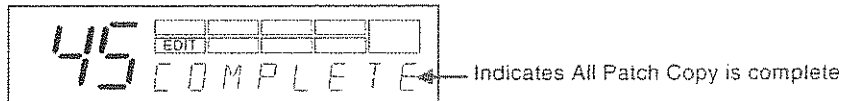
When that is finished, you'll be returned to the "CARD>INT" display.

```
45  ┌EDIT┐───┬───┬───┐
    └────┴───┴───┴───┘
    CARD > INT
```
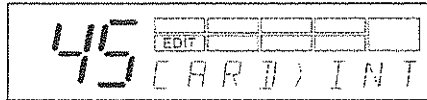
⑥ Press EXIT two (2) times to return to the Play mode.

All 64 Patches in Groups 3 and 4 on the Memory Card have now been copied to Groups 1 and 2 in internal memory.

How to : Exchange System Settings Between Card and Internal Memory

You can save (and back up) System settings (☞ P. 7–11)from the GR - 1's internal memory onto a Memory Card, or copy the settings on a Card back into internal memory.

∗Once again, note that all Systems settings at the copy destination will be erased!

① Press EDIT WRITE/COPY .

You'll see the following screen.

```
40  ┌EDIT┐───┬───┬───┐
    └────┴───┴───┴───┘
    WRITE -) P
```
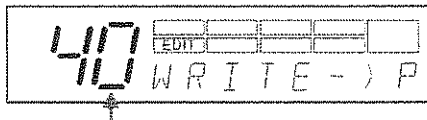
The " 0 " will flash.

② Press PARAMETER PREVIOUS two (2) times.

This will scroll you to the "System" screen for enabling the System Copy function.

```
46  ┌EDIT┐───┬───┬───┐
    └────┴───┴───┴───┘
    SYSTEM
```
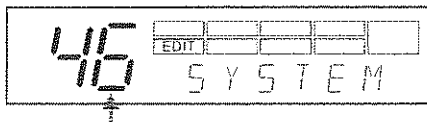
The " 6 " will flash.

③ Press ENTER/YES .

"CARD>INT" will now be displayed to show that the System Copy function is enabled (and in what direction).
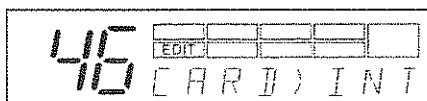
```
46  ┌EDIT┐───┬───┬───┐
    └────┴───┴───┴───┘
    CARD > INT         (From Card to internal memory)
```

④ Press PARAMETER [NEXT].

Every time you press this button, it switches you between "INT>CARD" and "CARD>INT," i.e., changes the direction of the save operation. Right now we want it set just like it is —copy System settings from GR - 1 internal memory to a Memory Card.

```
46  [EDIT]
    INT > CARD
```
(From internal memory to Card)

⑤ Press [ENTER/YES].

The "OK?" message will flash.

Check once more to be sure it's OK if all System settings on the destination Card are overwritten (replaced).
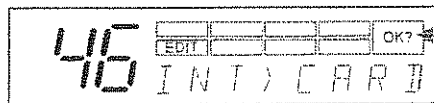
```
46  [EDIT]         [OK?]  ← Flashes, meaning "OK to copy?"
    INT > CARD
```

✳ If you want to cancel at any point, press [EXIT/NO].

⑥ Press [ENTER/YES] to proceed.

The display will read "COMPLETE" as the copying proceeds.
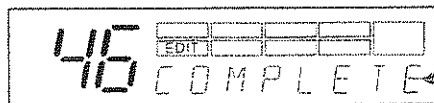
```
46  [EDIT]
    COMPLETE  ← Indicates that System copying is completed
```

When that is finished, you'll be returned to the "INT>CARD" display (or "CARD>INT," whichever you started from).

```
46  [EDIT]
    INT > CARD
```
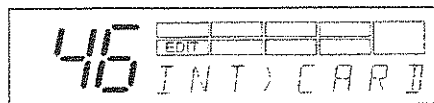
⑦ Press [EXIT] two (2) times to return to the Play mode.

Depending on which direction you set in Step ④, you have now copied all System settings to either the Card or internal memory.

Using a New Card with the GR-1

If the display reads "NOT GR - 1" after Step ④, that means you have inserted a new Card or one that has never been used on a GR - 1, i.e. it has not been "Formatted" for use. You will automatically be switched over to the Format Card screen.

```
46  [EDIT]
    NOT  GR - 1
```

⬇ About 3 seconds later

```
46  [EDIT]         [OK?]  ← Flashing, OK to Format?
    FORMAT
```

③—1

Press ENTER/YES .

You will see the message "COMPLETE" in the screen as Formatting proceeds.

At this time, all System settings and all 64 Patches from the GR - 1 will be automatically transferred to the Card.

＊ Any data already stored on the Card will be lost.

———Indicates that Formatting is being carried out

As soon as that's done, you are returned to the "INT>CARD" display.

③—2

Press EXIT two (2) times to return to the Play mode.

● What is Formatting?　　Formatting is a process whereby a new Card (or one used by another device) is prepared for use with the GR - 1.

Be aware, however, that when you Format a Card, the data already stored on it will be lost.

When you Format a Card with the GR - 1, all the System settings and all 64 Patches are automatically copied onto the Card. If you were Formatting the Card in order to copy some Patches, well, that's already been done for you during the Format process itself.

Copying Recorder Songs Between Card and Internal Memory

The GR - 1 can only contain one song from the Recorder in its internal memory at a time. However, you can save a song for future use by copying it onto a Card.

① Press EDIT WRITE/COPY .

Here's what the screen will look like:
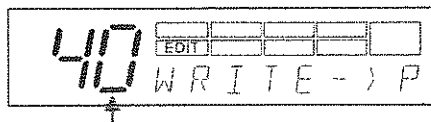
Only the " 🛈 " will flash.

② Press the PARAMETER PREVIOUS button one (1) time.

That selects the entry screen for the SONGCOPY function.
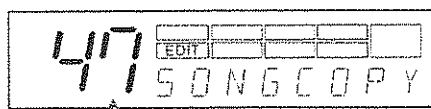
Only the " 7 " will flash.

③ Press ENTER/YES .

Now "CARD>INT" will be displayed to show the direction of the Song Copy function.

47 `EDIT` `CARD > INT`   (Copy from Card to internal memory)

④ Press PARAMETER NEXT .

Every time you press this button, it switches you between "INT → CARD" and "CARD → INT." i.e., changes the direction of the copy operation. One press will set it right, so that the song will be copied from internal memory to the Card.
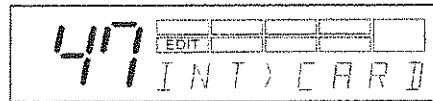
47 `EDIT` `INT > CARD`   (Copy from in ternal memory to Card)

⑤ When you've made your selection, press ENTER/YES .

The "OK?" message will flash. Check once more to be sure it's OK that all data on the destination Card is overwritten (replaced).

47 `EDIT` `OK?`—Flashes, meaning "OK to copy?"
`INT > CARD`

* If you want to cancel at any point, press EXIT/NO .

⑥ Press ENTER/YES to proceed.

The display will read "COMPLETE" as the copying proceeds.
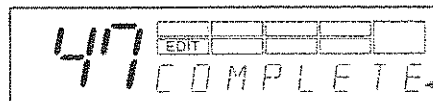
47 `EDIT` `COMPLETE`—Indicates that the song has been copied.

When that is finished, you'll be returned to the "INT>CARD" display (or "CARD>INT," whichever you started from).

47 `EDIT` `INT > CARD`

⑦ Press EXIT two (2) times to return to the Play mode.

Depending on which direction you set in Step ④, you have now copied the song from Card to internal memory, or vice versa.

Using a New Card with the GR-1

If the display reads "NOT GR - 1" after Step ④, that means you have inserted a new Card or one that has never been used on a GR - 1, i.e. it has not been "Formatted" for use. You will automatically be switched over to the Format Card screen.
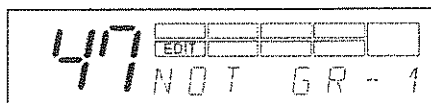
About 3 seconds later
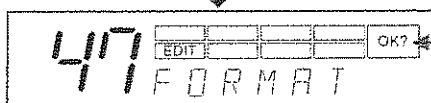
 ──Flashing. OK to Format?

③－1

Press ENTER/YES.

You will see the message "COMPLETE" in the screen as Formatting proceeds.

At this time, all System settings and all 64 Patches from the GR - 1 will be automatically transferred to the Card.

＊ Any data already stored on the Card will be lost.
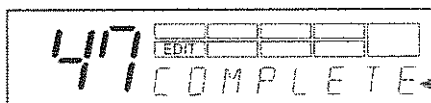
 ──Indicates that Formatting is being carried out

As soon as that's finished, you are returned to the "INT>CARD" display.

③－2

Press EXIT two (2) times to return to the Play mode.

● What is Formatting?

Formatting is a process whereby a new Card (or one used by another device) is prepared for use with the GR - 1.

Be aware, however, that when you Format a Card, the data already stored on it will be lost.

When you Format a Card with the GR - 1, all the System settings and all 64 Patches are automatically copied onto the Card. If you were Formatting the Card in order to copy some Patches, well, that's already been done for you during the Format process itself.

5. Changing the Patch Switching Method

There are two different ways you can set up the GR - 1 to select Patches. The following section explains how to switch between these methods.

The first is to press a Group button and Bank pedal, but have the GR - 1 wait to actually switch the Patch until you press the Number pedal for the Patch you want. We call this the "wait for a Number" method (CHANGE 1).

Alternatively, you could set it up so that the Patch actually switches as soon as you press a Group button, Bank pedal or Number pedal. This "switch it now" method is called CHANGE 2. Here's how to switch methods while making System settings.

◇CHANGE 1

When you change the Group and/or Bank number, you will not actually be switched to the displayed Patch number at that point. Instead, the Group or Bank number will flash until you press one of the Number pedals [1] to [4]. Then and only then will the Patch actually be changed. (This applies to the Program Change message that is output from the MIDI OUT jack as well when a Patch is switched.)

If you press PATCH GROUP [UP] or [DOWN] to return to the bank you started from, the flashing stops to show you're out of the Patch switching mode and back into the Play mode.

*This is the way the GR - 1 is set up when you first take it out of the box. The idea is, when you're switching Patches while playing, you want to go straight to the new sound (not through several others). Same with recording a performance on an external MIDI sequencer, this method is better because it generates only one Program Change message, not three (i.e., switch Group, then switch Bank, then Number).

◇CHANGE 2

Here, the Patch is switched as soon as you change the Group or Bank, without waiting for a Number. (Likewise, a Program Change message is sent out to external devices (via the MIDI OUT jack) each time.)

*With this mode, there won't be any flashing numbers to indicate stored Patch numbers, so you will always know exactly what the current Patch is just by looking at the display. Also, suppose you assign your solo Patch to 111 and backup Patch to 121, a Patch with reverb to 112 and one without to 122, and so. That makes it possible to switch between variations of the same basic sound just by using the BANK [UP] and [DOWN] pedals.

```
111   112   113   114
 ↑     ↑     ↑     ↑  Can switch directly between these using BANK [UP] and [DOWN]
 ↓     ↓     ↓     ↓  pedals
121   122   123   124
```
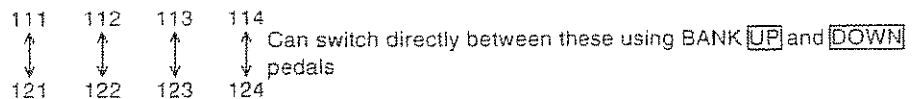
How to : Change the Patch Switch Method

① Press the EDIT [SYSTEM] button while in the Play mode.
You'll see the following.

The " 0 " only will be flashing

② Press ENTER/YES .

This selects the screen where you can select System Common functions (☞ P. 2–6).

```
 IO  ┌EDIT┬──┬──┬──┐
     A)    440_0
```

The " 0 " stops flashing

③ Press PARAMETER PREVIOUS one (1) time.

This switches you to the CHANGE screen, for selecting Patch Change Type.

```
 IO  ┌EDIT┬──┬──┬──┐
     CHANGE   1   ◄── Switch with VALUE INC DEC buttons
```

④ Switch between the CHANGE 1 and CHANGE 2 options by pressing the VALUE INC and DEC buttons.

⑤ After you've finished making your selection, press EXIT/NO two (2) times.

This returns you to the Play mode.

6. How to: Initialize System Data, Patch Data and Song Data in the Recorder

"Initialization" means returning the various settings back to the way they were when you first purchased the GR - 1, before you made any changes to them.

* Remember though: this means all those changes stored in memory will be forever lost.

○ Abandon all new settings and return to the out-of-the-box settings

① First, turn the power off.
② Hold down the WRITE/COPY button while turning the power back on.
③ Press ENTER/YES.

○ Initialize all settings associated with the SYSTEM button

① Turn the power off.
② Hold down the SYSTEM button while turning the power back on.
③ Press ENTER/YES.

○ Initialize all Patch settings

① Turn the power off.
② Hold down the PATCH button while turning the power back on.
③ Press ENTER/YES.

○ Delete the song in the Recorder and call up the Demo Song

① Turn the power off.
② Hold down the RECORDER/PART button while turning the power back on.
③ Press ENTER/YES.

○ Delete the song in the Recorder and leave it empty

① Turn the power off.
② Hold down the EXIT/NO button while turning the power back on.
③ Press ENTER/YES.

7. Expansion Board

There is an optional Expansion Board (SR-GR1 - 01) available for the GR - 1 which can double the number of on-board Original Tones from 200 to 400.

The 200 new sounds contained on the Expansion Board use up to twice the memory of the Tones in internal memory, so what you get are richer, more realistic variations of the GR - 1's Tones. You can combine the new Tones from the Expansion Board with the standard Tones using the 1st/2nd Tone Patch creation techniques.

In addition, the Expansion Board comes with a Sound Library Card (PN-GR - 1) with a set of 64 Patches that use the new Original Tones. Just insert this Card into the GR - 1 Card slot and select from Groups 3 and 4 to hear the great Patches made with these new sounds.

* For more details, check the Expansion Board manual.

● When You Want the Board Installed...

Expansion Board installation must be done by qualified service personnel at a Roland service center. When you decide you want this done, consult your Roland retailer or the nearest Roland service center (☞ listed on the inside back cover).

[Checklist for Section 7]

●Do you understand the difference between the types of Hold functions and how to select them? (☞ P. 7-4)

●How about the methods for applying Pitch Shift? (☞ P. 7-2)

●Do you know how to use an external pedal? And the procedure for modifying the settings? (☞ P.7-6)

●Do you remember how to switch between FAT/MOD pedal functions? (☞ P. 7-9)

●What kinds of data can be stored on a Memory Card? (☞ P. 7-11)

●Do you remember how to copy data from a Memory Card to internal memory (and vice versa)? (☞ P. 7-12)

●Can you change the way the BANK [UP]/[DOWN] pedals work in relation to the Patch switching method? (☞ P. 7-20)

●What new capabilities do you get with an Expansion Board? (☞ P. 7-23)

Advanced applications

"Ideas for Getting the Most out of Your GR - 1"

[Objective]

This section introduces key points in creating sounds with the GR - 1 which have not been covered in detail in Sections 1 through 7, and gives you some practical ideas about how to use these sounds. These are only a few of the things you can do, of course, but we hope they will help you to generate unique sonic textures.

Point 1 - Combination with the Guitar

The key feature of the guitar synthesizer is that it brings synthesized sounds and the sounds of various acoustic instruments to the guitar —technology which was previously only available to keyboard players.

But the electric or acoustic guitar has its own unique abilities, like using the nuances of string muting and sound effects which incorporate the picking sound of guitars. The sound of the guitar is still, to many guitarists, however, the most important sound of all.

If your guitar is fitted with the GK - 2, then you can use the GR - 1 to add synthesized sounds to your straight guitar sound. The key to using the guitar synthesizer is to effectively combine conventional guitar sounds with the synthesized sounds.

Some practical examples are given below.

☐ Switching between guitar and synthesized sounds

The selection switch on the GK - 2 can be used to simply switch between synthesizer sound and guitar sound. You could use the straight guitar sound for chords, and then use a synthesizer sound (lead or brass for example) for the solo. Or, if you like, you could use a synthesized sound for an entire song.

Synthesizer sound only

Guitar sound only
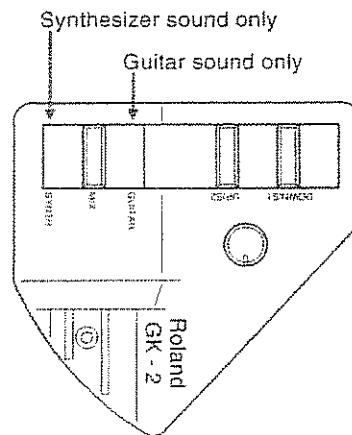
☐ Guitar and Synthesizer Sounds

When the GK - 2 switch is set to "MIX", both guitar and synthesizer sounds will be heard together.

Both guitar and synthesizer sound at once.
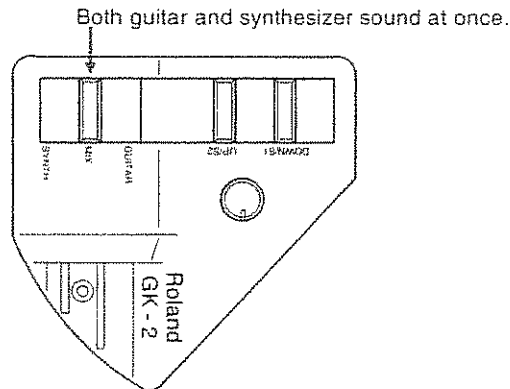
In this mode, the following effects are possible:

◇ UNISON (guitar and synthesizer)

Select organ or lead synthesizer sounds, and then distort the straight guitar sound with an external effector or amp. The idea is to reproduce the unison effects of keyboard and guitar, like those used by hard rock and fusion bands of the '70s.

If the synthesizer sound is set to be a perfect fourth below the guitar note (Note Shift set to -5), you will create a distinctive sound quality. You might also try setting it one octave higher or lower (see Section 4, "2. Trasposing Synth Notes" (☞ P. 4–5).

◇ Synthesizer Sound Heard Later

String sounds (and synthesizer pad sounds), in which the sound rises slowly, combined with guitar chords, make it possible to have the guitar echoed and surrounded by the synthesizer sound after delay. This effect is suited to internal Original Tones number 60, 84 and 166. It creates interesting effects with long reverb and shallow chorusing. It is also effective to extend long notes.

◇ Multiple guitar effects

Using Original Tones like electric Sitar (no. 37), acoustic guitar (no. 23) and Banjo (no. 36), it is possible to use the guitar sound (without distortion) to generate a sound like a string ensemble. If the GR - 1 settings are detuned slightly, the ensemble effect will be enhanced (for the detuning procedure, refer to Section 4, "4. A little more detail about editing 1st/2nd Tone setting" (☞ P. 4–15).

This is very effective for arpeggios.

☐ Sounding the Synthesizer Only When the Guitar is Played Hard

While a bit special, one application is to use the velocity mix function to generate synthesizer sounds only when you play your guitar hard.

The Original Tone you want to use is allocated to the Patch's 2nd Tone. Next, use the procedure outlined in Section 4, "5. Other Patch Editing Settings" (☞ P. 4–18) to set the 1st/2nd combination to velocity mix. Rotate the 1st/2nd balance knob completely to the 2nd side to mute the 1st Tone output. With this setting, only the straight guitar sounds will be heard, but when the guitar is played hard, the synthesizer (2nd Tone) will mix in.

If you select the explosion sound, for example, as your 2nd Tone, you will be able to produce an explosion in the middle of a solo by playing hard!

□Tips for Synthesizer and Guitar Sound Output

As you can see from the previous examples, the most effective way to output guitar and synthesizer sounds (when they are played together) is to send each sound to its own amp.

While the guitar sound can be sent to an amp (or through an effects device), the synthesizer has a much wider frequency range making it more difficult for conventional amps to reproduce. You can enjoy the full synthesizer sound by connecting the output to a keyboard amp or mixer. If a stereo amp is used, you'll get maximum effect from internal GR - 1 effects like pans, reverbs and chorus (see Section 2, "2. Example of Connecting Amps and Effects" (☞ P. 2–4)).

If you consider your guitar synthesizer as a type of effector, however, you can do other things entirely. There are more forms of expression than merely playing straight sax and piano sounds!
For example, consider the following set-up.

Guitar amp   Overdrive   Wah pedal   MIX OUT (L (MONO))   GUITAR
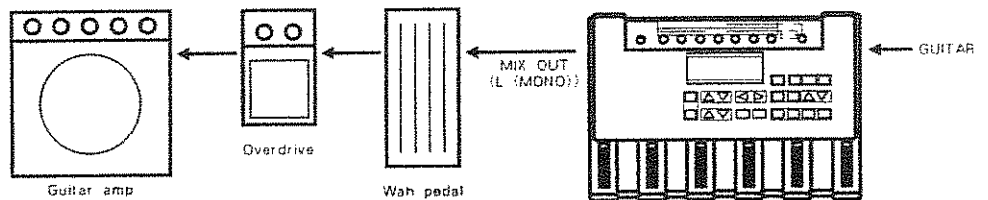
This is a very common set-up for rock and blues guitarists, with the exception of the GR - 1 itself. If the GK - 2 selection switch is set to "GUITAR," and the GR - 1 synthesizer sound played, only the guitar sound will be output. In other words, the sound will be just like a guitar connected to wah and overdrive effects.
If the GK - 2 switch is set to "MIX," the GR - 1 synthesizer sounds will also be output. They will mix with the guitar sounds, distort, and then be played through the amp. Of course, the final sound will not be exactly as the original synthesizer sound, but it will be a unique solo voice. Try using organ or synthesized bass sounds with the GR - 1 internal reverb switched off.

This example is extreme, of course, but we wanted you to get the idea and try your own combinations with external effectors to get the most out of the GR - 1.

Point 2 - Using the Internal Reverb and Chorus

The GR - 1 has two on-board effects: reverb and chorus. The reverb can also be used for delay or panning delay, while the chorus doubles as a flanger or a short delay unit.

Reverb and chorus settings are stored with each Patch, being instantly recalled when the Patch is selected.

This section contains examples of using reverb and chorus.

*Note: For details on making settings, refer to Section 4, ("3. Reverb/Chorus Editing in More Detail" (☞ P. 4–9).

☐ Using Reverb

The reverb in the GR - 1 contains ROOM 1 through 3 and HALL 1 and 2 for conventional effects. These reverbs create a deep, "live" sound.

If the reverb level is too high, however, and a long reverb time is used, the resulting sound can only be described as a 'sonic smear'.

Keep the following in mind when using reverb:

● Lower the reverb level when the reverb time is long.
● Shorten the time when the reverb level is high.

Naturally, these rules don't apply if you want to create special effects.

Reverb is also handy for making sounds, in the same way as are filters. For example, adding a room reverb with a short time to a percussion sound like the MARIMBA (Original Tone no. 15) can make the sound fuller.

Reverb can also be used to successfully combine certain Tones which might otherwise 'clash'.

☐ Using Delays

To produce a delay effect, set the reverb type to delay (DLY). Delays create effects which are totally different from the rich sound of reverbs. Delays and reverbs should be used separately to suit each situation.

The delay time (0 to 127) sets the time interval for the repeats. This means that the delay time can have much more impact than a different reverb setting. Delay time is a critical parameter.

For example, when a long delay is repeated several times, which is quite common in synthesized lead sounds, the delay time is set to match the tempo of the music.

When stereo output is used, set the reverb type to P-D (panning delay) and reverb (delay) time and delay feedback both to minimum to get a solid spread totally different from chorusing.

☐ Tips for using chorus effects

Normal chorusing will create an increased spatial spread when the rate is set slower.

If the type is set to flanger or feedback chorus (FLN, FBC), and the feedback value (FBACK) increased. you can generate a strong undulation (remember that feedback will not work for chorus 1 through 4). Especially with the flanger setting, set the rate slower and the feedback to an intermediate level for a sharp undulation. This is called the "jet" effect, and is especially effective for hard sounds.

Both chorus and flanger can be used at very fast rates with a deeper depth (DPTH) setting to produce sound effects totally different from the original sound.

Short delays 1 and 2 can be used for a doubling effect (effect sound is slightly delayed for a fuller sound) when the feedback is set to 0. The feedback can be increased to produce a metallic echo.

☐ Overused Effects

Reverb and chorus can be used to create a wide range of effects, but when you consistently use them in the same way, all sounds will begin to sound alike.

Choose your effects (and settings) carefully in relation to the situation (i.e.. the music. mood. desired result etc.):

- Which type to select: reverb or chorus
- Whether to use reverb only, chorus only, or both

There may be cases when you don't want to use either, such as when you are making a Patch using Original Tone no. 137 (CALLIOPE), or when using a simple sound like an ethnic instrument.

Or, if you switch from a Patch with a deep reverb to a Patch with no reverb at all, you can change the mood or feel completely. The Patch edit setting "2ND-FX" (2nd Tone reverb/chorus on/off) can be used to turn off chorus and reverb for the 2nd Tone only, for example. This makes it possible for the 1st Tone to sound distant. and the 2nd Tone to sound close.

Reference

"GR-1 Reference Materials"

[Objective]

Here we introduce a variety of reference materials for the GR-1.

* There are places in the manual for the GK -2 Synth Driver that explain about using it with the Roland GR -50 Guitar Synth. Some of the switches work a little differently with this guitar synth, (the GR -1), so we include the following about the GK -2 for your reference.

⑥ Power On Light ⑦ Normal Guitar Input Jack

⑧ GK -2 Connector

⑤ Synth Volume

Roland GK - 2

④ Guitar／Mix／Synth Switch

③ S2 Switch

② S1 Switch
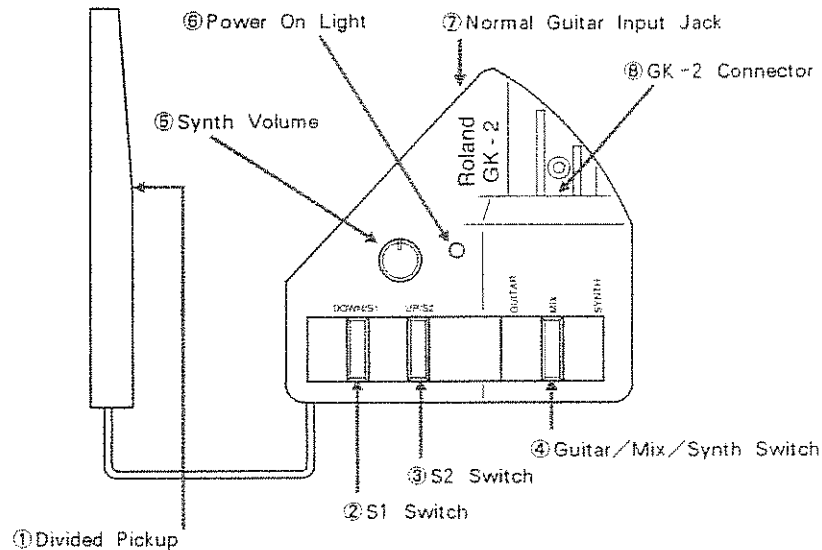
① Divided Pickup

① Divided Pickup

This is the pickup for detecting guitar string vibrations. It should be mounted on the guitar itself, somewhere between the bridge and the guitar pickups closest to the bridge.

② S1 Switch

When the GR - 1 is in Pedal mode, pressing this switch returns you to Play mode. It also functions like the VALUE DEC button on the GR - 1 front panel when you are selecting an Original Tone or in Edit mode.

③ S2 Switch

This does the opposite of the S1 switch: if the GR - 1 is in Play mode, pressing it takes you to Pedal mode. It also functions like the VALUE DEC button on the GR - 1 front panel when you are selecting an Original Tone or in Edit mode.

* Although you can switch patches using the pedals on the GR - 1 itself, this can't be done from the GK - 2 using the S1 and S2 switches.

④ Guitar/Mix/Synth Switch

The GR - 1 plays only the natural sound of the guitar itself when this switch is set to "GUITAR," only the synth sound when set to "SYNTH," and both guitar and synth sound together when set to "MIX."

⑤ Synth Volume

This adjusts the volume of the synth sound controlled by the guitar. Has no effect on the volume of the guitar itself, or of the multitimbral parts.

⑥ Power On Light

This lights to indicate that the power is on when the GR - 1 and GK - 2 are connected with a special cable.

⑦ Normal Guitar Input Jack

This is the jack for bringing in the normal guitar signal. Use the supplied special cable for connecting the GK - 2 with the output jack of your guitar, and make sure it's connected whenever you have the switch set to "GUITAR" or "MIX."

⑧ GK - 2 Connector

This is the jack for hooking up with the GR - 1

■ Topic Index

Here's a "goal-oriented" index of the various things you might want to do on the GR - 1 which should help you more easily find the section you're looking for.

☐ Change Volume

☐ Change Patches

☐ Hold

☐ Change the Pitch

● Making fine adjustments to the pitch of the 1st and 2nd Tones
.... Pitch Detune (☞ p. 4 - 16)
● Changing the pitch of the synth tone in half - tone increments .... (☞ p. 4 - 19)

☐ Setting the Pan

● Setting the Pan of the 1st and 2nd Tones ....Pan (☞ p. 4 - 16)
● Setting the Pan on the multi - timbral module (Parts 1, 2, and 3) .... (☞ p. 4 - 14)
● Setting the Pan for each percussion instrument in the Drum set .... (☞ p. 4 - 16)

☐ Tuning

● Using the GR - 1 to tune your guitar ....(☞ p. 1 - 4)
● Tuning with other instruments ....(☞ p. 1 - 6)

☐ Making GR -1 Settings for Playing the Guitar

● Switching the pedal between FAT and Modulation effect .... (☞ p. 7 - 9)
● Turning the 1st and 2nd Tones on/off for each string .... (☞ p. 4 - 2)
● Switching between 1st and 2nd Tone or mixing of the two sounds depending on how hard you play .... 1st/2nd Tone Combination (☞ p. 4 - 20)
● Switching between patch groups using an external pedal .... (☞ p. 7 - 8)
● How to switch Local On/Off using an external pedal .... (☞ p. 6 - 23, 7 - 8)

☐ Controlling External Devices with the GR -1

● Switching patches on an external effects device to match patch changes on the GR - 1 .... (☞ p. 6 - 27)
● Switching the tone on an external sound module using the GR - 1 pedals
.... (☞ p. 6 - 7)
● Changing parameter values in realtime on an external device using an external pedal connected to the GR - 1 .... (☞ p. 7 - 8)
● Playing an external MIDI sound module with the guitar .... (☞ p. 6 - 2)
● Using the GR - 1 as an expansion sound module for an external MIDI device
.... (☞ p. 6 - 12)
● Teaming up with an external MIDI sequencer .... (☞ p. 6 - 19)
● Transmitting a song from an external MIDI sequencer to the Recorder
.... (☞ p. 6 - 24)
● Drop the pitch of transmitted Note Messages by one octave. .... (☞ P.6 - 11)

☐ Adjust the Picking Sensitivity

● Adjusting the sensitivity of the GK-2 pickup .... (☞ P. 1-6)
● Adjusting the pickup sensitivity for each patch .... (☞ P. 4-19)
● Reducing the effect of picking attack on changes in tone and volume .... (☞ P. 4-19)
● Set the 1st and 2nd Tones so that their on/off status or mix balance depends on the picking attack .... Velocity Threshold (☞ P. 4-20)

☐ Recording

☐ Listen to Songs

☐ Song Editing

☐ Save Patch Settings

□ Using a Card

□ Return to the Original Settings

□ Convenient Patch Features

□ Convenient Tone Editing Features

□ Miscellaneous

■ What to Do If You Think There's a Problem...

☐ Error Message

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Cause   : The internal backup battery is used up.

What to do : If the battery goes completely dead there is a possibility that you will lose the data stored in memory, so take the unit to the store you bought it from or the nearest Roland service center (☞ inside back cover).

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```
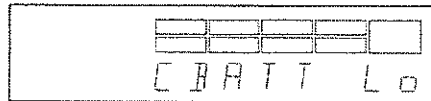
Cause   : The Memory Card backup battery is used up.

What to do : Follow the procedure in the Memory Card manual for replacing the battery.

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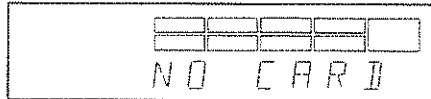
Cause   : There is currently no Memory Card inserted in the Card slot, or the inserted Card is not all the way in.

What to do : Check to see that the Card is properly inserted.

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```
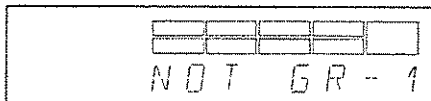
Cause   : The Card currently in the Card slot has not been formatted for use on the GR - 1. You will also see this message if you have inserted a Card not intended for use on the GR - 1.

What to do : If it is a card that can be used on the GR - 1, format the Card for the GR - 1 (☞ P.7-13).

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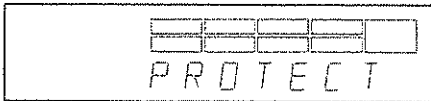
Cause   : The Memory Card Protect tab is set to On.

What to do : If you want to write to this card, set the Protect tab to Off.

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│   N O    T O N E         │
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```

Cause   : The Expansion Board is not installed.

What to do : Original Tones numbered from 200 to 399 are only found on this Board, so head for your nearest Roland service center (there's a list on the inside back cover) and talk to them about installing one for you.

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│   R E C V    E R R       │
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```
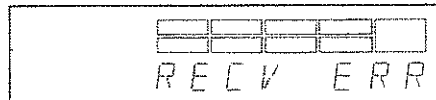
Cause   : System Exclusive data was not successfully received.

What to do : Check the connections and try the data transfer procedure again.

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│   M E M    F U L L       │
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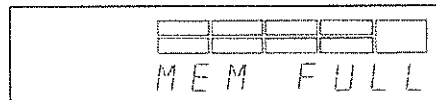
Cause   : The maximum 2000-note memory of the built-in Recorder is full, and no more data can be input.

What to do : Think of how you could cut down the length of the song or change the structure to make it fit, or delete parts you don't need, then try the recording again.

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│   N O    S O N G         │
└─────────────────────────┘
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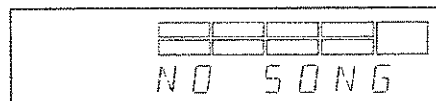
Cause   : There is no Recorder song data written on the Card (formatted for GR - 1 use) currently inserted in the Card slot.

What to do : Insert a Card that contains song data.

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│  └──┴──┴──┴──┘           │
│   M I D I    O V R       │
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```
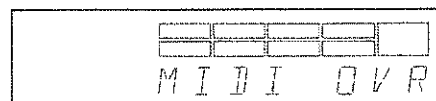
Cause   : The GR - 1 was unable to internally process the received data ("choked") because too many MIDI messages were being sent at the same time by external MIDI devices.

What to do : Reduce the number of MIDI messages being sent to the GR - 1 and try transmission again.

☐ Troubleshooting

Here's what to do if you run into a problem during some operation or during play. If this doesn't fix it, or you can't find the cause of the problem, take the unit to the store you purchased it from or your nearest Roland service center (there's a list on the inside back cover) and describe the problem to them.

○ No Sound

● Are the GR - 1, amp, and/or mixer turned on?

➡ If not, power them up.

● Have you made all the connections correctly?

➡ Check connections and correct if needed (☞ P.2-4, 2-5).

● Is a volume control on the GR - 1, GK - 2, amp, and/or mixer set too low?

➡ Check the volume controls on all the connected devices and set them appropriately.

● Is the patch level set too low?

➡ Switch the Target selector knob to "COMMON" and rotate the Patch Level knob to the right to turn it up (☞ P. 3-11).

● Has the "MUTE" been turned on accidentally during a STRING MODE [CHANGE] operation?

➡ Press STRING MODE [CHANGE] again and cancel the "MUTE" (☞ P.3-3).

● Has the "MUTE" been turned on accidentally during a STRING MODE [INDIVIDUAL] operation?

➡ Press STRING MODE [INDIVIDUAL] or [CHANGE] again and cancel the "MUTE" (☞ P. 4-2).

● Is the GK - 2 switch set to "GUITAR?"

➡ "GUITAR" means that only guitar sound will be output, so switch this to either the "MIX" or "SYNTH" position.

● Has the EV - 5 pedal become disconnected from the VOLUME (EV - 5) jack?

➡ If that happens, once the note from the guitar part finally dies away, you won't be able to generate any more sounds from the unit even if you change patches. Flipping the GK - 2 Volume or Guitar/Synth/Mix switch will instantly start the sounds again.

○ No Sounds From the Multi-Timbral Sound Module

● Has the overall Part volume gotten turned down?

➡ Turn it up (☞ P. 6-15, 6-18).

● Is the MIDI channel set to the same channel as the external MIDI device?

➡ If not, set the MIDI channel correctly (☞ P.6-15, 6-18).

○ Can't Get Original Tones Above 200 to Sound

● Is there an Expansion Board installed?

➡ Without the Expansion Board in place, you can only access Original Tones numbered 00 to 199.

○ The Pitch Is Off

● Is the guitar itself in tune?

➡ Check this using the built-in guitar tuner (☞ P. 1-5).

● Has the tuning slipped on the other instruments you're playing with?

➡ If so, you can always adjust the overall pitch to match with Master Tune (☞ P. 2-6).

● Has the synth sound been transposed?

➡ Check the Note Shift value and reset it if needed (☞ P. 4-5).

● Is Pitch Detune perhaps set to its maximum value?

➡ Reset it to something more appropriate (☞ P. 4-16).

● Is the Pitch Bend Range set to match the external MIDI device?

➡ If not, set it that way. (☞ P. 6-3, 6-5, 6-15)

○Synth Sound Doesn't React Properly to Choking and Wang Bar

●Is Chromatic turned on?

➡Turn it off.

●Are you in RECORDER/PART MODE?

➡Unless you have specifically set BEND to "On" in the Recording Parameters screen, all bend information is filtered out in this mode and you can only get chromatic notes (i.e., the pitch changes in exact half-step intervals only).

○Effects Won't Work
●Are Reverb and/or Chorus actually turned on?

➡Press the REVERB/CHORUS to turn them on.

●Is the Effect Level for each effect turned up enough?

➡If not, turn it up until you hear the effect. (☞ P. 4-11, 4-14)

○Can't Switch Patches

●Are you in Edit mode?

➡Press EXIT/NO a few times to get out of that and back to Play mode.

●Are you in Pedal mode?

➡Press the S1 switch on the GK-2 to return to Play mode. (☞ P. 1-12)

○Can't Get the Recorder to Play a Song

●Are you at the end of the song?

➡Press the ▌◀◀ (RESET) button to go to the top of the song and try again.

●Is the song currently in memory?

➡If there is no song in the internal memory, you cannot play a Song.

●Have you selected a song to play off a Card, but there's no Card currently in the slot or it's not fully inserted?

➡You won't be able to play the song on a Card until it is fully inserted. Either insert a Card or select a song to play from internal memory.

○Can't Get the Recorder/Part Screen to Display After Pressing RECORDER/PART

●Have you got the Recorder currently selected to play a song on a Card?

➡If so, you won't be able to use any of the Recorder functions. Select a song in internal memory first. (☞ P. 5-32)

○Recorded Timing is Not the Way I Played It

●Is Quantize set appropriately for the song you are recording?

➡Try a different Quantize setting. (☞ P. 5-11)

○Doesn't React Properly to Changes in Picking Attack

●What setting do you have for Dynamics?

➡Try increasing the Dynamics setting to match the patch you're using. (☞ P. 4-19)

●What setting you do have for Sensitivity?

➡Try increasing the Sensitivity to something more appropriate for that patch. (☞ P. 4-19)

○ Volume is Different From One String to the Next

● Is the GK - 2 pickup properly adjusted?

➡ Adjust the height of the divided pickup. (☞ see the Owner's Manual of the GK - 2)

○ Too Much or Too Little Effects Sound on a Song

● Have you tried adjusting the Chorus and Reverb Level for each Part?

➡ Try setting it to a higher (or lower) value and see if that helps.

✻ Note: Any effects settings you make at this time will also be applied to the currently called-up patch, so watch it!

○ Can't Play Recorder Data on External Sound Module

● The GR - 1 Recorder is designed to work only with the built-in multi-timbral sound module, so you can't use it to play either the guitar sound module or external MIDI modules.

➡ You'll need to have a real MIDI sequencer available (like the Roland MC-50) to work with the GR - 1 if find you want to do this.

○ Can't Synch the Recorder with External Devices

● The GR - 1 Recorder cannot play in sync with an external MIDI clock (except when downloading).

➡ If you need to play in sync, you'll have to sync the external devices with the MIDI clock of the GR - 1 (the clock signal is normally output from the MIDI Out).

○ Pitch Shift A and B Have No Effect in Pedal Mode

● Is "BENDER" selected as the EV-5 Expression Pedal function?

➡ If so, this will disable all pitch shifting by depressing the on-board pedal. Select some effect other than BENDER.

○ FAT/MOD Pedal Doesn't Have Much Effect

● The effect of pressing the MOD pedal will be different for each Original Tone.

➡ Try selecting a different Tone that has a more pronounced effect with the MOD pedal.

○ Can't get some sounds to play when using the guitar to play an external MIDI device (especially a drum part)

● The lowest note you can play on the guitar (GR - 1) is an E2. Normally, you can't play notes any lower than that.

➡ Use MIDI Octave Shift (☞ p. 6 - 11) to shift the pitch of transmitted Note Messages down one octave.

■ Default Setting

○ Patch List

GROUP /BANK	Number			
	1	2	3	4
11	RHODES	FLUGEL	HUGE JP8	SCATIN
12	FEEDBKER	PDLSTEEL	FANTAPAD	GIT+STGS
13	GRAND	VIBES	BIG BEE	ROCK BEE
14	V-SWSTGS	BIG STGS	HISYNSTG	SOLO VLN
15	FANTASIA	ATMSPHRE	PLUKGLAS	DIGIPLUK
16	SYNC *	GR300 LD	SQR LEAD	GRUNG
17	FLUTE	MUTE TPT	SOP> SAX	TENORSAX
18	RIPBRASS	POLY SYN	HORNSECT	SYN HORN
21	OOOHS	BREATH	HEAVEN	THE DEEP
22	NYLON GT	HARM GTR	E-SITAR	JAHMAYKA
23	BLOWPIPE	CLARINET	HRMONICA	DIGILEAD
24	FRETLESS	SLAPIN	DINOSAUR	ROK BASS
25	TRUMPET	ORKESTRA	RICH BRS	PLKSWEEP
26	BEAT KIT	INVISIBL	SOFT PAD	VMIXLEAD
27	BELLS +	BANDSECT	BASS>PNO	JAZZSPLT
28	BOMBER	PLANET10	MAYHEM	(blank)

○System Parameter

EDIT SYSTEM "S — COMMON"	Master Tune	A = 440.0Hz
	Song Select	INT
	Patch Change Type	CHANGE 1

EDIT SYSTEM "SENS — ADJ"	Pickup Sensitivity	1st string [3]
		2nd string [3]
		3rd string [3]
		4th string [3]
		5th string [3]
		6th string [3]

EDIT SYSTEM "MIDI"	Guitar Basic Channel	11
	Mode	MONO
	Bend Range	12
	MIDI Local On/Off	ON
	MIDI Octave Shift	NORM

EDIT SYSTEM "BLK DUMP"	MIDI Device ID	17

EDIT SYSTEM "EXT FOOT"	Function of Expression Pedal	CUTOFF

EDIT SYSTEM "P — SIFT A"	Pitch Shift Range	— 12
	Raise Time	32
	Return Time	16
	Pedal Latch On/Off	OFF

EDIT SYSTEM "P — SIFT B"	Pitch Shift Range	12
	Raise Time	8
	Return Time	8
	Pedal Latch On/Off	OFF

EDIT SYSTEM "PLAY/STP"	Recorder Reset On/Off	OFF

EDIT SYSTEM "FAT/MOD"	FAT/MOD Effect Type	FAT
	Pedal Latch On/Off	OFF

EDIT SYSTEM "HOLD"	Hold Type	1
	Pedal Latch On/Off	OFF

○ Patch Parameter

EDIT PATCH "P — COMMON"	Chromatic On/Off	ON
	Picking Sensitivity Dynamics	SENS : 3 D : 6
	1st/2nd Combination	LAYR
	Velocity Threshold	0
	FAT Initial Setting	OFF
	2nd Tone Effect	ON
	2nd Tone Hold	ON
	Patch Level	127
	1st/2nd Level Balance	0

EDIT PATCH "1ST TONE"	Pitch Detune	0
	Vibrato Rate Change	0
	Pan	< 0 >
	Envelope Attack	0
	Envelope Decay	0
	Envelope Release	0
	Filter Cutoff	0
	Filter Resonance	0
	Vibrato Depth	0
	Vibrato Rate	0

EDIT PATCH "2ND TONE"	Pitch Detune	0
	Vibrato Rate Change	0
	Pan	< 0 >
	Envelope Attack	0
	Envelope Decay	0
	Envelope Release	0
	Filter Cutoff	0
	Filter Resonance	0
	Vibrato Depth	0
	Vibrato Rate	0

EDIT PATCH "1STSHIFT"	Note Shift for 1st Tone	0
		0
		0
		0
		0
		0

EDIT PATCH "2NDSHIFT"	Note Shift for 2nd Tone	0
		0
		0
		0
		0
		0

EDIT PATCH "PG CHG"	Program Change Number for MIDI Sending	1
		1
		1
		1
		1
		1

EDIT PATCH "REVERB"	Reverb Type	RM1
	Delay Feedback	0
	Reverb Time	64
	Reverb Level	64

EDIT PATCH "CHORUS"	Chorus Type	CR1
	Feedback	0
	Chorus to Reverb Send Level	0
	Chorus Level	64
	Chorus Depth	8
	Chorus Rate	2

EDIT PATCH "P — NAME"	Patch Name	(Depending on the Patch)

PLAY MODE	Original Tone Select	1st:	(Depending on the Patch)	
		2nd:		
	String Mode CHANGE (All Strings)	(Depending on the Patch)		
	String Mode INDIVIDUAL (Each Strings)	1st string	(Depending on the Patch)	
		2nd string		
		3rd string		
		4th string		
		5th string		
		6th string		
	Reverb/Chorus On/Off	(Depending on the Patch)		

○ Drum Set

Note Number	Tone Name	Internal /Expansion board	Display	6th	5th	4th	3rd	2nd	1st
35	Bass Drum 2	exp	BD2	7	2				
36	Bass Drum 1	int	BD1	8	3				
37	Side Stick	int	SST	9	4				
38	Snare Drum 2	exp	SD2	10	5	0			
39	Hand Clap	int	HCP	11	6	1			
40	Snare Drum 1	int	SD1	12	7	2			
41	Low Tom 2	int	LT2	13	8	3			
42	Closed Hi - hat	int	CHH	14	9	4			
43	Low Tom 1	int	LT1	15	10	5	0		
44	Pedal Hi - hat	exp	PHH	16	11	6	1		
45	Mid Tom 2	int	MT2	17	12	7	2		
46	Open Hi - hat	int	OHH	18	13	8	3		
47	Mid Tom 1	int	MT1	19	14	9	4	0	
48	High Tom 2	int	HT2	20	15	10	5	1	
49	Crash Cymbal 1	int	CR1	21	16	11	6	2	
50	High Tom 1	int	HT1	22	17	12	7	3	
51	Ride Cymbal 1	int	RID		18	13	8	4	
52	Chinese Cymbal	exp	CHN		19	14	9	5	0
53	Ride Bell	exp	RDB		20	15	10	6	1
54	Tambourine	exp	TBR		21	16	11	7	2
55	Splash Cymbal	int	SPL		22	17	12	8	3
56	Cowbell	int	CWB			18	13	9	4
57	Crash Cymbal 2	int	CR2			19	14	10	5
58									
59	Ride Cymbal 2 (*)	int	RD2			21	16	12	7
60	High Bongo (*)	exp	HBG			22	17	13	8
61	Low Bongo (*)	exp	LBG				18	14	9
62	Mute Conga	exp	MCG				19	15	10
63	High Conga	exp	HCG				20	16	11
64	Low Conga	exp	LCG				21	17	12
65	High Timbale	exp	HTL				22	18	13
66	Low Timbale	exp	LTL					19	14
67	High Agogo	exp	HAG					20	15
68	Low Agogo	exp	LAG					21	16
69	Cabasa	exp	CBS					22	17
70	Maracas (*)	exp	MRC						18
71	Wood Block	exp	WDB						19

(Octave labels at left: C2 near note 36, C3 near note 48, C4 near note 60.)

Note 1 . The percussion sounds marked "*" cannot be entered by Tap Entry. (☞ p.5 - 12) If you need these sounds, you should enter them using the guitar or an external MIDI device. Moreover, if you make a mistake during entry, use the Erase function to erase the measure in whish the error occurs, and then re - enter the percussion sounds from the beginning of that measure.

Note 2 . The percussions sound marked with "exp" in the "Internal/Expansion Board" column cannot be played unless the Expansion Board (p.7 - 23) has been installed.

Note 3 . This shows the correspondence between fret numbers on the guitar and what you'll see in the drum input screen of the built - in Recorder. In actuality, the notes played on the guitar itself are one octave higher than the Note Numbers given here. Therefore, if you are going through the MIDI IN/OUT to, say, hook up with an external sequencer (you've set the GR - 1 to Local Off and the external sequencer to Soft Thru), you will be unable to play some percussion sounds on the guitar. You can get at these notes if you need to by using the MIDI Octave Shift function (☞ p. 6 - 11).

Original Tone List

* The Original Tones marked with "*" use two voices per note.

Category	No.	Tone Name	Category	No.	Tone Name	Category	No.	Tone Name
Piano	00	A PIANO1	Bass	46	SLAP BS1	Voice (Choir)	92 *	DLY SCAT
	01	A PIANO2		47 *	SLAP BS2		93 *	NYLNSCAT
	02 *	HONKYTNK		48 *	DTUNSLAP		94 *	PLUK — DOO
	03	E PIANO1		49	FRTLESS1	Brass Ensemble	95	BRS SEC1
	04 *	E PIANO2		50 *	FRTLESS2		96 *	BRS SEC2
	05	E GRAND		51	MINI BS1		97 *	BRS SEC3
	06 *	POP EPNO		52 *	MINI BS2		98 *	OCT BRS
	07	RHODES 1		53 *	OCT BS1		99	BRS FALL
	08 *	OVERTONE		54 *	OCT BS2		100 *	SYN BRS1
	09 *	APNO+VIB		55 *	RESOBASS		101 *	SYN BRS2
	10 *	AC P+VOX		56 *	PDL BASS		102 *	SYN BRS3
	11 *	CLAV 1		57 *	DLY BASS		103 *	BRS BLST
	12 *	CLAV 2		58 *	BS+DRUMS		104 *	RICH BRS
Chromatic Percussion	13	VIBES 1	Strings Ensemble	59	STRINGS1	Brass (for Solo)	105	TRUMPET1
	14 *	VIBES 2		60	SLW STRG		106	TROMBONE
	15	MARIMBA		61 *	OCT STRG		107	TUBA
Organ	16	ORGAN 1		62	BOWDSTRG		108	BRITE TP
	17	ORGAN 2		63	TREM STR		109	MUTE TP1
	18 *	ROCK ORG		64	BRT STRG		110 *	ALTO+TP
	19	JAZZORG1		65	DRK STRG		111 *	TP+TRBN
	20 *	JAZZORG2		66	JP STR 1		112 *	TRBN+SAX
	21 *	CHEESO		67	JP PAD	Horn	113 *	FRNCH HN
	22 *	PIPE ORG		68 *	OCTJPSTR		114	FLUGEL
Guitar	23	STEELGT1		69 *	JP STR 2		115 *	DTUN HRN
	24	NYLN GTR		70 *	HYBDSTR1		116 *	VELO HRN
	25 *	12ST GTR		71 *	HYBDSTR2		117 *	DUAL HRN
	26	GTRHARM1		72 *	HYBDSTR3		118 *	PULSEHRN
	27 *	GTRHARM2	Strings (for Solo)	73	VIOLIN		119	SYN HRN1
	28	DISTGTR1		74	CELLO		120 *	BRTH HRN
	29 *	DISTGTR2		75 *	CNTRA BS		121 *	FLGL+TP
	30 *	FUNK GTR		76	FIDDLE		122 *	FLGL+FLT
	31 *	GTR LEAD		77	WIRESTRG	Sax	123	ALTOSAX1
	32 *	FEEDBCK1		78	HARP		124	TENORSAX
	33 *	FEEDBCK2		79 *	SYN HARP		125	SOP SAX
	34 *	ONLYFDBK	Voice (Choir)	80 *	SYN VOX1		126 *	ALTOGRWL
	35	PDLSTEEL		81	SYN VOX2		127 *	TENRGRWL
	36	BANJO		82 *	DBL VOX		128 *	ALTO+TNR
	37	E SITAR1		83	VOXLEAD1	Woodwind Instrument	129	PICCOLO
	38 *	E SITAR2		84 *	HAUNTVOX		130	FLUTE
Bass	39	ACOU BS1		85 *	CHIFFPAD		131	OBOE
	40 *	ACOU BS2		86	BREATH		132	CLARINET
	41	E BASS 1		87 *	WIND VOX		133 *	CHIF FLT
	42	PICK BS1		88 *	INVRSION		134 *	MUTE+FLT
	43 *	PICK BS2		89 *	SYN HARM		135 *	VIBE+FLT
	44 *	PICK BS3		90 *	ECHO VOX	Other Winds	136 *	OCARINA
	45 *	PICK BS4		91	SCAT VOX		137 *	CALLIOPE

Category	No.	Name	Category	No.	Name
Other Winds	138	BTL BLOW	Percussion	184	HANDCLAP
	139	BLOWPIPE		185	TIGHT SN
	140	HRMONICA		186	TOM
	141 *	WHISTLE		187	CLOSEHAT
Synthesizer	142	GR300 1		188	OPEN HAT
	143	PLN LEAD		189	RIDE CYM
	144 *	POLY SYN		190	COWBELL
	145 *	TWEETY		191	KICK 1
	146	SOFT PAD		192	CRSH CYM
	147 *	METALPAD		193 *	SYN TOMS
	148 *	SORLEAD1		194 *	KIK+SNAR
	149 *	SYNLEAD1	Sound Effect	195 *	GUNSHOT
	150	SYNLEAD2		196 *	TALKING
	151 *	SYNLEAD3		197 *	MILENEUM
	152	SYNLEAD4		198 *	SPACEVOX
	153	SYNLEAD5		199 *	DROPBOMB
	154 *	5TH LEAD			
	155 *	SAW LEAD			
	156	SAW PAD			
	157 *	PULSEPAD			
	158 *	TECHNO			
	159 *	OMINOUS			
	160 *	HARP PAD			
	161 *	INVISIBL			
	162 *	ATMSPHRE			
	163 *	DIGIPLUK			
	164 *	PLUKSWP1			
	165 *	PLUKSWP2			
	166 *	SWEEPPAD			
	167 *	OCT PAD			
	168 *	HLLW PAD			
	169 *	CHOIRPAD			
	170 *	DIGI BOW			
	171 *	DIGI VOX			
	172 *	SOUNDTRK			
	173 *	BOWEDGLS			
	174 *	HEAVEN			
	175 *	AMBIENCE			
Synth Bell	176	FANTA BL			
	177	TINKBELL			
	178 *	SYN BELL			
	179 *	SPRKBELL			
	180 *	FANTASIA			
	181 *	FANTAPAD			
Percussio	182	STEELDRM			
	183	SIDE STK			

■ Parameter List

□ System Parametrer

EDIT SYSTEM "10 S—COMMON"

Parameter	Display	Range
Master Tune	A > 440__0	427.2 — 452.6 (Hz)
Song Select	SONG INT	INT (Internal), CRD (Card)
Patch Change Type	CHANGE 1	1, 2

EDIT SYSTEM "11 SENS—ADJ"

Parameter	Display	Range
Pickup Sensitivity string #1	——————	0 ~ 7
Pickup Sensitivity string #2	——————	0 ~ 7
Pickup Sensitivity string #3	——————	0 ~ 7
Pickup Sensitivity string #4	——————	0 ~ 7
Pickup Sensitivity string #5	——————	0 ~ 7
Pickup Sensitivity string #6	——————	0 ~ 7

EDIT SYSTEM "12 MIDI"

Parameter	Display	Range
Guitar Basic Channel	BASIC 11	1 ~ 11, OFF
Mode (MIDI OUT)	MD MONO	MONO, POLY
Bend Range (MIDI OUT)	BEND 12	0 ~ 24
MIDI Local On/Off	LOCAL ON	OFF, ON
MIDI Octave Shift	OCT NORM	NORM, DOWN

EDIT SYSTEM "13 BLK DUMP"

Parameter	Display	Range
MIDI Device ID	DEVICE17	1 — 32

EDIT SYSTEM "14 EXT FOOT"

Parameter	Display	Range
Function of Expression Pedal	CUTOFF	CUTOFF, 1ST/2ND, MODULATE, BENDER, GROUP UP, LOCAL OFF, CNT__No16

EDIT SYSTEM "15 P – SIFT A"

Display	Display	Range
Pitch Shift Range	RANGE – 12	– 24 – 12
Raise Time	RAISE 32	1 – 63
Return Time	RETRN 18	1 – 63
Pedal Latch On/Off	LATCHOFF	OFF, ON

EDIT SYSTEM "16 P – SIFT B"

Parameter	Display	Range
Pitch Shift Range	RANGE 12	– 24 – 12
Raise Time	RAISE 8	1 – 63
Return Time	RETRN 8	1 – 63
Pedal Latch On/Off	LATCHOFF	OFF, ON

EDIT SYSTEM "17 PLAY STP"

Parameter	Display	Range
Recorder Reset On/Off	RESETOFF	OFF, ON

EDIT SYSTEM "18 FAT/MOD"

Parameter	Display	Range
FAT/MOD Effect Type	TYPE FAT	FAT, MOD
Pedal Latch On/Off	LATCHOFF	OFF, ON

EDIT SYSTEM "19 HOLD"

Parameter	Display	Range
Hold Type	H – TYPE 1	1, 2, 3
Pedal Latch On/Off	LATCHOFF	OFF, ON

☐ Patch Parameter

PLAY MODE

Parameter	Display	Range
1st Original Tone	(Tone name)	00 — 199 (with Expansion Board : 00 — 399)
2nd Original Tone	(Tone name)	00 — 199 (with Expansion Board : 00 — 399)
String Mode string #1	— — — — —	1st + 2nd, 1st, 2nd, mute
String Mode string #2	— — — — —	1st + 2nd, 1st, 2nd, mute
String Mode string #3	— — — — —	1st + 2nd, 1st, 2nd, mute
String Mode string #4	— — — — —	1st + 2nd, 1st, 2nd, mute
String Mode string #5	— — — — —	1st + 2nd, 1st, 2nd, mute
String Mode string #6	— — — — —	1st + 2nd, 1st, 2nd, mute
Reverb/Chorus	REV, CHO	reverb, chorus, reverb + chorus, off

EDIT PATCH "21 P — NAME"

Parameter	Display	Range
Patch Name	— — — — — —	(maximum 8 characters)

EDIT PATCH "22 P — COMMON"

Parameter	Display	Range
Chromatic	CRMT OFF	OFF, ON
Picking Sensitivity	SENS3 D6	0 — 7
Dynamics	SENS3 D6	0 — 7
1st/2nd Combination	1/2 LAYR	LAYR, V — SW, V — MX
Velocity Threshold	V — TH 0	0 — 127
FAT Initial Setting	FAT OFF	OFF, ON
2nd Tone Effects	2 — FX ON	OFF, ON
2nd Tone Hold	2 — HD ON	OFF, ON
Patch Level	LEVL 127	0 — 127
1st/2nd Level Balance	L — BAL 0	— 64 — 63

EDIT PATCH "22 1ST TONE"

Parameter	Display	Range
Pitch Detune	DTUN 0	− 50 − 50
Vibrato Rate Change	R − CHNG 0	− 7 − 7
Pan	PAN < 0 >	RNDM, < 63 − < 0 > − 63 >
Envelope Attack	ATAK 0	− 50 − 50
Envelope Decay	DECY 0	− 50 − 50
Envelope Release	RELS 0	− 50 − 50
Filter Cutoff	COFF 0	− 50 − 50
Filter Resonance	RESO 0	− 50 − 50
Vibrato Depth	VBDP 0	− 50 − 50
Vibrato Rate	VBRT 0	− 50 − 50

EDIT PATCH "23 2ND TONE"

Parameter	Display	Range
Pitch Detune	DTUN 0	− 50 − 50
Vibrato Rate Change	R − CHNG 0	− 7 − 7
Pan	PAN < 0 >	RNDM, < 63 − < 0 > − > 63
Envelope Attack	ATAK 0	− 50 − 50
Envelope Decay	DECY 0	− 50 − 50
Envelope Release	RELS 0	− 50 − 50
Filter Cutoff	COFF 0	− 50 − 50
Filter Resonance	RESO 0	− 50 − 50
Vibrato Depth	VBDP 0	− 50 − 50
Vibrato Rate	VBRT 0	− 50 − 50

EDIT PATCH "24 1STSHIFT"

Parameter	Display	Range
1st Tone Note Shift string #1	STR1 0	− 24 − 12
1st Tone Note Shift string #2	STR2 0	− 24 − 12
1st Tone Note Shift string #3	STR3 0	− 24 − 12
1st Tone Note Shift string #4	STR4 0	− 24 − 12
1st Tone Note Shift string #5	STR5 0	− 24 − 12
1st Tone Note Shift string #6	STR6 0	− 24 − 12

EDIT PATCH "25 2NDSHIFT"

Parameter	Display	Range
2nd Tone Note Shift string #1	STR1 0	— 36 — 24
2nd Tone Note Shift string #2	STR2 0	— 36 — 24
2nd Tone Note Shift string #3	STR3 0	— 36 — 24
2nd Tone Note Shift string #4	STR4 0	— 36 — 24
2nd Tone Note Shift string #5	STR5 0	— 36 — 24
2nd Tone Note Shift string #6	STR6 0	— 36 — 24

EDIT PATCH "26 PG CHG"

Parameter	Display	Range
Program Change # for MIDI sending :string #1	STR1 1	1 — 128
Program Change # for MIDI sending :string #2	STR2 1	1 — 128
Program Change # for MIDI sending :string #3	STR3 1	1 — 128
Program Change # for MIDI sending :string #4	STR4 1	1 — 128
Program Change # for MIDI sending :string #5	STR5 1	1 — 128
Program Change # for MIDI sending :string #6	STR6 1	1 — 128

EDIT PATCH "27 REVERB"

Parameter	Display	Range
Reverb Type	TYPE RM1	RM1, RM2, RM3, HL1, HL2, PLT, DLY, P — D
Delay Feedback	D — FB 0	0 — 127
Reverb Time	TIME 64	0 — 127
Reverb Level	LEVL 64	0 — 127

EDIT PATCH "28 CHORUS"

Parameter	Display	Range
Chorus Type	TYPE CR1	CR1, CR2, CR3, CR4, FBC, FLN, SD1, SD2
Feedback	FBAK 0	0 — 127
Chorus to Reverb Send Level	C—>R 64	0 — 127
Chorus Level	LEVL 64	0 — 127
Chorus Depth	DPTH 8	0 — 127
Chorus Rate	RATE 2	0 — 127

□Recording Parameter

EDIT RECORDER/PART "34 REC PARM"

Parameter	Display	Range
Tempo	TEMPO120	20 — 250 (Beat per minute)
Merge Recording	MERGEOFF	OFF, ON
Quantize	QTZ OFF	OFF, 1/24, 1/16, 1/12, 1/8, 1/6, 1/4, 1/3, 1/2
Data OffsetLevel	OFSET 0	— 48 — 48
Beat Number of Beats	BT 4/4	1 — 16
Beat Number of Unit	BT 4/4	2, 4, 8, 16
Velocity for Tapping	VELO 100	1 — 127
Metronome On/Off	CLICK ON	OFF, ON
Count In Length	COUNT M2	M0, M1, M2, M4
Bend Recording	BEND OFF	OFF, ON
Repeat Play	REPT OFF	OFF, ON
Loop Recording	LOOP OFF	OFF, 1 — 8

EDIT RECORDER/PART "35 PDL>TONE"

Parameter	Display	Range
Pedal Select	No1 — 0	No1, No2, No3, No4, DWN, UP
Tone Assign	No1 — 0	0 — 399

EDIT RECORDER／PART "37 VOICE RS"

Parameter	Display	Range
Voice Reserve Guitar 1st Tone	G—1ST 6	0, 6. 12
Voice Reserve Guitar 2st Tone	G—2ND 6	0, 6. 12
Voice Reserve Multi Part1	PART1 6	0 — 24
Voice Reserve Multi Part2	PART2 6	0 — 24
Voice Reserve Multi Part3	PART3 6	0 — 24
Voice Reserve Drum Part	DRUMS 6	0 — 24

EDIT RECORDER／PART "38 PART SET"

Parameter	Display	Range
Part1 Set Up	PART 1 —>	
Part1 Level	P1VOL100	0 — 127
Part1 Channel	P1 CH 2	1 — 16, OFF
Part1 Reverb	P1REV 64	0 — 127
Part1 Chorus	P1CHO 64	0 — 127
Part1 Bend Range	P1BND 12	0 — 24
Part1 Pan	P1PAN < 0 >	RNDM, <63 — < 0 > — 63 >
Part2 Set Up	PART 2 —>	(same as Part1)
Part3 Set Up	PART 3 —>	(same as Part1)
Drum Level	DRUM — VOL	
Bass Drum 1	BD1 127	0 — 127
Snare 1	SD1 127	0 — 127
⋮	⋮	0 — 127
Drum Reverb Level	DRUM — REV	
Bass Drum 1	BD1 64	0 — 127
Snare 1	SD1 64	0 — 127
⋮	⋮	0 — 127
Drum Pan	DRUM — PAN	
Bass Drum 1	BD1 < 0 >	RNDM, <63 — < 0 > — 63 >
Snare 1	SD1 < 0 >	RNDM. <63 — < 0 > — 63 >
⋮	⋮	RNDM, <63 — < 0 > — 63 >
Drum Part Channel	DR — CH 10	1 — 16, OFF

EDIT RECORDER／PART "39 PRT—TONE"

Parameter	Display	Range
Part1 Tone Assign	PRT1 0	00 — 399
Part2 Tone Assign	PRT1 42	00 — 399
Part3 Tone Assign	PRT1 95	00 — 399

■ Blank Chart

○ System Parameter

<table>
<tr><td rowspan="3">EDIT SYSTEM
"S — COMMON"</td><td>Master Tune</td><td>A =   Hz</td></tr>
<tr><td>Song Select</td><td>INT / CRD</td></tr>
<tr><td>Patch Change Type</td><td>CHANGE 1 / 2</td></tr>
</table>

<table>
<tr><td rowspan="6">EDIT SYSTEM
"SENS — ADJ"</td><td rowspan="6">Pickup Sensitivity</td><td>1st string [   ]</td></tr>
<tr><td>2nd string [   ]</td></tr>
<tr><td>3rd string [   ]</td></tr>
<tr><td>4th string [   ]</td></tr>
<tr><td>5th string [   ]</td></tr>
<tr><td>6th string [   ]</td></tr>
</table>

<table>
<tr><td rowspan="5">EDIT SYSTEM
"MIDI"</td><td>Guitar Basic Channel</td><td>BASIC [   ]</td></tr>
<tr><td>Mode</td><td>MD [MONO/POLY]</td></tr>
<tr><td>Bend Range</td><td>BEND [   ]</td></tr>
<tr><td>MIDI Local On/Off</td><td>LOCAL [On/OFF]</td></tr>
<tr><td>MIDI Octave Shift</td><td>NORM, DOWN</td></tr>
</table>

<table>
<tr><td>EDIT SYSTEM
"BLK DUMP"</td><td>MIDI Device ID</td><td>DEVICE [   ]</td></tr>
</table>

<table>
<tr><td>EDIT SYSTEM
"EXT FOOT"</td><td>Function of
Expression Pedal</td><td>CUTOFF / 1ST/2ND /
MODULATE / BENDER /
GROUP UP /
LOCALOFF / CNT_No16</td></tr>
</table>

<table>
<tr><td rowspan="4">EDIT SYSTEM
"P — SIFT A"</td><td>Pitch Shift Range</td><td>RANGE [   ]</td></tr>
<tr><td>Raise Time</td><td>RAISE [   ]</td></tr>
<tr><td>Return Time</td><td>RETRN [   ]</td></tr>
<tr><td>Pedal Latch On/Off</td><td>LATCH ON / OFF</td></tr>
</table>

<table>
<tr><td rowspan="4">EDIT SYSTEM
"P — SIFT B"</td><td>Pitch Shift Range</td><td>RANGE [   ]</td></tr>
<tr><td>Raise Time</td><td>RAISE [   ]</td></tr>
<tr><td>Return Time</td><td>RETRN [   ]</td></tr>
<tr><td>Pedal Latch On/Off</td><td>LATCH ON / OFF</td></tr>
</table>

<table>
<tr><td>EDIT SYSTEM
"PLAY/STP"</td><td>Recorder Reset
On/Off</td><td>RESET ON / OFF</td></tr>
</table>

<table>
<tr><td rowspan="2">EDIT SYSTEM
"FAT/MOD"</td><td>FAT/MOD Effect Type</td><td>TYPE FAT / MOD</td></tr>
<tr><td>Pedal Latch On/Off</td><td>LATCH ON / OFF</td></tr>
</table>

<table>
<tr><td rowspan="2">EDIT SYSTEM
"HOLD"</td><td>Hold Type</td><td>H - TYPE 1 / 2 / 3</td></tr>
<tr><td>Pedal Latch On/Off</td><td>LATCH ON / OFF</td></tr>
</table>

○ Patch Parameter

PLAY MODE	Original Tone Select	1st [:]
		2nd [:]
	String Mode CHANGE (All Strings)	1st / 2nd
	String Mode INDIVIDUAL (Each Strings)	1st string [ ]
		2nd string [ ]
		3rd string [ ]
		4th string [ ]
		5th string [ ]
		6th string [ ]
	Reverb/Chorus On/Off	REV / CHO / REV+CHO / (off)

EDIT PATCH "P — NAME"	Patch Name	[ ]

EDIT PATCH "P — COMMON"	Chromatic On/Off	CRMT ON / OFF
	Picking Sensitivity Dynamics	SENS [ ] D [ ]
	1st/2nd Combination	1/2 LAYR / V — SW / V — MX
	Velocity Threshold	V — TH [ ]
	FAT Initial Setting	FAT ON / OFF
	2nd Tone Effect	2 — FX ON / OFF
	2nd Tone Hold	2 — HD ON / OFF
	Patch Level	LEVL [ ]
	1st/2nd Level Balance	LEVL [ ]

EDIT PATCH "1ST TONE"	Pitch Detune	DTUN [ ]
	Vibrato Rate Change	R — CHNG [ ]
	Pan	PAN [ ]
	Envelope Attack	ATAK [ ]
	Envelope Decay	DECY [ ]
	Envelope Release	RELS [ ]
	Filter Cutoff	COFF [ ]
	Filter Resonance	RESO [ ]
	Vibrato Depth	VBDP [ ]
	Vibrato Rate	VBRT [ ]

EDIT PATCH "2ND TONE"	Pitch Detune	DTUN [ ]
	Vibrato Rate Change	R — CHNG [ ]
	Pan	PAN [ ]
	Envelope Attack	ATAK [ ]
	Envelope Decay	DECY [ ]
	Envelope Release	RELS [ ]
	Filter Cutoff	COFF [ ]
	Filter Resonance	RESO [ ]
	Vibrato Depth	VBDP [ ]
	Vibrato Rate	VBRT [ ]

EDIT PATCH "1STSHIFT"	Note Shift for 1st Tone	1st string [ ]
		2nd string [ ]
		3rd string [ ]
		4th string [ ]
		5th string [ ]
		6th string [ ]

EDIT PATCH "2NDSHIFT"	Note Shift for 2nd Tone	1st string [ ]
		2nd string [ ]
		3rd string [ ]
		4th string [ ]
		5th string [ ]
		6th string [ ]

EDIT PATCH "PG CHG"	Program Change Number for MIDI Sending	1st string [ ]
		2nd string [ ]
		3rd string [ ]
		4th string [ ]
		5th string [ ]
		6th string [ ]

EDIT PATCH "REVERB"	Reverb Type	TYPE RM1 / RM2 / RM3 / HL1 / HL2 / PLT / DLY / P — D
	Delay Feedback	D — FB [ ]
	Reverb Time	TIME [ ]
	Reverb Level	LEVL [ ]

EDIT PATCH "CHORUS"	Chorus Type	TYPE CR1 / CR2 / CR3 / CR4 / FBC / FLN / SD1 / SD2
	Feedback	FBAK [ ]
	Chorus to Reverb Send Level	C — >R [ ]
	Chorus Level	LEVL [ ]
	Chorus Depth	DPTH [ ]
	Chorus Rate	RATE [ ]

Roland Exclusive Messages

▋ Data Format for Exclusive Messages

Roland's MIDI implementation uses the following data format for all exclusive messages (type IV) :

Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
CMD	Command ID
[BODY]	Main data
F7H	End of exclusive

═ MIDI status : F0H, F7H

An exclusive message must be flanked by a pair of status codes, starting with a Manufacturer-ID immediately after F0H (MIDI version1.0).

═ Manufacturer-ID : 41H

The Manufacturer-ID identifies the manufacturer of a MIDI instrument that triggers an exclusive message. Value 41H represents Roland's Manufacturer-ID.

═ Device ID : DEV

The Device-ID contains a unique value that identifies the individual device in the multiple implementation of MIDI instruments. It is usually set to 00H - 0FH, a value smaller by one than that of a basic channel, but value 00H - 1FH may be used for a device with multiple basic channels.

═ Model ID : MDL

The Model-ID contains a value that uniquely identifies one model from another. Different models, however, may share an identical Model-ID if they handle similar data.

The Model-ID format may contain 00H in one or more places to provide an extended data field. The following are examples of valid Model-IDs, each representing a unique model :

```
01H
02H
03H
00H, 01H
00H, 02H
00H, 00H, 01H
```

═ Command-ID : CMD

The Command-ID indicates the function of an exclusive message. The Command-ID format may contain 00H in one or more places to provide an extended data field. The following are examples of valid Command-IDs, each representing a unique function :

```
01H
02H
03H
00H, 01H
00H, 02H
00H, 00H, 01H
```

═ Main data : BODY

This field contains a message to be exchanged across an interface. The exact data size and contents will vary with the Model-ID and Command-ID.

▋ Address-mapped Data Transfer

Address mapping is a technique for transferring messages conforming to the data format given in Section 1. It assigns a series of memory-resident records—waveform and tone data, switch status, and parameters, for example—to specific locations in a machine-dependent address space, thereby allowing access to data residing at the address a message specifies.

Address-mapped data transfer is therefore independent of models and data categories. This technique allows use of two different transfer procedures : one-way transfer and handshake transfer.

≠ One-way transfer procedure (See Section 3 for details.)

This procedure is suited for the transfer of a small amount of data. It sends out an exclusive message completely independent of a receiving device status.

Connection Diagram

Connection at point 2 is essential for "Request data" procedures. (See Section 3.)

═ Handshake-transfer procedure
(This device does not cover this procedure)

This procedure initiates a predetermined transfer sequence (handshaking) across the interface before data transfer takes place. Handshaking ensures that reliability and transfer speed are high enough to handle a large amount of data.

Connection Diagram
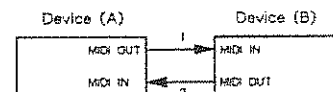
Connection at points 1 and 2 is essential.

Notes on the above two procedures

* There are separate Command-IDs for different transfer procedures.
* Devices A and B cannot exchange data unless they use the same transfer procedure, share identical Device-ID and Model ID, and are ready for communication.

▋ One-way Transfer Procedure

This procedure sends out data all the way until it stops and is used when the messages are so short that answerbacks need not be checked. For long messages, however, the receiving device must acquire each message in time with the transfer sequence, which inserts intervals of at least 20 milliseconds in between.

Types of Messages

Message	Command ID
Request data 1	RQ1 (11H)
Data set 1	DT1 (12H)

≠ Request data #1 : RQ1 (11H)

This message is sent out when there is a need to acquire data from a device at the other end of the interface. It contains data for the address and size that specify designation and length, respectively, of data required.

On receiving an RQ1 message, the remote device checks its memory for the data address and size that satisfy the request.
If it finds them and is ready for communication, the device will transmit a "Data set 1 (DT1)" message, which contains the requested data. Otherwise, the device will send out nothing.

Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
11H	Command ID
aaH	Address MSB
⋮	⋮
	LSB
ssH	Size MSB
⋮	⋮
	LSB
sum	Check sum
F7H	End of exclusive

* The size of the requested data does not indicate the number of bytes that will make up a DT1 message, but represents the address fields where the requested data resides.
* Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
* The same number of bytes comprises address and size data, which, however, vary with the Model-ID.
* The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, size, and that checksum are summed.

=Data set 1 : DT1 (12H)

This message corresponds to the actual data transfer process.
Because every byte in the data is assigned a unique address, a DT1 message can convey the starting address of one or more data as well as a series of data formatted in an address-dependent order.

The MIDI standards inhibit non-real time messages from interrupting an exclusive one. This fact is inconvenient for the devices that support a "soft-through" mechanism. To maintain compatibility with such devices, Roland has limited the DT1 to 256 bytes so that an excessively long message is sent out in separate segments.

Byte	Description
F0H	Exclusive
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
12H	Command ID
aaH	Address MSB
:	:
	LSB
ddH	Data
:	:
sum	Check sum
F7H	End of exclusive

* A DT1 message is capable of providing only the valid data among those specified by an RQ1 message.
* Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
* The number of bytes comprising address data varies from one Model-ID to another.
* The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, size, and that checksum are summed.

=Example of Message Transactions

● Device A sending data to Device B
Transfer of a DT1 message is all that takes place.

```
[Device (A)]                    [Device (B)]

[Data set 1] ————————————————►
       * More than 20m sec time internal.

[Data set 1] ————————————————►
                     :
                     :
[Data set 1] ————————————————►
```

● Device B requesting data from Device A
Device B sends an RQ1 message to Device A. Checking the message, Device A sends a DT1 message back to Device B.

```
[Device (A)]                    [Device (B)]

[Data set 1] ◄———————————————[Request data]
[Data set 1] ————————————————►
       * More than 20m sec time internal.

[Data set 1] ————————————————►
                     :
[Data set 1] ————————————————►
```

1.RECOGNIZED RECEIVE DATA (Guitar Section)

■ Cannel Voice Message

● Note Off

STATUS	SECOND	THIRD
8nH	kkH	vvH
9nH	kkH	00H

n = MIDI Channel Number : 0H – FH (0 ~ 15) 0 = ch.1 15 = ch.16
kk = Note Number : 00H ~ 7FH (0 ~ 127)
vv = Velocity : ignored

● Note On

STATUS	SECOND	THIRD
9nH	kkH	vvH

n = MIDI Channel Number : 0H – FH (0 ~ 15) 0 = ch.1 15 = ch.16
kk = Note Number : 00H ~ 7FH (0 ~ 127)
vv = Velocity : 01H ~ 7FH (1 ~ 127)

● Control Changes

○ Modulation

STATUS	SECOND	THIRD
BnH	01H	vvH

n = MIDI Channel Number : 0H ~ AH (0 – 10) 0 = ch.1 10 = ch.11
vv = Modulation depth : 00H – 7FH (0 ~ 127)

* Can be received only through the Basic channel.

○ Volume

STATUS	SECOND	THIRD
BnH	07H	vvH

n = MIDI Channel Number : 0H – AH (0 ~ 10) 0 = ch.1 10 = ch.11
vv = Volume : 00H – 7FH (0 – 127)

* Can be received only through the Basic channel.

○ Hold 1

STATUS	SECOND	THIRD
BnH	40H	vvH

n = MIDI Channel Number : 0H ~ AH (0 – 10) 0 = ch.1 10 = ch.11
vv = Control Value : 00H – 7FH (0 – 127) 0 – 63 = OFF,
                                            64 – 127 = ON

* Can be received only through the Basic channel.

● Program Change

STATUS	SECOND
CnH	ppH

n = MIDI Channel Number : 0H ~ AH (0 – 10) 0 = ch.1 10 = ch.11
pp = Program Number : 00H – 7FH (0 – 127)

* Can be received only through the Basic channel.

● Pitch Bend Change

STATUS	SECOND	THIRD
EnH	llH	mmH

n = MIDI Channel Number: 0H – FH (0 ~ 15) 0 = ch.1 15 = ch.16
mm,ll = Value : 00H,00H ~ 7FH,7FH (-8192 ~ +8191)

■ Channel Mode Message

● All Notes OFF

STATUS	SECOND	THIRD
BnH	7BH	00H

n = MIDI Channel Number : 0H ~ AH (0 – 10) 0 = ch.1 10 = ch.11

* Can be received only through the Basic channel.
* Turns off all notes which are sounded on the guitar part. But when the Hold 1 is on, the notes are held until the Hold 1 is set to off.

● OMNI OFF

STATUS	SECOND	THIRD
BnH	7CH	00H

n = MIDI Channel Number : 0H – AH (0 – 10) 0 = ch.1 10 = ch.11

* Can be received only through the Basic channel.
* Will act the same as All Notes OFF.

● OMNI ON

STATUS	SECOND	THIRD
BnH	7DH	00H

n = MIDI Channel Number : 0H ~ AH (0 – 10) 0 = ch.1 10 = ch.11

* Can be received only through the Basic channel.
* Will act the same as All Notes OFF.

● MONO

STATUS	SECOND	THIRD
BnH	7EH	mmH

n = MIDI Channel Number : 0H – AH (0 ~ 10) 0 = ch.1 10 = ch.11
mm = Number of Individual Channels : 00H – 10H (0 – 16)

* Can be received only through the Basic channel.
* Will act the same as All Notes OFF.

● POLY

STATUS	SECOND	THIRD
BnH	7FH	00H

n = MIDI Channel Number : 0H ~ AH (0 – 10) 0 = ch.1 10 = ch.11

* Can be received only through the Basic channel.
* Will act the same as All Notes OFF.

■ System Exclusive Message

STATUS	DATA BYTES
F0H	iiH,ddH,....,eeH
F7H	

F0H : System Exclusive
ii = ID Number : 41H (65)
dd,....ee = Data : 00H – 7FH (0 – 127)
F7H : EOX (End of Exclusive/System common)

* Received while in Bulk Receive Mode.
* Refer to Section 5 and after for more detailed information.

■ System Realtime Message

● Active Sensing

STATUS
FEH

* Having received this message,GR – 1 expects to receive information of any status of data during about 400msec. If GR – 1 fails to send message,it acts the same as when All Notes OFF message is received,and return to normal operation (will not check interval of messages).

2.TRANSMITTED DATA (Guitar Section)

■Channel Voice Message

●Note Off

STATUS	SECOND	THIRD
9nH	kkH	00H

n　= MIDI Channel Number　: 0H – FH (0 – 15)　0 = ch.1　15 = ch.16
kk　= Note Number　: 00H – 7FH (0 – 127)

●Note On

STATUS	SECOND	THIRD
9nH	kkH	vvH

n　= MIDI Channel Number　: 0H – FH (0 – 15)　0 = ch.1　15 = ch.16
kk　= Note Number　: 00H – 7FH (0 – 127)
vv　= Velocity　: 01H – 7FH (1 – 127)

●Control Change

○Modulation

STATUS	SECOND	THIRD
BnH	01H	vvH

n　= MIDI Channel Number　: 0H – FH (0 – 15)　0 = ch.1　15 = ch.16
vv　= Modulation Depth　: 00H – 7FH (0 – 127)

○Volume

STATUS	SECOND	THIRD
BnH	07H	vvH

n　= MIDI Channel Number　: 0H – FH (0 – 15)　0 = ch.1　15 = ch.16
vv　= Volume　: 00H – 7FH (0 – 127)

○General Purpose Control 1

STATUS	SECOND	THIRD
BnH	10H	vvH

n　= MIDI Channel Number　: 0H – FH (0 – 15)　0 = ch.1　15 = ch.16
vv　= Control Value　: 00H – 7FH (0 – 127)

○Hold 1

STATUS	SECOND	THIRD
BnH	40H	vvH

n　= MIDI Channel Number　: 0H – FH (0 – 15)　0 = ch.1　15 = ch.16
vv　= Control Value　: 00H,7FH　(0,127)　0 = OFF,127 = ON

●Program Change

STATUS	SECOND
CnH	ppH

n　= MIDI Channel Number　: 0H – FH (0 – 15)　0 = ch.1　15 = ch.16
pp　= Program Number　: 00H – 7FH (0 – 127)

●Pitch Bend Change

STATUS	SECOND	THIRD
EnH	llH	mmH

n　= MIDI Channel Number: 0H – FH (0 – 15)　0 = ch.1　15 = ch.16
mm,ll　= Value　: 00H,00H – 7FH,7FH　(–8192 – +8191)

■System Realtime Message

●Active Sensing

STATUS
FEH

* This message is always transmitted during about 250msec.

■System Exclusive Message

STATUS	DATA BYTES
F0H	iiH,ddH,......eeH
F7H	

F0H　　　　　: System Exclusive
ii = ID Number : 41H　(65)
dd,....ee = Data : 00H – 7FH　(0 – 127)
F7H　　　　　: EOX (End of Exclusive/System common)

* Transmitted when the Bulk Dump of System parameters or Patch parameters is done.
* Refer to Section 5 and after for more detailed information.

3.RECOGNIZED RECEIVE DATA (Multi Timbral Section & Recorder Section)

3.1 Memorized messages while in Recording mode.

■Channel Voice Message

●Note Off

STATUS	SECOND	THIRD
8nH	kkH	vvH
9nH	kkH	00H

n　= MIDI Channel Number　: 0H – FH　(0 – 15) 0 = ch.1　15 = ch.16
kk　= Note Number　: 00H – 7FH (0 – 127)
vv　= Velocity　: ignored

●Note On

STATUS	SECOND	THIRD
9nH	kkH	vvH

n = MIDI Channel Number　: 0H – FH　(0 – 15) 0 = ch.1　15 = ch.16
kk = Note Number　: 00H – 7FH (0 – 127)
vv = Velocity　: 01H – 7FH (1 – 127)

●Control Change

○Bank Select

STATUS	SECOND	THIRD
BnH	00H	mmH
BnH	20H	llH

n = MIDI Channel Number　: 0H – FH　(0 – 15) 0 = ch.1　15 = ch.16
mm,ll = Bank Number　: 00 00H – 7F 7FH　(1 – 16384)

* The LSB 7 – bit is ignored　(value = 00H).
* Bank Select is suspended until receiving Program Change

○Modulation

STATUS	SECOND	THIRD
BnH	01H	vvH

n = MIDI Channel Number　: 0H – FH　(0 – 15) 0 = ch.1　15 = ch.16
vv = Modulation Depth　: 00H – 7FH (0 – 127)

○Volume

STATUS	SECOND	THIRD
BnH	07H	vvH

n = MIDI Channel Number　: 0H – FH　(0 – 15) 0 = ch.1　15 = ch.16
vv = Volume　: 00H – 7FH (0 – 127)

○Expression

STATUS	SECOND	THIRD
BnH	0BH	vvH

n = MIDI Channel Number　: 0H – FH　(0 – 15) 0 = ch.1　15 = ch.16
vv = Expression　: 00H – 7FH (0 – 127)

○Hold 1

STATUS	SECOND	THIRD
BnH	40H	vvH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
vv = Control Value : 00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

○Gennerai Purpose Effect 1 (Reverb Send Level)

STATUS	SECOND	THIRD
BnH	5BH	vvH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
vv · Control Value : 00H - 7FH (0 - 127)

○Gennerai Purpose Effect 3 (Chorus Send Level)

STATUS	SECOND	THIRD
BnH	5DH	vvH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
vv = Control Value : 00H - 7FH (0 - 127)

●Program Change

STATUS	SECOND
CnH	ppH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
pp = Program Number : 00H - 7FH (0 - 127)

●Channel Pressure

STATUS	SECOND
DnH	vvH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
vv = Value : 00H - 7FH (0 - 127)

●Pitch Bend Change

STATUS	SECOND	THIRD
EnH	llH	mmH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
mm,ll = Value : 00H,00H - 7FH,7FH (-8192 - +8191)

3.2 Recognized only messages.

●All Notes OFF

STATUS	SECOND	THIRD
BnH	7BH	00H

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

*Turns off all notes on the corresponding MIDI channel except that the Hold
1's on has been received. In such a case the notes are held on until the Hold
1 is set to off.

●OMNI OFF

STATUS	SECOND	THIRD
BnH	7CH	00H

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

* Will act the same as All Notes OFF.

●OMNI ON

STATUS	SECOND	THIRD
BnH	7DH	00H

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

* Will act the same as All Notes OFF. GR - 1 never becomes OMNI ON mode.

●MONO

STATUS	SECOND	THIRD
BnH	7EH	mmH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
mm = Number of Individual Channels : 00H - 10H (0 - 16)

*Will act the same as All Notes OFF. When the value of "mm" is from 00H
through 10H, the corresponding MIDI channel becomes Mode 4 (m = 1).

●POLY

STATUS	SECOND	THIRD
BnH	7FH	00H

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

*Will act the same as All Notes OFF. The corresponding channel becomes Mode
3.

3.3 Recognized messages for sync.

* Received while in Down Load mode.

■System Realtime Message

* Received while in Down Load standby condition.

●Timing Clock

STATUS
F8H

●Start

STATUS
FAH

●Stop

STATUS
FCH

3.4 Recognized messages for transferring song data.

■System Exclusive Message

STATUS	DATA BYTES
F0H	iiH,ddH,......,eeH
F7H	

F0H : System Exclusive
ii = ID Number : 41H (65)
dd,...,ee = Data : 00H - 7FH (0 - 127)
F7H : EOX (End of Exclusive/System common)

*Received while in Bulk Receive Mode.
*Refer to Section 5 and after for more detailed information.

4.TRANSMITTED DATA (Recorder Section)

4.1 Created messages for sync.

■System Common Message

●Song Position Pointer

STATUS	SECOND	THIRD
F2H	mmH	llH

mm,ll = Value : 00H, 00H - 7FH, 7FH (0 - 16383)

■ System Realtime Message

● Timing Clock

STATUS
F8H

● Start

STATUS
FAH

● Continue

STATUS
FBH

● Stop

STATUS
FCH

4.2 Created messages for transferring song data.

■ System Exclusive Message

STATUS	DATA BYTES
F0H	ii1ddH......eeH
F7H	

F0H : System Exclusive
ii : ID Number : 41H (65)
dd......ee : Data : 00H - 7FH (0 - 127)
F7H : EOX (End of Exclusive/System common)

* Transmitted when the Bulk Dump of song data is done.
* Refer to Section 5 and after for more detailed information.

5.EXCLUSIVE COMMUNICATIONS

GR - 1 can transmit or receive the System parameters, Patch parameters, and/
or Song data by using exclusive messages.
Model ID of GR - 1 is 54H.
Device ID of GR - 1 can be set from 00H through 1FH.

■ One Way Communication

● Data Set   DT1   (12H)

BYTE	Description	
F0H	Exclusive Status	
41H	Manufacturer ID	(roland)
dev	Device ID	(dev : 00H - 1FH)
mdl	Model ID	(mdl : 54H)
11H	Command ID	(DT1)
aaH	Address MSB	
bbH	Address	
ccH	Address LSB	
ddH	Data	
:	:	
eeH	Data	
sum	Checksum	
F7H	EOX (End of Exclusive)	

6.PARAMETER ADDRESS MAP

The address and size are described with 7 - bit hexadecimal.

Address	MSB		LSB
Binary	0aaa aaaa	0bbb bbbb	0ccc cccc
Hexadecimal	AA	BB	CC

Size	MSB		LSB
Binary	0sss ssss	0ttt tttt	0uuu uuuu
Hexadecimal	SS	TT	UU

■ Parameter base address

[SYSTEM PARAMETER DUMP]
        1 - packet = 128 byte (MIDI)

--- SYSTEM PARAMETER (30 = 0x1E byte)
--- 0x1E * 2(nibblize) = 00 3C (MIDI)

Address(H)	SIZE(H)	Data(H)	Description
00 00 00	00 00 3C		
: #		system parameter	1 packets
00 00 3B#			

[PATCH PARAMETER DUMP]
        1 - packet = 128 byte (MIDI)

--- PATCH PARAMETER (68 = 0x44 byte)
--- 0x44 * 2(nibblize) = 01 08 (MIDI)

Address(H)	SIZE(H)	Data(H)	Description
01 00 00	00 01 08		
: #		patch 111	2 packets
01 01 07#			
01 02 00	00 01 08		
: #		patch 112	2 packets
01 03 07#			
01 04 00	00 01 08		
: #		patch 113	2 packets
01 05 07#			
01 06 00	00 01 08		
: #		patch 114	2 packets
01 07 07#			
01 08 00	00 01 08		
: #		patch 121	2 packets
01 09 07#			
.	.		
.	.		
.	.		
01 7E 00	00 01 08		
: #		patch 254	2 packets
01 7F 07#			

[SONG DATA DUMP]
        1 - packet = 128 byte (MIDI)

--- SONG DATA (0x3B00 byte)
--- 0x3B00 * 2(nibblize) = 01 6C 00 (MIDI)

Address(H)	SIZE(H)	Data(H)	Description
02 00 00	01 6C 00		
: #		song data	236 packets
03 6B 7F#			

Function ···		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 — 11 1 — 11	1 — 11 1 — 11	*1
Mode	Default Messages Altered	Mode 3, 4 (M = 6) ✕ * * * * * * * *	Mode 4 (M = 6) ✕	*1
Note Number	True Voice	0 — 127 * * * * * * * *	0 — 127	
Velocity	Note ON Note OFF	○ 9n v = 1 — 127 ○ 9n v = 0	○ ✕	
After Touch	Key's Ch's	✕ ✕	✕ ✕	
Pitch Bend		○	○	
Control Change	1 7 16 64	○ ○ ○ ○	○ *2 ○ *2 ✕ ○ *2	Modulation Volume General Purpose Controller Hold 1
Prog Change	True #	○ * * * * * * * *	○ *1	
System Exclusive		○	○	
System Common	Song Pos Song Sel Tune	✕ ✕ ✕	✕ ✕ ✕	
System Real Time	Clock Commands	✕ ✕	✕ ✕	
Aux Messages	Local ON/OFF All Notes OFF Active Sense Reset	✕ ✕ ○ ✕	✕ ○ (123 — 127) *2 ○ ✕	
Notes		*1 Can be memorized after powering off. *2 Can be recognized only through the Basic Channel.		

Mode 1 : OMNI ON, POLY   Mode 2 : OMNI ON, MONO   ○ : Yes
Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF, MONO   ✕ : No

	Function ···	Transmitted	Recognized	Remarks
Basic Channel	Default	1 — 16	1 — 16	*1
	Changed	1 — 16	1 — 16	
Mode	Default	✕	Mode 3	
	Messages	✕	Mode 3, 4	
	Altered	* * * * * * * *		
Note Number		✕	0 — 127	
	True Voice	* * * * * * * *		
Velocity	Note ON	✕	0 — 127	
	Note OFF	✕	✕	
After Touch	Key's	✕	✕	
	Ch's	✕	◯	
Pitch Bend		✕	◯	
Control Change	0, 32	✕	◯ (MSB only)	Bank select
	1	✕	◯	Modulation
	7	✕	◯	Volume
	10	✕	◯	Pan
	11	✕	◯	Expression
	64	✕	◯	Hold 1
	91	✕	◯	Reverb Send Level
	93	✕	◯	Chorus Send Level
Prog Change		✕	◯	
	True #	* * * * * * * *		
System Exclusive		✕	✕	
System Common	Song Pos	◯	✕	
	Song Sel	✕	✕	
	Tune	✕	✕	
System Real Time	Clock	◯	◯ *2	
	Commands	◯	◯ *2	
Aux Messages	Local ON/OFF	✕	✕	
	All Notes OFF	✕	◯ (123 — 127)	
	Active Sense	✕	◯	
	Reset	✕	✕	
Notes		*1 Can be memorized after powering off.		
		*2 Can be recognized only while in Down Load mode.		

Mode 1 : OMNI ON, POLY   Mode 2 : OMNI ON, MONO   ◯ : Yes

Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF, MONO   ✕ : No

■ Specifications

Guitar Synthesizer :GR-1

● Parts
   Guitar Module   1 (MIDI Mono Mode/M=6)
   Multi Timbral Module   3 + Rhythm

● Maximum Polyphony
   24 voices

● Memory
   ○ Internal
      System Setup   1
      Original Tones   200
                 (expandable to 400 with optional
                 Expansion Board)
      Patches   64
      Song in Recorder 1

   ○ Card
      System Setup   1
      Patches   64
      Song in Recorder 1

● Effects
   Reverb, Chorus

● Recorder (for internal Multi Timbral Module)
   Tracks   4 Tracks Easy Recorder
   Songs   Internal : 1
                       Card : 1
   Recording Method   Realtime
                 (Tap Entry for the Drum Part and Loop Recording)
   Note Capacity   approx. 2,000 notes
   Song Length   999 bars
   Resolution   48 clocks / quarter note
   Tempo   20 to 250 bpm

● Display
   Custom Fluorescent Indicator

● Connectors/Jacks
   MIDI Connectors (In/Out)
   Mix Out Jacks (L/Mono, R)
   Guitar Out Jack
   Guitar Return Jacks
   External Pedal Jacks (Volume 1, Assignable 1)
   GK - 2 Jack
   Headphone Jack (Stereo)
   AC Adaptor Jack (DC 9V)

● Power Supply
   DC 9V: AC Adaptor

● Current Draw
   600mA

● Demensions
   426(W) X 290(D) X 70(H) mm
   16 - 13/16(W) X 11 - 7/16(D) X 2 - 3/4(H)inches

● Weight
   3.2kg / 7lbs
   (excluding the AC Adaptor)

● Accessories
   Owner's Manual
   AC Adaptor
   GK - 2 Connecting Cable (C - 13A /5m)

● Options
   GK - 2 Connecting Cable (C - 13B /10m)
   Tone Expansion Kit: SR - GR1 - 01
                       (with "PN - GR1 - 01" Patch Data Card)

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

■ Index

[V]

Information

When you need repair service, call your local Roland Service Station or the authorized Roland distributor in your country as shown below.

U. S. A.
Roland Corporation US
7200 Dominion Circle
Los Angeles, CA.
90040-3647, U. S. A.
☎ (213)685 - 5141

CANADA
Roland Canada Music Ltd.
(Head Office)
5480 Parkwood
Richmond B. C., V6V 2M4
CANADA
☎ (604)270 - 6626

Roland Canada Music Ltd.
9425 Transcanadienne
Service Rd. N., St Laurent,
Quebec H4S 1V3,
CANADA
☎ (514)335 - 2009

Roland Canada Music Ltd.
346 Watline Avenue,
Mississauga, Ontario L4Z
1X2, CANADA
☎ (416)890 - 6488

AUSTRALIA
Roland Corporation
(Australia) Pty. Ltd.
(Head Office)
38 Campbell Avenue
Dee Why West. NSW 2099
AUSTRALIA
☎ (02)982 - 8266

Roland Corporation
(Australia) Pty. Ltd.
(Melbourne Office)
50 Garden Street
South Yarra, Victoria 3141
AUSTRALIA
☎ (03)241 - 1254

UNITED KINGDOM
Roland(U.K.) Ltd.
Rye Close
Ancells Business Park
Fleet, Hampshire GU13
8UY, UNITED KINGDOM
☎ 0252 - 816181

Roland(U.K.) Ltd.,
Swansea Office
Atlantic Close, Swansea
Enterprise Park, Swansea,
West Glamorgan SA79FJ,
UNITED KINGDOM
☎ (0792)700 - 139

ITALY
Roland Italy S. p. A.
Viale delle Industrie 8
20020 ARESE MILANO
ITALY
☎ 02 - 93581311

SPAIN
Roland Electronics
de España, S. A.
Calle Bolivia 239
08020 Barcelona, SPAIN
☎ 93 - 308 - 1000

GERMANY
Roland Elektronische
Musikinstrumente
Handelsgesellschaft mbH.
Oststrasse 96, 2000
Norderstedt, GERMANY
☎ 040/52 60 090

FRANCE
Musikengro
102 Avenue Jean-Jaures
69007 Lyon Cedex 07
FRANCE
☎ (7)858 - 54 60

Musikengro (Paris Office)
Centre Region Parisienne
41 rue Charles-Fourier,
94400 Vitry s/Seine
FRANCE
☎ (1)4680 86 62

BELGIUM/
HOLLAND/
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