ACOUSTIC GUITAR PROCESSOR



Thank you very much for purchasing the Korg Tone Works **G2**.

The G2 Acoustic Guitar Processor is a programmable multi-effects processor designed specifically for electric-guitar. It features a new and unique twelve-string effect which simulates the full, lush sound of the octave and unison strings of a twelve-string guitar—while playing a six-string! Also an Auto-Chromatic Tuner is built in allowing easy and accurate tuning.

This User's Guide can be an important tool helping you create your own sound and take advantage of all the features of the G2. Keep this User's Guide in a safe place.

Owner's Manual

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Usage precautions

■ Location

Avoid using your **G2** in the following locations, which could cause a malfunction.

- Locations subject to direct sunlight
- Locations with extremely high or extremely low temperature or humidity
- Locations with much sand or dust
- Locations that subject to excessive vibration

■ Power supply

Always use the AC adaptor that comes with the **G2**.

■ Effects on other electrical equipment

The **G2** uses a microcomputer and therefore may cause interference on radios or TVs. If so, move the **G2** away from these device.

Handle gently

Do not apply excess force to the switches and knobs. Doing so can lead to malfunctions.

■ Cleaning

Always clean the outside case with a dry, soft cloth. Never use a liquid solvent, cleaning compounds, highly flammable polishes, or the like.

■ Take care of this user's manual.

Even after you have read this user's manual, store it away carefully for future reference.

THE FCC REGULATION WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such influence in a residential installation.

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more the following measures:

- Reorient the receiving antenna
- Relocate the equipment with respect to the receiver
- Move the equipment away from the receiver
- Plug the equipment into a different outlet so that it and the receiver are on different branch circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems"

This booklet is available from the U.S.Government Printing Office, Washington, D.C. 20402, Stock No.004-000-000345 - 4.

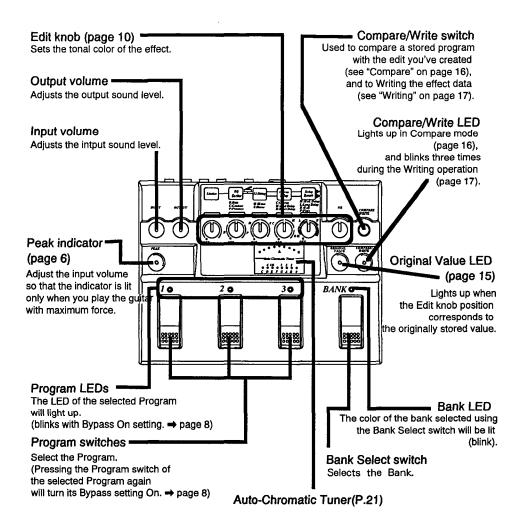
CANADA

THIS DIGITAL APPARATUS DOES NOT EXCEED THE "CLASS B" LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS SET OUT IN THE RADIO INTERFERENCE REGULATION OF THE CANADIAN DEPARTMENT OF COMMUNICATIONS.

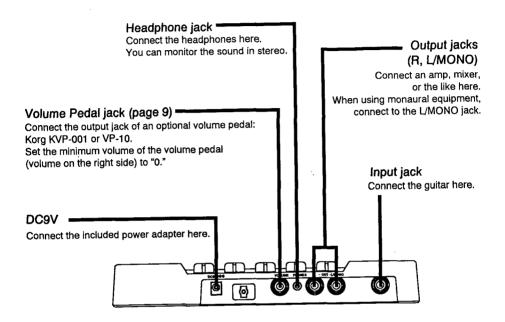
LE PRESENT APPAREIL NUMERIQUE N'EMET PAS DE BRUITS RADIOELECTRIQUES DEPASSANT LES LIMITES APPLICABLES AUX APPAREILS NUMERIQUES DE LA "CLASSE B" PRESCRITES DANS LE REGLEMENT SUR LE BROUILLAGE RADIOELECTRIQUE EDICTE PAR LE MINISTERE DES COMMUNICATIONS DU CANADA.

Panel Descriptions

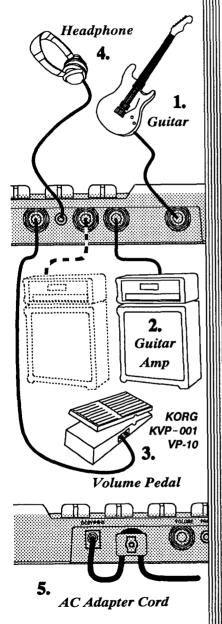
Front Panel



Rear Panel



Setting Up the G2



- 1. Connect the guitar to the Input jack.
- 2. Connect the guitar amplifier(s) to the Output jack(s).

Connection in stereo will be more effective. For monaural connection, use the **L/MONO** jack.

- **3.** Connect a volume pedal, **Korg KVP-001** or **VP-10** to the **Volume jack.** (page 9)
- **4.** Connect the headphones to monitor the sound in stereo.
- **5.** After finishing the connections described above, connect the power adapter.

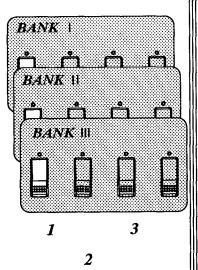
The **G2** does not have a power switch. When you connect the power adapter, it is ready for use.

Note: Place the power adapter 30cm away from the main unit. Placing the adapter too close to the unit may create noise.

After connecting the power adapter, secure the power cord as shown in the figure on the left so that the plug will not be removed accidentally.

Note: Be sure to lower the volume of all the connected devices when you connect and remove the power adapter for the G2.

Playing the Preset Programs



1. What is a Preset Program?

The **G2** has three Effect Programs each in **Bank I**, **Bank II**, and **Bank III**. With a total of nine Effect Programs.

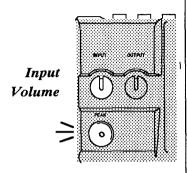
Bank I	1 · · · · · · Medium Room
	2 · · · · · · Super Chorus
	3·····Shimmer
Bank II	1 · · · · · · Slap'n Echo
	2·····Country
	3 · · · · · Country Twelve
Bank III	1 · · · · · · Huge Solo Plate
	2 · · · · · · Chorale Hall
	3 · · · · · · Rotary Chorale

These nine Programs originally stored in the **G2** are called **Preset Programs**.

You can edit (modify) these Effect Programs to suit your taste, and save your edit as a new Program.

Editing a Preset Program will make the Effect sound closer to your desired tone in its subtle nuances. By making edits to an existing Preset you can presonalize the Effect Program or you can create something entirely different.

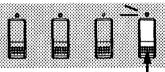
1. Guitar Input



Peak Indicator

2. Bank Select Switch

blinking in red



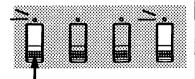


Orange

3. Program Switch

Lit

Lit in red



2. Selecting a Preset Program

1. Adjust the input level while playing the guitar. Adjust the Input volume so that the Peak indicator is lit only when you strum the guitar hardest.

Note: Depending on the Parameter Editor settings, the sound may be distorted (clipping) even if the Peak indicator is not lit. In this case, lower the input volume until the distortion disappears.

2. Select a Bank using the Bank Select switch.

Pressing the Bank Select switch each time will advance the Bank color in the following sequence:

Green(i) → Red(ii) → Orange(iii)

For example, let's select **Bank** II . The Bank LED blinks in red.

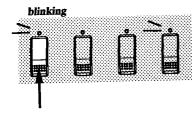
3. Select a Program using the Program switch.

For example, let's select **Program 1 of Bank II**.

Program LED of Program 1 will be lit.

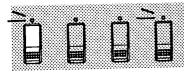
At the same time, the Bank LED stops blinking, and remains lit in red.

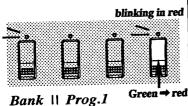
Bypass

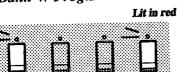


Bank | Prog.1

Lit in green







- **4.** Now **Program 1** of **Bank II** has been selected. Playing the guitar will produce the effect sound of Program 1.
- **5.** If you wish to produce a dry sound (bypass sound) temporarily, press the Program switch of the selected Program (Program 1 in this example) again.

With Bypass on, the Program LED of the selected Program blinks. (For Bypass, see **Bypass** on page 8.)

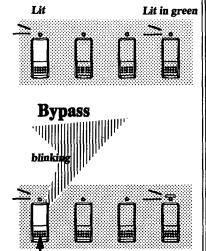
6. Repeat steps 2 - 5 to try various bank Programs.

To select another Program in the same Bank, press the Program switch.

Note: Pressing the Bank switch does not change the current Program. The Program is changed when you press a Program switch after selecting the new Bank.

For example, to change the Program from Program 1 of Bank 1 to Program 1 of Bank II , first press the Bank Select switch to change the Bank from Green to Red, then press the Program switch 1.

Bank | - Prog.1



3. Bypassing

When you press the Program switch of the currently-selected Program, that Program's LED will blink and the Bypass sound (a dry sound without effect) will be output.

If you wish to change this to the effect sound, press the Program switch again.

Note: Bypass mode will be cancelled when you switch to another effect program.

Note: When Bypass is set to On, editing will not change the sound.

To edit the sound, restore the effect sound.

4. Mute function

The **Mute function** is useful when you do not want to produce a sound on stage. (For example, when you tune the instrument using the built-in Auto Chromatic Tuner.)

Press and hold the Program switch of the currently-selected Program for more than one second. The Selected Program's LED blinks faster, the bypass sound replaces the effect sound, and the Mute function mutes the sound of the G2.

To restore the effect sound, press the Program switch again. You can also change the selected Effect Program when Mute is on (the Program for which the LED is blinking when Mute is on) to another Program. (When the Mute function is cancelled, the effect sound will be restored regardless of status before the Mute function was on. If you wish to change from Mute to Bypass mode, first restore the effect sound, then press the Program switch again.)

Note: The Auto Chromatic Tuner operates as usual regardless of the Mute On/Off setting.

The sound output from the headphones is also muted.

Note: Editing Parameters in Mute mode will not change the sound. To edit the sound, first restore the effect sound.

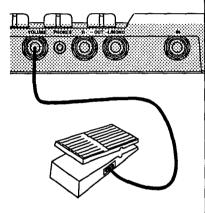
5. Using a volume pedal

Using a volume pedal allows you to create a **swelling** effect. Volume swelling is a technique that utilizes gradual increases in volume without the sound of a pick attack.

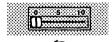
Connect the **Output jack** of a volume pedal to the **Volume Pedal** input of the **G2**.

When using the Korg KVP-001 or VP-10, be sure to set the minimum volume setting on the pedal to 0.

Pedal



Volume Pedal
Output
KORG
KVP-001
VP-10



minimum volume

Creating Programs

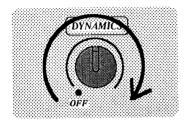
1. Parameter Editor

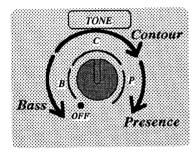
You may edit any of the nine Effect Programs in the **G2** to create your own programs.

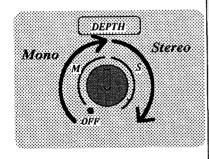
Various setting elements that change the effect sound are called **parameters**. On the **G2**, you can create your own effect programs easily by using the **Parameter Editors** on the front panel. The modification of the programs is called an **edit**. You can store an edited Program in the memory as a new Program.

A Parameter Editor knob actually controlls various parameters(for that effect), simultaneously. This is called **Integrated Parameter Editing (IPE)**.

IPE automatically adjusts parameters so that they maintain an optimal balance. With this system you can create your own sound intuitively on the **G2** without bothering with complex parameters.







DYNAMICS

.....Adjusts the intensity of **the limiter effect** (the effect used to suppress high-level signals to obtain an even picking sound).

Turning the knob clockwise will increase the intensity, and turning it counterclockwise all the way will turn the limiter off.

TONE

····· making the tone brighter.

Range **B** will emphasize a lower frequency range. Turning the knob counterclockwise will emphasize the lower range and turning it clockwise will make the sound flat.

In Range **C**, turning the knob clockwise will emphasize the higher frequency range, making the tonal color lighter.

In Range **P**, you can obtain a sound that emphasizes both the lower and higher frequency ranges. Turning the knob clockwise will emphasize the highend range using the internal Exciter effect.

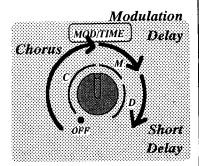
Turning this Parameter Editor counterclockwise all the way will turn the Tone control Off.

DEPTH

..... Adjusts the depth of the 12-string effect. This effect creates the thick 12-string guitar simulation.

In Range M you can adjust the depth of the 12-string effect when you are using the G2 with monaural output. In Range S you can adjust the depth of the 12-string effect when you are using the G2 with stereo output. Stereo connection will produce a more spacious effect.

Turning the Parameter Editor all the way to left will turn off the 12-string effect.



MOD / TIME

····· Adjusts the depth of the Chorus, Mod Delay and Short Delay (doubling) effects.

C: Chorus-

Adjusts the depth of the **Chorus effect**, which thickens the sound. Turning the knob clockwise will increase the depth and the speed of modulatiom.

M: Modulation Delay-

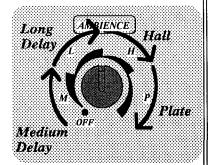
Produces the effect of a **modulated short delay** (35ms). Turning the knob clockwise will increase the depth of the effect.

D: Short Delay-

Produces the effect of a **non-modulated short delay (50ms)**. Turning the knob clockwise will increase the level of the delay sound.

Each mode will produce a more spacious effect with a stereo connection.

Turning this Parameter Editor all the way to left will turn off the Chorus/Short Delay effect.



AMBIENCE

..... Adjusts the Delay and Reverb effects.

M: Medium Delay-

Delay effect with a delay time of 150ms. Turning the knob clockwise will increase the delay sound level.

L: Long Delay-

Delay effect with a delay time of 280ms. Turning the knob clockwise will increase the delay sound level.

H: Hall Reverb-

Produces Hall-type reverberation. Turning the knob clockwise will increase reverb Time and Depth.

P: Plate Reverb-

Produces **Plate-type reverberation**. Turning the knob clockwise will increase reverb Time and Depth.

Each mode will produce a more spacious effect with a stereo connection.

Turning this Parameter Editor all the way to left will turn off the Delay/Reverb effect.

80Hz IkHz Frequency

Attenuation distortion

NOTCH Howling countermeasure B String vibration feedback countermeasure

NOTCH

..... Adjusts the frequency range to be cut by the notch filter.

The **Notch filter** suppresses the feedback of vibrating strings and the howling effect (an oscillating sound generated even when the string sound is muted) that occur during performance at high volumes using a guitar amplifier, monitor speakers, or PA speakers.

Turn this filter off by turning the knob all the way to the left when you are playing with a low volume level or using headphones.

The filter starts cutting the lower frequency range at **80Hz**, and as the **Parameter Editor** is turned to the right, higher frequency ranges will be cut. (Maximum **1kHz**)

If feedback of the lower strings occurs, set the Notch to the optimum point in Range A, as shown in the figure.

When howling occurs, set the Notch to the optimum point in Range B, as shown in the figure.

Note: The scale around the Parameter Editor indicates a rough guideline of the range of each effect. The position of the Parameter Editor that switches the effect and the position in the scale do not necessarily match.

2. Editing Parameters

Now, let's create your own Effect Program by adjusting the Parameter Editors.

1. Select an original Program to edit. For example, select **Program 1** of **Bank !**

Make sure that **Compare mode** is not engaged. If the **Compare/Write LED** is lit, Compare mode is engaged. Press the Compare/Write switch once to cancel Compare mode.

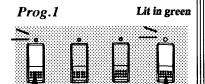
Adjust the parameters using the Parameter Editors on the front panel.

For example, adjust the **Depth**. Turn the **Depth Parameter Editor** and listen to the sound.

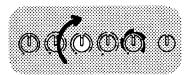
(Increasing the value of Depth will make a thicker sound, like a 12-string guitar.)

- **3.** Adjust the other parameters using the Parameter Editors. (See page 12 for a detailed explanation of each parameter.)
- 4. If you wish to edit other Programs, select one using the Bank Select switch and Program switch. If you wish to save the data edited so far, perform a Program Writing operation. (See page 19.)

Note: If you select another Program without performing a Program Writing, the edited data will be lost.



Depth



3. Original Value LED

You may sometimes wish to recall the original positions of the Parameter Editors for a particular Effect Program while you are editing the Program.

The **Original Value LED** provides you with the original settings so you can compare new edits with the original Program.

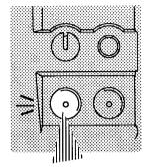
The **G2** automatically **marks** the positions of the Parameter Editors when the Program is saved, and allows you to check these original positions later, during the edit operation.

When each Parameter Editor knob (Dynamics, Tone, Depth, Mod/Time, Ambience, Notch) is turned to the position originally set for the Program (the Original Value position), the Original Value LED lights up.

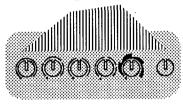
Note: To check for the Original Value, turn the Parameter Editors slowly while observing the Original Value LED. If you turn the Parameter Editors too quickly, the Original Value LED may be lit very briefly and you may not notice its illumination.

Note: The position of the illuminated Original Value LED may be slightly displaced from the position of the Parameter Editor stored by the Program Writing operation. However, the sound obtained always matches the sound stored by the Program Writing operation.

Œ)



Original Value



Compare/Write Switch Compare mode

Compare/Write LED

4. Compare mode

Press the Compare/Write switch to turn on the Compare/Write LED.

If you edit a sound using the Parameter Editors you may wish to hear the original Effect Program or compare the new edit with the original Program.

In Compare mode, you can listen to the original sound stored in the Program. Pressing the Compare-Write switch repeatedly allows you to compare the edit and original sound.

Note: Operating the Parameter Editors in Compare mode will not modify the sound. To edit the sound, press the Compare/Write switch to cancel Compare mode. (See page 16, Parameter Edit.)

Note: When **Bypass** is On, pressing the Compare-/Write switch will not change the mode to Compare mode, nor will it turn on the Compare/Write LED.

Storing Programs

You can store a new Effect Program you have created in the memory of the **G2**. This operation is called **Program Writing**.

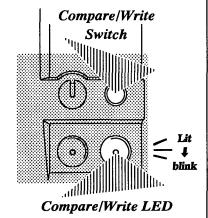
You can recall a stored Program as well as a Preset Program using the Bank Select switch and the Program switch on the **G2**.

If you do not perform the Program Writing operation, the editing of the Program will be lost when you press another Program switch or turn off the power.

When you Write a Program the data preexisting in the destination Program will be lost.

1. After finishing the edit operation, press the Compare/Write switch for more than one second. The Compare/Write LED starts blinking, indicating that the G2 is ready for the Program Writing operation.

If you wish to Writing the Program to another Program or Bank, use the Bank Select switch and the Program switch to select the destination Bank and Program. The selected Bank and Program's LED will light up.



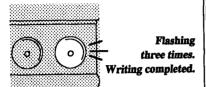
Press the Compare/Write switch
→ G2 enters Compare mode.

1

Press the switch for more than one second.

→ Compare/Write LED starts blinking

Press the switch again. → The Writing operation is executed.



If you wish to cancel the Program Writing operation when the **G2** is ready (the Compare/Write LED is blinking), press any two Program and Bank switches. The Compare/Write LED will be turned off, and the **G2** will be ready for edit.

2. If you wish to continue with the Program Writing operation, press the Compare/Write switch again. The Compare/Write LED will blink three times, indicating that the edited data has been written.

Note: Pressing the Compare/Write switch will first switch to Compare mode (page 16). Therefore, if you perform the Writing operation while listening to the sound, you may hear a brief change in the effect sound while you are holding down the switch (as if the original sound was restored). However, the Program data to be stored will not be affected.

If you have written the data to a different Bank and different Program, that destination Program is recalled. At this time, Compare mode will be cancelled automatically.

Note: Do not press any other Program switches before executing the Program Writing operation. Otherwise, the edited data will be lost.

Note: When Bypass is On, pressing the Compare/Write switch will not execute the Writing operation nor turn on the Compare/Write LED.

Auto Chromatic Tuner

The built-in **Auto Chromatic Tuner** operates regardless of the Mute function On/Off setting. When you are tuning on stage, it may be a good idea to turn on the Mute function so that the sound will not be output. (See page 9, Mute Function.)

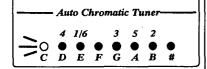
- **1.** Make sure that the power is On.You can use the tuning function whenever the power is on regardless of the input level or the Bypass On/Off setting.
- 2. When you play a single note on the guitar, the Note LED corresponding to the note closest to the sound will light up. If the LED of an unexpected note lights up, the pitch of the instrument is significantly shifted. Adjust the pitch so that the right LED lights up.

Note: Do not play two or more notes at a time while tuning.

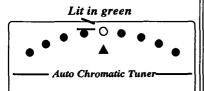
- **3.** Make sure that the Note LED of the note to be tuned is lit. Adjust the pitch of the instrument while observing the LED meter until the center green LED lights up.
- 4. Repeat steps 2-3 for each string.

Note: The reference pitch for tuning is fixed at A=440Hz.

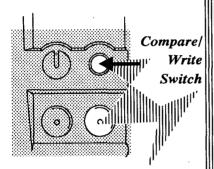
Œ)



When you play a "C".



Useful functions



In Compare mode the sound will not change even when you touch the Editor knobs.

1. Lock mode for

Parameter Editors (Compare mode)

It is recommended to enter Compare mode if you wish to avoid changing the effect sound by touching the Parameter Editor accidentally during performance.

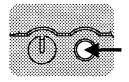
Press the Compare/Write switch to turn on the Compare/Write LED. Operating the Parameter Editors in Compare mode will not change the sound.

Compare mode is initially used to compare the stored sound with the edited sound. However, it is also used to lock the Parameter Editor function as described above. We recommend you use this mode in a live performance.

Compare Write Switch While pressing and holding down the two switches connect the power adapter. Bank Select Switch AC

Press the Compare/Write switch again.

All the LEDs will blink.



Initialized

The factory set data will be restored.

2. Initializing Program data

It is possible to restore the initial setting of the Program (that is, the factory default setting, without edits). Follow the steps below to do so. This operation is called **initialization**.

Connecting the power adapter while pressing and holding down the Bank Select switch and the Compare/Write switch will cause all the LEDs to blink.

Press the **Compare/Write switch** to turn on the Compare/Write LED. All the Effect Programs will be initialized back to the factory settings (Preset data 1). (If you press any switch other than the Restore/Writing switch, the Programs will not be initialized. The condition obtained will be the same as when you connect the power adapter.)

Connecting the power adapter while pressing and holding down the **Bank Select switch** and the **Program 3** switch will also cause all the LEDs to blink.

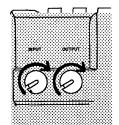
Press the Compare/Write switch to turn on the Compare/Write LED. All the Effect Programs will be changed to Preset data 2.

(If you press any switch other than the Restore/Writing switch, the Programs will not be initialized. The condition obtained will be the same as when you connect the power adapter.)

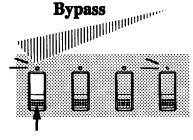
Note: Initializing will lose all Program data stored in the G2.

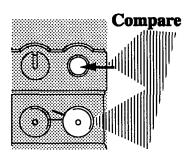
Note: If all the LEDs are not blinking, some remain illuminated, or no LED is lit, turn the power off and try again.

Troubleshooting









If you have a problem, first check the following items. If the problem persists, consult the nearest Korg dealer or Korg Service Center.

Symptom 1 · · · · No sound is output.

- **1.** The **Input Volume** or the **Output Volume** is set to **0**.
- **2.** The connected **volume pedal** has been set to the **minimum**.
- **3.** The **Mute function** is On. If the **Program LED** is blinking fast, it indicates that the Mute is On. Press the Program switch to cancel the Mute function.

- **1.** Bypass is on. The blinking Program LED indicates that Bypass is on. Press the Program switch to cancel the Bypass setting.
- **2.** Compare mode is engaged. If the Compare/Write LED is lit, press the Compare/Write switch to cancel Compare mode.
- **3.** When the Program LED is lit, the position of each Parameter Editor is set to the minimum.

Symptom 3······ All the LEDs are blinking, and no sound is produced.

- 1. The G2 is now ready for initializing the data to the Preset data. Press the Program switch or the Bank Select switch to cancel the initialization-ready status.
- **2.** Turn the power off and on again without pressing any switches.

Symptom 4 · · · · · · · · When turning the Parameter Editors, their position on the scale and the position at which the stored effect is obtained does not match.

The scale around the Parameter Editor indicates a rough guideline of the range of each effect. The position of the Parameter Editor that switches the effect and the position in the scale do not necessarily match.

Specifications/Options

Built-in Effect	LIMITTER, EQ EXCITER, 12 STRING SIMULATOR
	(STEREO), CHORUS/DELAY (STEREO),
	DELAY/REVERB (STEREO), NOTCH-FILTER
Program	9 (3x3 banks)
Front panel	Volume: Input Volume, Parameter Editors, Output
	Volume
	Switch: Bank Select switch, Compare/Write switch,
	Program switch
	LED: Program LED, Compare/Write LED, Bank
	LED, Original Value LED, Peak Indicator,Tuner LED
Rear Panel	DC9V AC adapter jack, Input jack, Output jack (R,
	L/MONO), Volume Pedal Input jack, Headphone jack
Sampling rate	48 kHz
A/D	16 bit Δ Σ system, 64 times oversampling
D/A	8 times oversampling, 18 bit D/A
Dynamic range	90 dB (IHF-A at bypass)
Power supply	DC 9V (with AC adaptor)
Current Consumption	400 mA
Input sensitivity/	− 13.0dBu −− + 7.0 dBu/
Impedance	1Μ Ω
Maximum output level/	+ 6.0 dBu/
Impedance	5k Ω (0dBu = 0.775Vrms)
Dimensions	281 (W) x 209 (D) x 38 (H) mm
Weight	1.1 kg
Option	Volume pedal KVP-001, VP-10

NOTICE

KORG products are manufactured under strict specifications and voltages required by each country. These products are warranted by the KORG distributor only in each country. Any KORG product not sold with a warranty card or carrying a serial number disqualifies the product from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.