

 **Roland**

SYNTHESIZER DRIVER

GK-1

Owner's Manual

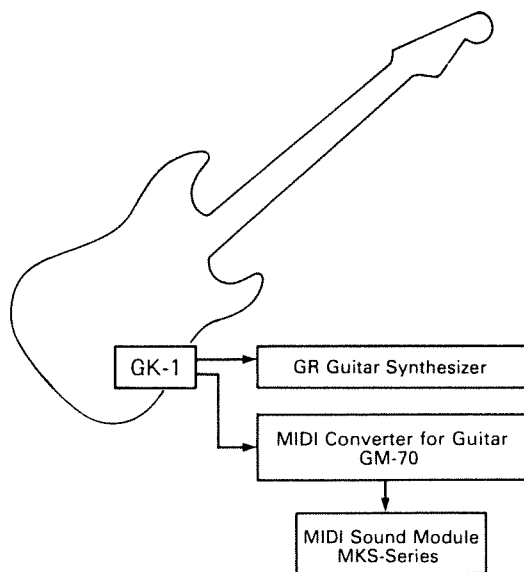
The Roland Synthesizer Driver GK-1 can turn the usual electric guitar to the MIDI controller for the GR Guitar Synthesizer or various MIDI Sound Modules*.

* To use the GK-1 for the MIDI Sound Modules, you need the GM-70; MIDI Converter for guitar.

To make the best use of the GK-1, please read this owner's manual carefully.

FEATURES

- The GK-1 is designed so compact that it can be connected to almost all types of electric guitars.
- The GK-1 simply consists of Pickup Controller Unit for synthesizer and the Unit Holder, therefore does not need complicated procedure for installation.



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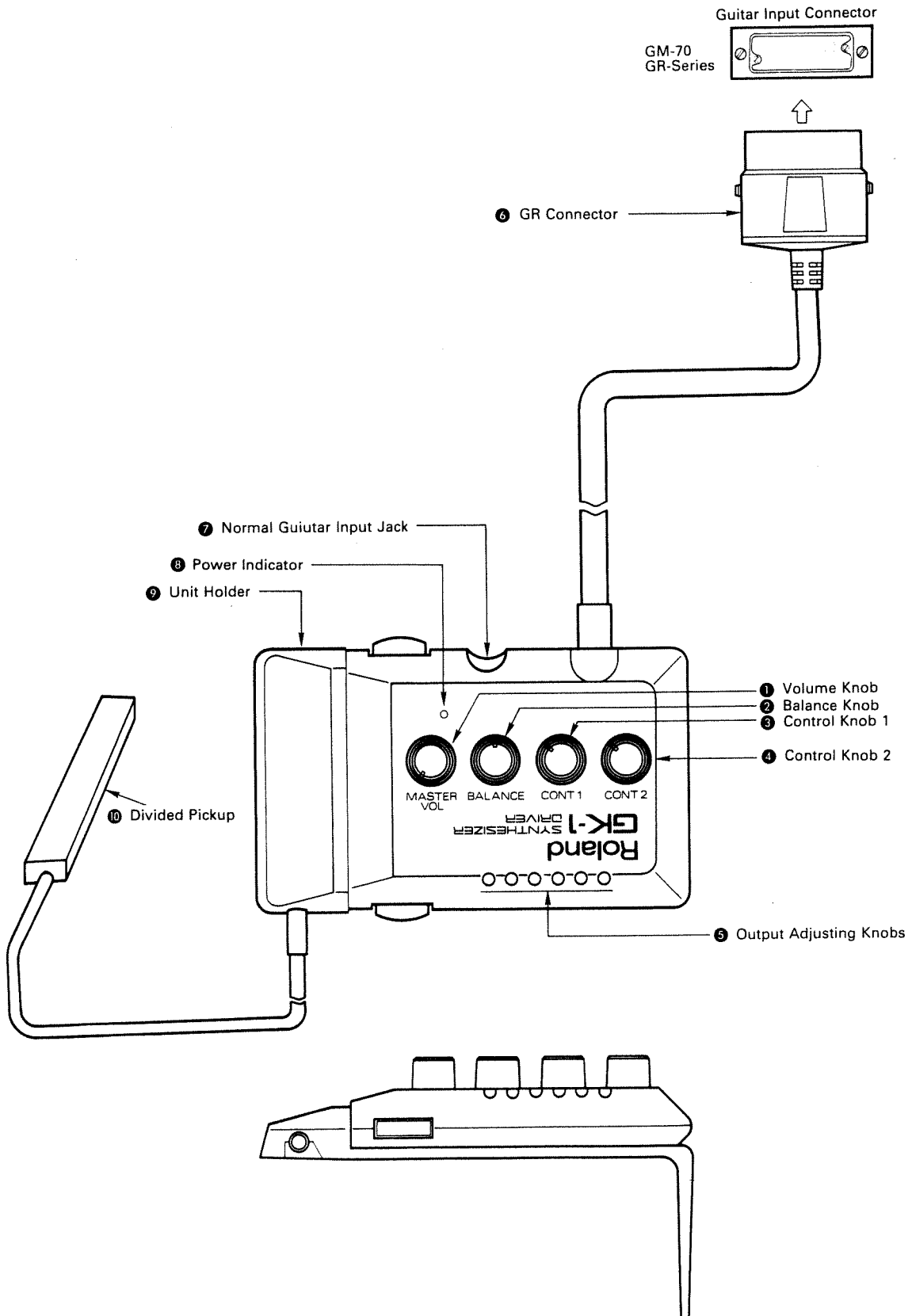
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Please read the separate volume "MIDI", before reading this owner's manual.

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1 PANEL DESCRIPTION



10 Divided Pickup

The Divided Pickup detects the vibration on the guitar. Connect this between the bridge and the pickup.

6 GR Connector

Connect the GR Connector to the Guitar Input Connector of the Synthesizer Unit GR-700, 300 or 100 or the GR-MIDI Converter GM-70.

9 Unit Holder

The Unit Holder is for attaching the Controller Unit to the guitar and also for connecting the Divided Pickup and the Controller Unit.

7 Normal Guitar Input Jack

Through this jack, normal signal from the guitar is fed into the Controller Unit. Use the supplied normal guitar cord.

* Please do not fail to connect to this jack.

3 Control Knob 1

4 Control Knob 2

▶ Refer to "Functions of the Control Knobs" on page 12.

5 Output Control Knob

▶ Refer to "Output Adjustment of the Controller Unit" on page 14.

2 INSTALLATION

Before installing the GK-1 with the electric guitar, read the following "Important Notes".

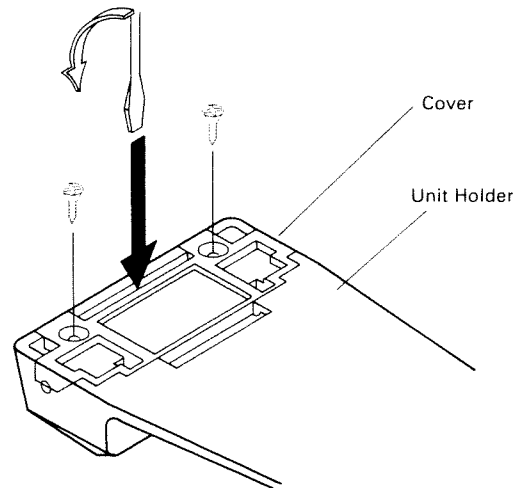
■ Important Notes

- * Please adjust the warp of the neck and the height of the strings of the guitar body before installing the GK-1.
- * Please try placing the Divided Pickup and the Unit Holder on the guitar to see if they are compatible before actually connecting them.
- * If the pickup on the guitar is too close to the bridge to connect the Divided Pickup, you need to shift the pickup towards the neck.
- * Please use the screws for fixing the Unit Holder more securely. Attaching with the adhesive tape may not be sufficient. The adhesive tape may come off with the coating of the guitar. (The supplied both-sided adhesive tape may be used just for experimenting the right position of the Unit Holder.)

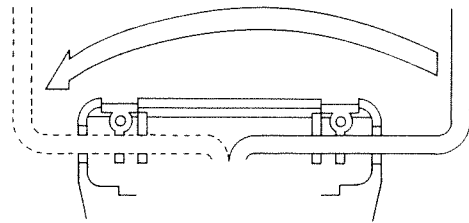
* If you are left-handed, the following conversion is needed on the Unit Holder.

- ① Remove the cover on the bottom of the Unit Holder.

As shown below, loosen and remove the two screws that hold the cover, then insert a driver (for slotted head) between the Unit Holder and the cover, then lift the cover with the driver.



- ② Move the cord that comes from the pickup to the opposite side.



- ③ Replace the cover to the Unit Holder.

First, check if all the following parts are supplied.

Tapping Screw [15mm]



×8 (For fixing Unit Holder)

Tapping Screw [20mm]



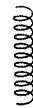
×2 (For fixing Divided Pickup)

Tapping Screw [25mm]



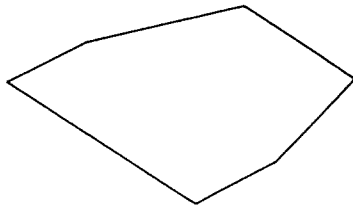
×1 (For fixing End Pin)

Spring



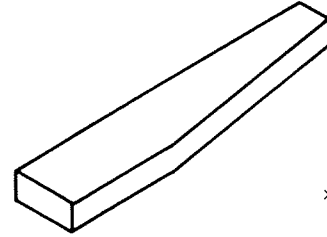
×2 (For adjusting the height of Divided Pickup)

Both-sided Adhesive Tape



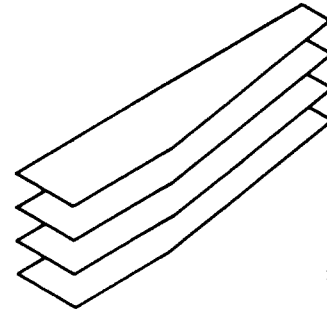
×1 (For Fixing the Unit Holder)

Pickup Cussion



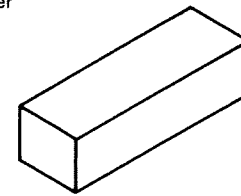
×1

Pickup Spacer



×10

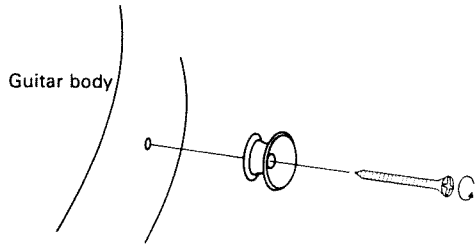
Holder Spacer



×1

1. Attaching the Unit Holder

- ① Pull out the screw to remove the end pin of the guitar.

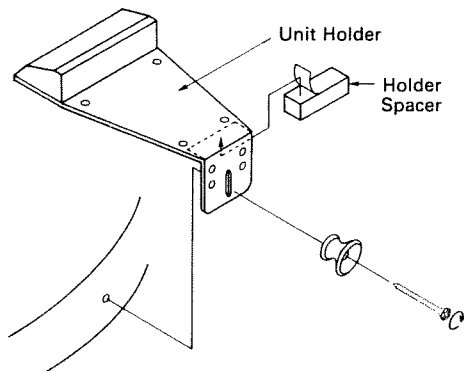


- ② Place the Unit Holder on the guitar so that the oval shape hole on the Unit Holder will match the hole where you pulled the end pin.

* If your guitar is arched-top type (the one with a round body), the gap between the Holder guitar and the Holder. If this happens, attach the supplied spacer at the relevant place (where the gap is most prominent).

- ③ Put the End Pin on the oval shape hole on the Unit Holder then insert the screw and tighten it.

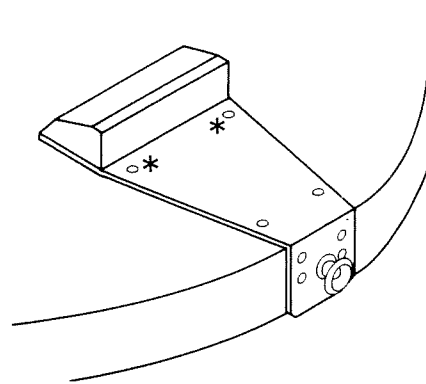
* If the screw that previously used for holding the end pin is not long enough, use the screw supplied with the GK-1.



* When using the both-sided adhesive tape for fixing the Unit Holder to the guitar, first, peel the tape and stick it to the Unit Holder, cut unneeded portions, then peel the tape and attach the Unit Holder to the guitar.

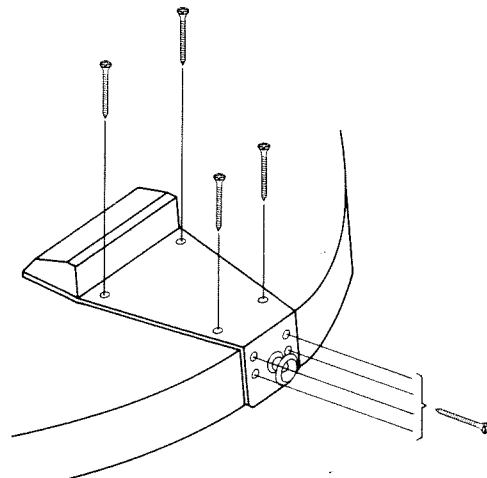
- ④ Bore on the two holes marked with "✳" to make holes underneath.

* The dimeneters of the under holes should be about 2mm (0.08 inches).



- ⑤ Fix the Holder with the GK-1's supplied screws.

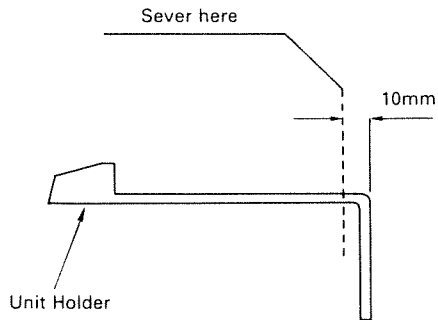
The Holder is securely connected in this way, but if you like, you may bore more holes.



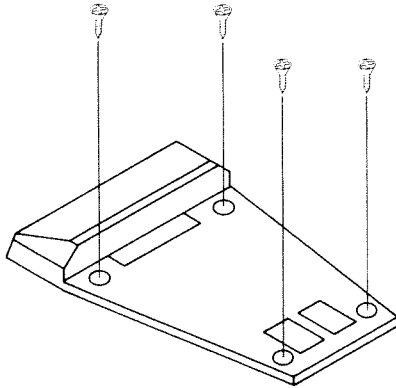
■ Installing the Unit Holder to the guitar of unique shape

When your guitar is in a unique shape that makes it difficult to install the Unit Holder to, the following conversion will be needed.

- ① Cut off the Unit Holder where the hole for the end pin is bored. (This can be done easily by using the usual saw for metal.)



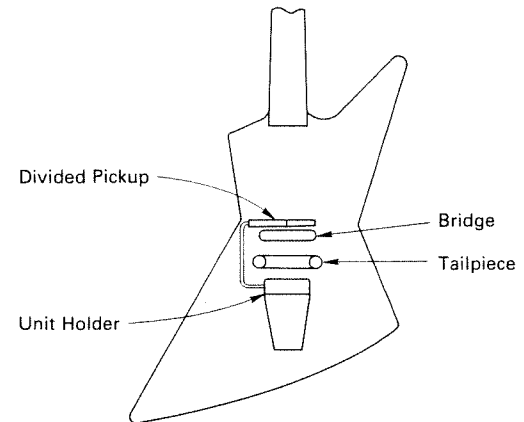
- ② Place the Unit Holder on the flat part of the guitar, then fix it with the supplied four screws (15mm).



* Before fixing the Unit Holder, please make sure that it does not prevent you from playing the guitar comfortably.

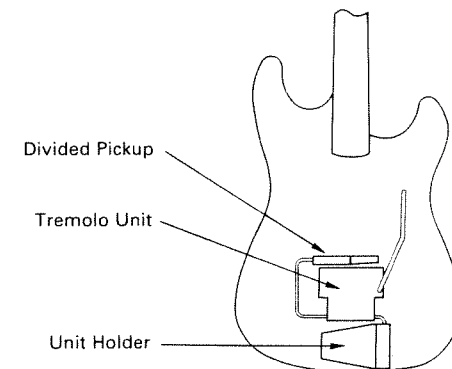
Guitar of unique shape.

- ▶ Install the Unit Holder flat without using the End Pin.



Guitar of a large Tremolo Unit.

- ▶ Install the Unit Holder sideways.



2. Attaching the Divided Pickup

The Divided Pickup is attached between the bridge and the pickup nearest to the bridge.

If the guitar's body is round, you may need to put the supplied pickup cushion between the pickup and the guitar.

① Insert the Divided Pickup under the strings and place it at the right position.

* Be sure that the direction of the Divided Pickup is correct as shown in the Fig. 2.

* If you find it difficult to insert the Divided Pickup, loosen the strings.

The right position of the Divided Pickup is where the center marker stays about the middle of the third and the fourth strings.

Please mark the position of the Pickup so that it can be distinguished later.

② Adjust the height of the Divided Pickup by using the supplied spacer.

Put the spacer under the pickup so that the distance between the upper side of the pickup and each string is about 0.5mm (0.02 inches) when the highest frets of the first and the sixth strings are pressed.

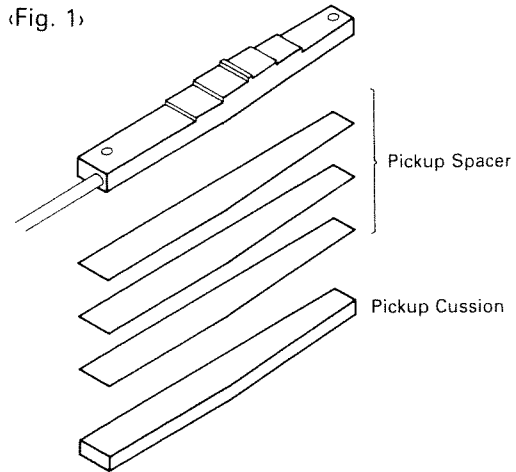
If the height differs at the first string and the sixth string, add the half-cut spacer to adjust the height.

* The pickup spacer is about 0.5mm thick itself, therefore can be used as a gauge for measuring the distance between the Divided Pickup and the strings.

③ Remove the strings.

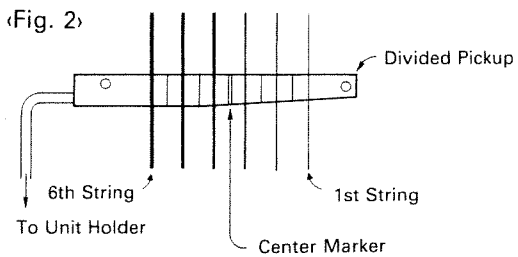
④ Peel the tape on the Divided Pickup, pickup spacer and pickup cushion (if using one) and attach each one from the guitar side.

⟨Fig. 1⟩

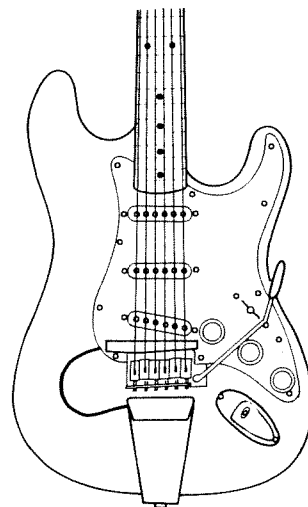


⑤ Tighten the strings as before.

⟨Fig. 2⟩



⟨Fig. 3⟩



«Attaching the Divided Pickup with the screws»

You can also use screws for fixing the Divided Pickup. This, however, is much more difficult: boring at the precise position is difficult and correcting the positions is even more difficult.

This method cannot be used if the strings are not high enough from the body to put the springs. The springs serve to adjust the height of the Pickup.

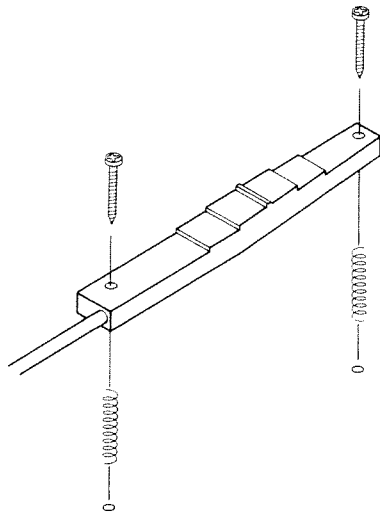
Place the Divided Pickup at the right position in exactly the same way as step ① on page 9.

Please mark the screw holes at the both sides of the Pickup as well as the Pickup.

- ① Bore the holes underneath the screw holes you marked.

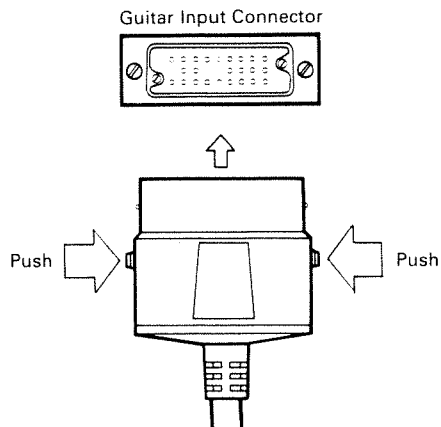
The diameters of the underneath holes should be about 2mm (0.08 inches).

- ② As shown in the picture, insert the supplied springs between the holes and the pickup, then tighten them with the screws.



3 OPERATION

- ① Connect the GR Connector ⑥ of the GK-1 to the Input Connector on the GR Guitar (GR-Series or GM-70).

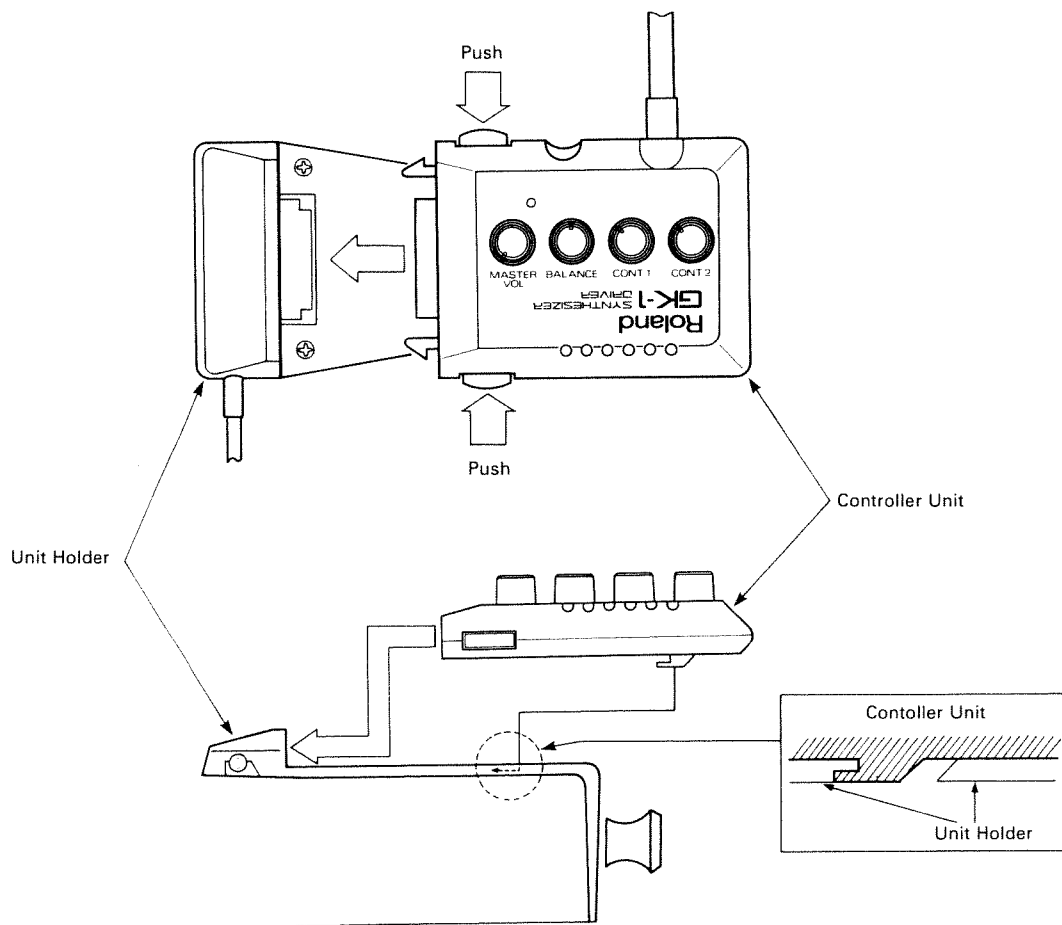


Push the side buttons of the socket, and without releasing them insert the socket into the connector. Then release the buttons, and the socket will be automatically locked. To disconnect the socket, press the side buttons down and pull it out.

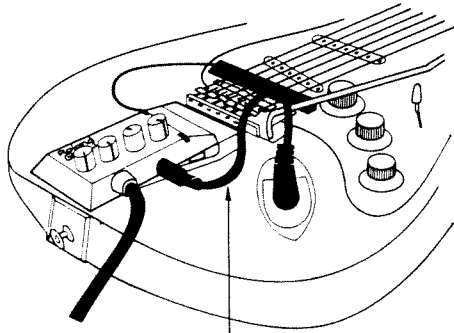
- ▶ If you cannot find the Guitar Input Connector on the GR guitar, refer to the relevant owner's manual.

- ② Attach the Controller Unit to the Unit Holder ⑨

As shown in the picture, push the side buttons of the socket, and without releasing them, insert the socket into the connector. Then release the buttons, and the socket will be automatically locked.



- ③ Connect the plug (large) of the supplied cord for the normal guitar to the output jack on the guitar, and the smaller plug to the Normal Guitar Input Jack ⑦ on the Controller Unit.



Cord For Normal Guitar

* This connection is necessary not only for mixing the guitar's normal sound and synthesizer sound but also connecting the guitar's earth and the GK-1's earth. Therefore, be sure to do it even when you do not need the guitar's normal sound at all. If you fail to do it, the guitar will not work properly.

- ④ Turn on the GR synthesizer unit (or the GM-70 and the sound module).

The Power Indicator ⑧ on the Controller Unit will light up.

Now, you can play the guitar with sound of the connected GR synthesizer unit (or the sound module).

The Power Indicator does not light up unless the following three conditions are fulfilled.

- (1) The Unit Holder and the Controller Unit are correctly setup.
- (2) The GR Connector is securely connected to the Guitar Input Connector on the GR synthesizer unit (or GM-70).
- (3) The connected GR synthesizer unit (or GM-70 and the sound module).

● Functions of the Control Knobs

The overall volume is adjusted with the Volume Knob ①, and the volume balance of the normal guitar and the synthesizer sounds is controlled with the Balance Knob ②.

The Control Knob 1 and 2 function differently depending on the type of the unit used.

Unit Used Control Knob	Guitar Synthesizer GR-700	Guitar Synthesizer GR-300/100	GR-MIDI Converter GM-70
Control Knob 1	Cutoff Frequency	Cutoff Frequency	Controller 1
Control Knob 2	Edit	Resonance	Controller 2

- The function of each control knob is explained in the respective owner's manual.

The GK-1 does not feature all the knobs or switches which are provided on the Roland G-series. (e.g. Mode Switch, Vibrato Depth Knob, Touch Plates). Therefore, the following functions cannot be obtained when the GK-1 is used with the GR Guitar Synthesizer Unit.

When using the GK-1 with the GR-700

- (1) Vibrato (ON/OFF) controlling from the guitar
(Fixed to OFF)
- (2) Mode Selection
(Mode is fixed at the center position)

When using the GK-1 with the GR-300

- (1) Vibrato (ON/OFF) controlling from the guitar
(Fixed to OFF)
- (2) Sound Selection Hexa-distortion
(Fixed at the center position)

When using the GK-1 with the GR-100

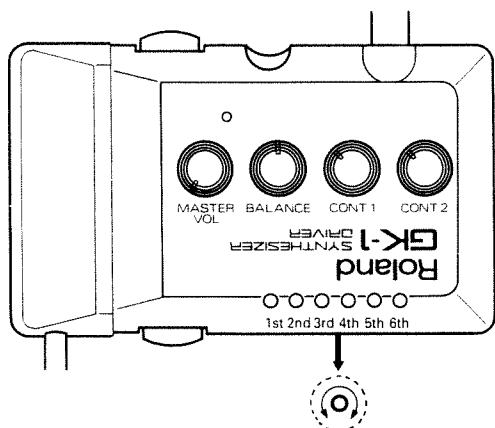
- (1) Vibrato (ON/OFF) controlling from the guitar
(Fixed to OFF)
- (2) Sound Selection Hexa-distortion
(Fixed at the center position)

4 OUTPUT ADJUSTMENT OF THE CONTROLLER UNIT

The output level of the external Controller Unit can be adjusted in each string on the GK-1.

* When using the GR-300 or GR-100, level adjustment is not necessary.

To change the output level, rotate each of the Output Adjusting Knob ⑤ with the supplied driver or with a thin type driver (for a slotted head screw).



- ▶ For the detailed explanation on adjusting the output level, refer to "Adjustment of the Guitar's Output Level" in each owner's manual.

5 SPECIFICATIONS

GK-1: GR Synthesizer Driver

Compatible with: GM-70, GR-700, GR-300 or GR-100

Controller Unit

Volume Knob × 1
Balance Knob × 1
Control Knob × 2
GR Connection Cable (5m: 24 pin connector)
Normal Guitar Input Jack
Output Adjusting Knob × 6

Unit Holder

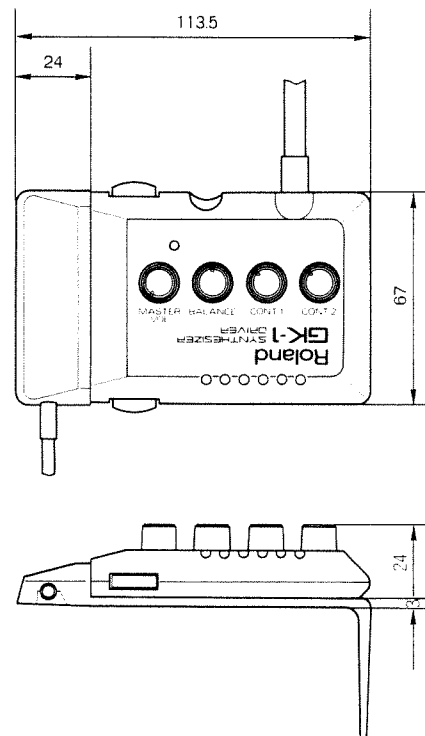
Divided Pickup
(Fixed with the supplied both-sided adhesive tape or screws of up to 8)

Dimensions: See the right picture

Weight: 428g/15oz (including GR Connection Cable)

Accessories:

Cord for Normal Guitar × 1
Parts for installation
Driver
Owner's Manual

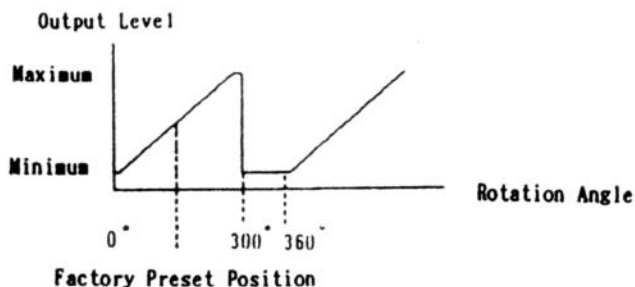


◆◆Notes on Adjusting the Output Level ◆◆

The Output Level Adjusting Knob can be rotated clockwise or counterclockwise freely (360 rotation).

The knob's rotation and the actual output level are as shown below.

Clockwise Rotation



At 0, the output level is lowest, and clockwise rotation increases the sensitivity. Around 330, it is the highest, at between 300 to 360 (=0), the level is the lowest again.

Even at the lowest output level, you hear a slight sound.

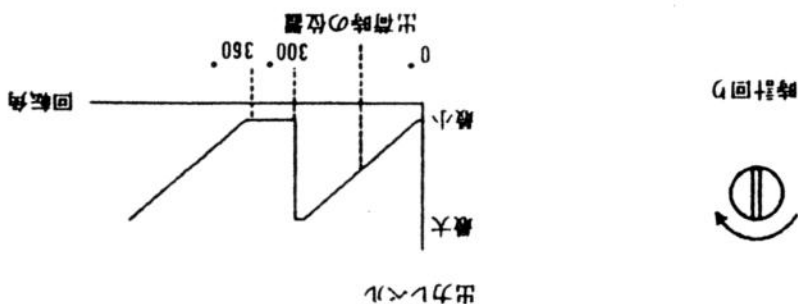
The Output Level Adjusting Knob is set to the middle of the minimum and the maximum levels from the manufacturer.

出荷時のボリュームは最大と最小の真ん中の位置になっています。

レベルが最小のときでも音は消えません。

で最大になります。300 度以上ではレベルは最小になります。

0度 のとき、レベルは最小で、時計回りに回していくと感度が上り、約 300度付近



ボリュームの回転角と出力レベルの関係は図のようになります。

出力調整用ボリュームは左右両方向に 360度回転します。