Please read the instructions carefully.
INTRODUCTION

The VB-2 is an effect unit providing a vibrato effect which can be applied to not only an electric guitar but also an electric piano, and an electronic piano which used to be impossible to get a vibrato effect, and any other electric musical instruments.

You can select and use any of the three modes; UNLATCH mode to obtain a vibrato effect only while the Pedal switch is being pressed, LATCH mode to turn the vibrato effect on and off by pressing the Pedal switch and BYPASS mode when a vibrato effect is not required. Moreover, it is equipped with the Rise Time that can control the time needed for a vibrato to reach its maximum. Thereby you can obtain natural vibrato effect. Also, by adopting as many as 1024 stages of BBD (Bucket Brigade Device), wide frequency range is guaranteed.
MODE
This is the select switch for three different modes; LATCH, UNLATCH and BYPASS. The function varies depending what position this switch is set to.

•LATCH
Set the MODE switch to this position when you want to turn a vibrato effect on and off by pressing the Pedal Switch.

•BYPASS
Set the MODE switch to this position when a vibrato is not required. (A vibrato is not obtainable even if you press the Pedal Switch.)

•UNLATCH
Set the MODE switch to this position when you want to obtain a vibrato effect only while you are pressing the Pedal Switch.

RISE TIME
This knob is to adjust the time needed for a vibrato to reach its maximum. If you turn it clockwise, the rise time will become longer, and shorter if turning counterclockwise.

DEPTH
This knob adjusts the depth of a vibrato. Turn it clockwise to increase the depth and counterclockwise to decrease.

RATE
This adjusts the rate of a vibrato. Turn it clockwise to quicken the rate and counterclockwise to delay it.

INPUT JACK
This jack is to connect an electric guitar and other electronic musical instruments to.

OUTPUT JACK
The VB-2 generates low noise and hum as a result of its low impedance output to the amplifiers.

BATTERY ELIMINATOR JACK
Connect the BOSS AC Adaptor to this jack.

INDICATOR
You can see whether the vibrato is on or off, and also check the battery. If the indicator lights up in pressing the Pedal Switch, the vibrato is on. If not, it shows that the vibrato is off.
*Replace the battery with a new one if the indicator becomes dimmer or fails to light.

PEDAL SWITCH
This turns a vibrato effect on and off.
*Please note that this switch does not affect the Normal/Effect function and thereby FET switching system is not adopted.

THUMB SCREW
Do not remove the screw from the unit when replacing the battery.
NOTE
*Use the BOOS AC Adaptor for AC operation.
*Avoid using the VB-2 in excessive heat or humidity or where it may be affected by dust.

Power is on while the plug is being connected to the INPUT jack.
Remember to disconnect the plug from the INPUT jack when the VB-2 is not to be used.

Remember to disconnect the plug from the INPUT jack when the VB-2 is not to be used.
OPERATING VB-2

1. After connecting all the cord required, set all the knobs on the panel as shown beside.

2. If the Indicator lights up by pressing the Pedal Switch, the vibrato effect is on. If not, the vibrato is off.
   *This LED is used to check the battery as well. If the LED fails to light or becomes dimmer, the battery should be replaced.

3. Adjust the depth of a vibrato with the DEPTH knob and the rate of a vibrato with the RATE knob.

4. While turning the Pedal Switch on and off, adjust the Rise Time (time needed for an effect to become its maximum).

5. Change the modes and see how it works.
CAUTIONS
• When you do not use the VB-2 for long periods, remove the battery to prevent leakage.
• If battery voltage drops, effect becomes inferior or no sound is produced. To prevent that, replace the battery.

AC ADAPTOR (OPTION)

• Be sure to keep the battery securely connected even while using the AC Adapter.
  * Even if AC Adaptor cord comes out during performance, the VB-2 will continue to operate if the battery is connected.
• Keep the plug off the INPUT jack when the VB-2 is not in use.

Use the BOSS AC Adaptor to obtain satisfactory AC operation.

BOSS ACA-120 FOR 117V AC

BOSS ACA-240 FOR 240V AC

BOSS ACA-220 FOR 220V AC
BATTERY REPLACEMENT AND PRECAUTIONS

USE ONE 9-VOLT BATTERY

1. Loosen the screw of the PEDAL and open it.

2. Take out the battery from the BATTERY HOUSING and replace with a new one.

3. Set the COIL SPRING onto the SPRING BASE, and shut the COVER. Please be careful not to catch the BATTERY STRAP with the COVER or the COIL SPRING.

4. Insert the screw into the PEDAL GUIDE and tighten it.
**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>DC 9V 006P (1), AC Adaptor</td>
</tr>
<tr>
<td>Consumption</td>
<td>DC 9V 8.5mA</td>
</tr>
<tr>
<td>Controls</td>
<td>RATE, DEPTH, RISE TIME, MODE (LATCH↔ BYPASS↔ UNLATCH)</td>
</tr>
<tr>
<td>Others</td>
<td>Vibrato ON/OFF Switch Indicator</td>
</tr>
<tr>
<td>Jacks</td>
<td>Input, Output, AC Adaptor</td>
</tr>
<tr>
<td>Maximum Input Level</td>
<td>$-5,\text{dBm}$ (at 1kHz)</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>$-2,\text{dBm}$ (at 100Hz)</td>
</tr>
<tr>
<td>Output Load Impedance</td>
<td>$10,\text{k}\Omega$ or more</td>
</tr>
<tr>
<td>Frequency Range</td>
<td>$40,\text{Hz} \sim 17,\text{kHz}$ ($-3,\text{dB}$, Vibrato)</td>
</tr>
<tr>
<td>Delay Time</td>
<td>$4,\text{ms}$ (Depth)</td>
</tr>
<tr>
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<tr>
<td>Rise Time</td>
<td>$150,\text{ms} \sim 5,\text{s}$</td>
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<tr>
<td>S/N Ratio</td>
<td>$-92,\text{dB}$ (IHF-A)</td>
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<tr>
<td>Dimensions</td>
<td>$70(W) \times 55(H) \times 125(D),\text{mm}$</td>
</tr>
<tr>
<td>Weight</td>
<td>$450,\text{g}$</td>
</tr>
</tbody>
</table>

*Specifications are subject to change without notice.*

*BOSS*

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