



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

Main Features

This is a vocoder for guitar or bass that provides unique and high-impact vocoder sound just as if you were playing a keyboard instrument.

TALK BOX mode lets you use your voice to create a variety of performance expressions without having to keep a hose gripped in your mouth; simply connect a mic and your guitar or bass.

You can also use CHOIR mode to add spaciousness and depth to your playing without connecting a mic.

Panel Descriptions

DC IN jack

Accepts connection of an AC Adaptor (PSA series; optional). By using an AC Adaptor, you can play without being concerned about how much battery power you have left.

- * Use only the specified AC adaptor (PSA series; optional), and connect it to an AC outlet of the correct voltage. Do not use any other AC adaptor, since this may cause malfunction.
- * If the AC adaptor is connected while a battery is installed, the power supply is drawn from the AC adaptor.
- * We recommend that you keep batteries installed in the unit even though you'll be powering it with the AC adaptor. That way, you'll be able to continue a performance even if the cord of the AC adaptor gets accidentally disconnected from the unit.

AC Adaptor
(PSA series: optional)

CHECK indicator

This indicator shows whether the effect is on or off, and also doubles as the battery check indicator. The indicator lights when the effect is on.

- * If you're powering the unit with a battery and the CHECK indicator goes dim—or doesn't light at all—when you try to turn the effect on, the battery is near depletion and should be replaced. For instructions on changing the battery, refer to "Changing the Battery."
- * The CHECK indicator shows whether the effect is being applied or not. It does not indicate whether the power to the device is on or not.

LEVEL knob

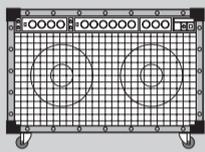
Adjusts the overall volume.

BLEND knob

Adjusts the balance of the guitar/bass input sound and the effect sound. If you're using the RETURN jack, this knob adjusts the balance of the audio signal that's input to the RETURN jack and the effect sound.

OUTPUT jack

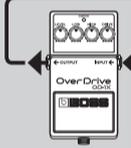
Connect this jack to your amp or to the input of another effect unit.



SEND/RETURN jacks

Connect the SEND jack to the input of an effect unit that you're using to process the audio signal of your guitar/bass.

- * If you connect a distortion-type or other effect unit to the SEND/RETURN jacks, you can perform with your preferred guitar/bass sound heard together with the vocoder effect.



Pedal switch

This switch turns the effect on/off.

	GUITAR/BASS	MIC
EFFECT OFF	BYPASS	OFF

Thumbscrew

When this screw is loosened, the pedal will open, allowing you to change the battery.

- * For instructions on changing the battery, refer to "Changing the Battery."

TONE knob

Adjusts the brightness of the effect sound.

COLOR knob/MODE knob

- * Refer to "COLOR Knob," "MODE Knob."

INPUT jack

Connect your guitar/bass to this jack.

- * Connect your guitar/bass directly to this jack. If you want to connect an effect unit before the VO-1, use the SEND/RETURN jacks.

- * The INPUT jack doubles as the power switch. Power to the unit is turned on when you plug into the INPUT jack; the power is turned off when the cable is unplugged. To prevent unnecessary battery consumption, be sure to disconnect the plug from the INPUT jack when not using the effects unit.

MIC jack

Connect your mic to this jack.

Use the MIC SENS switch located beside the DC IN jack to select the appropriate input sensitivity for your mic. The normal setting is LOW, but you should set this to HIGH if the sensitivity is insufficient.



- * This instrument is equipped with balanced (XLR) type jacks. Wiring diagrams for these jacks are shown as the illustration. Make connections after first checking the wiring diagrams of other equipment you intend to connect.



- * This unit does not provide phantom power.

Precautions When Connecting

- * To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.

- * Once the connections have been completed, turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

When powering up: Turn on the power to your guitar amp last.

When powering down: Turn off the power to your guitar amp first.

- * Immediately after the unit is powered-on, the effect is on.

Use of Battery

- * A battery was installed in the unit before it left the factory. The life of this battery may be limited, however, since its primary purpose was to enable testing.

- * If you handle batteries improperly, you risk explosion and fluid leakage. Make sure that you carefully observe all of the items related to batteries that are listed in "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (supplied on a separate sheet).

- * When operating on battery power only, the unit's indicator will become dim when battery power gets too low. Replace the battery as soon as possible.

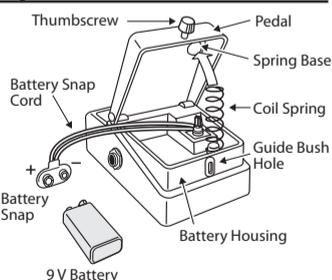
- * Batteries should always be installed or replaced before connecting any other devices. This way, you can prevent malfunction and damage.

- * If operating this unit on battery, please use alkaline battery.

Changing the Battery

1. Hold down the pedal and loosen the thumbscrew, then open the pedal upward.

- * The pedal can be opened without detaching the thumbscrew completely.



2. Remove the old battery from the battery housing, and remove the snap cord connected to it.

3. Connect the snap cord to the new battery, and place the battery inside the battery housing.

- * Be sure to carefully observe the battery's polarity (+ versus -).

4. Slip the coil spring onto the spring base on the back of the pedal, and then close the pedal.

- * Carefully avoid getting the snap cord caught in the pedal, coil spring, and battery housing.

5. Finally, insert the thumbscrew into the guide bush hole and fasten it securely.

MODE Knob

Switches the vocoder mode.

MODE	Explanation
VINTAGE	Produces a unique vocoder effect as if you were playing a keyboard instrument.
ADVANCED	Produces a new vocoder effect with greater clarity than VINTAGE.
TALK BOX	Produces a talk-box sound without requiring a hose.
CHOIR	Automatically adds voices that are matched to your playing, adding spaciousness and depth to your sound. You can also use this without connecting a mic.

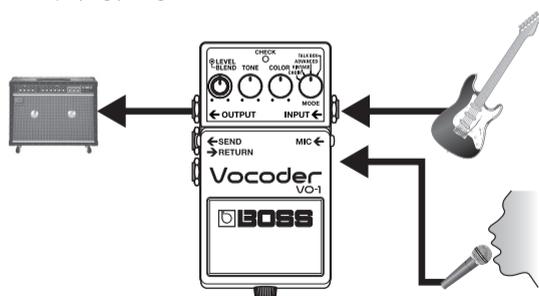
COLOR Knob

Adjusts the following, depending on the mode that's selected.

MODE	Explanation
VINTAGE	Turning the knob toward the left makes the effect sound more masculine; turning it toward the right makes the effect sound more feminine.
ADVANCED	
TALK BOX	Adjusts the amount of distortion for the effect sound.
CHOIR	Adjusts the character of the voices that are added.

Playing the Vocoder

While playing your guitar, vocalize into the connected mic.



- * In modes other than CHOIR, you won't hear any effect sound unless you're vocalizing into the mic.

Specifications

BOSS VO-1: Vocoder

Nominal Input Level	INPUT, RETURN: -20 dBu MIC: -40 dBu (MIC SENS: LOW)
Input Impedance	INPUT, RETURN: 1 MΩ MIC: 4 kΩ
Nominal Output Level	OUTPUT, SEND: -20 dBu
Output Impedance	OUTPUT, SEND: 1 kΩ
Recommended Load Impedance	10 kΩ or greater
Power Supply	DC 9 V: Carbon-zinc battery (9 V, 6F22)/ Alkaline battery (9 V, 6LR61), AC Adaptor (sold separately)
Current Draw	65 mA * Expected battery life under continuous use: Alkaline: Approx. 5 hours These figures will vary depending on the actual conditions of use.
Dimensions	73 (W) x 129 (D) x 59 (H) mm 2-7/8 (W) x 5-1/8 (D) x 2-3/8 (H) inches
Weight	450 g/1 lb (including battery)
Accessories	Owner's Manual, Leaflet ("USING THE UNIT SAFELY," "IMPORTANT NOTES," and "Information"), Alkaline battery (9 V, 6LR61)
Option (sold separately)	AC adaptor (PSA series)

* 0 dBu = 0.775 Vrms