NS-2
Noise Suppressor

Owner's Manual

English

BOSS

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Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (supplied on a separate sheet).
After reading, keep the document(s) where it will be available for immediate reference.

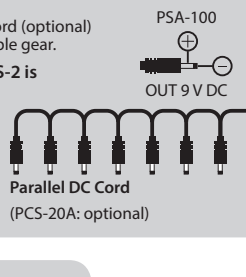
Main Features

The BOSS NS-2 is a completely new type noise suppressor that features the SEND and RETURN jacks.
The NS-2 can detect the instrument signal separately from the noise comes from each effect unit connected between the SEND and RETURN. This makes it possible to reduce the noise of each effect unit whether it is turned on or off.
Different from the past noise suppressing system, the NS-2 features a high-quality VCA and high-speed envelope-detecting circuits, and the expander starts its function when the volume of the instrument becomes lower than the threshold level. Therefore, natural noise reducing effect is obtained without deteriorating the sound quality and expression.
The NS-2 works as a noise-gate unit, cutting the noise and hum that occur between song intervals or at break.
You can use the Pedal Switch effectively as a mute-switch when tuning or changing guitars, as for a Normal/Effect switch.
The 9 V DC OUT jack is provided ti connect to the optional Parallel DC Cord (PCS-20A) for supplying power to the other 9 V effect units.

Panel Descriptions

9 V DC OUT jack
When an AC adapter is used, you can connect a PCS-20A parallel DC cord (optional) to supply power to effects processors and other PSA adaptor-compatible gear.

* **Power cannot be supplied from the DC OUT jack when the NS-2 is running on batteries.**
* **If you use the PCS-20A to supply power to devices that are compatible with PSA adaptors, make sure that the total current consumption of all devices (including the NS-2) does not exceed the maximum output current of the PSA series unit you're using.**



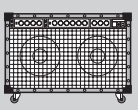
DC IN jack
Accepts connection of an AC Adaptor (PSA series; sold separately). By using an AC Adaptor, you can play without being concerned about how much battery power you have left.

* **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.**
* **Use only the specified AC adaptor (PSA-series).**
* **If the AC adaptor is connected while power is on, the power supply is drawn from the AC adaptor.**

REDUCTION indicator
This indicator os lit when the noise reduction function is being engaged.

THRESHOLD knob
This sets the threshold level where the noise suppression starts working. Adjust it depending on the signal level and noise level, and when too low, counterclockwise.

OUTPUT jack
The output jack is used to connect the unit to amplifiers or other devices.

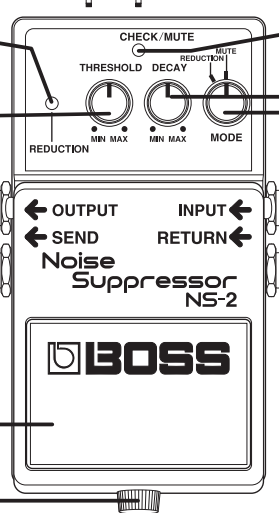


SEND jack
Through this jack, the input signal is sent to external effect devices.

Pedal Switch
By pressing the pedal, effect ON/OFF (Normal/Reduction in the Reduction mode and Reduction/Mute in the Mute mode) can be controlled.

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."**



CHECK/MUTE indicator
This indicator lights when the effect (Noise reduction or Mute whichever selected) is on.
This indicator also serves as battery check.

* **If this indicator goes dim or no longer lights while an effect is ON, the battery is near exhaustion and should be replaced immediately.**
* **The CHECK indicator shows whether the effect is on or off, and indicates the different functions. It does not indicate whether the power to the device is on or not.**

DECAY knob
This sets the time needed for the sound to fade out when the input signal becomes lower than the set threshold level.
Rotating it clockwise makes the decay time longer. Normally, set this to the MIN position.

MODE selector switch
This selects the reduction or mute mode.

MODE \ CHECK/MUTE Indicator	Dark (OFF)	Light (ON)
REDUCTION	Normal	Reduction
MUTE	Reduction	Mute on

RETURN jack
This is where the signals from the effect units are returned.

INPUT jack
This jack accepts input signals (coming from a guitar, some other musical instrument, or another effects unit).

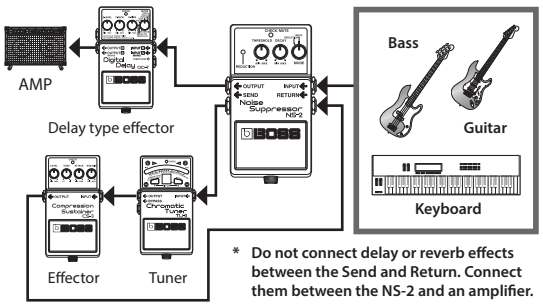
* **The INPUT jack also serves as the power switch. Power is turned on whenever a plug is inserted into the INPUT jack, and is turned off when the plug is disconnected. When not using the unit, you should disconnect any cord connected to the INPUT jack.**

* **To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.**
* **Before turning the unit on/off, always be sure to turn the volume down. Even with the volume turned down, you might hear some sound when switching the unit on/off. However, this is normal and does not indicate a malfunction.**

Operating the Unit

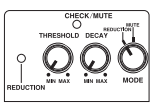
1. **Make all the necessary connections.**

* **You can also set up the NS-2 at the end of the other effects, but the example setup may be more effective.**



* **Do not connect delay or reverb effects between the Send and Return. Connect them between the NS-2 and an amplifier.**

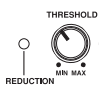
2. **Set the controls on the panel as shown below.**



3. **Push the pedal switch and make sure the check indicator lights up.**

* **When the check indicator is lit, noise reduction is on and when it is dark, normal.**

4. **Turn on the effect device to be used, then set the threshold knob so that the reduction indicator will light while not playing and the noise will not be natural.**



* **Try making the decay toward the end sound natural.**

5. **Normally, set the DECAY knob to the MIN position, but if the sound does not fade out naturally, rotate it clockwise.**

6. **Set the mode selector switch to reduction or mute.**

* **REDUCTION position allows you to select Normal or reduction, and the MUTE position allows you to keep reduction on use Mute occasionally.**

IMPORTANT NOTES

* **A manganese battery will last for about 5 hours. This depends on the kind of the battery and how you use the unit.**
* **If the battery voltage drops (the Check/Mute indicator becomes dimmer), various symptoms are shown, such as the effect becomes weak, no sound is produced, etc. To prevent that, replace the battery immediately.**
* **When the unit is not to be for a long period of time, remove the battery to prevent problems caused by battery leakage.**
* **Plugging in the INPUT jack automatically turns on the unit. So disconnect the cord from the INPUT jack when the unit is not in use.**
* **Avoid using this in extreme heart or humidity, or where it may be affected by dust.**

AC Adaptor

* **Be sure to use the AC adaptor BOSS PSA-120, 220 or 240 depending on the line voltage system in your country.**
* **DO not use the same socket used for any noise generating or large power consuming device such as a motor, variable lighting system, etc.**
* **Connect the AC adaptor to the 9 V DC IN jack on the unit first, then to the socket.**
* **Be sure to keep the battery securely connected even while using the AC adaptor, then the unit will continue to operate even if the AC adaptor cord comes out during performance.**
* **When the unit is not in use, disconnect the AC adaptor from the socket.**

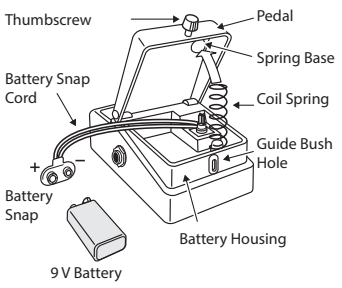
Use of Battery

* **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.**

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.**

Main Specifications

BOSS NS-2: Noise Suppressor

Nominal Input Level	-20 dBu
Input Impedance	1 MΩ
Nominal Output Level	-20 dBu
Output Impedance	1 kΩ
Recommended Load Impedance	10 kΩ or greater
Power Supply	DC 9 V: Dry battery 6F22 (9 V) type (carbon), AC Adaptor (PSA-series: optional)
Current Draw	20 mA (DC 9 V) * **Expected battery life under continuous use:** Carbon: 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	400 g / 15 oz (including battery)
Accessories	Owner's Manual, Leaflet ("USING THE UNIT SAFELY," "IMPORTANT NOTES," and "Information"), Dry battery/9 V type (6F22)
Options	AC adaptor (PSA-series) DC-DC Plug: PCS-25 Parallel DC Cord: PCS-20A

* **0 dBu = 0.775 Vrms**
* **This document explains the specifications of the product at the time that the document was issued. For the latest information, refer to the Roland website.**

⚠ WARNING

Connect only specified devices to DC OUT jack

Connect only the specified device (PCS-20A) to the DC OUT jack (which provide a supply of power).