

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 DS-2 is a distortion unit that features a turbo circuits.
- All circuits adopt discrete system, therefore there is very low noise created.
- Two types of distortions are optional by changing the Turbo Modes.
- The turbo I/II can be controlled by using the footswitch connected to the Remote jack.

## Panel Descriptions

### 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.

AC Adaptor  
(PSA series; sold separately)

### LEVEL knob

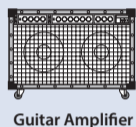
This adjusts the volume of the effect sound. Clockwise rotation raises the volume and counterclockwise rotation decreases.

### TONE knob

This adjusts the tone of the effect sound. As you rotate the knob clockwise, higher frequencies are emphasized, and counterclockwise cuts them.

### OUTPUT jack

Connect an amplifier to this jack.



### Pedal Switch

This switch turns the effects ON/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."

### CHECK indicator

This indicator shows whether an effect is ON/OFF, and doubles as the Battery Check indicator. The indicator lights when an effect is ON.

- \* If this indicator goes dim or no longer lights while an effect is ON, the battery is near exhaustion and should be replaced immediately.

### DIST knob

This adjusts the depth of the distortion effect. Rotating the knob clockwise deepens the distortion creating powerful distortion effect. Rotating the knob counterclockwise makes lighter distortion.

### TURBO selector knob

This selects the turbo Mode I or II. For details, refer to "Operating the Unit."

### INPUT jack

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

- \* 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.

### REMOTE jack

By connecting an optional footswitch such as FS-5L to this jack, you select the Turbo Mode I or II using the pedal.

- \* To obtain the above remote controlling function, be sure to set the Turbo mode selector knob to the II (REMOTE) position.

## 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.

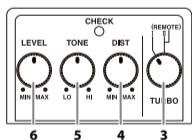
**When powering up:** Turn on the power to your guitar amp last.

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

- 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, then set the knobs on the panel as shown in the illustration.



2. Press the Pedal Switch and make sure that the CHECK indicator lights up.

3. Set the TURBO selector knob to the desired position, I or II.

Turbo I	Turbo I mode gives a powerful distortion sound because of the Turbo circuits. Featuring flat characteristics, the created sound is not muffled even when the volume is turned down. Also the distortion circuits serve to remove unpleasant shrill caused when the sound is extremely distorted.
Turbo II	Sticky distortion with unique characteristic in middle range sound. The Turbo circuits provide the powerful sound of a large vacuum tube amp played at full volume.

4. Adjust the depth of distortion with the DIST knob.
5. Adjust the tone of distortion with the TONE knob.
6. Adjust the volume of the distortion with the LEVEL knob.

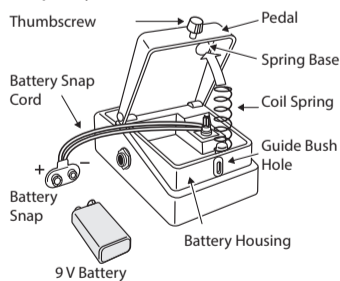
## Use of Battery

- 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

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	Carbon-zinc battery (9 V, 6F22) or Alkaline battery (9 V, 6LR61) AC adaptor (PSA series; sold separately)
Current Draw	15 mA  * Expected battery life under continuous use: Carbon: 25.5 hours Alkaline: 42 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	395 g / 14 oz (including battery)
Accessories	Leaflet ("USING THE UNIT SAFELY," "IMPORTANT NOTES," and "Information") Carbon-zinc battery (9 V, 6F22)
Options (sold separately)	AC adaptor (PSA-series)

\* 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.