

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-1 is an effect unit that generates both distortion and sustain effects.
- By rotating the knobs you can create all kinds of sounds, from warm, soft sustain to hard, powerful distortion.
- The DS-1 can be powered by a battery or an optional AC adaptor.

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.

- * Use only the specified AC adaptor (PSA-Series).
- * Use only the specified AC adaptor (PSA series; sold separately), and connect it to an AC outlet of the correct voltage. Do not use any other AC adaptor, since this may cause malfunction.
- * 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.



CHECK Indicator

This indicator shows whether an effect is ON/OFF, and also 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. For instructions on changing the battery, refer to "Changing the Battery."

TONE Knob

This knob controls the tone of the distortion sounds. Rotating the knob clockwise cuts lower frequencies, creating sharp sounds. Rotating the knob counterclockwise cuts higher frequencies, creating softer, warmer sounds.

LEVEL Knob

This knob adjusts the level of the effect sounds. Set the knob so there is no volume difference between the effect and straight guitar sounds.

OUTPUT Jack

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



Pedal Switch

Used for switching effects on/off.

INPUT Jack

Electric guitar

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.

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."

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 everything is properly connected, be sure to follow the procedure below to turn on their power. If you turn on equipment in the wrong order, you risk causing malfunction or equipment failure.

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

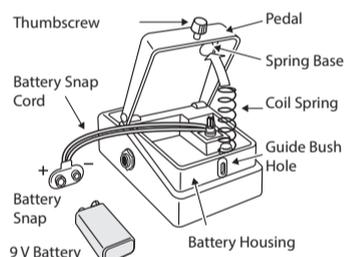
When powering down: Turn off the power to your guitar amp first.

- Due to the characteristics of its analog circuitry, this unit's CHECK indicator may be lit (effect on) or unlit (effect off) when you turn the power 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 the batteries run extremely low, the sound may distort, but this does not indicate a malfunction. If this occurs, please replace the batteries / use the optional AC adaptor.
- 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.
- 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.
- 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).

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	10 mA * Expected battery life under continuous use: Carbon: 50 hours Alkaline: 80 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	360 g / 13 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.