FEATURES

- Wide range of distortion from hard to soft.
- Special tone creator section for a wide variety of tone color effects.
- Dual inputs (hi-gain and lo-gain) to match any guitar.
- Jacks on both the front and rear panel for output and external effect loop.
- Both balanced and unbalanced outputs.

BEFORE STARTING

- Make sure that the line voltage in your area meets the requirements given in the specifications.
- Check with your local Roland dealer if you want to use the SIP-300 in a foreign country.
- Plug the SIP-300 in before turning on the power switch.

PRECAUTIONS

- Do not open this unit.
- Unplug this unit when it is not to be used for long periods of time. Unplug by grasping the plug rather than pulling on the cord.
- Be careful not to place heavy objects on the power cord.
- Avoid using this unit in very high or low temperature locations. Also keep away from heaters and coolers since this type of equipment will affect circuit and pitch stability.
- Avoid using this unit in very dusty or humid places.
- If it is necessary to use this unit in an area with neon or fluorescent lights, keep it as far away from these lights as possible since they will induce high levels of noise. Sometimes changing the angle of this unit in relation to the lights will help reduce noise.
- When connecting this unit, plug the cord into the external amplifier first, then plug the other end of the cord into the SIP-300 output. To disconnect, remove the cord from the SIP-300 first, then from the amplifier.
- To clean this unit, wipe with a cloth dampened with a neutral cleaner. Do not use solvents such as paint thinner.

CONNECTION

![Connection Diagram]

When using a Roland SPA type power amplifier, use the rear connector for convenience.
1. After making connections, set the front panel controls as shown in the drawing.
2. Turn on the POWER switch ③.
3. Raise the VOLUME control ③ and the MASTER VOLUME ⑤ to obtain the normal guitar sound.
4. Try various settings of the OVER-DRIVE and TONE CREATOR section controls.

DISTORTION SECTION
Distortion is produced by the overdrive circuit and also by the output amplifier stage (see "LEVEL SECTION", p. 4). The amount of distortion is controlled by the SENSITIVITY control ③ and the LEVEL SECTION VOLUME control ⑤.

Soft Distortion
This setting produces soft distortion much like that produced by vacuum tube amplifiers.

Hard Distortion
This setting can be used when playing harmonics or when using feedback.

NAMES AND FUNCTIONS OF THE CONTROLS

INPUT SECTION

INPUT Jack ①, ②
Use the HI GAIN INPUT ① with low output level instruments and the LO GAIN INPUT ② with high output level instruments.
**OVERDRIVE SECTION**

**VOLUME 1**
Controls the amount of overdrive.

**VOLUME 2**
This controls the output level from the OVERDRIVE SECTION.

**FOOT SWITCH Jack**
For remote ON/OFF control of the overdrive effect using a foot pedal (Roland FS-1, sold separately).

**OVERDRIVE INDICATOR**
Operates in conjunction with the FOOT SWITCH jack, above to indicate when the overdrive effect is ON.

**TONE CREATOR SECTION**

**BASS**
MIDDLE and TREBLE Controls
For adjusting the bass, middle, and high frequency ranges. Turn clockwise to accent the respective frequency ranges.

**FREQUENCY RANGE SELECTOR Switches**
Selects the frequency cutoff points for the BASS, MIDDLE, and TREBLE controls.

- **BASS**: HI = 50 Hz, LO = 40 Hz
- **MIDDLE**: 1kHz, 500Hz
- **TREBLE**: HI = 9kHz, LO = 6kHz

**LO CUT FILTER Switch**
At ON, cuts all frequencies below 60Hz at -12dB/oct. Prevents speaker damage from undesirable high level low frequencies and eliminates low frequency noise.

**HI CUT FILTER Switch**
At ON, cuts high frequencies above 6kHz at -12dB/oct. Removes undesirable high frequencies and high frequency noise form the output.

**LEVEL SECTION**

The SIP-300 is equipped with an output amplifier stage. The VOLUME control controls the input level to this output stage while the MASTER VOLUME control controls the output level of the SIP-300. Distortion can be created in this stage by setting the VOLUME control high and the MASTER VOLUME control low.

**The MASTER VOLUME control**
do not affect the output level at the balanced output.

**UNBALANCED OUTPUT Jack**
For connection to a power amplifier.
EXTERNAL EFFECT LOOP

SEND Jack ②: RETURN Jack ③
For use with an external effects device. EXTERNAL DEVICE
SEND ②-INPUT-OUTPUT-RETURN ③
To prevent noise generated by ground loops, *the SEND jack ② is not ground-
ed internally; the external effects device takes its common ground from the
RETURN jack ③ portion of the circuit. This means that the SEND jack ② cannot
be used alone as a signal source, but must always be used as a loop in
conjunction with the RETURN jack ③.
*Ground loop: more than one ground connection between two pieces of
equipment, sometimes a major cause of noise problems.

BALANCED OUTPUT CONNECTOR

The output level at the BALANCED
OUTPUT ⑤ is not controlled by the
MASTER VOLUME control ⑥.

POWER Switch ⑦

REAR PANEL

UNBALANCED OUTPUT Jack ④
Can be used simultaneously with the
front panel OUTPUT jack ⑤.

EXT EFFECT LOOP: SEND ②:
RETURN ③
See "EXTERNAL EFFECT LOOP"
above.

GND (ground) ⑥
For making common ground connec-
tions with other equipment.

About the Outputs
The SIP-300 is equipped with three out-
puts: Two unbalanced outputs using
standard 1/4" phone jacks and a bal-
anced output using an XLR connector.
All three outputs can be used simul-
taneously, if desired. The balanced out-
put was designed to bypass the
MASTER VOLUME control ⑥ so that
it could be connected directly to a
studio or PA mixer.
XLR pin assignments:
Pin 1: shield (ground)
Pin 2: cold
Pin 3: hot
GUITAR PRE-AMP SIP-300 BLOCK DIAGRAM

- Rack Mounting the SIP-300
The SIP-300 can be mounted in a standard 19" rack using 5mm screws as shown in the drawing.
SPECIFICATIONS

**GUITAR PRE-AMP SIP-300**

**Input level**
- HI: min* $-38$ dB (100 mV)
  - max +14 dB (4 V)
- LO: min* $-28$ dB (30 mV)
  - max +24 dB (12 V)
*Nominal level: +4 dBm;
effect: off
other controls max.

**Input impedance**
- HI: 250 kΩ
- LO: 100 kΩ

**Output level**
- Balanced: nom +4 dBm (1.23 V)
  - max +20 dBm (7.75 V)
- Unbalanced: nom +0.5 dBm (0.20 V)
  - max +16 dB (4.8 V)

**Output impedance:**
600 Ω (balanced and unbalanced)

**Frequency range:**
20 Hz – 30 kHz

**S/N:**
greater than 74 dB (nominal operating levels)

**Distortion:**
0.1% (20 Hz – 10 kHz, ±10 dBm unbalanced)

**CONTROL & SWITCH**

**Overdrive:**
- VOLUME 1
- VOLUME 2

**Tone Creator:**
- BASS (−16 dB to +16 dB/50 Hz)
- MIDDLE (−10 dB to +15 dB/1 kHz)
- TREBLE (−15 dB to 19 dB/9 kHz)

**Selectorable:**
- BASS (40 Hz/50 Hz)
- MIDDLE (50 Hz/1 kHz)
- TREBLE (6 kHz/9 kHz)

**Filter:**
- LOW CUT (60 Hz, 12 dB/oct)
- HIGH CUT (6 kHz, 12 dB/oct)

**Final Amp:**
- VOLUME
- MASTER VOLUME

**CONNECTION JACKS**

**Input:**
- HIGH GAIN
- LOW GAIN

**Output:**
- BALANCED (XLR)
- UNBALANCED
- STANDARD JACK

**Ext. Effect Loop:**
- SEND
- RETURN

**Foot Switch:**
- OVERDRIVE BYPASS
  (FS-1)
- (LED)

**GND**

**Power Consumption:**
6 W

**Weight:**
4.0 kg

**Dimension:**
482(W) x 92(H) x 247(D) mm

Specifications subject to change without notice

**OPTION**

FOOT SWITCH
FS-1