



## Owner's Manual

Thank you, and congratulations on your choice of BOSS OD-20 Overdrive/Distortion. Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (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**

- Thanks to COSM technology, this distortion pedal delivers some of the most powerful distortion you've ever heard. You get 22 different kinds of distortion sound, from vintage classics to new, original sounds.
- Features ATTACK SHAPE for changing the picking expression, and a HEAVY OCTAVE feature, which produces a fat octave sound, allowing you to create an even wider variety of sounds.
- With four Memories plus Manual, you can use the pedal to switch through a total of five sounds.
- Built-in Amp Control feature makes it possible to switch amp channels and perform other controls that make your setup even more powerful when combined with an amp.

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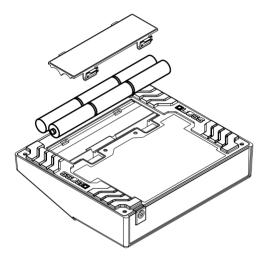




## **Installing Batteries**

Batteries are supplied with the unit. The life of these batteries may be limited, however, since their primary purpose was to enable testing.

Insert the included batteries as shown in figure, being careful to orient the batteries correctly.





- When turning the unit upside-down, get a bunch of newspapers or magazines, and place them under the four corners or at both ends to prevent damage to the buttons and controls. Also, you should try to orient the unit so no buttons or controls get damaged.
- When turning the unit upside-down, handle with care to avoid dropping it, or allowing it to fall or tip over.
- Make sure the "+" and "-" ends of the batteries are oriented correctly.
- When the batteries run down, the POWER indicator gets dim. If this happens, replace with new batteries.
- When replacing the batteries, use six AA type.
- Avoid using new batteries together with used ones. In addition, avoid mixing different types of batteries. Doing so can result in fluid leakage.
- Battery life can vary depending on battery type.



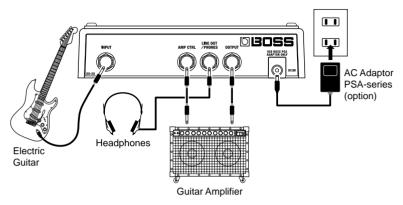
Continuous usage time under battery power is about 20 hours with alkaline batteries and about 8 hours with carbon batteries. (This may vary according to usage conditions.)

## Making the Connections



- The power comes on when you insert the connector plug into the INPUT jack.
- The use of an AC adaptor is recommended as the unit's power consumption is relatively high. Should you prefer to use batteries, please use the alkaline type.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.
- Use a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions.
  - Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.
- To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.
- If there are batteries in the unit while an AC adaptor is being used, normal operation will continue should the line voltage be interrupted (power blackout or power cord disconnection).
- 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.
- Always make sure to have the volume level turned down before switching on power. Even with the volume all the way down, you may still hear some sound when the power is switched on, but 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.

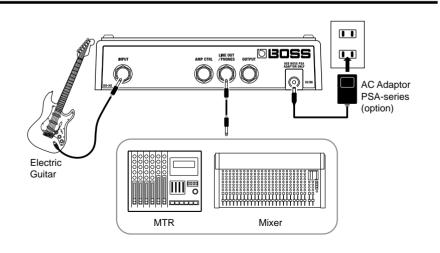
### Connecting to the Guitar Amp





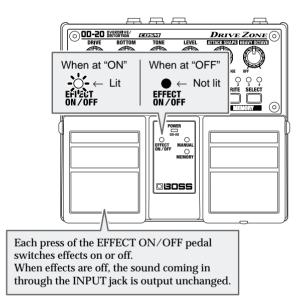
With a standard guitar amp, it may be a good idea to set all the tone controls (BASS, MIDDLE, and TREBLE) to their central positions first, then adjust from there.

# Connecting to an MTR (with No Internal Guitar Amp Simulator) or Mixer



"MANUAL" and "EFFECT ON" are selected when the power is turned on.

### **EFFECT ON/OFF Pedal Operation**



## MANUAL/MEMORY Pedal Operation

The Pedal mode (1–3) changes the function of the MANUAL/MEMORY pedal (or the MANUAL/MEMORY pedal used with the EFFECT ON/OFF pedal). Use the most appropriate setting for your particular application.

At the factory settings, Pedal mode is set to "1." When changing the Pedal mode settings, refer to p. 7.

#### Pedal mode: 1

Pressing the MANUAL/MEMORY pedal cycles you through a series of selections, in this order: MANUAL  $\rightarrow$  MEMORY 1  $\rightarrow$  MEMORY 2  $\rightarrow$  MEMORY 3  $\rightarrow$  MEMORY 4  $\rightarrow$  MANUAL. This convenient feature makes it easier to switch memories in songs in which multiple memories are used.



#### Pedal mode: 2

Pressing the MANUAL/MEMORY pedal switches you between MANUAL and the selected memory (shown by the lit indicator). This is convenient when you want to switch two effect sounds (MANUAL and MEMORY) instantly.



#### Pedal mode: 3

Pressing the MANUAL/MEMORY pedal toggles you between MANUAL and the selected memory (shown by the lit indicator).

You can also select among Memories 1–4 by pressing the MANUAL/MEMORY pedal and EFFECT ON/OFF pedal simultaneously. This is convenient for both switching two effect sounds (MANUAL and MEMORY), and switching memories between songs.



### Changing the Pedal Mode Settings

Use the following procedure when changing the Pedal mode settings.

- \* The pedal mode setting is stored in memory when the power is switched off.
- 1. Disconnect the connection plug from the INPUT jack to switch off the power.
- 2. While holding down the MEMORY SELECT button, insert the connection plug into the INPUT jack to switch on the power.

When you release the button, the MANUAL and MEMORY indicators light.

At the same time, the Memory number indicator corresponding to the settings of the current pedal mode blinks.

3. Set the pedal mode (1-3) pressing the MEMORY SELECT button.

Pedal mode 1: MEMORY 1 indicator blinks.Pedal mode 2: MEMORY 2 indicator blinks.Pedal mode 3: MEMORY 3 indicator blinks.

#### 4. Press the WRITE button.

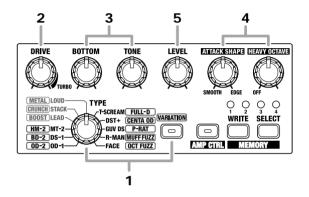
After the MEMORY Number indicator begins blinking rapidly, the setting is stored in memory and the unit returns to its ordinary state.

\* To cancel the setting change, operate the EFFECT ON/OFF pedal or the MANUAL/ MEMORY pedal before pressing the MEMORY WRITE button. The unit will return to its ordinary state.

Pedal Mode	EFFECT ON/OFF Pedal	EFFECT ON/OFF Pedal + MANUAL/MEMORY Pedal	MANUAL/MEMORY Pedal
1	effect on∕off	-	Switches MANUAL/MEMORY 1/2/3/4
2	effect on∕off	-	Switches MANUAL/MEMORY
3	effect on/off	Selects from MEMORY 1-4	Switches MANUAL/MEMORY

### **Panel Operation**

In order to follow along with the instructions given here, you should start out by having effects switched ON (press the EFFECT ON/OFF pedal and confirm that the EFFECT ON/OFF indicator has lighted), and press the MANUAL/MEMORY pedal to switch MANUAL (MANUAL indicator has lighted).



- 1. Select the distortion type with the TYPE knob and the VARIATION button.
- 2. Turn the DRIVE knob to adjust the amount of distortion.
- 3. Turn the TONE and BOTTOM knobs to adjust the tone.
- 4. Turn the ATTACK SHAPE and HEAVY OCTAVE knobs to adjust effects other than distortion.
- 5. Adjust the volume with the LEVEL knob.

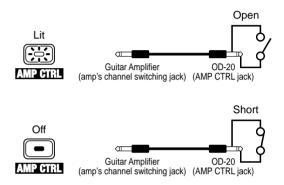


It may be a good idea to switch on or off using the EFFECT ON/OFF pedal and adjust the volume to about the same level.

# Using Guitar Amp Channel Switching (Amp Control)

By connecting your guitar amp's channel switching jack to the OD-20's AMP CTRL jack, you can then use the AMP CTRL button to switch the amp channel. This combining of the OD-20 and the amp channels allows you to get an even

wider variety of distortion sounds.



- \* To determine how the amp channels are switched when the circuit is open and shorted, refer to the amp owner's manual, or actually confirm the sounds by operating the amp.
- \* You can set the Amp Control independently of the effect On/Off settings.
- \* You can store separate Amp Control settings to each memory. For more on this procedure, refer to "Storing Settings (Write Operation)" (p. 10).



With Amp Control, not only can you switch amp channels, you can also use it to switch the amp's effects on and off, like a foot switch controller.

## **Storing Settings (Write Operation)**

### Storing the "MANUAL" Sound in Memory

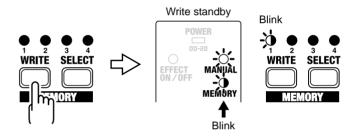


Do not switch off the power while a write operation is in progress.

1. Create the sound you want when set to "MANUAL."

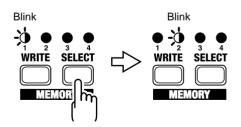
#### 2. Press the MEMORY WRITE button.

The MEMORY indicator and the indicator for the currently selected memory blink, and the OD-20 is put into write standby.



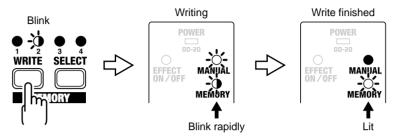
3. Press the MEMORY SELECT button to select the memory (number) to which you want to store the sound.

The indicator for the selected MEMORY number blinks.



#### 4. Press the MEMORY WRITE button.

The write operation finishes after the MEMORY indicator and the indicator for the write-destination memory have begun to blink more rapidly.



\* To cancel the write operation, operate a knob or the MANUAL/MEMORY pedal before you press the WRITE button.

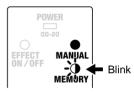
### Changing and Storing the "MEMORY" Sound



Do not switch off the power while a write operation is in progress.

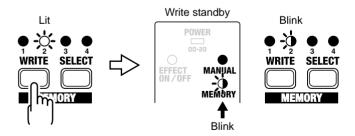
- 1. Press the MANUAL/MEMORY pedal or the MEMORY SELECT button to change to the "MEMORY" sound.
- 2. Operate the knobs to change the sound.
  - \* To avoid sudden inadvertent changes in sound, the DRIVE, BOTTOM, TONE, LEVEL, ATTACK SHAPE, and HEAVY OCTAVE knobs are designed so that the setting does not change unless the knob is first turned as far as the stored setting value. Once the position of the knob matches the setting value stored in memory, the sound starts to change.

When a setting changes, the MEMORY indicator blinks automatically.



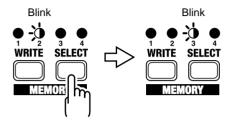
#### 3. Press the MEMORY WRITE button.

The MEMORY indicator and the indicator for the currently selected MEMORY number start to blink, and the OD-20 is put into write standby.



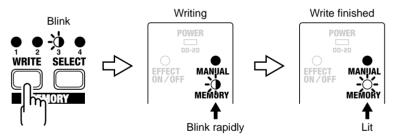
## 4. Press the MEMORY SELECT button to select the memory (number) to which you want to store the sound.

The indicator for the selected MEMORY number blinks.



#### 5. Press the MEMORY WRITE button.

The write operation finishes after the MEMORY indicator and the indicator for the write-destination memory have begun to blink more rapidly.



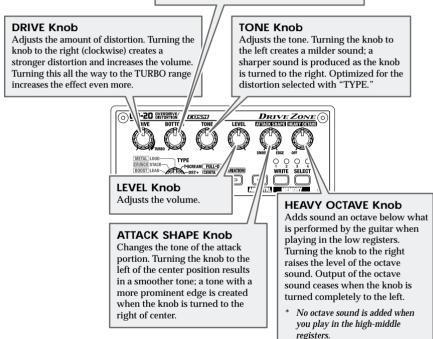
\* To cancel the write operation, operate a knob or the MANUAL/MEMORY pedal before you press the WRITE button. And the OD-20 is returned to the status in effect in Step 2.

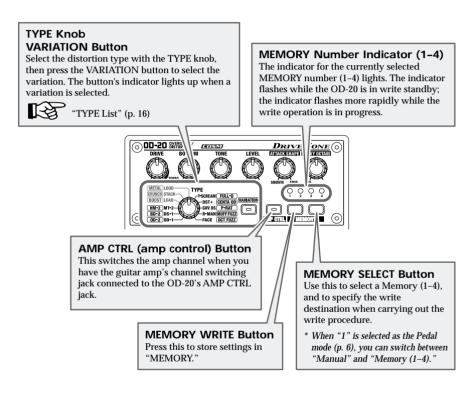
## Part Names and Functions

## Front Panel



Adjusts the low frequency range. Turning the knob to the left (counterclockwise) cuts the low end more; the low frequencies are boosted as the knob is turned to the right. Optimized for the distortion selected with "TYPE."



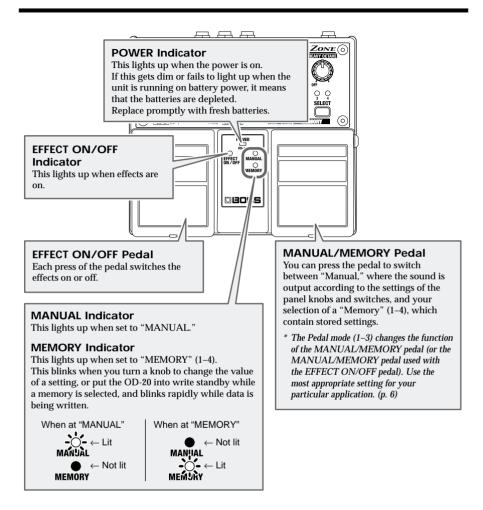


### TYPE List

\* All product names mentioned in this document are trademarks or registered trademarks of their respective owners.

Those companies are not affiliated with BOSS and have not licenced or authorized BOSS's OD-20. Their marks are used solely to identify the equipment whose sound is simulated by BOSS's OD-20.

VARIATION Not lit			
OD-1	Models the BOSS OD-1.	OD-2	Models the BOSS OD-2.
DS-1	Models the BOSS DS-1.	BD-2	Models the BOSS BD-2.
MT-2	Models the BOSS MT-2.	HM-2	Models the BOSS HM-2.
LEAD	OD-20 original distortion. Produces a distortion sound with both the smoothness of an overdrive along with a distortion's depth.	BOOST	OD-20 original booster.
STACK	OD-20 original distortion. A fat sound with an added element of a stack amp's distortion.	CRUNCH	OD-20 original distortion. A lustrous crunch sound with an added element of amp distortion.
LOUD	OD-20 original distortion. A heavy distortion with a boosted low end.	METAL	OD-20 original distortion. An intense, radical distortion sound.
T- SCREAM	Models the Ibanez TS-808 TUBESCREAMER.	FULL-D	Models the Fulltone FULL- DRIVE 2.
DST+	Models the MXR DISTORTION+.	CENTA OD	Models the KLON CENTAUR.
GUV DS	Models the Marshall GOV'NOR.	P-RAT	Models the Proco RAT. * When set to P-RAT, turning the TONE knob to the right cuts the high frequencies.
R-MAN	Models the ROCKMAN.	MUFF FUZZ	Models the Electro-Harmonix Big Muff $\pi$ .
FACE	Models the FUZZFACE.	OCT FUZZ	Models the ACETONE FUZZ.



### **Rear Panel**

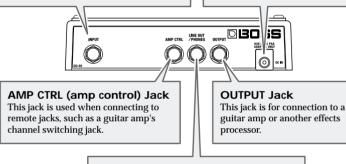
#### INPUT Jack

This is the input jack for connecting to the output of an electric guitar or other instrument or effects processor.

\* The INPUT jack also doubles as the power switch. The power comes on when a plug is inserted into the INPUT jack, and goes off when it is unplugged. Unplug any connected cords when the unit is not in use.

#### **AC Adaptor Jack**

This jack is for connecting an AC adaptor (BOSS PSA-series, sold separately). Using an AC adaptor makes possible long performances with no worry about batteries going dead.



#### LINE OUT/PHONES Jack

Headphones, or a multitrack recorder or mixer that has no amp simulator can be connected to this output jack.

Not only can you confirm the currently selected memory merely by checking the lit MEMORY Number indicators, you can also change the pattern in which the indicators light up. Select the pattern that provides the easiest way to check the memory in any particular environment.



When using the OD-20 in dimly lit surroundings, you can confirm memory numbers more easily by using the Lighting Pattern 2 setting.

#### Lighting Pattern 1 (Normal):

Only the indicator for the selected memory lights up (or blinks).

#### Lighting Pattern 2:

The number of indicators lighting up (or blinking) corresponds to the selected memory number.

When MEMORY 1 is selected: Indicator 1 lights up.

When MEMORY 2 is selected: Indicators 1 and 2 light up.

When MEMORY 3 is selected: Indicators 1, 2, and 3 light up.

When MEMORY 4 is selected: Indicators 1, 2, 3, and 4 light up.

You can select the indicator lighting pattern by means of the following procedure.

- 1. Disconnect the connection plug from the INPUT jack to switch off the power.
- 2. While holding down the MEMORY WRITE button and the MEMORY SELECT button, insert the connection plug into the INPUT jack to switch on the power. When the button is released, either the No. 1 indicator alone blinks, or all indicators from 1 through 4 blink.
- 3. Press the MEMORY SELECT button to set the MEMORY indicator lighting pattern.

Lighting Pattern 1: Indicator 1 alone blinks. Lighting Pattern 2: Indicators 1–4 all blink.

#### 4. Press the MEMORY WRITE button.

After the MEMORY Number indicator(s) begins blinking rapidly, the setting is stored in memory and the unit returns to its ordinary state.

\* To cancel the setting change, operate the EFFECT ON/OFF pedal or the MANUAL/ MEMORY pedal before pressing the MEMORY WRITE button. The unit will return to its ordinary state.

## **Returning Settings to Their Factory Defaults**

You can restore the memories (1–4), pedal mode settings, and the MEMORY Number Indication to their original factory values.

Memory	Memory 1 (p. 23)	LOUD	
Settings	Memory 2 (p. 24)	LEAD	
	Memory 3 (p. 24)	OD-1	
	Memory 4 (p. 24)	STACK	
Pedal Mode (p. 7)		1	
		$\begin{array}{l} (\text{MANUAL} \rightarrow \text{MEMORY 1} \rightarrow \text{MEMORY 2} \rightarrow \\ \text{MEMORY 3} \rightarrow \text{MEMORY 4} \rightarrow \text{MANUAL}) \end{array}$	
MEMORY Number Indication (p. 19)		Lighting Pattern 1 (Only the indicator for the selected memory lights up.)	



Carrying out the following procedure completely clears the content currently stored in the memories (1–4).

- 1. Disconnect the connection plug from the INPUT jack to switch off the power.
- 2. While holding down the MEMORY WRITE button, insert the connection plug into the INPUT jack to switch on the power.

When you release the button, the MEMORY Number indicators blink.

#### 3. Press the MEMORY WRITE button.

After the MEMORY Number indicators begin blinking rapidly, the setting is stored in memory and the unit returns to its ordinary state.

\* To cancel the setting change, operate the EFFECT ON/OFF pedal or the MANUAL/ MEMORY pedal before pressing the MEMORY WRITE button. The unit will return to its ordinary state.

## Troubleshooting

#### The power doesn't come on.

- Is the guitar connected correctly to the INPUT jack?
- $\rightarrow\,$  Check the connections again (p. 3–4).
- \* The unit won't switch on until a plug is inserted into the INPUT jack.
- Have the batteries run down?
- $\rightarrow\,$  Replace with fresh batteries (p. 2).
- Is the specified AC adaptor (PSA-series sold separately) connected correctly?
- $\rightarrow\,$  Check the connections again (p. 3–4).

## There is no sound/volume is too low.

- Is the other equipment connected correctly?
- $\rightarrow\,$  Check the connections again (p. 3–4).
- Is the volume turned down on the connected guitar amp, effects processor, or other device?
- $\rightarrow$  Check the settings on the connected equipment (p. 3–4).

## Cannot switch amp channels properly

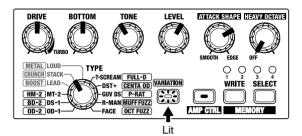
- Is the amp's channel switching jack correctly connected to the OD-20's AMP CTRL jack?
- $\rightarrow$  Check the connections again.
- Does the amp's channel switch match the polarity of the OD-20's Amp Control?
- → The OD-20's Amp Control is shorted when the indicator is off, and open when the indicator is lit (p. 9).
  Confirm how amp's channels are switched when the circuit is open or shorted.

#### The volume level of the instrument connected to INPUT jack is too low.

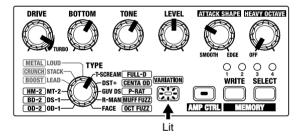
- Could you be using a connection cable that contains a resistor?
- $\rightarrow$  Use a connection cable that does not contain a resistor.

## Sample Settings

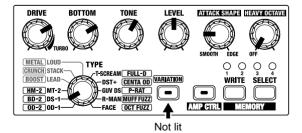
#### Crunch with mild amp distortion



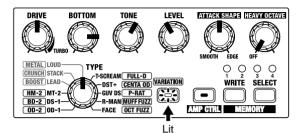
#### Overdrive with heavy distortion



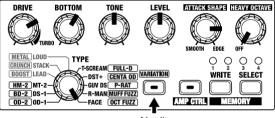
#### Fat distortion sound



#### Fairly bright metal sound

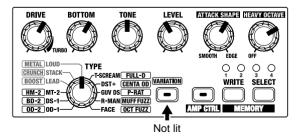


#### **Radical fuzz**

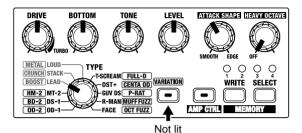


Not lit

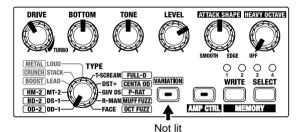
### LOUD (Factory Default Memory 1)



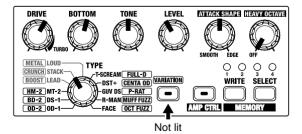
#### LEAD (Factory Default Memory 2)



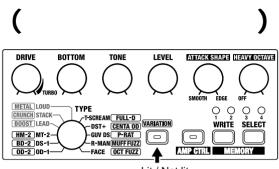
#### **OD-1 (Factory Default Memory 3)**



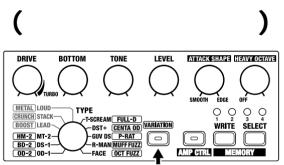
#### STACK (Factory Default Memory 4)



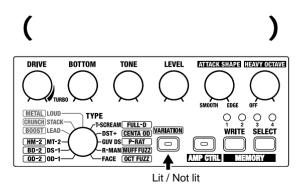
## **Setting Memo**



Lit / Not lit



Lit / Not lit



## **Specifications**

#### **OD-20: Overdrive/Distortion**

Nominal Input Level

Input Impedance

Nominal Output Level -20 dBu

Output Impedance

Recommended Load Impedance  $10 \text{ k}\Omega$  or greater

#### Dynamic Range

102 dB (IHF-A typ.)

#### Controls

EFFECT ON/OFF Pedal MANUAL/MEMORY Pedal DRIVE Knob BOTTOM Knob TONE Knob LEVEL Knob ATTACK SHAPE Knob HEAVY OCTAVE Knob TYPE Knob VARIATION Button AMP CTRL (amp control) Button MEMORY WRITE Button

#### Indicators

POWER Indicator (serves also as battery check indicator) EFFECT ON/OFF Indicator MANUAL Indicator MEMORY Indicator VARIATION Indicator AMP CTRL (amp control) Indicator MEMORY Number Indicator (1-4)

#### Connectors

INPUT Jack AMP CTRL (amp control) Jack LINE OUT/PHONES Jack OUTPUT Jack AC Adaptor Jack (DC 9 V)

#### Power Supply

DC 9 V: Dry Battery (R6/LR6 (AA) type) x 6 AC Adaptor

#### **Current Draw**

85 mA (9 V max.)

 Expected battery life under continuous use: Carbon: 8 hours
Alkaline: 20 hours
These figures will vary depending on the actual conditions of use.

#### Dimensions

173 (W) x 158 (D) x 57 (H) mm 6-13/16 (W) x 6-1/4 (D) x 2-1/4 (H) inches

#### Weight

1.1 kg / 2 lbs 7 oz (including batteries)

#### Accessories

Owner's Manual Leaflet ("USING THE UNIT SAFELY," "IMPORTANT NOTES," and "Information") Dry battery (LR6 (AA) type) x 6

\* We recommend that alkaline batteries be used when replacing the batteries.

#### Options

AC Adaptor (PSA-series)

- \* 0 dBu = 0.775 Vrms
- \* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

For EU Countries -

<u>(</u>

This product complies with the requirements of European Directive 89/336/EEC.

For the USA

#### FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Unauthorized changes or modification to this system can void the users authority to operate this equipment. This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

#### NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

#### AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.



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