



# SERVICE MANUAL OWNER'S MANUAL

## SA-501



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

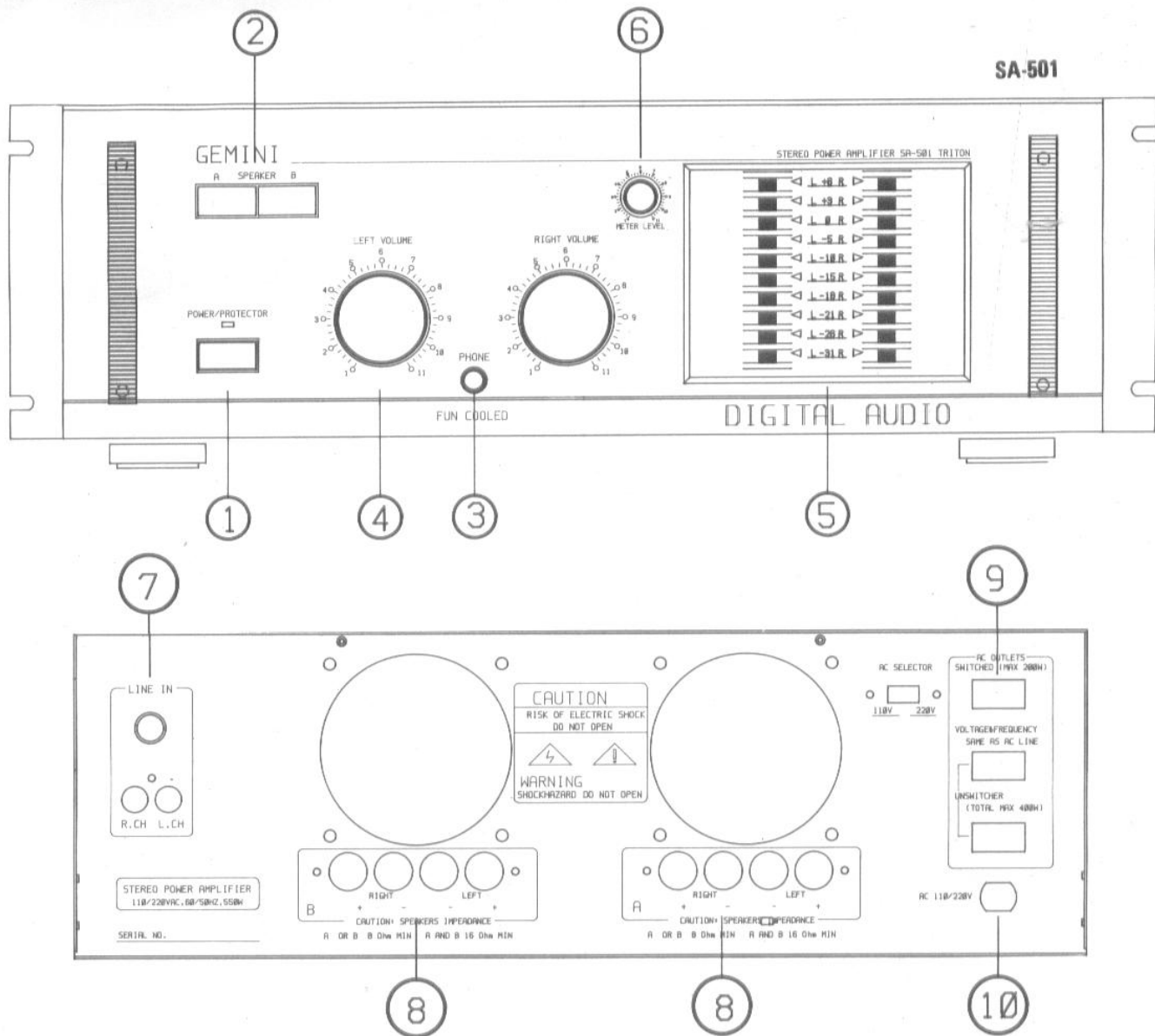


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**



### Note for General Customers

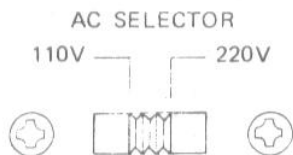
#### AC VOLTAGE SELECTION

This unit operates on 110 volts or 220 volts AC. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

110V                      220V

Slide the switch to left position as drawing as below

Slide the switch to right position as drawing as below



### Precautions

- Before connecting and operating the unit, check that the voltage setting conforms to the voltage available in your area. If your unit is a general export model, and it is necessary to set the voltage to match the voltage requirements of your area, this unit must be adjusted using the procedure on page 3
- Changing, adding, or removing the existing connections must be done with the power switch of the amplifier off. Otherwise, damage to circuits or speakers may result.

#### Environmental Considerations

These conditions apply to the product as well as to the other equipment being used such as tape recorders, etc.

- Avoid temperatures beyond the range of 5°C to 30°C (40 to 87°F)
- Avoid extremely dirty or dusty environments.
- Avoid areas where there is extremely high humidity.

### Note for U.K. Customers

**U.K. customers only:** Due to the variety of plugs being used in the U.K., this unit is sold without an AC plug. Please request your dealer to install the correct plug to match the mains power outlet where your unit will be used per these instructions.

#### IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:

BLUE: NEUTRAL  
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug, proceed as follows.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

## Note for Canadian Customers

### ATTENTION:

POUR PREVENIR LES CHOCS ÉLECTRIQUES NE PAS UTILISER CETTE FICHE POLARISÉE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ÊTRE INSÉRÉES A FOND SANS EN LAISSER AUCUNE PARTIE À DÉCOUVERT.

### CAUTION:

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTANCE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

### SA-501

#### Front Panel

#### ① POWER Switch

Depress this switch to turn on the amplifier. Press again to release the switch and turn off the amplifier.

When the power is on, the LED over the power switch will light.

#### ② SPEAKERS Selectors

These switches control the selection of the speaker terminals on the rear panel of the amplifier.

**Out (□)** : Neither A nor B speaker terminals are selected. Sound can be heard only at PHONES jack using headphones.

**A in (△)** : Sound can be heard on speakers connected to the speaker terminals marked A on the rear panel.

**B in (△)** : Sound can be heard on speakers connected to the speaker terminals marked B on the rear panel.

#### ③ PHONES Jack

8-ohm stereo headphones may be connected to this jack for monitoring the amplifier output. For private listening or monitoring by headphones, release both A and B SPEAKERS selectors (□).

#### ④ VOLUME Control

The volume control is used to adjust the level of the output to the speakers and headphones.

#### ⑤ POWER OUTPUT DISPLAY LEVEL CONTROL

The power output display sensitivity of this unit may be selected by this rotary volume.

#### ⑥ POWER DISPLAY-INDICATORS

The POWER displays show you output power calibrated to an 8 ohm speaker load.

Since your speakers may have 4 ohm impedance you should double each power reading; e.g. if the LEDs read up to 30 the actual power delivered would be 105 watts.

### SA-501

#### Rear Panel

#### ⑦ CD/AUX Input Jacks

These are used for the connection of any auxiliary source such as compact disc player, tuner or an additional tape deck for playback.

#### ⑧ SPEAKERS Output Terminals Connecting the Speaker System

Output terminals for two pairs of speaker systems are provided on the rear panel of the amplifier.

Making comparisons in sound quality between A and B speakers is possible by switching between the two SPEAKERS selector positions.

#### ⑨ AC OUTLETS

##### • SWITCHED AC Receptacle

This receptacle may be used to connect associated equipment to the AC source. It is controlled by the POWER switch on the front panel.

##### • UNSWITCHED AC Receptacles

Used to power associated equipment. AC voltage is always present as long as the amplifier is connected to an AC voltage source.

#### ⑩ AC Power Cord

Connect to an AC socket.

## SPECIFICATIONS

### SA-501

**Power Output** 125 watts per channel minimum RMS, both channels driven at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.05 % total harmonic distortion

**Both Channels Driven into**  
4 ohms at 1 kHz 190 W + 190 W

**Dynamic Power Output into**  
8 ohms 170 W + 170 W

**Total Harmonic Distortion**  
(20 Hz to 20,000 Hz)

**AUX input to SPEAKER**

output 0.05 % at rated power into  
8 ohms

**Damping Factor** 50, at 50 Hz

**Transient Response**

Rise Time 1.2 μs

**Frequency Response** 5 Hz to 40 kHz <sup>0</sup><sub>-3</sub>dB

**Speaker Impedance** Accept 8 ohms to  
16 ohms

**Input Sensitivity/Impedance**

CD/AUX 800 mV/47 k ohms

**Signal-to-Noise Ratio (IEC-A)**

CD/AUX 94 dB

#### General

**Power Requirements** 110/220V AC,  
50/60 Hz, 240 W

(General Export)

120 V AC, 60 Hz, 240 W

(USA/Canada)

220 V AC, 50 Hz, 240 W (Europe)

240 V AC, 50 Hz, 240 W

(UK/Australia)

**Dimensions (W x H x D)** 435 x 140 x 300 mm  
(17-1/8" x 5-3/4" x 11-5/8")

**Weight (net)** 11 kg (24.14 lbs.)

PARTS NO.	PARTS NAME	SPEC. CODE	PARTS NO.	PART NAME	SPEC. CODE
5011011168	AL PANEL	T260B021 (D1168)	5014010000	SLIDE SW	110V/220V SS-1410-022-B
5011021169	VR HOLDER	T360B062 (D1169)	5014020000	PUSH SW	
5011031198	REAR PANEL	T360B066 (D1198)	5104030000		TV-3 SDDL B1007U-WS
5011041091	LEFT HOLDER	T360B044 (D1091)	5014050000	VR	50KB *2
5011051090	RIGHT HOLDER	T360C043 (D1090)	5014060000		100KA * 1
5011061202	HEAT HOLDER	T360C067 (D1202)	5014080000	SVR	5KB
5011071042	TOP CABINET	T360A030 (D1042)	5014100000	LED LAMP	3.5*6 SE10145 <sup>ORG</sup> RED
5011081227	BOTTOM CABINET	(D1227)	5014110000	LED LAMP	3.5*6 SE10121 GREEN
5011091050	HEAT SINK	T290C004 (D1050)	5014120000	LED LAMP	2*5 SEF62G2TK POWER
5011101092	HAND	T260D013 (D1092)	5014130000	MAIN PCB.	T210B016/AP-120 PW
5011111143	PANEL HOLDER	T460C036 (D1143)	5014140000	LED PCB.	T210C018/PA-120 LED
5011120000	FAN HOLDER		5014150000	BUFFER PCB.	T210D042/TA-120 BF
5011130000	FOOT GOLD	50φ * 16mm	5014160000	SP PCB.	T210D041/TA-120 SW
5011140000	FOOT GOLD	24φ * 16mm	5014170000	VR PCB.	TA-120 VR /T210D043
5011150000	I/B PRINTING SPEC		5014180000	PHONE PCB.	T210D041/TP-120 PH
5011161199	SNOW BOX	T390A025 (D1199)	5014190000	POWER PCB.	100-550-11
5011170000	INNER CARTON		5014200000	PIN	1mm * 1mm * 10mm
5011180000	OUTER CARTON		5015010000	IC	UPC 1298V
5011190000	PAPER	7φ * 50mm * 50mm	5015020000	IC	BA 4558
5011200000	PAPER	7φ * 28mm * 28mm	5015030000	IC	BA 6124
5012010000	KNOB	KB-168-2	5015050000	TRANSISTOR	2SA1015
5012020000	KNOB	13φ	5015060000		2SA13020
5012030000	KNOB	35φ	5015070000		2SC945 (2SC1815 GR)
5012041066	ACRY PLATE	T460D014 (D1066)	5015080000		2SC32810
5012060000	PLOY	SET	5015090000		2SD468
5012070000	PLOY	I/B	5015100000		2SC2061
5012080000	PLOY	AC CORD	5015110000	DIODE	1N4002
5012090000	SERIAL NO.		5015120000		1N4148
5012110000	BOSS	3φ * 10mm	5015130000		1N5402
5012120000	HOUSING	POWER	5015150000	ZENER DIODE	5V1 0.5W
5012130000	HOUSING	SP	5015170000	RELAY	5A/24V
5012140000	SPONG	20mm * 10mm * 10mm	5015180000	COIL	1UH 12 1/2T
5012150000	CABLE TIE	90 mm			
5012160000	BUSING	S4BF-1			
5012170000	TUBE	1φ * 10mm			
5012180000		6φ * 10mm			
5013010000	POWER TRANSFORMER	120V 60HZ			
5013020000	POWER TRANSFORMER	110V/220V			
5013060000	AC CORD	SPT-2 6FEET <span style="border: 1px solid black; padding: 0 2px;">I</span>			
5013100000	AC OUTLET	HJC-030A			
5013110000	RCA JACK	2P PCB-202-0			
5013120000	SP JACK	BOP-104			
5103130000	PHONE JACK	3 PIN 6.3φ 6.5mm			
5013140000		4 PIN 6.3φ 6.5mm			
5013150000	GND JACK				
5013160000	FUSE	10A/250V 6.3φ			
5013170000	FUSE HOLDER	6.3φ			
5013180000	DC FAN	DC 12V 80*80*25mm			
5013190000	FUSE HOLDER	15φ CQ207HU			
5013200000	FUSE	7A/25V 6.3φ			

