

DENON

MONAURAL POWER AMPLIFIER

POA-S1

OPERATING INSTRUCTIONS

BEDIENUNGSANLEITUNG

MODE D'EMPLOI

ISTRUZIONI PER L'USO

INSTRUCCIONES DE OPERACION

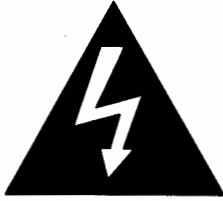
GEBRUIKSAANWIJZING



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"SERIAL NO.

PLEASE RECORD UNIT SERIAL NUMBER ATTACHED TO THE REAR OF THE CABINET FOR FUTURE REFERENCE"



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 REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

● **FOR U.S.A. & CANADA MODEL ONLY**

CAUTION

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

● **POUR LE MODELE CANADIEN UNIQUEMENT**

ATTENTION

POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

● **NUR FÜR EUROPÄISCHE MODELLE**

Konformitätserklärung

Die DENON Electronic GmbH
 Halskestraße 32
 40880 Ratingen

Erklärt als Hersteller/Importeur, daß das in dieser Bedienungsanleitung beschriebene Gerät den Technischen Vorschriften für Ton- und Fernseh-Rundfunkempfänger nach der Amtsblattverfügung 868/1989 (Amtsblatt des Bundesministers für Post und Telekommunikation vom 31. 8. 1989) entspricht.

● **FOR UNITED KINGDOM MODEL ONLY**

CONNECTING THE MAINS PLUG:

This unit operates from a 240V ac 50 Hz mains supply.

Fit a proper mains plug to the mains lead of this equipment. If a 13 amp (BS1363) plug is used, a 5 amp fuse must be fitted. The 13 amp fuse supplied in a new plug must NOT be used. If any other type of plug is used, a 5 amp fuse must be fitted either in the plug or adaptor or at the distribution board.

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 markings 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.

DO NOT MAKE ANY CONNECTION TO THE LARGER PIN MARKED WITH THE LETTER E OR BY THE SYMBOL  OR COLOURED GREEN OR GREEN-AND-YELLOW.

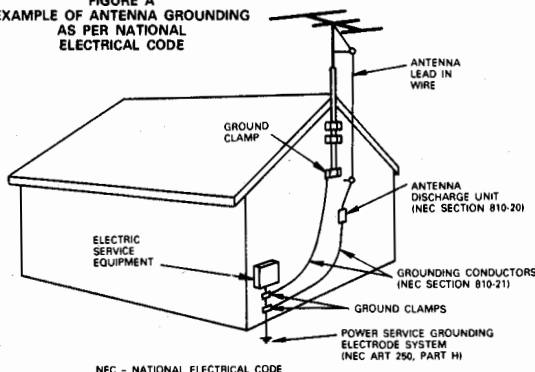
Disconnect the mains plug from the supply socket when not in use.

SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization – Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
12. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.
15. Power Lines – An outdoor antenna should be located away from power lines.
16. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
17. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
18. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
19. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
20. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.



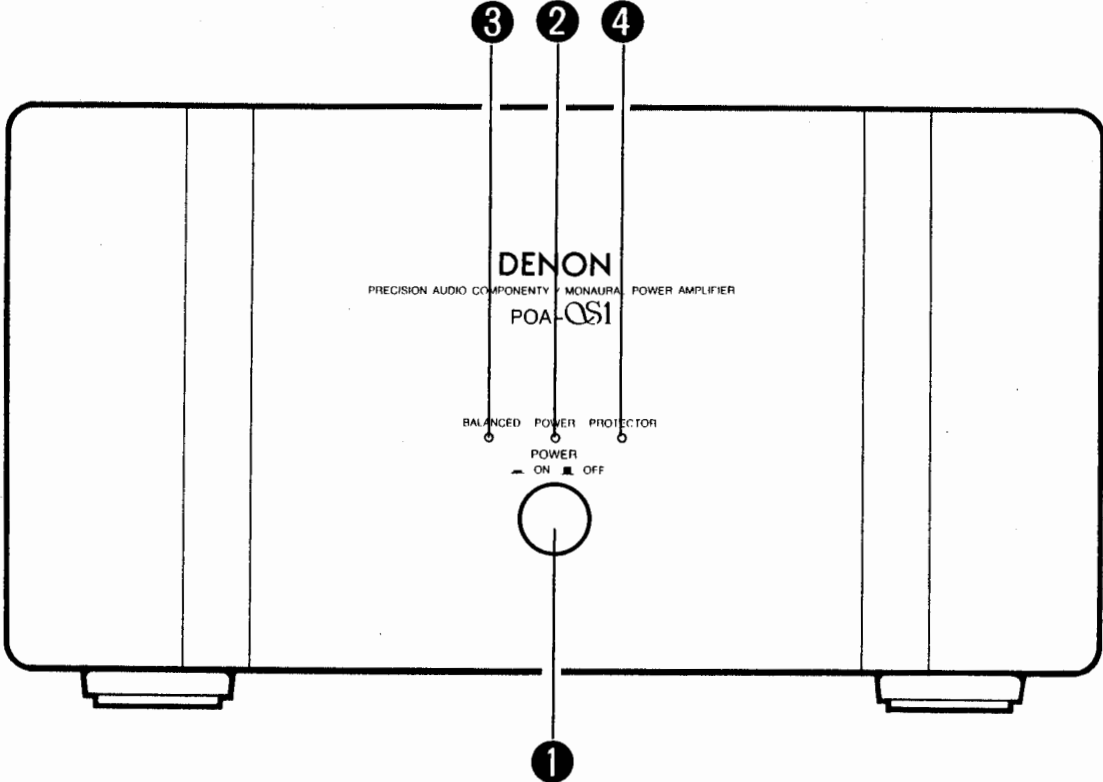
FIGURE A
EXAMPLE OF ANTENNA GROUNDING
AS PER NATIONAL
ELECTRICAL CODE



NEC - NATIONAL ELECTRICAL CODE

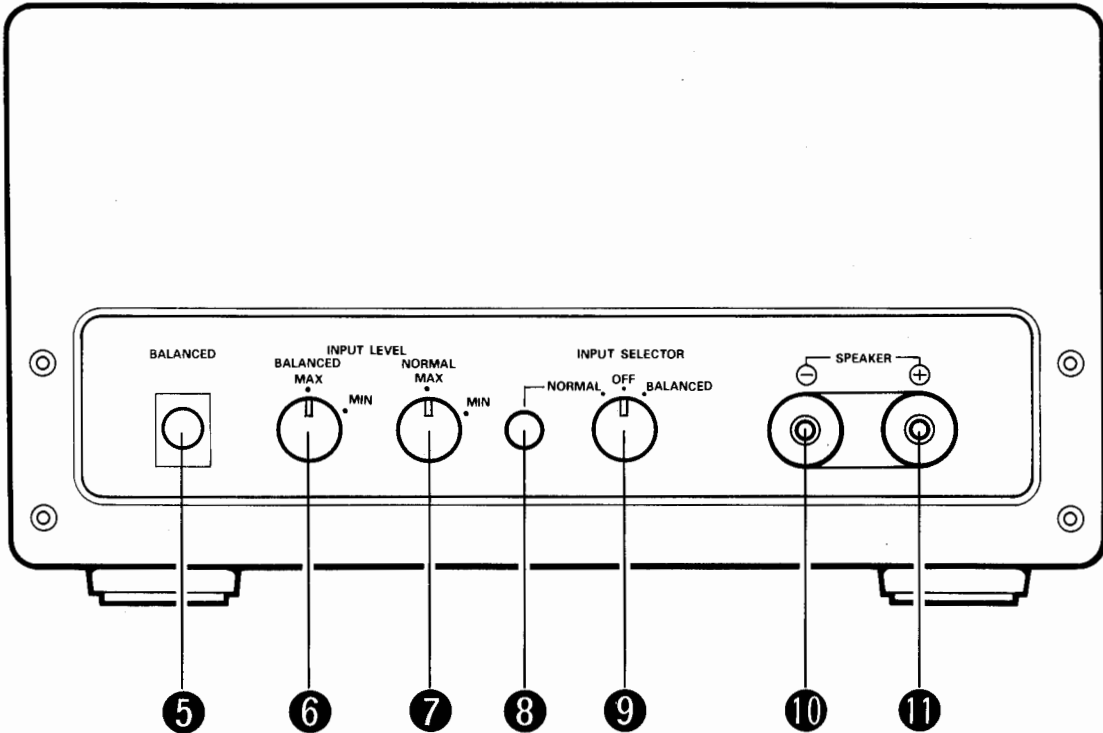
FRONT PANEL
 FRONTPLATTE
 PANNEAU AVANT

PANNELLO FRONTALE
 TABLERO FRONTAL
 VOORPANEEL

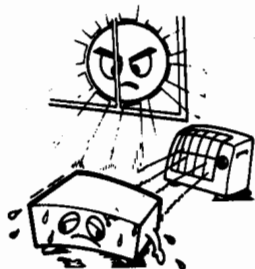


REAR PANEL
 RÜCKWAND
 PANNEAU ARRIERE

IL PANNELLO POSTERIORE
 PANEL TRASERO
 ACHTERPANEEL



**NOTE ON USE / HINWEISE ZUM GEBRAUCH / OBSERVATIONS RELATIVES A L'UTILISATION
NOTE SULL'USO / NOTAS SOBRE EL USO / ALVORENS TE GEBRUIKEN / OBSERVERA
OBSERVAÇÕES QUANTO AO USO**



- Avoid high temperatures
Allow for sufficient heat dispersion when installed on a rack.
- Vermeiden Sie hohe Temperaturen
Beachten Sie, daß eine zureichende Luftzirkulation gewährleistet wird, wenn das Gerät auf ein Regal gestellt wird.
- Eviter des températures élevées
Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.
- Evitate di esporre l'unità a temperature alte.
Assicuratevi che ci sia un'adeguata dispersione del calore quando installate l'unità in un mobile per componenti audio.
- Evite altas temperaturas
Permite la suficiente dispersión del calor cuando está instalado en la consola.
- Vermijd hoge temperaturen.
Zorg voor een degelijk hitteafvoer indien het apparaat op een rek wordt geplaatst.
- Undvik höga temperaturer.
Se till att det finns möjlighet till god värmeavledning vid montering i ett rack.
- Evite temperaturas altas
Conceda suficiente dispersão de calor quando o equipamento for instalado numa prateleira.



- Handle the power cord carefully.
Hold the plug when unplugging the cord.
- Gehen Sie vorsichtig mit dem Netzkabel um.
Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen.
- Manipuler le cordon d'alimentation avec précaution.
Tenir la prise lors du débranchement du cordon.
- Maneggiare il filo di alimentazione con cura.
Agitare per la spina quando scollegate il cavo dalla presa.
- Maneje el cordón de energía con cuidado.
Sostenga el enchufe cuando desconecte el cordón de energía.
- Hanteer het netsnoer voorzichtig.
Houd het snoer bij de stekker vast wanneer deze moet worden aan- of losgekoppeld.
- Hantera nätkabeln varsamt.
Håll i kabeln när den kopplas från eluttaget.
- Manuseie com cuidado o fio condutor de energia.
Segure a tomada ao desconectar o fio.



- Keep the set free from moisture, water, and dust.
- Halten Sie das Gerät von Feuchtigkeit, Wasser und Staub fern.
- Protéger l'appareil contre l'humidité, l'eau et la poussière.
- Tenete l'unità lontana dall'umidità, dall'acqua e dalla polvere.
- Mantenga el equipo libre de humedad, agua y polvo.
- Laat geen vochtigheid, water of stof in het apparaat binnendringen.
- Utsätt inte apparaten för fukt, vatten och damm.
- Mantenha o aparelho livre de qualquer umidade, água ou poeira.



- Unplug the power cord when not using the set for long periods of time.
- Wenn das Gerät eine längere Zeit nicht verwendet werden soll, trennen Sie das Netzkabel vom Netzstecker.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.
- Disinnestate il filo di alimentazione quando avete l'intenzione di non usare il filo di alimentazione per un lungo periodo di tempo.
- Desconecte el cordón de energía cuando no utilice el equipo por mucho tiempo.
- Neem altijd het netsnoer uit het stopcontact wanneer het apparaat gedurende een lange periode niet wordt gebruikt.
- Koppla ur nätkabeln om apparaten inte kommer att användas i lång tid.
- Desligue o fio condutor de força quando o aparelho não tiver que ser usado por um longo período.



*(For sets with ventilation holes)

- Do not obstruct the ventilation holes.
- Die Belüftungsöffnungen dürfen nicht verdeckt werden.
- Ne pas obstruer les trous d'aération.
- Non coprite i fori di ventilazione.
- No obstruya los orificios de ventilación.
- De ventilatieopeningen mogen niet worden beblokkeerd.
- Täpp inte till ventilationsöppningarna.
- Não obstrua os orificios de ventilação.



- Do not let foreign objects in the set.
- Keine fremden Gegenstände in das Gerät kommen lassen.
- Ne pas laisser des objets étrangers dans l'appareil.
- E' importante che nessun oggetto è inserito all'interno dell'unità.
- No deje objetos extraños dentro del equipo.
- Laat geen vreemde voorwerpen in dit apparaat vallen.
- Se till att främmande föremål inte tränger in i apparaten.
- Não deixe objetos estranhos no aparelho.



- Do not let insecticides, benzene, and thinner come in contact with the set.
- Lassen Sie das Gerät nicht mit Insektiziden, Benzin oder Verdünnungsmitteln in Berührung kommen.
- Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.
- Assicuratevi che l'unità non venga in contatto con insetticidi, benzolo o solventi.
- No permita el contacto de insecticidas, gasolina y diluyentes con el equipo.
- Laat geen insectenverdelgende middelen, benzine of ververdunner met dit apparaat in contact komen.
- Se till att inte insektsmedel på spraybruk, bensin och thinner kommer i kontakt med apparatens hölje.
- Não permita que inseticidas, benzina e dissolvente entrem em contacto com o aparelho.



- Never disassemble or modify the set in any way.
- Versuchen Sie niemals das Gerät auseinander zu nehmen oder auf jegliche Art zu verändern.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.
- Non smontate mai, nè modificate l'unità in nessun modo.
- Nunca desarme o modifique el equipo de ninguna manera.
- Nooit dit apparaat demonteren of op andere wijze modificeren.
- Ta inte isär apparaten och försök inte bygga om den.
- Nunca desmonte ou modifique o aparelho de alguma forma.

We greatly appreciate your purchase of this DENON product.
To be sure you take maximum advantage of all the features the POA-S1 has to offer, read these instructions carefully and use the unit properly.
Be sure to keep this manual for future reference should any questions or problems arise.

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Please check to make sure the following items are included with the main unit in the carton:

- (1) Operating Instructions 1

FEATURES

(1) Newly-Developed Power Amplifier

Through the use of a UHC single push-pull circuit with UHC-MOS-FET's (Ultra High Current MOS-FET's), the POA-S1 is able to drive low-impedance speakers and attain outstanding linearity even at very low levels. The low and high levels both exhibit superior characteristics as a result of this new advance in high technology.

By enhancing the high performance of each amplification stage, DENON has been able to create a simple design with two steps in the voltage amplification stage and one step in the electrical current amplification stage. The resulting sound is completely musical and natural, with nothing added or subtracted to it in the amplification process.

(2) Rock-Solid Power Circuit

The power supply section of an amp with high output power needs to be highly reliable in order to ensure stable operation of the amp. A silicon diode is usually used for the rectifying element of a power supply circuit, but the POA-S1 employs a UHC-MOS-FET instead of the silicon diode to dramatically reduce power loss in the power supply section. The UHC-MOS-FET is able to supply power that is stable enough to drive even low-impedance speakers.

Two large toroidal transformers are used for the POA-S1's power amp stage, and an EI transformer is used for the voltage amplification stage and the POA-S1's other circuits. The use of separate transformers works to reduce power losses and to minimize mutual interference between the stages of amplification.

(3) Chassis Construction with Direct Mechanical Ground

The large, high-mass toroidal transformers, which normally are a source of vibration, and the large power heat sinks are located above the POA-S1's feet and are attached directly to them in what is (tentatively) called the Direct Mechanical Ground construction. As a virtual mechanical ground for the chassis, this improved design now eliminates any interference caused by vibrations and its adverse affects on the various circuits.

The circuits have been installed onto a base of large mass, further ensuring the elimination of mutual inference caused by vibrations.

NAMES AND FUNCTIONS OF PARTS (Refer to page 5)

① POWER switch

② POWER indicator

- When the POWER switch ① is pressed and set to the on position (—), the POWER indicator ② lights and the power turns on. The PROTECTOR indicator ④ flashes for several seconds after the power is turned on. Once the protector circuit has checked the stability of the amplifier's operation, the PROTECTOR indicator ④ turns off and the amplifier becomes operable. Press the POWER switch ① again to turn the power off (■).

③ BALANCED IN indicator

- This lights when the INPUT SELECTOR switch ⑨ on the rear panel (refer to page 5) is set to BALANCED, indicating that a balanced input (Cannon connector) is selected.

④ PROTECTOR indicator

- The POA-S1 is equipped with various protector circuits. The PROTECTOR indicator flashes when these protector circuits are activated, during which the speaker output is blocked (muting).

(1) The muting circuit is activated and the PROTECTOR indicator flashes for several seconds after the POWER switch is pressed and for 1 or 2 seconds when the INPUT SELECTOR switch ⑨ on the rear panel (refer to page 5) is operated. Once the indicator stops flashing, the muting circuit is deactivated.

(2) In addition, the muting circuit is also activated when the following conditions are detected:

- When the speaker output's offset voltage is not within the specified range.
- When the temperature of the POA-S1 is abnormally high.
- When an abnormally high current is detected due to the speaker output being short-circuited or grounded. In this case, turn the power off immediately and check as shown on the diagram on page 14.

⑤ BALANCED INPUT terminal

- This is a balanced input terminal (Cannon connector). Connect it to the pre-amplifier's balanced pre-out terminal. When using this terminal, set the INPUT SELECTOR switch ⑨ to the "BALANCED" side.

⑥ BALANCED INPUT

- Controls the balanced input level.

⑦ NORMAL INPUT

- Controls the normal input level.

⑧ NORMAL INPUT terminal

- This is a normal input terminal (RCA connector). Connect it to the pre-amplifier's normal pre-out terminal. When using this terminal, set the INPUT SELECTOR switch ⑨ to the "NORMAL" side.

⑨ INPUT SELECTOR switch

- This switch is used to select between the BALANCED input (Cannon connector – ⑤) and NORMAL input (RCA connector – ⑧). When set to OFF, no signals are input.

⑩ SPEAKER \ominus (– speaker output terminal)

- Connect this to the speaker system's " \ominus " terminal.

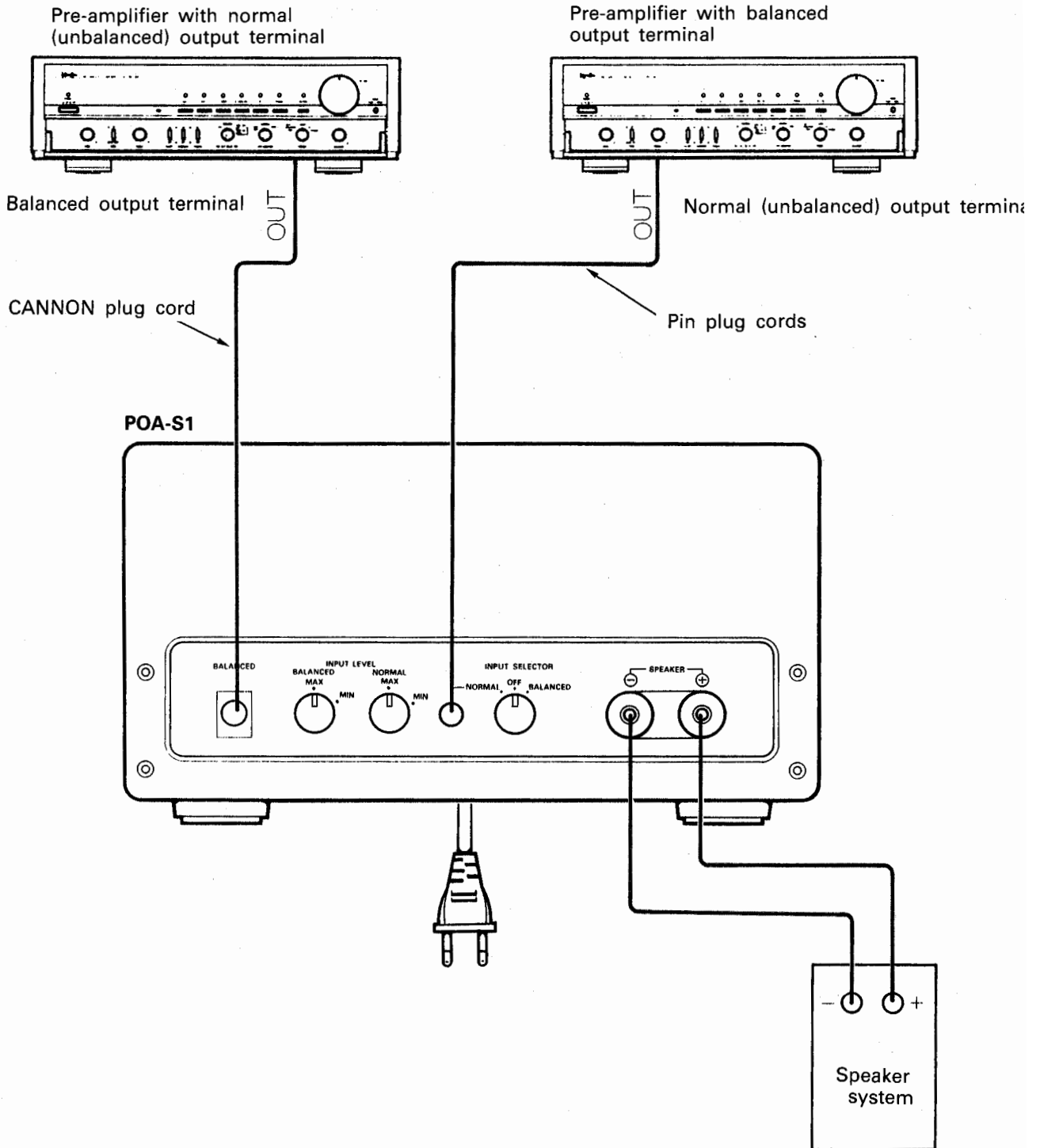
NOTE:

- The POA-S1 has a BTL structure, so the same high voltage as is output to the " + " side speaker terminal ⑩ is output to the " – " side speaker terminal ⑪. Do not connect anything but speaker systems to this terminal. Doing so is extremely dangerous.

⑪ SPEAKER \oplus (+ speaker output terminal)

- Connect this to the speaker system's " \oplus " terminal.

CONNECTIONS



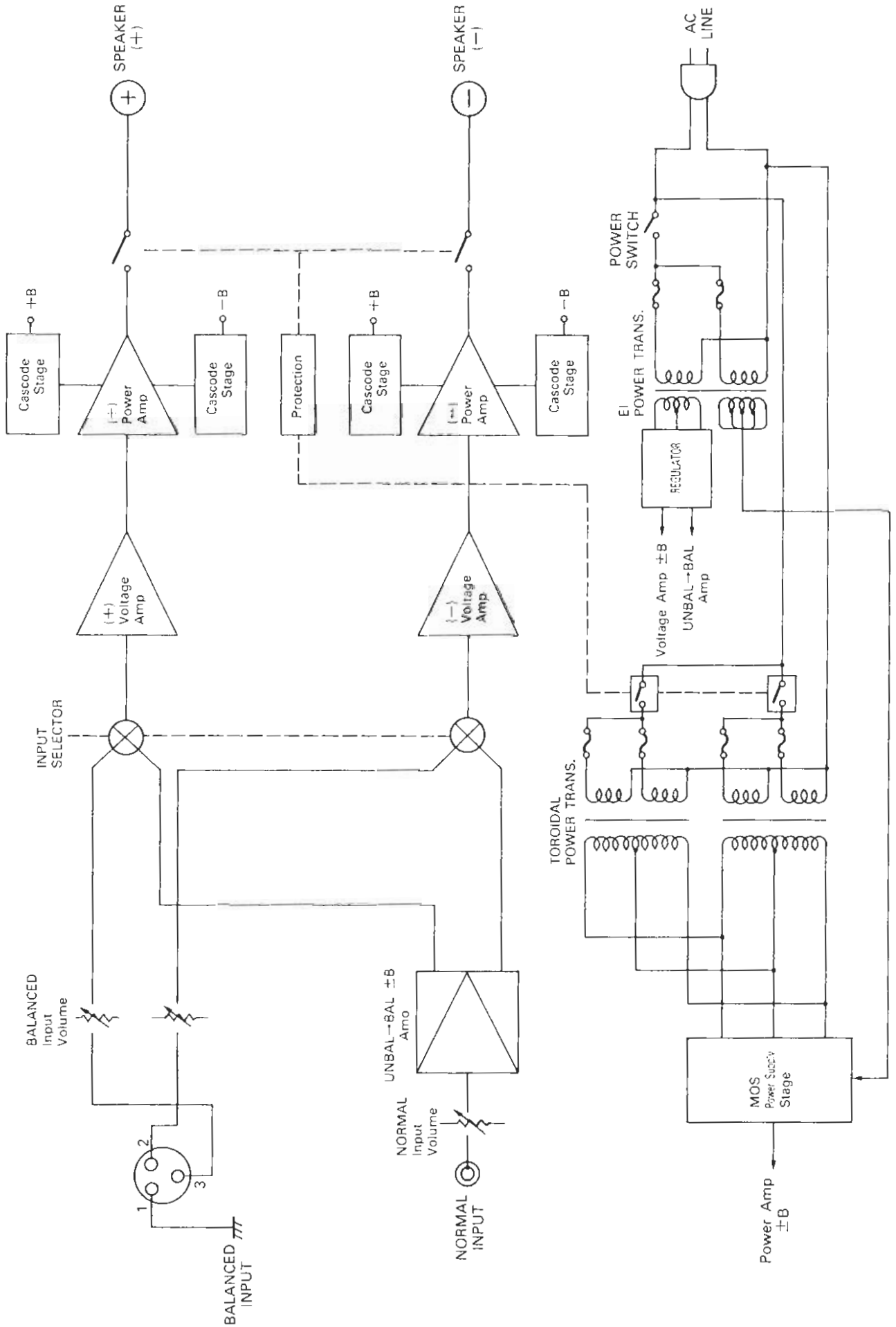
Connection precautions

- Do not plug the power cord into the AC outlet until all connections have been completed.
- Insert the plugs securely. Incomplete connections will lead to noise generation.
- Note that bundling pin plug cords together with power cords, or setting pin plug cords close to power transformers will lead to hum or noise.

Cautions on Installation

- Because of the POA-S1's heavy weight, it is extremely dangerous to install it on racks. Install it directly on a sufficiently sturdy floor.
- To allow heat to disperse, do not place objects on top of the unit.
- Install in such a way that no humming, noise or other mutual interference occurs between the POA-S1 and connected components.
- When a 1 ohm speaker is connected to the POA-S1, an AC current with a maximum of approximately 20A is generated. In order to take full advantage of the POA-S1's performance, connect it to a power outlet with the highest current capacity possible.
- Avoid using switching devices for selecting between various amplifier and speaker combinations.
- Make sure that no input cords, speaker cables or power cords are caught under the POA-S1's feet.
- The POA-S1 should be moved by at least four persons, who should hold it under the four corners for stability.

BLOCK DIAGRAM



SPECIFICATIONS

■ POWER AMPLIFIER SECTION

- **Rated output power:** Continuous 250 W min, into 8 ohms from 20 Hz to 20 kHz with no more than 0.05% total harmonic distortion
 - 500 W (4 ohm load, DIN)
 - 1000 W (2 ohm load, DIN)
 - 1400 W (1 ohm load, DIN)
- **Total harmonic distortion:** 0.008% (20 Hz ~ 20 kHz, 8 ohm load, rated output -3 dB)
- **Intermodulation distortion:** 0.003% or less (7 kHz/60Hz = 1/4, 8 ohm load, at an amplitude output equivalent to the rated output)
- **Power bandwidth:** 5 Hz ~ 50 kHz (T.H.D.: 0.05%, 8 ohm load, rated output -3 dB)
- **Frequency response:** 1 Hz ~ 300 kHz (8 ohm load, at 1 W output)
- **Input sensitivity:**
 - NORMAL 1 V
 - BALANCED 1 V
- **Input impedance:**
 - NORMAL 47 kohms
 - BALANCED 47 kohms
- **Output impedance:** 0.05 ohms (1 kHz)
- **S/N ratio ("A" curve weighting):**
 - NORMAL 110 dB
 - BALANCED 120 dB
- **Speaker output terminals:** 1 ~ 16 ohms

■ GENERAL

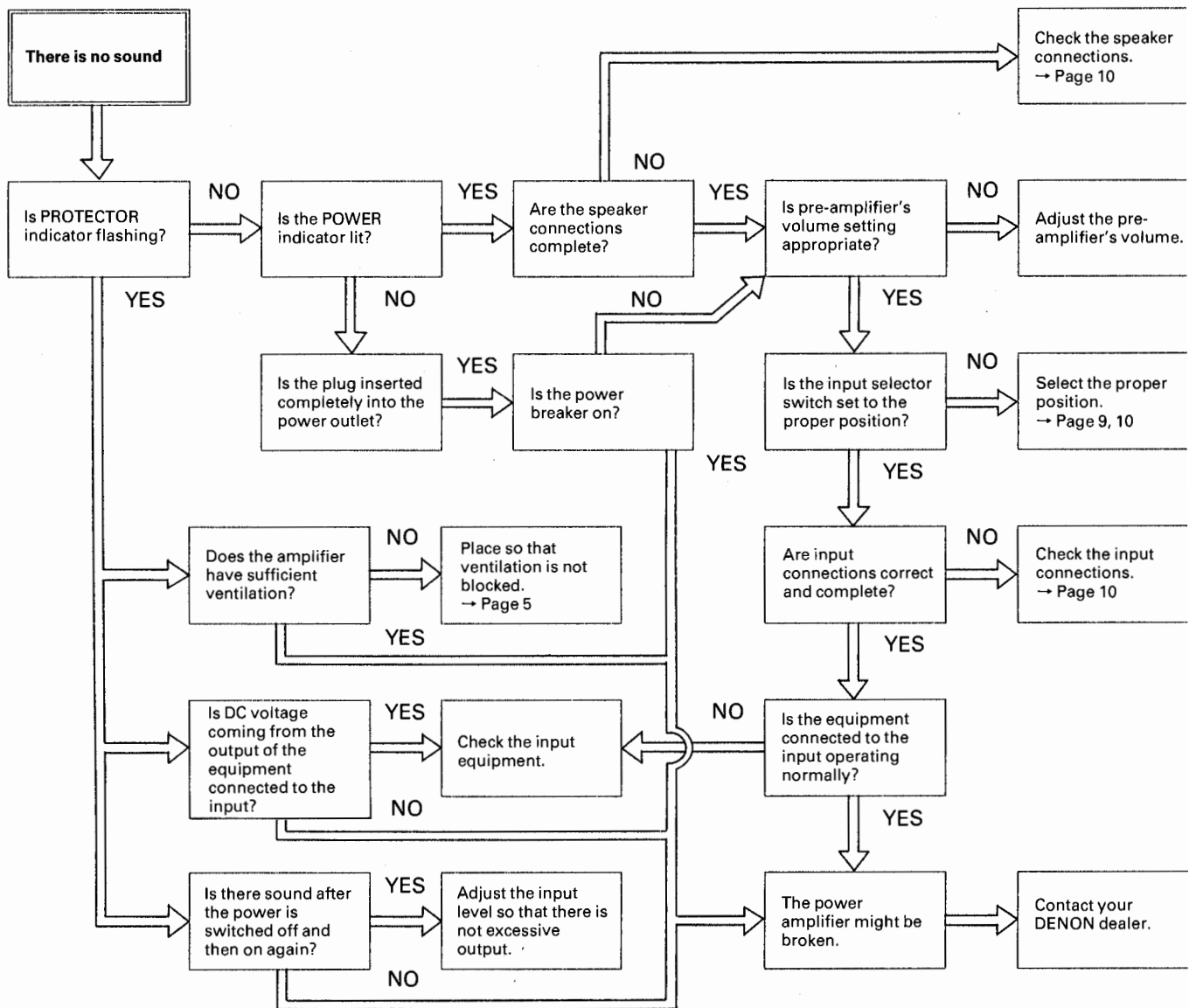
- **Power supply:** AC 230 V, 50 Hz
- **Power consumption:** 1200 W
- **Dimensions:** 483 mm (19-1/64") W × 273.5 mm (10-3/4") H × 683.5 mm (26-29/32") D (including controls and height of feet)
- **Weight:** 79.0 kg (174 lbs 3 oz)

* Specifications and design are subject to change without notice for the purpose of improvement.

TROUBLESHOOTING

1. Have all connections been made **PROPERLY** ?
2. Have you followed all operational instructions correctly ?
3. Check speaker and the preamplifier systems for proper operation.

When your unit does not seem to be operating correctly, first check the items in the following table. If the symptom does not correspond to any of the problems as shown below, turn off the power source immediately and contact your DENON dealer.



DENON SERVICE NETWORK

- Please contact one of our overseas service centers, listed below, for follow-up service consultation.
- Wenden Sie sich für anfallende Wartungs- bzw. Reparaturarbeiten bitte an eine der folgend aufgeführten Kundendienststellen.
- Adressez-vous à nos centres de service d'outre-mer indiqués ci-dessous, pour le service après-vente.
- Per il servizio dopo vendita rivolgete Vi al nostro centro di servizio estero appropriato della lista seguente.
- Para consultas de servicio por favor dirigirse a cualquiera de nuestros centros de servicio en el extranjero, enlistados abajo.
- Neem kontakt op met één van onze reparatie-inrichtingen in het buitenland, waarvan hier een lijst volgt, voor na-service.
- Ta kontakt med nedan angivna servicecentraler för radfrågning om servicearbeten efter försäljningen.
- Favor contactar um de nossos centros de serviços internacionais, abaixo listados, para consulta de serviços de acompanhamento.

Australia	AWA Limited. 112-118 Talavera Road, North Ryde NSW 2113, Australia, Postal Locked Bag No. 12, North Ryde. Tel: (02) 888-9000, Fax: (02) 888-9310, Telex: AA 22692
Austria	Digital-Professional-Audio Vertriebsges.m.b.H., 1170 Wien, Rupertusplatz 3 Tel: 0222-4501006~9, Fax: 0222-457679
Belgium	Transtel-Sabima P.V.B.A. Harmoniestraat 13, 2018 Antwerpen 1, België Tel: 03-237-3607
Canada	Denon Canada Inc. 17 Denison Street, Markham Ontario, Canada L3R 1B5 Tel: 905-475-4085
Denmark	Audionord Danmark A/S. Vester Alle 7, 8000 Arhus C. Tel: 86-128811
Finland	Suomen Hi-Fi Klubi OY Nylandsgatan 4-6, Helsingfors Tel: 0644401
France	Denon France S.A. 3 Boulevard Ney, 75018 Paris Tel: (1) 40 35 14 14
F.R. Germany	Denon Electronic GmbH Halskestraße 32, 40880 Ratingen Tel: 02102-4985-0
Greece	Kinotechniki Ass. 47 Stournara Str., Athens Tel: 3606 998
Hong Kong	Denon Hong Kong Ltd., 11/F North, Somerset House 979 King's Road, Quarry Bay, Hong Kong Tel: 516-6862, Fax: 516-5940
Iceland	Japis Ltd. Brautarholt 2, Box 396, 101 Reykjavik, Iceland Tel: 27133
Indonesia	PT Autoaccindo Jaya. Cideng Barat No. 7 Jakarta, Indonesia Tel: 6016599
Italy	Melchioni S.P.A. Via P. Colletta 37-20135 Milano Tel: 02-57941
Malaysia	Pertama Audio Sdn. Bhd. 44-46 Jalan SS 22/21 Damansara Jaya, 47400 Selangor, Malaysia Tel: 719 3957
Mexico	Labrador, S.A. de C.V. Zamora No. 154 Col. Condesa 06140 Mexico, D.F. Tel: 286 55 09 Fax: 286 34 62
Netherlands	Penhold B.V. Isarweg 6, 1043 AK Amsterdam Tel: 020-611-4957
New Zealand	Avalon Audio Corpn. Limited 119 Wellesley Street, Auckland 1, New Zealand Tel: 09-779-351, 09-775-370
Norway	Hi-Fi Klubben Box 70 Ankertorget, 0133 Oslo 1 Tel: 02-112218
Philippines	Avesco Marketing Corporation, Aurora Blvd. cor Yale, Cubao, Q.C., PHILS. Tel: 912-8881, Fax: 912-2999
Portugal	Videoacustica Qta. Do Paizinho-Armazém 5-Estrada De Circunvalação-Apart. 3127 1303 Lisboa Codex Tel: 2187004/2187096
Singapore	Pertama Audio Pte. Ltd. Alexandra Distripark Blk 4, No. 03-39 Pasir Panjang Road, Singapore 0511 Tel: 278-4411
Spain	Gaplasa S.A. Conde de Torroja, 24, 28022 Madrid Tel: 747-7777
Sweden	Sveriges Hi-Fi Klubb Box 5116, S-402 23 Göteborg, Tel: 031-200040
Switzerland	Diethelm & Co., AG. Grindelstrasse 5, 8303 Bassersdorf Tel: 01-838-1611
Taiwan R.O.C.	Taiwan Kolin Co., Ltd. 8th Fl., 83, Sec. 1, Chung-king S. Rd., Taipei, Taiwan R.O.C. Tel: (02) 314-3151 (20 Lines), Fax: (886) 02-3614037 Telex: 11102 TKOLIN
Thailand	Mahajak Development Co., Ltd. 6th FL., Mahajak Building, 46 Sukhuvit 3 (Nananua), Klontey, Prakranong, Bangkok 10110 Tel: 256-0000
United Kingdom & Eire	Hayden Laboratories Ltd. Hayden House, Chiltern Hill, Chalfont St. Peter Gerrards Cross, Bucks. SL9 9UG Tel: 0753-888447
U.S.A.	Denon America Inc. 222 New Road Parsippany, NJ07054, U.S.A., Tel: 201-882-7490, Fax: 201-575-1213

- * If there is no service center in your local area, consult the outlet where the equipment was purchased.
- * Falls sich in Ihrer Nähe keine Kundendienststelle befindet, wenden Sie sich an das Geschäft, wo das Gerät gekauft wurde.
- * S'il n'y a aucun centre de service dans votre région, consultez votre revendeur.
- * Se nella Vostra zona non c'è il centro di servizio, rivolgete Vi al negozio dove avete acquistato l'apparecchio.
- * Si no hay centros de servicio en su área local, consulte en donde haya comprado su equipo.
- * Als er in uw streek geen reparatie-inrichting is, neemt u contact op met de vestiging waar u de apparatuur gekocht heeft.
- * Saknas servicecentral i närheten där du bor, bér kontakt tas med återförsäljaren för apparaten.
- * Se não existir um centro de serviços em sua área local, consulte o estabelecimento onde o equipamento foi adquirido.

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