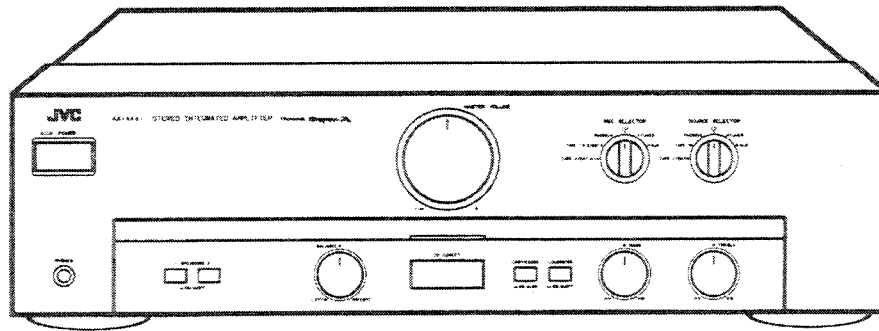


JVC

SERVICE MANUAL

STEREO INTEGRATED AMPLIFIER

AX-A441TN
MODEL No. AX-A442BK



Contents

Safety Precaution	1-2	Block Diagram	1-12
Instruction Book	1-3	Connection Diagram	1-13
Internal Block Diagram of ICs	1-10	Printed Circuit Board (END-061)	1-14
Power Amplifier		Printed Circuit Board	Insertion
Adjustment Procedures	1-10	Schematic DiagramsBlock Diagram	Insertion
Disassembly Procedures	1-11	Parts List	Insertion

Safety Precautions

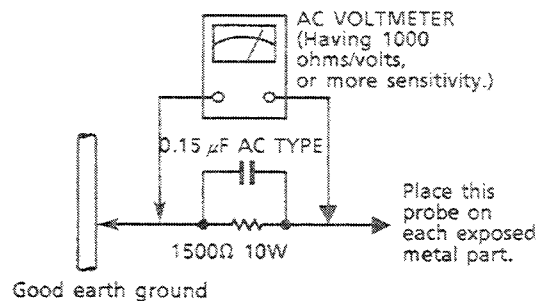
1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).

- Alternate check method
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

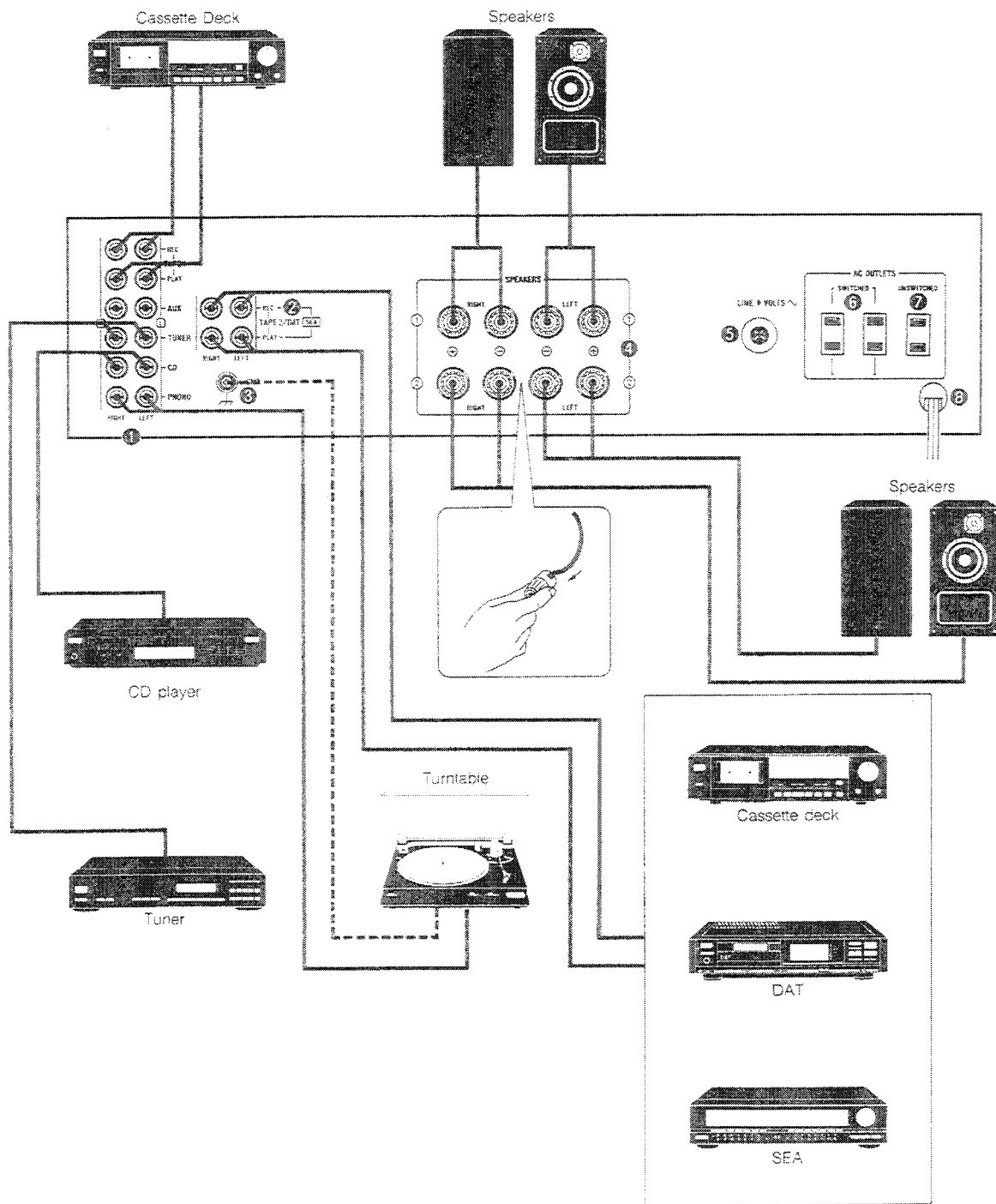
Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

CONNECTION DIAGRAM



REAR PANEL

- ① TAPE 1, AUX, TUNER, CD and PHONO terminals
 - ② TAPE 2/DAT terminals
 - ③ GND terminal
If your turntable has a ground lead, connect it to the GND terminal.
 - ④ SPEAKERS 1, 2 terminals
 - ⑤ AC line voltage selector**
(LINE ↓ VOLTS ~)
Set the voltage selector so that the arrow points to the appropriate voltage.
 - ⑥ SWITCHED AC OUTLETS**
 - ⑦ UNSWITCHED AC OUTLETS**
- ** Not provided on units for Continental Europe, the United Kingdom and Australia.
- ⑧ Power cord

Notes:

1. Disconnect the power cord when connecting any component.
2. When connecting components, make the correct left and right channel connections. Reversed channels may degrade the stereo effect.
3. Connect speakers with correct polarity: (+) to (+) and (-) to (-). Reversed polarity will degrade the stereo effect.
4. Connect plugs or wires firmly. Poor contact may result in hum.
5. Do not connect equipment requiring more than the rated power to the AC outlets on the rear panel.
6. Use speakers with the correct impedance. The correct impedance is indicated on the rear panel of the AX-A341TN/AX-A342BK, AX-A441TN/AX-A442BK.
7. The SWITCHED AC OUTLETS are switched off when the front-panel POWER button is switched off.
8. The UNSWITCHED AC OUTLET is not switched off when the front-panel POWER button is switched off.
9. An MC or MM cartridge can be used for the turntable connected to the AX-A441TN/AX-A442BK.
10. Do not connect video signals to the terminal of this unit.

BEFORE USE

1. Installation

- Select a place which is level, dry and neither too hot nor too cold (between -5°C and 40°C/23°F and 104°F).
- Leave space between the rear of the amplifier and the wall. Good ventilation is needed, especially when the amplifier is driven at high output power. Also, leave space above the top of the amplifier for the same reason when stacking components.
- Do not allow a carpet, etc., to block the ventilation holes.
- Do not set it in a place subject to vibrations.

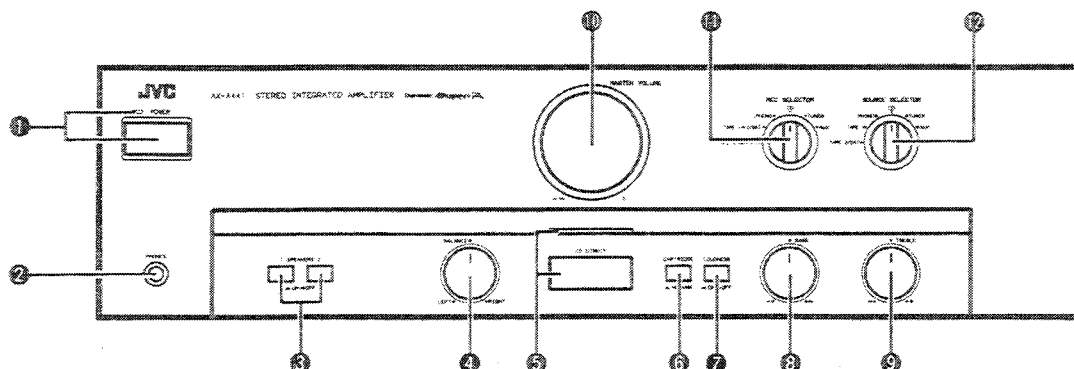
2. Power cord

- Check that the amplifier is set for your local supply voltage and frequency. If not consult the dealer from whom you bought it.
- When unplugging from the wall outlet, always pull the plug, not the power cord.
- Before plugging the power cord into an AC outlet, check to be sure the individual component are connected correctly.

3. Malfunctions, etc.

- There are no user servicable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
- Do not insert any metallic object inside the amplifier.
- Do not allow water to get inside the amplifier.
- Set the volume at minimum, before operation.

FRONT PANEL



① POWER and indicator

Press this button to turn the power on.
To turn the power off, press it again.
The indicator lights when the POWER button is pressed to on.

② PHONES (Headphones jack)

Plug stereo headphones into this jack for private listening.
If you want to listen to sound from the headphone only, press the SPEAKERS button to "OFF".

③ SPEAKERS (ON OFF)

Press to switch the speakers connected to the SPEAKERS 1 or 2 terminals on () and off ().

④ BALANCE

Balances the volume between the left and right speakers. Usually set it to the center click position.

⑤ CD DIRECT and indicator

Press this button to enjoy listening to the CD with good sound quality. The indicator lights and the signal fed from the CD terminals is directly connected to the volume, bypassing the circuits on the way, thus allowing you to enjoy listening to an improved sound quality.

Please note:

- When CD DIRECT is on the amplifier gives priority to the CD player so that the CD sound is emitted from the speakers or headphones regardless of the source selected by the source selector.
- While the CD DIRECT button is pressed, spinning of the BALANCE knob does not change the reproduced sound.

⑥ CARTRIDGE (AX-A441TN/AX-A442BK only)

MC (): Press in when using an MC cartridge having an output of less than 0.5 mV.

MM (): Press again when using an MM or MC cartridge having an output of more than 0.5 mV.

⑦ LOUDNESS (ON OFF)

Press this switch ON () to compensate for the ear's different sensitivity to sound at low volumes.

⑧ BASS

Turn clockwise to boost bass response and counterclockwise to decrease it.

⑨ TREBLE

Turn clockwise to boost treble response and counterclockwise to decrease it.

⑩ MASTER VOLUME

Controls the volume of the speakers and headphones.

⑪ REC SELECTOR

TAPE 2/DAT ▶ 1: Set to this position to dub from TAPE 2 to TAPE 1 or to record DAT onto TAPE 1.

TAPE 1 ▶ 2/DAT: Set to this position to dub from TAPE 1 to TAPE 2 or to record TAPE 1 onto DAT.

PHONO: Set to this position to record PHONO.

CD: Set to this position to record CD.

TUNER: Set to this position to record TUNER.

AUX: Set to this position to record the source connected to the AUX terminals.

⑫ SOURCE SELECTOR

TAPE 2/DAT: Set to this position to listen to TAPE 2/DAT.

TAPE 1: Set to this position to listen to TAPE 1.

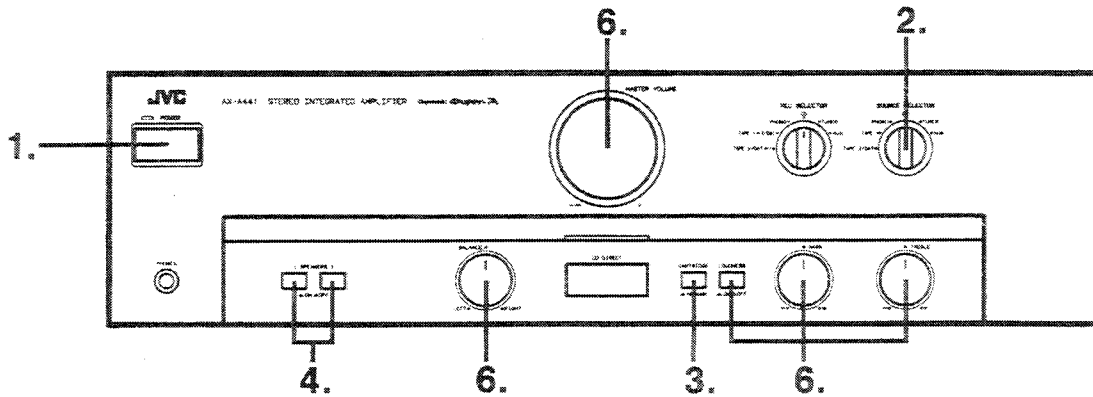
PHONO: Set to this position to listen to PHONO.

CD: Set to this position to listen to CD.

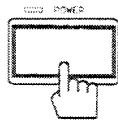
TUNER: Set to this position to listen to TUNER.

AUX: Set to this position to listen to the source connected to the AUX terminals.

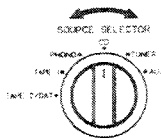
Listening to Sources



1. Turn the POWER on and the indicator will light up.



2. Adjust the SOURCE SELECTOR to select the source.



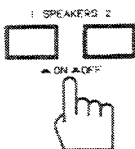
3. Set the CARTRIDGE as required. (for PHONO only)



Note:

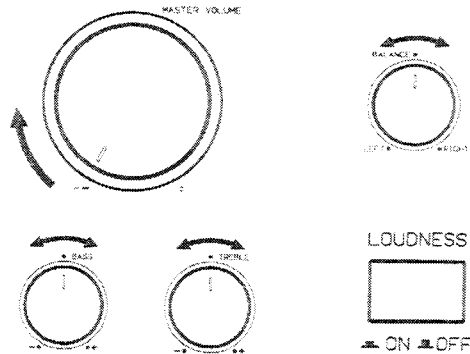
- Unless listening to PHONO, above operation is not necessary.

4. Select the speaker system with the SPEAKERS buttons.



5. Operate the corresponding equipment according to its instruction manual.

6. Adjust the MASTER VOLUME, BALANCE, TREBLE, BASS and LOUDNESS.



7. Use of S.E.A. Graphic Equalizer

By allowing you to independently boost or lower the response of finely divided sections of the frequency spectrum, the S.E.A. gives you much greater control over the sound quality of your stereo system. With an optionally available S.E.A. Graphic Equalizer, you can tailor the sound to your own taste for different types of music or to compensate for the particular acoustic characteristics of your audio components and listening room. The TAPE 2/terminals of the AX-A341TN/AX-A342BK or AX-A441TN/AX-A442BK can be used for connecting the S.E.A. Graphic Equalizer.

Note:

- To tailor the sound using SEA, select desired source by the REC SELECTOR and adjust the SOURCE SELECTOR position to TAPE 2/DAT connected to SEA.

TROUBLESHOOTING

What appears to be a malfunction may not always be serious.
Make sure first

No sound and no light

Is the AC plug connected properly?
Are the connections made correctly?
Are the inter-component connections correct?

No sound from speakers

Are speaker cords connected?
Are the SPEAKERS buttons correctly set?
Is the VOLUME control properly set?

Is your source component correctly set?

Sound from one speaker only

Are speaker cords connected correctly?
Is BALANCE control set to one extreme or the other?

Loud hum during record playing

Is turntable grounded?
Try to change cord path.
Insert the plugs by interchanging their positions.

Howling noise during record playing

Is turntable too close to a speaker?

SPECIFICATIONS

AX-A341TN/AX-A342BK

OVERALL CHARACTERISTICS

Output power:

85 watts per channel into 4 ohms at 1 kHz (DIN).
65 watts per channel into 8 ohms at 1 kHz (DIN).
55 watts per channel, min. RMS, both channels driven, into 8 ohms from 20 Hz to 20 kHz, with no more than 0.007% total harmonic distortion.
55 watts per channel, min. RMS, both channels driven, into 8 ohms at 1 kHz with no more than 0.003% total harmonic distortion. (measured by JVC Audio Analyzer System)

Total harmonic distortion : 0.007% (20 Hz — 20 kHz, 8 ohms) at 55 watts
Intermodulation distortion : 0.007% (60 Hz : 7 kHz = 4 : 1, 8 ohms) at 55 watts
Power band width : 5 Hz — 50 kHz (IHF, 0.05%, 8 ohms both channels driven)
Frequency response : 5 Hz — 100 kHz +0, -3 dB (8 ohms)
Damping factor : 100 (1 kHz, 8 ohms)

Input terminals

Input sensitivity/impedance (1 kHz)
PHONO : 2.5 mV/47 kohms
CD/AUX/TUNER/TAPE 1, 2 : 200 mV/27 kohms

Signal-to-noise ratio

PHONO : 73 dB ('66 IHF)
CD/AUX/TUNER/TAPE 1, 2 : 110 dB ('66 IHF)
PHONO : 69 dB (DIN)
CD/AUX/TUNER/TAPE 1, 2 : 74 dB (DIN)

Tone controls

TREBLE: $\pm 8 \pm 1$ dB (at 10 kHz)
BASS: $\pm 8 \pm 1$ dB (at 100 Hz)

Loudness controls

+6 dB (at 100 Hz), +4 dB (at 10 kHz)
(Volume control at -30 dB position)

EQUALIZER

PHONO overload capacity (PHONO to TAPE 2 REC) : 100 mV (0.02% THD)
PHONO RIAA deviation : ± 0.3 dB (20 Hz — 20 kHz)

Recording output

Output level/impedance
TAPE 1, 2, REC : 200 mV/800 ohms

GENERAL

Dimensions : 435 (W) x 127 (H) x 306 (D) mm
(17-3/16" x 5" x 12-1/16")
Weight : 7.2 kg (15.9 lbs.)

Design and specifications subject to change without notice.

AX-A441TN/AX-A442BK

OVERALL CHARACTERISTICS

Output power:

110 watts per channel into 4 ohms at 1 kHz (DIN).
75 watts per channel into 8 ohms at 1 kHz (DIN).
65 watts per channel, min. RMS, both channels driven, into 8 ohms from 20 Hz to 20 kHz, with no more than 0.007% total harmonic distortion.
65 watts per channel, min. RMS, both channels driven, into 8 ohms at 1 kHz with no more than 0.003% total harmonic distortion. (measured by JVC Audio Analyzer System)

Total harmonic distortion : 0.007% (20 Hz — 20 kHz, 8 ohms) at 65 watts
Intermodulation distortion : 0.007% (60 Hz : 7 kHz = 4 : 1, 8 ohms) at 65 watts
Power band width : 5 Hz — 50 kHz (IHF, 0.05%, 8 ohms both channels driven)
Frequency response : 5 Hz — 100 kHz +0, -3 dB (8 ohms)
Damping factor : 100 (1 kHz, 8 ohms)

Input terminals

Input sensitivity/impedance (1 kHz)
PHONO (MM) : 2.5 mV/47 kohms
PHONO (MC) : 200 μ V/100 ohms
CD/AUX/TUNER/TAPE 1, 2 : 200 mV/27 kohms

Signal-to-noise ratio

PHONO (MM) : 85 dB ('66 IHF)
PHONO (MC) : 67 dB ('66 IHF)
CD/AUX/TUNER/TAPE 1, 2 : 110 dB ('66 IHF)
PHONO (MM) : 69 dB (DIN)
CD/AUX/TUNER/TAPE 1, 2 : 74 dB (DIN)

Tone controls

TREBLE: $\pm 8 \pm 1$ dB (at 10 kHz)
BASS: $\pm 8 \pm 1$ dB (at 100 Hz)

Loudness controls

+6 dB (at 100 Hz), +4 dB (at 10 kHz)
(Volume control at -30 dB position)

EQUALIZER

PHONO overload capacity (PHONO to TAPE 2 REC)
PHONO (MM) : 100 mV (0.02% THD)
PHONO (MC) : 8 mV (0.04% THD)

PHONO RIAA deviation

PHONO (MM) : ± 0.3 dB (20 Hz — 20 kHz)
PHONO (MC) : ± 0.5 dB (20 Hz — 20 kHz)

Recording output

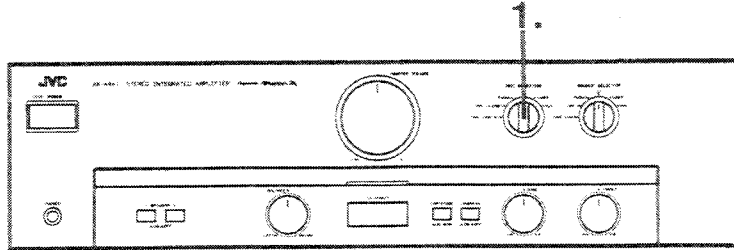
Output level/impedance
TAPE 1, 2, REC : 200 mV/800 ohms

GENERAL

Dimensions : 435 (W) x 127 (H) x 306 (D) mm
(17-3/16" x 5" x 12-1/16")
Weight : 7.5 kg (16.6 lbs.)

Design and specifications subject to change without notice.

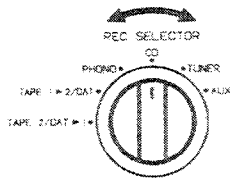
Recording Tapes



1. Set the REC SELECTOR as desired.

2. Play the source according to its instruction manual.

3. Operate the tape deck for recording.



Notes:

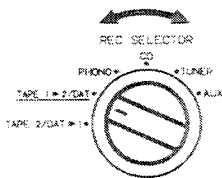
- To listen to another source while recording, select desired source by the SOURCE SELECTOR.
- If your tape deck is 3-head type, you can monitor the sound being recorded. In this case, adjust the SOURCE SELECTOR position to TAPE 1 or TAPE 2/DAT connected to tape deck.

Tape Dubbing

Dubbing between TAPE 1 and TAPE 2 is carried out as follows:

— To record from TAPE 1 to TAPE 2 —

1. Set the REC SELECTOR to TAPE 1 ▶ 2/DAT.



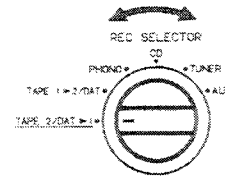
2. Play back the deck TAPE 1 and operate the deck TAPE 2 for recording.

Note:

- To monitor the recorded sound, connect 3 head-deck to TAPE 2/DAT terminal and set the source selector to TAPE 2.

— To record from TAPE 2 to TAPE 1 —

1. Set the REC SELECTOR to TAPE 2/DAT ▶ 1.



2. Play back the deck TAPE 2 and operate the deck TAPE 1 for recording.

Note:

- To monitor the recorded sound, connect 3 head-deck to TAPE 1 terminal and set the source selector to TAPE 1.

Disassembly Procedures

(1) Removing the Top Cover

1. Remove the 4 screws fastening both sides of the Top Cover, and the 2 screws fastening the rear sides.
2. Remove the Top Cover.

(2) Removing the Bottom Cover

1. Remove the 18 screws (A). (Fig 2)
2. Remove the Bottom Cover.

(3) Removing the Front Panel

1. Remove the top cover.
2. Remove the 3 screws (B) and 3 plastic rivets (C). (Fig 1,2)
3. Pull out the main volume knob.

(4) Removing the Power Transistor

1. Remove the top cover and the bottom plate.
2. Unsolder the defective power transistor.
3. Remove the screw holding the power transistor using a pair of pliers, a wrench or a bent screwdriver

(5) Removing / Installing the flexible wire of remote switch

1. Set the SOURCE SELECTOR knob (REC SELECTOR knob) to AUX position when removing .
2. Insert the tip of the driver into the openings in the switch.(Fig 3)
3. Move the driver down so that the claws of the switch open.
4. After opening both claws , lift the mold portion.
**Note : Be most careful when handling the flexible wire .
Do not bend it sharply or twist it .**
5. Set the SOURCE SELECTOR knob (REC SELECTOR knob) to AUX position of switch to (A) (or (B)) direction , then install the mold portion .

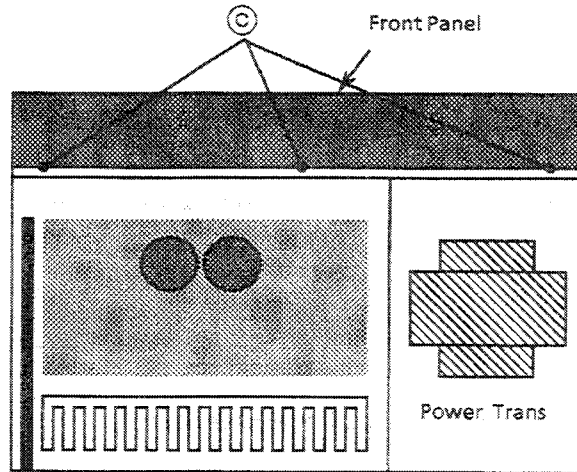


Fig 1. Top View

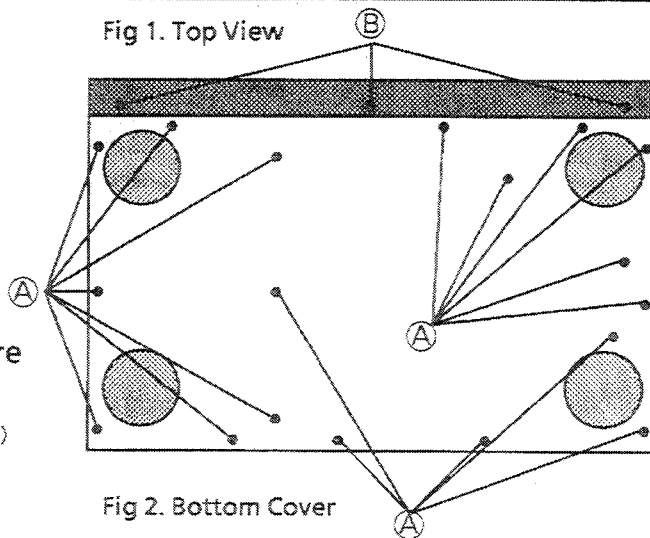


Fig 2. Bottom Cover

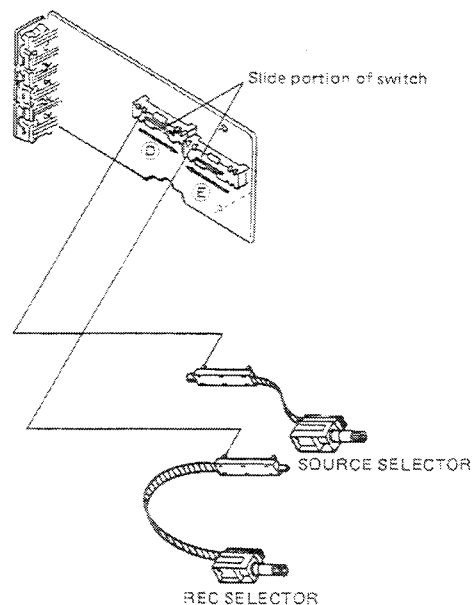


Fig 4. Installing the flexible wire of remote switch.

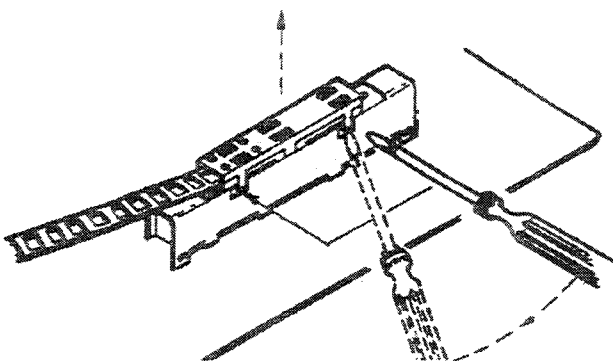


Fig 3. Removing the flexible wire of remote switch.

POWER SPECIFICATIONS

Area	Line Voltage & Frequency	Power Consumption	
		AX-A341TN/AX-A342BK	AX-R441TN/AX-A442BK
U.K.	AC 240 V ~, 50 Hz	250 watts	610 watts
Australia			
Continental Europe	AC 230 V ~, 50 Hz	240 watts	250 watts
Other areas	AC 110 / 127 / 220 / 240 V ~ selectable, 50/60 Hz	230 watts	270 watts

SPANNUNGSVERSORGUNG UND LEISTUNGS-AUFNAHME

Länder	Netzspannung und Frequenz	Leistungsaufnahme	
		AX-A341TN/AX-A342BK	AX-A441TN/AX-A442BK
Großbritannien	240 V ~, 50 Hz	250 Watt	610 Watt
Australien			
Kontinental-Europa	230 V ~, 50 Hz	240 Watt	250 Watt
Andere Länder	umschaltbar 110 / 127 / 220 / 240 V ~ 50/60 Hz	230 Watt	270 Watt

CARACTERISTIQUES TECHNIQUES D'ALIMENTATION

Pays	Tension d'alimentation et fréquence	Consommation	
		AX-A341TN/AX-A342BK	AX-A441TN/AX-A442BK
Royaume-Uni	CA 240 V ~, 50 Hz	250 watts	610 watts
Australie			
Europe Continentale	CA 230 V ~, 50 Hz	240 watts	250 watts
Autres Pays	CA 110 / 127 / 220 / 240 V ~, commutable, 50/60 Hz	230 watts	270 watts

SPANNINGSVEREISTEN

Gebieden	Netspanning en frekwentie	Stroomverbruik	
		AX-A341TN/AX-A342BK	AX-441TN/AX-A442BK
Engeland	Net 240 V ~ 50 Hz	250 Watt	610 Watt
Australië			
Europese vasteland	Net 230 V ~ 50 Hz	240 Watt	250 Watt
Andere gebieden	Net 110 / 127 / 220 / 240 V ~ instelbaar, 50/60 Hz	230 Watt	270 Watt

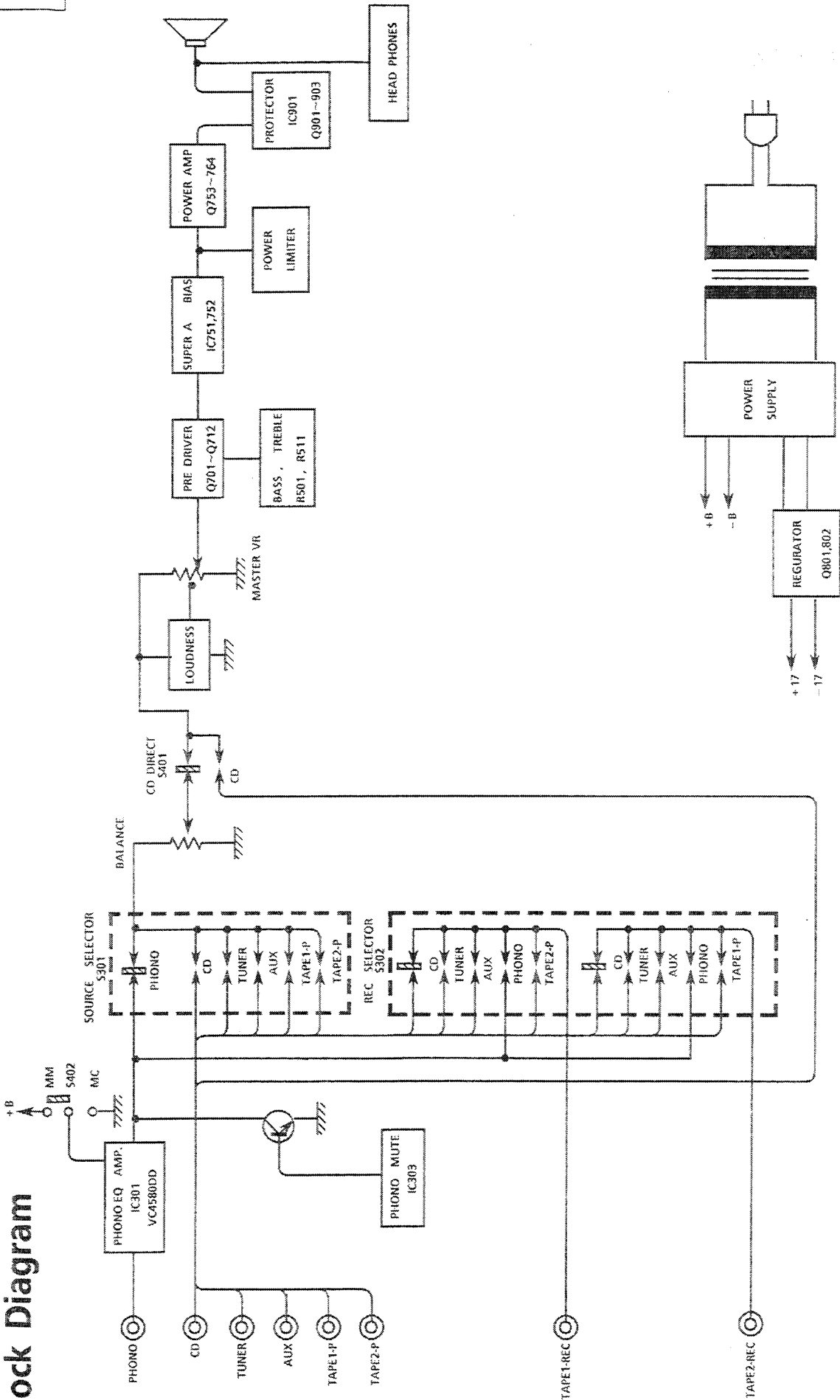
ESPECIFICACIONES DE ALIMENTACION

Países	Voltaje y frecuencia	Consumo	
		AX-A341TN/AX-A342BK	AX-A441TN/AX-A442BK
Reino Unido	AC 240 V ~, 50 Hz	250 vatios	610 vatios
Australia			
Europa Continental	AC 230 V ~, 50 Hz	240 vatios	250 vatios
Otros países	AC 110 / 127 / 220 / 240 V ~ seleccionable, 50/60 Hz	230 vatios	270 vatios

STRÖMFÖRSÖRJNING

Områden	Nätspänning & frekvens	Effektförbrukning	
		AX-A341TN/AX-A342BK	AX-A441TN/AX-A442BK
Storbritannien	~ 240 V, 50 Hz	250 Watt	610 Watt
Australien			
Kontinentaleuropa	~ 230 V, 50 Hz	240 Watt	250 Watt
Övriga länder	~ 110 / 127 / 220 / 240 V (omkopplingsbart), 50/60 Hz	230 Watt	270 Watt

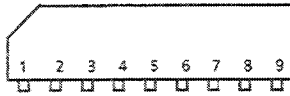
Block Diagram



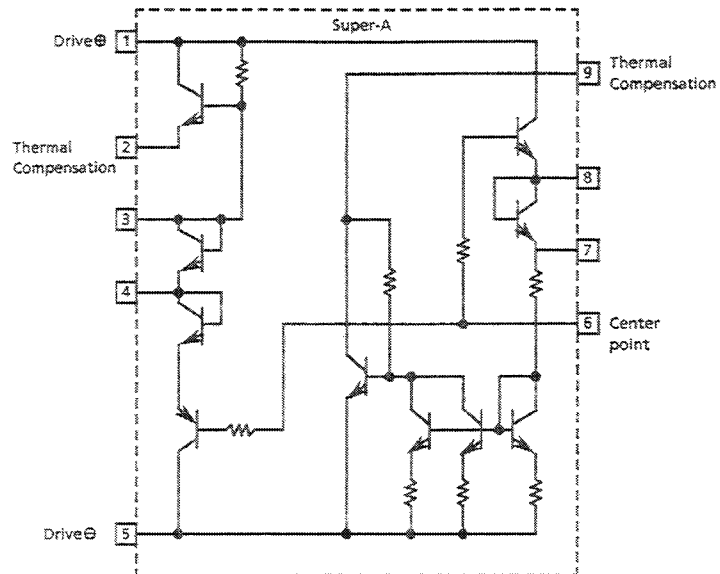
Internal Block Diagrams of ICs

■ VC5022 (IC751,752) : SUPER- A

(1) Terminal Layout

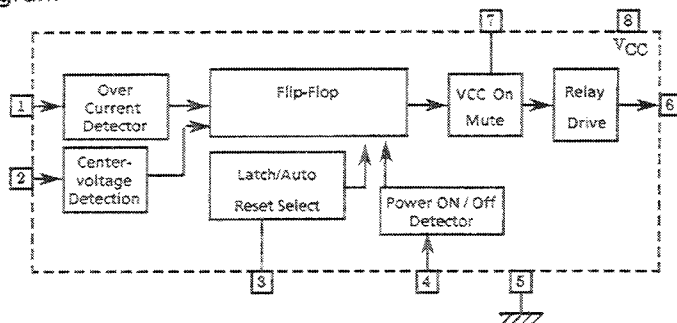


(2) Block Diagram

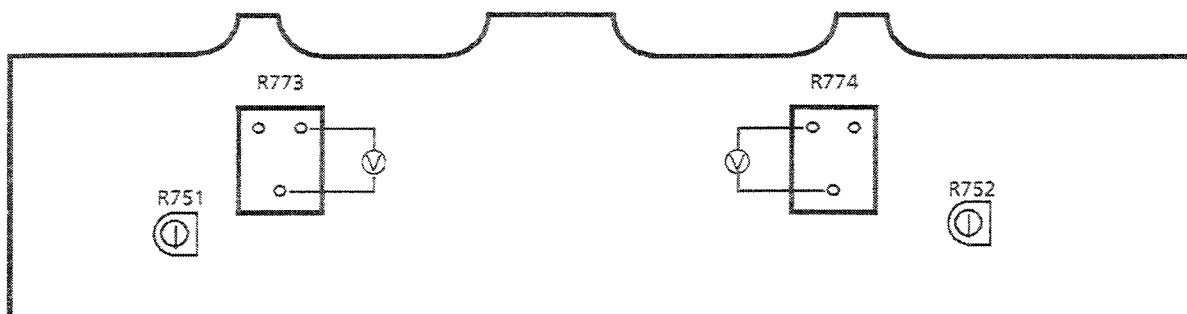


■ μ PC1237HA(IC303,901) : Protector, Relay Driver

(1) Block Diagram



Power Amplifier Adjustment Procedures

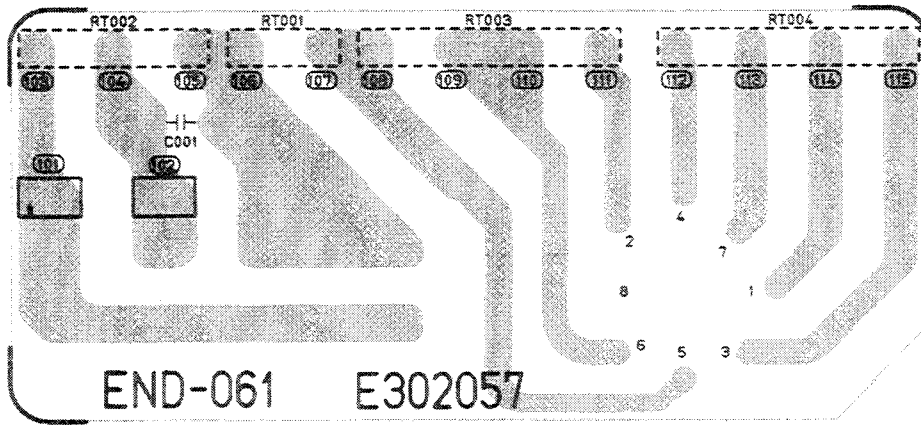


■ Idling Current

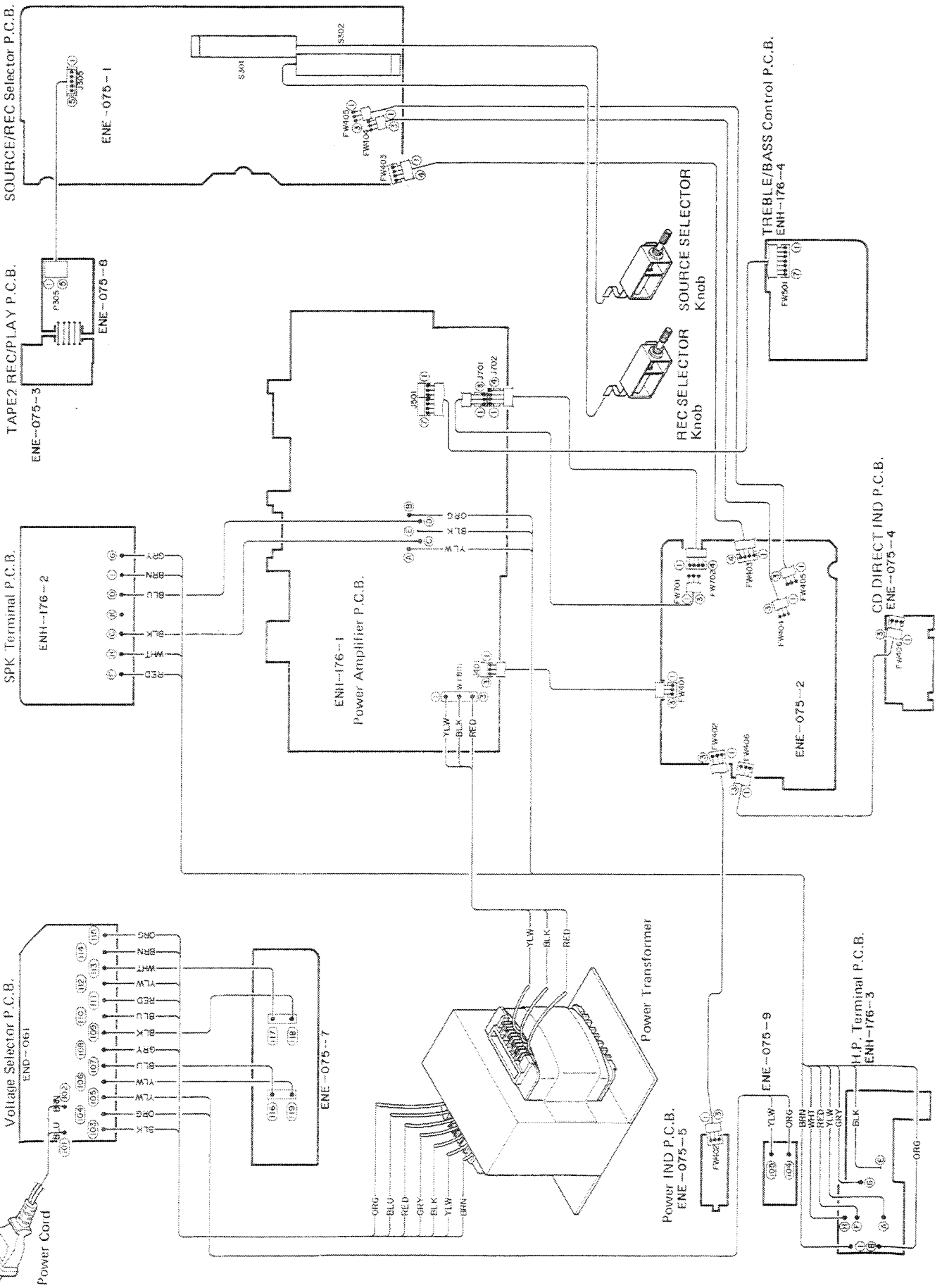
- (1) Set the volume control to minimum during this adjustment.
- (2) Turn R751 and R752 fully counterclockwise before the power switch on.
- (3) Always start from cold, and allow 10 minutes to warm up before adjustment. If the heatsink is already warm from previous use the correct adjustment can not be made.
- (5) Connect a DC voltmeter to R773 resistor's leads for left channel, or to R774 for right channel.
- (6) Adjust R751 for left channel, or R752 for right channel, so that the DC voltmeter becomes 7mV ~ 15mV

Printed Circuit Boards

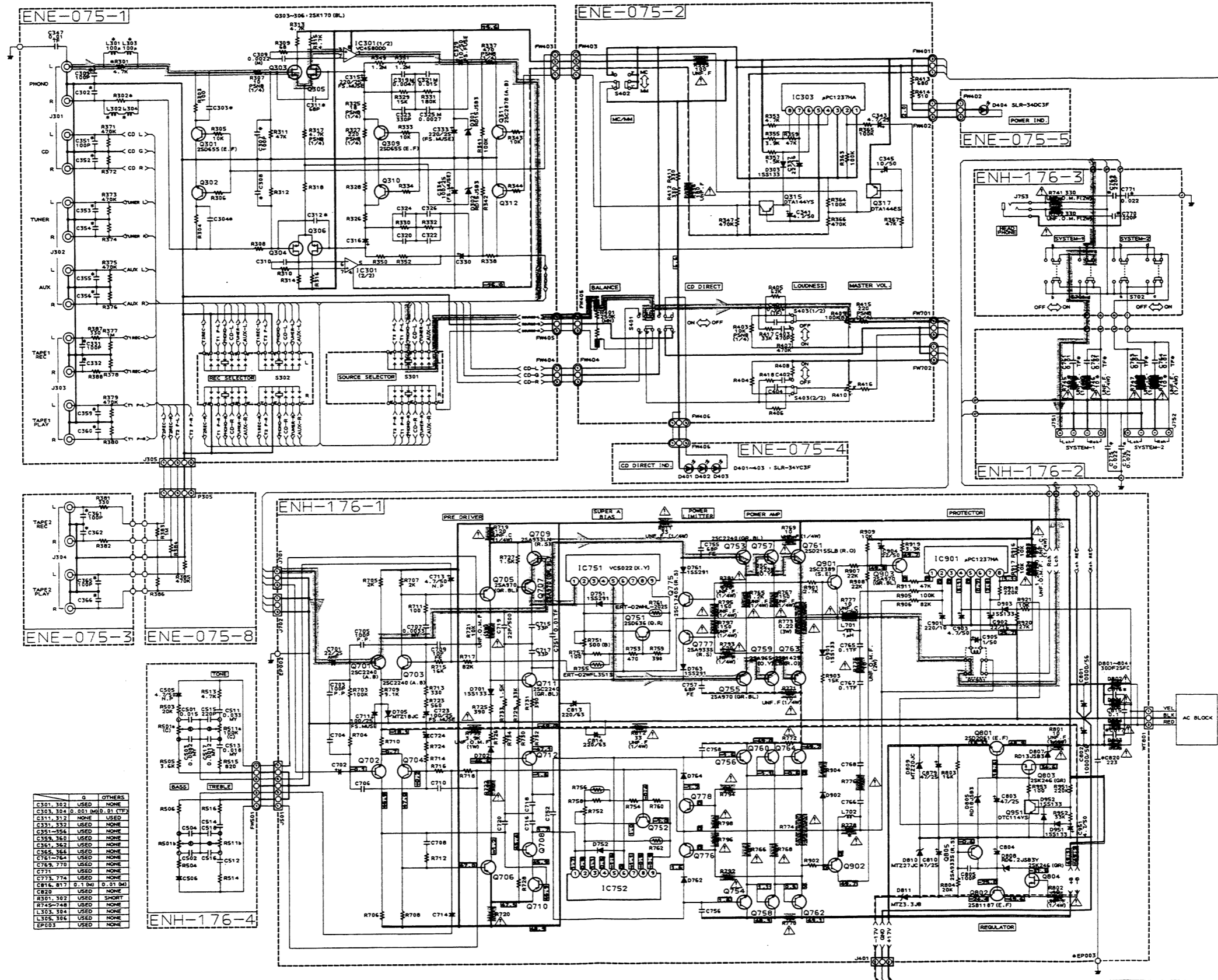
■ Voltage Selector P.C.B (END-061)



Connection Diagram



Schematic Diagrams



AX-A441TN
AX-A442BK

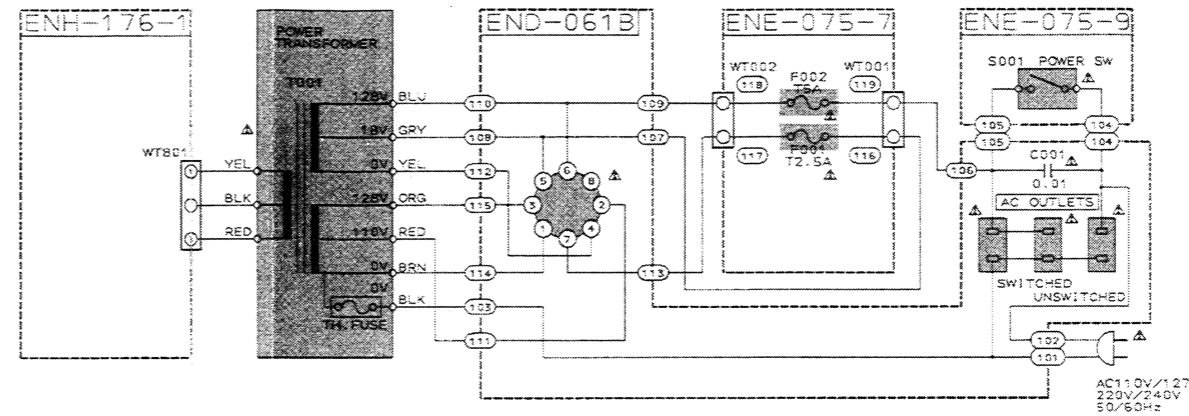
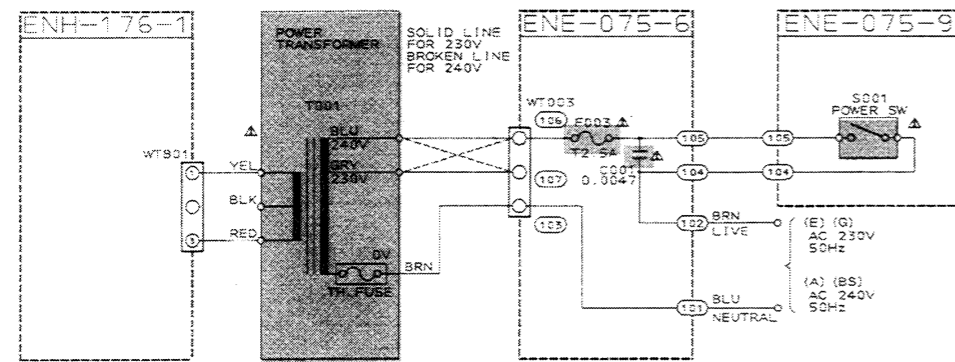
AX-A441TN
AX-A442BK

AC BLOCK

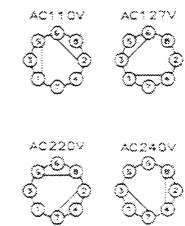
(E.G.A.BS) (E.G) FOR EUROPE, GERMANY AC230V.50Hz
(A) FOR AUSTRALIA (BS) FOR U.K. AC240V.50Hz

(U) (U) FOR OTHER COUNTRIES

AC110/127/220/240V. 50/60Hz



VOLTAGE SELECTOR CONNECTION

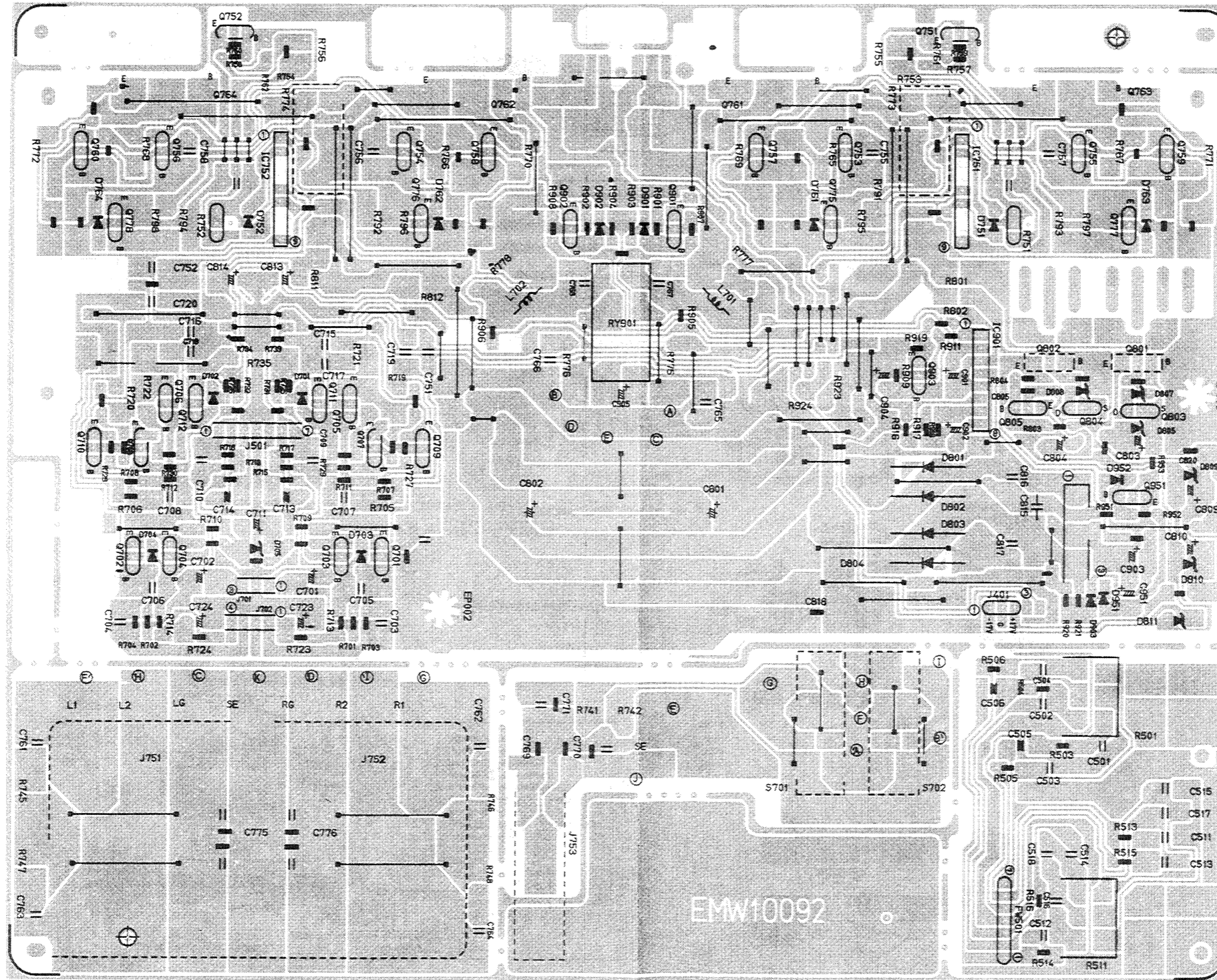


Notes:

1. ——— indicates +B power supply.
2. - - - - indicates -B power supply.
3. [shaded box] indicates signal path.
4. [shaded box] shows voltage.
5. When replacing the parts in the darkened area ([shaded box]) and those marked with Δ , be sure to use the designated parts to ensure safety.
This is the standard circuit diagram.
6. The design and contents are subject to change without notice.

AX-A441TN
AX-A442BK

Power Amp P.C.B (ENH-176)



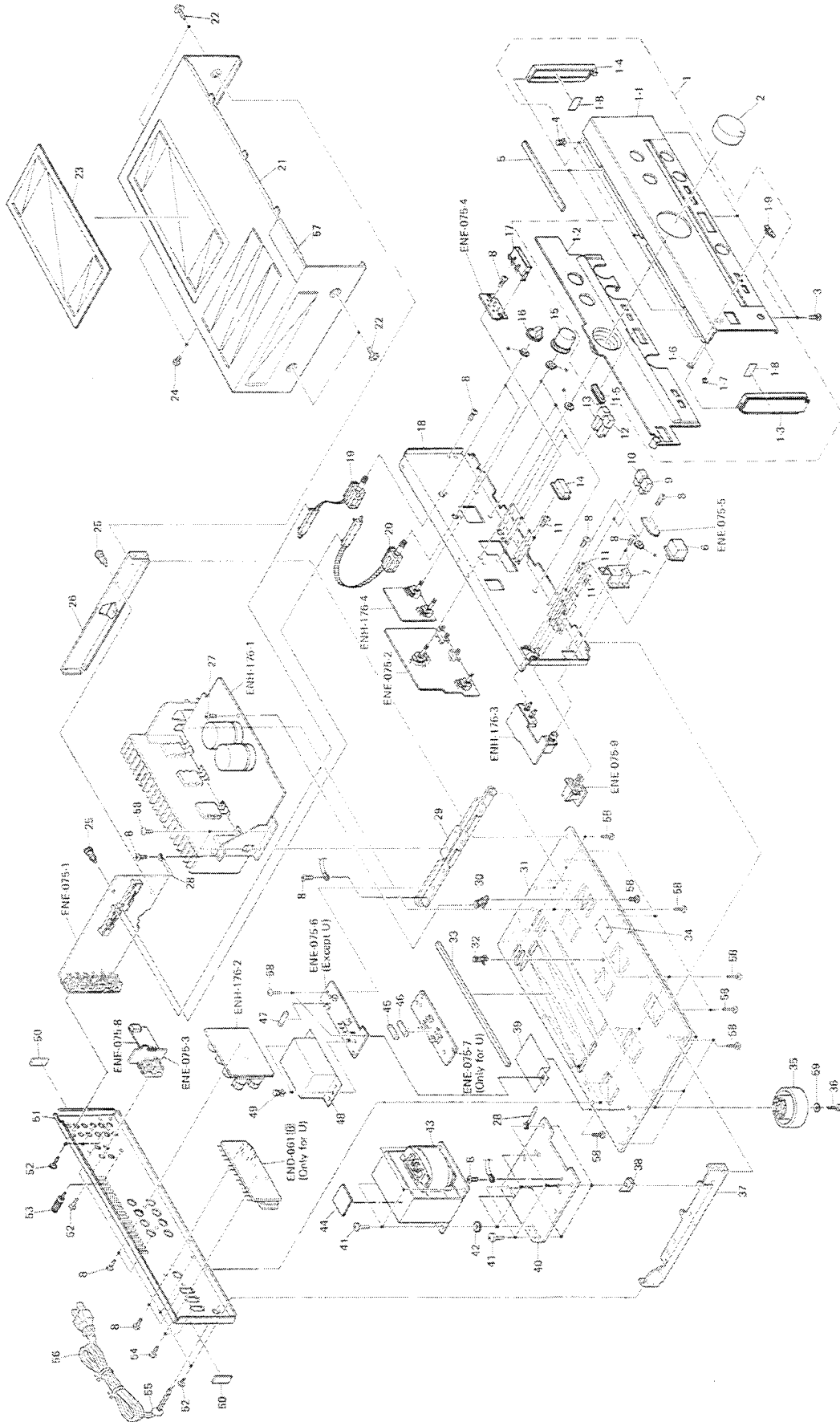
ENH-176

PARTS LIST

Contents

General Exploded View and Parts List	2-2
Printed Circuit Board Ass'y and Parts List	2-5
■ ENH-176 <input type="checkbox"/> Power Amplifier PC Board Ass'y	2-5
■ ENE-075 <input type="checkbox"/> Source Selector PC Board Ass'y	2-8
■ END-061 <input checked="" type="checkbox"/> Voltage Selector PC Board Ass'y	2-10
Accessories List	2-11
Packing Materials and Part Numbers	2-12

General Exploded View and Parts List



* mark indicates attached part.

■ AX-A441TN Parts List

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-AXA441TNE	Front Panel Ass'y	1		
	1-1	E207078-001	Front Panel	1		
	1-2	E102418-001	Front Base	1		
	1-3	E307424-001	Side Fitting	1	Left	
	1-4	E307424-002	Side Fitting	1	Right	
	1-5	E406486-001	Indicator	1	CD Direct	
	1-6	E60912-003	Speed Nut	1		
	1-7	E75934-002	Indicator	1	Stand BY.	
	1-8	EXO020010R15S13	Spacer	2		
	1-9	E72968-001	JVC Mark	1		
	2	E307425-001	Volume Knob	1		
	3	SBSG3006M	Screw	3		
	4	E48729-009	Plastic Rivet	3		
	5	EXO170005N35S02	Felt Spacer	2		
	6	E406481-001	Power Button	1		
	7	E75183-001	Head Phone Bracket	1		
	8	SBSG3008CC	Screw	12		Except G, U
	9	SBSG3008CC	Screw	14		G, U
	9	E406482-002	Push Button	1	SPK-2	
	10	E406482-001	Push Button	1	SPK-1	
	11	SBST3006CC	Screw	8		
	12	E406483-001	Push Button	1	Cartridge	
	13	E406483-002	Push Button	1	Loudness	
	14	E406484-001	Push Button	1	CD Direct	
	15	E75527-006	Knob	3	Tone	
	16	E406485-001	Knob	2	Source	
	17	E307426-001	LED. Holder	1		
	18	E102419-001	Front Bracket	1		
	19	QSR2B16-E03	Rotary Switch	1	Source Select	
	20	QSR2B19-E04	Rotary Switch	1	Rec Select	
	21	E206801-002	Metal Cover	1		A, G
	22	E26753-002	Metal Cover	1		E, EF, U, BS
	23	E61660-004	Special Screw	4		
	23	E306233-002	Protect Sheet	1		E, EF, U, BS
	24	SBSG3008M	Screw	2		
	25	E303216-006	Fastener	2		
	26	E305811-002	Side Bracket	1	Right	
	27	E74266-002	Special Screw	1		
	28	E72018-001	Wire Clamp	2		
	29	E305812-002	Center Bracket	1		
	30	E68587-008	Bracket	1		
	31	E26273-003	Bottom Cover	1		
	32	E306816-001	Fastener	1		
	33	EXO255005N60S02	Spacer	1		
	34	E70115-002	Caution Label	1		
	35	E307427-001	Foot Ass'y	4		
	36	SBST3008Z	Screw	4		
	37	E305810-001	Side Bracket	1	Left	
	38	E406309-001	Spacer	4		
	39	E406626-001	Protect Sheet	1		
	40	E305803-005	Trans Bracket	1		
	41	E61661-004	Special Screw	8		
	42	E73968-002	Spacer	4		
△	43	ETP1150-39EB	Power Transformer	1	T001	A, E, EF, G
△	43	ETP1150-39EBBS	Power Transformer	1	T001	BS
△	44	ETP1150-39FA	Power Transformer	1	T001	U
△	45	EXO060050N40S02	Spacer	1	for Transformer	
△	46	QMF51A2-2R5S	Fuse	1	F001	U
△	47	QMF51A2-5R0S	Fuse	1	F002	U
△	47	QMF51A2-2R5S	Fuse	1	F003	A, E, EF, G
△	48	QMF51E2-2R5SBS	Fuse	1	F003	BS
	49	E307503-001	Protect Cover	1		A, E, EF, G, BS
	50	E48729-008	Plastic Rivet	2		A, E, EF, G, BS
	51	EXO020010R10S10	Spacer	2		
	51	E26334-013	Rear Panel	1		U

△: Safety Parts

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	—	E26334-014	Rear Panel	1		Except U
	52	E303260-229	Rating Label	1		E, EF, G
	53	E73273-003	Special Screw	9		Except U
	53	E73273-003	Special Screw	2		U
	53	E70078-003	GND. Terminal	1		
△	54	SDSG3008CC	Screw	2		U
△	55	QHS3876-162	Cord Stopper	1		Except BS
△	56	QHS3876-162BS	Cord Stopper	1		BS
△	56	QMP2560-244	Power Cord	1		A
△	56	QMP3900-200	Power Cord	1		E, EF, G
△	57	QMP7520-200	Power Cord	1		U
△	57	QMP9017-008BS	Power Cord	1		BS
	58	E67000-005	Caution Label	1		
	59	GBSG3008CC	Screw	22		
	59	WNS3000CC	Washer	4		
	—	E61029-005	Number Label	1		U, A, BS
	—	E70028-001	Approval Label	1		E
	—	E74792-086	FTZ Label	1		G

△: Safety Parts

The Marks Designated Areas

A.....Australia
G.....Germany
E, EF.....Continental Europe
BS.....the U.K.
U.....Other Countries
No mark indicates all areas.

■ AX-A442BK Parts List

Please refer to AX-A441TN parts list except following parts.

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-AXA442BKE	Front Panel Ass'y	1		
	1-1	E207078-002	Front Panel	1		
	1-2	E102418-002	Front Base	1		
	1-3	E307424-003	Side Fitting	1	Left	
	1-4	E307424-004	Side Fitting	1	Right	
	2	E307425-002	Volume Knob	1		
	6	E406481-002	Power Button	1		
	9	E406482-004	Push Button	1	SPK-2	
	10	E406482-003	Push Button	1	SPK-1	
	12	E406483-003	Push Button	1	Cartridge	
	13	E406483-004	Push Button	1	Loudness	
	14	E406484-002	Push Button	1	CD Direct	
	15	E75527-004	Knob	3	Tone	
	16	E406485-002	Knob	2	Source	
	21	E206801-001	Metal Cover	1		A, G
	35	E26753-001	Metal Cover	1		E, EF, U, BS
	51	E307427-002	Foot Ass'y	4		
	51	E26334-015	Rear Panel	1		U
	—	E26334-016	Rear Panel	1		Except U
	—	E303260-230	Rating Label	1		E, EF, G
	—	E74792-087	FTZ Label	1		G

△: Safety Parts

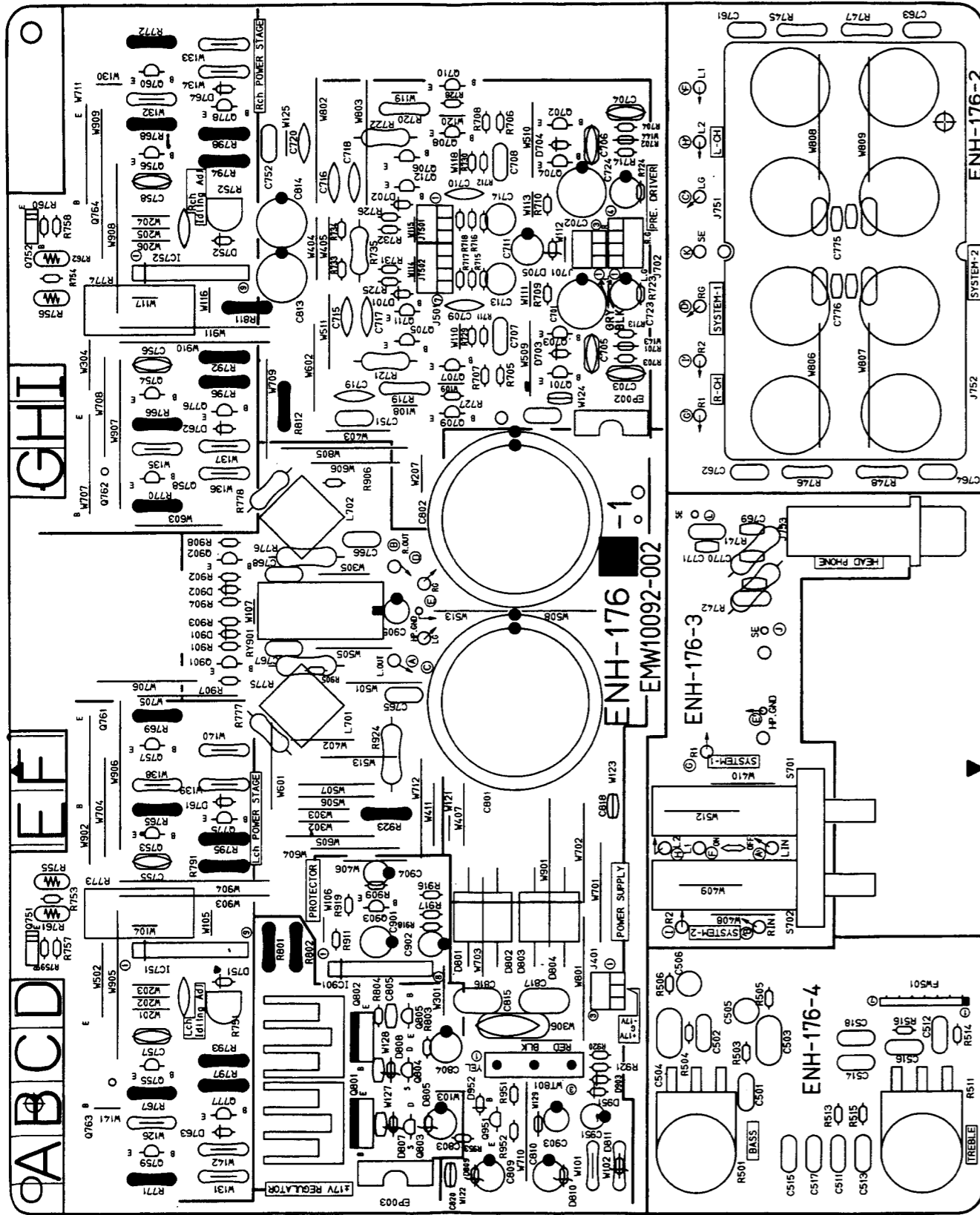
The Marks Designated Areas

A.....Australia
G.....Germany
E, EF.....Continental Europe
BS.....the U.K.
U.....Other Countries
No mark indicates all areas.

Printed Circuit Board Ass'y and Parts List

■ ENH-176 □ Power Amplifier PC Board Ass'y

Note : ENH-176 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENH-176 [E]	Other Countries
ENH-176 [F]	Australia, Continental Europe
ENH-176 [G]	Germany
ENH-176 [H]	the U.K.

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q701	2SC2240(A,B)	SILICON TOSHIBA	
Q702	2SC2240(A,B)	SILICON TOSHIBA	
Q703	2SC2240(A,B)	SILICON TOSHIBA	
Q704	2SC2240(A,B)	SILICON TOSHIBA	
Q705	2SA970(GR,BL)	SILICON TOSHIBA	
Q706	2SA970(GR,BL)	SILICON TOSHIBA	
Q707	2SA970(GR,BL)	SILICON TOSHIBA	
Q708	2SA970(GR,BL)	SILICON TOSHIBA	
Q709	2SA933LN(R,S)	SILICON ROHM	
Q710	2SA933LN(R,S)	SILICON ROHM	
Q711	2SC2240(GR,BL)	SILICON TOSHIBA	
Q712	2SC2240(GR,BL)	SILICON TOSHIBA	
Q751	2SD636(Q,R)	SILICON MATSUSHITA	
Q752	2SD636(Q,R)	SILICON MATSUSHITA	
Q753	2SC2240(GR,BL)	SILICON TOSHIBA	
Q754	2SC2240(GR,BL)	SILICON TOSHIBA	
Q755	2SA970(GR,BL)	SILICON TOSHIBA	
Q756	2SA970(GR,BL)	SILICON TOSHIBA	
Q757	2SC2235(O,Y)	SILICON TOSHIBA	
Q758	2SC2235(O,Y)	SILICON TOSHIBA	
Q759	2SA965(O,Y)	SILICON TOSHIBA	
Q760	2SA965(O,Y)	SILICON TOSHIBA	
Q761	2SD2155LB(R,O)	SILICON TOSHIBA	
Q762	2SD2155LB(R,O)	SILICON TOSHIBA	
Q763	2SB1429LB(R,O)	SILICON TOSHIBA	
Q764	2SB1429LB(R,O)	SILICON TOSHIBA	
Q775	2SC1740S(R,S)	SILICON ROHM	
Q776	2SC1740S(R,S)	SILICON ROHM	
Q777	2SA933S(R,S)	SILICON ROHM	
Q778	2SA933S(R,S)	SILICON ROHM	
Q801	2SD2061(E,F)	SILICON ROHM	
Q802	2SB1187(E,F)	SILICON ROHM	
Q803	2SK246(GR)	F.E.T TOSHIBA	
Q804	2SK246(GR)	F.E.T TOSHIBA	
Q805	2SA933S(R,S)	SILICON ROHM	
Q901	2SC2389(S,E)	SILICON ROHM	
Q902	2SC2389(S,E)	SILICON ROHM	
Q903	2SA970(GR,BL)	SILICON TOSHIBA	
Q951	DTC114Y5	SILICON ROHM	

△ : SAFETY PARTS

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC751	VC5022(X,Y)	I.C. ROHM	
IC752	VC5022(X,Y)	I.C. ROHM	
IC901	UPC1237HA	I.C. NEC	

△ : SAFETY PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D701	1SS133	SILICON ROHM	
D702	1SS133	SILICON ROHM	
D705	MTZ18J	ZENER ROHM	
D751	1SS291	SILICON ROHM	
D752	1SS291	SILICON ROHM	
D761	1SS291	SILICON ROHM	
D762	1SS291	SILICON ROHM	
D763	1SS291	SILICON ROHM	
D764	1SS291	SILICON ROHM	
D801	3DF2SFC	SILICON NICHONINTER	
D802	3DF2SFC	SILICON NICHONINTER	
D803	3DF2SFC	SILICON NICHONINTER	
D804	3DF2SFC	SILICON NICHONINTER	
D805	RD18J5B3	ZENER NEC	
D807	RD13J5B3	ZENER NEC	

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D808	RD6.2JSB3	ZENER NEC	
D809	MTZ20J	ZENER ROHM	
D810	MTZ27J	ZENER ROHM	
D811	MTZ3.3J	ZENER ROHM	
D901	1SS133	SILICON ROHM	
D902	1SS133	SILICON ROHM	
D903	1SS133	SILICON ROHM	
D951	1SS133	SILICON ROHM	
D952	1SS133	SILICON ROHM	

△ : SAFETY PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C501	QFN81HK-153	0.015MF 50V MYLAR	
C502	QFN81HK-153	0.015MF 50V MYLAR	
C503	QFN81HK-823	0.082MF 50V MYLAR	
C504	QFN81HK-823	0.082MF 50V MYLAR	
C505	QFN81HK-475	4.7MF 50V NON POLE	
C506	QFN81HK-475	4.7MF 50V NON POLE	
C511	QFN81HK-332	3300PF 50V MYLAR	
C512	QFN81HK-332	3300PF 50V MYLAR	
C513	QFN81HK-183	0.018MF 50V MYLAR	
C514	QFN81HK-183	0.018MF 50V MYLAR	
C515	QCS21HJ-221	220PF 50V CERAMIC	
C516	QCS21HJ-221	220PF 50V CERAMIC	
C517	QFN81HK-122	1200PF 50V MYLAR	
C518	QFN81HK-122	1200PF 50V MYLAR	
C701	EEZ5006-226	22MF ELECTRO	
C702	EEZ5006-226	22MF ELECTRO	
C703	QFP81HJ-101	100PF 50V POLY	
C704	QFP81HJ-101	100PF 50V POLY	
C705	QFP81HJ-101	100PF 50V POLY	
C706	QFP81HJ-101	100PF 50V POLY	
C707	QFN81HK-332	3300PF 50V MYLAR	
C708	QFN81HK-332	3300PF 50V MYLAR	
C709	EFF001J-100	FILM MICA CA	
C710	EFF001J-100	FILM MICA CA	
C711	EEZ2505-107	100MF ELECTRO	
C713	QFN81HK-475	4.7MF 50V NON POLE	
C714	QFN81HK-475	4.7MF 50V NON POLE	
C715	QCS21HJ-330	33PF 50V CERAMIC	
C716	QCS21HJ-330	33PF 50V CERAMIC	
C717	QCS21HJ-330	33PF 50V CERAMIC	
C718	QCS21HJ-330	33PF 50V CERAMIC	
C719	QCS21HJ-220	22PF 50V CERAMIC	
C720	QCS21HJ-220	22PF 50V CERAMIC	
C723	EEZ2505-107	100MF ELECTRO	
C724	EEZ2505-107	100MF ELECTRO	
C751	QFV81HJ-103	0.01MF 50V T.FILM	
C752	QFV81HJ-103	0.01MF 50V T.FILM	
C755	EFF001J-680	FILM MICA CA	
C756	EFF001J-680	FILM MICA CA	
C757	EFF001J-680	FILM MICA CA	
C758	EFF001J-680	FILM MICA CA	
C761	QFV81HJ-103	0.01MF 50V T.FILM	G
C762	QFV81HJ-103	0.01MF 50V T.FILM	G
C763	QFV81HJ-103	0.01MF 50V T.FILM	G
C764	QFV81HJ-103	0.01MF 50V T.FILM	G
C765	QFV81HJ-104	0.1MF 50V T.FILM	
C766	QFV81HJ-104	0.1MF 50V T.FILM	
C767	QFV81HJ-104	0.1MF 50V T.FILM	
C768	QFV81HJ-104	0.1MF 50V T.FILM	
C769	QCB1HK-221	220PF 50V CERAMIC	G
C770	QCB1HK-221	220PF 50V CERAMIC	G
C771	QCHB1EZ-223	0.022MF 25V CERAMIC	G
C775	QCHB1EZ-223	0.022MF 25V CERAMIC	G
C776	QCHB1EZ-223	0.022MF 25V CERAMIC	G
C801	EEW5606-109	10000MF ELECTRO	
C802	EEW5606-109	10000MF ELECTRO	
C803	QETB1EM-476	47MF 25V ELECTRO	
C804	QETB1EM-476	47MF 25V ELECTRO	
C805	QCB1HK-101	100PF 50V CERAMIC	
C806	QETB1EM-476	47MF 25V ELECTRO	
C810	QETB1EM-476	47MF 25V ELECTRO	
C813	EETB1JM-227E	220MF 63V ELECTRO	
C814	EETB1JM-227E	220MF 63V ELECTRO	
C815	QFH42EK-104	0.1MF 250V M.MYLAR	
C816	QFN82AK-103	0.01MF 100V MYLAR	E
C816	QFN82AK-103	0.01MF 100V MYLAR	F
C816	QFN32AK-104	0.1MF 100V MYLAR	G
C816	QFN82AK-103	0.01MF 100V MYLAR	H
C817	QFN82AK-103	0.01MF 100V MYLAR	E
C817	QFN82AK-103	0.01MF 100V MYLAR	F
C817	QFN32AK-104	0.1MF 100V MYLAR	G
C817	QFN82AK-103	0.01MF 100V MYLAR	H
C820	QCHB1EZ-223	0.022MF 25V CERAMIC	G
C901	QETB1AM-227	220MF 16V ELECTRO	
C902	QETB1CM-226	22MF 10V ELECTRO	
C903	QETB1HM-475	4.7MF 50V ELECTRO	
C904	QETB1HM-226	22MF 50V ELECTRO	
C905	QETB1HM-105	1MF 50V ELECTRO	
C951	QETB1HM-475	4.7MF 50V ELECTRO	

△ : SAFETY PARTS

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R501	QVDB87C-E15B	100K	VARIABLE
R503	QRD167J-203	20K	1/6W CARBON
R504	QRD167J-203	20K	1/6W CARBON
R505	QRD167J-362	3.6K	1/6W CARBON
R506	QRD167J-362	3.6K	1/6W CARBON
R511	QVDB87C-E15B	100K	VARIABLE
R513	QRD167J-472	4.7K	1/6W CARBON
R514	QRD167J-472	4.7K	1/6W CARBON
R515	QRD167J-821	820	1/6W CARBON
R516	QRD167J-821	820	1/6W CARBON
R703	QRD167J-104	100K	1/6W CARBON
R704	QRD167J-104	100K	1/6W CARBON
R705	QRD167J-202	2K	1/6W CARBON
R706	QRD167J-202	2K	1/6W CARBON
R707	QRD167J-202	2K	1/6W CARBON
R708	QRD167J-202	2K	1/6W CARBON
R709	QRD167J-912	9.1K	1/6W CARBON
R710	QRD167J-912	9.1K	1/6W CARBON
R711	QRD167J-101	100	1/6W CARBON
R712	QRD167J-101	100	1/6W CARBON
R713	QRV144F-3300	1/4W	M.FILM
R714	QRV144F-3300	1/4W	M.FILM
R715	QRV144F-1602	16K	1/4W M.FILM
R716	QRV144F-1602	16K	1/4W M.FILM
R717	QRV144F-8202	82K	1/4W M.FILM
R718	QRV144F-8202	82K	1/4W M.FILM
R719	QRD140J-121S	120	1/4W UNF.CARBON
R720	QRD140J-121S	120	1/4W UNF.CARBON
R721	GRG012J-103AM	10K	1W O.M.FILM
R722	GRG012J-103AM	10K	1W O.M.FILM
R723	QRV144F-5600	1/4W	M.FILM
R724	QRV144F-5600	1/4W	M.FILM
R725	QRD167J-391	390	1/6W CARBON
R726	QRD167J-391	390	1/6W CARBON
R727	QRD167J-152	1.5K	1/6W CARBON
R728	QRD167J-152	1.5K	1/6W CARBON
R729	QRD167J-333	33K	1/6W CARBON
R730	QRD167J-333	33K	1/6W CARBON
R731	QRD167J-391	390	1/6W CARBON
R732	QRD167J-391	390	1/6W CARBON
R733	QRD167J-152	1.5K	1/6W CARBON
R734	QRD167J-152	1.5K	1/6W CARBON
R735	GRG012J-392A	3.9K	1W O.M.FILM
R741	GRG022J-331A	330	2W O.M.FILM
R742	GRG022J-331A	330	2W O.M.FILM
R743	QRZ0077-100	10	1/4W FUSIBLE
R746	QRZ0077-100	10	1/4W FUSIBLE
R747	QRZ0077-100	10	1/4W FUSIBLE
R748	QRZ0077-100	10	1/4W FUSIBLE
R751	GVPE601-501	500	0.15W VARIABLE
R752	GVPE601-501	500	0.15W VARIABLE
R753	QRD167J-101	100	1/6W CARBON
R754	QRD167J-101	100	1/6W CARBON
R755	ERT-D2WFL351S	350	1/4W THERMISTOR
R756	ERT-D2WFL351S	350	1/4W THERMISTOR
R757	QRD167J-471	470	1/6W CARBON
R758	QRD167J-471	470	1/6W CARBON
R759	QRD167J-391	390	1/6W CARBON
R760	QRD167J-391	390	1/6W CARBON
R761	ERT-D2WHL202S	2K	1/4W THERMISTOR
R762	ERT-D2WHL202S	2K	1/4W THERMISTOR
R765	QRZ0077-122	1.2K	1/4W FUSIBLE
R766	QRZ0077-122	1.2K	1/4W FUSIBLE
R767	QRZ0077-151	150	1/4W FUSIBLE
R768	QRZ0077-151	150	1/4W FUSIBLE
R769	QRZ0077-100	10	1/4W FUSIBLE
R770	QRZ0077-100	10	1/4W FUSIBLE
R771	QRZ0077-100	10	1/4W FUSIBLE
R772	QRZ0077-100	10	1/4W FUSIBLE
R773	ERF032K-R22	0.22	3W CEMENT
R774	ERF032K-R22	0.22	3W CEMENT
R775	GRG022J-100A	10	2W O.M.FILM
R776	GRG022J-100A	10	2W O.M.FILM
R777	QRD125J-100	10	1/2W UNF.CARBON
R778	QRD125J-100	10	1/2W UNF.CARBON
R791	QRZ0077-621	620	1/4W FUSIBLE
R792	QRZ0077-621	620	1/4W FUSIBLE
R793	QRZ0077-621	620	1/4W FUSIBLE
R794	QRZ0077-621	620	1/4W FUSIBLE
R795	QRZ0077-151	150	1/4W FUSIBLE
R796	QRZ0077-151	150	1/4W FUSIBLE
R797	QRZ0077-151	150	1/4W FUSIBLE
R798	QRZ0077-151	150	1/4W FUSIBLE
R801	QRZ0077-100	10	1/4W FUSIBLE
R802	QRZ0077-100	10	1/4W FUSIBLE
R803	QRD167J-143	14K	1/6W CARBON
R804	QRD167J-203	20K	1/6W CARBON
R811	QRZ0077-330	33	1/4W FUSIBLE
R812	QRZ0077-330	33	1/4W FUSIBLE
R901	QRD167J-272	2.7K	1/6W CARBON

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R902	QRD167J-272	2.7K	1/6W CARBON
R903	QRD167J-153	15K	1/6W CARBON
R904	QRD167J-153	15K	1/6W CARBON
R905	QRD167J-104	100K	1/6W CARBON
R906	QRD167J-823	82K	1/6W CARBON
R907	QRD167J-223	22K	1/6W CARBON
R908	QRD167J-223	22K	1/6W CARBON
R909	QRD167J-103	10K	1/6W CARBON
R911	QRD167J-473	47K	1/6W CARBON
R916	QRD167J-103	10K	1/6W CARBON
R917	QRD167J-103	10K	1/6W CARBON
R918	QRD167J-224	220K	1/6W CARBON
R919	QRD167J-332	3.3K	1/6W CARBON
R920	QRD167J-273	27K	1/6W CARBON
R921	QRD167J-103	10K	1/6W CARBON
R923	QRD140J-820S	82	1/4W UNF.CARBON
R924	GRG022J-122A	0.2K	2W O.M.FILM
R951	QRD167J-224	220K	1/6W CARBON
R952	QRD167J-333	33K	1/6W CARBON
R953	QRD167J-101	100	1/6W CARBON

△ SAFETY PARTS.

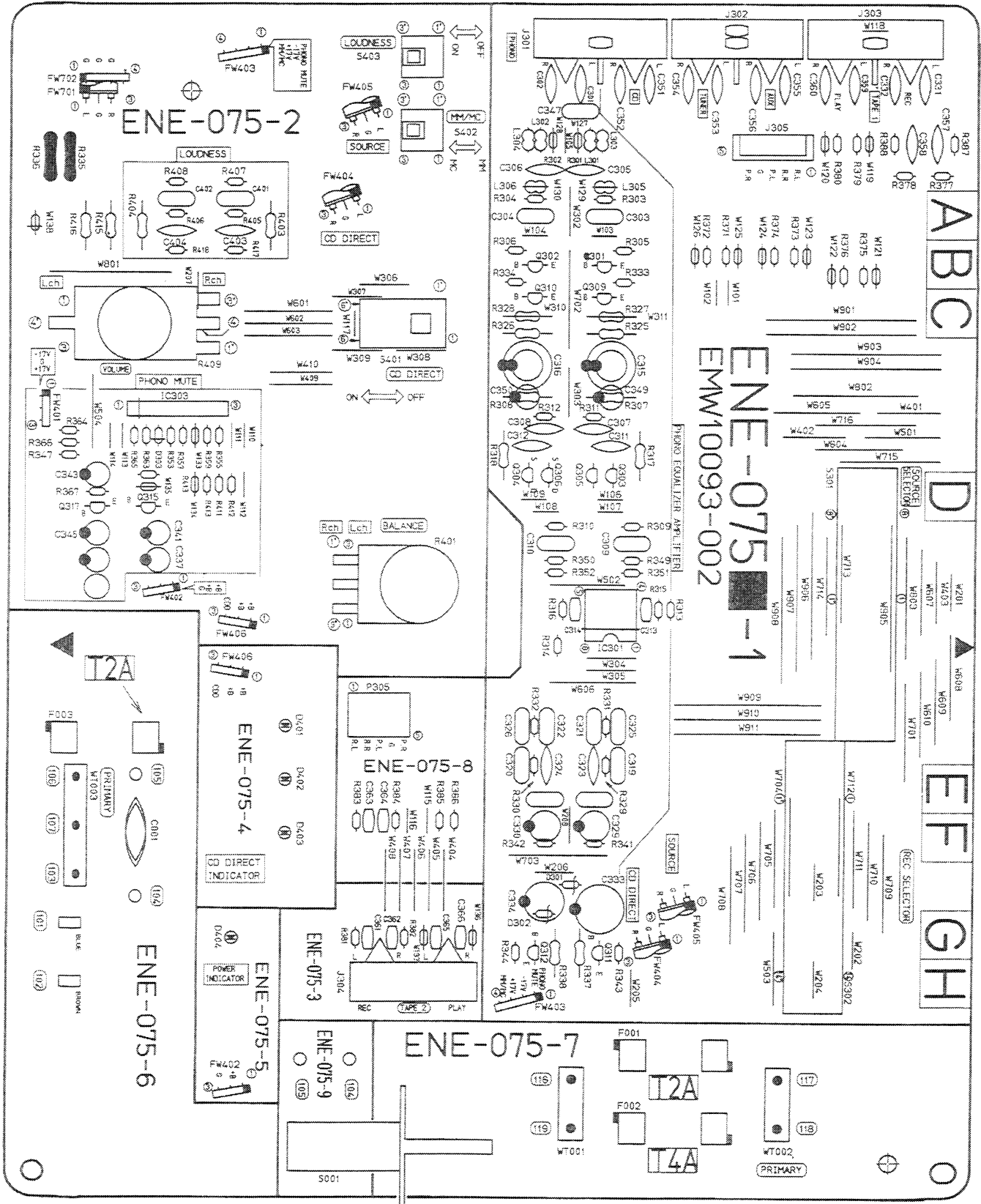
Others

ITEM	PART NUMBER	DESCRIPTION	AREA
	EMW10092-002	PRINTED BOARD	
	E300209-040	RADIAT.PLATE	
	E305804-001	HOLDER	
	E305805-001	HOLDER	
	E33754-001	TIE BAND	
	E70945-425	HEAT SINK	
	E73525-001	SPECIAL SCREW	
	E73525-003	SCREW	
	6S36300800	SCREW	
	6S36300800	SCREW	
	6S36300800	SCREW	
	EWT011-078	TERMINAL WIRE	
	EWT011-112	TERMINAL WIRE	
	E74264-002	SPECIAL SCREW	
	6S36300800	SCREW	
	6S36300800	SCREW	
J401	EMV7122-103	CONNECTOR(3PIN)	
J701	EMV7122-103	CONNECTOR(3PIN)	
J702	EMV7122-004	CONNECTOR(4PIN)	
J751	EMB007P-2010	SPEAKER TERMINAL	
J752	EMB007P-2010	SPEAKER TERMINAL	
J753	QMS6A40-021	HEADPHONE JACK	
L701	EQL0001-1R0	INDUCTOR	
L702	EQL0001-1R0	INDUCTOR	
S701	RST4241-E07	PUSH SWITCH(SPK1)	
S702	RST4241-E07	PUSH SWITCH(SPK2)	
EP002	E70859-001	EARTH PLATE	
EP003	E70859-001	EARTH PLATE	
FWS01	EMR378-13LST	FLAT WIRE(TPIN)	
UTS01	EMV7122-103	CONNECTOR(3PIN)	
UTS02	EMV7122-004	CONNECTOR(4PIN)	
RY901	ESK7D24-2120	RELAY	
WT801	E67764-105	WRAPPING TERMINAL(3PIN)	

△ SAFETY PARTS.

■ ENE-075 □ Source Selector PC Board Ass'y

Note : ENE-075 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENE-075 E	Other Countries
ENE-075 F	Australia, Continental Europe
ENE-075 G	Germany
ENE-075 H BS	the U.K.

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q301	2SD655(E,F)	SILICON HITACHI	
Q302	2SD655(E,F)	SILICON HITACHI	
Q303	2SK170(BL)	F.E.T TOSHIBA	
Q304	2SK170(BL)	F.E.T TOSHIBA	
Q305	2SK170(BL)	F.E.T TOSHIBA	
Q306	2SK170(BL)	F.E.T TOSHIBA	
Q309	2SD655(E,F)	SILICON HITACHI	
Q310	2SD655(E,F)	SILICON HITACHI	
Q311	2SC2878(A,B)	SILICON TOSHIBA	
Q312	2SC2878(A,B)	SILICON TOSHIBA	
Q315	DTA114YS	SILICON ROHM	
Q317	DTA144ES	SILICON ROHM	

△: SAFETY PARTS

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC301	VC4580DD	I.C. DAINICHI	
IC303	UPC1237HA	I.C. NEC	

△: SAFETY PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D301	RD15J5B3	ZENER NEC	
D302	RD15J5B3	ZENER NEC	
D303	1SS133	SILICON ROHM	
D401	SLV-31YCBF	L.E.D. ROHM	
D402	SLV-31YCBF	L.E.D. ROHM	
D403	SLV-31YCBF	L.E.D. ROHM	
D404	SLR-34DCBF	L.E.D. ROHM	

△: SAFETY PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C001	QC29050-472A	4700PF CERAMIC	F
C001	QC29050-472A	4700PF CERAMIC	G
C001	QC29050-472A	4700PF CERAMIC	HBS
C301	QCS21HJ-101	100PF 50V CERAMIC	G
C302	QCS21HJ-101	100PF 50V CERAMIC	G
C303	QFV81HJ-103	0.01MF 50V T.FILM	F
C303	QFV81HJ-103	0.01MF 50V T.FILM	F
C303	QFN81HJ-102	1000PF 50V MYLAR	F
C303	QFV81HJ-103	0.01MF 50V T.FILM	HBS
C304	QFV81HJ-103	0.01MF 50V T.FILM	F
C304	QFV81HJ-103	0.01MF 50V T.FILM	F
C304	QFNS1HJ-102	1000PF 50V MYLAR	G
C304	QFVS1HJ-103	0.01MF 50V T.FILM	HBS
C307	QCS21HJ-101	100PF 50V CERAMIC	
C308	QCS21HJ-101	100PF 50V CERAMIC	
C309	QFN81HJ-222	2200PF 50V MYLAR	
C310	QFN81HJ-222	2200PF 50V MYLAR	
C311	QCS21HJ-680	68PF 50V CERAMIC	F
C311	QCS21HJ-680	68PF 50V CERAMIC	F
C311	QCS21HJ-680	68PF 50V CERAMIC	HBS
C312	QCS21HJ-680	68PF 50V CERAMIC	F
C312	QCS21HJ-680	68PF 50V CERAMIC	F
C312	QCS21HJ-680	68PF 50V CERAMIC	HBS
C315	EEZ0602-227	220MF ELECTRO	
C316	EEZ0602-227	220MF ELECTRO	
C319	QFN81HJ-472	4700PF 50V MYLAR	
C320	QFN81HJ-472	4700PF 50V MYLAR	
C321	QFN81HJ-153	0.015MF 50V MYLAR	
C322	QFN81HJ-153	0.015MF 50V MYLAR	
C323	QCS21HJ-331	330PF 50V CERAMIC	
C324	QCS21HJ-331	330PF 50V CERAMIC	
C325	QFN81HJ-272	2700PF 50V MYLAR	
C326	QFN81HJ-272	2700PF 50V MYLAR	
C329	EEZ5009-106	10MF ELECTRO	
C330	EEZ5009-106	10MF ELECTRO	

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C331	QCS21HJ-101	100PF 50V CERAMIC	G
C332	QCS21HJ-101	100PF 50V CERAMIC	G
C333	EEZ2505-227	220MF ELECTRO	
C334	EEZ2505-107	100MF ELECTRO	
C337	QEK51CM-226	22MF 16V ELECTRO	
C341	QEK51HM-475	4.7MF 50V ELECTRO	
C343	QEK51EM-4758	4.7MF 25V ELECTRO	
C345	QEK51HM-106	10MF 50V ELECTRO	
C347	QFV81HJ-103	0.01MF 50V T.FILM	
C351	QCS21HJ-101	100PF 50V CERAMIC	G
C352	QCS21HJ-101	100PF 50V CERAMIC	G
C353	QCS21HJ-101	100PF 50V CERAMIC	G
C354	QCS21HJ-101	100PF 50V CERAMIC	G
C355	QCS21HJ-101	100PF 50V CERAMIC	G
C356	QCS21HJ-101	100PF 50V CERAMIC	G
C359	QCS21HJ-101	100PF 50V CERAMIC	G
C360	QCS21HJ-101	100PF 50V CERAMIC	G
C361	QCBB1HK-101	100PF 50V CERAMIC	G
C362	QCBB1HK-101	100PF 50V CERAMIC	G
C365	QCBB1HK-101	100PF 50V CERAMIC	G
C366	QCBB1HK-101	100PF 50V CERAMIC	G
C401	QFV81HJ-563	0.056MF 50V T.FILM	
C402	QFV81HJ-563	0.056MF 50V T.FILM	
C403	QCS21HJ-471	470PF 50V CERAMIC	
C404	QCS21HJ-471	470PF 50V CERAMIC	

△: SAFETY PARTS

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R301	QRD167J-102	1K 1/6W CARBON	G
R302	QRD167J-102	1K 1/6W CARBON	G
R303	QRD167J-101	100 1/6W CARBON	
R304	QRD167J-101	100 1/6W CARBON	
R305	QRD167J-103	10K 1/6W CARBON	
R306	QRD167J-103	10K 1/6W CARBON	
R307	ERD003J-100	10 1/4W CARBON	
R308	ERD003J-100	10 1/4W CARBON	
R309	QRD167J-680	68 1/6W CARBON	
R310	QRD167J-680	68 1/6W CARBON	
R311	QRD167J-475	47K 1/6W CARBON	
R312	QRD167J-473	47K 1/6W CARBON	
R313	QRD167J-472	4.7K 1/6W CARBON	
R314	QRD167J-472	4.7K 1/6W CARBON	
R315	QRD167J-472	4.7K 1/6W CARBON	
R316	QRD167J-472	4.7K 1/6W CARBON	
R317	ERD003J-472	4.7K 1/4W CARBON	
R318	ERD003J-472	4.7K 1/4W CARBON	
R325	ERD003J-180	18 1/4W CARBON	
R326	ERD003J-180	18 1/4W CARBON	
R327	ERD003J-221	220 1/4W CARBON	
R328	ERD003J-221	220 1/4W CARBON	
R329	QRD167J-153	15K 1/6W CARBON	
R330	QRD167J-153	15K 1/6W CARBON	
R331	QRV144F-1913A	191K 1/4W M.FILM	
R332	QRV144F-1913A	191K 1/4W M.FILM	
R333	QRD167J-103	10K 1/6W CARBON	
R334	QRD167J-103	10K 1/6W CARBON	
R335	QRZ0077-101	100 1/4W FUSIBLE	
R336	QRZ0077-181	180 1/4W FUSIBLE	
R337	ERD003J-471	470 1/4W CARBON	
R338	ERD003J-471	470 1/4W CARBON	
R341	QRD167J-104	100K 1/6W CARBON	
R342	QRD167J-104	100K 1/6W CARBON	
R343	QRD167J-103	10K 1/6W CARBON	
R344	QRD167J-103	10K 1/6W CARBON	
R347	QRD167J-474	470K 1/6W CARBON	
R349	QRD167J-125	1.2M 1/6W CARBON	
R350	QRD167J-125	1.2M 1/6W CARBON	
R351	QRD167J-125	1.2M 1/6W CARBON	
R352	QRD167J-125	1.2M 1/6W CARBON	
R353	QRD167J-472	4.7K 1/6W CARBON	
R355	QRD167J-392	3.9K 1/6W CARBON	
R357	QRD167J-152	1.5K 1/6W CARBON	
R359	QRD167J-473	47K 1/6W CARBON	
R363	QRD167J-104	100K 1/6W CARBON	
R364	QRD167J-104	100K 1/6W CARBON	
R365	QRD167J-104	100K 1/6W CARBON	
R366	QRD167J-474	470K 1/6W CARBON	
R367	QRD167J-473	47K 1/6W CARBON	
R371	QRD167J-474	470K 1/6W CARBON	
R372	QRD167J-474	470K 1/6W CARBON	
R373	QRD167J-474	470K 1/6W CARBON	
R374	QRD167J-474	470K 1/6W CARBON	
R375	QRD167J-474	470K 1/6W CARBON	
R376	QRD167J-474	470K 1/6W CARBON	
R377	QRD167J-105	1M 1/6W CARBON	
R378	QRD167J-105	1M 1/6W CARBON	
R379	QRD167J-474	470K 1/6W CARBON	
R380	QRD167J-474	470K 1/6W CARBON	

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R381	QRD167J-331	330 1/6W CARBON	
R382	QRD167J-331	330 1/6W CARBON	
R383	QRD167J-105	1M 1/6W CARBON	
R384	QRD167J-105	1M 1/6W CARBON	
R385	QRD167J-474	470K 1/6W CARBON	
R386	QRD167J-474	470K 1/6W CARBON	
R387	QRD167J-331	330 1/6W CARBON	
R388	QRD167J-331	330 1/6W CARBON	
R401	QVDB87M-EF5B	250K VARIABLE	
R403	ERD003J-103	10K 1/4W CARBON	
R404	ERD003J-103	10K 1/4W CARBON	
R405	QRD167J-623	62K 1/6W CARBON	
R406	QRD167J-623	62K 1/6W CARBON	
R407	QRD167J-474	470K 1/6W CARBON	
R408	QRD167J-474	470K 1/6W CARBON	
R409	QVDB90B-E15B	100K VARIABLE	
R411	QRD167J-331	330 1/6W CARBON	
R412	QRD167J-331	330 1/6W CARBON	
R413	QRD167J-681	680 1/6W CARBON	
R414	QRD167J-511	510 1/6W CARBON	
R415	ERD003J-221	220 1/4W CARBON	
R416	ERD003J-221	220 1/4W CARBON	
R417	QRD167J-333	33K 1/6W CARBON	
R418	QRD167J-333	33K 1/6W CARBON	

△ : SAFETY PARTS

Others

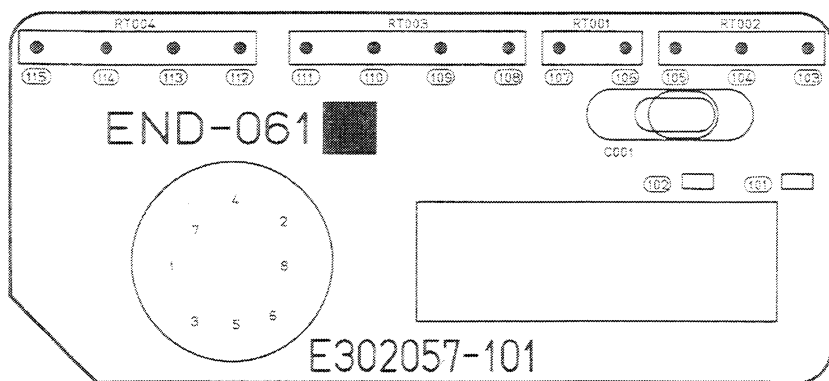
ITEM	PART NUMBER	DESCRIPTION	AREA
	E65508-002	TAB	HBS
F001	E67132-T2R5	FUSE LABEL	E
F002	E67132-T5R0	FUSE LABEL	E
F003	E67132-T2R5	FUSE LABEL	F
F003	E67132-T2R5	FUSE LABEL	G
F003	E67132-T2R5	FUSE LABEL	HBS
J301	EMN00TV-404A	4P PIN JACK	
J302	EMN00TV-404A	4P PIN JACK	
J303	EMN00TV-404A	4P PIN JACK	
J304	EMN00TV-404A	4P PIN JACK	
J305	EMV3125-005	PLUG ASSY(5PIN)	
L301	EQL4004-330	INDUCTOR	G
L302	EQL4004-330	INDUCTOR	G
L303	EQL4004-330	INDUCTOR	G
L304	EQL4004-330	INDUCTOR	G
P305	EMV7125-005R	CONNECTOR(5PIN)	
S001	QSP1106-004	POWER SWITCH	E
S001	QSP1106-004	POWER SWITCH	F
S001	QSP1106-004	POWER SWITCH	G
S001	QSP4011-E03BS	PUSH SWITCH	HBS
S301	QSS1R26-E01	SLIDE SWITCH(SOURCE SELECT)	
S302	QSS1R46-E01	SLIDE SWITCH(REC SELECT)	
S401	QSTL101-E04	PUSH SWITCH(CD DIRECT)	
S402	QSTL241-E03	PUSH SWITCH(MM/MC)	
FW401	EWR33B-13ST	FLAT WIRE(3PIN)	
FW402	EWR33B-16ST	FLAT WIRE(3PIN)	
FW403	EWR34B-30SST	FLAT WIRE(4PIN)	
FW404	EWR23C-25NN	FLAT WIRE(3PIN)	
FW405	EWR23C-25NN	FLAT WIRE(3PIN)	
FW406	EWR33B-13SST	FLAT WIRE(3PIN)	
FW701	EWR23C-16LN	FLAT WIRE(3PIN)	
FW702	EWR34B-16LST	FLAT WIRE(4PIN)	
WT001	E67764-202	WRAPPING TERMINAL(2PIN)	E
WT002	E67764-202	WRAPPING TERMINAL(2PIN)	E
WT003	E67764-203	WRAPPING TERMINAL(3PIN)	F
WT003	E67764-203	WRAPPING TERMINAL(3PIN)	G
WT003	E67764-203	WRAPPING TERMINAL(3PIN)	HBS

△ : SAFETY PARTS

Others

ITEM	PART NUMBER	DESCRIPTION	AREA
	EMG7331-002	FUSE CLIP	E
	EMG7331-002U	FUSE CLIP	E
	EMW10093-002	PRINTED BOARD	F
	EMG7331-002	FUSE CLIP	F
	EMG7331-002U	FUSE CLIP	F
	EMW10093-002	PRINTED BOARD	F
	E65508-002	TAB	F
	EMG7331-002	FUSE CLIP	G
	EMG7331-002U	FUSE CLIP	G
	EMW10093-002	PRINTED BOARD	G
	E65508-002	TAB	G
	EMG7331-002	FUSE CLIP	HBS
	EMG7331-002U	FUSE CLIP	HBS
	EMW10093-002BS	PRINTED BOARD	HBS

■ END-061 B Voltage Selector PC Board Ass'y (Only for Other Countries)



Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C001	QCZ9018-103	0.01MF CERAMIC	

△ : SAFETY PARTS

Others

ITEM	PART NUMBER	DESCRIPTION	AREA
	E302057-101	CIRCUIT BOARD	
	E65508-002	TAB	
	E67764-302	WRAPPING TERMINAL	
	E67764-303	WRAPPING TERMINAL	
	E67764-304	WRAPPING TERMINAL	
	RM00637-004	AC OUTLET	
	RSR0065-018	VOLTAGE SELECTOR	

△ : SAFETY PARTS

Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Areas
	E30580-1712A	Instruction Book	1		U, A, E, EF, G
	E30580-1712ABS	Instruction Book	1		BS
	E30580-1717A	Instruction Book	1		E, EF
	BT-20117	Warranty Card	1		G
	BT20060	Warranty Card	1		BS
	BT-20122	Warranty Card	1		A
	BT-20122-1	Sticker	1		A
	BT20066A	EEC Agency	1		BS
	E43486-340A	Safety Sheet	1		BS
	QZL1008-001	FTZ Information Sheet	1		G
⚠	E04056	Siemens Plug	1	220V	U
	E35497-019	Caution Sheet	1		U
	E41202-2	Envelope	1		Except BS
	E41202-2B	Envelope	1		BS

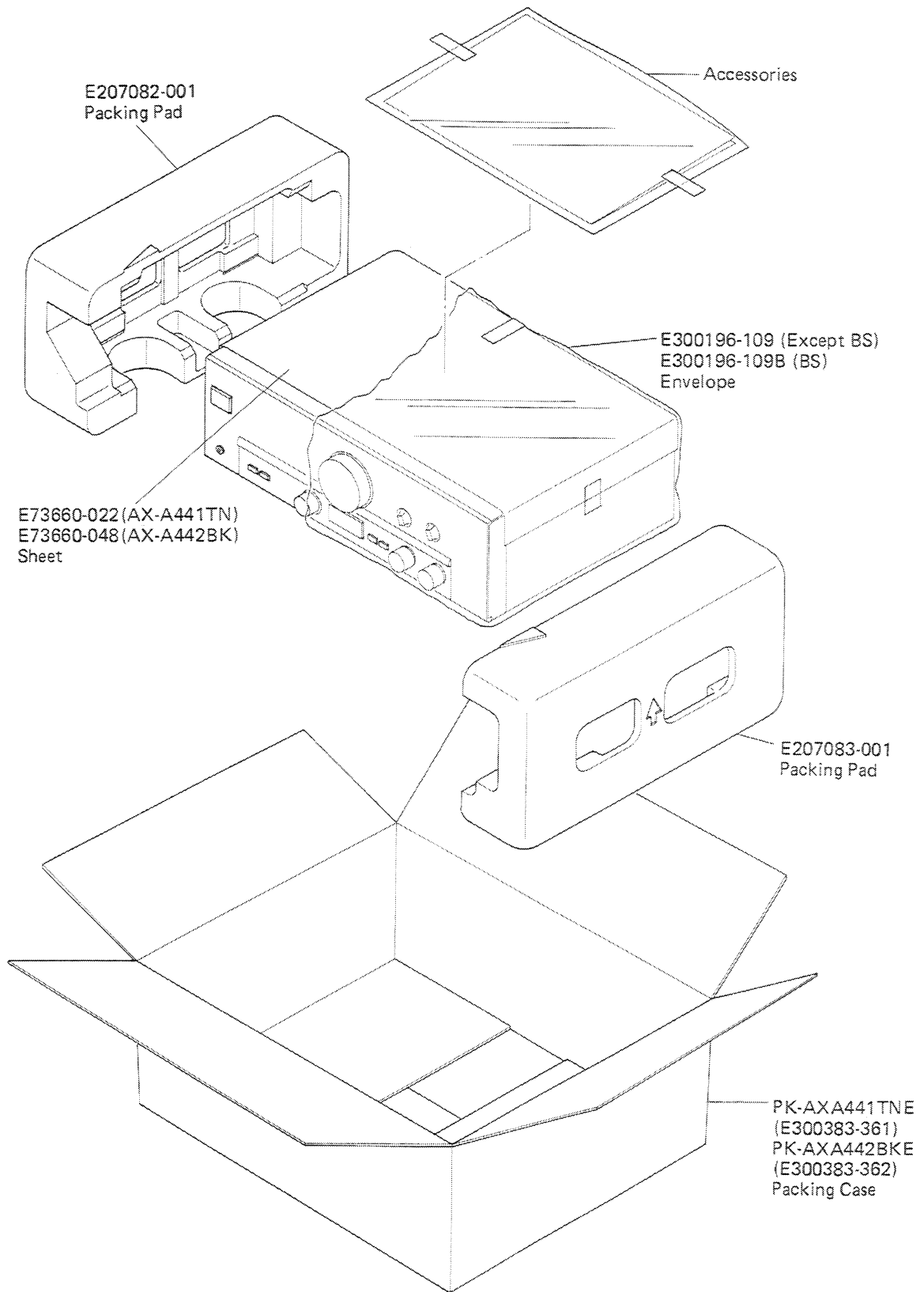
⚠: Safety Parts

The Marks Designated Areas

A.....Australia
G.....Germany
E, EF.....Continental Europe

BS.....the U.K.
U.....Other Countries
No mark indicates all areas.

Packing Materials and Part Numbers



The Marks Designated Areas

A.....Australia	BS.....the U.K.
G.....Germany	U.....Other Countries
E, EF.....Continental Europe	No mark indicates all areas.