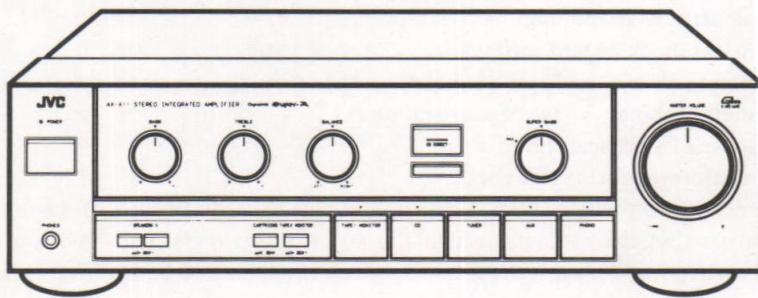


**JVC**

# SERVICE MANUAL

**STEREO INTEGRATED AMPLIFIER****MODEL No. AX-411BK**

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# Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purpose. 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. Service 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 manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product 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 (▲) 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 part 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.

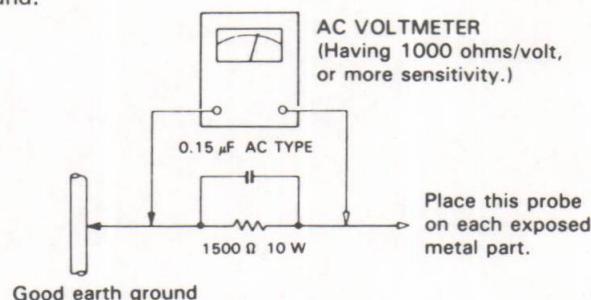
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part 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 0.5 mA 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  $1,500 \Omega$  10 W resistor paralleled by a  $0.15 \mu\text{F}$  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.

# Specifications

## AX-411BK

### OVERALL CHARACTERISTICS

Output power:  
100 watts per channel into 4 ohms at 1 kHz  
(DIN).

70 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 — 80 kHz +0, -3 dB (8 ohms)

Damping factor : 90 (1 kHz, 8 ohms)

Input terminals  
Input sensitivity/  
impedance (1 kHz)

PHONO (MM) : 2.5 mV/47 kohms

PHONO (MC) : 200 µV/100 ohms

CD/AUX/ : 200 mV/43 kohms

TUNER/TAPE 1, 2

Signal-to-noise ratio  
PHONO (MM) : 85 dB ('66 IHF)

PHONO (MC) : 66 dB ('66 IHF)

CD/AUX/ : 104 dB ('66 IHF)

TUNER/TAPE 1, 2

PHONO (MM) : 82 dB ('78 IHF)

(REC OUT)

PHONO (MC) : 74 dB ('78 IHF)

(REC OUT)

CD/AUX/ : 76 dB ('78 IHF)

TUNER/TAPE 1, 2

(SP OUT)

PHONO (MM) : 67 dB (DIN)

CD/AUX/ : 68 dB (DIN)

TUNER/TAPE 1, 2

Tone controls : TREBLE: +8 ±1 dB  
-8 ±1 dB  
(at 10 kHz)  
BASS: +8 ±1 dB  
-8 ±1 dB  
(at 100 Hz)

SUPER BASS : +6 dB (at 50 Hz)

(Volume control at  
-30 dB position)

### EQUALIZER

PHONO overload capacity  
PHONO (MM)  
PHONO (MC)

PHONO RIAA deviation  
PHONO (MM)

PHONO (MC)

Recording output

Output level/  
impedance

TAPE REC-1, 2

: 100 mV (0.02% THD)

: 8 mV (0.04% THD)

: ±0.3 dB (20 Hz —  
20 kHz)

: ±0.5 dB (20 Hz —  
20 kHz)

### GENERAL

Dimensions  
Dimensions

: 435 (W) x 127 (H)

x 310 (D) mm  
(17-3/16" x 4-15/16"  
x 12-1/16")

Weight : 7.5 kg (16.5 lbs.)

Design and specifications subject to change  
without notice.

### POWER SPECIFICATIONS

Areas	Line voltage & frequency	Power consumption	
		AX-311BK	AX-411BK
Continental Europe	AC 220 V~, 50 Hz	220 watts	240 watts
U.K.	AC 240 V~, 50 Hz	510 watts	590 watts
Australia			
Other areas	AC 110/120/220/240 V~ selectable, 50/60 Hz	220 watts	240 watts

# CONNECTION DIAGRAM

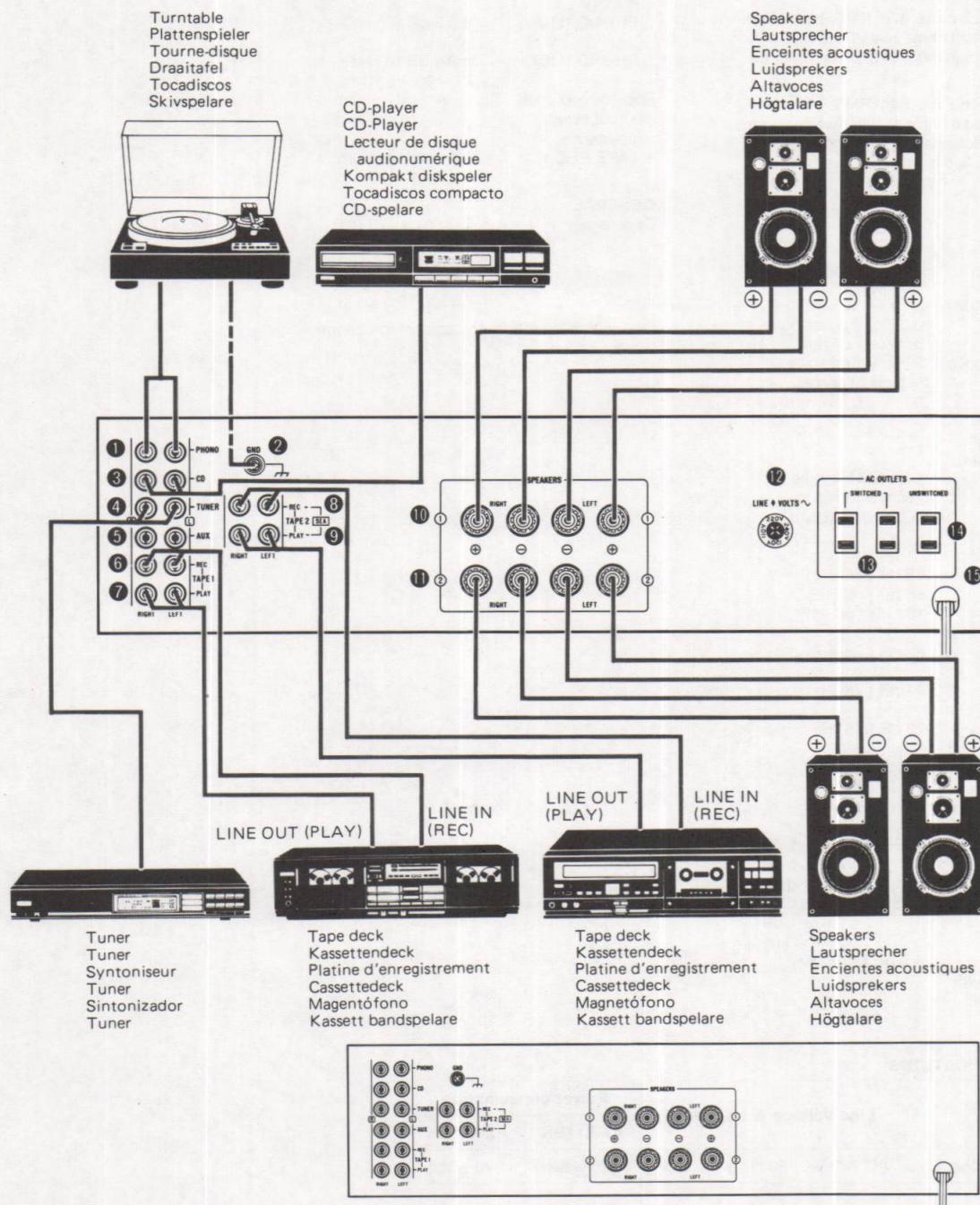
# ANSCHLUSSDIAGRAMM

# SCHEMA DE RACCORDEMENTS

# AANSLUITINGSSCHEMA

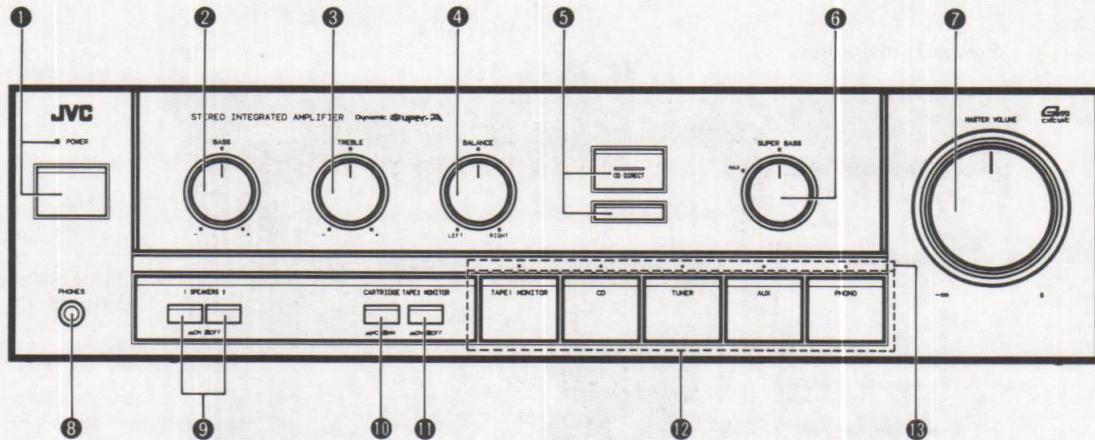
# DIAGRAMA DE CONEXIONES

# ANSLUTNINGSSCHEMA



Provided on units for Continental Europe, the United Kingdom and Australia.  
Vorhanden an Geräten für Kontinentaleuropa, Großbritannien und Australien.  
Fourni sur les appareils pour l'Europe Continentale, le Royaume-Uni et l'Australie.  
Aanwezig op apparaten voor het Europese Vasteland, Groot-Brittannië en Australië.  
Se provee en las unidades para Europa Continental, el Reino Unido y Australia.  
För kontinentala Europa, Storbritannien och Australien.

## 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.

#### Notes:

- When power is not supplied to this amplifier for 2 — 3 days, the source select button pressed before the power was switched off may be lost when the power is switched on again. If this happens, set the buttons, etc. again.
- An electronic source selector is used in this unit. When the POWER button is first switched on, two or more sources or no source may be selected. Make sure to input the source select data by pressing one of the source selectors.
- If the POWER button is pressed repeatedly to switch on and off too quickly, the same phenomenon as the above will occur.

### ② BASS

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

### ③ TREBLE

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

### 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.

#### Note:

- While the CD DIRECT button is pressed, the reproduced sound does not change even if the source selector (including TAPE 2 MONITOR) and BALANCE volume are operated, press the CD DIRECT button again to turn the indicator off when using these.

### ⑥ SUPER BASS

When sound volume is turned down, the human ear tends to become less aware of bass sound. At low sound levels the SUPER BASS knob can be used to emphasize the bass sound. For ordinary use, the knob should be set to the normal position.

### ⑦ MASTER VOLUME

Controls the volume of the speakers and headphones.

### ⑧ PHONES (Headphones jack)

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

### ⑨ SPEAKERS

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

### ⑩ CARTRIDGE

**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.

### ⑪ TAPE 2 MONITOR

**ON** ( **—** ): Set to this position to listen to the tape deck connected to the TAPE 2 terminals of this unit. If your tape deck is of the 3-head type, you can monitor the recorded sound while recording by setting this button to ON.  
**OFF** ( **■** ): Keep this button set to this position, except when you want to listen to the tape deck connected to the TAPE 2 terminals of this unit.

### ⑫ Source selector

#### TAPE 1 MONITOR

Press to listen to a tape deck connected to the TAPE 1 terminals.

#### CD

Press to listen to the source connected to the CD terminals.

#### TUNER

Press to listen to radio broadcasts by a tuner connected to the TUNER terminals.

#### AUX

Press to listen to the source connected to the AUX terminals.

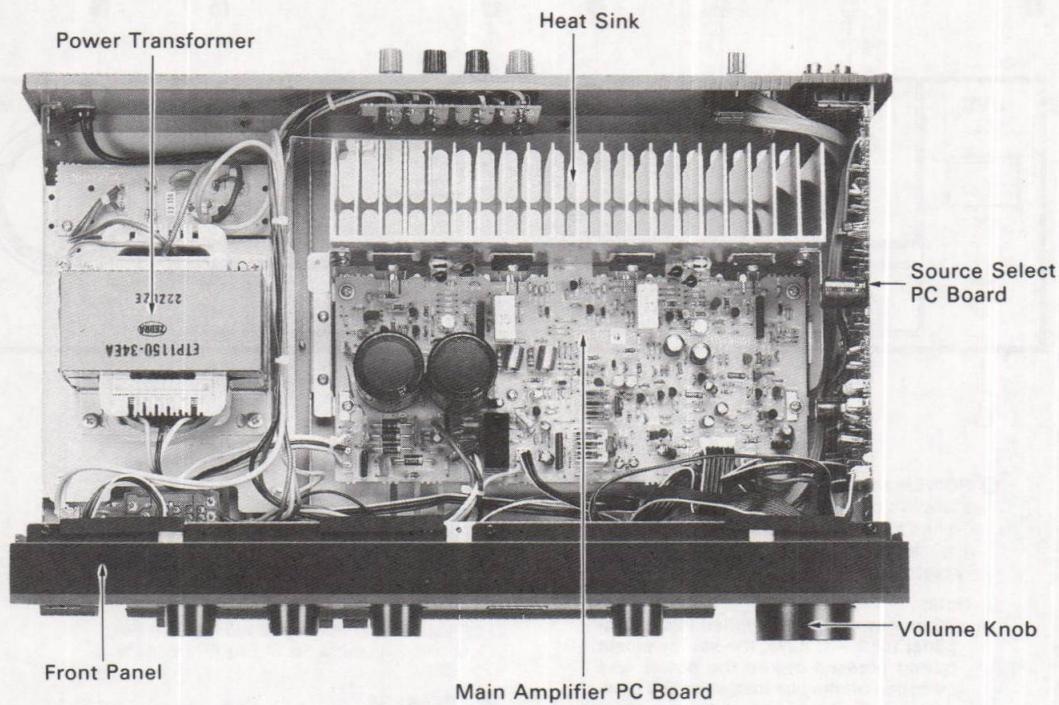
#### PHONO

Press to listen to records played by a turntable connected to the PHONO terminals.

### ⑬ Source indicator

The indicator corresponding to the source select button pressed lights.

# Removal Procedures



## ■ Removing the Top Cover

1. Remove six screws.
2. Remove the top cover by lifting up its rear section and pulling it backward while holding it on incline.

## ■ Removing the Front Panel

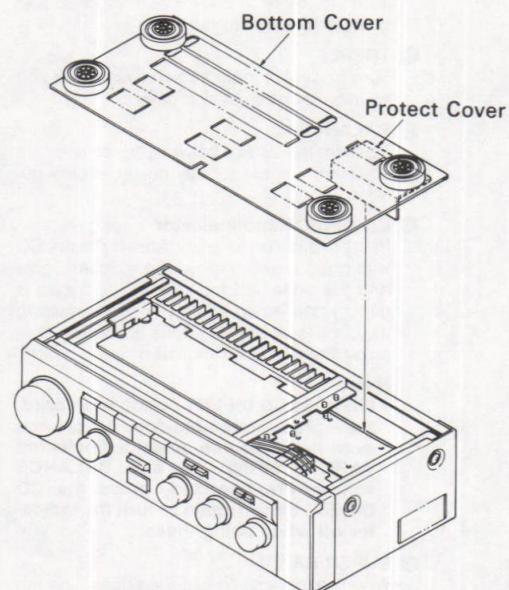
1. Remove the top cover.
2. Pull out the volume knob.
3. Remove three plastic rivets on the upper part of the front panel and three screws from the lower part.

## ■ Removing the Bottom Cover

1. Remove 17 screws fixing the bottom cover.
- Note:** When installing the bottom cover, properly insert the protect cover between the power transformer and the power primary PC board as shown in the figure at right.

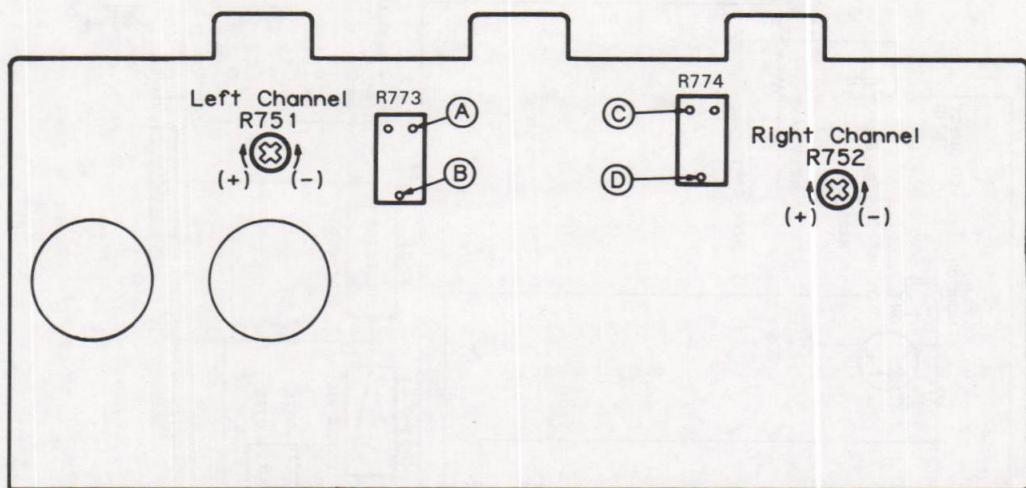
## ■ Removing the Power Transistors

1. Remove the top cover.
2. Remove the bottom cover.
3. Remove the retaining screw from the defective power transistor and replace it.



# Adjustment Procedures

## ■ Power Amplifier Idling Adjustment



1. Before turning on the power, turn the the semi-fixed resistors (R751 for L channel and R752 for R channel) of the power amplifier circuit board fully counterclockwise.
2. Adjust the semi-fixed resistor (R751 and R752) so that the voltage at the following test points of the power amplifier circuit board is within a range of 3 ~ 5 mV after the power is turned on.

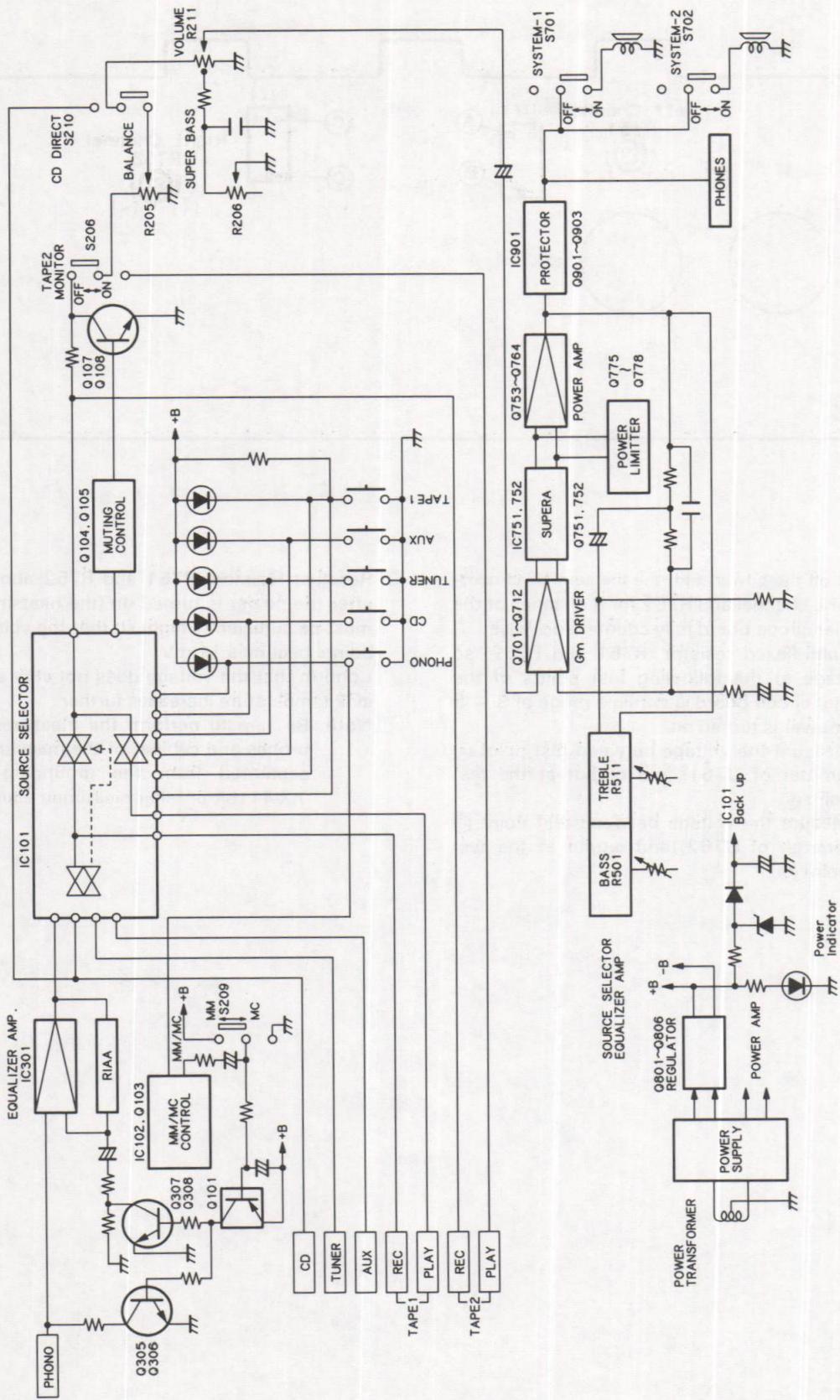
L channel: Measure the voltage between test point A (emitter of Q761) and output at the test point B.

R channel: Meaure the voltage between test point C (emitter of Q762) and output at the test point D.

3. Readjust resistors R751 and R752 about 10 minutes after the power is turned on (the heatsink temperature must be sufficiently high) so that the voltage at the test points becomes 11 mV. Confirm that the voltage does not vary when the heat-sink temperature increases further.

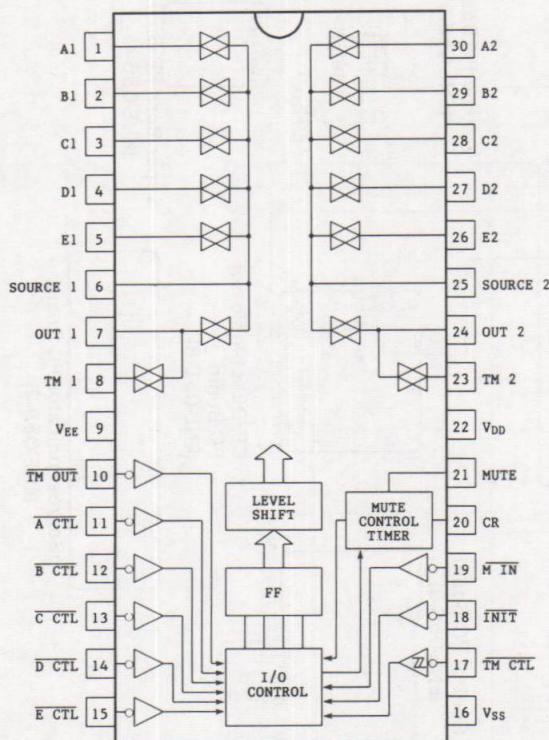
**Note:** Be sure to perform the measurement with the probes and cabinet of the measuring equipment separated from the grounding terminals of AX-411BK or other measuring equipment.

# Block Diagram

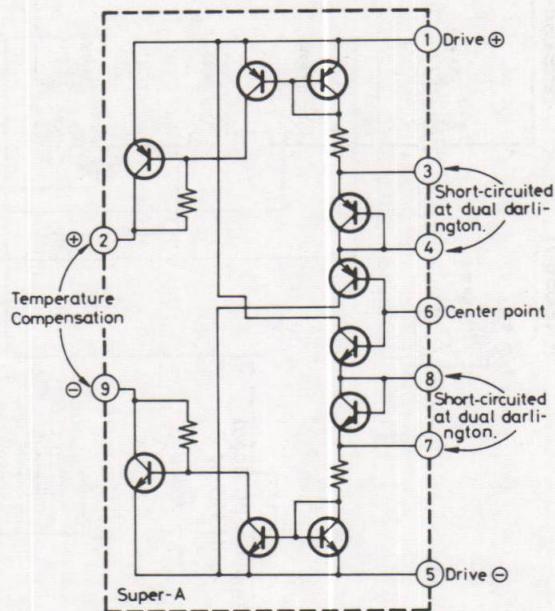


# Internal Block Diagrams of ICs

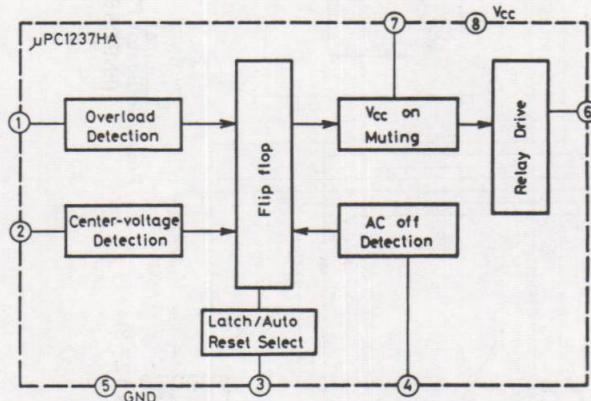
## ■ LC7818 (IC101): Analog Switch



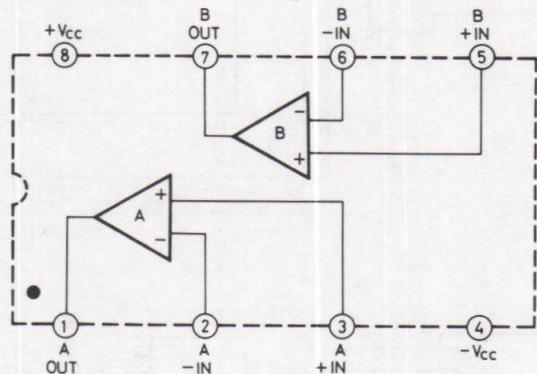
## ■ VC5022 [X, Y] (IC751, IC752): Super-A



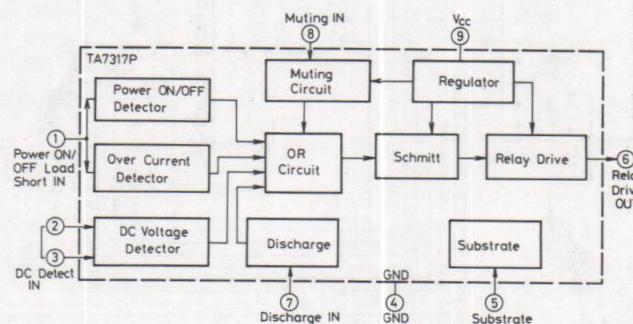
## ■ μPC1237HA (IC901): Relay Driver



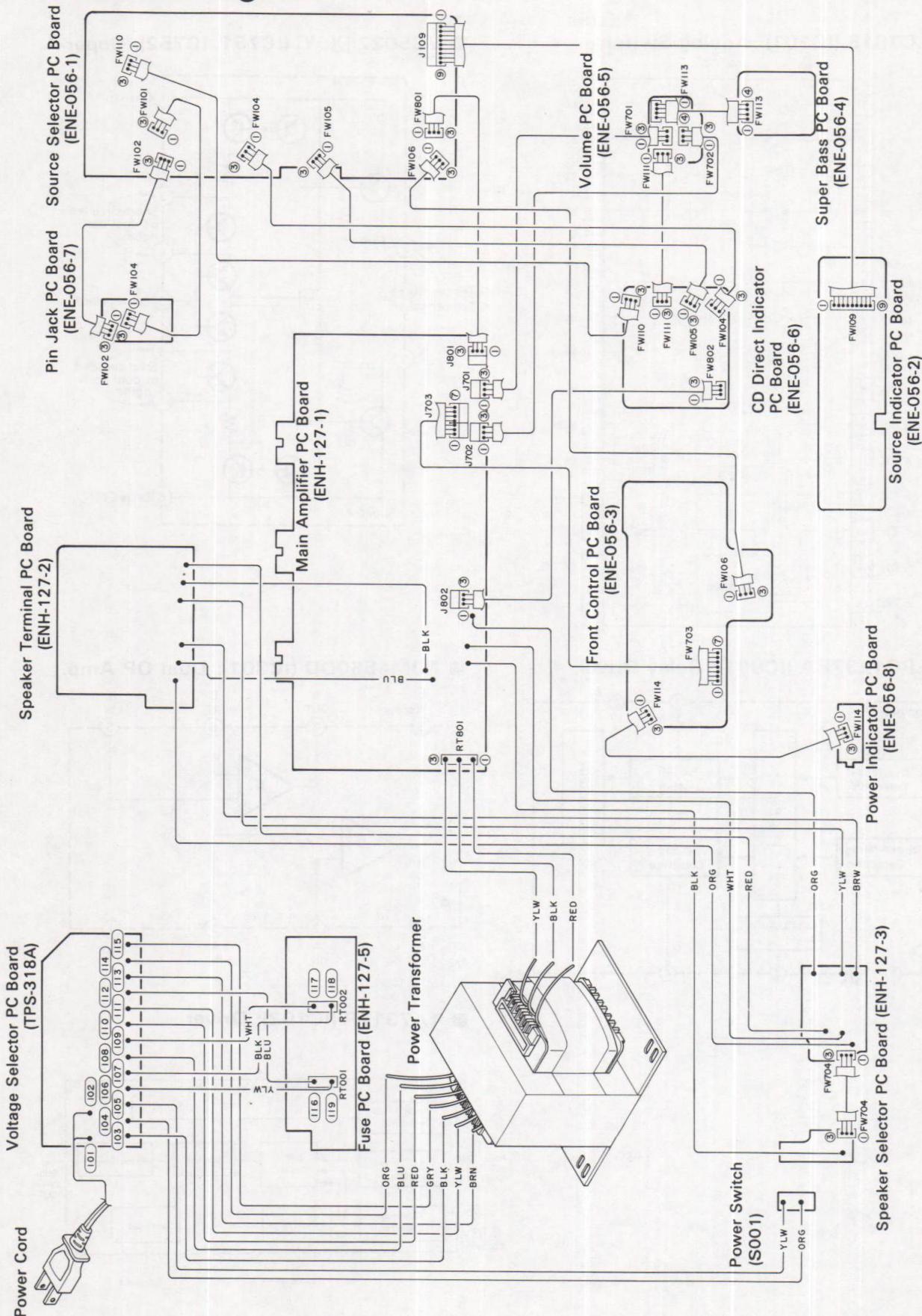
## ■ NJM4560DD (IC301): Dual OP Amp.



## ■ TA7317P (IC102): Driver



## Connection Diagram



**- MEMO -**

ENV

Q MEM

**JVC**

VICTOR COMPANY OF JAPAN LIMITED  
AUDIO PRODUCTS DIVISION, YAMATO PLANT, 1644, SHIMOTSURUMA, YAMATO-SHI, KANAGAWA-KEN, 242, JAPAN

(No. 20098)



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8902 (G)

# PARTS LIST

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# TEST PATTERNS

## Couleur

Color calibration target featuring a wide range of colors and patterns for color calibration and color management. It includes a grayscale bar, a color checker chart, and various color patches. The target is designed to be used with digital cameras, scanners, and other imaging equipment to ensure accurate color reproduction.

## Note (1)

PC Board Ass'y	Designated Areas
ENH-127 [E]	Other Countries
ENH-127 [F]	Australia, Continental Europe
ENH-127 [G]	West Germany
ENH-127 [H] BS	the U.K.

## Transistors

▲ ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
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(O,R)	SILICON	MATSUSHITA	
Q752	2SD636(O,R)	SILICON	MATSUSHITA	
Q753	2SC2240(BL)	SILICON	TOSHIBA	
Q754	2SC2240(BL)	SILICON	TOSHIBA	
Q755	2SA970(BL)	SILICON	TOSHIBA	
Q756	2SA970(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(F,G)	SILICON	ROHM	
Q802	2SB187(F,G)	SILICON	ROHM	
Q803	2SK246(GR)	F.E.T	TOSHIBA	
Q804	2SK246(GR)	F.E.T	TOSHIBA	
Q805	2SA933S(R,S)	SILICON	ROHM	
Q806	2SC3068	SILICON	SANYO	
Q901	2SC2389(S,E)	SILICON	ROHM	
Q902	2SC2389(S,E)	SILICON	ROHM	
Q903	2SA564A(R,S)	SILICON	MATSUSHITA	

▲ : SAFETY PARTS

## I.C.s

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

▲ : SAFETY PARTS

## Diodes

▲ ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
D701	1SS133	SILICON	ROHM	
D702	1SS133	SILICON	ROHM	
D703	1SS133	SILICON	ROHM	
D704	1SS133	SILICON	ROHM	
D751	1SS133	SILICON	ROHM	
D752	1SS133	SILICON	ROHM	
D761	1SS133	SILICON	ROHM	
D762	1SS133	SILICON	ROHM	
D763	1SS133	SILICON	ROHM	
D764	1SS133	SILICON	ROHM	
D801	30D2FC	SILICON	NIHONINTER	E
D801	30D2FC	SILICON	NIHONINTER	F
D801	30DF2SFC	SILICON	NIHONINTER	G
D801	30D2FC	SILICON	NIHONINTER	HBS
D802	30D2FC	SILICON	NIHONINTER	E

## Diodes

▲ ITEM	PART NUMBER	DESCRIPTION	AREA	
			MAKER	
D802	30D2FC	SILICON	NIHONINTER	F
D802	30DF2SFC	SILICON	NIHONINTER	G
D802	30D2FC	SILICON	NIHONINTER	HBS
D803	30D2FC	SILICON	NIHONINTER	E
D803	30D2FC	SILICON	NIHONINTER	F
D803	30D2FC	SILICON	NIHONINTER	G
D803	30DF2SFC	SILICON	NIHONINTER	HBS
D804	30D2FC	SILICON	NIHONINTER	E
D804	30D2FC	SILICON	NIHONINTER	F
D804	30DF2SFC	SILICON	NIHONINTER	G
D804	30D2FC	SILICON	NIHONINTER	HBS
D805	MTZ15JC	SILICON	NIHONINTER	F
D807	MTZ13JC	ZENER	ROHM	
D808	MTZ13JC	ZENER	ROHM	
D809	MTZ18JC	ZENER	ROHM	
D810	MTZ18JC	ZENER	ROHM	
D811	MTZ18JC	ZENER	ROHM	
D812	ERA15-02L19	SILICON	KYODOU	
D813	1SS133	SILICON	ROHM	
D901	1SS133	SILICON	ROHM	
D902	1SS133	SILICON	ROHM	
D903	1SS133	SILICON	ROHM	

▲ : SAFETY PARTS

## Capacitors

▲ ITEM	PART NUMBER	DESCRIPTION	AREA
C001	QCZ9019-472	4700PF	CERAMIC
C001	QCZ9019-472	4700PF	CERAMIC
C001	QCZ9019-472BS	4700PF	CERAMIC
C701	EETB2AM-106E	10MF	100V ELECTRO
C702	EETB2AM-106E	10MF	100V ELECTRO
C703	QCS21HJ-101	100PF	50V CERAMIC
C704	QCS21HJ-101	100PF	50V CERAMIC
C707	QFN81HK-332	3300PF	50V MYLAR
C708	QFN81HK-332	3300PF	50V MYLAR
C709	QCS21HJ-100	10PF	50V CERAMIC
C710	QCS21HJ-100	10PF	50V CERAMIC
C713	GEN51HM-475	4.7MF	50V NON POLE
C714	GEN51HM-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	QETB1CM-476	47MF	16V ELECTRO
C724	QETB1CM-476	47MF	16V ELECTRO
C751	QCF21HP-103	0.01MF	50V CERAMIC
C752	QCF21HP-103	0.01MF	50V CERAMIC
C753	QCF21HP-103	0.01MF	50V CERAMIC
C754	QCF21HP-103	0.01MF	50V CERAMIC
C755	QCS32HJ-680	68PF	500V CERAMIC
C756	QCS32HJ-680	68PF	500V CERAMIC
C757	QCS32HJ-680	68PF	500V CERAMIC
C758	QCS32HJ-680	68PF	500V CERAMIC
C761	QFN81HK-223	0.022MF	50V MYLAR
C762	QFN81HK-223	0.022MF	50V MYLAR
C763	QFN81HK-223	0.022MF	50V MYLAR
C764	QFN81HK-223	0.022MF	50V MYLAR
C765	QFN81HK-104	0.1MF	50V MYLAR
C766	QFN81HK-104	0.1MF	50V MYLAR
C767	QFN81HK-104	0.1MF	50V MYLAR
C768	QFN81HK-104	0.1MF	50V MYLAR
C769	QCF21HP-222	2200PF	50V CERAMIC
C770	QCF21HP-222	2200PF	50V CERAMIC
C771	QFN81HK-223	0.022MF	50V MYLAR
C772	QFN81HK-223	0.022MF	50V MYLAR
C801	EEW6304-109E	10000MF	63V ELECTRO
C802	EEW6304-109E	10000MF	63V ELECTRO
C803	QETB1HM-476	47MF	50V ELECTRO
C804	QETB1HM-476	47MF	50V ELECTRO
C805	QCS21HJ-101	100PF	50V CERAMIC
C809	QETB1EM-476	47MF	25V ELECTRO
C810	QETB1EM-476	47MF	25V ELECTRO
C811	QETB1EM-106	10MF	25V ELECTRO
C812	QFN32AK-472	4700PF	100V MYLAR
C813	QETB1JM-107	100MF	63V ELECTRO
C814	QETB1JM-107	100MF	63V ELECTRO
C815	QFH42EK-104	0.1MF	250V M.MYLAR
C816	QCE22HP-103A	0.01MF	500V CERAMIC
C817	QFN82AK-472	4700PF	100V MYLAR
C818	QFN82AK-104	0.1MF	100V MYLAR
C819	QETB1HM-105	1MF	50V ELECTRO
C901	QETB1AM-227	220MF	10V ELECTRO
C902	QETB1CM-226	22MF	16V ELECTRO
C903	QETB1HM-475	4.7MF	50V ELECTRO
C904	QETB1HM-226	22MF	50V ELECTRO
C905	QETB1HM-105	1MF	50V ELECTRO

▲ : SAFETY PARTS

## Resistors

△ ITEM	PART NUMBER	DESCRIPTION			AREA
R701	QRD167J-222	2.2K	1/6W	CARBON	
R702	QRD167J-222	2.2K	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-103	10K	1/6W	CARBON	
R710	QRD167J-103	10K	1/6W	CARBON	
R711	QRD167J-101	100	1/6W	CARBON	
R712	QRD167J-101	100	1/6W	CARBON	
R713	QRD14CJ-911S	910	1/4W	UNF.CARBON	
R714	QRD14CJ-911S	910	1/4W	UNF.CARBON	
R715	QRD167J-163	16K	1/6W	CARBON	
R716	QRD167J-163	16K	1/6W	CARBON	
R717	QRD167J-823	82K	1/6W	CARBON	
R718	QRD167J-823	82K	1/6W	CARBON	
R719	QRD14CJ-121S	120	1/4W	UNF.CARBON	
R720	QRD14CJ-121S	120	1/4W	UNF.CARBON	
R721	QRD125J-822	8.2K	1/2W	UNF.CARBON	
R722	QRD125J-822	8.2K	1/2W	UNF.CARBON	
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	QRG01CJ-392A	3.9K	1W	O.M.FILM	
R741	QRG01CJ-331A	330	1W	O.M.FILM	
R742	QRG01CJ-331A	330	1W	O.M.FILM	
R743	QRD167J-104	100K	1/6W	CARBON	
R744	QRD167J-104	100K	1/6W	CARBON	
R745	QRZ0077-4R7S	4.7	1/4W	UNF.CARBON	G
R746	QRZ0077-4R7S	4.7	1/4W	UNF.CARBON	G
R747	QRZ0077-4R7S	4.7	1/4W	UNF.CARBON	G
R748	QRZ0077-4R7S	4.7	1/4W	UNF.CARBON	G
R751	QVPE601-501	500	0.15W	VARIABLE	
R752	QVPE601-501	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	QRZ0077-272	2.7K	1/4W	FUSIBLE	
R766	QRZ0077-272	2.7K	1/4W	FUSIBLE	
R767	QRZ0077-471	470	1/4W	FUSIBLE	
R768	QRZ0077-471	470	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	ERFO32K-R22	0.22	3W	CEMENT	
R774	ERFO32K-R22	0.22	3W	CEMENT	
R775	QRG01CJ-100A	10	1W	O.M.FILM	
R776	QRG01CJ-100A	10	1W	O.M.FILM	
R777	QRD125J-101	100	1/2W	UNF.CARBON	G
R778	QRD125J-330	33	1/2W	UNF.CARBON	E
R778	QRD125J-330	33	1/2W	UNF.CARBON	F
R778	QRD125J-330	33	1/2W	UNF.CARBON	HBS
R778	QRD125J-101	100	1/2W	UNF.CARBON	G
R778	QRD125J-330	33	1/2W	UNF.CARBON	E
R778	QRD125J-330	33	1/2W	UNF.CARBON	F
R778	QRD125J-330	33	1/2W	UNF.CARBON	HBS
R791	QRD167J-621	620	1/6W	CARBON	
R792	QRD167J-621	620	1/6W	CARBON	
R793	QRD167J-621	620	1/6W	CARBON	
R794	QRD167J-621	620	1/6W	CARBON	
R795	QRD167J-151	150	1/6W	CARBON	
R796	QRD167J-151	150	1/6W	CARBON	
R797	QRD167J-151	150	1/6W	CARBON	

## Resistors

△ ITEM	PART NUMBER	DESCRIPTION			AREA
R798	QRD167J-151	150	1/6W	CARBON	
R801	QRZ0077-330	33	1/4W	FUSIBLE	
R802	QRZ0077-330	33	1/4W	FUSIBLE	
R803	QRD167J-223	22K	1/6W	CARBON	
R804	QRD167J-203	20K	1/6W	CARBON	
R811	QRZ0077-330	33	1/4W	FUSIBLE	
R812	QRZ0077-330	33	1/4W	FUSIBLE	
R813	QRD167J-123	12K	1/6W	CARBON	
R814	QRD167J-563	56K	1/6W	CARBON	
R815	QRD167J-221	220	1/6W	CARBON	
R816	QRD167J-393	39K	1/6W	CARBON	
R901	QRD167J-272	2.7K	1/6W	CARBON	
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	
R912	QRD167J-562	5.6K	1/6W	CARBON	
R916	QRD167J-103	10K	1/6W	CARBON	
R917	QRD167J-103	10K	1/6W	CARBON	
R918	QRD167J-274	270K	1/6W	CARBON	
R919	QRD167J-332	3.3K	1/6W	CARBON	
R920	QRD167J-393	39K	1/6W	CARBON	
R921	QRD167J-153	15K	1/6W	CARBON	
R923	QRD167J-101	100	1/6W	CARBON	
R924	QRG02CJ-122A	1.2K	2W	O.M.FILM	
R925	QRZ0077-100	10	1/4W	FUSIBLE	

△ : SAFETY PARTS

## Others

△ ITEM	PART NUMBER	DESCRIPTION			AREA
	EMG7331-002U	FUSE CLIP			
	EMG7331-002	FUSE CLIP			
	E11943-002	CIRCUIT BOARD			E
	E11943-002	CIRCUIT BOARD			F
	E11943-002	CIRCUIT BOARD			G
	E11943-002BS	CIRCUIT BOARD			HBS
	E300209-030	HEAT SINK			
	E305804-001	INSTRUCTION BOOK			
	E305805-001	INSTRUCTION BOOK			
J701	E33754-001	TIE BAND			
	E65508-002	TAB			F
	E65508-002	TAB			G
	E65508-002	TAB			HBS
	E70945-H25	HEAT SINK			
	E73525-003	SCREW			
	GBSB3008CC	SCREW			
	SBSB3008CC	SCREW			
	SBSB3008CC	SCREW			
J701	EMV7122-003	CONNECTOR			
J702	EMV7122-003	CONNECTOR			
J751	EMB00TP-801C	SPEAKER TERMINAL			
J752	EMB00TP-801C	SPEAKER TERMINAL			
J753	QMS64A40-021	HEADPHONE JACK			
J801	EMV7122-003	CONNECTOR			
J802	EMV7122-003	CONNECTOR			
L701	EQL0001-1R0	INDUCTOR			
L702	EQL0001-1R0	INDUCTOR			
S701	QST4231-E04	PUSH SWITCH			
S702	QST4231-E04	PUSH SWITCH			
EP001	E70859-001	EARTH PLATE			G
EP003	E70859-001	EARTH PLATE			
FW704	EWR33B-08SST	FLAT WIRE			
JT703	EMV7122-003	CONNECTOR			
JT704	EMV7122-004	CONNECTOR			
RT001	E67764-202	WRAPPING TERMINAL			E

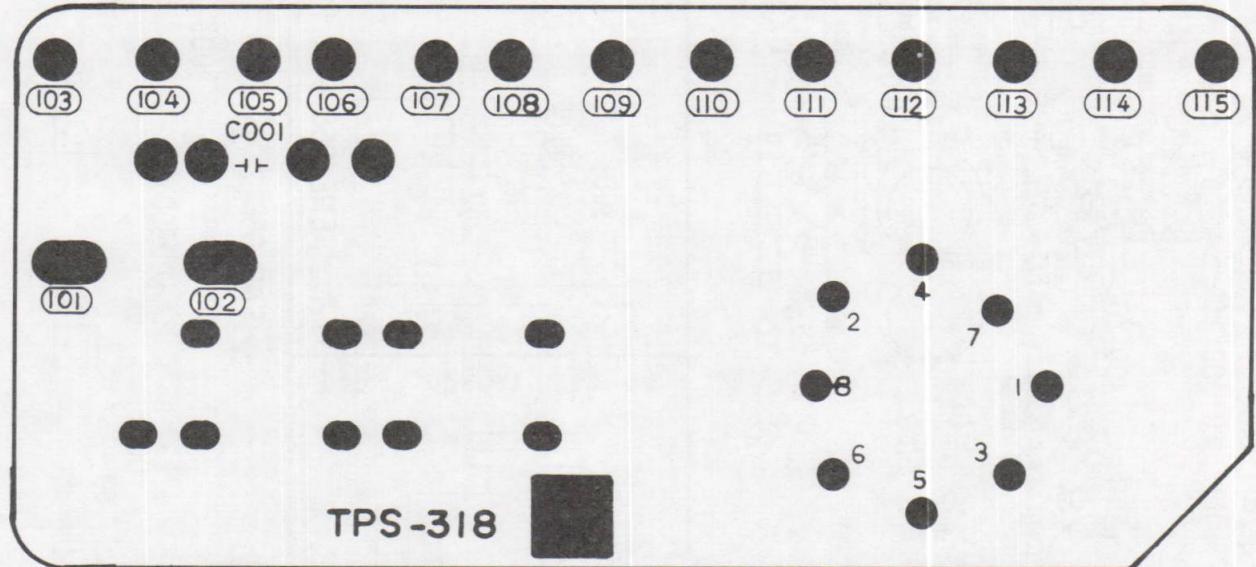
**Others**

△ ITEM	PART NUMBER	DESCRIPTION	AREA
RT002	E67764-202	WRAPPING TERMINAL	E
RT003	E67764-203	WRAPPING TERMINAL	F
RT003	E67764-203	WRAPPING TERMINAL	G
RT003	E67764-203	WRAPPING TERMINAL	HBS
RT004	E67764-202	WRAPPING TERMINAL	F
RT004	E67764-202	WRAPPING TERMINAL	G
RT801	E67764-103	WRAPPING TERMINAL	HBS
RY901	ESK5D24-218	RELAY	

△ : SAFETY PARTS

**■ TPS-318 A Voltage Selector PC Board Ass'y**

(Except Australia, Continental Europe, West Germany, the U.K.)

**Capacitors**

△ ITEM	PART NUMBER	DESCRIPTION	AREA
C001	QZC9018-103	0.01MF CERAMIC	

△ : SAFETY PARTS

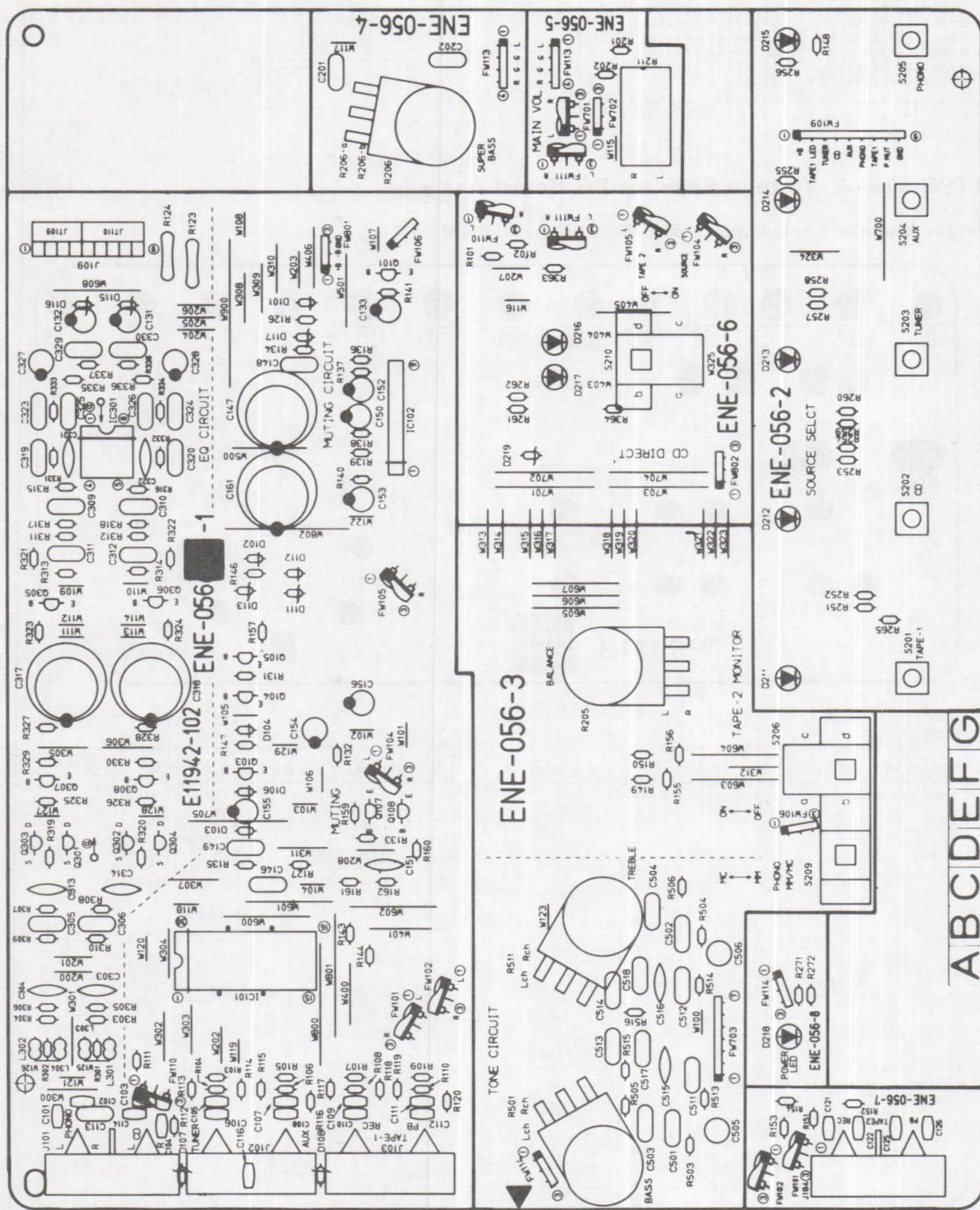
**Others**

△ ITEM	PART NUMBER	DESCRIPTION	AREA
	E302057-002	CIRCUIT BOARD TAB	
	E65508-002	WRAPPING TERMINAL	
	E67764-302	WRAPPING TERMINAL	
	E67764-303	WRAPPING TERMINAL	
	E67764-304	WRAPPING TERMINAL	
△	QMC0637-004	AC OUTLET	
△	QSR0085-006U	VOLTAGE SELECTOR	

△ : SAFETY PARTS

■ ENE-056 □ Source Selector PC Board Ass'y

**Note:** ENE-056 □ varies according to the areas employed. See note (1) when placing an order.



## Note (1)

PC Board Ass'y	Designated Areas
ENE-056 [A]	Other Countries
ENE-056 [B]	Australia, Continental Europe, the U.K.
ENE-056 [C]	West Germany

## Transistors

▲ ITEM	PART NUMBER	DESCRIPTION	MAKER		AREA
			Q	C	
Q101	DTA144ES	SILICON	ROHM		
Q103	2SC2389(S,E)	SILICON	ROHM		
Q104	DTC144ES	SILICON	ROHM		
Q105	DTA144ES	SILICON	ROHM		
Q107	2SC3068	SILICON	SANYO		
Q108	2SC3068	SILICON	SANYO		
Q301	2SK170(BL)	F.E.T	TOSHIBA		
Q302	2SK170(BL)	F.E.T	TOSHIBA		
Q303	2SK170(BL)	F.E.T	TOSHIBA		
Q304	2SK170(BL)	F.E.T	TOSHIBA		
Q305	2SD655(E,F)	SILICON	HITACHI		
Q306	2SD655(E,F)	SILICON	HITACHI		
Q307	2SD655(E,F)	SILICON	HITACHI		
Q308	2SD655(E,F)	SILICON	HITACHI		

▲ : SAFETY PARTS

## I.C.s

▲ ITEM	PART NUMBER	DESCRIPTION	MAKER		AREA
			Q	C	
IC101	LC7818	I.C.	SANYO		
IC102	TA7317P	I.C.	TOSHIBA		
IC301	NJM4560DD	I.C.	JRC		

▲ : SAFETY PARTS

## Diodes

▲ ITEM	PART NUMBER	DESCRIPTION	MAKER		AREA
			Q	C	
D101	1SS133	SILICON	ROHM		
D102	1SS133	SILICON	ROHM		
D103	1SS133	SILICON	ROHM		
D104	1SS133	SILICON	ROHM		
D106	1SS133	SILICON	ROHM		
D107	MT23.3JB	ZENER	ROHM		
D108	MT23.3JB	ZENER	ROHM		
D111	1SS133	SILICON	ROHM		
D112	1SS133	SILICON	ROHM		
D113	MTZ5.6JC	ZENER	ROHM		
D115	MTZ13JC	ZENER	ROHM		
D116	MTZ13JC	ZENER	ROHM		
D117	MTZ6.8JC	ZENER	ROHM		
D211	SLR-331VR50F070	L.E.D.	ROHM		
D212	SLR-331DU50F070	L.E.D.	ROHM		
D213	SLR-331DU50F070	L.E.D.	ROHM		
D214	SLR-331DU50F070	L.E.D.	ROHM		
D215	SLR-331DU50F070	L.E.D.	ROHM		
D216	SLR-34YC50F165	L.E.D.			
D217	SLR-34YC50F165	L.E.D.			
D218	SLR-331DU70F070	L.E.D.	ROHM		
D219	MTZ5.1JC	ZENER	ROHM		

▲ : SAFETY PARTS

## Capacitors

▲ ITEM	PART NUMBER	DESCRIPTION	MAKER		AREA
			Q	C	
C101	QCBB1HK-221	220PF	50V	CERAMIC	C
C102	QCBB1HK-221	220PF	50V	CERAMIC	C
C103	QCBB1HK-471	470PF	50V	CERAMIC	C
C104	QCBB1HK-471	470PF	50V	CERAMIC	C
C105	QCBB1HK-221	220PF	50V	CERAMIC	C
C106	QCBB1HK-221	220PF	50V	CERAMIC	C
C107	QCBB1HK-221	220PF	50V	CERAMIC	C
C108	QCBB1HK-221	220PF	50V	CERAMIC	C
C109	QCBB1HK-221	220PF	50V	CERAMIC	C
C110	QCBB1HK-221	220PF	50V	CERAMIC	C

## Capacitors

▲ ITEM	PART NUMBER	DESCRIPTION	AREA
C111	QCBB1HK-221	220PF	50V CERAMIC C
C112	QCBB1HK-221	220PF	50V CERAMIC C
C113	QFN81HJ-103	0.01MF	50V MYLAR C
C114	QCHB1EZ-223	0.022MF	25V CERAMIC C
C121	QCBB1HK-221	220PF	50V CERAMIC C
C122	QCBB1HK-221	220PF	50V CERAMIC C
C125	QCBB1HK-221	220PF	50V CERAMIC C
C126	QCBB1HK-221	220PF	50V CERAMIC C
C131	QETB1EM-107	100MF	25V ELECTRO C
C132	QETB1EM-107	100MF	25V ELECTRO C
C133	QETB1HM-106	10MF	50V ELECTRO C
C146	QFN81HJ-562	5600PF	50V MYLAR C
C147	QETB0JM-228	2200MF	6.3V ELECTRO C
C148	QFN81HJ-562	5600PF	50V MYLAR C
C149	QFN81HK-473	0.047MF	50V MYLAR C
C150	QETB1HM-225	2.2MF	50V ELECTRO C
C152	QETB1CM-226	22MF	16V ELECTRO C
C153	QETB1HM-475	4.7MF	50V ELECTRO C
C154	QETB1CM-107	100MF	16V ELECTRO C
C155	QETB1HM-474	0.47MF	50V ELECTRO C
C156	QETB1HM-475	4.7MF	50V ELECTRO C
C201	QVF81HJ-104	0.1MF	50V T.FILM C
C202	QVF81HJ-104	0.1MF	50V T.FILM C
C303	QCS21HJ-151	150PF	50V CERAMIC C
C304	QCS21HJ-151	150PF	50V CERAMIC C
C305	QFN81HK-103	0.01MF	50V MYLAR C
C306	QFN81HK-103	0.01MF	50V MYLAR C
C309	QFN81HK-392	3900PF	50V MYLAR C
C310	QFN81HK-392	3900PF	50V MYLAR C
C311	QFN81HK-822	8200PF	50V MYLAR C
C312	QFN81HK-822	8200PF	50V MYLAR C
C313	QCS21HJ-151	150PF	50V CERAMIC C
C314	QCS21HJ-151	150PF	50V CERAMIC C
C317	QETB0JM-228	2200MF	6.3V ELECTRO C
C318	QETB0JM-228	2200MF	6.3V ELECTRO C
C319	QFN81HJ-472	4700PF	50V MYLAR C
C320	QFN81HJ-472	4700PF	50V MYLAR C
C321	QCS21HJ-331	330PF	50V CERAMIC C
C322	QCS21HJ-331	330PF	50V CERAMIC C
C323	QFN81HJ-153	0.015MF	50V MYLAR C
C324	QFN81HJ-153	0.015MF	50V MYLAR C
C325	QFN81HJ-272	2700PF	50V MYLAR C
C326	QFN81HJ-272	2700PF	50V MYLAR C
C327	EETB2AM-106E	10MF	100V ELECTRO C
C328	EETB2AM-106E	10MF	100V ELECTRO C
C329	QFN81HJ-222	2200PF	50V MYLAR C
C330	QFN81HJ-222	2200PF	50V MYLAR C
C501	QFN81HK-153	0.015MF	50V MYLAR C
C502	QFN81HK-153	0.015MF	50V MYLAR C
C503	QFN81HK-823	0.082MF	50V MYLAR C
C504	QFN81HK-823	0.082MF	50V MYLAR C
C505	QEN51HM-475	4.7MF	50V NON POLE C
C506	QEN51HM-475	4.7MF	50V NON POLE C
C511	QFN81HK-332	3300PF	50V MYLAR C
C512	QFN81HK-332	3300PF	50V MYLAR C
C513	QFN81HK-183	0.018MF	50V MYLAR C
C514	QFN81HK-183	0.018MF	50V MYLAR C
C515	QCS21HJ-221	220PF	50V CERAMIC C
C516	QCS21HJ-221	220PF	50V CERAMIC C
C517	QFN81HK-122	1200PF	50V MYLAR C
C518	QFN81HK-122	1200PF	50V MYLAR C

▲ : SAFETY PARTS

## Resistors

▲ ITEM	PART NUMBER	DESCRIPTION	AREA
R101	QRD167J-105	1M	1/6W CARBON
R102	QRD167J-105	1M	1/6W CARBON
R103	QRD167J-105	1M	1/6W CARBON
R104	QRD167J-105	1M	1/6W CARBON
R105	QRD167J-105	1M	1/6W CARBON
R106	QRD167J-105	1M	1/6W CARBON
R107	QRD167J-105	1M	1/6W CARBON
R108	QRD167J-105	1M	1/6W CARBON
R109	QRD167J-105	1M	1/6W CARBON
R110	QRD167J-105	1M	1/6W CARBON
R111	QRD167J-471	470	1/6W CARBON
R112	QRD167J-471	470	1/6W CARBON
R113	QRD167J-471	470	1/6W CARBON
R114	QRD167J-471	470	1/6W CARBON
R115	QRD167J-471	470	1/6W CARBON
R116	QRD167J-471	470	1/6W CARBON
R117	QRD167J-471	470	1/6W CARBON
R118	QRD167J-471	470	1/6W CARBON
R119	QRD167J-471	470	1/6W CARBON
R120	QRD167J-471	470	1/6W CARBON

## Resistors

△ ITEM	PART NUMBER	DESCRIPTION	AREA
R123	QRZ0077-101	100	1/6W FUSIBLE
R124	QRZ0077-101	100	1/6W FUSIBLE
R126	QRD167J-104	100K	1/6W CARBON
R127	QRD167J-104	100K	1/6W CARBON
R131	QRD167J-103	10K	1/6W CARBON
R132	QRD167J-103	10K	1/6W CARBON
R134	QRD167J-103	10K	1/6W CARBON
R135	QRD167J-474	470K	1/6W CARBON
R136	QRD167J-562	5.6K	1/6W CARBON
R137	QRD167J-473	47K	1/6W CARBON
R138	QRD167J-392	3.9K	1/6W CARBON
R139	QRD167J-104	100K	1/6W CARBON
R140	QRD167J-104	100K	1/6W CARBON
R141	QRD167J-223	22K	1/6W CARBON
R143	QRD167J-102	1K	1/6W CARBON
R144	QRD167J-102	1K	1/6W CARBON
R146	QRD167J-122	1.2K	1/6W CARBON
R147	QRD167J-473	47K	1/6W CARBON
R148	QRD167J-273	27K	1/6W CARBON
R149	QRD167J-471	470	1/6W CARBON
R150	QRD167J-471	470	1/6W CARBON
R151	QRD167J-105	1M	1/6W CARBON
R152	QRD167J-105	1M	1/6W CARBON
R153	QRD167J-471	470	1/6W CARBON
R154	QRD167J-471	470	1/6W CARBON
R155	QRD167J-105	1M	1/6W CARBON
R156	QRD167J-105	1M	1/6W CARBON
R157	QRD167J-102	1K	1/6W CARBON
R159	QRD167J-333	33K	1/6W CARBON
R160	QRD167J-333	33K	1/6W CARBON
R161	QRD167J-105	1M	1/6W CARBON
R162	QRD167J-105	1M	1/6W CARBON
R201	QRD167J-103	10K	1/6W CARBON
R202	QRD167J-103	10K	1/6W CARBON
R205	QVD887M-EF5B	250K	VARIABLE
R206	QVD887A-E24B	20K	VARIABLE
R211	QVD8A7B-AF5VA	250K	VARIABLE
R251	QRD167J-122	1.2K	1/6W CARBON
R252	QRD167J-122	1.2K	1/6W CARBON
R253	QRD167J-122	1.2K	1/6W CARBON
R254	QRD167J-122	1.2K	1/6W CARBON
R255	QRD167J-122	1.2K	1/6W CARBON
R256	QRD167J-122	1.2K	1/6W CARBON
R257	QRD167J-122	1.2K	1/6W CARBON
R258	QRD167J-122	1.2K	1/6W CARBON
R259	QRD167J-122	1.2K	1/6W CARBON
R260	QRD167J-122	1.2K	1/6W CARBON
R261	QRD167J-122	1.2K	1/6W CARBON
R262	QRD167J-112	1.1K	1/6W CARBON
R265	QRD167J-104	100K	1/6W CARBON
R271	QRD167J-132	1.3K	1/6W CARBON
R272	QRD167J-152	1.5K	1/6W CARBON
R301	QRD167J-102	1K	1/6W CARBON
R302	QRD167J-102	1K	1/6W CARBON
R303	QRD167J-473	47K	1/6W CARBON
R304	QRD167J-473	47K	1/6W CARBON
R305	QRD167J-471	470	1/6W CARBON
R306	QRD167J-471	470	1/6W CARBON
R307	QRD167J-5R6	5.6	1/6W CARBON
R308	QRD167J-5R6	5.6	1/6W CARBON
R309	QRD167J-101	100	1/6W CARBON
R310	QRD167J-101	100	1/6W CARBON
R311	QRD167J-562	5.6K	1/6W CARBON
R312	QRD167J-562	5.6K	1/6W CARBON
R313	QRD167J-270	27	1/6W CARBON
R314	QRD167J-270	27	1/6W CARBON
R315	QRD167J-561	560	1/6W CARBON
R316	QRD167J-561	560	1/6W CARBON
R317	QRD167J-562	5.6K	1/6W CARBON
R318	QRD167J-562	5.6K	1/6W CARBON

## Resistors

△ ITEM	PART NUMBER	DESCRIPTION	AREA
R319	QRD167J-222	2.2K	1/6W CARBON
R320	QRD167J-222	2.2K	1/6W CARBON
R321	QRD167J-272	2.7K	1/6W CARBON
R322	QRD167J-272	2.7K	1/6W CARBON
R323	QRD167J-273	27K	1/6W CARBON
R324	QRD167J-273	27K	1/6W CARBON
R325	QRD167J-273	27K	1/6W CARBON
R326	QRD167J-273	27K	1/6W CARBON
R327	QRD167J-180	18	1/6W CARBON
R328	QRD167J-180	18	1/6W CARBON
R329	QRD167J-221	220	1/6W CARBON
R330	QRD167J-221	220	1/6W CARBON
R331	QRD167J-153	15K	1/6W CARBON
R332	QRD167J-153	15K	1/6W CARBON
R333	QRD167J-184	180K	1/6W CARBON
R334	QRD167J-184	180K	1/6W CARBON
R335	QRD167J-471	470	1/6W CARBON
R336	QRD167J-471	470	1/6W CARBON
R337	QRD167J-104	100K	1/6W CARBON
R338	QRD167J-104	100K	1/6W CARBON
R363	QRD167J-471	470	1/6W CARBON
R364	QRD167J-471	470	1/6W CARBON
R501	QVD887C-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	QVD887C-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

## Others

△ ITEM	PART NUMBER	DESCRIPTION	AREA
	E11942-102	CIRCUIT BOARD	
	E305983-001	HOLDER	
J101	EMNOOTV-405A	4P PIN JACK	
J102	EMNOOTV-402A	4P PIN JACK	
J103	EMNOOTV-402A	4P PIN JACK	
J104	EMNOOTV-402A	4P PIN JACK	
L301	EQL4004-220	INDUCTOR	C
L302	EQL4004-220	INDUCTOR	C
L303	EQL4004-220	INDUCTOR	C
L304	EQL4004-220	INDUCTOR	C
S201	ESP0001-018	TACT SWITCH	
S202	ESP0001-018	TACT SWITCH	
S203	ESP0001-018	TACT SWITCH	
S204	ESP0001-018	TACT SWITCH	
S205	ESP0001-018	TACT SWITCH	
S206	QSTL251-E01	PUSH SWITCH	
S210	QSTL101-E04	PUSH SWITCH	
FW101	EWR23C-20NN	FLAT WIRE	
FW102	EWR23C-20NN	FLAT WIRE	
FW104	EWR23C-30NN	FLAT WIRE	
FW105	EWR23C-25NN	FLAT WIRE	
FW106	EWR33B-35SST	FLAT WIRE	
FW109	EWR39B-20KST	FLAT WIRE	
FW110	EWR23C-35NN	FLAT WIRE	
FW111	EWR23C-16NN	FLAT WIRE	
FW113	EWR34B-20SST	FLAT WIRE	
FW114	EWR33B-13SST	FLAT WIRE	
FW701	EWR23C-10JN	FLAT WIRE	
FW702	EWR33B-13KST	FLAT WIRE	
FW703	EWR37B-35KST	FLAT WIRE	
FW801	EWR33B-10KST	FLAT WIRE	
FW802	EWR33B-13KST	FLAT WIRE	
JT109	EMV7122-004	CONNECTOR	
JT110	EMV7122-005	CONNECTOR	

△ : SAFETY PARTS

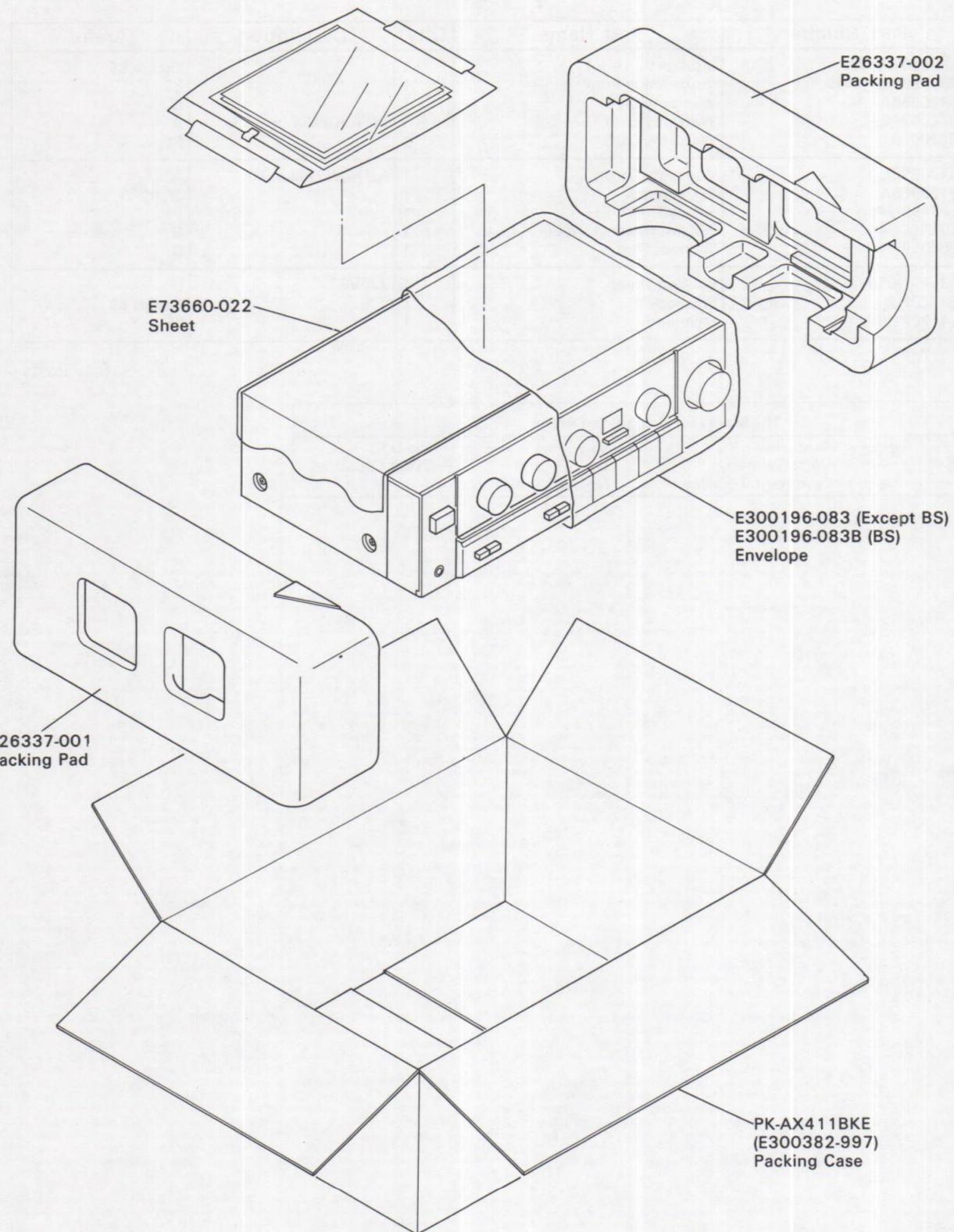
# Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Areas
	E30580-1517A E30580-1517ABS BT20064A BT20029C BT20060	Insutrition Book Insutrition Book Warranty Card Warranty Card Warranty Card	1 1 1 1 1	for Australia	Except BS BS G A BS
⚠	BT20098 BT20066A E43486-340A QZL1008-001 E04056	Warranty Card EEC Agency Safety Sheet FTZ Insutrition Sheet Siemens Plug	1 1 1 1 1	for New Zealand	A G , BS BS G U
	E35497-019 E41202-2 E41202-2B	Caution Sheet Envelope Envelope	1 1 1	220V	U Except BS BS

⚠: Safety Parts

The Marks for Designated Areas		
A.....	Australia	BS.....the U.K.
G.....	West Germany	U.....Other Countries
E , EF.....	Continental Europe	No mark Indicates all areas.

## Packing Materials and Part Numbers



### The Marks for Designated Areas

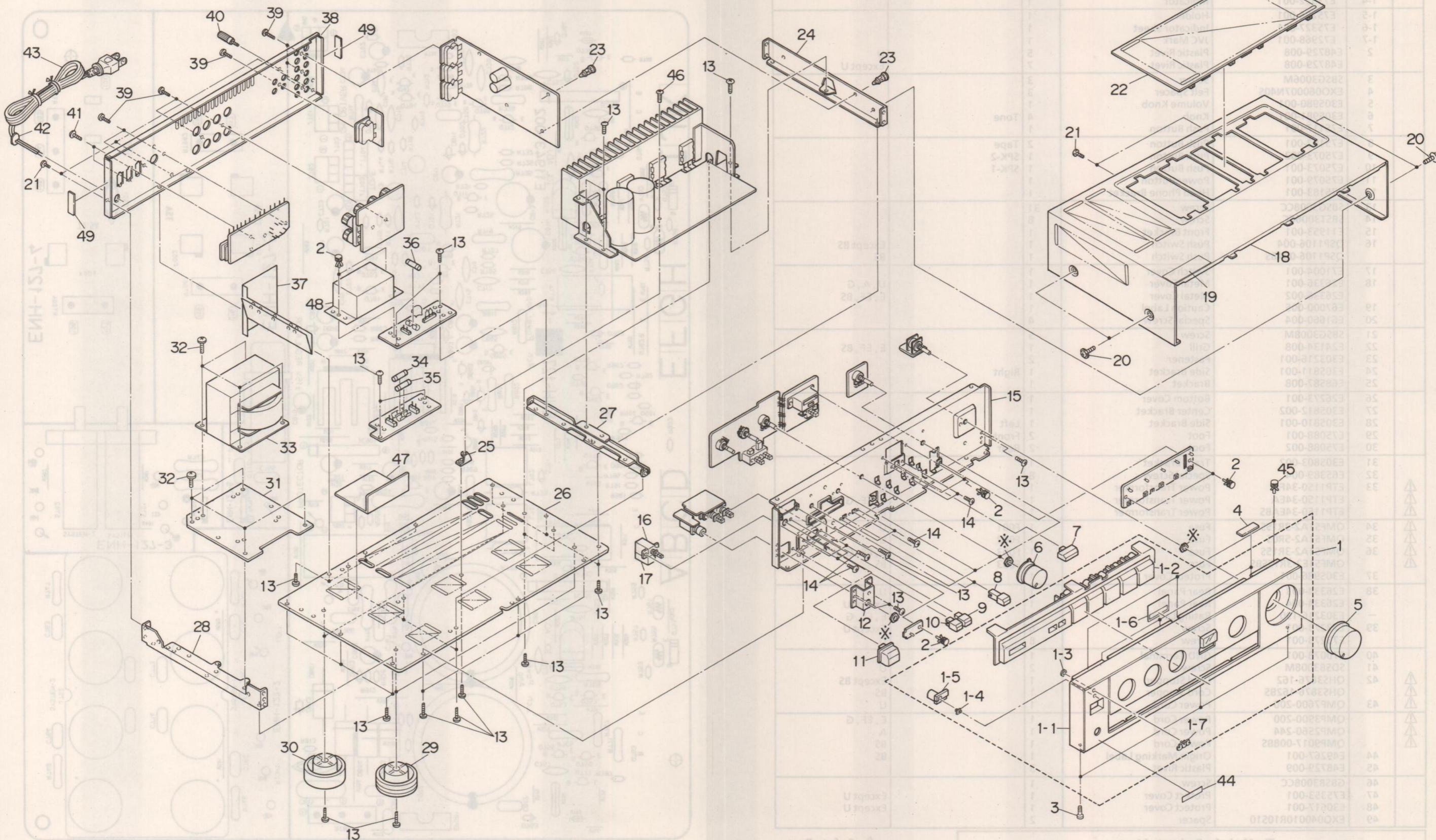
A.....	Australia	B\$.....	the U.K.
G.....	West Germany	U.....	Other Countries
E , EF.....	Continental Europe	No mark Indicates all areas.	

# Exploded View and Parts List

## Printed Circuit Board Assembly

■ ENH-1523 ■ Mini Amplifier PC Board Ass'y

Note: ENH-1523 after assembly to the stereo amplifier. See note (1) when placing in order.



Item	Part Number	Description	Q'ty	Notes
1	E8283008C	Front Panel Assy.	1	
2	E8283005	Front Panel Assy.	1	
3	E8283003	Speaker	2	
4	E8283002	Speaker	2	
5	E8283001	Speaker	2	
6	E8283000	Speaker	2	
7	E828300M	Speaker	2	
8	E8283008	Speaker	2	
9	E8283001	Speaker	2	
10	E8283000	Speaker	2	
11	E8283000	Speaker	2	
12	E8283000	Speaker	2	
13	E8283000	Speaker	2	
14	E8283000	Speaker	2	
15	E8283000	Speaker	2	
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22	E8283000	Speaker	2	
23	E8283000	Speaker	2	
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41	E8283000	Speaker	2	
42	E8283000	Speaker	2	
43	E8283000	Speaker	2	
44	E8283000	Speaker	2	
45	E8283000	Speaker	2	
46	E8283000	Speaker	2	
47	E8283000	Speaker	2	
48	E8283000	Speaker	2	
49	E8283000	Speaker	2	

\* mark indicates attached part.

Counterclockwise Turn	Clockwise Turn	Other Counterturns	No Wrist Indications All Stages	Type Marks for Designated Areas

Item	Part Number	Part Name	Q'ty	Description	Areas
1	EFP-AX411BKE	Front Panel Ass'y	1		
1-1	E26391-002	Front Panel	1		
1-2	E26332-002	Push Button Ass'y	1		
1-3	E60912-003	Supeed Nut	1		
1-4	E73522-001	Indicator	1		
1-5	E75286-001	Holder	1		
1-6	E75327-001	Indicator Sheet	1		
1-7	E72968-001	JVC Mark	1		
2	E48729-008	Plastic Rivet	5		U
	E48729-008	Plastic Rivet	7		Except U
3	SBSG3006M	Screw	3		
4	EXO060007N40S	Felt Spacer	3		
5	E305980-001	Volume Knob	1		
6	E305981-001	Knob	4	Tone	
7	E75117-001	Push Button	1		
8	E75182-001	Push Button	2		
9	E75073-002	Push Button	1		
10	E75073-001	Push Button	1		
11	E75079-001	Power Button	1		
12	E75183-001	Head Phone Bracket	1		
13	SBSG3008CC	Screw	31		
14	SBST3006CC	Screw	8		
15	E11953-001	Front Bracket	1		Except BS
16	QSP1106-004	Push Switch	1		BS
	QSP1106-004BS	Push Switch	1		
17	E71004-001	Switch Cover	1		
18	E26336-001	Metal Cover	1		U, A, G
19	E26336-002	Metal Cover	1		E, EF, BS
20	E67000-005	Caution Label	1		
	E61660-004	Special Screw	4		
21	SBSG3008M	Screw	5		
22	E24134-008	Grill	1		
23	E303216-001	Fastener	2		
24	E305811-001	Side Bracket	1		
25	E68587-008	Bracket	1		
26	E26273-001	Bottom Cover	1		
27	E305812-002	Center Bracket	1		
28	E305810-001	Side Bracket	1		
29	E75088-001	Foot	2	Left	
30	E75088-002	Foot	2	Front	
					Rear
31	E305803-002	Trans Bracket	1		
32	E65389-004	Special Screw	8		
33	ETP1150-34FA	Power Transformer	1		U
	ETP1150-34EA	Power Transformer	1		E, EF, G, A
	ETP1150-34EABS	Power Transformer	1		BS
34	QMF51A2-3R15S	Fuse	1	F001	U
35	QMF51A2-5R05	Fuse	1	F002	U
36	QMF51A2-3R15S	Fuse	1	F003	E, EF, G, A
	QMF51E2-3R15SBS	Fuse	1	F003	BS
37	E305986-001	Protect Cover	1		
38	E26334-003	Rear Panel	1		
—	E26334-004	Rear Panel	1		
39	E303216-190	Rating Label	1		U
	E73273-001	Screw	6		Except U
	E73273-001	Screw	8		E, EF, G
					Except U
					U
40	E70078-001	GND.Terminal	1		
41	SDSB3008M	Screw	2		
42	QHS3876-162	Cord Stopper	1		U
	QHS3876-162BS	Cord Stopper	1		Except BS
	QMP7600-200	Power Cord	1		U
43	QMP3900-200	Power Cord	1		E, EF, G
	QMP2560-244	Power Cord	1		A
	QMP9017-008BS	Power Cord	1		BS
	E49267-001	Origin Marking Label	1		BS
	E48729-009	Plastic Rivet	3		BS
44	QMP3900-200	Power Cord	1		
45	QMP2560-244	Power Cord	1		
	QMP9017-008BS	Power Cord	1		
	E49267-001	Origin Marking Label	1		
	E48729-009	Plastic Rivet	3		
46	GBSB3008CC	Screw	1		
47	E75353-001	Protect Cover	1		Except U
48	E30617-001	Protect Cover	1		Except U
49	EXO040010R10S10	Spacer	2		

The Marks for Designated Areas

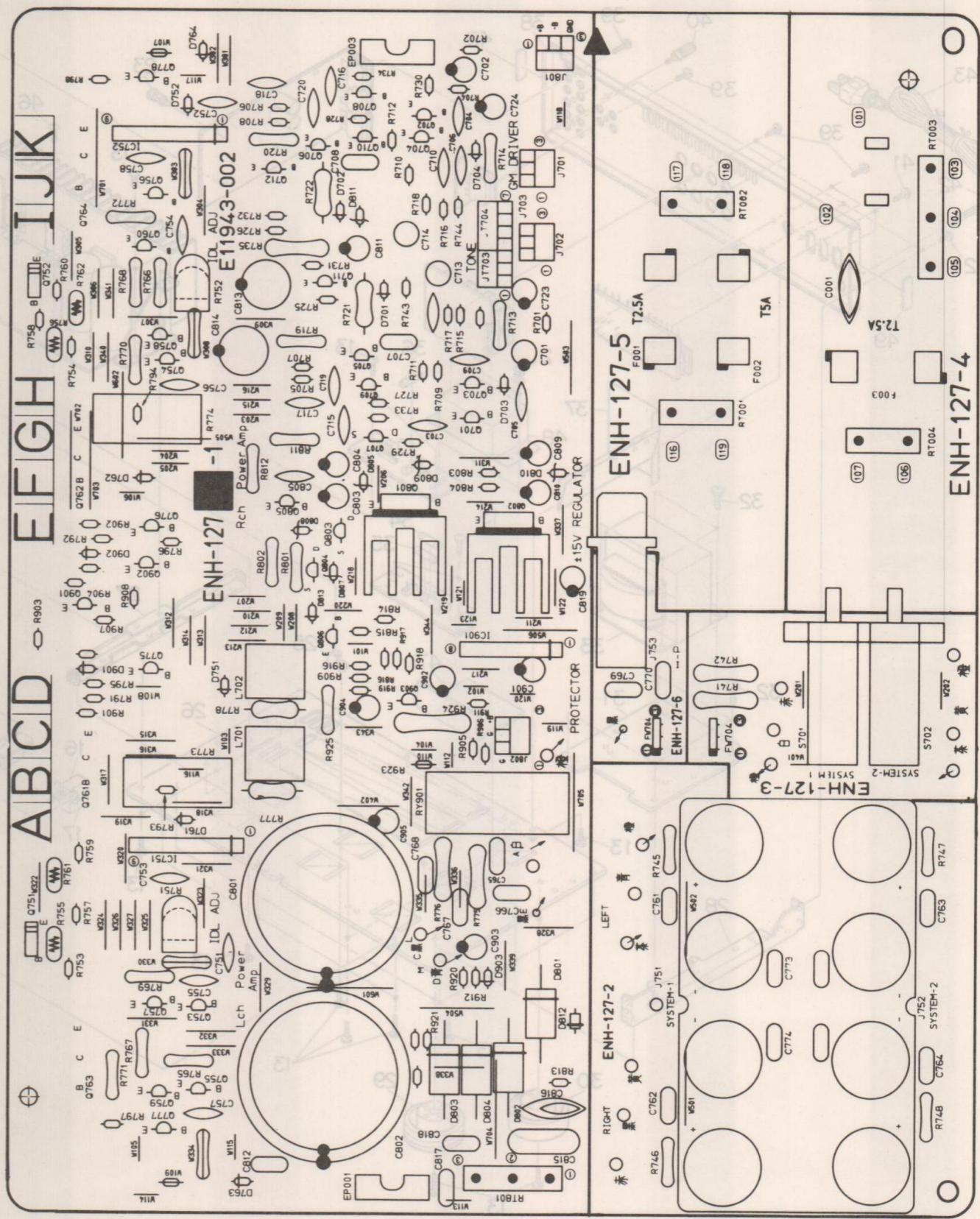
A.....	Australia	BS.....	the U.K.
G.....	West Germany	U.....	Other Countries
E, EF.....	Continental Europe	No mark Indicates all areas.	

△: Safety Parts

## Printed Circuit Board Ass'y and Parts List

■ ENH-127 □ Main Amplifier PC Board Ass'y

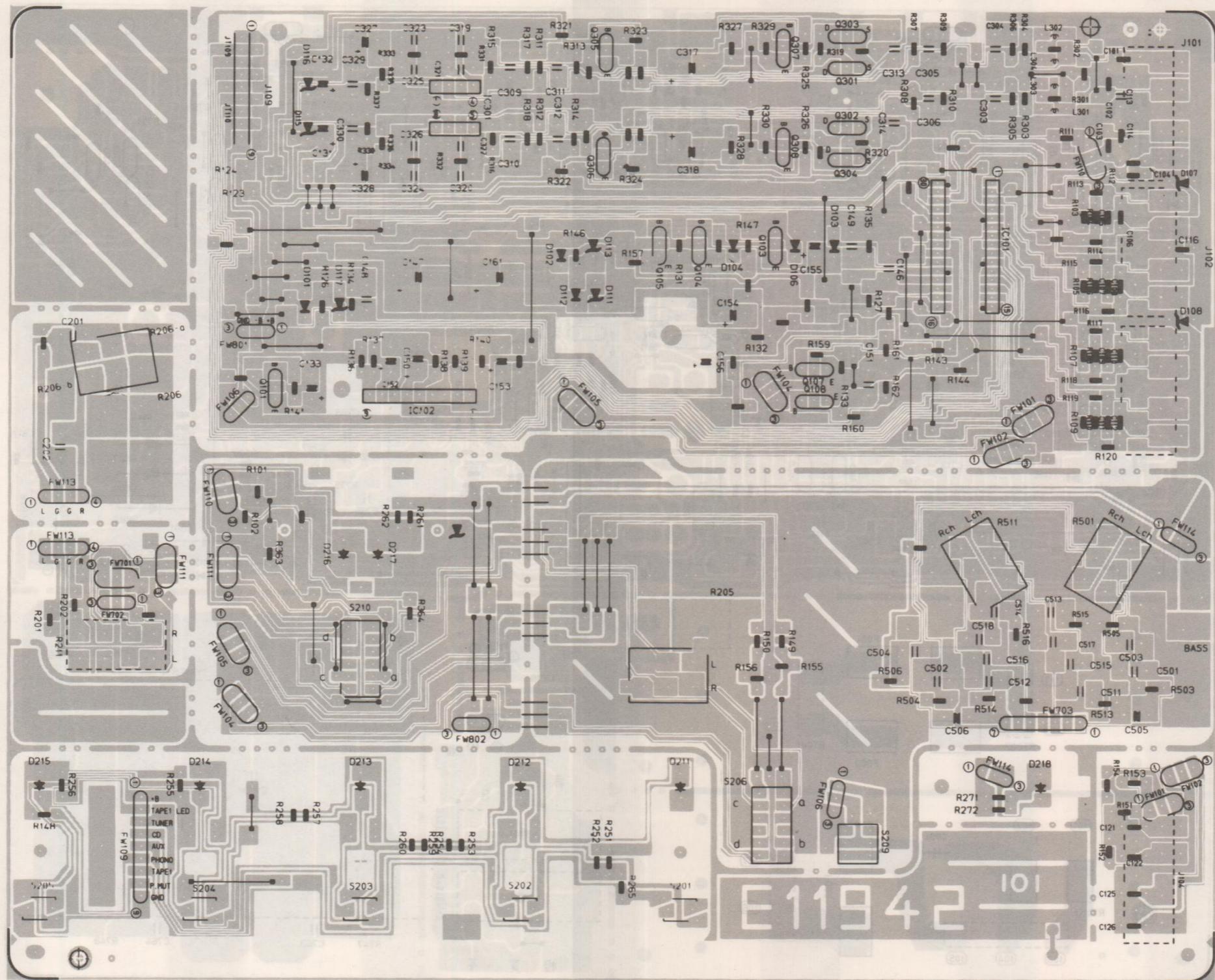
Note: ENH-127 □ varies according to the areas employed. See note (1) when placing an order.



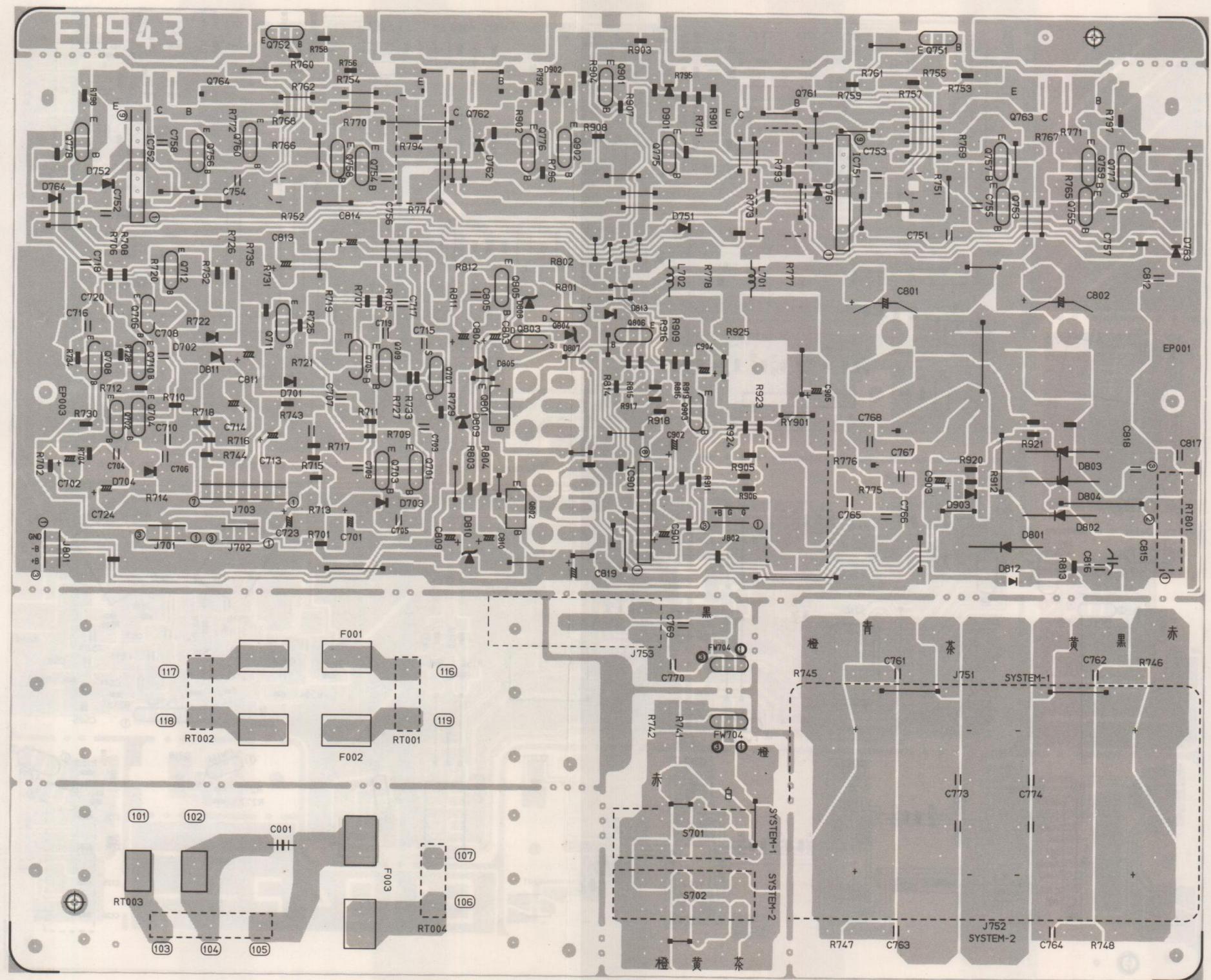
# Printed Circuit Boards

■ Source Select PC Board (ENE-056)

■ Mini Amplifier PC Board (ENE-152)



#### ■ Main Amplifier PC Board (ENH-127)



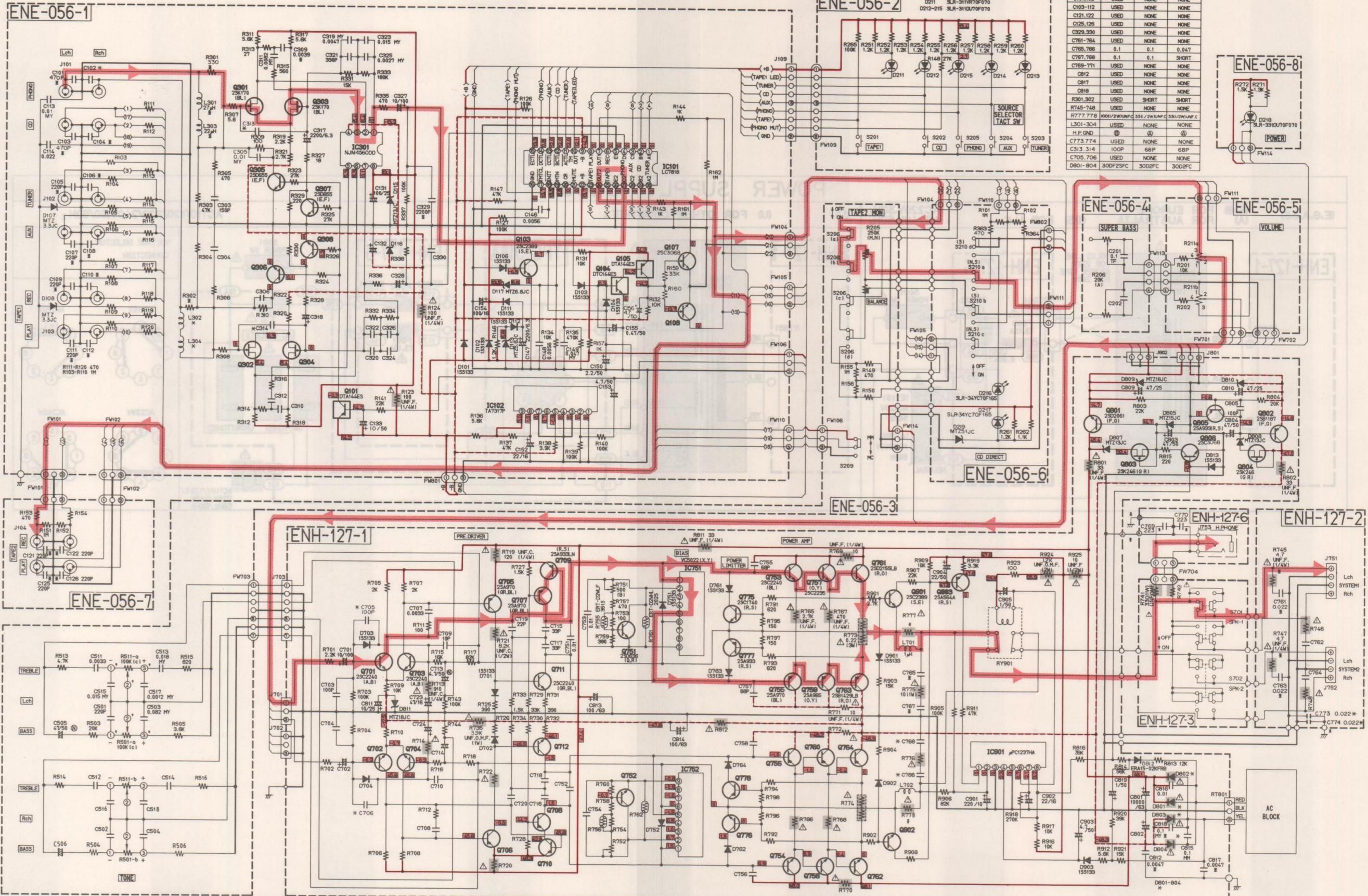
# Schematic Diagrams

## (1) Source Select and Main Amplifier Section

### Notes:

1. — indicates + B power supply.
2. - - - indicates - B power supply.
3. — shows signal path.
4. — shows DC voltage to the chassis with no signal input.
5. When replacing the parts in the darkened area (—) and those marked with  $\triangle$ , be sure to use the designated parts to ensure safety.
6. This is the standard circuit diagram. The design and contents are subject to change without notice.

(2) Power supply section



## (2) Power Supply Section

